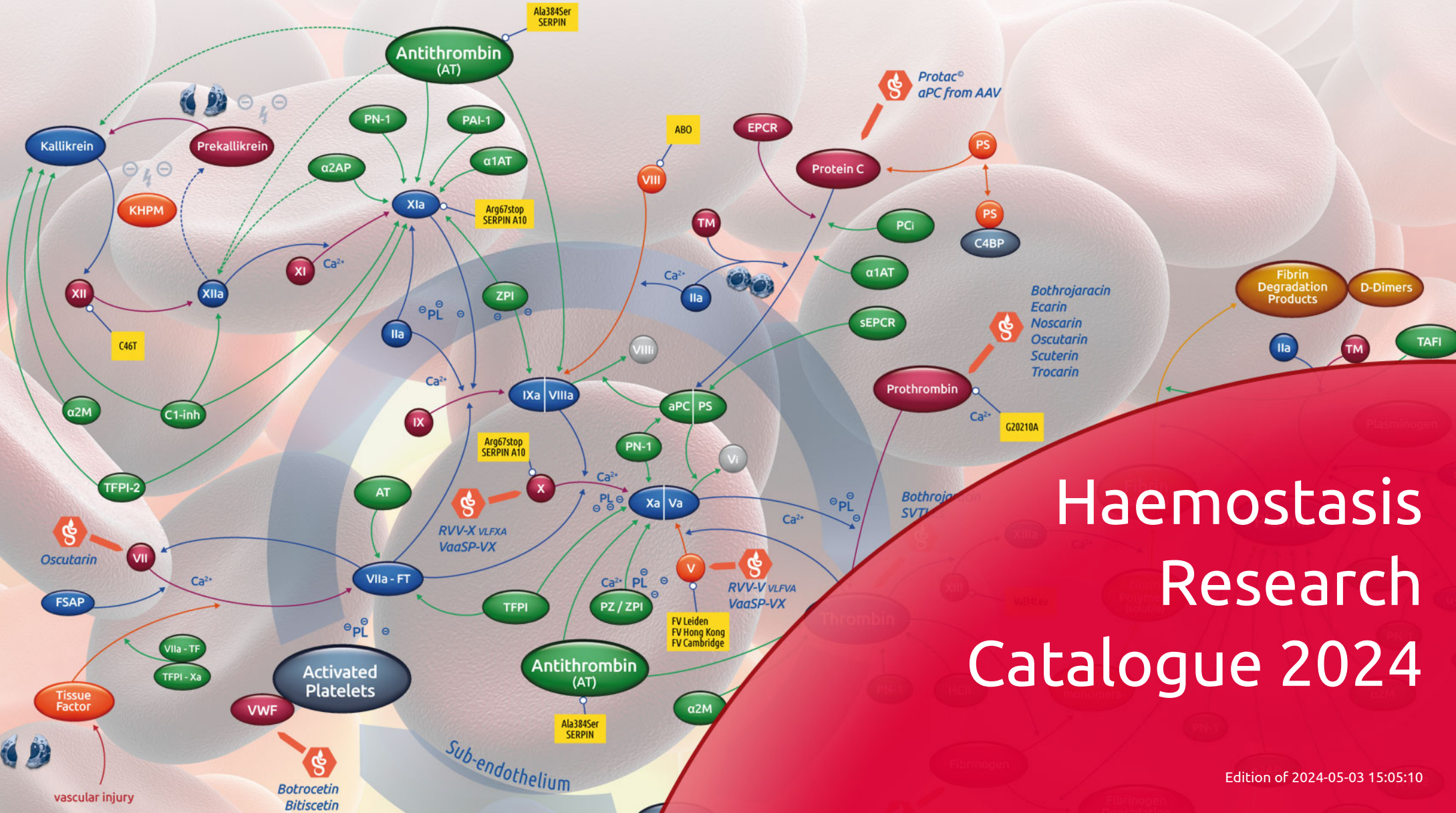


# Cryopep

Cryogenics at the service of haemostasis



## Haemostasis Research Catalogue 2024

We offer medical analysis laboratories **an innovative concept** through a range of **ready-to-use** frozen plasmas and reagents, of unprecedented quality comparable to that of plasmas from healthy donors.

This quality is obtained by selecting our raw materials with a high degree of requirement and then offering them in **frozen format without any additives.**

This solution eliminates the lyophilization steps and therefore the resulting deterioration, and at the same time improves the preanalysis **by avoiding reconstitution errors.**

We have taken care to also offer **a range of plasmas and lyophilized reagents.** They will provide a complementary offer in their presentation and quality to frozen products.

### **Saving**

Practical packaging.  
Conditioning of 0.5 to 4 mL.  
Using more than 90 % of product (very little dead volume).

### **Quality assurance**

Products are ready to use, eliminating the risk of error associated with reconstitution.  
CE and FDA, ISO 13485.

### **Our technical support**

We are committed to help you to ensure the quality of your results at your laboratory.  
To help you better, we are able to bring you our support for the evaluation of our products by writing us at : [support@cryopep.com](mailto:support@cryopep.com)

### **Time saving**

Ready to use products after 5 minutes of thawing at 37°C : gain of 25 minutes over the reconstitution of a lyophilized reagent, which requires 30 minutes of stabilization.

### **Quality Products**

Plasmas collected by plasmapheresis.  
No dry freeze, therefore no alteration of intrinsic qualities of plasmas.  
No additives.



## The company

Specialized in the field of haemostasis, Cryopep offers a new alternative to traditional lyophilized reagents by providing clinical laboratories an innovative range of ready to use reagents.

The company is based in Montpellier (Fr) in the heart of a bustling business park and benefits from this dynamic environment to carry out all its activities.

Since its creation in 2008, the company has expanded operations and now serves the French territory and some European countries. The growth experience by the company is due mainly to the sale of frozen reagents for diagnostic and research use.

Our products are in compliance with current regulations (FDA and CE marking, ISO 13485). The growth experience by the company is due mainly to the sale of frozen reagents for diagnostic and research uses.

## Why choose Cryopep over another ?

### **Frozen reagents, simplicity and practicability.**

We offer medical analysis laboratories an innovative concept through a range of ready-to-use frozen plasmas and reagents of unprecedented quality, comparable to that of fresh donor plasmas.

### **A full range of haemostasis reagents.**

Ready-to-use frozen reagents that avoid reconstitution errors.

A range of plasmas and lyophilized reagents that provide additional offers reagents.

A range of research reagents of over 720 references.

### **Proven quality.**

ISO 13485 and ISO 9001 standards from manufacturers.

Innovative high quality reagents that offer time saving and be practicable. Get technical support from hemostasis specialists.

### **A reliable logistics system.**

Your products are carefully packed. We work exclusively with carriers receiving ISO 9001 standard and CERTIPHARM repository.

Guarantee of an effective monitoring and a fast delivery of your order.





Cryopep is the exclusive distributor in France of the Canadian company BioMedica Diagnostics. In December 2016, BioMedica Diagnostics acquired the specialized coagulation product line from Sekisui Diagnostics. The products remain unchanged, but the illustrations / brand are different. BioMedica brings innovative, affordable and quality diagnostic solutions to a growing group of international partners, whose goal is to improve patient outcomes in the areas of hemostasis and thrombosis.

<https://biomedicadiagnostics.com/>



Cryopep is the distributor in France of the Swiss company Pentapharm. Pentapharm is active in two main markets; Diagnostics and Pharma in several countries. Pentapharm specializes in the field of hemostasis to develop new applications or improve existing ones. The company is certified according to ISO 9001 and ISO 13485.

<https://www.pentapharm.com/>



Cryopep is the exclusive distributor in France of the Spanish company GEN inCode. Le but de GEN inCode is to promote diagnostic tests through prognosis and prediction based mainly on genomics, proteomics, metabolomics and bioinformatics technologies.

<https://www.genincode.com/>



Cryopep is the exclusive distributor in France of the American company Prolytix. Prolytix formerly Haematologic Technologies specializes in the preparation of high quality proteins, enzymes, deficient plasmas, antibodies and special collection tubes for research use. Its internal quality system is certified according to ISO 9001 standards.

<https://www.gopolytix.com/>



Cryopep is the exclusive distributor in France of the German company LOXO. LOXO develops, produces and distributes in vitro diagnostics (IVD) for medical diagnostic laboratories and laboratory reagents for industrial and scientific purposes.

<https://www.loxo.de/>



Cryopep is the exclusive distributor in France, the Netherlands, Belgium, Luxembourg and Spain of the Canadian company Precision BioLogic Inc. This is specialized in the production of innovative products through a range of plasmas and frozen reagents. Its internal quality system, which follows the highest industry standards, is ISO 13485 registered (the industry standard for medical diagnostics) and manufactured under FDA quality system regulations. The products are registered according to the CE mark of the European Economic Community.

<https://www.precisionbiologic.com/>



Cryopep is the exclusive distributor in France of the Swedish company Rossix. The Rossix company specializes in the development of colorimetric assays for hemostasis factors for use in the pharmaceutical industries and expert laboratories.

<https://www.rossix.com/>



Cryopep is a distributor in France of the company fzmb.

fzmb GmbH, Research Center for Medical Technology and Biotechnology located in Germany. Founded in 1994 by biotechnologists, engineers and physicians, the company today develops and manufactures innovative, high-quality diagnostic products for laboratory and point-of-care applications.

<https://www.fzmb.de/>



Cryopep is the exclusive distributor in France of the Austrian company Technoclone. It specializes in the production of diagnostic kits for hemostasis and has a very extensive ELISA range. Diagnostic products are registered according to the CE mark of the European Economic Community.

<https://www.technoclone.com/>



Cryopep is the exclusive distributor in France of the registered trademark ZACROS. The CRYOPEP company markets in France of the T-TAS device from the Japanese company Fujimori Kogyo designed for use in clinical biology and / or research laboratories for the purpose of qualitatively analyzing the process of formation of a thrombus involving the adhesion of platelets using whole blood samples taken from a tube containing the anticoagulant BAPA in the flow condition. The company is certified according to ISO 13485 standards.

<https://www.t-tas.info/>



# Ready to use, simple and convenient

CRYOPEP plasmas and reagents can be adapted to most automatic analyzers. Once ready, they avoid any reconstitution and therefore any handling error, ensuring reliable results.

Making the lab work simple and convenient is especially important when facing frequent personnel changes. This provides lab professionals a real improvement to the preanalytical conditions and guarantees everyone's peace of mind.

## 1 To order, several possibilities

By telephone	+33(0)4 67 10 71 20
By fax	+33(0)4 67 10 71 21
By e-mail	contact@cryopep.com
By letter	CRYOPEP, 83 rue Yves Montand, 34 080 Montpellier, FRANCE

## 2 Command Processing

We carefully pack frozen products in boxes with dry ice or cold packs according to the nature of the product.

To optimize the conditions of transport of our products, we ship our packages in dry ice only from Monday to Wednesday, except urgent customer requests.

All other orders for freeze-dried products are shipped from Monday to Friday.

## 3 Transport

We work exclusively with carriers receiving ISO 9001 and CERTIPHARM certifications.

We guarantee timely delivery of all products.

During transportation, we track all our shipments and, if necessary, call our customers to check that the packages have been received in the laboratory.



# SUMMARY

ASSAYS KITS

ANSN FLUOROGENIC SUBSTRATES

AMC FLUOROGENIC SUBSTRATES

BUFFERS AND SOLUTIONS

CHROMOGENIC SUBSTRATES

COFACTORS

DEFICIENT PLASMAS

ENZYMES

HUMAN PLASMAS

INHIBITORS

MONOCLONAL ANTIBODIES

PLASMA DERIVED PROTEINS

POLYCLONAL ANTIBODIES

SAMPLE COLLECTION TUBES

VENOM PROTEASES

ZYMOGENS

→ THE COAGULATION CASCADE

→ TERMS AND CONDITIONS

→ ALPHABETICAL INDEX

→ REFERENCE INDEX

## EXPLANATION FOR SYMBOLS USED



These kits are manufactured in accordance with the 98/79 EC directive for in vitro diagnostic devices. Only CE marked products can be used for diagnostic applications in Europe.



These kits are intended for in vitro diagnostic use.



These kits are for research use only and are not intended to be used for diagnostic procedures.



Federal Drug Administration, FDA validates diagnostic kits for in vitro diagnostic use in the United States.



Biological risk products



Storage between 2 and 8 °C



Reactive in liquid form



Reactive in lyophilized form



Reactive in frozen form



Stability after opening at 2-8 °C



Products that can be refrozen



Stability 12 months after refreezing at -20 °C



Manufacturer



Importer



Distributor

## ASSAYS KITS

ELISA

## ANSN FLUOROGENIC SUBSTRATES

Fluorogenic ANSN substrates for thrombin (FIIa)

Fluorogenic ANSN substrate for Factor VIIa / VIIa-TF

Fluorogenic ANSN substrate for Factor Xa

Fluorogenic ANSN substrate for Factor XIa

Fluorogenic ANSN substrate for Plasmin

Fluorogenic ANSN substrate for PCa

Fluorogenic ANSN Substrate for t-PA



## AMC FLUOROGENIC SUBSTRATES

Fluorogenic AMC substrates for thrombin

## BUFFERS AND SOLUTIONS

Collagen

Buffers

Phospholipids

## CHROMOGENIC SUBSTRATES

Chromogenic substrates for thrombin (FIIa)  
Chromogenic substrates for activated Factor VII (VIIa)  
Chromogenic substrates for activated Factor IX (FIXa)  
Chromogenic substrates for activated Factor X (FXa)  
Chromogenic substrates for activated Factor XI (FXIa)  
Chromogenic substrate for activated Factor XII (FXIIa)  
Chromogenic substrates for C1-esterase  
Chromogenic substrates for glandular kallikrein  
Chromogenic substrates for plasma kallikrein  
Chromogenic substrates for plasmin and plasminogen-SK  
Chromogenic substrates for activated protein C (APC)  
Chromogenic substrate for tryptase  
Chromogenic substrates for urokinase plasminogen activator (u-PA)  
Chromogenic substrates for tissue plasminogen activator (t-PA)  
Chromogenic substrate for plasmin-streptokinase complex  
Chromogenic substrate for trypsin  
Chromogenic substrate of Limulus Amebocyte Lysate (LAL)

## COFACTORS

Factor V  
Factor Va  
Von Willebrand Factor  
Fibronectin  
Protein S  
Thrombomodulin

## DEFICIENT PLASMAS

- Immunodepleted deficient plasmas
- Congenital deficient plasmas (Bottles)
- Acquired deficient plasmas (Bottles)
- Congenital deficient plasmas (Kits)

## ENZYMES

- Thrombin (FIIa)
- Factor VIIa
- Factor IXa
- Factor Xa
- Factor XIa
- Factor XIIa
- Factor XIIIa
- Plasmin
- Activated protein C (APC)
- Kallikrein



## HUMAN PLASMAS

- Fibrinogen plasmas
- Individual normal donors plasmas
- Weak control plasma
- Normal donor serum
- Pool of plasma from healthy donors
- High Factor plasmas
- Plasmas with anticoagulant drugs

## INHIBITORS

- Natural protease inhibitors
- Synthetic irreversible inhibitors
- Synthetic reversible inhibitors

## MONOCLONAL ANTIBODIES

Anti-thrombin  
Anti-Factor V  
Anti-Factor VII  
Anti-Factor VIIa  
Anti-Factor VIII  
Anti-Factor IX  
Anti-Factor X  
Anti-Factor XI  
Anti-Gamma Carboxylglutamyl (Gla) residues  
Anti-scú-PA (Single chain urokinase plasminogen activator)  
Anti-prothrombin  
Anti-TAFI  
Anti-vitronectin  
Anti-fibrin  
Anti-fibronectin  
Anti-plasminogen activator inhibitor type-1 (PAI-1)  
Anti-TFPI  
Anti-Protein C inhibitor  
Anti-osteocalcin  
Anti-urokinase type plasminogen activator (u-PA)  
Anti-osteonectin  
Anti-tissue type plasminogen activator (t-PA)  
Anti-plasminogen  
Anti- $\alpha$ -2-antiplasmin  
Anti-protein C  
Anti-tissue Factor  
Anti-protein S

## PLASMA DERIVED PROTEINS

Lactadherin MFGE-8 protein (Milk fat globule-EGF Factor 8 protein)  
Lys-plasminogen  
Osteocalcin  
Osteonectin  
scú-PA (Single chain urokinase plasminogen activator)  
urokinase-type plasminogen activator (u-PA)  
Thrombospondin  
Tissue-type Plasminogen Activator (t-PA)  
Vitronectin  
 $\beta$ -2-glycoprotein I (B2GI)  
 $\beta$ -thromboglobulin  
CNBr  
Platelet Factor -4  
Tissue Factor  
Fibrinogen  
Fibronectin  
Glu-plasminogen  
Plasminogen activator inhibitor-type 1 (PAI-1)

## POLYCLONAL ANTIBODIES

Anti-thrombin  
Anti-Factor V  
Anti-Factor Va  
Anti-Factor VII  
Anti-Factor VIIa  
Anti-Factor VIII  
Anti-Factor IX  
Anti-Factor X  
Anti-Factor XI  
Anti-Factor XII  
Anti-Factor XIII  
Anti-fibrinogen  
Anti-heparin  
Anti-plasminogen activator inhibitor type-1 (PAI-1)  
Anti-plasminogen  
Anti-protein C  
Anti-antithrombin  
Anti-protein S  
Anti-protein Z  
Anti-tissue Factor  
Anti-prothrombin  
Anti-TAFI  
Anti-TFPI  
Anti-tissue type plasminogen activator (t-PA)  
Anti-urokinase type plasminogen activator (u-PA)  
Anti-vitronectin  
Anti-VWF

## SAMPLE COLLECTION TUBES

Sample collection tubes



## VENOM PROTEASES

Agkistrodon contortrix venom snake  
Daboia Russelii venom  
Echis carinatus venom snake  
Vipera Russelii venom  
Bothrops atrox venom snake  
Crotalus durissus terrificus venom snake

## ZYMOGENS

Factor VII  
Factor IX  
Factor X  
Factor XI  
Factor XII  
Factor XIII  
Plasminogen  
Glu-plasminogen  
Lys-plasminogen  
Prethrombin  
Protein C  
Prekallikrein  
Prothrombin

# ASSAYS KITS

Reference	Designation	Click to go to the product sheet	WEB
<b>ELISA</b>			
26-ADG823	→ IMUBIND® PAI-2 ELISA		
26-ADG803	→ IMUBIND® Vitronectin ELISA		
26-ADG876	→ IMUBIND® FSAP ELISA		
33-13.02.095.0096	→ INTER-ARRAY VWF:PP ELISA Kit		
11-827	→ IMUBIND® Factor VIIa ELISA		
11-845	→ IMUBIND® Tissue Factor ELISA		
11-821	→ IMUBIND® Tissue PAI-1 ELISA		
26-ADG855	→ OLIGOBIND® APC Activity Assay		
26-ADG844	→ OLIGOBIND® Thrombin Activity Assay		
4-TC12030	→ TECHNOZYM® FIBRONECTIN ELISA Kit		
4-TC12040	→ TECHNOZYM® Glu-Plasminogen ELISA Kit		
4-TC12062	→ TECHNOZYM® PAP Calibrator Set		
4-TC12060	→ TECHNOZYM® PAP Complex ELISA Kit		
4-TC12064	→ TECHNOZYM® PAP Control Set		
4-TC16100	→ TECHNOZYM® PCI Actibind® ELISA Kit		
4-TC16000	→ TECHNOZYM® t-PA Combi Actibind® ELISA Kit		
4-TC12080	→ TECHNOZYM® t-PA-PAI-1 Complex ELISA		
4-TC16010	→ TECHNOZYM® u-PA Combi Actibind® ELISA Kit		
4-TC12010	→ TECHNOZYM® u-PA ELISA Kit		
4-TC12120	→ TECHNOZYM® VITRONECTIN ELISA Kit		

# ASSAYS KITS

Reference	Designation	Click to go to the product sheet	WEB
4-5450321	→ TECHNOZYM® VWF:CBA ELISA Collagen Type VI		

## ASSAYS KITS

## ELISA

Dosage ELISA

## IMUBIND® PAI-2 ELISA



## Informations

Plasminogen activator inhibitor 2 (PAI-2) or SERPINB2 belongs to the serine protease inhibitor superfamily. It has 2 forms; a secreted form of 60kDa and an intracellular form of 47kDa. It effectively inhibits double-stranded t-PA and u-PA but weakly inhibits single-stranded t-PA. PAI-2 is present in the plasma of pregnant women, gingival fluid, monocytes and macrophages, and keratinocytes.

**The IMUBIND® PAI-2 ELISA is an enzyme-linked immunoassay for the determination of human PAI-2 in human biological fluids. This assay is for research use only. It is not intended for diagnostic or therapeutic procedures.**

This assay detects the low molecular weight (48 kD) and the high molecular weight glycosylated (60 kD) form of PAI-2.

## Advantages

Free PAI-2 and PAI-2/uPA and PAI-2/tPA complexes are recognized. The assay is insensitive to PAI-1.

Reference	Presentation	Number of tests
26-ADG823	Kit	96



# IMUBIND® Vitronectin ELISA



## Informations

Vitronectin (Vn) is an adhesive glycoprotein, synthesized by the liver, released in plasma and present in the extracellular matrix. Vn binds PAI-1. This complex fully activates PAI-1, unlike PAI-1 in solution, where it does not appear to be stable and inactive.

Vn therefore seems to regulate the enzymatic specificity of PAI-1, by stabilizing it. Decreased Vn levels occur in DICs and liver disease (cirrhosis). Vn deposition is associated with atherosclerotic lesions.

**The IMUBIND® Vitronectin ELISA is an enzyme-linked immunosorbent assay for the quantitative determination of total Vitronectin in human plasma or serum or in any fluid where Vitronectin might be present.**

## Components

- 1 plate ELISA (12 x 8 wells)
- 1 vial x conjugated antibody - 140µl, 100x concentrate
- 1 vial x substrate (11 mL)
- 1 bottle x stop solution (6 mL)
- 2 vial x dilution buffer (50 mL)
- 1 vial x wash buffer concentrate (50 mL)
- 1 vial x lyophilized calibrator plasma

Reference	Presentation	Number of tests
26-ADG803	Kit	96 tests



## ASSAYS KITS

## ELISA

ELISA Assay

## IMUBIND® FSAP ELISA



## Informations

FSAP (Factor VII activating protease) is a multifunctional plasma serine protease mainly synthesized by hepatocytes. It has been identified as a potent activator of single-chain plasminogen activators such as pro-urominase. In vitro, FVII can be activated by FSAP in a tissue factor-independent pathway.

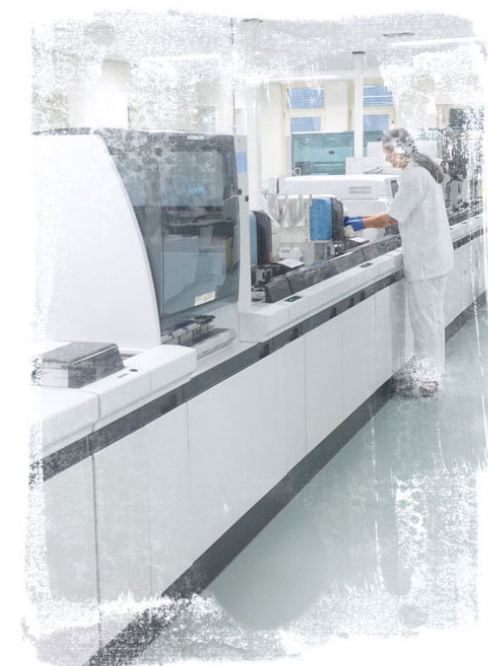
This protease plays a role in hemostasis, inflammation, vascular permeability and cellular damage.

**The IMUBIND® FSAP ELISA kit is intended for the measurement of factor seven activating protease in human plasma. The assay is intended for research use only.**

## Components

- 1 ELISA plate (12 x 8 wells)
- 1 vial of conjugated antibody 120 µl, concentrated x100
- 1 vial of TMB chromogenic substrate (12 mL)
- 1 bottle of stop solution (6 mL)
- 1 vial of dilution buffer (50 mL)
- 1 bottle of washing buffer (50 mL)
- 1 vial of 500 µl of human plasma calibrator

Reference	Presentation	Number of tests
26-ADG876	Coffret	96



## ASSAYS KITS

## ELISA

## INTER-ARRAY VWF:PP ELISA Kit



## Associated products

INTER-ARRAY VWF:PP Sample Diluent

INTER-ARRAY VWF:PP Wash Buffer Concentrate

## Informations

Von Willebrand Factor (VWF) is a large multimeric plasma protein with important functions in primary hemostasis. VWF is synthesized in endothelial cells and megakaryocytes as pre-pro-VWF. After various posttranslational modifications and cleavage of the signal peptide, the propeptide (VWF:PP) is also cleaved off by the protease furin in the trans-Golgi-system.

A non-covalent complex of VWF and VWF:PP remains stored in Weibel-Palade bodies (endothelium) or in  $\alpha$ -granules (megakaryocytes). Activation or stimulation of these cells will release the complex. VWF and VWF:PP dissociate and metabolize with different half lives. While VWF has a half-life of approx. 12 hours, VWF:PP is metabolized with a half-life of only approx. 2 hours.

Reference	Presentation	Number of tests
33-13.02.095.0096	Kit	12 x 8

**The VWF:PP ELISA kit is intended for the quantitative enzyme immunoassay of von Willebrand factor propeptide (VWFpp) in plasma. This assay allows, in association with VWF:AG, to characterize the type of VWF deficiency. The VWF:PP ELISA provides a result with few steps in 90 to 150 min with high precision.**

The components in the kit for 96 tests have excellent stability. The VWF:PP is designed for manual processing and automated ELISA systems.

## Components

- 12 strips with 8 wells coated with an anti-VWF:PP monoclonal antibody
- 1 x 6 mL of anti-VWF:PP monoclonal antibody coupled to an enzyme,
- 1 x 12 mL of substrate solution,
- 1 x 15 mL of stop solution,
- 2 x 25 mL of sample diluent,
- 1 x 100 mL of concentrated wash buffer,
- 1 vial of freeze-dried calibration plasma
- 1 vial of freeze-dried control plasma
- 1 plastic frame
- 1 sheet with calibrator and control values

## Advantages

The calibration is performed against the International Standard.  
Control and calibrator are included in the kit.

## Characteristics

The molar ratio of VWF:PP to VWF can be used as an indicator for the degradation of VWF. An increased ratio of VWF:PP to VWF indicates increased clearance of VWF. These are found in various patients with congenital VWF deficiency, but also in acquired VWF syndrome. An accurate knowledge of the clearance of VWF may influence the choice of therapy, in particular the need to administer VWF concentrates. Increased levels of VWF:PP or an abnormal ratio between VWF:PP and VWF may also be caused by activation of the endothelium or platelets.





# IMUBIND® Factor VIIa ELISA



Reference	Presentation	Number of tests
11-827	Kit	12 x 8

## Informations

Factor VII (FVII) is a glycoprotein synthesized by the liver, vitamin k dependent. When tissue factor (TF) appears on the surface of damaged, abnormal or activated vascular endothelium, FVIIa associates with it, initiating the pathway extrinsic coagulation. The FT-FVIIa complex activates the FX in FXa and the FIX in FIXa.

**The IMUBIND® Factor VIIa ELISA is an enzyme-linked immunosorbent assay for the quantification of activated human Factor VII (FVIIa) in plasma as well as in cell culture supernatants.**

This ELISA detects FVIIa as well as FVIIa complexed with tissue factor (TF/FVIIa).

## Components

- 12 x 8-well breakable ELISA strips coated with anti-human FVII / FVIIa monoclonal antibody
- 2 vials of FVIIa standard, 200 ng / mL lyophilized
- 1 vial of FVII deficient plasma, 0.5 mL lyophilized
- 1 vial of reference plasma, 300 µL lyophilized
- 1 vial of FVIIa inhibitor, biotinylated, 200 µL freeze-dried concentrate
- 1 vial of enzyme conjugate, streptavidin-HRP, 120 µL
- 1 vial of TMB substrate, 11 mL
- 1 vial of stabilizer, 4.0 mL lyophilized
- 1 vial of test diluent, 22 mL lyophilized
- 1 packet of wash buffer, PBS with Tween 20 0.05%

## Method / Application

The IMUBIND FVIIa ELISA assay uses a biotinylated FVIIa enzyme inhibitor and anti-FVII / FVIIa monoclonal antibody as the capture antibody. Diluted plasma samples or supernatants containing FVIIa are incubated with the biotinylated inhibitor, which covalently binds to FVIIa but not FVII.

The samples are added to the microwell coated with the capture monoclonal antibody. The FVIIa is detected thanks to the streptavidin-HRP which will bind the FVIIa complex captured at the bottom of the well by the monoclonal antibody and the biotinylated FVIIa inhibitor.

The TMB will thus recognize the HRP giving a blue compound which will be stopped by adding sulfuric acid giving a yellow compound, measured at 450nm. The results will be compared with a known FVIIa standard curve.

## Characteristics

- Stability 1 month after opening
- Reaction time 120 minutes
- This test recognizes both native and recombinant human FVIIa and FVIIa/TF complexes
- FVII is not detected in the test
- FVII does not auto-activate in FVIIa during the execution of this test
- FVIIa in normal plasmas is approximately 5 ng/mL
- Sensitivity between 0.6 to 100 ng/mL

# IMUBIND® Tissue Factor ELISA



Reference	Presentation	Number of tests
11-845	Kit	12 x 8

## Informations

Tissue factor (TF) is a 45 kDa transmembrane cell surface glycoprotein known for its role in the initiation of coagulation. It functions as a receptor and cofactor for FVII and FVIIa. TF is released into the bloodstream after disruption of the endothelium.

Contact between TF and blood is sufficient to initiate the extrinsic pathway of coagulation. In vitro studies reveal that once TF is complex with FVII, FVII is activated by FXa. FVIIa by itself possesses low proteolytic activity, only when bound to TF does it possess sufficient proteolytic activity to activate FIX and FX.

The TF / FVIIa complex effectively activates both FX and FIX, thereby initiating intrinsic and extrinsic coagulation pathways.

The extrinsic pathway is rapidly attenuated by the tissue factor pathway inhibitor (TFPI). TFPI is the only effective inhibitor of the TF / FVIIa complex.

**The IMUBIND® Tissue Factor ELISA is intended for the measurement of human tissue factor (TF, thromboplastin) in human plasma, tumor tissue extracts and cell culture supernatants (eg, monocytes stimulated by LPS lipopolysaccharide).**

## Components

- 96-wells plate coated with anti-TF IgG
- 6 vials x freeze-dried TF (0-1000 pg / mL) standard
- 2 vials x biotinylated detection antibody, lyophilized
- 1 vial x enzyme conjugate, streptavidin-HRP, 60 µL
- 1 vial x enzyme conjugate diluent, 20 mL lyophilized
- 1 vial x substrate, TMB, 11 mL
- 1 packet x wash buffer, PBS with 0.1% Triton X-100, pH 7.4

## Characteristics

Stability 1 month after opening.  
This test measures TF in plasma, tissue extracts, cell culture supernatants Absorbance at 450nm  
Standards can be aliquoted and frozen Sensitivity between 0 to 1000pg / mL.



# IMUBIND® Tissue PAI-1 ELISA



## Informations

Plasminogen activator inhibitor 1 (PAI-1) is a glycoprotein, the primary inhibitor of t-PA and u-PA. It plays an essential role in controlling any excessive activation of fibrinolysis. It is present in plasma associated with vitronectin, in free form or associated with t-PA and in the alpha granules of platelets.

Fibrinolysis corresponds to the solubilization of the fibrinous thrombus by plasmin, an enzyme originating from plasminogen adsorbed to fibrin. Plasminogen is activated by t-PA and u-PA. PAI-1 by inhibiting plasminogen activators, it controls the degradation of fibrinous thrombus. A decrease in fibrinolytic activity promotes the occurrence of thrombosis, while excessive fibrinolysis leads to hemorrhages.

Reference	Presentation	Number of tests
11-821	Kit	96

**The IMUBIND® Tissue PAI-1 ELISA Kit is an enzyme immunoassay for the determination of human PAI-1 in tissue extracts and cell culture supernatants.**

## Components

- 96 microwells coated with anti-human PAI-1 IgG
- 2 vials x biotinylated human anti-PAI-1 antibody, lyophilized
- 1 vial x substrate, TMB, 11 mL
- 1 bottle x detergent, 25% Triton X-100, 12 mL
- 2 sachets x PBS buffer, pH 7.4
- 1 vial x streptavidin-HRP, 60 µL
- 1 vial x lyophilized enzyme conjugate diluent
- 6 PAI-1 standard vials, lyophilized

## Advantages

The test detects latent (inactive) and active forms of PAI-1 complexes and remains insensitive to PAI-2.



## ASSAYS KITS

## ELISA

Fluorometric assay

## OLIGOBIND® APC Activity Assay



## Associated products

APC BLOOD COLLECTION TUBES

## Informations

Une incapacité à générer des quantités suffisantes de protéine C activée (APC) est associée à un phénotype prothrombotique et hyperinflammatoire. La gravité des symptômes cliniques dépend de l'activité APC résiduelle.

Le phénotype prothrombotique est le symptôme principal dans les formes plus légères de déficit en APC, telles que le déficit en PC hétérozygote, alors que les formes plus graves de déficit en APC, telles que le déficit en PC homozygote, sont caractérisées par un phénotype thrombo-inflammatoire. Le dysfonctionnement acquis en APC est impliqué de manière critique dans la pathogenèse de plusieurs maladies thrombo-inflammatoires, y compris les septicémies sévères.

Reference	Presentation	Number of tests
26-ADG855	Kit	96

**OLIGOBIND® APC activity assay is an enzymatic capture assay for the quantitative measurement of activated protein C in stabilized plasma samples.**

## Components

- 12 breakable ELISA strips x 8 wells lined with aptamers
- 1 bottle x 50 mL washing buffer 10 x concentrate
- 1 vial x 2 mL sample dilution buffer
- 1 vial x 0.5 mL CaCl<sub>2</sub> solution
- 2 sets x 7 vials of 0.5 mL calibrators numbered 1 to 7
- 1 vial x 140 µL fluorogenic APC substrate
- 1 bottle x 15 mL substrate buffer

## Advantages

Du plasma est ajouté à des micropuits recouverts d'un aptamère ADN dirigé contre l'APC. Après une période d'incubation, l'APC présente dans l'échantillon se lie à l'apatamère fixé aux puits. Après un lavage, le substrat peptidique fluorogène pour l'APC est ajouté aux puits. La mesure du changement de fluorescence (360 [ex] / 460 [em] nm) et en extrapolant la valeur avec celles d'une courbe d'étalonnage détermine le niveau d'APC dans l'échantillon de plasma.

## Characteristics

En combinaison avec les tubes de collecte de sang APC (réf. 26-ADG855T25 et 26-ADG855T50) qui assurent la stabilisation de l'activité de l'APC ex vivo, le test d'activité OLIGOBIND® APC activity assay permet la quantification directe du taux de protéine C active dans le plasma à partir du sang périphérique.

## ASSAYS KITS

## ELISA

Fluorometric assay

## OLIGOBIND® Thrombin Activity Assay



## Associated products

THROMBIN BLOOD COLLECTION TUBES

## Informations

The conversion of prothrombin to thrombin is a key event in thrombus formation. Thrombin is a serine protease that acts on a wide variety of substrates during the clotting process.

Thrombin generated *in vivo* can be assessed indirectly by measuring the fragment of prothrombin F1.2, an activating peptide generated during the conversion of prothrombin to thrombin, or thrombin-antithrombin complexes (TAT), formed during inactivation of thrombin by its major inhibitor present in plasma.

However, due to differential accumulation in the circulation, these parameters do not reflect the current state of functional active thrombin *in vivo*.

Reference	Presentation	Number of tests
26-ADG844	Kit	96

**OLIGOBIND® Thrombin activity assay is an enzymatic capture assay for the quantitative measurement of thrombin in stabilized plasma samples.**

## Components

- 12 breakable ELISA strips of 8 wells coated with Aptamers
- 1 bottle x 50 mL washing buffer concentrate
- 2 sets x 6 vials of 0.5 mL calibrators numbered 1 to 6
- 1 bottle x 140 µL fluorogenic substrate
- 1 bottle x 15 mL substrate buffer

## Characteristics

In combination with the thrombin blood collection tubes (product ref. 26-ADG844T25 and 26-ADG844T50) which ensure *ex vivo* stabilization of thrombin activity, the OLIGOBIND® Thrombin activity assay kit allows direct quantification of the level of thrombin.

- Functional active thrombin in blood plasma
- End point or kinetic measurement Low limit of quantification 0.35 mU / mL thrombin
- Specific for human thrombin
- Platelets may interfere with the test





## ASSAYS KITS

## ELISA

ELISA Assay

## TECHNOZYM® FIBRONECTIN ELISA Kit



Reference	Presentation	Number of tests
4-TC12030	Kit	12 x 8

## Informations

Fibronectin is a glycoprotein that exists in soluble form in plasma or in fibrillar form in the extracellular matrix. This protein modulates the interactions between cells and the extracellular matrix.

In the absence of fibrinogen, fibronectin controls coagulation.

Fibronectin can bind to fibrin to strengthen clots and make them more stable. Fibronectin has shown roles in platelet function, fibrinolysis, chemotaxis, phagocytosis, and opsonization.

In certain pathologies such as trauma, sepsis, liver disorders, the fibronectin level may be low. Conversely, some cancers can have high fibronectin levels.

## ELISA kit for the antigenic assay of Fibronectin.

The Technozym® Fibronectin ELISA kit allows the antigenic detection of intact and uncleaved fibronectin (FN) in human plasma.

## Components

- 12 strips of 8 wells coated with anti-FN monoclonal antibody
- 2 adhesives for ELISA plate
- 1 vial x anti-FN monoclonal antibody coupled to peroxidase (POX)
- 1 vial x TMB chromogenic substrate (12 mL)
- 1 bottle x stop solution (15 mL)
- 3 vials x 2.5x concentrated dilution buffer (20 mL)
- 1 vial x Wash Buffer Concentrate 12.5 x (20 mL)
- 1 vial x lyophilized calibrator plasma

## Characteristics

The test is based on the quantification of fibronectin using 2 anti-FN monoclonal antibodies. The first to bind fibronectin and the second coupled to peroxidase for detection. (Specialized hemostasis)

- Stability 2 months after opening.
- Reaction time 120 minutes.
- Sensitivity of the assay ranging from 0 to 2 µg / mL of fibronectin.



# TECHNOZYM® Glu-Plasminogen ELISA Kit



Reference	Presentation	Number of tests
4-TC12040	Kit	12 x 8

## Informations

Plasminogen is the inactive precursor of plasmin, the enzyme responsible for fibrinolysis. plasminogen is synthesized by the liver as a 92 kDa single chain glycoprotein.

Its plasma concentration is approximately 220 µg / mL with a half-life of 2.2 days. Plasminogen activator transforms it into plasmin. The level of fibrinogen is a critical factor influencing the rate of fibrinolysis in vivo.

## ELISA kit for the antigenic assay of Glu-Plasminogen.

The Glu-Plasminogen ELISA kit allows the antigenic detection of Glu-Plasminogen in plasma.



## Components

- 12 x 8-well breakable ELISA strips coated with an anti-plasminogen monoclonal antibody
- 2 adhesives for ELISA plate
- 1 vial x anti-plasminogen monoclonal antibody coupled to peroxidase (POX) 0.3 mL
- 1 vial x 12 mL TMB chromogenic substrate
- 1 bottle x 12 mL stop solution
- 1 vial x washing buffer concentrate 80 mL
- 1 vial x incubation buffer 90 mL
- 1 vial x lyophilized calibrator plasma

## Characteristics

- The measurement is based on the use of a monoclonal antibody directed against glu-plasminogen. A second anti-plasminogen monoclonal antibody coupled to peroxidase makes it possible to quantify glu-plasminogen in the sample. (Specialized hemostasis)
- Stability 6 months after opening.
  - Reaction time 200 minutes.
  - Sensitivity of the assay ranging from 0.06 to 0.5 µg / mL for Glu-Plasminogen.
  - Unaffected by the presence of PAP complexes or plasmin obtained from lys-plasminogen.





## ASSAYS KITS

## ELISA

ELISA Assay

## TECHNOZYM® PAP Calibrator Set



## Associated products

TECHNOZYM® PAP Complex ELISA Kit

TECHNOZYM® PAP Control Set

## Informations

Plasmin is the main enzyme in fibrinolysis, which breaks down fibrin.

Alpha-2-antiplasmin is an inhibitor of serine proteases, mainly plasmin. It plays an important role in the regulation of fibrinolysis. A decrease in the amount of alpha-2-antiplasmin can lead to bleeding syndromes.

Alpha-2-antiplasmin reacts rapidly to plasmin to form a PAP complex. An increase in the formation of the PAP complex is accompanied by an increase in the formation of fibrin and an increase in the level of reactive plasmin.

There is a correlation between the level of fibrin fragment and the level of PAP complex.

Reference	Presentation	Format
4-TC12062	Vial	5 x 0.5 mL

### Additional calibration plasmas for the antigenic assay of the PAP complex.

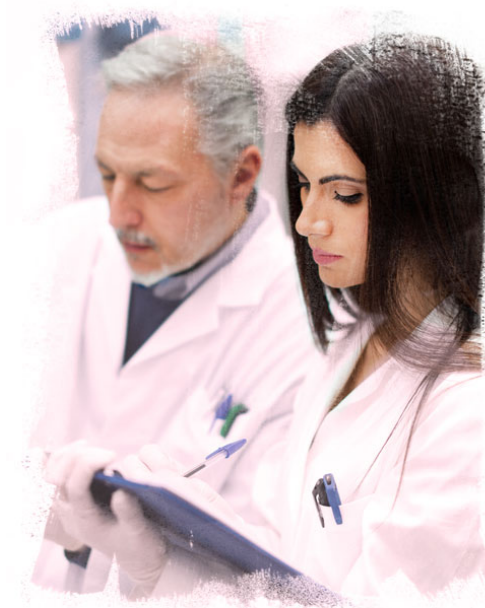
A range of 5 additional calibrators for the TECHNOZYM® PAP Complex ELISA Kit.

## Components

- 5 vials x 0.5 mL lyophilized plasma

## Characteristics

- Stability 6 months at -20 °C



# TECHNOZYM® PAP Complex ELISA Kit



## Associated products

TECHNOZYM® PAP Calibrator Set

TECHNOZYM® PAP Control Set

## Informations

Plasmin is the main enzyme in fibrinolysis, which breaks down fibrin.

Alpha-2-antiplasmin is an inhibitor of serine proteases, mainly plasmin. It plays an important role in the regulation of fibrinolysis. A decrease in the amount of alpha-2-antiplasmin can lead to bleeding syndromes.

Alpha-2-antiplasmin reacts rapidly to plasmin to form a PAP complex. An increase in the formation of the PAP complex is accompanied by an increase in the formation of fibrin and an increase in the level of reactive plasmin. There is a correlation between the level of fibrin fragment and the level of PAP complex.

Reference	Presentation	Number of tests
4-TC12060	Kit	12 x 8

## ELISA kit for the antigenic assay of the PAP complex.

The TECHNOZYM® PAP Complex ELISA kit allows the detection of plasmin / alpha-2-antiplasmin complexes in human plasma. High levels of this complex can occur in thrombotic events, hyperfibrinolysis or in thrombolytic therapies.

## Components

- 12 breakable strips of 8 wells coated with anti-PAP monoclonal antibody
- 2 adhesives for ELISA plate
- 1 vial x anti-plasminogen antibody coupled to peroxidase, 0.3mL
- 1 bottle x 12 mL stop solution
- 2 vials x 20 mL wash buffer concentrate
- 1 vial x concentrated dilution 20 mL
- 5 vials x freeze-dried 0.5 mL calibrator
- 1 lyophilized low control vial
- 1 lyophilized top control vial

## Characteristics

- The measurement is based on the use of a monoclonal antibody directed only to a specific epitope of the PAP complex. The antibody therefore does not recognize free  $\alpha$ 2-antiplasmin or free plasminogen.
- A second anti-Glu-plasminogen monoclonal antibody coupled to peroxidase makes it possible to measure Glu-plasminogen. (Specialized hemostasis)
- Stability 3 months after opening.
  - Reaction time 150 minutes.
  - Sensitivity of the assay ranging from 0.6 to 225 ng / mL of PAP complexes.



## ASSAYS KITS

## ELISA

ELISA Assay

## TECHNOZYM® PAP Control Set



## Associated products

TECHNOZYM® PAP Calibrator Set

TECHNOZYM® PAP Complex ELISA Kit

## Informations

Plasmin is the main enzyme in fibrinolysis, which breaks down fibrin.

Alpha-2-antiplasmin is an inhibitor of serine proteases, mainly plasmin. It plays an important role in the regulation of fibrinolysis.

A decrease in the amount of alpha-2-antiplasmin can lead to bleeding syndromes.

Alpha-2-antiplasmin reacts rapidly to plasmin to form a PAP complex. An increase in the formation of the PAP complex is accompanied by an increase in the formation of fibrin and an increase in the level of reactive plasmin. There is a correlation between the level of fibrin fragment and the level of PAP complex.

Reference

4-TC12064

Presentation

Vial

Format

2 x 0.5 mL

**Additional control plasmas for the antigenic assay of the PAP complex.**

Additional quality controls for the TECHNOZYM® PAP Complex ELISA Kit.

## Components

- 2 vials x 0.5 mL lyophilized plasma

## Characteristics

- Stability 6 months at -20 °C



# TECHNOZYM® PCI Actibind® ELISA Kit



## Associated products

Coagulation Control A  
Coagulation Control N  
Coagulation Reference

## Informations

The protein C inhibitor (PCI) is a member of the serpin family. (Serine protease inhibitor).

It inactivates APC, thrombin, FXa, FXIa, kallikrein, urokinase, and t-PA and u-PA. PCI could be involved in the regulation of fibrinolysis and the C protein system.

Low antigenic and PCI activity values have been determined in patients with disseminated intravascular coagulation (DIC).

Reference	Presentation	Number of tests
4-TC16100	Kit	12 x 8

## Quantitative antigenic assay of protein C inhibitor (PCI) in citrated human plasma or EDTA by ELISA method.

The Protein C Inhibitor Actibind® ELISA kit allows the antigenic determination of the protein C inhibitor in human plasma by the ELISA method.

## Components

- 12 breakable ELISA strips of 8 wells
- 1 vial x anti-PCI monoclonal antibody coupled to peroxidase (POX) (0.3 mL)
- 1 vial x lyophilized urokinase
- 1 vial x TMB substrate (12 mL)
- 1 vial x stop solution (15 mL)
- 1 vial x POX dilution buffer (12 mL)
- 2 vials x Sample Dilution Buffer (20 mL)
- 1 vial x wash buffer Concentrate (20 mL)
- 1 vial x lyophilized calibrator (1.0 mL)
- 1 vial x lyophilized top control plasma (1.0 mL)

## Characteristics

PCI binds to immobilized urokinase and is then revealed by a monoclonal antibody coupled to the enzyme: peroxidase.

This enzyme hydrolyzes the chromogenic substrate: TMB, to form a colored compound whose reaction will be stopped by sulfuric acid. Antigen PCI levels are related to disseminated intravascular coagulation (DIC).





# TECHNOZYM® t-PA Combi Actibind® ELISA Kit



Reference	Presentation	Number of tests
4-TC16000	Kit	12 x 8

## Informations

Tissue plasminogen activator (t-PA) is a protein involved in breaking down the blood clot. It is a serine protease found in the endothelial cells that line the blood vessels.

Like any enzyme, it converts plasminogen into plasmin, the main blood clot lysis enzyme. Due to its lysis activity, t-PA is used in clinical medicine to treat cerebral embolism and thrombosis.

Its use is contraindicated in cases of cerebral hemorrhage or head trauma.

## ELISA kit for antigen assay and t-PA activity.

The actibind® ELISA combi t-PA kit enables antigenic and t-PA activity detection using antibodies that do not interfere with functional t-PA.

## Components

- 12 strips of 8 breakable wells, coated with anti-t-PA monoclonal antibody
- 2 adhesives for ELISA plate
- 1 vial x anti-t-PA antibody coupled to peroxidase (POX), 0.3mL
- 1 vial x incubation buffer (90 mL)
- 1 vial x wash buffer (80 mL)
- 1 vial x TMB chromogenic substrate (12 mL)
- 1 bottle x stop solution (15 mL)
- 1 vial x dilution buffer (20 mL)
- 1 vial x a mixture for the detection of plasminogen activator coupled to pNa
- 1 vial x recombinant t-PA calibrator

## Characteristics

The bound t-PA converts glu-plasminogen into plasmin which causes, with the substrate, a release of a colored product, the concentration of which is proportional to the quantity of active t-PA. After washing, the t-PA remains bound to the wells and incubation with the anti-t-PA monoclonal antibody coupled to POX will recognize the active and inactive forms of t-PA.

POX will give the substrate a colored compound whose concentration is proportional to the total amount of t-PA.

T-PA activity : 0.05-10 IU / mL

Antigenic : 0.1 to 20 ng / mL



# TECHNOZYM® t-PA-PAI-1 Complex ELISA



Reference	Presentation	Number of tests
4-TC12080	Kit	12 x 8

## Informations

Tissue plasminogen activator (t-PA) is a protein involved in breaking down the blood clot. It is a serine protease found in the endothelial cells that line the blood vessels.

Like any enzyme, it converts plasminogen into plasmin, the main blood clot lysis enzyme. In order to understand how fibrinolysis is regulated in patients, it is necessary to know the circulating concentration of active t-PA, active PAI-1 and t-PA / PAI-1 complexes.

## ELISA kit for the antigenic assay of the t-PA-PAI-1 complex.

The tPA-PAI-1 Complex ELISA kit allows antigenic detection of the t-PA / PAI-1 complex.



## Components

- 12 breakable ELISA strips (12 x 8 wells coated with anti-t-PA monoclonal antibody)
- 2 adhesives for ELISA plate
- 1 vial x anti-PAI-1 monoclonal antibody coupled to peroxidase (POX)
- 1 vial x dilution buffer (20 mL)
- 1 vial x POX dilution buffer (12 mL)
- 1 vial x TMB chromogenic substrate (12 mL)
- 1 bottle x stop solution (15 mL)
- 1 vial x wash buffer (20 mL)
- 1 vial x t-PA / PAI-1 Complex Calibrator

## Characteristics

The measurement is based on the use of a monoclonal antibody that will bind t-PA or t-PA / PAI-1 complexes at the bottom of the well. A second anti-PAI-1 monoclonal antibody coupled to peroxidase makes it possible to measure the t-PA / PAI-1 complex. Only the complexes are quantified, sensitivity from 0 to 20 ng / mL.



# TECHNOZYM® u-PA Combi Actibind® ELISA Kit



## Associated products

TECHNOZYM® u-PA ELISA Kit

## Informations

Belonging to the serine protease family, u-PA activates plasminogen to convert it into plasmin, an enzyme allowing the degradation of fibrin. It intervenes in the phases of dissolution of the clot during fibrinolysis.

Reference	Presentation	Number of tests
4-TC16010	Kit	12 x 8

## ELISA kit for antigen assay and u-PA (urokinase Plasminogen Activator) activity.

The Technozym® u-PA Combi Actibind® ELISA kit allows antigen detection and u-PA activity using coated antibodies that do not interfere with the functional u-PA to be assayed.

## Components

- 12 x 8-well breakable ELISA strips coated with monoclonal anti-u-PA antibody
- 1 vial x biotinylated human u-PA polyclonal antibody
- 1 vial x TMB chromogenic substrate (12 mL)
- 1 bottle x stop solution (15 mL)
- 1 vial x dilution buffer (20 mL)
- 1 vial x POX dilution buffer (12 mL)
- 1 vial x wash buffer (80 mL)
- 1 vial x detection dilution buffer (20 mL)
- 1 vial x lyophilized u-PA calibrator
- 1 vial x streptavidin peroxidase (POX) solution
- 1 vial x plasminogen activator detection

## Characteristics

First, the functional u-PA assay is performed using Glu-plasminogen and a low molecular weight plasmin substrate. Secondly, the ELISA plate is washed and then a monoclonal antibody specific to u-PA, recognizing free u-PAs and complexed with inhibitors, is used. It is revealed by peroxidase. (Specialized hemostasis)

- Stability 3 months after opening.
- Reaction time 160 minutes then 140 minutes.
- Antigen : sensitivity of the assay ranging from 0 to 10 ng / mL u-PA.
- Activity : sensitivity of the assay ranging from 0 to 1 U / mL of u-PA.





# TECHNOZYM® u-PA ELISA Kit



## Associated products

TECHNOZYM® u-PA Combi Actbind® ELISA Kit

## Informations

Belonging to the serine protease family, u-PA activates plasminogen to convert it into plasmin, an enzyme allowing the degradation of fibrin. It intervenes in the phases of dissolution of the clot during fibrinolysis.

It has also been shown to increase the amount of u-PA in some tumors.

Reference	Presentation	Number of tests
4-TC12010	Kit	12 x 8

### ELISA kit for the antigenic assay of u-PA (urokinase Plasminogen Activator).

The Technozym® u-PA ELISA kit allows the quantitative antigenic detection of u-PA in human plasma and cell and tissue extracts such as tumors.

## Components

- 12 x 8-well breakable ELISA strips coated with anti-u-PA monoclonal antibody
- 1 vial x biotinylated anti-u-PA polyclonal antibody
- 1 vial x TMB chromogenic substrate (12 mL)
- 1 vial x streptavidin-coupled peroxidase (POX) solution
- 1 vial x dilution concentrate 2.5 x
- 1 vial x dilution buffer (POX)
- 1 bottle x stop solution (15 mL)
- 1 vial x wash buffer (80 mL)
- 1 vial x u-PA calibrator

## Characteristics

The measurement is based on the u-PA binding to the bottom of the wells thanks to the anti-u-Pa monoclonal antibody, the u-PA will be revealed by a biotinylated anti-u-PA polyclonal antibody which will be detected with streptavidin-HRP and hydrolysis of TMB by HRP will give a stain whose absorbance will be read at 450 nm. Both single and double urokinase chains are detected. (Specialized hemostasis)

- Stability 6 months after opening.
- Reaction time 200 minutes.
- A calibrator calibrated against NIBSC 87/594 included.
- Sensitivity between 0.6 to 10 ng / mL.



# TECHNOZYM® VITRONECTIN ELISA Kit



Reference	Presentation	Number of tests
4-TC12120	Kit	12 x 8

## Informations

Vitronectin (Vn) is an adhesive glycoprotein, synthesized by the liver, released in plasma and present in the extracellular matrix. Vn binds PAI-1. This complex fully activates PAI-1, unlike PAI-1 in solution, where it does not appear to be stable and inactive.

Vn therefore seems to regulate the enzymatic specificity of PAI-1, by stabilizing it. Decreased Vn levels occur in DICs and liver disease (cirrhosis). Vn deposition is associated with atherosclerotic lesions.

## ELISA kit for the antigenic assay of Vitronectin.

The Technozym® Vitronectin ELISA kit allows the detection of vitronectin in plasma.



## Components

- 12 breakable ELISA strips (12 x 8 wells)
- 2 adhesives for ELISA plate
- 1 vial x conjugated antibody-POX
- 1 vial x TMB chromogenic substrate (12 mL)
- 1 bottle x stop solution (15 mL)
- 1 vial x 2.5x concentrated dilution buffer (20 mL)
- 1 vial x POX dilution buffer (12 mL)
- 1 vial x 12.5x wash buffer concentrate (20 mL)
- 1 vial x lyophilized calibrator plasma

## Characteristics

The test is based on the quantification of vitronectin using 2 antibodies; the first monoclonal to bind Vn and the second polyclonal coupled to POX for detection. (Specialized hemostasis)

- Stability 3 months after opening.
- Reaction time 240 minutes.
- Dosage sensitivity ranging from 0 to 400% vitronectin.



## ASSAYS KITS

## ELISA

ELISA Assay

## TECHNOZYM® VWF:CBA ELISA Collagen Type VI



## Associated products

TECHNOZYM® VWF:CBA Control Set

TECHNOZYM® VWF:CBA ELISA Collagen Type I

## Informations

VWF is a multimeric high molecular weight (HPM) glycoprotein involved in primary hemostasis. VWF protects FVIII from degradation and transports it to plasma, and mediates platelet activation by binding to their membrane receptors GPIb and GPIIb / IIIa. A quantitative or qualitative defect of VWF causes hemorrhagic pathologies which can be acquired or hereditary. VWF assay is needed to determine the type of disease.

HPM forms of VWF preferentially bind to collagen than low molecular weight forms.

The binding capacity of VWF to collagen serves as a parameter to determine the adhesive properties of VWF thus reflecting its physiological properties.

A decrease in collagen binding can be due to :

- a decrease in the rate of VWF (type 1 and type 3 VWD)
- an absence of HPM multimer (type 2A and 2B VWD) : a rare specific deficiency in collagen binding is classified as type 2M.

Reference	Presentation	Number of tests
4-5450321	Kit	12 x 8

**ELISA kit for the determination of Von Willebrand factor based on its capacity of binding to type VI collagen.**

TECHNOZYM® VWF : CBA ELISA Collagen Type VI allows the antigenic determination of Von Willebrand factor in human plasma by ELISA method.

## Components

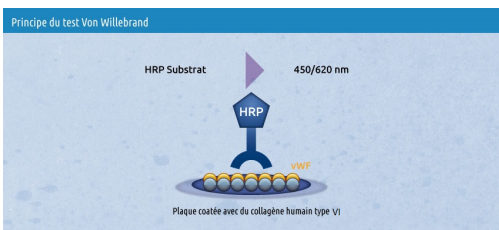
- 12 breakable ELISA strips (12 x 8 wells coated with type VI collagen)
- 2 adhesives for ELISA plate
- 1 vial x conjugated antibody concentrate (0.3 mL)
- 1 vial x TMB chromogen (12 mL)
- 1 bottle x stop solution (12 mL)
- 1 vial x incubation buffer (90 mL)
- 5 vials x freeze-dried calibrators
- 1 vial x lyophilized low control plasma
- 1 vial x lyophilized high control plasma

## Advantages











- Better reproducibility.
- Better sensitivity.
- Better correlation with the HPM forms of VWF.
- Better sensitivity in detecting low amounts of VWF in severe type 1 deficiency.

## Characteristics

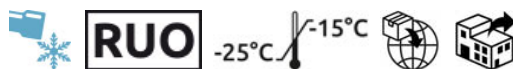
- Reflects the physiological activity of VWF in plasma and concentrates.
- Marker of response to DDAVP.
- Detects high concentrations of VWF from HPM in PTT (Thrombotic Thrombocytopenic Purpura).
- Detects low concentrations of low molecular weight VWF in TE (Essential Thrombocythemia).
- Allows the identification of samples with a proven deficit of VWF multimers using a polyclonal antibody and the ability of VWF to bind to type VI collagen. (Specialized hemostasis).
- Sensitivity : 0 - 1.3 IU / mL



# ANSN FLUOROGENIC SUBSTRATES

Reference	Designation	Click to go to the product sheet	PM (g/mol)	Km	Km / Kcat	WEB
<b>Fluorogenic ANSN substrates for thrombin (FIIa)</b>						
9-SN-17a	→ Fluorogenic substrate ANSN for thrombin and FVIIa		777.81	0.4 µM		
9-SN-20	→ Fluorogenic substrate ANSN for thrombin		750.9	17 µM		
9-SN-59	→ Fluorogenic substrate ANSN for thrombin		703.73	2 µM		
<b>Fluorogenic ANSN substrate for Factor VIIa / VIIa-TF</b>						
9-SN-17c	→ Fluorogenic substrate ANSN FVIIa/VIIa-TF		751.76	de 102 à 186 µM		
<b>Fluorogenic ANSN substrate for Factor Xa</b>						
9-SN-7	→ Fluorogenic substrate ANSN for Factor Xa		682.8	de 125 µM		
<b>Fluorogenic ANSN substrate for Factor XIa</b>						
9-SN-13a	→ Fluorogenic substrate ANSN for Factor XIa (LPR)		721.74	75 µM		
9-SN-45	→ Fluorogenic substrate ANSN for Factor XIa (EGR)		724.6	225 µM		
<b>Fluorogenic ANSN substrate for Plasmin</b>						
9-SN-5	→ Fluorogenic substrate ANSN for plasmin		786.6	130 µM	3.7 s <sup>-1</sup>	
<b>Fluorogenic ANSN substrate for PCa</b>						
9-SN-54	→ Fluorogenic substrate ANSN for PCa		746.98	3.9 µM		
<b>Fluorogenic ANSN Substrate for t-PA</b>						
9-SN-18	→ Fluorogenic substrate ANSN for t-PA		782.92	71 µM		

## ANSN FLUOROGENIC SUBSTRATES

Fluorogenic ANSN substrates for thrombin  
(FIIa)Fluorogenic substrate ANSN for thrombin and  
FVIIa

## Associated products

Fluorogenic substrate ANSN for thrombin

Fluorogenic substrate ANSN for thrombin

## Informations

The kinetic properties identified on the following page will aid in the selection of an appropriate substrate. The ANSN substrates have proved to be especially useful for the analyses of FVIIa.

Although the substrate hydrolysis rates are relatively slow for FVIIa alone, only a few compounds like compound SN-17a exhibit a large change in kcat when tissue Factor is incorporated into the assay system. The ANSN-based substrates are provided as 10 mM stock solutions in DMSO.

Assays are typically conducted in physiologic buffers containing HEPES or Tris, with substrate concentrations ranging from 1 to 100  $\mu$ M. The relative change in fluorescence is monitored at a 470 nm emission wavelength with a 352 nm excitation wavelength.

Light artifacts can be minimized by employing a 390 to 450 nm long-pass cutoff filter in the emission beam. The stock substrate solutions in DMSO could remain frozen at 4° C or colder, and should be protected from light. Under these conditions the compounds will remain stable for over one year.

Reference	Presentation	Format
9-SN-17a	Vial	1 mg

**Sequence : D-FPR-ANSNH-C<sub>6</sub>H<sub>11</sub>, 2HCl**

MW(Da) : 777.81

Km FIIa : 0.4  $\mu$ M - Kcat : 17 s<sup>-1</sup>

Km FVIIa : 150  $\mu$ M - Kcat : 0.05 s<sup>-1</sup>

Km FVIIa/FT : 330  $\mu$ M - Kcat : 804 s<sup>-1</sup>

Km FXa : 150  $\mu$ M - Kcat 0.32 s<sup>-1</sup> Km PCa : 7.8  $\mu$ M - Kcat : 6.6 s<sup>-1</sup> Km t-PA : 36  $\mu$ M - Kcat : 0.074 s<sup>-1</sup>

## Characteristics

Substrates containing the fluorescent reporter group 6-amino-1-naphthalene-sulfonamide (ANSN) are useful compounds for monitoring the enzyme activity of various serine proteases. In this class of compounds, the ANSN reporter group linked (in the R1 position) to short tri-peptide sequences. The peptide sequences are designed to optimize the interaction between the enzyme and substrate. Additional components which may be added to the R2 and R3 positions reflect changes in the P' subsite positions, and generally affect the kinetic parameters of the substrates. Compounds which are effective substrates are hydrolyzed between the tri-peptide and the ANSN group. Once cleaved from the peptide moiety, the ANSN group exhibits about a 1000 fold increase in relative fluorescence.





## ANSN FLUOROGENIC SUBSTRATES

Fluorogenic ANSN substrates for thrombin  
(FIIa)

## Fluorogenic substrate ANSN for thrombin



## Associated products

Fluorogenic substrate ANSN for thrombin and FVIIa

Fluorogenic substrate ANSN for thrombin

## Informations

The kinetic properties identified on the following page will aid in the selection of an appropriate substrate.

The ANSN-based substrates are provided as 10 mM stock solutions in DMSO. Assays are typically conducted in physiologic buffers containing HEPES or Tris, with substrate concentrations ranging from 1 to 100  $\mu$ M.

The relative change in fluorescence is monitored at a 470 nm emission wavelength with a 352 nm excitation wavelength.

Light artifacts can be minimized by employing a 390 to 450 nm long-pass cutoff filter in the emission beam. The stock substrate solutions in DMSO could remain frozen at 4° C or colder, and should be protected from light. Under these conditions the compounds will remain stable for over one year.

Reference	Presentation	Format
9-SN-20	Vial	1 mg

**Sequence : Boc-L-FPR-ANSNH-C<sub>2</sub>H<sub>5</sub>**  
**Formulation : Dimethyl sulfoxide (DMSO)**

MW(Da) : 750.9

Km FIIa : 17  $\mu$ M - Kcat : 58 s<sup>-1</sup>

Km FXa : 100  $\mu$ M - Kcat : 0.31 s<sup>-1</sup>

Km PCa : 40  $\mu$ M - Kcat : 2.2 s<sup>-1</sup>

Km t-PA : 47  $\mu$ M - Kcat : 0.011 s<sup>-1</sup>

## Characteristics

Substrates containing the fluorescent reporter group 6-amino-1-naphthalene-sulfonamide (ANSN) are useful compounds for monitoring the enzyme activity of various serine proteases. In this class of compounds, the ANSN reporter group linked (in the R1 position) to short tri-peptide sequences.

The peptide sequences are designed to optimize the interaction between the enzyme and substrate.

Additional components which may be added to the R2 and R3 positions reflect changes in the P' subsite positions, and generally affect the kinetic parameters of the substrates. Compounds which are effective substrates are hydrolyzed between the tri-peptide and the ANSN group. Once cleaved from the peptide moiety, the ANSN group exhibits about a 1000 fold increase in relative fluorescence.



## ANSN FLUOROGENIC SUBSTRATES

Fluorogenic ANSN substrates for thrombin  
(FIIa)

## Fluorogenic substrate ANSN for thrombin



## Associated products

Fluorogenic substrate ANSN for thrombin and FVIIa

Fluorogenic substrate ANSN for thrombin

## Informations

The kinetic properties identified on the following page will aid in the selection of an appropriate substrate.

The ANSN-based substrates are provided as 10 mM stock solutions in DMSO. Assays are typically conducted in physiologic buffers containing HEPES or Tris, with substrate concentrations ranging from 1 to 100  $\mu$ M.

The relative change in fluorescence is monitored at a 470 nm emission wavelength with a 352 nm excitation wavelength.

Light artifacts can be minimized by employing a 390 to 450 nm long-pass cutoff filter in the emission beam. The stock substrate solutions in DMSO could remain frozen at 4° C or colder, and should be protected from light. Under these conditions the compounds will remain stable for over one year.

Reference	Presentation	Format
9-SN-59	Vial	1 mg

**Sequence : D-VPR-ANSNH-C<sub>4</sub>H<sub>9</sub>, 2HCl**

MW(Da) : 703.73

K<sub>m</sub> FIIa : 2  $\mu$ M - K<sub>cat</sub> : 110 s<sup>-1</sup>

K<sub>m</sub> FVIIa : 89  $\mu$ M - K<sub>cat</sub> : 0.019 s<sup>-1</sup>

K<sub>m</sub> FVIIa/FT : 52  $\mu$ M - K<sub>cat</sub> : 0.76 s<sup>-1</sup>

K<sub>m</sub> FXa : 160  $\mu$ M - K<sub>cat</sub> : 3.3 s<sup>-1</sup>

K<sub>m</sub> FXIa : 520  $\mu$ M - K<sub>cat</sub> : 92 s<sup>-1</sup>

K<sub>m</sub> PCa : 54  $\mu$ M - K<sub>cat</sub> : 72 s<sup>-1</sup>

K<sub>m</sub> t-PA : 110  $\mu$ M - K<sub>cat</sub> : 0.71 s<sup>-1</sup>

## Characteristics

Substrates containing the fluorescent reporter group 6-amino-1-naphthalene-sulfonamide (ANSN) are useful compounds for monitoring the enzyme activity of various serine proteases. In this class of compounds, the ANSN reporter group linked (in the R1 position) to short tri-peptide sequences.

The peptide sequences are designed to optimize the interaction between the enzyme and substrate.

Additional components which may be added to the R2 and R3 positions reflect changes in the P' subsite positions, and generally affect the kinetic parameters of the substrates.

Compounds which are effective substrates are hydrolyzed between the tri-peptide and the ANSN group.

Once cleaved from the peptide moiety, the ANSN group exhibits about a 1000 fold increase in relative fluorescence.





## ANSN FLUOROGENIC SUBSTRATES

Fluorogenic ANSN substrate for Factor VIIa  
/ VIIa-TF

## Fluorogenic substrate ANSN FVIIa/VIIa-TF



### Informations

The kinetic properties identified on the following page will aid in the selection of an appropriate substrate. The ANSN substrates have proved to be especially useful for the analyses of FVIIa.

Although the substrate hydrolysis rates are relatively slow for FVIIa alone, only a few compounds like compound SN-17a exhibit a large change in kcat when tissue Factor is incorporated into the assay system. The ANSN-based substrates are provided as 10 mM stock solutions in DMSO.

Assays are typically conducted in physiologic buffers containing HEPES or Tris, with substrate concentrations ranging from 1 to 100  $\mu$ M. The relative change in fluorescence is monitored at a 470 nm emission wavelength with a 352 nm excitation wavelength.

Light artifacts can be minimized by employing a 390 to 450 nm long-pass cutoff filter in the emission beam. The stock substrate solutions in DMSO could remain frozen at 4° C or colder, and should be protected from light. Under these conditions the compounds will remain stable for over one year.

Reference	Presentation	Format
9-SN-17c	Vial	1 mg

**Sequence : D-FPR-ANSNH-C<sub>4</sub>H<sub>9</sub>, 2HCl**

MW(Da) : 751.76

K<sub>m</sub> FVIIa : 186  $\mu$ M - K<sub>cat</sub> : 0.11 s<sup>-1</sup>

K<sub>m</sub> FVIIa/TF : 102  $\mu$ M - K<sub>cat</sub> : 2.7 s<sup>-1</sup>

K<sub>m</sub> PCa : 53  $\mu$ M - K<sub>cat</sub> : 4 s<sup>-1</sup>

### Characteristics

Substrates containing the fluorescent reporter group 6-amino-1-naphthalene-sulfonamide (ANSN) are useful compounds for monitoring the enzyme activity of various serine proteases. In this class of compounds, the ANSN reporter group linked (in the R1 position) to short tri-peptide sequences.

The peptide sequences are designed to optimize the interaction between the enzyme and substrate.

Additional components which may be added to the R2 and R3 positions reflect changes in the P' subsite positions, and generally affect the kinetic parameters of the substrates.

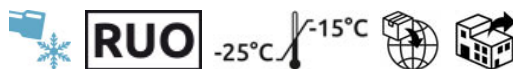
Compounds which are effective substrates are hydrolyzed between the tri-peptide and the ANSN group. Once cleaved from the peptide moiety, the ANSN group exhibits about a 1000 fold increase in relative fluorescence.



## ANSN FLUOROGENIC SUBSTRATES

## Fluorogenic ANSN substrate for Factor Xa

## Fluorogenic substrate ANSN for Factor Xa



## Informations

The kinetic properties identified on the following page will aid in the selection of an appropriate substrate. The ANSN substrates have proved to be especially useful for the analyses of FVIIa. Although the substrate hydrolysis rates are relatively slow for FVIIa alone, only a few compounds like compound SN-17a exhibit a large change in kcat when tissue Factor is incorporated into the assay system.

The ANSN-based substrates are provided as 10 mM stock solutions in DMSO. Assays are typically conducted in physiologic buffers containing Hepes or Tris, with substrate concentrations ranging from 1 to 100  $\mu$ M.

The relative change in fluorescence is monitored at a 470 nm emission wavelength with a 352 nm excitation wavelength.

Light artifacts can be minimized by employing a 390 to 450 nm long-pass cutoff filter in the emission beam. The stock substrate solutions in DMSO could remain frozen at 4° C or colder, and should be protected from light. Under these conditions the compounds will remain stable for over one year.

Reference	Presentation	Format
9-SN-7	Vial	1 mg

**Sequence : Mes-D-LGR-ANSN(C2H5), 2HCl**

MW(Da) : 682.8

Km FIIa : 31  $\mu$ M - Kcat : 0.63 s<sup>-1</sup>

Km FVIIa : 180  $\mu$ M - Kcat : 0.007 s<sup>-1</sup>

Km FVIIa/FT : 200  $\mu$ M - Kcat : 0.79 s<sup>-1</sup>

Km FXa : 125  $\mu$ M - Kcat : 36 s<sup>-1</sup>

Km FXIa : 580  $\mu$ M - Kcat : 15 s<sup>-1</sup>

Km PCa : 113  $\mu$ M - Kcat : 0.055 s<sup>-1</sup>

## Characteristics

Substrates containing the fluorescent reporter group 6-amino-1-naphthalene-sulfonamide (ANSN) are useful compounds for monitoring the enzyme activity of various serine proteases. In this class of compounds, the ANSN reporter group linked (in the R1 position) to short tri-peptide sequences.

The peptide sequences are designed to optimize the interaction between the enzyme and substrate.

Additional components which may be added to the R2 and R3 positions reflect changes in the P' subsite positions, and generally affect the kinetic parameters of the substrates. Compounds which are effective substrates are hydrolyzed between the tri-peptide and the ANSN group.

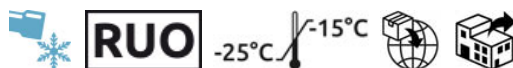
Once cleaved from the peptide moiety, the ANSN group exhibits about a 1000 fold increase in relative fluorescence.



## ANSN FLUOROGENIC SUBSTRATES

## Fluorogenic ANSN substrate for Factor XIa

## Fluorogenic substrate ANSN for Factor XIa (LPR)



## Associated products

Fluorogenic substrate ANSN for Factor XIa (EGR)

## Informations

The kinetic properties identified on the following page will aid in the selection of an appropriate substrate.

The ANSN-based substrates are provided as 10 mM stock solutions in DMSO.

Assays are typically conducted in physiologic buffers containing HEPES or Tris, with substrate concentrations ranging from 1 to 100  $\mu$ M.

The relative change in fluorescence is monitored at a 470 nm emission wavelength with a 352 nm excitation wavelength.

Light artifacts can be minimized by employing a 390 to 450 nm long-pass cutoff filter in the emission beam.

The stock substrate solutions in DMSO could remain frozen at 4° C or colder, and should be protected from light.

Under these conditions the compounds will remain stable for over one year.

Reference	Presentation	Format
9-SN-13a	Vial	1 mg

**Sequence : D-LPR-ANSNH-C<sub>3</sub>H<sub>7</sub>, 2HCl**

MW(Da) : 721.74

Km FIIa : 0.5  $\mu$ M - Kcat : 19 s<sup>-1</sup>

Km FVIIa : 300  $\mu$ M - Kcat : 0.07 s<sup>-1</sup>

Km FVIIa/FT : 300  $\mu$ M - Kcat : 4.5 s<sup>-1</sup>

Km FXa : 171  $\mu$ M - Kcat : 3.3 s<sup>-1</sup>

Km FXIa : 75  $\mu$ M - Kcat : 53 s<sup>-1</sup>

Km PCa : 45  $\mu$ M - Kcat : 52 s<sup>-1</sup>

Km t-PA : 98  $\mu$ M - Kcat : 0.31 s<sup>-1</sup>

## Characteristics

Substrates containing the fluorescent reporter group 6-amino-1-naphthalene-sulfonamide (ANSN) are useful compounds for monitoring the enzyme activity of various serine proteases. In this class of compounds, the ANSN reporter group linked (in the R1 position) to short tri-peptide sequences. The peptide sequences are designed to optimize the interaction between the enzyme and substrate. Additional components which may be added to the R2 and R3 positions reflect changes in the P' subsite positions, and generally affect the kinetic parameters of the substrates. Compounds which are effective substrates are hydrolyzed between the tri-peptide and the ANSN group. Once cleaved from the peptide moiety, the ANSN group exhibits about a 1000 fold increase in relative fluorescence.



## ANSN FLUOROGENIC SUBSTRATES

## Fluorogenic ANSN substrate for Factor XIa

## Fluorogenic substrate ANSN for Factor XIa (EGR)



## Associated products

Fluorogenic substrate ANSN for Factor XIa (LPR)

## Informations

The kinetic properties identified on the following page will aid in the selection of an appropriate substrate. The ANSN-based substrates are provided as 10 mM stock solutions in DMSO.

Assays are typically conducted in physiologic buffers containing Hepes or Tris, with substrate concentrations ranging from 1 to 100  $\mu\text{M}$ .

The relative change in fluorescence is monitored at a 470 nm emission wavelength with a 352 nm excitation wavelength. Light artifacts can be minimized by employing a 390 to 450 nm long-pass cutoff filter in the emission beam.

The stock substrate solutions in DMSO could remain frozen at 4° C or colder, and should be protected from light. Under these conditions the compounds will remain stable for over one year.

Reference	Presentation	Format
9-SN-45	Vial	1 mg

**Séquence : L-EGR-ANSNH-C<sub>3</sub>H<sub>7</sub>, 2HBr**

MW(Da) : 724.6

Km FIIa : 100  $\mu\text{M}$  - Kcat : 2.5 s<sup>-1</sup>

Km FXa : 110  $\mu\text{M}$  - Kcat : 0.2 s<sup>-1</sup>

Km FXIa : 225  $\mu\text{M}$  - Kcat : 82 s<sup>-1</sup>

Km PCa : 440  $\mu\text{M}$  - Kcat : 17 s<sup>-1</sup>

## Characteristics

Substrates containing the fluorescent reporter group 6-amino-1-naphthalene-sulfonamide (ANSN) are useful compounds for monitoring the enzyme activity of various serine proteases. In this class of is compounds, the ANSN reporter group linked (in the R1 position) to short tri-peptide sequences.

The peptide sequences are designed to optimize the interaction between the enzyme and substrate.

Additional components which may be added to the R2 and R3 positions reflect changes in the P' subsite positions, and generally affect the kinetic parameters of the substrates.

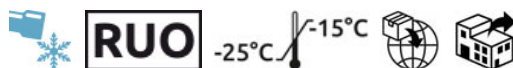
Compounds which are effective substrates are hydrolyzed between the tri-peptide and the ANSN group. Once cleaved from the peptide moiety, the ANSN group exhibits about a 1000 fold increase in relative fluorescence.



## ANSN FLUOROGENIC SUBSTRATES

## Fluorogenic ANSN substrate for Plasmin

## Fluorogenic substrate ANSN for plasmin



## Informations

The kinetic properties identified on the following page will aid in the selection of an appropriate substrate. The ANSN-based substrates are provided as 10 mM stock solutions in DMSO. Assays are typically conducted in physiologic buffers containing HEPES or Tris, with substrate concentrations ranging from 1 to 100  $\mu$ M. The relative change in fluorescence is monitored at a 470 nm emission wavelength with a 352 nm excitation wavelength. Light artifacts can be minimized by employing a 390 to 450 nm long-pass cutoff filter in the emission beam. The stock substrate solutions in DMSO could remain frozen at 4° C or colder, and should be protected from light. Under these conditions the compounds will remain stable for over one year.

Reference	Presentation	Format
9-SN-5	Vial	1 mg

**Sequence : D-AFK-ANSNH(I-C<sub>4</sub>H<sub>9</sub>) dihydrobromide**

Molecular weight (Da) : 786.6

Concentration : 7.9 mg/mL

Km : 130  $\mu$ MKcat : 3.7 s<sup>-1</sup>

Buffer formulation : Dimethyl sulfoxide (DMSO)

## Characteristics

Substrates containing the fluorescent reporter group 6-amino-1-naphthalene-sulfonamide (ANSN) are useful compounds for monitoring the enzyme activity of various serine proteases. In this class of compounds, the ANSN reporter group linked (in the R1 position) to short tri-peptide sequences. The peptide sequences are designed to optimize the interaction between the enzyme and substrate. Additional components which may be added to the R2 and R3 positions reflect changes in the P' subsite positions, and generally affect the kinetic parameters of the substrates. Compounds which are effective substrates are hydrolyzed between the tri-peptide and the ANSN group. Once cleaved from the peptide moiety, the ANSN group exhibits about a 1000 fold increase in relative fluorescence.





## ANSN FLUOROGENIC SUBSTRATES

## Fluorogenic ANSN substrate for PCa

## Fluorogenic substrate ANSN for PCa



## Informations

The kinetic properties identified on the following page will aid in the selection of an appropriate substrate. The ANSN-based substrates are provided as 10 mM stock solutions in DMSO. Assays are typically conducted in physiologic buffers containing HEPES or Tris, with substrate concentrations ranging from 1 to 100  $\mu$ M. The relative change in fluorescence is monitored at a 470 nm emission wavelength with a 352 nm excitation wavelength.

Light artifacts can be minimized by employing a 390 to 450 nm long-pass cutoff filter in the emission beam. The stock substrate solutions in DMSO could remain frozen at 4° C or colder, and should be protected from light.

Under these conditions the compounds will remain stable for over one year.

Reference	Presentation	Format
9-SN-54	Vial	1 mg

**Sequence : BOC-D-VLR-ANSNH-C<sub>4</sub>H<sub>9</sub>**

MW(Da) : 746.98

Km FIIa : 19  $\mu$ M - Kcat : 0.055 s<sup>-1</sup>

Km FVIIa : 42  $\mu$ M - Kcat : 0.007 s<sup>-1</sup>

Km FVIIa/FT : 170  $\mu$ M - Kcat : 1.6 s<sup>-1</sup>

Km FXa : 19  $\mu$ M - Kcat : 0.055 s<sup>-1</sup>

Km PCa : 3.9  $\mu$ M - Kcat : 2.1 s<sup>-1</sup>

## Characteristics

Substrates containing the fluorescent reporter group 6-amino-1-naphthalene-sulfonamide (ANSN) are useful compounds for monitoring the enzyme activity of various serine proteases. In this class of compounds, the ANSN reporter group linked (in the R1 position) to short tri-peptide sequences.

The peptide sequences are designed to optimize the interaction between the enzyme and substrate. Additional components which may be added to the R2 and R3 positions reflect changes in the P' subsite positions, and generally affect the kinetic parameters of the substrates.

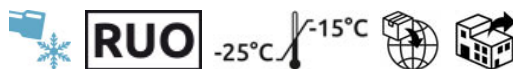
Compounds which are effective substrates are hydrolyzed between the tri-peptide and the ANSN group. Once cleaved from the peptide moiety, the ANSN group exhibits about a 1000 fold increase in relative fluorescence.



## ANSN FLUOROGENIC SUBSTRATES

## Fluorogenic ANSN Substrate for t-PA

## Fluorogenic substrate ANSN for t-PA



## Informations

The kinetic properties identified on the following page will aid in the selection of an appropriate substrate. The ANSN-based substrates are provided as 10 mM stock solutions in DMSO.

Assays are typically conducted in physiologic buffers containing HEPES or Tris, with substrate concentrations ranging from 1 to 100  $\mu$ M.

The relative change in fluorescence is monitored at a 470 nm emission wavelength with a 352 nm excitation wavelength.

Light artifacts can be minimized by employing a 390 to 450 nm long-pass cutoff filter in the emission beam.

The stock substrate solutions in DMSO could remain frozen at 4° C or colder, and should be protected from light. Under these conditions the compounds will remain stable for over one year.

Reference	Presentation	Format
9-SN-18	Vial	1 mg

**Sequence : Boc-L-(p-F)FPR-ANSNH-C<sub>2</sub>H<sub>5</sub>**

MW(Da) : 782.92

K<sub>m</sub> FIIa : 3.7  $\mu$ M - K<sub>cat</sub> : 44 s<sup>-1</sup>

K<sub>m</sub> FVIIa : 50  $\mu$ M - K<sub>cat</sub> : 0.008 s<sup>-1</sup>

K<sub>m</sub> FVIIa/FT : 217  $\mu$ M - K<sub>cat</sub> : 0.88 s<sup>-1</sup>

K<sub>m</sub> t-PA : 71  $\mu$ M - K<sub>cat</sub> : 1.03 s<sup>-1</sup>

## Characteristics

Substrates containing the fluorescent reporter group 6-amino-1-naphthalene-sulfonamide (ANSN) are useful compounds for monitoring the enzyme activity of various serine proteases. In this class of compounds, the ANSN reporter group linked (in the R1 position) to short tri-peptide sequences.


The peptide sequences are designed to optimize the interaction between the enzyme and substrate.

Additional components which may be added to the R2 and R3 positions reflect changes in the P' subsite positions, and generally affect the kinetic parameters of the substrates.

Compounds which are effective substrates are hydrolyzed between the tri-peptide and the ANSN group. Once cleaved from the peptide moiety, the ANSN group exhibits about a 1000 fold increase in relative fluorescence.



# AMC FLUOROGENIC SUBSTRATES

Reference	Designation	Click to go to the product sheet	Km / Kcat	PM (g/mol)	WEB
<a href="#">Fluorogenic AMC substrates for thrombin</a>					
8-081-19	→ Pefalfluor® TH - 2AcOH		Km : 1.93 $\mu$ M / Kcat : 53.9 s <sup>-1</sup>		
8-801058	→ Pefalfluor® TH - HCl			616.07	

## AMC FLUOROGENIC SUBSTRATES

Fluorogenic AMC substrates for thrombin

## Pefafleur® TH - 2AcOH



Reference	Presentation	Format
8-081-19	Vial	1 x 25 mg

**AMC-coupled thrombin fluorogenic substrate.****Sequence : H-D-CHA-Ala-Arg-AMC, 2AcOH****Chemical formula : C<sub>28</sub>H<sub>41</sub>N<sub>7</sub>O<sub>5</sub>, 2 C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>**

Moléculaire Weight (Da) : 675.8

Km : 1.93 µM / Kcat : 53.9 s<sup>-1</sup>**Advantages**

Inserts and certificates of analysis provided.  
 Safety Data Sheets (SDS) provided.  
 Prolonged stability after reconstitution (> 3 months).  
 Discount applicable according to quantities.

**Characteristics**

Fluorogenic substrates are synthetic peptides that react with proteolytic enzymes by releasing a colour that can be followed by spectrophotometry and whose intensity is proportional to the proteolytic activity of the enzyme.

Typically, such substrates are composed of 3 to 5 natural or artificial amino acids.

Their structures can be protected in N-terminal to reduce undesirable degradation by aminopeptidases. Their C-terminal ends are modified so that, when the amide bond is cleaved, a fluorogen group is released.

The most commonly used group is 7-amino-4-methylcoumarin (AMC) with 342 nm wavelength excitation and 440 nm wavelength emission.

## AMC FLUOROGENIC SUBSTRATES

## Fluorogenic AMC substrates for thrombin



## Pefafluor® TH - HCl



## Associated products

Pefafluor® TH - 2AcOH

Reference	Presentation	Format
8-801058	Vial	1 x 25 mg

**AMC-coupled thrombin substrate.**

Sequence : Z-Gly-Gly-Arg-AMC, HCl  
 MW(Da) : 616,07

## Advantages











Inserts and certificates of analysis provided.  
 Safety Data Sheets (SDS) provided.  
 Prolonged stability after reconstitution (> 3 months).

## Characteristics

The line of fluorogenic peptide substrates is a line of high-quality substrates that allow the testing of protease serines. They target enzymes involved in coagulation and fibrinolysis such as thrombin, Factor Xa, Factor XIIa, kallikrein, activated C protein, plasmin and plasminogen-SK. Fluorogenic substrates are synthetic peptides that react with proteolytic enzymes by releasing a colour that can be followed by spectrophotometry and whose intensity is proportional to the proteolytic activity of the enzyme.

Typically, such substrates are composed of 3 to 5 natural or artificial amino acids. Their structures can be protected in N-terminal to reduce undesirable degradation by aminopeptidases. Their C-terminal ends are modified so that, when the amide bond is cleaved, a fluorogen group is released. The most commonly used group is 7-amino-4-methylcoumarin (AMC) with 342 nm wavelength excitation and 440 nm wavelength emission.

# BUFFERS AND SOLUTIONS

Reference	Designation	Click to go to the product sheet	PM (g/mol)	WEB
<b>Collagen</b>				
20-X9310	→ Haematex Collagen Equine fibrous type I/III			
20-X9315	→ Solcoll Collagen Solution			
<b>Buffers</b>				
6-BUFC1INH-100	→ C1 Inhibitor Buffer			
8-069-03	→ Prionex®		20 000	
6-1000-20	→ Bovine serum albumin 20%			
<b>Phospholipids</b>				
8-801682	→ Rabbit Brain Cephalin			
5-PL052	→ Phospholipids 0.25 mM			
5-PL604T	→ Phospholipid-TGT Emulsion 0,5 mM			
20-X9115	→ Synthetic Phospholipid Blend II			
20-X9113	→ Synthetic Procoagulant Phospholipid I			



## Haematex Collagen Equine fibrous type I/III



## Associated products

Solcoll Collagen Solution

## Reference

20-X9310

## Presentation

Vial

## Format

1 x 1 mg

## Informations

Type I / type III fibrillar collagen. These are the collagens found in the extracellular matrix of our blood vessels. Von Willebrand factor binds to type I and III collagen fibers through the A3 domain. Collagen is also a powerful activator of blood platelets by its attachment to its GPVI receptor.

## Purified equine collagen

Purified from horse Achilles tendons. Suitable for ELISA CBA. Solutions also available for platelet aggregation tests.

## Components

- 1 glass vial x 1 mg freeze-dried collagen



## BUFFERS AND SOLUTIONS

## Collagen

Solutions

## Solcoll Collagen Solution



## Associated products

Haematex Collagen Equine Fibrous type I/III

## Informations

Type I / type III fibrillar collagen. These are the collagens found in the extracellular matrix of our blood vessels.

Von Willebrand factor binds to type I and III collagen fibers through the A3 domain.

Collagen is also a powerful activator of blood platelets by its attachment to its GPVI receptor.

Reference	Presentation	Format
20-X9315	Vial	1 x 10 mL

## Purified equine collagen

Full-length solubilized equine collagen type I/III solubilized collagen for use in platelet aggregation tests, platelet adhesion and collagen binding studies. Supplied as a stable suspension of 200 µg/mL at pH 7.2.

## Components

- 1 glass vial x 10 mL of liquid collagen

## Characteristics

Solcoll can also be used to trigger platelet aggregation in whole blood impedance tests. It is in the form of a relatively stable, slightly cloudy and viscous liquid suspension of 200 µg / ml in 0.02 M of tris / HEPES glucose buffer at pH 7.2.

The 100 µg / ml stock solution can be diluted in water, saline, or neutral buffer of lower ionic strength to any desired collagen concentration.

A range between 1 and 10 µg / ml is usually prepared for light transmission aggregometry (LTA).

Platelet aggregation is usually performed with a dilution of 0.45 ml of platelet rich plasma and 0.05 ml of collagen although proportionately smaller volumes can be used.



## BUFFERS AND SOLUTIONS

## Buffers

## C1 Inhibitor Buffer



## Associated products

pNAPEP-8703

## Informations

This buffer is used as diluent for the C1 esterase assay with chromogenic substrate PNAPEP-8703.

Reference	Presentation	Format
6-BUFC1INH-100	Vial	1 x 100 mL

**Tris NaCl buffer solution in water. This buffer is used as a diluent for chromogenic assays of C1 Esterase assay with the chromogenic substrate pNAPEP-8703.**

Tris (6,1 g/L) - NaCl (15 g/L) buffer pH 8,5  
Color: colorless. pH at 20°C: 8.5 (8.4 - 8.6)

## Components

The product should be stored at 2-8°C in the original packaging, protected from light.

## Advantages

Ready-to-use liquid form.



## BUFFERS AND SOLUTIONS

## Buffers

## Prionex®



## Informations

Prionex® is freely soluble in water, diluted electrolyte solutions, glycerol and DMSO as well as in diluted ethanol and ammonium sulphate solutions below 20% saturation.

Reference	Presentation	Format
8-069-03	Vial	1 x 100 mL
8-069-03-1000	Vial	1 x 1000 mL
8-069-03-500	Vial	1 x 500 mL

**Stabilizer of inert proteins in many applications.  
Alternative to bovine serum albumin (BSA).  
Prionex® is a porcine collagen peptide fraction.**

Also useful as a blocking agent and as a protective additive in cell culture.  
MW (Da) : 20 000

## Advantages

- Optimize the stability of biological activity
- Improves lyophilization and heat treatment conditions
- Avoid denaturation by chaotropic agents or solvents
- Extends the shelf life of enzymes and proteins
- High consistency stabilizer
- Non-toxic and non-antigenic
- Free from nucleic acids, polysaccharides and lipids
- Free from any additives

## Characteristics

Prionex® is a 10% aqueous solution of a polypeptide fraction of highly purified dermal collagen of porcine origin which has excellent protein stabilizing properties. Prionex® is prepared by partial hydrolysis and is terminally sterilized. It is free from cartilage, bone and plasma components and is therefore a pure form of partially hydrolyzed gelatine type A. After first use, aliquot and freeze at -25 °C to -15 °C for long term storage.



## Bovine serum albumin 20%



Reference	Presentation	Format
6-1000-100	Vial	1 x 100 mL
6-1000-20	Vial	1 x 20 mL
6-1000-22	Vial	5 x 20 mL
6-1000-3	Vial	1 x 3 mL



### Bovine serum albumin (BSA) Bovine plasma from french origin

Bovine serum albumin 20% in sterile solution, ready to use.  
CAS :9048-46-8

#### Advantages

- Ready to use product
- No additives or preservatives
- Expiration 2 years at 2-8 °C

#### Characteristics

- Appearance : Clear liquid
- Color : Amber
- Dry extract : > 200 g / L
- Total protein : > 190 g / L pH : 6.5 - 7.4
- Albumin purity : > 97%
- Mesophilic germs : Absence / 1 mL
- Stability 8 hours at +2/+8°C after opening, if the environment is not guaranteed sterile

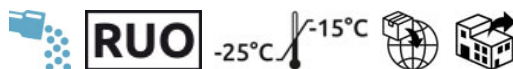




## BUFFERS AND SOLUTIONS

## Phospholipids

## Rabbit Brain Cephalin



## Associated products



Phospholipids 0.25 mM



Phospholipid-TGT Emulsion 0,5 mM



Synthetic Phospholipid Blend II

Synthetic Procoagulant Phospholipid I

Tris BSA

Reference	Presentation	Format
8-801682	Vial	1 x 100 mg

**Rabbit brain cephalin consists of phospholipids isolated from rabbit brain.**

Rabbit brain cephalin consists of phospholipids.  
It can be used as a source of phospholipids in phospholipid-dependent coagulation tests.



## Advantages

Inserts and certificates of analysis provided.  
Safety Data Sheets (SDS) provided.  
Prolonged stability after reconstitution (> 3 months).

## Characteristics

The main components are:

- Phosphatidylserine
- Phosphatidylethanolamine
- Phosphatidylethanolcholine





## BUFFERS AND SOLUTIONS

## Phospholipids

Solutions

## Phospholipids 0.25 mM



Reference	Presentation	Format	Number of tests
5-PL052	Vial	1 x 3.0 mL	30

## Informations

Phospholipids constitute a catalytic surface for the enzymatic activation of coagulation factors.

Lupus circulating anticoagulants are heterogeneous autoantibodies of the IgG and IgM type directly directed against a variety of anionic phospholipids such as cardiolipin, phosphatidylserine or phosphatidylinositol or against proteins having the capacity to bind to phospholipids such as  $\beta$ 2-glycoprotein I ( $\beta$ 2-GPI).

The contribution of phospholipids (PL) does not modify the levels of factors VIII, IX, XI, XII on normal plasmas without deficit nor LA.

The contribution of PL does not modify the levels of factors VIII, IX, XI, XII on the known deficient plasmas with and without LA (isolated constitutional or acquired deficiency)  
The supply of PL leads to an increase in factors VIII, IX, XI, XII in plasmas with LA.

**Mixture of highly purified phospholipids in emulsion.**

This mixture of highly purified phospholipids contains synthetic phosphatidyl choline (PC), synthetic phosphatidyl serine (PS) and highly purified sphingomyelin (SM) in Tris-HCl 0.05 mol/L buffer, pH 7.6 at 20°C.

This solution has a long term stabilized phospholipid emulsion with high procoagulant activity.

Application : hemostasis research : procoagulant and anticoagulant pathways.  
NAPTT method

## Components

- 1 glass bottle x 3 mL

## Method / Application

For use in all hemostasis tests and neutralization of circulating lupus coagulants. Solution specially designed for the global NAPTT method. A coagulation time of approximately 250s is obtained with the phospholipid solution, depending on the instrument used.

For the determination of pro and anticoagulant proteins, this solution is useful for all methods integrating phospholipids such as FII, FVIII, FIX, FX, Proteins C and S..

## Characteristics

This solution can be used in hemostasis tests and for the neutralization of circulating lupus anticoagulants.

Molar concentration :  
Phosphatidyl choline: 42% (synthetic)  
Phosphatidyl serine : 28% (synthetic)  
Sphingomyelin : 30% (egg yolk)

Expiration date of 30 months from the date of manufacture with storage at 2 °C / 8 °C.



## BUFFERS AND SOLUTIONS

## Phospholipids

Solutions

## Phospholipid-TGT Emulsion 0,5 mM



Reference	Presentation	Format	Number of tests
5-PL604T	Vial	1 x 3.0 mL	30

## Informations

Phospholipids constitute a catalytic surface for the enzymatic activation of coagulation factors. Lupus circulating anticoagulants are heterogeneous autoantibodies of the IgG and IgM type directly directed against a variety of anionic phospholipids such as cardiolipin, phosphatidylserine or phosphatidylinositol or against proteins having the capacity to bind to phospholipids such as  $\beta$ 2-glycoprotein I ( $\beta$ 2-GPI).

The contribution of phospholipids (PL) does not modify the levels of factors VIII, IX, XI, XII on normal plasmas without deficit nor LA. The contribution of PL does not modify the levels of factors VIII, IX, XI, XII on the known deficient plasmas with and without LA (isolated constitutional or acquired deficiency).

The supply of PL leads to an increase in factors VIII, IX, XI, XII in plasmas with LA.

**A highly stable procoagulant phospholipid.**

Phospholipid emulsion containing a mixture of highly purified phosphatidyl choline (PC), phosphatidyl serine (PS) and sphingomyelin (SM).

Tris-HCl 0.05mmol/L, pH 7.6.

## Components

- 1 glass bottle x 3 mL

## Advantages

This PL concentrate provides a possible alternative in the event of persistent difficulties due to LA on the assay of factors VIII, IX, XI or other hemostasis tests disturbed by the presence of LA.

Phospholipid-TGT constitutes a well defined emulsion containing synthetic phosphatidyl serine, phosphatidyl choline and highly purified sphingomyelin from egg yolk.

Phospholipid-TGT has rapidly demonstrated its utility in hemostasis assays involving phospholipids.

## Characteristics

This solution has a strong procoagulant activity. It can be used in general hemostasis research and more particularly in the test for the thrombin generation methods with or without activated protein C.

Expiration date of 30 months from the date of manufacture with storage at 2 °C / 8 °C.



## Synthetic Phospholipid Blend II



## Informations

Phospholipids constitute a catalytic surface for the enzymatic activation of coagulation factors. Lupus circulating anticoagulants are heterogeneous autoantibodies of the IgG and IgM type directly directed against a variety of anionic phospholipids such as cardiolipin, phosphatidylserine or phosphatidylinositol or against proteins having the capacity to bind to phospholipids such as  $\beta$ 2-glycoprotein I ( $\beta$ 2-GPI).

The contribution of phospholipids (PL) does not modify the levels of factors VIII, IX, XI, XII on normal plasmas without deficit nor LA.

The contribution of PL does not modify the levels of factors VIII, IX, XI, XII on the known deficient plasmas with and without LA (isolated constitutional or acquired deficiency) The supply of PL leads to an increase in factors VIII, IX, XI, XII in plasmas with LA.

Reference	Presentation	Format
20-X9115	Vial	1 x 25 mg

**Mixture of highly purified procoagulant phospholipids for dilution.**

## Components

- 1 glass vial x 25 mg

## Characteristics

DOPE : DOPS : DOPC = 5 : 3 : 2  
Optimal blend of phospholipids for coagulation.  
(DOPE = di-oleyl phosphatidyl ethanolamine).



## BUFFERS AND SOLUTIONS

## Phospholipids

Solutions

## Synthetic Procoagulant Phospholipid I



## Informations

Phospholipids constitute a catalytic surface for the enzymatic activation of coagulation factors. Lupus circulating anticoagulants are heterogeneous autoantibodies of the IgG and IgM type directly directed against a variety of anionic phospholipids such as cardiolipin, phosphatidylserine or phosphatidylinositol or against proteins having the capacity to bind to phospholipids such as  $\beta$ 2-glycoprotein I ( $\beta$ 2-GPI).

The contribution of phospholipids (PL) does not modify the levels of factors VIII, IX, XI, XII on normal plasmas without deficit nor LA. The contribution of PL does not modify the levels of factors VIII, IX, XI, XII on the known deficient plasmas with and without LA (isolated constitutional or acquired deficiency)

The supply of PL leads to an increase in factors VIII, IX, XI, XII in plasmas with LA.

Reference	Presentation	Format
20-X9113	Vial	1 x 25 mg

Mixture of highly purified phospholipids for dilution.

## Components

- 1 glass vial x 25 mg














## Characteristics

Proportion of dioleoyl phosphatidyl serine: dioleoyl phosphatidyl choline (DOPS : DOPC) = 3 : 7.  
Much higher activity and better reproducibility than brain phospholipids.

DOPS : dioleoyl phosphatidyl serine  
DOPC : dioleoyl phosphatidyl choline


















# CHROMOGENIC SUBSTRATES

Reference	Designation	Click to go to the product sheet	Equivalence	PM (g/mol)	Km	WEB
<b>Chromogenic substrates for thrombin (FIIa)</b>						
61010238	→ pNAPEP-0238		equivalent S-2238™	625.6	7 µM	
61010216	→ pNAPEP-0216		equivalent Chromozym®TH	639.1	4.18 µM	
61038117	→ pNAPEP-8117		equivalent Pefachrome® TG	542.6	1.95 mM	
61038109	→ pNAPEP-8109		equivalent Pefachrome® TH 5251	638.7		
<b>Chromogenic substrates for activated Factor VII (VIIa)</b>						
61030779	→ pNAPEP-0779		equivalent Pefachrome® FVIIa	670.8	Km sans FT : 5 mM / Km avec FT : 0.97 mM	
<b>Chromogenic substrates for activated Factor IX (FIXa)</b>						
61039502-25	→ pNAPEP-9502		equivalent Pefachrome® FIXa	628.7	1.3 mM	
61030968	→ pNAPEP-0968		equivalent Pefachrome® FIXa 3960	660.71	0.997 mM	
<b>Chromogenic substrates for activated Factor X (FXa)</b>						
61011022	→ pNAPEP-1022		equivalent S-2222™	748.3	0.31 mM	
61031025	→ pNAPEP-1025		equivalent CBS 3139™	602.7		
61011032	→ pNAPEP-1032		equivalent S-2732™	797.3	0.35 mM	
61011065	→ pNAPEP-1065		equivalent S-2765™	714.6	0.1 mM	
61038503	→ pNAPEP-8503		equivalent Pefachrome® FXa 5279	608.7		
61038506	→ pNAPEP-8506		equivalent Pefachrome® FXa/LAL 5288	622.7	0.106 mM	






# CHROMOGENIC SUBSTRATES

Reference	Designation	Click to go to the product sheet	Equivalence	PM (g/mol)	Km	WEB
<b>Chromogenic substrates for activated Factor XI (FXIa)</b>						
61039041	→ pNAPEP-9041		equivalent Pefachrome® FXIa	728.8	0.266 mM	
<b>Chromogenic substrate for activated Factor XII (FXIIa)</b>						
61038111	→ pNAPEP-8111		Pefachrome® FXIIa/TH5253	740.7		
<b>Chromogenic substrates for C1-esterase</b>						
61038703	→ pNAPEP-8703		equivalent Pefachrome® C1E	715,80	23,1 µM	
<b>Chromogenic substrates for glandular kallikrein</b>						
61011266	→ pNAPEP-1266		equivalent S-2266™	579.51	1.2 mM	
<b>Chromogenic substrates for plasma kallikrein</b>						
8-080-03	→ Pefachrome®PK			652.70	7.48 µM	
61011902	→ pNAPEP-1902		equivalent S-2302™	611.5	0.22 mM	
<b>Chromogenic substrates for plasmin and plasminogen-SK</b>						
61011703	→ pNAPEP-1703		equivalent S-2403™	561.0	0.35 mM	
6101-1751	→ pNAPEP-1751		equivalent S-2251™	551.49	0.40 mM	
11-251L	→ SPECTROZYME® PL			652.8	35.8 µM	
<b>Chromogenic substrates for activated protein C (APC)</b>						
61011566	→ pNAPEP-1566		equivalent S-2366™	539	0.20 mM	
61038902	→ pNAPEP-8902		equivalent Pefachrome® PCa	773.8	0.303 mM	
<b>Chromogenic substrate for tryptase</b>						
61039035	→ pNAPEP-9035		equivalent Pefachrome® Tryp	634.7	0.014 mM	
<b>Chromogenic substrates for urokinase plasminogen activator (u-PA)</b>						
61011344	→ pNAPEP-1344		equivalent S-2444™	498.92	0.08 mM	
<b>Chromogenic substrates for tissue plasminogen activator (t-PA)</b>						
61011588	→ pNAPEP-1588		equivalent S-2288™	577.50	1.0 mM	
61039101	→ pNAPEP-9101		equivalent Pefachrome® tPA	642.7	0.28 mM	



# CHROMOGENIC SUBSTRATES

Reference	Designation	Click to go to the product sheet	Equivalence	PM (g/mol)	Km	WEB
<u>Chromogenic substrate for plasmin-streptokinase complex</u>						
61038305	→ pNAPEP-8305		equivalent Pefachrome®	680.8	0.4 mM	
<u>Chromogenic substrate for trypsin</u>						
61038401	→ pNAPEP-8401		equivalent Pefachrome® TRY 5274			
<u>Chromogenic substrate of Limulus Amebocyte Lysate (LAL)</u>						
61038506	→ pNAPEP-8506		equivalent Pefachrome® FXa/LAL 5288	622.7	0.106 mM	

# CHROMOGENIC SUBSTRATES

## Chromogenic substrates for thrombin (FIIa)

Thrombin chromogenic substrate

### pNAPEP-0238



#### Associated products

pNAPEP-0216

pNAPEP-8117

pNAPEP-8109

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61010238	Vial	1 x 25 mg

**Specific synthetic chromogenic THROMBIN substrate for the measurement of the activity thrombin in plasma (also prothrombin, antithrombin, PF3, heparin) : equivalent CHROMOGENIX S-2238™**

The chromogenic peptides are also used in quality control of pharmaceutical and other preparations. As we are manufacturer, we can supply you from milligram to gram.

Thrombin ( FIIa) substrate

Peptide sequence : H-D-Phe-Pip-Arg-pNA, 2HCl

Chemical structure : C<sub>27</sub>H<sub>36</sub>N<sub>8</sub>O<sub>5</sub>, 2HCl

Chemical name : H-D-phenylalanyl-L-pipecolyl-L-arginine-paranitroaniline dihydrochloride

Molecular Weight with 2HCl : 625.6 g/mol - without 2 HCl : 552.6 g/mol

CAS : 115388-96-0 Km : 7 μM -

pNA free ≤ 0.5 %-

Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.  
Material safety Data Sheet (MSDS) supplied.  
Prolonged stability following reconstitution (> 3 months).  
Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.  
On their C-termini they are modified so that upon



cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



# CHROMOGENIC SUBSTRATES

## Chromogenic substrates for thrombin (FIIa)

Thrombin chromogenic substrate

### pNAPEP-0216



#### Associated products

pNAPEP-0238

pNAPEP-8117

pNAPEP-8109

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61010216	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the activity thrombin in plasma: equivalent Chromozym®TH.**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : Tos-Gly-Pro-Arg-pNA, HCl

Chemical structure :  $C_{26}H_{34}N_8O_7S_1$ , HCl

Chemical name : Chlorhydrate de Tosyl-glycyl-(L)-prolyl-(L)-arginine-paranitroaniline

Molecular Weight with HCl : 639.12 g/mol - without HCl : 602.7 g/mol

Km : 4.18  $\mu$ M

pNA free  $\leq$  0.5 %

Purity grade  $\geq$  95 %

#### Advantages

Package Inserts, certificate of analysis supplied.

Material safety Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (> 3 months).

Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



# CHROMOGENIC SUBSTRATES

## Chromogenic substrates for thrombin (FIIa)

Thrombin chromogenic substrate

### pNAPEP-8117



#### Associated products

pNAPEP-0238

pNAPEP-0216

pNAPEP-8109

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61038117	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the activity thrombin in plasma with slow cleavage of the substrate : equivalent Pefachrome® TG. The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram..**

Peptide sequence : H-β-Ala-Gly-Arg-pNA, 2AcOH

Molecular Weight (+2AcOH) : 542.6 g/mol

Km : 1.95 mM

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied. Material safety Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (> 3 months).

Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.





# CHROMOGENIC SUBSTRATES

## Chromogenic substrates for thrombin (FIIa)

Thrombin chromogenic substrate

### pNAPEP-8109



#### Associated products

pNAPEP-0238

pNAPEP-0216

pNAPEP-8117

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61038109	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the activity thrombin in plasma : equivalent Pefachrome® TH 5251.**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : H-D-CHA-Ala-Arg-pNA, 2AcOH

Molecular Weight (+2AcOH) : 638.7

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.

Material safety Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (> 3 months).

Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.





## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for activated Factor VII (VIIa)

FVIIa chromogenic substrate

## pNAPEP-0779



### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61030779	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the FVIIa activity in plasma : equivalent Pefachrome® FVIIa.**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : CH<sub>3</sub>SO<sub>2</sub>-D-CHA-But-Arg-pNA, AcOH

Chemical structure : C<sub>26</sub>H<sub>42</sub>N<sub>8</sub>O<sub>7</sub>S, AcOH

Chemical name :

Methanesulfonyl-D-cyclohexylalanyl-L-α-aminobutyryl-L-arginine-paranitroaniline acetate

Molecular Weight with AcOH : 670.77 g/mol - without AcOH : 610.8 g/mol

CAS : BDBM13777

Km : 5.0 mM - TF / 5.07 mM + TF - pNA free ≤ 0.5 % - Purity grade ≥ 95 %

### Advantages

Package Inserts, certificate of analysis supplied.

Material safety Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (> 3 months).

Discount according to quantities.

### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for activated Factor IX (FIXa)

FIXa chromogenic substrate

## pNAPEP-9502



#### Associated products

pNAPEP-0968

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61039502-25	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the FIXa activity in plasma: equivalent Pefachrome® FIXa. The chromogenic peptides are also used in quality control of pharmaceutical and other preparations. As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : CH<sub>3</sub>SO<sub>2</sub>-D-CHG-Gly-Arg-pNA, AcOH

Chemical structure : C<sub>23</sub>H<sub>36</sub>N<sub>8</sub>O<sub>7</sub>S<sub>1</sub>, AcOH

Chemical name: Methylsulfonyl-(D)-cyclohexylglycyl-glycyl-arginine-paranitroaniline monoacetate

Molecular Weight with AcOH : 628.70 g/mol - without AcOH : 568.6 g/mol

Km : 1.3 mM - pNA free ≤ 0.5 % - Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.  
Material safety Data Sheet (MSDS) supplied.  
Prolonged stability following reconstitution (> 3 months).  
Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.  
On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.  
Stability after reconstitution > 1 year (3 years from date of manufacture)  
The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for activated Factor IX (FIXa)

FIXa chromogenic substrate

## pNAPEP-0968



#### Associated products

pNAPEP-9502

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates.

This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61030968	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the FIXa activity in plasma : equivalent Pefachrome® FIXa 3960.**  
**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : H-D-Leu-Phg-Arg-pNA, 2AcOH

Chemical structure:  $C_{26}H_{36}N_8O_5$ , 2AcOH

Chemical name : H-D-leucyl-L-phenylglycyl-L-arginine-paranitroaniline diacetate

Molecular Weight with 2AcOH = 660.71 g/mol - without 2AcOH = 540.6 g/mol

Km : 0.997 mM

pNA free content < 0.5 %

pNA free  $\leq$  0.5 %

Purity grade  $\geq$  95 % Reconstitute the vial according to recommendations of the certificate of analysis of the lot indicated on the vial.

#### Advantages

Package Inserts, certificate of analysis supplied.  
 Material safety Data Sheet (MSDS) supplied.  
 Prolonged stability following reconstitution (> 3 months).  
 Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.  
 On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.  
 Stability after reconstitution > 1 year (3 years from date of manufacture)  
 After reconstitution, the substrates are stable for 3 to 6 months between 2°C and 8°C.





## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for activated Factor X (FXa)

FXa chromogenic substrate

## pNAPEP-1022



#### Associated products

pNAPEP-1025

pNAPEP-1032

pNAPEP-1065

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61011022	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the FXa activity, also sensitive to trypsin : equivalent CHROMOGENIX S-2222™**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : Bz-Ile-Glu(OR)-Gly-Arg-pNA,HCl (R=H 50%; R=Me 50%)

Chemical structure : C<sub>32</sub>H<sub>43</sub>N<sub>9</sub>O<sub>9</sub>, HCl (R=H) / C<sub>33</sub>H<sub>45</sub>N<sub>9</sub>O<sub>9</sub>, HCl (R=CH<sub>3</sub>)

Chemical name : N-Benzoyl-L-isoleucyl-L-glutamyl-glycyl-L-arginine-para-nitroaniline hydrochloride and

N-Benzoyl-L-isoleucyl-L-glutamyl(methyl ester)-glycyl-L-arginine-para-nitroaniline hydrochloride

CAS : 59068-47-2

Molecular Weight (+HCl) : 734.3 (R=H) and 748.3 (R=CH<sub>3</sub>) g/mol

Km : 0.31 mM - pNA free ≤ 0.5 % - Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.

Material safety

Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (> 3 months).

Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for activated Factor X (FXa)

FXa chromogenic substrate

## pNAPEP-1025



#### Associated products

pNAPEP-1022

pNAPEP-1032

pNAPEP-1065

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61031025	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the FXa activity in plasma : equivalent CBS 3139™.**

The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.

As we are manufacturer, we can supply you from milligram to gram.

Peptide sequence : CH<sub>3</sub>SO<sub>2</sub>-(D)Leu-Gly-Arg-pNA, AcOH

Chemical structure : C<sub>21</sub>H<sub>34</sub>N<sub>8</sub>O<sub>7</sub>S, AcOH

Chemical name : Methanesulfonyl-D-leucyl-glycyl-L-arginine-paranitroaniline acetate

Molecular Weight with AcOH : 602.7 g/mol - without AcOH : 542.6 g/mol

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.

Material safety Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (> 3 months).

Discount according to quantities.

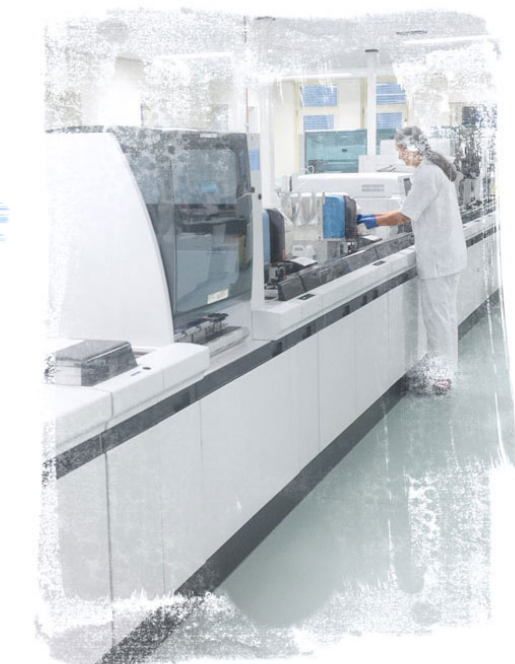
#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for activated Factor X (FXa)

FXa chromogenic substrate

## pNAPEP-1032



#### Associated products

pNAPEP-1022

pNAPEP-1025

pNAPEP-1065

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61011032	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the Fxa activity in plasma : equivalent CHROMOGENIX S-2732™**  
**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : Suc-Ile-Glu(γPip)-Gly-Arg-pNA, HCl

Chemical structure : C<sub>34</sub>H<sub>52</sub>N<sub>10</sub>O<sub>10</sub>, HCl

Chemical name : Succinyl-L-isoleucyl-L-(γ-piperidyl)glutamyl-glycyl-L-arginine-paranitroaniline hydrochloride

Molecular Weight with HCl : 797.30 g/mol - without HCl : 760.8 g/mol

CAS : 1379822-04-4

Km : 0.35 mM - pNA free ≤ 0.5 % - Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.  
 Material safety Data Sheet (MSDS) supplied.  
 Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.





## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for activated Factor X (FXa)

FXa chromogenic substrate

## pNAPEP-1065



#### Associated products

pNAPEP-1022

pNAPEP-1025

pNAPEP-1032

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61011065	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of FXa activity in plasma, also sensitive to trypsin : equivalent CHROMOGENIX S-2765™. pNAPEP-1065 is suitable for measuring FXa inhibition in heparin anti-FXa assays and antithrombin anti-FXa assays. The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : Z-(D)-Arg-Gly-Arg-pNA, 2HCl

Chemical structure :  $C_{28}H_{39}N_{11}O_7$ , 2HCl

Chemical structure : N- $\alpha$ -benzyloxycarbonyl-D-arginyl-L-glycyl-L-arginine-paranitroaniline dichloride

Molecular Weight (+2HCl) : 714.60 g/mol

CAS : 113711-77-6

Km : 0.1mM - pNA free  $\leq$  0.5 % - Purity grade  $\geq$  95 %

#### Advantages

Package Inserts, certificate of analysis supplied.  
Material safety Data Sheet (MSDS) supplied.  
Prolonged stability following reconstitution (> 3 months).  
Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.  
On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.  
Stability after reconstitution > 1 year (3 years from date of manufacture)  
The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for activated Factor X (FXa)

FXa chromogenic substrate

## pNAPEP-8503



#### Associated products

pNAPEP-1022

pNAPEP-1025

pNAPEP-1032

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61038503	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the FXa activity in plasma: equivalent Pefachrome® FXa 5279.**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : CH<sub>3</sub>OCO-D-CHG-Gly-Arg-pNA, AcOH

Chemical structure : C<sub>24</sub>H<sub>36</sub>N<sub>8</sub>O<sub>7</sub>, C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>

Chemical name : Methoxycarbonyl-D-cyclohexylglycyl-glycyl-arginine-paranitroanilide acetate

Molecular Weight (+AcOH) : 608.7 g/mol

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.

Material safety Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (3 months).

Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Storage in a closer container, protected from moisture, in the dark at +2/+8°C.

Shipment of product does not require cooling during the time of transportation.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for activated Factor X (FXa)

FXa chromogenic substrate / LAL

## pNAPEP-8506



#### Associated products

Pefachrome® FXa 2732  
Pefachrome® FXa 5277  
Pefachrome® FXa 5279

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61038506	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the FXa and Limulus Amebocyte Lysate (LAL) activity in plasma : equivalent Pefachrome® FXa/LAL 5288. The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : CH<sub>3</sub>OCO-D-CHA-Gly-Arg-pNA, AcOH

Chemical structure : C<sub>25</sub>H<sub>36</sub>N<sub>8</sub>O<sub>7</sub>, AcOH

Chemical name : Methyloxycarbonyl-(D)-cyclohexylalanyl-glycyl-arginine- p-nitroanilide monoacetate

Molecular Weight : without AcOH = 563.1 g/mol - with AcOH = 622.7 g/mol

Km : 0.106 mM

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.  
Material safety Data Sheet (MSDS) supplied.  
Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.





## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for activated Factor XI (FXIa)

FXIa chromogenic substrate

## pNAPEP-9041



#### Associated products

pNAPEP-1022

pNAPEP-1025

pNAPEP-1032

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61039041	Vial	1 g

**Specific synthetic chromogenic substrate for the measurement of FXIa activity in plasma : equivalent Pefachrome® FXIa.**  
**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : Z-Aad-Pro-Arg-pNA, AcOH

Molecular Weight (+AcOH) : 728.8 g/mol

Km : 0.266 mM

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.  
 Material safety Data Sheet (MSDS) supplied.  
 Prolonged stability following reconstitution (> 3 months).

Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrate for activated Factor XII (FXIIa)

FXIIa chromogenic substrate

## pNAPEP-8111



### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61038111	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the FXIIa activity in plasma : equivalent of Pefachrome® FXIIa/TH5253.**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : H-D-CHA-Gly-Arg-pNA, 2AcOH

Molecular Weight (+2AcOH) : 740.7 g/mol

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

### Advantages

Package Inserts, certificate of analysis supplied.  
Material safety Data Sheet (MSDS) supplied.  
Prolonged stability following reconstitution (> 3 months).  
Discount according to quantities.

### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



# CHROMOGENIC SUBSTRATES

## Chromogenic substrates for C1-esterase

C1-esterase chromogenic substrate

### pNAPEP-8703



#### Associated products

C1 Inhibitor Buffer

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

C1 INH is a regulatory protein that acts as an inhibitor of various serine proteases in the complement system, the kallikrein-kinin system, the coagulation cascade and in fibrinolysis.

Reference	Presentation	Format
61038703	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the C1-esterase activity in plasma, used for the determination of C1 INH : equivalent Pefachrome® C1E.**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : CH<sub>3</sub>CO-Lys(Cbo)-Gly-Arg-pNA, AcOH

Chemical structure : C<sub>32</sub>H<sub>45</sub>N<sub>9</sub>O<sub>10</sub>, AcOH

Chemical name : Methylcarbonyl-lysyl(ε-benzyloxycarbonyl)-glycyl-arginine-paranitroaniline monoacetate

Molecular Weight : With AcOH = 715,8 g/mol - without AcOH = 655,7 g/mol

Km : 23.1 μM

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.  
Material safety Data Sheet (MSDS) supplied.  
Prolonged stability following reconstitution (> 3 months).  
Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.





# CHROMOGENIC SUBSTRATES

## Chromogenic substrates for glandular kallikrein

Glandular kallikrein chromogenic substrate

### pNAPEP-1266



#### Associated products

pNAPEP-1902

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates.

This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61011266	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the glandular kallikrein activity : equivalent CHROMOGENIX S-2266™**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : H-D-Val-Leu-Arg-pNA, 2HCl

Chemical structure :  $C_{23}H_{38}N_8O_5$ , 2HCl

Chemical name : H-D-valyl-leucyl-L-arginine-paranitroaniline dihydrochloride

Molecular Weight (+2HCl) : 579.51 g/mol

CAS : 64816-14-4

Km : 1.2 mM

pNA free  $\leq$  0.5 %

Purity grade  $\geq$  95 %

#### Advantages

Package Inserts, certificate of analysis supplied.

Material safety Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (> 3 months).

Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for plasma kallikrein

Plasma kallikrein

## Pefachrome®PK



#### Associated products

pNAPEP-0238

pNAPEP-0216

pNAPEP-8117

#### Informations

The line of chromogenic peptide substrates is a range of high quality substrates, which allow to test protease serines.

They target enzymes involved in coagulation and fibrinolysis such as thrombin, Factor Xa, Factor XIIa, kallikrein, activated C protein, plasmin and plasminogen-SK.

These are synthetic peptides that react with proteolytic enzymes by releasing a colour that can be followed by spectrophotometry and whose intensity is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
8-080-03	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of plasma kallikrein activity.**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**We can supply further packaging on request.**

Peptide sequence : H-D-Abu-CHA-Arg-pNA, 2AcOH

Molecular Weight (+2AcOH) : 652.70 g/mol

Km : 7,48 µM

pNA free content < 0.5 %

Purity grade > 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.  
Material safety Data Sheet (MSDS) supplied.  
Prolonged stability following reconstitution (> 3 months).

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids.

Their structures can be protected in N-terminal to reduce undesirable degradation by aminopeptidases.

Their C-terminal ends are modified so that, during the cleavage of the amide bond, a chromogenic group is released.

The most commonly used group is p-nitroaniline (pNA), which absorbs light at a wavelength of 405 nm.



# CHROMOGENIC SUBSTRATES

## Chromogenic substrates for plasma kallikrein

Plasmatic kallikrein chromogenic substrate

### pNAPEP-1902



#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61011902	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of plasma kallikrein activity in plasma : equivalent CHROMOGENIX S-2302™**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : H-D-Pro-Phe-Arg-pNA, 2HCl

Chemical structure :  $C_{26}H_{34}N_8O_5$ , 2HCl

Chemical name : H-D-Prolyl-L-Phenylalanyl-L-Arginine-paranitroaniline dihydrochloride

Molecular Weight with 2HCl : 611.52 g/mol - Without 2HCl : 538.6 g/mol

CAS : 62354-56-7

Km : 0.22 mM

pNA free  $\leq$  0.5 %

Purity grade  $\geq$  95 %

#### Advantages

Package Inserts, certificate of analysis supplied.

Material safety Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (> 3 months).

Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.





## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for plasmin and plasminogen-SK

Plasmin chromogenic substrate

## pNAPEP-1703



#### Associated products

pNAPEP-1751

SPECTROZYME® PL

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61011703	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the plasmi activity and streptokinase activated plasminogen : equivalent CHROMOGENIX S-2403™**  
**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : pGlu-Phe-Lys-pNA, HCl

Chemical structure : C<sub>26</sub>H<sub>32</sub>N<sub>6</sub>O<sub>6</sub>, HCl

Chemical name : L-Pyroglutamyl-L-Phenylalanyl-L-Lysine-paranitroaniline hydrochloride

Molecular Weight : Without HCl = 524,6 g/mol - With HCl = 561,0 g/mol

Km : 0.35 mM - pNA free ≤ 0.5 % - Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.

Material safety Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (> 3 months).

Discount according to quantities.

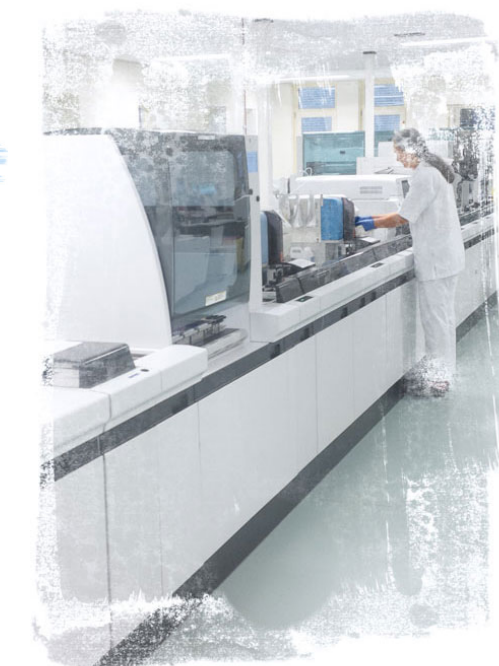
#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for plasmin and plasminogen-SK

Plasmin chromogenic substrate

## pNAPEP-1751



#### Associated products

pNAPEP-1703

SPECTROZYME® PL

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
6101-1751	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the streptokinase activated plasmin and plasminogen activity : equivalent CHROMOGENIX S-2251™**  
**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : H-D-Val-Leu-Lys-pNA, 2HCl

Chemical structure :  $C_{23}H_{38}N_6O_5$ , 2HCl

Chemical name : H-D-Valyl-L-Leucyl-L-Lysine-p-Nitroaniline dihydrochloride

Molecular Weight with 2HCl : 551.5 g/mol - without 2HCl : 478.6 g/mol

Km : 0.40 mM

pNA free  $\leq$  0.5 %

Purity grade  $\geq$  95 %

#### Advantages

Package Inserts, certificate of analysis supplied.

Material safety Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (> 3 months).

Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.





## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for plasmin and plasminogen-SK

Plasmin and plasminogen-SK

## SPECTROZYME® PL



Reference	Presentation	Format
11-251L	Vial	50 µmol

**Specific synthetic chromogenic substrate for the amidolytic test of plasmin and for reactions in which plasmin is generated or consumed.**

Peptide sequence : H-D-Nle-CHA-Lys-pNA, 2AcOH  
 Molecular Weight (+2AcOH) : 652.8 g/mol  
 Km : 35.8 µM  
 Extinction coefficient : 9650 M<sup>-1</sup>.cm<sup>-1</sup>  
 Purity : < 0.5% free  
 pNa Buffer : 20mM Tris, 200mM NaCl, 0.1% PEG 8000 pH7.4

### Advantages

The lyophilized presentation allows greater stability until the expiration date.

### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases. On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Lyophilized substrate which should be stored in the dark at room temperature, after reconstitution, store 1 week at room temperature in the dark, 2 months at 2-8 ° C and more than 6 months at -20 ° C. Aliquot and freeze and avoid freeze and thaw cycles.

## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for activated protein C (APC)

Activated protein C chromogenic substrate

## pNAPEP-1566



#### Associated products

pNAPEP-8902

#### Informations

Cryopep bénéficie d'une expertise de plus de 20 ans en tant que fabricant de la ligne pNAPEP® de substrats peptidiques chromogènes.

Il s'agit d'une gamme de substrats de haute qualité, qui permettent de tester les sérines protéases.

Ils ciblent les enzymes impliquées dans la coagulation et la fibrinolyse comme la thrombine, le Facteur Xa, le Facteur XIIIa, la kallikréine, la protéine C activée, la plasmine et le plasminogène-SK.

Certains de nos substrats chromogènes pNAPEP sont équivalents à ceux de la marque CHROMOGENIX, WERFEN, PENTAPHARM DSM ou DIAGNOSTICA STAGO.

Ce sont des peptides synthétiques qui réagissent avec des enzymes protéolytiques en libérant une couleur qui peut être suivie par spectrophotométrie et dont l'intensité est proportionnelle à l'activité protéolytique de l'enzyme.

Reference	Presentation	Format
61011566	Vial	1 x 25 mg
61011566-50	Flacon	1 x 50 mg

**Specific synthetic chromogenic substrate for the measurement of the activated protein C and FXIa in plasma : equivalent CHROMOGENIX S-2366™**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : pGlu-Pro-Arg-pNA, HCl

Chemical structure : C<sub>22</sub>H<sub>30</sub>N<sub>8</sub>O<sub>6</sub>, HCl

Chemical name : L-pyroGlutamyl-L-Prolyl-L-Arginine-paranitroaniline hydrochloride

Molecular Weight with HCl : 539.0 g/mol - without HCl : 502,5 g/mol

CAS : 72194-57-1

Km : 0.20 mM

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.

Material safety Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (> 3 months).

Discount according to quantities.

#### Characteristics

Typiquement, de tels substrats chromogènes sont composés de 3 à 5 acides aminés naturels ou artificiels. Leurs structures peuvent être protégées en N-terminal pour réduire la dégradation indésirable par les aminopeptidases.

Leurs extrémités C-terminales sont modifiées de sorte que, lors du clivage de la liaison amide, un groupe chromogène est libéré.

Le groupe le plus couramment utilisé est la p-nitroaniline (pNA) qui absorbe la lumière à une longueur d'onde de 405 nm.

Stabilité après reconstitution > 1 an (3 ans à partir de la date de fabrication)

Les substrats, après reconstitution avec de l'eau distillée sont stables 3 à 6 mois entre 2°C et 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for activated protein C (APC)

Activated protein C chromogenic substrate

## pNAPEP-8902



#### Associated products

Pefachrome® PCa

pNAPEP-1566

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61038902	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of activated protein C activity : equivalent Pefachrome® PCa.**  
**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : H-D-Lys(Cbo)-Pro-Arg-pNA, 2AcOH

Chemical structure :  $C_{31}H_{43}N_9O_7$ , 2AcOH

Chemical name : H-D-( $\gamma$ -carbobenzoyl)-lysyl-prolyl-arginine-paranitroanilide diacetate salt

Molecular Weight : without 2AcOH = 654.3 g/mol - with 2AcOH = 773.8 g/mol

Km : 0.303 mM

pNA free  $\leq$  0.5 %

Purity grade  $\geq$  95 %

#### Advantages

Package Inserts, certificate of analysis supplied.  
 Material safety Data Sheet (MSDS) supplied.  
 Prolonged stability following reconstitution (> 3 months).  
 Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.  
 On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.  
 Stability after reconstitution > 1 year (3 years from date of manufacture)  
 The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



# CHROMOGENIC SUBSTRATES

## Chromogenic substrate for tryptase

Tryptase chromogenic substrate

### pNAPEP-9035



Reference

61039035

Presentation

Vial

Format

1 x 25 mg

### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

**Specific synthetic chromogenic substrate for the measurement of the tryptase activity in plasma : equivalent Pefachrome® Tryp.**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : Tos-Gly-Pro-Lys-pNA, AcOH

Molecular Weight (+AcOH) : 634.7 g/mol

Km : 0.014 mM

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

### Advantages

Package Inserts, certificate of analysis supplied.  
Material safety Data Sheet (MSDS) supplied.  
Prolonged stability following reconstitution (> 3 months).  
Discount according to quantities.

### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.





## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for urokinase plasminogen activator (u-PA)

Urokinase chromogenic substrate

## pNAPEP-1344



### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61011344	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of urokinase activity in plasma : equivalent CHROMOGENIX S-2444™**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : pGlu-Gly-Arg-pNA, HCl

Chemical structure :  $C_{19}H_{26}N_8O_6$ , HCl

Chemical name : L-pyroglutamyl-L-glycyl-L-arginine-paranitroaniline hydrochloride

Molecular Weight (+HCl) : 498.92 g/mol

CAS : 115389-02-1

Km : 0.08 mM

pNA free  $\leq$  0.5 %

Purity grade  $\geq$  95 %

### Advantages

Package Inserts, certificate of analysis supplied.  
Material safety Data Sheet (MSDS) supplied.  
Prolonged stability following reconstitution (> 3 months).  
Discount according to quantities.

### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.  
On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.  
Stability after reconstitution > 1 year (3 years from date of manufacture)  
The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.





## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for tissue plasminogen activator (t-PA)

t-PA chromogenic substrate

## pNAPEP-1588



#### Associated products

pNAPEP-9101

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61011588	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the tissue plasminogen activator (t-PA) and other serine protease activity in plasma : equivalent CHROMOGENIX S-2288™**

The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.

As we are manufacturer, we can supply you from milligram to gram.

Peptide sequence: H-D-Ile-Pro-Arg-pNA, 2HCl

Chemical structure:  $C_{23}H_{36}N_8O_5$ , 2HCl

Chemical name: H-D-Isoleucyl-L-prolyl-L-arginine-paranitroaniline dihydrochloride

Molecular Weight with 2HCl : 577.5 g/mol - without 2HCl : 504.6 g/mol

Km : 1.0 mM

pNA free  $\leq$  0.5 %

Purity grade  $\geq$  95 %

#### Advantages

Package Inserts, certificate of analysis supplied.  
Material safety Data Sheet (MSDS) supplied.  
Prolonged stability following reconstitution (> 3 months).  
Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrates for tissue plasminogen activator (t-PA)

t-PA chromogenic substrate

## pNAPEP-9101



#### Associated products

pNAPEP-1588

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61039101	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the t-PA activity in plasma.**

**Different sensitivity for sc-t-PA (native, single chain) and tc-t-PA (active dual chain) : equivalent Pefachrome® tPA.**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : CH<sub>3</sub>SO<sub>2</sub>-D-CHA-Gly-Arg-pNA, AcOH

Chemical structure : C<sub>24</sub>H<sub>38</sub>N<sub>8</sub>O<sub>7</sub>S, C<sub>2</sub>H<sub>4</sub>O<sub>2</sub>

Chemical name: Methanesulfonyl-D-cyclohexylalanin-glycyl-L-arginine-paranitroanilin acetate

Molecular Weight (+AcOH) : 642.7 g/mol

Km : 0.28 mM - pNA free content ≤ 0.5 % - Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.

Material safety Data Sheet (MSDS) supplied.

Prolonged stability following reconstitution (3 months).

Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrate for plasmin-streptokinase complex

Plasmin streptokinase complex chromogenic substrate

## pNAPEP-8305



### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61038305	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the plasmin-streptokinase complex activity in plasma.**

**Determination of plasminogen levels : equivalent Pefachrome® PL-Strept.**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : H-D-Nle-CHA-Arg-pNA, 2AcOH

Molecular Weight (+2AcOH) : 680.8 g/mol

Km : 0.4 mM

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

### Advantages

Package Inserts, certificate of analysis supplied.  
Material safety Data Sheet (MSDS) supplied.  
Prolonged stability following reconstitution (> 3 months).  
Discount according to quantities.

### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.





# CHROMOGENIC SUBSTRATES

## Chromogenic substrate for trypsin

Trypsin chromogenic substrate

### pNAPEP-8401



#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61038401	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the activity of trypsin in plasma : equivalent Pefachrome® TRY 5274.**

**The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : Cbo-Val-Gly-Arg-pNA, AcOH

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.  
Material safety Data Sheet (MSDS) supplied.  
Prolonged stability following reconstitution (> 3 months).  
Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.

Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.



## CHROMOGENIC SUBSTRATES

### Chromogenic substrate of Limulus Amebocyte Lysate (LAL)

FXa chromogenic substrate / LAL

## pNAPEP-8506



#### Associated products

Pefachrome® FXa 2732  
Pefachrome® FXa 5277  
Pefachrome® FXa 5279

#### Informations

Over 20 years of expertise as manufacturer of the pNAPEP® line of chromogenic peptide substrates. This is a line of high quality substrates, which allow testing of serine proteinases.

Their focus is on enzymes involved in coagulation and fibrinolysis for thrombin, Factor Xa, Factor XIIIa, kallikrein, activated protein C, plasmin and plasminogen-SK.

Our chromogenic substrates pNAPEP are equivalent to the brand name CHROMOGENIX, WERFEN, PENTAPHARM DSM or DIAGNOSTICA STAGO.

These are synthetic peptides that react with proteolytic enzymes under formation of colour which can be followed spectrophotometrically and the intensity of which is proportional to the proteolytic activity of the enzyme.

Reference	Presentation	Format
61038506	Vial	1 x 25 mg

**Specific synthetic chromogenic substrate for the measurement of the FXa and Limulus Amebocyte Lysate (LAL) activity in plasma : equivalent Pefachrome® FXa/LAL 5288. The chromogenic peptides are also used in quality control of pharmaceutical and other preparations.**

**As we are manufacturer, we can supply you from milligram to gram.**

Peptide sequence : CH<sub>3</sub>OCO-D-CHA-Gly-Arg-pNA, AcOH

Chemical structure : C<sub>25</sub>H<sub>36</sub>N<sub>6</sub>O<sub>7</sub>, AcOH

Chemical name : Methyloxycarbonyl-(D)-cyclohexylalanyl-glycyl-arginine- p-nitroanilide monoacetate

Molecular Weight : without AcOH = 563.1 g/mol - with AcOH = 622.7 g/mol

Km : 0.106 mM

pNA free ≤ 0.5 %

Purity grade ≥ 95 %

#### Advantages

Package Inserts, certificate of analysis supplied.

Material safety Data Sheet (MSDS) supplied.

Discount according to quantities.

#### Characteristics

Typically, such chromogenic substrates are composed of 3 to 5 natural or artificial amino acids. They may be N-terminally protected to reduce undesired degradation by aminopeptidases.

On their C-termini they are modified so that upon cleavage of the amide bond a chromogenic group is released. Most commonly used groups are the p-nitroaniline (pNA) which absorbs light of the wavelength of 405 nm.












Stability after reconstitution > 1 year (3 years from date of manufacture)

The substrates, after reconstitution with distilled water, are stable for 3 to 6 months between 2°C and 8°C.





# COFACTORS

Reference	Designation	Click to go to the product sheet	PM (g/mol)	Extinction coefficient	WEB
<b>Factor V</b>					
9-HCV-0100-C	→ Human Factor V IgG free		330 000	9,6	
9-BCV-1100	→ Bovine Factor V		333 000	9.6	
9-HCV-0100	→ Human Factor V		330 000	9.6	
<b>Factor Va</b>					
9-BCVA-1110	→ Bovine Factor Va		168 000	17.4	
9-HCVA-0110	→ Human Factor Va		168 000	17.4	
<b>Von Willebrand Factor</b>					
9-HCVWF-0190	→ Human Von Willebrand Factor		260 000 to 1-20 x 10 <sup>6</sup>		
9-HCVWF-0191	→ Human Von Willebrand Factor (VIII free)		260 000 à 1-20 x 10 <sup>6</sup>		
<b>Fibronectin</b>					
9-HCFN-0170	→ Human fibronectin		550 000	14.0	
<b>Protein S</b>					
9-HCPS-0090	→ Human protein S		69 000	9.5	
<b>Thrombomodulin</b>					
9-RABTM-4202	→ Rabbit lung thrombomodulin		74 000	8.8	
6-THROMBOM-H-10	→ Thrombomodulin, human, recombinant		51 000	0.7	

## COFACTORS

## Factor V

## Human Factor V IgG free



Reference	Presentation	Format
9-HCV-0100-C	Vial	1 x 100 µg

## Informations

A cofactor is a chemical substance, which binds to a protein, and which is necessary for the biological activity of the latter. These proteins are often enzymes, and cofactors can be thought of as "helper molecules" aiding in biochemical transformations. Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

**Origin : Blood/ Human Plasma**  
**Formulation : Glycerol 50% / H<sub>2</sub>O (v/v)**  
**IgG free**

26 units/mg  
 MW (Da) : 330 000  
 Extinction coefficient : 9.6  
 Determination of activity : factor V clotting assay

## Advantages

The vast majority of coFactors is pure (without additives) with > 95 % purity SDS-PAGE.  
 Expiration date of one year from delivery.  
 Delivery in large quantities.  
 Discount according to quantities.

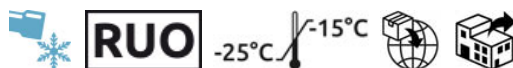
## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. Many of our preparations are formulated in 50 % (vol/vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C.  
 This preferred method of storage yields the greatest stability while still allowing access to the stock sample without repeated thawing and freezing steps.  
 All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20° C.  
 Temperatures lower than -30° C should be avoided in order to prevent a phase transition.  
 When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min).  
 The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time.

## COFACTORS

## Factor V

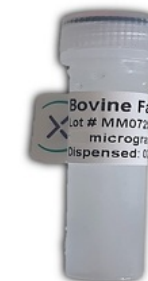
## Bovine Factor V



## Associated products

Human Factor V

Reference	Presentation	Format
9-BCV-1100	Vial	100 µg
9-BCV-1100-1	Vial	1 mg



## Informations

A cofactor is a chemical substance, which binds to a protein, and which is necessary for the biological activity of the latter. These proteins are often enzymes, and cofactors can be thought of as "helper molecules" aiding in biochemical transformations. Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Formulation : 50% Glycerol / H<sub>2</sub>O (v/v)

73 to 147 units/mg  
 MW(Da) : 333 000  
 Extinction coef. : 9.6  
 Determination of activity: coagulation test

## Advantages

The lyophilized presentation allows stability until the expiration date.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. Many of our preparations are formulated in 50 % (vol/vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest stability while still allowing access to the stock sample without repeated thawing and freezing steps. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20° C. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipe. Never allow protein solutions to remain at room temperature for excessive periods of time.

## COFACTORS

## Factor V

## Human Factor V



## Associated products

Bovine Factor V

Reference	Presentation	Format
9-HCV-0100	Vial	50 µg
9-HCV-0100-1	Vial	1 mg



## Informations

A cofactor is a chemical substance, which binds to a protein, and which is necessary for the biological activity of the latter.

These proteins are often enzymes, and cofactors can be thought of as "helper molecules" aiding in biochemical transformations. Factor V (FV) is a protein mainly synthesized by the liver.

It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin.

The FVa is neutralized by the PCa.

**Origin : Human Blood / Plasma**

**Buffer formulation : 50% Glycerol / H<sub>2</sub>O (v/v)**

29 to 84 units/mg

Molecular weight (Da) : 330 000

Extinction coef. : 9.6

Determination of activity: Factor V clotting assay

Structure: 1 subunit of 2196 amino acids

## Advantages

The vast majority of coFactors is pure (without additives) with > 95 % purity SDS-PAGE.

Expiration date of one year from delivery.

Delivery in large quantities.

Discount according to quantities.

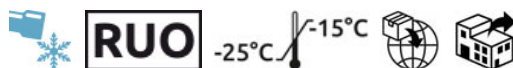
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## COFACTORS

## Factor Va

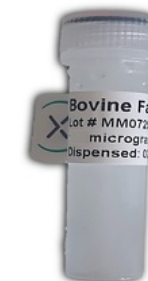
## Bovine Factor Va



## Associated products

Human Factor Va

Reference	Presentation	Format
9-BCVA-1110	Vial	100 µg
9-BCVA-1110-1	Vial	1 mg



## Informations

A cofactor is a chemical substance, which binds to a protein, and which is necessary for the biological activity of the latter.

These proteins are often enzymes, and cofactors can be thought of as "helper molecules" aiding in biochemical transformations.

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa.

It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Formulation : 50/50 (v/v) glycérol/H<sub>2</sub>O, 5 mM CaCl<sub>2</sub>

1 500 to 4 600 units/mg

MW(Da) : 168 000

Extinction coef. : 17.4

Determination of activity: coagulation test

Structure: 2 sub-units; heavy chain (94kDa) and light chain (74 kda)

## Advantages

The vast majority of coFactors is pure (without additives) with > 95 % purity SDS-PAGE.

Expiration date of one year from delivery

Delivery in large quantities

Discount according to quantities

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. Many of our preparations are formulated in 50 % (vol/vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C.

This preferred method of storage yields the greatest stability while still allowing access to the stock sample without repeated thawing and freezing steps. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20° C.

Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time.



## COFACTORS

## Factor Va

## Human Factor Va



## Associated products

Bovine Factor Va

## Informations

A cofactor is a chemical substance, which binds to a protein, and which is necessary for the biological activity of the latter.

These proteins are often enzymes, and cofactors can be thought of as "helper molecules" aiding in biochemical transformations.

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa.

It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin.

The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-HCVA-0110	Vial	50 µg
9-HCVA-0110-1	Vial	1 mg

**Origin : Human Blood / Plasma**

**Formulation : 50 % Glycerol / 5 mM CaCl<sub>2</sub> (v/v)**

**Structure: 2 sub-units; heavy chain (94kDa) and light chain (74 kda)**

1 900 to 4 600 units/mg

MW(Da) : 168 000

Coefficient d'extinction : 17.4

Determination of activity: coagulation test

## Advantages

The vast majority of coFactors is pure (without additives) with > 95 % purity SDS-PAGE.

Expiration date of one year from delivery.

Delivery in large quantities.

Discount according to quantities.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. Many of our preparations are formulated in 50 % (vol/vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest stability while still allowing access to the stock sample without repeated thawing and freezing steps. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20° C. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipe. Never allow protein solutions to remain at room temperature for excessive periods of time.



## COFACTORS

## Von Willebrand Factor

## Human Von Willebrand Factor



## Associated products

Human Von Willebrand Factor (VIII free)

Reference	Presentation	Format
9-HCVWF-0190	Vial	100 µg
9-HCVWF-0190-1	Vial	1 mg

## Informations

A cofactor is a chemical substance, which binds to a protein, and which is necessary for the biological activity of the latter. These proteins are often enzymes, and coFactors can be thought of as "helper molecules" aiding in biochemical transformations. VWF is composed of 15 to 20 multimers ranging in molecular weight from 500 kDa to 20,000 kDa and high molecular weight multimers are essential for biological activity. Its role is on the one hand to transport FVIII in the circulation to protect it from its degradation and on the other hand it participates in adhesion and platelet aggregation.

**Origin : Human Blood / Plasma**

**Buffer formulation : 25 mM Sodium citrate, 100 mM NaCl, 100 mM Glycine, pH 6.8**

Molecular weight (Da) : 260 000 (monomer) to 1-20 x 10<sup>6</sup> (multimers)

Structure: multimeric protein composed of identical subunits

## Advantages

The vast majority of coFactors is pure (without additives) with > 95 % purity SDS-PAGE. Expiration date of one year from delivery Delivery in large quantities Discount according to quantities

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. Never allow protein solutions to remain at room temperature for excessive periods of time.



## COFACTORS

## Von Willebrand Factor

## Human Von Willebrand Factor (VIII free)



## Associated products

Human Von Willebrand Factor

Reference	Presentation	Format
9-HCVWF-0191	Vial	100 µg
9-HCVWF-0191-1	Vial	1 mg

## Informations

A cofactor is a chemical substance, which binds to a protein, and which is necessary for the biological activity of the latter. These proteins are often enzymes, and coFactors can be thought of as "helper molecules" aiding in biochemical transformations. VWF is composed of 15 to 20 multimers ranging in molecular weight from 500 kDa to 20,000 kDa and high molecular weight multimers are essential for biological activity. Its role is on the one hand to transport FVIII in the circulation to protect it from its degradation and on the other hand it participates in adhesion and platelet aggregation.

**Origin : Human Blood / Plasma**

**Buffer formulation : 25 mM sodium citrate, 100 mM NaCl, 100 mM glycine, pH 6.8**

Molecular weight (Da) : 260 000 (monomer), 1-20 x 10<sup>6</sup> (multimers)

Structure: multimeric protein composed of identical subunits

Specific activity : < 1 % FVIII activity

## Advantages

The vast majority of coFactors is pure (without additives) with > 95 % purity SDS-PAGE. Expiration date of one year from delivery Delivery in large quantities Discount according to quantities

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. Never allow protein solutions to remain at room temperature for excessive periods of time.



## COFACTORS

## Fibronectin

## Human fibronectin



## Informations

A cofactor is a chemical substance, which binds to a protein, and which is necessary for the biological activity of the latter. These proteins are often enzymes, and cofactors can be thought of as "helper molecules" aiding in biochemical transformations. Fibronectin is a glycoprotein that exists in soluble form in plasma or in fibrillar form in the extracellular matrix. This protein modulates the interactions between cells and the extracellular matrix. In the absence of fibrinogen, fibronectin controls coagulation. Fibronectin can bind to fibrin to strengthen clots and make them more stable. Fibronectin has shown roles in platelet function, fibrinolysis, chemotaxis, phagocytosis, and opsonization. In certain pathologies such as trauma, sepsis, liver disorders, the fibronectin level may be low. Conversely, some cancers can have high fibronectin levels.

Reference	Presentation	Format
9-HCFN-0170	Vial	2 mg
9-HCFN-0170-1	Vial	1 mg

**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

MW(Da) : 550 000  
 Extinction coef. : 14  
 Point isoélectrique : approx. 5.0  
 Structure : hétérodimère

## Advantages

The vast majority of coFactors is pure (without additives) with > 95 % purity SDS-PAGE.  
 Expiration date of one year from delivery.  
 Delivery in large quantities.  
 Discount according to quantities.

## Characteristics

All cofactors are accompanied by certificates of analysis which describe the appropriate storage conditions. Never allow solutions to remain at room temperature for excessive periods of time.



## COFACTORS

## Protein S

## Human protein S



Reference	Presentation	Format
9-HCPS-0090	Vial	100 µg
9-HCPS-0090-1	Vial	1 mg



## Informations

A cofactor is a chemical substance, which binds to a protein, and which is necessary for the biological activity of the latter. These proteins are often enzymes, and coFactors can be thought of as "helper molecules" aiding in biochemical transformations. Protein S is a 69 kDa-dependent vitamin K glycoprotein synthesized by hepatocytes, endothelial cells, megakaryocytes and osteoblasts. It is a physiological inhibitor of coagulation.

Protein S acts as a cofactor of activated protein C by promoting the inactivation by proteolysis of factors Va and VIIIa.

Protein S inhibits the activation of prothrombin and the formation of the prothrombinase complex on phospholipids as well as the activation of FX.

## Human protein S

**Formulation : Glycérol 50% / H<sub>2</sub>O (v/v)**

MW(Da) : 69 000

Concentration : 6.1 mg/mL

Extinction coef. : 9.5

Isoelectric point : 5.0-5.5

Structure: single chain, Gla domain in NH<sub>2</sub>-terminal and 4 EGF domains

## Advantages

The vast majority of coFactors is pure (without additives) with > 95 % purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

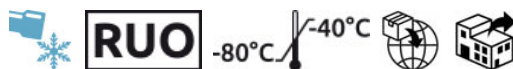
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## COFACTORS

## Thrombomodulin

## Rabbit lung thrombomodulin



## Associated products

Thrombomodulin, human, recombinant

## Informations

Purified rabbit lung endothelial cell surface protein co-factor for protein C activation as the thrombin-thrombomodulin-Ca<sup>2+</sup> complex. Rabbit lung thrombomodulin is a more efficient activator of human protein C than is human thrombomodulin. It is an essential reagent for valid assays of protein C functional activity in plasma.

The thrombomodulin is purified by a multi-step process that includes detergent solubilization from rabbit lung, salt fractionation, ionexchange chromatography and thrombin-sepharose affinity chromatography (Esmon NL, et al., Isolation of a membrane-bound cofactor for thrombin-catalyzed activation of protein C, Journal of Biological chemistry, 1982, 257:859-864).

In protein C activation, thrombomodulin must be used at a concentration such that all the thrombin remains complexed in order to avoid clotting (Francis Jr. RB, A simplified PTT-based protein C activity assay using the thrombin-thrombomodulin complex, Thrombosis Research, 1986, 37:337-344).

Reference	Presentation	Format
9-RABTM-4202	Vial	50 µg
9-RABTM-4202-1	Vial	1 mg

**Buffer formulation: 20 mM Tris; 150 mM NaCl, 0.05% PDOC (polidocanol), pH 7.4  
Purified rabbit lung**

500 to 1 800 units/mg

Molecular weight (Da): 74 000

Extinction coef.: 8.8

Structure: single chain, hydrophobic domain in NH<sub>2</sub>-terminal, 6 EGF domains, 1 domain rich in O-glycosylation, 1 transmembrane domain and a cytoplasmic domain in COOH-terminal.

## Advantages

The vast majority of coFactors is pure (without additives) with > 95 % purity SDS-PAGE. Expiration date of one year from delivery Delivery in large quantities Discount according to quantities

## Characteristics

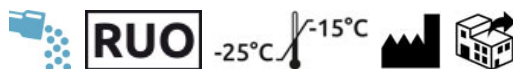
All cofactors are accompanied by certificates of analysis which describe the appropriate storage conditions. Never allow solutions to remain at room temperature for excessive periods of time.



## COFACTORS

## Thrombomodulin

## Thrombomodulin, human, recombinant



## Associated products

Rabbit lung thrombomodulin

Thrombomodulin, rabbit

## Informations

Thrombomodulin (TM, CD141, THBD) is an endothelial cell-expressed, transmembrane glycoprotein that can form a complex with the thrombin. The thrombomodulin/thrombin complex converts protein C to its activated form, protein Ca, which in turn proteolytically cleaves and deactivates factor Va and factor VIIIa, two essential components of the coagulation mechanism. This inactivation reduces the generation of additional thrombin, and thereby effectively prevents continued coagulation. Reduced levels of thrombomodulin can correlate with the pathogenesis of certain cardiovascular diseases, such as atherosclerosis and thrombosis. However, the serum levels of the truncated circulating form of thrombomodulin are typically elevated during inflammation and in the presence of various inflammatory-related diseases. The thrombomodulin protein contains 575 amino acids, including an 18 a.a. signal sequence, a 497 a.a. extracellular domain, a 24 a.a. transmembrane sequence, and a 36 a.a. cytoplasmic region. Recombinant Human Thrombomodulin is a 51.4 kDa, 491-amino-acid length glycoprotein containing the extracellular domain of thrombomodulin.

Reference	Presentation	Format
6-THROMBOM-H-10	Vial	10 µg
6-THROMBOM-H-100	Vial	100 µg

**Formulation: lyophilized protein from a solution of 100 µg / mL in a 50 mM Tris buffer, 100 mM NaCl, pH 7.4 with 100 mM of Mannitol.**

MW(Da) : 51 000

Extinction coef. : 0.7

## Advantages





















The lyophilized presentation allows greater stability until the expiration date.

## Characteristics





















Thrombomodulin truncated at the C-terminus, missing the putative transmembrane and cytoplasmic domains, approximately 38 amino acids. To be taken up with 100µL of distilled water to generate a solution of 100µg/mL. After reconstitution, aliquot and store the protein at -20°C to -80°C.






















# DEFICIENT PLASMAS

Reference	Designation	Click to go to the product sheet	WEB
<u>Immunodepleted deficient plasmas</u>			
6-FDPA2AP-10	→ a2-Antiplasmin Immunodepleted Deficient Human Plasma		
6-FDPAT-10	→ Antithrombin Immunodepleted Deficient Human Plasma		
6-FDPATHCFII-10	→ Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma		
6-FDPFIB-10	→ Fibrinogen Immunodepleted Deficient Human Plasma		
6-FDPFII-10	→ FII Immunodepleted Deficient Human Plasma		
6-FDPFIX-10	→ FIX Immunodepleted Deficient Human Plasma		
6-FDPFV-10	→ FV Immunodepleted Deficient Human Plasma		
6-FDPFVII-10	→ FVII Immunodepleted Deficient Human Plasma		
6-FDPFVIII-10	→ FVIII Immunodepleted Deficient Human Plasma		
6-FDPFVIII-VWF	→ FVIII Immunodepleted Deficient Human Plasma with VWF		
6-FDPFX-10	→ FX Immunodepleted Deficient Human Plasma		
6-FDPFXI-10	→ FXI Immunodepleted Deficient Human Plasma		
6-FDPFXII-10	→ FXII Immunodepleted Deficient Human Plasma		
6-FDPFXIII-10	→ FXIII Immunodepleted Deficient Human Plasma		
6-FDPHCII-10	→ Heparin Cofactor II Immunodepleted Deficient Human Plasma		
6-FDPKIN-10	→ Kininogen Immunodepleted Deficient Human Plasma		
6-FDPPAI-10	→ PAI-1 Immunodepleted Deficient Human Plasma		
6-FDPB2GP1-10	→ B2GP1 Immunodepleted Deficient Human Plasma		
6-FDPPK-10	→ Prekallikrein Immunodepleted Deficient Human Plasma		
9-FVIII-CD	→ Plasma Factor VIII deficient chemically depleted		

# DEFICIENT PLASMAS















Reference	Designation	Click to go to the product sheet	WEB
6-FDPPLG-10	→ Plasminogen Immunodepleted Deficient Human Plasma		
6-FDPPC-10	→ Protein C Immunodepleted Deficient Human Plasma		
6-FDPPCI-10	→ Protein C Inhibitor Immunodepleted Deficient Human Plasma		
6-FDPPS-10	→ Protein S Immunodepleted Deficient Human Plasma		
6-FDPTPA-10	→ t-PA Immunodepleted Deficient Human Plasma		
6-FDPTPAPAI-10	→ t-PA/PAI-1 Immunodepleted Deficient Human Plasma		
6-FDPTAFI-10	→ TAFI Immunodepleted Deficient Human Plasma		
6-FDPVW-10	→ VWF Immunodepleted Deficient Human Plasma		
<b>Congenital deficient plasmas (Bottles)</b>			
6-PPD08C-INH	→ Human FVIII congenital deficient plasma with Anti-VIII inhibitor (Bethesda)		
6-PPD02C	→ Human Factor II congenital deficient plasma >5%		
6-PPD05C-S	→ Human Factor V congenital deficient plasma (severe <1%)		
6-PPD05C	→ Human Factor V congenital deficient plasma >5%		
6-PPD07C-S	→ Human Factor VII congenital deficient plasma (severe <1%)		
6-PPD07C	→ Human Factor VII congenital deficient plasma >5%		
6-PPD08C-S	→ Human Factor VIII congenital deficient plasma (severe <1%)		
6-PPD08C	→ Human Factor VIII congenital deficient plasma >5%		
6-PPD09C	→ Human Factor IX congenital deficient plasma >5%		
6-PPD09C-S	→ Human Factor IX congenital deficient plasma (severe <1%)		
6-PPD10C	→ Human Factor X congenital deficient plasma >5%		
6-PPD10C-S	→ Human Factor X congenital deficient plasma (severe <1%)		

# DEFICIENT PLASMAS

Reference	Designation	Click to go to the product sheet	WEB
6-PPD11C	→ Human Factor XI congenital deficient plasma >5%		
6-PPD11C-S	→ Human Factor XI congenital deficient plasma (severe <1%)		
6-PPDATC	→ Human Antithrombin congenital deficient plasma		
6-PPDPLGC	→ Human Plasminogen congenital deficient plasma		
6-PPDPCC	→ Human Protein C congenital deficient plasma		
6-PPDPSC	→ Protein S human deficient plasma (congenital)		
6-PPDA2APC	→ Alpha-2-antiplasmin human deficient plasma (congenital)		
6-PPDKINC	→ High molecular weight kininogen human deficient plasma (congenital)		
6-PPD12C	→ Human Factor XII congenital deficient plasma >5%		
6-PPD12C-S	→ Human Factor XII congenital deficient plasma (severe <1%)		
6-PPD13C	→ Human Factor XIII congenital deficient plasma >5%		
6-PPD13C-S	→ Human Factor XIII congenital deficient plasma (severe <1%)		
<b>Acquired deficient plasmas (Bottles)</b>			
6-PPDATA	→ Antithrombin human deficient plasma (acquired)		
6-PPDPLGA	→ Plasminogen human deficient plasma (acquired)		
6-PPDPKA	→ Prekallikrein human deficient plasma (acquired)		
6-PPDPCA	→ Protein C human deficient plasma (acquired)		
6-PPDPSA	→ Protein S human deficient plasma (acquired)		
6-PPDA2APA	→ Human plasma deficient in alpha-2-antiplasmin (acquired)		
6-PPDKINA	→ High molecular weight kininogen human deficient plasma (acquired)		



# DEFICIENT PLASMAS

Reference	Designation	Click to go to the product sheet	WEB
<u>Congenital deficient plasmas (Kits)</u>			
7-0500	→ Human Factor V congenital Deficient Plasma		
7-0700	→ Human Factor VII congenital Deficient Plasma		
7-0800	→ Human Factor VIII congenital Deficient Plasma		
7-1800	→ Human Factor VIII congenital Deficient Plasma with inhibitor		
7-0900	→ Human Factor IX congenital Deficient Plasma		
7-1000	→ Human Factor X congenital Deficient Plasma		
7-1100	→ Human Factor XI congenital Deficient Plasma		
7-1200	→ Human Factor XII congenital Deficient Plasma		
7-1300-1	→ Human Factor XIII congenital Deficient Plasma		
7-1700	→ Human Prekallikrein congenital Deficient Plasma		
7-1401	→ Deficient Human Plasma in Native VWF (VWD Type 1)		
7-1404	→ Deficient Human Plasma in Native VWF (VWD Type 2A)		
7-1402	→ Deficient Human Plasma in Native VWF (VWD Type 2B)		
7-1403	→ Deficient Human Plasma in Native VWF (VWD Type 3)		

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

# $\alpha$ 2-Antiplasmin Immunodepleted Deficient Human Plasma



## Associated products

Antithrombin deficient plasma immuno depleted

Factor IX immuno depleted deficient plasma

Factor V immuno depleted deficient plasma

## Informations

$\alpha$ 2-antiplasmin ( $\alpha$ 2-antiplasmin or  $\alpha$ 2-AP) is the main inhibitor of plasmin, the key enzyme in fibrinolysis.

It binds to FXIII and to fibrin, allowing the stabilization of the thrombus.

Reference	Presentation	Format
6-FDPA2AP	Bottle	1 x 100 mL
6-FDPA2AP-10	Kit	10 x 1.0 mL

### Immunodepleted Deficient Human Plasma for $\alpha$ 2-Antiplasmin assay.

Pool of normal citrated plasmas depleted in  $\alpha$ 2-antiplasmin ( $\alpha$ 2AP) by anti- $\alpha$ 2AP antibodies grafted on agarose gel. Contains 20 mM Hepes buffer.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives.
- No reconstitution error.
- No plasma alteration linked to freeze-drying.
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Plasmas frais congelés

## Antithrombin Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin deficient plasma immuno depleted

Factor IX immuno depleted deficient plasma

## Informations

Antithrombin is a glycoprotein of the serpin family, synthesized by the liver with a half-life of 3 days. It is the most powerful of the physiological coagulation inhibitors.

It mainly inhibits thrombin but also at a lower level FIXa, FXa, FXIa. Its inhibitory action is amplified in the presence of heparin or heparan sulphate.

Reference	Presentation	Format
6-FDPAT	Bottle	1 x 100 mL
6-FDPAT-10	Kit	10 x 1.0 mL

**Immunodepleted deficient plasma for antithrombin (AT III) assay.**

Normal citrated human plasma depleted of antithrombin using antibodies directed to antithrombin immobilized on agarose beads. Plasma contains 20 mM Hepes.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

# Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Fibrinogen Immunodepleted Deficient Human Plasma

## Reference

6-FDPATHCFII

6-FDPATHCFII-10

## Presentation

Bottle

Kit

## Format

1 x 100 mL

10 x 1.0 mL

### Immunodepleted deficient plasma for heparin cofactor II assay.

Human plasma immuno-depleted in antithrombin complex and heparin cofactor II and buffered with 20mM HEPES.

## Informations

Antithrombin is a major inhibitor of serine proteases, it acts mainly on thrombin and FXa as well as on FIX, FXI and FXII, the inhibition of which is catalyzed by heparin.

The second heparin cofactor is a serine protease inhibitor. It inhibits thrombin, chymotrypsin and other enzymes of the same group.

Its rate of inhibition is amplified in the presence of heparin.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## Fibrinogen Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Kininogen Immunodepleted Deficient Human Plasma

## Informations

Fibrinogen (Factor I) is a plasma soluble glycoprotein that is synthesized by the liver at a size of 340 kDa and circulating at a concentration of 2.6 to 3 mg/mL.

Fibrinogen is a dimer bound by disulfide bridges composed of 3 pairs of polypeptide chains not identical. Under the action of thrombin, fibrinogen is converted into fibrin. In combination with FXIII, calcium ions, fibrin forms a stable network that ensures coagulation.

Reference	Presentation	Format
6-FDPFIB	Bottle	1 x 100 mL
6-FDPFIB-10	Kit	10 x 1.0 mL

**Plasma deficient for fibrinogen assay.**

Pooled normal citrated human plasma defibrinated under controlled conditions, using purified human thrombin.

Plasma contains 20mM Hepes buffer.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use



## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## FII Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Reference

6-FDPFII

6-FDPFII-10

## Presentation

Bottle

Kit

## Format

1 x 100 mL

10 x 1.0 mL

**Plasma deficient for Factor II assay.**

Plasma frozen, immunodepleted, poor in platelets and certified to have less than 1% in FII. It is deficient in both antigenic and functional assay.

## Informations

Factor II or prothrombin is the precursor protein of thrombin, the key enzyme in coagulation.

Prothrombin is synthesized by the liver and is dependent on vitamin K.

FII is activated to thrombin by the prothrombinase complex.

Its half-life is 50 to 120 hours.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the element considered, both for the antigenic and functional assay in haemostasis. This box is intended for research use.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasma

## FIX Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Reference

6-FDPPFIX

6-FDPPFIX-10

## Presentation

Bottle

Kit

## Format

1 x 100 mL

10 x 1.0 mL

**Plasma deficient for Factor IX assay.**

Plasma frozen, immunodepleted, poor in platelets and certified to have less than 1% in FIX. It is deficient in both antigenic and functional assay.

## Informations

FIX (FIX) is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated to FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium. A person who is deficient in FIX has hemophilia B.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the element considered, both for the antigenic and functional assay in haemostasis. This box is intended for research use.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## FV Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa.

With FXa, it forms a complex which, in the presence of phospholipids and calcium, activates FII into thrombin.

The FVa is neutralized by the PCa. Its plasma half-life is 12 to 36 hours.

Reference	Presentation	Format
6-FDPFV	Bottle	1 x 100 mL
6-FDPFV-10	Kit	10 x 1.0 mL

**Plasma deficient for Factor V assay.**

Plasma frozen, immunodepleted, poor in platelets and certified to have less than 1% in FV. It is deficient in both antigenic and functional assay.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the element considered, both for the antigenic and functional assay in haemostasis. This box is intended for research use.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## FVII Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Informations

Factor VII (FVII) is a glycoprotein synthesized by the liver, vitamin k dependent. When tissue factor (TF) appears on the surface of damaged, abnormal or activated vascular endothelium, FVIIa associates with it, initiating the extrinsic pathway of coagulation.

The FT-FVIIa complex activates the FX in FXa and the FIX in FIXa.

Reference	Presentation	Format
6-FDPFVII	Bottle	1 x 100 mL
6-FDPFVII-10	Kit	10 x 1.0 mL

**Plasma deficient for Factor VII assay.**

Plasma frozen, immunodepleted, poor in platelets and certified to have less than 1% in FV. It is deficient in both antigenic and functional assay.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the element considered, both for the antigenic and functional assay in haemostasis. This box is intended for research use.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## FVIII Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Reference

6-FDPFVIII

6-FDPFVIII-10

## Presentation

Bottle

Kit

## Format

1 x 100 mL

10 x 1.0 mL

**Plasma deficient for Factor VIII assay.**

Plasma frozen, immunodepleted, poor in platelets and certified to have less than 1% in FVIII. It is deficient in both antigenic and functional assay.

## Informations

Factor VIII (FVIII) is a glycoprotein mainly synthesized by the liver. It circulates in the plasma in the form bound to VWF which protects it from rapid proteolytic degradation.

It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa. A patient who is deficient in FVIII has hemophilia A.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the element considered, both for the antigenic and functional assay in haemostasis. This box is intended for research use.



## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

FVIII Immunodepleted Deficient Human Plasma  
with VWF

## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Informations

Factor VIII is a glycoprotein with a molecular weight of 250,000 Da synthesized mainly by the liver. It circulates in the plasma in the form bound to VWF which protects it from rapid proteolytic degradation.

It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa. A patient who is deficient in FVIII has hemophilia A.

Reference	Presentation	Format
6-FDPFVIII-VWF	Bottle	1 x 100 mL
6-FDPFVIII-VWF-50	Bottle	1 x 50 mL
6-FDPFVIII-VWF-500	Bottle	1 x 500 mL

**Human plasma immunodepleted of Factor VIII with a normal level of Factor von Willebrand (VWF), used for the search for inhibitors of Factor VIII. Frozen and poor in platelets.**

Human FVIII deficient plasma is produced from a pool of human normal citrated plasma, immunodepleted to obtain a deficiency in factor VIII with VIII levels (antigen and activity) <1% while VWF levels (antigen and activity) are >50%.

## Components

- 1 bottle of minimum 100 mL of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying

## Characteristics

Frozen, immuno-depleted plasmas are certified to have less than 1% for the element considered, both for the antigenic and functional assay in haemostasis. Intended for research use.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## FX Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Informations

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation.

It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids.

FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
6-FDPFX	Bottle	1 x 100 mL
6-FDPFX-10	Kit	10 x 1.0 mL

**Plasma deficient for Factor X assay.**

Plasma frozen, immunodepleted, poor in platelets and certified to have less than 1% in FX. It is deficient in both antigenic and functional assay.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the element considered, both for the antigenic and functional assay in haemostasis. This box is intended for research use.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## FXI Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Reference

6-FDPFXI

6-FDPFXI-10

## Presentation

Bottle

Kit

## Format

1 x 100 mL

10 x 1.0 mL

**Plasma deficient for Factor XI assay.**

Plasma frozen, immunodepleted, poor in platelets and certified to have less than 1% in FXI. It is deficient in both antigenic and functional assay.

## Informations

Factor XI (FXI) is a protein synthesized by the liver. It participates in the contact phase which initiates the intrinsic pathway of coagulation. It is activated by FXIIa to factor FXIa which will itself activate FIX in the presence of calcium ions.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the element considered, both for the antigenic and functional assay in haemostasis. This box is intended for research use.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## FXII Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Informations

Factor XII (FXII) is a glycoprotein synthesized in the evening. FXII participates in the contact phase which initiates the intrinsic pathway of coagulation. Activated on contact with a negatively charged surface, it becomes capable of activating prekallikrein and kallikrein (amplified by KHPM). Activated FXI to FXIa in the presence of KHPM. The FXIa thus formed activates the FXII in FXIIa, amplifying the reaction.

Reference	Presentation	Format
6-FDPFXII	Bottle	1 x 100 mL
6-FDPFXII-10	Kit	10 x 1.0 mL

**Plasma deficient for Factor XII assay.**

Plasma frozen, immunodepleted, poor in platelets and certified to have less than 1% in FXII. It is deficient in both antigenic and functional assay.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the element considered, both for the antigenic and functional assay in haemostasis. This box is intended for research use.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## FXIII Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Informations

FXIII (FXIII) or fibrin stabilization factor is the zymogen of a transglutaminase. FXIII is activated by thrombin, it intervenes in the final phase of fibrin formation to stabilize the fibrin clot. It is also involved in the phenomena of tissue repair and scarring by allowing the association of collagen and fibronectin.

There are constitutional deficits in FXIII which are autosomal recessive inheritance. The severe forms are associated with a hemorrhagic syndrome. Acquired FXIII deficiency due to anti-FXIII autoantibodies is also a very important cause of bleeding diathesis.

The consumption of FXIII in various diseases (malignant infections, Crohn's disease, Henoch-Schoenlein purpura, major surgery, ...) usually results from a moderate drop in the level of FXIII.

Reference	Presentation	Format
6-FDPFXIII	Bottle	1 x 100 mL
6-FDPFXIII-10	Kit	10 x 1.0 mL

**Plasma deficient for Factor XIII assay.**

Plasma frozen, immunodepleted, poor in platelets and certified to have less than 1% in FXIII. It is deficient in both antigenic and functional assay.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the element considered, both for the antigenic and functional assay in haemostasis. This box is intended for research use.



## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

# Heparin Cofactor II Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Fibrinogen Immunodepleted Deficient Human Plasma

## Informations

The second heparin cofactor is a serine protease inhibitor. It inhibits thrombin, chymotrypsin and other enzymes of the same group. Its rate of inhibition is amplified in the presence of heparin.

Reference	Presentation	Format
6-FDPHCII	Bottle	1 x 100 mL
6-FDPHCII-10	Kit	10 x 1.0 mL

### Immunodepleted deficient plasma for heparin cofactor II (HCII).

Human plasma immunodepleted in heparin cofactor II and buffered with 20 mM HEPES.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## Kininogen Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin deficient plasma immuno depleted

## Informations

High molecular weight kininogen is a glycoprotein acting as a cofactor in the initiation of coagulation.

Reference	Presentation	Format
6-FDPKIN	Bottle	1 x 100 mL
6-FDPKIN-10	Kit	10 x 1.0 mL

**Pool of normal plasmas immunodepleted in kininogen by kininogen-specific antibodies grafted onto agarose gels and supplemented with purified prekallikrein to achieve normal prekallikrein activity ( $\geq 50\%$ ).  
Contains 20 mM HEPES buffer.**

Human plasma immuno-depleted in kininogen and buffered with 20mM HEPES.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives.
- No reconstitution error.
- No plasma alteration linked to freeze-drying.
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## PAI-1 Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Informations

Plasminogen activator inhibitor (PAI-1) is a glycoprotein, the main inhibitor of t-PA and u-PA. It plays an important role in controlling excessive fibrinolysis. PAI-1 is mainly synthesized by vascular endothelial cells, as well as by other cells (hepatocyte, SMC, fibroblasts...). It circulates in plasma in 3 forms: an active form bound to vitronectin, a latent free form and an inactive form. By inhibiting t-PA and u-PA, PAI-1 limits plasminogen activation and controls fibrinous thrombus degradation.

Reference	Presentation	Format
6-FDPPAI	Bottle	1 x 100 mL
6-FDPPAI-10	Kit	10 x 1.0 mL

**Immunodepleted deficient plasma for PAI-1 assay.**

Plasminogen activator inhibitor 1 (PAI-1) immunodepleted human plasma buffered with 20mM HEPES.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No deterioration of plasmas linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## B2GP1 Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Informations

$\beta$ 2-glycoprotein 1, also known as Beta-2 glycoprotein 1 and Apolipoprotein H (Apo-H), is a 38 kDa multifunctional plasma protein that in humans is encoded by the APOH gene. One of its functions is to bind cardiolipin.

Reference	Presentation	Format
6-FDPB2GP1	Bottle	1 x 100 mL
6-FDPB2GP1-10	Kit	10 x 1.0 mL

**Immunodepleted deficient plasma for  $\beta$ 2 glycoprotein 1 (B2GP1) assay.**

Citrated normal human plasma depleted in  $\beta$ 2 Glycoprotein 1 (B2GP1, also known as APOH) obtained by affinity immunoabsorption by antibodies directed specifically against B2GP1. Contains 20 mM Hepes buffer.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the element considered, both for the antigenic and functional assay in haemostasis. This box is intended for research use.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh Frozen Plasmas

## Prekallikrein Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Reference

6-FDPPK

6-FDPPK-10

## Presentation

Bottle

Kit

## Format

1 x 100 mL

10 x 1.0 mL

**Immunodepleted deficient plasma for the determination of prekallikrein.**

Citrated normal human plasma depleted in prekallikrein by antibodies specific to prekallikrein grafted on agarose gels. Contains 20 mM Hepes buffer.

## Informations

Prekallikrein is a glycoprotein, zymogen of serine protease. Non-covalently complexed with high molecular weight kininogen.

Prekallikrein participates in the activation of coagulation, fibrinolysis, generation of kinins and inflammatory phenomena.

It is activated into kallikrein by FXIIa.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No plasma alteration linked to freeze-drying
- Ready to use after defrosting (4 min at 37° C)
- Cryotubes ready to use after thawing (4 min at 37° C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use



## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

## Plasma Factor VIII deficient chemically depleted



## Associated products

Human Factor VIII congenital deficient plasma (severe <1%)

Human Factor VIII congenital deficient plasma >5%

## Informations

Factor VIII is a glycoprotein mainly synthesized by the liver. It circulates in the plasma as bound to VWF which protects it from rapid proteolytic degradation.

It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa.

A patient who is deficient in FVIII has hemophilia A.

Reference	Presentation	Format
9-FVIII-CD	Vial	from 50 mL

**Plasma deficient for the determination of Factor VIII.**

## Advantages

Reduces the time needed to set up your test protocols.

Ready to use after thawing.

## Characteristics

This plasma is chemically depleted and assayed at less than 1% for the specific factor.

Freezing the plasmas at -80 °C makes it possible to keep the matrix perfectly intact and to avoid reconstitution.

Our packages contain dry ice for transport.

No additives or preservatives.

Expiration date > 1 year.

Plastic bottles.



## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh frozen plasmas

## Plasminogen Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Reference

6-FDPPLG

6-FDPPLG-10

## Presentation

Bottle

Kit

## Format

1 x 100 mL

10 x 1.0 mL

**Immunodepleted deficient plasma deficient for plasminogen assay**

Pooled normal citrated human plasma depleted of plasminogen using antibodies directed to plasminogen immobilized on agarose beads. Plasma contains 20 mM Hepes.

## Informations

Plasminogen is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea.

It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No deterioration of plasmas linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh frozen plasmas

## Protein C Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Reference

6-FDPPC

6-FDPPC-10

## Presentation

Bottle

Kit

## Format

1 x 100 mL

10 x 1.0 mL

## Immunodepleted deficient plasma for protein C assay

Pooled normal citrated human plasma depleted of protein C using antibodies directed to protein C immobilized on agarose beads. Plasma contains 20 mM Hepes.

## Informations

Protein C is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. CP is at the center of a physiological system that inhibits coagulation: the anticoagulant system of protein C. Thrombin associated with thrombomodulin loses its procoagulant properties at the same time as it activates PC to active protein C (PCa).

PCa in the presence of protein S, calcium and phospholipids is capable of cleaving FVa and FVIIIa blocking the amplification loop of thrombin generation.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No deterioration of plasmas linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh frozen plasmas

## Protein C Inhibitor Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

Reference	Presentation	Format
6-FDPPCI	Bottle	1 x 100 mL
6-FDPPCI-10	Kit	10 x 1.0 mL

**Immunodepleted deficient plasma for protein C inhibitor assay**

Human plasma immunodepleted in protein C and buffered with 20mM HEPES.

## Informations

Protein C inhibitor (PCI) is a plasma serine protease which primarily inhibits protein C but also inhibits thrombin, FXa, t-PA, trypsin, chymotrypsin. Its action is amplified in the presence of high concentrations of heparin.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No deterioration of plasmas linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh frozen plasmas

## Protein S Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Reference

6-FDPPS

6-FDPPS-10

## Presentation

Bottle

Kit

## Format

1 x 100 mL

10 x 1.0 mL

**Immunodepleted deficient plasma deficient for protein S assay.**

Pooled normal citrated human plasma depleted of protein S using antibodies directed to protein S immobilized on agarose beads. Plasma contains 20 mM Hepes.

## Informations

Protein S is a 69 kDa dependent vitamin K glycoprotein synthesized by hepatocytes, endothelial cells, megakaryocytes and osteoblasts. It is a physiological inhibitor of coagulation. It acts as a cofactor of activated protein C by promoting inactivation by proteolysis of FVa and FVIIIa. It inhibits the activation of prothrombin and the formation of the prothrombinase complex on phospholipids as well as the activation of FX.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No deterioration of plasmas linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use



## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh frozen plasmas

## t-PA Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Informations

Tissue plasminogen activator (t-PA) is a serine esterase that plays a key role in the fibrinolysis system. It is present in plasma, 95% bound to PAI-1, in platelets and in some tissues.

In plasma, the enzymatic activity of t-PA on plasminogen is very low, it is amplified 200 to 400 times when t-PA and plasminogen are adsorbed to fibrin.

Reference	Presentation	Format
6-FDPTPA	Bottle	1 x 100 mL
6-FDPTPA-10	Kit	10 x 1.0 mL

**Immunodepleted deficient plasma for t-PA assay.**

Human plasma immuno-depleted in t-PA and buffered with 20mM HEPES

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No deterioration of plasmas linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh frozen plasmas

## t-PA/PAI-1 Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

Reference	Presentation	Format
6-FDPTPAPAI	Bottle	1 x 100 mL
6-FDPTPAPAI-10	Kit	10 x 1.0 mL

## Immunodepleted deficient plasma for t-PA / PAI-1 assay

Human plasma immuno-depleted of the t-PA / PAI-1 complex then buffered with 20 mM HEPES

## Informations

Tissue plasminogen activator (t-PA) is a serine esterase that plays a key role in the fibrinolysis system. It is present in plasma, 95% bound to PAI-1, in platelets and in some tissues. In plasma, the enzymatic activity of t-PA on plasminogen is very low, it is amplified 200 to 400 times when t-PA and plasminogen are adsorbed to fibrin.

Plasminogen activator inhibitor (PAI-1) is a glycoprotein, the primary inhibitor of t-PA and u-PA. It plays an important role in controlling excessive fibrinolysis. PAI-1 is mainly synthesized by vascular endothelial cells, as well as by other cells (hepatocyte, CML, fibroblasts, etc.). It circulates in plasma in 3 forms: an active form linked to vitronectin, a latent free form and an inactive form. By inhibiting t-PA and u-PA, PAI-1 limits the activation of plasminogen and controls the degradation of fibrinous thrombus.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No deterioration of plasmas linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

The frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic assay and for functional hemostasis.

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh frozen plasmas

## TAFI Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Reference

6-FDPTAFI

6-FDPTAFI-10

## Presentation

Bottle

Kit

## Format

1 x 100 mL

10 x 1.0 mL

**Plasma deficient for thrombin activatable fibrinolysis inhibitor (TAFI) assay.**

Pooled normal citrated human plasma depleted of TAFI using antibodies directed to TAFI immobilized on agarose beads. Plasma contains 20 mM Heps.

## Informations

TAFI (Thrombin-activatable fibrinolysis inhibitor) is an enzyme that stabilizes the clot by protecting the clot fibrin from lysis. TAFI is activated by thrombin and its activation is amplified in the presence of thrombomodulin.

Activated TAFI removes the C-terminal lysine and arginine residues of fibrin which are necessary for the binding of t-PA, plasmin and plasminogen to fibrin.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No deterioration of plasmas linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.

This box is intended for research use

## DEFICIENT PLASMAS

## Immunodepleted deficient plasmas

Fresh frozen plasmas

## VWF Immunodepleted Deficient Human Plasma



## Associated products

a2-Antiplasmin Immunodepleted Deficient Human Plasma

Antithrombin Immunodepleted Deficient Human Plasma

Antithrombin/Heparin Cofactor II Immunodepleted Deficient Human Plasma

## Informations

Von Willebrand factor (VWF) is a large glycoprotein that is found in plasma, endothelial cells and megakaryocytes. VWF is composed of 15 to 20 multimers ranging in molecular weight from 500 kDa to 20,000 kDa and high molecular weight multimers are essential for biological activity. Its role is on the one hand to transport FVIII in the circulation to protect it from its degradation and on the other hand it participates in adhesion and platelet aggregation.

Reference	Presentation	Format
6-FDPVW	Bottle	1 x 100 mL
6-FDPVW-10	Kit	10 x 1.0 mL

**Immunodepleted deficient plasma for von Willebrand factor assay.**

Pooled normal citrated human plasma depleted of von Willebrand factor using antibodies directed to von Willebrand factor immobilized on agarose beads. Plasma contains 20 mM Hepes.

## Components

- 10 cryotubes x 1 mL or 100 mL vial of frozen plasma.

## Advantages

- No bovine additives
- No reconstitution error
- No deterioration of plasmas linked to freeze-drying
- Cryotubes ready to use after thawing (4 min at 37°C).

## Characteristics

Packaging in plastic cryotubes or in bottles of at least 100 mL.

Frozen, immuno-depleted plasmas are certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in haemostasis.  
This box is intended for research use

## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

## Human FVIII congenital deficient plasma with Anti-VIII inhibitor (Bethesda)



## Associated products

Plasma Factor VIII deficient chemically depleted

Human Factor VIII congenital deficient plasma (severe <1%)

Human Factor VIII congenital deficient plasma >5%

## Informations

Factor VIII is a glycoprotein mainly synthesized by the liver. It circulates in the plasma in the form bound to VWF which protects it from rapid proteolytic degradation. It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa.

A patient who is deficient in FVIII has hemophilia A.

Reference	Presentation	Format
6-PPD08C-INH	Vial	Minimum 50 mL

**Plasma from a single human donor with congenital Factor VIII deficiency with anti-VIII inhibitor.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.





## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

## Human Factor II congenital deficient plasma &gt;5%



## Associated products

Human Factor V congenital deficient plasma (severe <1%)

Human Factor V congenital deficient plasma >5%

Human Factor VII congenital deficient plasma (severe <1%)

## Reference

6-PPD02C

## Presentation

Vial

## Format

Minimum 50 mL

## Plasma from human donor with congenital FII deficiency.

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

Factor II (FII) or prothrombin is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K-dependent clotting factor. Its half-life is 50 to 120 hours.

FII is activated by the prothrombinase thrombin complex which plays a central role in the coagulation process.

It will transform fibrinogen into fibrin, amplify its own formation and activate the protein C, TAFI and platelet systems.

There are constitutional deficits in FII which are very rare and acquired deficits which can be observed during antivitamin K treatment or deficiency in vitamin K, CIVD, anti-FII autoantibodies.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added.  
Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment. No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor V congenital deficient plasma  
(severe <1%)

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma >5%

Human Factor VII congenital deficient plasma  
(severe <1%)

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Reference	Presentation	Format
6-PPD05C-S	Vial	Minimum 50 mL

**Plasma from human donor with congenital FV deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added.  
Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year. Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor V congenital deficient plasma  
>5%

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma (severe <1%)

Human Factor VII congenital deficient plasma (severe <1%)

## Reference

6-PPD05C

## Presentation

Vial

## Format

Minimum 50 mL

**Plasma from human donor with congenital FVI deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added.  
Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor VII congenital deficient plasma  
(severe <1%)

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma (severe <1%)

Human Factor V congenital deficient plasma >5%

## Informations

Factor VII (FVII) is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K dependent factor belonging to the prothrombin complex. Its half-life is 4 to 6 hours and it is the only coagulation factor present in trace amounts in its active form.

When tissue factor appears on the endothelial surface, activated FVII associates with it initiating the extrinsic pathway for coagulation. This complex (FT-FVIIa) will activate the FX in FXa and the FIX in FIXa.

Reference	Presentation	Format
6-PPD07C-S	Vial	Minimum 50 mL

**Plasma from a human donor with congenital FVII deficiency.**

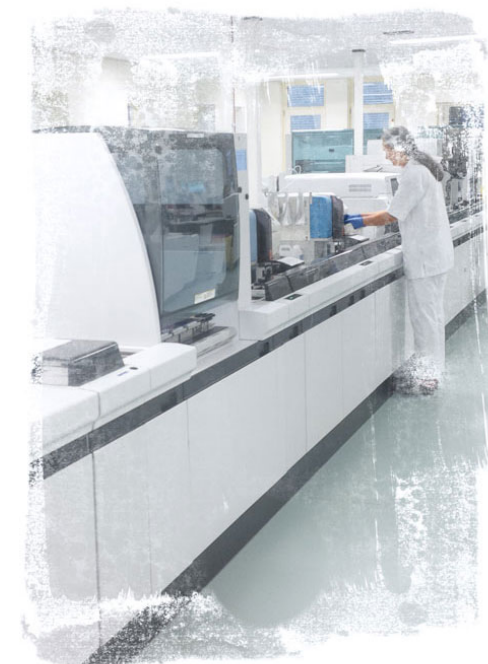
Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added.  
Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year. Plastic vials.





## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor VII congenital deficient plasma  
>5%

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma (severe <1%)

Human Factor V congenital deficient plasma >5%

## Informations

Factor VII (FVII) is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K dependent factor belonging to the prothrombin complex.

Its half-life is 4 to 6 hours and it is the only coagulation factor present in trace amounts in its active form. When tissue factor appears on the endothelial surface, activated FVII associates with it initiating the extrinsic pathway for coagulation. This complex (FT-FVIIa) will activate the FX in FXa and the FIX in FIXa.

Reference	Presentation	Format
6-PPD07C	Vial	Minimum 50 mL

**Plasma from a human donor with congenital FVII deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added.  
Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.





## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor VIII congenital deficient plasma  
(severe <1%)

## Associated products

Human FVIII congenital deficient plasma with Anti-VIII inhibitor (Bethesda)

Plasma Factor VIII deficient chemically depleted

Human Factor VIII congenital deficient plasma >5%

## Informations

Factor VIII is a glycoprotein mainly synthesized by the liver. It circulates in the plasma in the form bound to VWF which protects it from rapid proteolytic degradation.

It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa.

A patient who is deficient in FVIII has hemophilia A.

Reference	Presentation	Format
6-PPD08C-S	Vial	Minimum 50 mL

**Plasma from a human donor with congenital FVIII deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor VIII congenital deficient plasma  
>5%

## Associated products

Human FVIII congenital deficient plasma with Anti-VIII inhibitor (Bethesda)

Plasma Factor VIII deficient chemically depleted

Human Factor VIII congenital deficient plasma (severe <1%)

## Reference

6-PPD08C

## Presentation

Vial

## Format

Minimum 50 mL

## Plasma from a human donor with congenital FVIII deficiency.

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

Factor VIII is a glycoprotein mainly synthesized by the liver.

It circulates in the plasma in the form bound to VWF which protects it from rapid proteolytic degradation.

It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa.

A patient who is deficient in FVIII has hemophilia A.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added.  
Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor IX congenital deficient plasma  
>5%

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma (severe <1%)

Human Factor V congenital deficient plasma >5%

## Informations

FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated to FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium. A person who is deficient in FIX has hemophilia B.

Reference	Presentation	Format
6-PPD09C	Vial	Minimum 50 mL

**Plasma from a human donor with congenital FIX deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added.  
Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor IX congenital deficient plasma  
(severe <1%)

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma  
(severe <1%)

Human Factor V congenital deficient plasma >5%

## Informations

FIX is a vitamin K dependent glycoprotein synthesized by the liver.

FIX can be activated to FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium.

A person who is deficient in FIX has hemophilia B.

Reference	Presentation	Format
6-PPD09C-S	Vial	Minimum 50 mL

**Plasma from a single human donor with congenital Factor IX deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added.

Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.

All plasmas are stable when stored at -40° C to -80° C.

We carefully pack with dry ice during shipment.

No additive or preservative.

Expiry date > 1 year.

Plastic vials.





## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor X congenital deficient plasma  
>5%

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma (severe <1%)

Human Factor V congenital deficient plasma >5%

## Informations

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation.

It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids.

FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
6-PPD10C	Vial	Minimum 50 mL

**Plasma from a single human donor with congenital FX deficiency.**

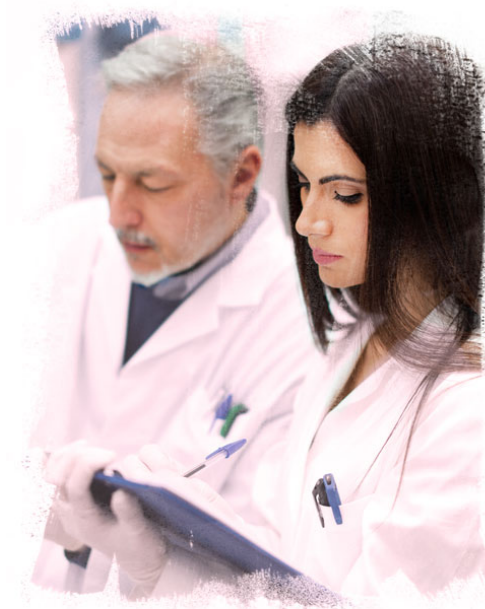
Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added.  
Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment. No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.





## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor X congenital deficient plasma  
(severe <1%)

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma (severe <1%)

Human Factor V congenital deficient plasma >5%

## Informations

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K.

FX is involved in the common pathway of coagulation.

It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids.

FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
6-PPD10C-S	Vial	Minimum 50 mL

**Plasma from a human donor with congenital FX deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added.

Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.

All plasmas are stable when stored at -40° C to -80° C.

We carefully pack with dry ice during shipment.

No additive or preservative.

Expiry date > 1 year.

Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor XI congenital deficient plasma  
>5%

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma (severe <1%)

Human Factor V congenital deficient plasma >5%

## Informations

Factor XI (FXI) is a protein synthesized by the liver. It participates in the contact phase which initiates the intrinsic pathway of coagulation. It is activated by FXIIa to factor FXIa which will itself activate FIX in the presence of calcium ions.

Reference	Presentation	Format
6-PPD11C	Vial	Minimum 50 mL

**Plasma from a human donor with congenital FXI deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials. .



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor XI congenital deficient plasma  
(severe <1%)

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma  
(severe <1%)

Human Factor V congenital deficient plasma >5%

Reference

6-PPD11C-S

Presentation

Vial

Format

Minimum 50 mL

**Plasma from a human donor with congenital FXI deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

Factor XI (FXI) is a protein synthesized by the liver. It participates in the contact phase which initiates the intrinsic pathway of coagulation. It is activated by FXIIa to factor FXIa which will itself activate FIX in the presence of calcium ions.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added.  
Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

## Human Antithrombin congenital deficient plasma



## Associated products

Antithrombin deficient plasma immuno depleted  
 Plasma with high antithrombin level  
 Antithrombin human deficient plasma (acquired)

## Reference

6-PPDATC

## Presentation

Vial

## Format

Minimum 50 mL

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

Previously called antithrombin III (abbreviated ATIII), human antithrombin is one of the major physiological inhibitors of coagulation.

A natural serine protease inhibitor, antithrombin acts mainly on thrombin (IIa) and activated Factor X (FXa), as well as on activated forms of factors IX, XI and XII.

This reaction is catalyzed by heparin.

The normal level of antithrombin is between 80 and 120% in adults and it is about half in newborns. Antithrombin deficiency predisposes to thrombosis.

## Advantages

Minimize test time.  
 Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
 No buffer or preservatives are added.  
 Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix.  
 All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .  
 We carefully pack with dry ice during shipment.  
 No additive or preservative.  
 Expiry date > 1 year.  
 Plastic vials.





## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

## Human Plasminogen congenital deficient plasma



## Associated products

Plasminogen human deficient plasma (acquired)

Plasminogen Immunodepleted Deficient Human Plasma

Reference

6-PPDPLGC

Presentation

Vial

Format

Minimum 50 mL

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

Plasminogen is a plasma protein which is involved in its active form (plasmin) in the processes of fibrinolysis. Plasminogen is synthesized by the liver, kidney, cornea, and eosinophils.

It exists in 2 forms: glu-plasminogen (native form) and lys-plasminogen (more active form).

These 2 forms can be transformed into plasmin.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.

No buffer or preservatives are added.

Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix.

All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .

We carefully pack with dry ice during shipment.

No additive or preservative.

Expiry date > 1 year.

Plastic vials.





## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

## Human Protein C congenital deficient plasma



## Associated products

Protein C human deficient plasma (acquired)

C Diluent / S Diluent

Plasma with high level of C protein: > 150 %

## Reference

6-PPDPCC

## Presentation

Vial

## Format

Minimum 50 mL

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

Protein C is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. CP is at the center of a physiological system that inhibits coagulation: the anticoagulant system of protein C. Thrombin associated with thrombomodulin loses its procoagulant properties at the same time as it activates PC to active protein C (PCa).

PCa in the presence of protein S, calcium and phospholipids is capable of cleaving FVa and FVIIIa blocking the amplification loop of thrombin generation.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added. Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .  
We carefully pack with dry ice during shipment. No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

## Protein S human deficient plasma (congenital)



## Associated products

Protein S human deficient plasma (acquired)

ACTICLOT® Protein S

C Diluent / S Diluent

## Informations

Protein S is a vitamin K dependent protein. It is a physiological inhibitor of coagulation.

It acts as a cofactor of activated protein C by promoting the inactivation of FVa and FVIIIa, prothrombin, of the prothrombinase complex, FX. A protein S deficiency can be either acquired (hepatocellular insufficiency, vitamin K deficiency, anti-protein S antibody, ...) or constitutional (heterozygous or homozygous deficiency) grouped into 2 types depending on whether the deficiency is quantitative (type I) or qualitative (type II).

Reference	Presentation	Format
6-PPDPSC	Vial	Minimum 50 mL

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added.  
Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Alpha-2-antiplasmin human deficient plasma  
(congenital)

## Associated products

Human plasma deficient in alpha-2-antiplasmin (acquired)

## Informations

$\alpha$ -2-antiplasmin is an inhibitor of serine proteases, mainly plasmin. It plays an important role in the regulation of fibrinolysis.

It has 3 main functions: it inhibits plasmin, interferes with the adsorption of plasminogen to fibrin and binds to the  $\alpha$  chain of fibrin.

A decrease in the amount of  $\alpha$ -2-antiplasmin can lead to bleeding syndromes.

Reference	Presentation	Format
6-PPDA2APC	Vial	Minimum 50 mL

**Plasma from a human donor with congenital  $\alpha$ -2-antiplasmin deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added. Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

## High molecular weight kininogen human deficient plasma (congenital)



## Associated products

High molecular weight kininogen human deficient plasma (acquired)

Reference

6-PPDKINC

Presentation

Vial

Format

Minimum 50 mL

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

High molecular weight kininogen is a glycoprotein which acts as a cofactor in the initiation of coagulation. Deficits in KHPM lengthen TCA.

The KHPM dosage is indicated in the presence of an increase in TCA corrected by the addition of control plasma and in the absence of a deficit of other coagulation factors.

A deep deficit does not cause a hemorrhagic tendency.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added.  
Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .  
We carefully pack with dry ice during shipment. No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.





## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor XII congenital deficient plasma  
>5%

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma (severe <1%)

Human Factor V congenital deficient plasma >5%

## Informations

Factor XII (FXII) is a glycoprotein synthesized in the evening.

FXII participates in the contact phase which initiates the intrinsic pathway of coagulation.

Activated on contact with a negatively charged surface, it becomes capable of activating prekallikrein and kallikrein (amplified by KHPM) then FXI to FXIa in the presence of KHPM.

The FXIa thus formed activates the FXII in FXIIa, amplifying the reaction.

Reference	Presentation	Format
6-PPD12C	Vial	Minimum 50 mL

**Plasma from a human donor with congenital FXII deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.

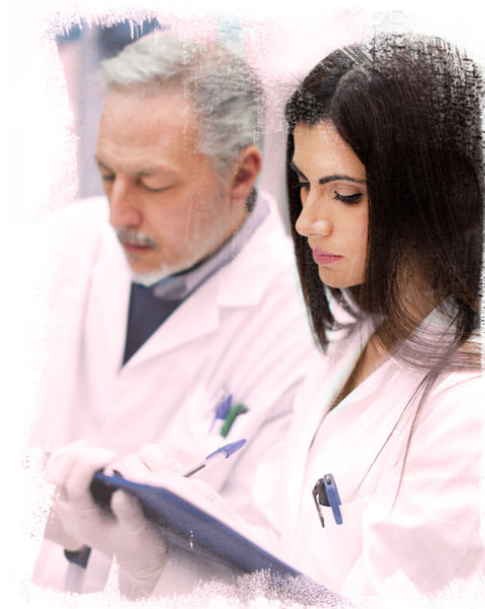
No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.

All plasmas are stable when stored at -40° C to -80° C.

We carefully pack with dry ice during shipment. No additive or preservative.

Expiry date > 1 year.

Plastic vials.





## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor XII congenital deficient plasma  
(severe <1%)

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma  
(severe <1%)

Human Factor V congenital deficient plasma >5%

## Informations

Factor XII (FXII) is a glycoprotein synthesized in the evening. FXII participates in the contact phase which initiates the intrinsic pathway of coagulation. Activated on contact with a negatively charged surface, it becomes capable of activating prekallikrein and kallikrein (amplified by KHPM) then FXI to FXIa in the presence of KHPM. The FXIa thus formed activates the FXII in FXIIa, amplifying the reaction.

Reference	Presentation	Format
6-PPD12C-S	Vial	Minimum 50 mL

**Plasma from a human donor with congenital FXII deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment. No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor XIII congenital deficient plasma  
>5%

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma (severe <1%)

Human Factor V congenital deficient plasma >5%

Reference

6-PPD13C

Presentation

Vial

Format

Minimum 50 mL

**Plasma from a human donor with congenital FXIII deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

Factor XIII is synthesized by the liver. Activated by thrombin, FXIII intervenes in the final phase of fibrinof formation to stabilize the fibrin clot by forming covalent bonds in the fibrin polymer.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Bottles)

Human Factor XIII congenital deficient plasma  
(severe <1%)

## Associated products

Human Factor II congenital deficient plasma >5%

Human Factor V congenital deficient plasma (severe <1%)

Human Factor V congenital deficient plasma >5%

Reference

6-PPD13C-S

Presentation

Vial

Format

Minimum 50 mL

**Plasma from a human donor with congenital FXIII deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

Factor XIII is synthesized by the liver. Activated by thrombin, FXIII intervenes in the final phase of fibrinof formation to stabilize the fibrin clot by forming covalent bonds in the fibrin polymer.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## DEFICIENT PLASMAS

## Acquired deficient plasmas (Bottles)

## Antithrombin human deficient plasma (acquired)



## Associated products

Plasma with high antithrombin level

Human Antithrombin congenital deficient plasma

Reference

6-PPDATA

Presentation

Vial

Format

Minimum 50 mL

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

Previously called antithrombin III (abbreviated ATIII), human antithrombin is one of the major physiological inhibitors of coagulation.

A natural serine protease inhibitor, antithrombin acts mainly on thrombin (IIa) and activated Factor X (FXa), as well as on activated forms of factors IX, XI and XII.

This reaction is catalyzed by heparin. The normal level of antithrombin is between 80 and 120% in adults and it is about half in newborns.

Antithrombin deficiency predisposes to thrombosis.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile.

No buffer or preservatives are added.

Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.

All plasmas are stable when stored at -40° C to -80° C.

We carefully pack with dry ice during shipment. No additive or preservative.

Expiry date > 1 year.

Plastic vials.





## DEFICIENT PLASMAS

## Acquired deficient plasmas (Bottles)

## Plasminogen human deficient plasma (acquired)



## Associated products

Human Plasminogen congenital deficient plasma

## Informations

Plasminogen is a plasma protein which is involved in its active form (plasmin) in the processes of fibrinolysis. Plasminogen is synthesized by the liver, kidney, cornea, and eosinophils.

It exists in 2 forms: glu-plasminogen (native form) and lys-plasminogen (more active form).

These 2 forms can be transformed into plasmin.

Reference	Presentation	Format
6-PPDPLGA	Vial	Minimum 50 mL

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added. Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.





## DEFICIENT PLASMAS

## Acquired deficient plasmas (Bottles)

## Prekallikrein human deficient plasma (acquired)



## Associated products

Human Prekallikrein congenital Deficient Plasma

## Informations

Prekallikrein is a glycoprotein, a serine protease zymogen. Non-covalently complexed with high molecular weight kininogen.

Prekallikrein participates in the activation of coagulation, fibrinolysis, the generation of kinins and inflammatory phenomena. It is activated to kallikrein by FXIIa.

Reference	Presentation	Format
6-PPDPKA	Vial	Minimum 50 mL

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added. Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Acquired deficient plasmas (Bottles)

## Protein C human deficient plasma (acquired)



## Associated products

APC Resistance Kit

C Diluent / S Diluent

Human Protein C congenital deficient plasma

## Reference

6-PPDPCA

## Presentation

Vial

## Format

Minimum 50 mL

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

Protein C is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. CP is at the center of a physiological system that inhibits coagulation: the anticoagulant system of protein C. Thrombin associated with thrombomodulin loses its procoagulant properties at the same time as it activates PC to active protein C (PCa).

PCa in the presence of protein S, calcium and phospholipids is capable of cleaving FVa and FVIIIa blocking the amplification loop of thrombin generation.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added.  
Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Acquired deficient plasmas (Bottles)

## Protein S human deficient plasma (acquired)



## Associated products

C Diluent / S Diluent

Protein S human deficient plasma (congenital)

Plasma with high level of S protein: &gt; 150 %

Reference

6-PPDPSA

Presentation

Vial

Format

Minimum 50 mL

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Informations

Protein S is a vitamin K dependent protein. It is a physiological inhibitor of coagulation.

It acts as a cofactor of activated protein C by promoting the inactivation of FVa and FVIIIa, prothrombin, of the prothrombinase complex, FX.

A protein S deficiency can be either acquired (hepatocellular insufficiency, vitamin K deficiency, anti-protein S antibody, ...) or constitutional (heterozygous or homozygous deficiency) grouped into 2 types depending on whether the deficiency is quantitative (type I) or qualitative (type II).

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added.

Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix.

All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .

We carefully pack with dry ice during shipment.

No additive or preservative.

Expiry date > 1 year.

Plastic vials.



## DEFICIENT PLASMAS

## Acquired deficient plasmas (Bottles)

## Human plasma deficient in alpha-2-antiplasmin (acquired)



## Associated products

Alpha-2-antiplasmin human deficient plasma (congenital)

## Informations

$\alpha$ -2-antiplasmin is an inhibitor of serine proteases, mainly plasmin. It plays an important role in the regulation of fibrinolysis.

It has 3 main functions:  $\alpha$ -2-antiplasmin inhibits plasmin, interferes with the adsorption of plasminogen to fibrin and binds to the  $\alpha$  chain of fibrin.

A decrease in the amount of  $\alpha$ -2-antiplasmin can lead to bleeding syndromes.

Reference	Presentation	Format
6-PPDA2APA	Vial	Minimum 50 mL

**Plasma from a donor with acquired  $\alpha$ -2-antiplasmin deficiency.**

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added.  
Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .  
We carefully pack with dry ice during shipment. No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## DEFICIENT PLASMAS

## Acquired deficient plasmas (Bottles)

## High molecular weight kininogen human deficient plasma (acquired)



## Associated products

High molecular weight kininogen human deficient plasma (congenital)

## Informations

High molecular weight kininogen is a glycoprotein which acts as a cofactor in the initiation of coagulation.

Deficits in KHPM lengthen TCA.

The KHPM dosage is indicated in the presence of an increase in TCA corrected by the addition of control plasma and in the absence of a deficit of other coagulation factors.

A deep deficit does not cause a hemorrhagic tendency.

Reference	Presentation	Format
6-PPDKINA	Vial	Minimum 50 mL

Packaging in bottle. The minimum packaged volume is 50 mL. The price offer is based on the volume requested.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added. Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.





## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Human Factor V congenital Deficient Plasma



## Associated products

Human Factor VII congenital Deficient Plasma

Human Factor VIII congenital Deficient Plasma

Human Factor VIII congenital Deficient Plasma with inhibitor

## Informations

Factor V (FV) is a protein mainly synthesized by the liver.

It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa.

With FXa, it forms a complex which, in the presence of phospholipids and calcium, activates FII into thrombin.

The FVa is neutralized by the PCa. Its plasma half-life is 12 to 36 hours.

Reference	Presentation	Format
7-0500	Kit	5 x 1.0 mL

**Plasma from a single human donor with congenital Factor V deficiency.  
Native coagulation factor deficient plasmas are fresh frozen plasmas obtained exclusively from donors with severe congenital clotting factor deficiency.**

These native coagulation factor-deficient plasmas are recommended for the evaluation of the activity of coagulation factors by the method of assaying the level of prothrombin (PT) or activated partial thromboplastin time (TCA) requiring the use of a plasma lacking in factor (<1%) in hemostasis.

## Components

- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors.
- No additives or preservatives.
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports.

## Characteristics

- The frozen, native plasmas, obtained from donors, are poor in platelets and certified to have less than 1% for the deficient factor considered, both for the antigenic assay and for functional hemostasis.
- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Human Factor VII congenital Deficient Plasma



## Associated products

Human Factor V congenital Deficient Plasma

Human Factor VIII congenital Deficient Plasma

Human Factor VIII congenital Deficient Plasma with inhibitor

## Informations

Factor VII (FVII) is a glycoprotein synthesized by the liver, vitamin k dependent. When tissue factor (TF) appears on the surface of damaged, abnormal or activated vascular endothelium, FVIIa associates with it, initiating the extrinsic pathway of coagulation.

The FT-FVIIa complex activates the FX in FXa and the FIX in FIXa.

Reference	Presentation	Format
7-0700	Kit	5 x 1.0 mL

**Plasma from a single human donor with congenital Factor VII deficiency. Native coagulation factor deficient plasmas are fresh frozen plasmas obtained exclusively from donors with severe congenital clotting factor deficiency.**

Ces plasmas déficients natifs en facteur de la coagulation sont recommandés pour l'évaluation de l'activité des facteurs de la coagulation par la méthode de dosage du taux de prothrombine (TP) ou temps de céphaline activé (TCA) nécessitant l'emploi d'un plasma dépourvu en facteur (< 1 %) en hémostase.

## Components

- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors.
- No additives or preservatives.
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports.

## Characteristics

- Frozen plasmas, certified to have less than 1% for the deficient factor considered, both for the antigenic assay and for functional hemostasis.
- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Human Factor VIII congenital Deficient Plasma



## Associated products

Human Factor V congenital Deficient Plasma

Human Factor VII congenital Deficient Plasma

Human Factor VIII congenital Deficient Plasma with inhibitor

## Informations

Factor VIII is a glycoprotein mainly synthesized by the liver.

It circulates in the plasma in the form bound to VWF which protects it from rapid proteolytic degradation.

It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa.

A patient who is deficient in FVIII has hemophilia A.

Reference	Presentation	Format
7-0800	Kit	5 x 1.0 mL

**Plasma from a single human donor with congenital Factor VIII deficiency. Native coagulation factor deficient plasmas are fresh frozen plasmas obtained exclusively from donors with severe congenital clotting factor deficiency.**

These native coagulation factor-deficient plasmas are recommended for the evaluation of the activity of coagulation factors by the method of assaying the level of prothrombin (PT) or activated partial thromboplastin time (TCA) requiring the use of a plasma lacking in factor (<1%) in hemostasis.

## Components

- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors
- No additives or preservatives
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports

## Characteristics

- Frozen plasmas, certified to have less than 1% for the deficient factor considered, both for the antigenic assay and for functional hemostasis.
- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Human Factor VIII congenital Deficient Plasma with inhibitor



## Associated products

Human Factor V congenital Deficient Plasma

Human Factor VII congenital Deficient Plasma

Human Factor VIII congenital Deficient Plasma

## Information

Factor VIII is a glycoprotein mainly synthesized by the liver. It circulates in the plasma in the form bound to VWF which protects it from rapid proteolytic degradation. It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa.

A patient who is deficient in FVIII has hemophilia A. The occurrence of anti-FVIII inhibitory antibodies represents the major complication of replacement therapy with FVIII concentrates in hemophiliacs A. There is therefore an autoimmunization responsible for acquired hemophilia.

Reference	Presentation	Format
7-1800	Kit	5 x 1.0 mL

**Native coagulation factor deficient plasmas are fresh frozen plasmas obtained exclusively from donors with severe congenital clotting factor deficiency and exhibiting anti-FVIII inhibitory antibodies.**

These native coagulation factor-deficient plasmas are recommended for the evaluation of the activity of coagulation factors by the method of assaying the level of prothrombin (PT) or activated partial thromboplastin time (TCA) requiring the use of a plasma lacking in factor (<1%) in hemostasis.

## Components

- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- No additives or preservatives.
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports.

## Characteristics

- Frozen plasmas, certified to have less than 1% for the deficient factor considered, both for the antigenic assay and for functional hemostasis.
- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Human Factor IX congenital Deficient Plasma



## Associated products

Human Factor V congenital Deficient Plasma

Human Factor VII congenital Deficient Plasma

Human Factor VIII congenital Deficient Plasma

## Informations

FIX is a vitamin K dependent glycoprotein synthesized by the liver.

FIX can be activated to FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium.

A person who is deficient in FIX has hemophilia B.

Reference	Presentation	Format
7-0900	Kit	5 x 1.0 mL

**Plasma from a single human donor with congenital Factor IX deficiency. Native coagulation factor deficient plasmas are fresh frozen plasmas obtained exclusively from donors with severe congenital clotting factor deficiency.**

These native coagulation factor-deficient plasmas are recommended for the evaluation of the activity of coagulation factors by the method of assaying the level of prothrombin (PT) or activated partial thromboplastin time (TCA) requiring the use of a plasma lacking in factor (<1%) in hemostasis.

## Components

- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors.
- No additives or preservatives.
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports.

## Characteristics

- Frozen plasmas, certified to have less than 1% for the deficient factor considered, both for the antigenic assay and for functional hemostasis.
- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.





## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Human Factor X congenital Deficient Plasma



## Associated products

Human Factor V congenital Deficient Plasma

Human Factor VII congenital Deficient Plasma

Human Factor VIII congenital Deficient Plasma

## Informations

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation.

It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids.

FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
7-1000	Kit	5 x 1.0 mL

**Plasma from a single human donor with congenital Factor X deficiency.  
Native coagulation factor deficient plasmas are fresh frozen plasmas obtained exclusively from donors with severe congenital clotting factor deficiency.**

These native coagulation factor-deficient plasmas are recommended for the evaluation of the activity of coagulation factors by the method of assaying the level of prothrombin (PT) or activated partial thromboplastin time (TCA) requiring the use of a plasma lacking in factor (<1%) in hemostasis.

## Components

- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors.
- No additives or preservatives.
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports.

## Characteristics

- Frozen plasmas, certified to have less than 1% for the deficient factor considered, both for the antigenic assay and for functional hemostasis.
- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Human Factor XI congenital Deficient Plasma



## Associated products

Human Factor V congenital Deficient Plasma

Human Factor VII congenital Deficient Plasma

Human Factor VIII congenital Deficient Plasma

## Informations

Factor XI (FXI) is a protein synthesized by the liver. It participates in the contact phase which initiates the intrinsic pathway of coagulation. It is activated by FXIIa to factor FXIa which will itself activate FIX in the presence of calcium ions.

Reference	Presentation	Format
7-1100	Kit	5 x 1.0 mL

**Plasma from a single human donor with congenital Factor XI deficiency. Native coagulation factor deficient plasmas are fresh frozen plasmas obtained exclusively from donors with severe congenital clotting factor deficiency.**

These native coagulation factor-deficient plasmas are recommended for the evaluation of the activity of coagulation factors by the method of assaying the level of prothrombin (PT) or activated partial thromboplastin time (TCA) requiring the use of a plasma lacking in factor (<1%) in hemostasis.

## Components

- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors
- No additives or preservatives
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports

## Characteristics

- The frozen, native plasmas certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in hemostasis.
- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Human Factor XII congenital Deficient Plasma



## Associated products

Human Factor V congenital Deficient Plasma

Human Factor VII congenital Deficient Plasma

Human Factor VIII congenital Deficient Plasma

## Informations

Factor XII (FXII) is a glycoprotein synthesized by the liver. FXII participates in the contact phase which initiates the intrinsic pathway of coagulation.

Activated on contact with a negatively charged surface, it becomes capable of activating prekallikrein and kallikrein (amplified by KHPM) then FXI to FXIa in the presence of KHPM.

The FXIa thus formed activates the FXII in FXIIa, amplifying the reaction.

Reference	Presentation	Format
7-1200	Kit	5 x 1.0 mL

**Plasma from a single human donor with congenital Factor XII deficiency.**  
**Native coagulation factor deficient plasmas are fresh frozen plasmas obtained exclusively from donors with severe congenital clotting factor deficiency.**

These native coagulation factor-deficient plasmas are recommended for the evaluation of the activity of coagulation factors by the method of assaying the level of prothrombin (PT) or activated partial thromboplastin time (TCA) requiring the use of a plasma lacking in factor (<1%) in hemostasis.

## Components

- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors
- No additives or preservatives
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports

## Characteristics

- Frozen plasmas, certified to have less than 1% for the deficient factor considered, both for the antigenic assay and for functional hemostasis.
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Human Factor XIII congenital Deficient Plasma



## Associated products

Human Factor V congenital Deficient Plasma

Human Factor VII congenital Deficient Plasma

Human Factor VIII congenital Deficient Plasma

## Informations

Factor XIII is synthesized by the liver. Activated by thrombin, FXIII intervenes in the final phase of fibrin formation to stabilize the fibrin clot by forming covalent bonds in the fibrin polymer.

Reference	Presentation	Format
7-1300-0	Kit	5 x 1.0 mL
7-1300-1	Kit	5 x 0.5 mL

**Native coagulation factor deficient plasmas are fresh frozen plasmas obtained exclusively from donors with severe congenital clotting factor deficiency.**

These native coagulation factor-deficient plasmas are recommended for the evaluation of the activity of coagulation factors by the method of assaying the level of prothrombin (PT) or activated partial thromboplastin time (TCA) requiring the use of a plasma lacking in factor (<5%) in hemostasis.

## Components

- 5 cryotubes x 0.5 mL or 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors
- No additives or preservatives
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports

## Characteristics

- The frozen, native plasmas certified to have less than 5% for the deficient factor considered, both for the antigenic and functional assay in hemostasis.
- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.



## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Human Prekallikrein congenital Deficient Plasma



## Associated products

Human Factor V congenital Deficient Plasma

Human Factor VII congenital Deficient Plasma

Human Factor VIII congenital Deficient Plasma

## Informations

Prekallikrein is a glycoprotein, a serine protease zymogen. Non-covalently complexed with high molecular weight kininogen.

Prekallikrein participates in the activation of coagulation, fibrinolysis, the generation of kinins and inflammatory phenomena. It is activated into kallikrein by FXIIa.

Reference	Presentation	Format
7-1700	Kit	5 x 1.0 mL

**Native coagulation factor deficient plasmas are fresh frozen plasmas obtained exclusively from donors with severe congenital prekallikrein deficiency.**

These native coagulation factor-deficient plasmas are recommended for the evaluation of the activity of coagulation factors by the method of assaying the level of prothrombin (PT) or activated partial thromboplastin time (TCA) requiring the use of a plasma lacking in factor (<1%) in hemostasis.

## Components

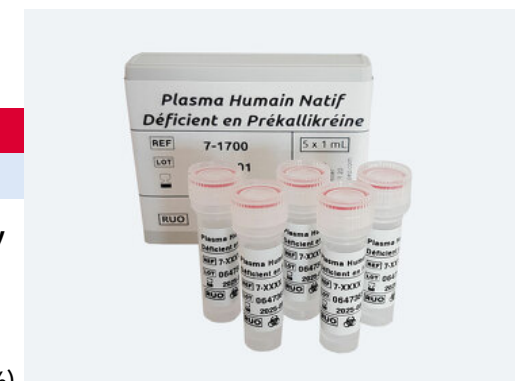
- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors.
- No additives or preservatives.
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports.

## Characteristics

- The frozen, native plasmas certified to have less than 1% for the deficient factor considered, both for the antigenic and functional assay in hemostasis.
- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.





## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Deficient Human Plasma in Native VWF (VWD Type 1)



## Associated products

Deficient Human Plasma in Native VWF (VWD Type 2B)

Deficient Human Plasma in Native VWF (VWD Type 3)

Reference	Presentation	Format
7-1401	Kit	5 x 1.0 mL

**Plasmas from patients with type 1 von Willebrand disease (VWD type 1) are fresh frozen plasmas obtained exclusively from donors with moderate congenital von Willebrand factor (VWF) deficiency.**



## Informations

Willebrand's disease (VWD) is a genetic and hereditary disease which causes a qualitative or quantitative alteration of VWF causing more or less severe bleeding. VWDs are categorized into 3 types according to their faults :

Type 1 : the level of VWF is in lower quantity or having a shorter lifespan in the bloodstream, inducing a partial quantitative defect.

Type 2 : the level of VWF is in normal quantity or slightly reduced but it is altered in its structure inducing a qualitative deficit.

Type 3 : this is the most serious type because the VWF level is greatly reduced <1% of the normal associated with a decreased level of FVIII.

## Components

- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors.
- No additives or preservatives.
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports.

## Characteristics

- The frozen, native plasmas, certified to have between 5 and 30% of normal VWF level, both for the antigenic and functional assay in hemostasis.
- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.
- The stability of the product is 7 days at -20 °C.

## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Deficient Human Plasma in Native VWF (VWD Type 2A)



## Associated products

Deficient Human Plasma in Native VWF (VWD Type 1)

Deficient Human Plasma in Native VWF (VWD Type 2B)

## Informations

Willebrand's disease (VWD) is a genetic and hereditary disease which causes a qualitative or quantitative alteration of VWF causing more or less severe bleeding. VWDs are categorized into 3 types according to their faults :

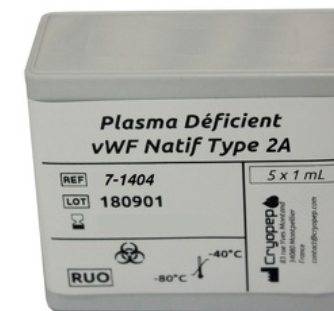
Type 1 : the level of VWF is in lower quantity or having a shorter lifespan in the bloodstream, inducing a partial quantitative defect.

Type 2 : the level of VWF is in normal quantity or slightly reduced but it is altered in its structure inducing a qualitative deficit.

Type 3 : this is the most serious type because the VWF level is greatly reduced <1% of the normal associated with a decreased level of FVIII.

Reference	Presentation	Format
7-1404	Kit	5 x 1.0 mL

**Plasmas from patients with von Willebrand disease type 2a (VWD type 2a) are fresh frozen plasmas obtained exclusively from donors with congenital qualitative and quantitative von Willebrand factor (VWF) deficiency.**



## Components

- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors.
- No additives or preservatives.
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports.

## Characteristics

- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.
- The stability of the product is 7 days at -20 °C.

## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Deficient Human Plasma in Native VWF (VWD Type 2B)



## Associated products

Deficient Human Plasma in Native VWF (VWD Type 1)

Deficient Human Plasma in Native VWF (VWD Type 3)

## Informations

Willebrand's disease (VWD) is a genetic and hereditary disease which causes a qualitative or quantitative alteration of VWF causing more or less severe bleeding. VWDs are categorized into 3 types according to their faults :

Type 1 : the level of VWF is in lower quantity or having a shorter lifespan in the bloodstream, inducing a partial quantitative defect.

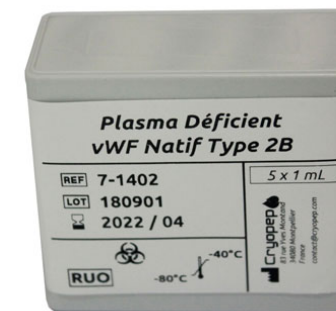
Type 2 : the level of VWF is in normal quantity or slightly reduced but it is altered in its structure inducing a qualitative deficit.

Type 3 : this is the most serious type because the VWF level is greatly reduced <1% of the normal associated with a decreased level of FVIII.

Type 2b : VWF exhibits increased binding to platelets in the bloodstream rather than to vascular damage. There is a loss of the high molecular weight procoagulant forms of VWF.

Reference	Presentation	Format
7-1402	Kit	5 x 1.0 mL

**Plasmas from patients with type 2b von Willebrand disease (VWD type 2b) are fresh frozen plasmas obtained exclusively from donors with congenital qualitative and quantitative von Willebrand factor (VWF) deficiency.**



## Components

- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors
- No additives or preservatives
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports

## Characteristics

- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.
- The stability of the product is 7 days at -20 °C.

## DEFICIENT PLASMAS

## Congenital deficient plasmas (Kits)

Fresh frozen plasmas

## Deficient Human Plasma in Native VWF (VWD Type 3)



## Associated products

Deficient Human Plasma in Native VWF (VWD Type 1)

Deficient Human Plasma in Native VWF (VWD Type 2B)

## Informations

Willebrand's disease (VWD) is a genetic and hereditary disease which causes a qualitative or quantitative alteration of VWF causing more or less severe bleeding. VWDs are categorized into 3 types according to their faults :

Type 1 : the level of VWF is in lower quantity or having a shorter lifespan in the bloodstream, inducing a partial quantitative defect.

Type 2 : the level of VWF is in normal or slightly reduced quantity but it is altered in its structure inducing a qualitative deficit.

Type 3 : this is the most serious type because the VWF level is greatly reduced <1% of the normal associated with a decreased level of FVIII.

Reference	Presentation	Format
7-1403	Kit	5 x 1.0 mL

**Plasmas from patients with type 3 von Willebrand disease (VWD type 3) are fresh frozen plasmas obtained exclusively from donors with severe quantitative congenital von Willebrand factor (VWF) deficiency.**



## Components

- 5 cryotubes x 1 mL of frozen plasma

## Advantages

- None of these plasmas contain inhibitors.
- No additives or preservatives.
- Freezing the plasmas makes it possible to keep the matrix perfectly intact and to avoid reconstitution.
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports.

## Characteristics

- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package.
- The stability of the product is 7 days at -20 °C.

# ENZYMES






Reference	Designation	Click to go to the product sheet	PM (g/mol)	Extinction coefficient	Source	WEB
<b>Thrombin (FIIa)</b>						
9-BCT-BFPRCK	→ Biotinylated bovine $\alpha$ -thrombin - blocked active site (FPRck)		36 700	19.5	Bovine	<a href="#">🌐</a>
9-BCT-1020	→ Bovine $\alpha$ thrombin		36 700	19.5	Bovine	<a href="#">🌐</a>
9-BCT-DFP	→ Bovine $\alpha$ thrombin - blocked active site (DFP)		36 700	19.5	Bovine	<a href="#">🌐</a>
9-BCT-FPRCK	→ Bovine $\alpha$ thrombin - blocked active site (FPRck)		36 700	19.5	Bovine	<a href="#">🌐</a>
9-HCGT-0021	→ Human gamma-thrombin		34 300	18.3	Human	<a href="#">🌐</a>
9-HCT-0020	→ Human $\alpha$ thrombin		36 700	18.3	Human	<a href="#">🌐</a>
9-HCT-DFP	→ Human $\alpha$ thrombin - blocked active site (DFP)		36 700	18.3	Human	<a href="#">🌐</a>
9-HCT-FPRCK	→ Human $\alpha$ thrombin - blocked active site (FPRck) - PPACK		36 700	18.3	Human	<a href="#">🌐</a>
9-HCT-BFPRCK	→ Human $\alpha$ thrombin - blocked active site (FPRck) - biotinylated PPACK		36 700	18.3	Human	<a href="#">🌐</a>
9-HCBT-0022	→ Human $\beta$ thrombin		35 400	18.3	Human	<a href="#">🌐</a>
<b>Factor VIIa</b>						
9-HCVIIA-0031	→ Human FVIIa		50 000	13.9	Human	<a href="#">🌐</a>
<b>Factor IXa</b>						
9-BCIXA-1050	→ Bovine Factor IXa		45 000	14.0	Bovine	<a href="#">🌐</a>
9-BCIXA-DEGR	→ Bovine Factor IXa - blocked active site (DEGRck)		45 000	14.0	Bovine	<a href="#">🌐</a>
9-BCIXA-EGR	→ Bovine Factor IXa - blocked active site (EGRck)		45 000	14.0	Bovine	<a href="#">🌐</a>
9-HCIXA-0050	→ Human Factor IXa		45 000	14.0	Human	<a href="#">🌐</a>
9-HCIXA-DEGR	→ Human Factor IXa - blocked active site (DEGRck)		45 000	14.0	Human	<a href="#">🌐</a>



# ENZYMES

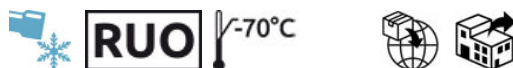
Reference	Designation	Click to go to the product sheet	PM (g/mol)	Extinction coefficient	Source	WEB
9-HCIXA-EGR	→ Human Factor IXa - blocked active site (EGRck)		45 000	14.0	Human	<a href="#">🌐</a>
9-RATIXA-9050	→ Rat Factor IXa		45 000	14.0	Rat	<a href="#">🌐</a>
<b>Factor Xa</b>						
11-526	→ Human Factor Xa (FXa) RVV-X Activated		59000		Human	<a href="#">🌐</a>
9-BCXA-1060	→ Bovine Factor Xa		45 300	12.4	Bovine	<a href="#">🌐</a>
9-BCXA-EGR	→ Bovine Factor Xa- blocked active site (EGRck)		45 300	12.4	Bovine	<a href="#">🌐</a>
9-HCXA-0060	→ Human Factor Xa		46 000	11.6	Human	<a href="#">🌐</a>
9-HCXA-BEGR	→ Human Factor Xa - blocked active site (BEGRck)		46 000	11.6	Human	<a href="#">🌐</a>
9-HCXA-DEGR	→ Human Factor Xa - blocked active site (DEGRck)		46 000	11.6	Human	<a href="#">🌐</a>
9-HCXA-EGR	→ Human Factor Xa - blocked active site (EGRck)		46 000	11.6	Human	<a href="#">🌐</a>
9-HCXA-GD	→ Human Gla-domainless $\beta$ -Factor Xa		39 800	11.6	Human	<a href="#">🌐</a>
9-HCBXA-0061	→ Human $\beta$ -Factor Xa		44 859	11.6	Human	<a href="#">🌐</a>
<b>Factor XIa</b>						
9-HCXIA-EGR	→ Human Factor XIa - blocked active site (EGRck)		160 000	13.4		<a href="#">🌐</a>
9-HCXIA-0160	→ Human Factor XIa		160 000	13.4	Human	<a href="#">🌐</a>
<b>Factor XIIIa</b>						
11-412HA	→ Human Activated Factor XII (FXIIa) (activated Hageman Factor)		80 000	1.41	Human	<a href="#">🌐</a>
<b>Factor XIIIa</b>						
9-HCXIIIA-0165	→ Human Factor XIIIa		312 000	13.8	Human	<a href="#">🌐</a>
<b>Plasmin</b>						
9-HCPM-0140	→ Human plasmin		83 000	17.0	Human	<a href="#">🌐</a>

# ENZYMES

Reference	Designation	Click to go to the product sheet	PM (g/mol)	Extinction coefficient	Source	WEB
<b>Activated protein C (APC)</b>						
9-BCAPC-DEGR	→ Bovine Activated Protein C - blocked active site (DEGR)		52 650	13.7	Human	
9-BCAPC-1080	→ Bovine Activated Protein C (APC)		52 650	13.7	Bovine	
9-HCAPC-0080	→ Human Activated Protein C		56 200	14.5	Human	
9-HCAPC-DEGR	→ Human Activated Protein C - blocked active site (DEGR)		56 200	14.5	Human	
<b>Kallikrein</b>						
11-473	→ Human kallikrein		85000	1.17		

## ENZYMES

## Thrombin (FIIa)

Biotinylated bovine  $\alpha$ -thrombin - blocked active site (FPRck)

## Associated products

Bovine  $\alpha$  thrombinBovine  $\alpha$  thrombin - blocked active site (DFP)Bovine  $\alpha$  thrombin - blocked active site (FPRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Thrombin is the active form of prothrombin (FII). During coagulation, thrombin cleaves fibrinogen into fibrin to form the clot. Thrombin is also responsible for the feedback activation of FV and FVIII cofactors. Thrombin also activates FXIII and platelets.

Reference	Presentation	Format
9-BCT-BFPRCK	Vial	200 $\mu$ g
9-BCT-BFPRCK-1	Vial	1 mg

**Structure: MW 6,000 and 31,000 Da 2 subunits****Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

&lt; 1 % thrombin activity - Blocked active site

MW(Da) : 36 700

Extinction coef. : 19.5

Determination of activity by chromogenic test or fibrinogen coagulation.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Thrombin (FIIa)

Bovine  $\alpha$  thrombin

## Associated products

Biotinylated bovine  $\alpha$ -thrombin - blocked active site (FPRck)

Bovine  $\alpha$  thrombin - blocked active site (DFP)

Bovine  $\alpha$  thrombin - blocked active site (FPRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Thrombin is the active form of prothrombin (FII). During coagulation, thrombin cleaves fibrinogen into fibrin to form the clot. Thrombin is also responsible for the feedback activation of FV and FVIII cofactors. Thrombin also activates FXIII and platelets.

Reference	Presentation	Format
9-BCT-1020	Vial	200 $\mu$ g
9-BCT-1020-1	Vial	1 mg

**Structure: MW 6,000 and 31,000 Da 2 subunits**  
**Formulation : 50/50 (v/v) glycerol/H<sub>2</sub>O**

2 900 to 5 400 units/mg

MW(Da) : 36 700

Extinction coef. : 19.5

Determination of activity by chromogenic test or fibrinogen coagulation.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
 Expiration date of one year from delivery.  
 Delivery in large quantities.  
 Discount according to quantities.

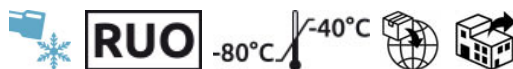
## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Thrombin (FIIa)

Bovine  $\alpha$  thrombin - blocked active site (DFP)

## Associated products

Biotinylated bovine  $\alpha$ -thrombin - blocked active site (FPRck)

Bovine  $\alpha$  thrombin

Bovine  $\alpha$  thrombin - blocked active site (FPRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Thrombin is the active form of prothrombin (FII). During coagulation, thrombin cleaves fibrinogen into fibrin to form the clot. Thrombin is also responsible for the feedback activation of FV and FVIII cofactors. Thrombin also activates FXIII and platelets.

Reference	Presentation	Format
9-BCT-DFP	Vial	200 $\mu$ g
9-BCT-DFP-1	Vial	1 mg

**Structure:** MW 6,000 and 31,000 Da 2 subunits.  
**Formulation :** 20 mM HEPES, 150 mM NaCl, pH 7.4

< 1 % thrombin activity - Blocked active site  
 MW(Da) : 36 700  
 Extinction coef. : 19.5  
 Determination of activity by chromogenic test or fibrinogen coagulation.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
 Expiration date of one year from delivery.  
 Delivery in large quantities.  
 Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.





## ENZYMES

## Thrombin (FIIa)

Bovine  $\alpha$  thrombin - blocked active site (FPRck)

## Associated products

Biotinylated bovine  $\alpha$ -thrombin - blocked active site (FPRck)

Bovine  $\alpha$  thrombin

Bovine  $\alpha$  thrombin - blocked active site (DFP)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Thrombin is the active form of prothrombin (FII). During coagulation, thrombin cleaves fibrinogen into fibrin to form the clot. Thrombin is also responsible for the feedback activation of FV and FVIII cofactors. Thrombin also activates FXIII and platelets.

Reference	Presentation	Format
9-BCT-FPRCK	Vial	200 $\mu$ g
9-BCT-FPRCK-1	Vial	1 mg

**Structure: MW 6,000 and 31,000 Da 2 subunits**  
**Formulation : 20 mM HEPES; 150 mM NaCl ; pH 7.4**

< 1 % thrombin activity - Blocked active site  
 MW(Da) : 36 700  
 Extinction coef. : 19.5  
 Determination of activity by chromogenic test or fibrinogen coagulation.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
 Expiration date of one year from delivery.  
 Delivery in large quantities.  
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## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Thrombin (FIIa)

## Human gamma-thrombin



## Associated products

Biotinylated bovine  $\alpha$ -thrombin - blocked active site (FPRck)

Bovine  $\alpha$  thrombin

Bovine  $\alpha$  thrombin - blocked active site (DFP)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. The gamma-thrombin is obtained by cleavage of the B2 chain of beta-thrombin at the Lys190-Gly191 position giving the fragments B4 and B5.

Reference	Presentation	Format
9-HCGT-0021	Vial	100 $\mu$ g
9-HCGT-0021-1	Vial	1 mg

**Structure: 4 chains (A, B1, B5 and B4) with a disulfide bridge between peptide A and peptide B5.**

**Formulation : 100 mM + 0,1% PEG**

< 1 % thrombin activity - Blocked active site

MW(Da) : 34 300

Extinction coef. : 18.3

Determination of activity by fibrinogen coagulation test.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Thrombin (FIIa)

Human  $\alpha$  thrombin

## Associated products

Biotinylated bovine  $\alpha$ -thrombin - blocked active site (FPRck)

Bovine  $\alpha$  thrombin

Bovine  $\alpha$  thrombin - blocked active site (DFP)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Thrombin is the active form of prothrombin (FII). During coagulation, thrombin cleaves fibrinogen into fibrin to form the clot. Thrombin is also responsible for the feedback activation of FV and FVIII cofactors. Thrombin also activates FXIII and platelets.

Reference	Presentation	Format
9-HCT-0020	Vial	100 $\mu$ g
9-HCT-0020-1	Vial	1 mg

Human  $\alpha$ -thrombin

Origine : Human Blood / Plasma

Specific activity : 2 800 to 5 400 units/mg

Molecular weight (Da) : 36 700

Extinction coef. : 18.3

Determination of activity by chromogenic test or fibrinogen coagulation.

Structure : MW 6 000 and 31 000 Da 2 subunits.

Buffer formulation : Glycérol 50 % / H<sub>2</sub>O (v/v)

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.

Expiration date of one year from delivery.

Delivery in large quantities.

Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Thrombin (FIIa)

Human  $\alpha$  thrombin - blocked active site (DFP)

## Associated products

Biotinylated bovine  $\alpha$ -thrombin - blocked active site (FPRck)

Bovine  $\alpha$  thrombin

Bovine  $\alpha$  thrombin - blocked active site (DFP)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Thrombin is the active form of prothrombin (FII). During coagulation, thrombin cleaves fibrinogen into fibrin to form the clot. Thrombin is also responsible for the feedback activation of FV and FVIII cofactors. Thrombin also activates FXIII and platelets.

Reference	Presentation	Format
9-HCT-DFP	Vial	100 $\mu$ g
9-HCT-DFP-1	Vial	1 mg

**Structure : PM 6 000 and 31 000 Da 2 subunits.**

**Origin : Human Blood / Plasma**

**Formulation : 20 mM Hepes, 150 mM NaCl, pH 7.4**

HCT activity < 1 %

MW(Da) : 36 700

Extinction coef. : 18.3

Determination of activity by chromogenic test or fibrinogen coagulation.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Thrombin (FIIa)

Human  $\alpha$  thrombin - blocked active site (FPRck) - PPACK

## Associated products

Biotinylated bovine  $\alpha$ -thrombin - blocked active site (FPRck)

Bovine  $\alpha$  thrombin

Bovine  $\alpha$  thrombin - blocked active site (DFP)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Thrombin is the active form of prothrombin (FII). During coagulation, thrombin cleaves fibrinogen into fibrin to form the clot. Thrombin is also responsible for the feedback activation of FV and FVIII cofactors. Thrombin also activates FXIII and platelets.

Reference	Presentation	Format
9-HCT-FPRCK	Vial	100 $\mu$ g
9-HCT-FPRCK-1	Vial	1 mg

**Structure : PM 6 000 and 31 000 Da 2 subunits.**

**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

< 1 % thrombin activity

MW(Da) : 36 700

Extinction coef. : 18.3

Determination of activity by chromogenic test or fibrinogen coagulation.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE. Expiration date of one year from delivery. Delivery in large quantities. Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.





## ENZYMES

## Thrombin (FIIa)

Human  $\alpha$  thrombin - blocked active site (FPRck) - biotinylated PPACK

## Associated products

Biotinylated bovine  $\alpha$ -thrombin - blocked active site (FPRck)

Bovine  $\alpha$  thrombin

Bovine  $\alpha$  thrombin - blocked active site (DFP)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Thrombin is the active form of prothrombin (FII). During coagulation, thrombin cleaves fibrinogen into fibrin to form the clot. Thrombin is also responsible for the feedback activation of FV and FVIII cofactors. Thrombin also activates FXIII and platelets.

Reference	Presentation	Format
9-HCT-BFPRCK	Vial	100 $\mu$ g
9-HCT-BFPRCK-1	Vial	1 mg

**Structure : PM 6 000 and 31 000 Da 2 subunits.**

**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

< 1 % thrombin activity

MW(Da) : 36 700

Extinction coef. : 18.3

Determination of activity by chromogenic test or fibrinogen coagulation.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Thrombin (FIIa)

Human  $\beta$  thrombin

## Associated products

Biotinylated bovine  $\alpha$ -thrombin - blocked active site (FPRck)

Bovine  $\alpha$  thrombin

Bovine  $\alpha$  thrombin - blocked active site (DFP)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Beta-thrombin is obtained by cleavage of alpha-thrombin by cleaving the intact B chain at the Arg106 and tyr 107 bond to produce the B1 and B2 fragments.

Reference	Presentation	Format
9-HCBT-0022	Vial	100 $\mu$ g
9-HCBT-0022-1	Vial	1 mg

**Structure: MW 6,000 and 31,000 Da 2 subunits**

**Formulation : 10 mM sodium phosphate, 0.3 M NaCl, pH 6.5**

< 5 % thrombin activity - Blocked active site

MW(Da) : 35 400

Extinction coef. : 18.3

Determination of activity by chromogenic test or fibrinogen coagulation.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.

Expiration date of one year from delivery.

Delivery in large quantities.

Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Factor VIIa

## Human FVIIa



## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Factor VII (FVII) is a glycoprotein synthesized by the liver, vitamin k dependent. When tissue factor (TF) appears on the surface of damaged, abnormal or activated vascular endothelium, FVIIa associates with it, initiating the extrinsic pathway of coagulation. The FT-FVIIa complex activates the FX in FXa and the FIX in FIXa.

Reference	Presentation	Format
9-HCVIIA-0031	Vial	20 µg
9-HCVIIA-0031-1	Vial	1 mg

**Structure: 2 subunits with N-terminal end derived from light chains (MW = 20 000), COOH end derived from heavy chains (MW = 30 000), Gla domain in N-terminal and 2 EGF domains.**  
**Formulation : 50/50 (v/v) glycérol/H<sub>2</sub>O**

12 000 to 36 000 units/mg  
 MW(Da) : 50 000  
 Extinction coef. : 13.9

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE. Expiration date of one year from delivery. Delivery in large quantities. Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Factor IXa

## Bovine Factor IXa



## Associated products

Bovine Factor IXa - blocked active site (DEGRck)

Bovine Factor IXa - blocked active site (EGRck)

Human Factor IXa

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated to FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium. A person who is deficient in FIX has hemophilia B.

Reference	Presentation	Format
9-BCIXA-1050	Vial	100 µg
9-BCIXA-1050-1	Vial	1 mg

**Structure: 2 subunits (MW(Da) : 28 000 & 17 000 ), Gla domain in terminal NH2 and 2 EGF domains.**

**Formulation : 50/50 (v/v) glycérol/H<sub>2</sub>O**

930 to 2 560 units/mg

MW(Da) : 45 000

Extinction coef. : 14.0

Determination of activity by a FIX coagulation test.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE. Expiration date of one year from delivery Delivery in large quantities Discount according to quantities

## Characteristics

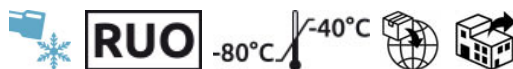
All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Factor IXa

## Bovine Factor IXa - blocked active site (DEGRck)



## Associated products

Bovine Factor IXa

Bovine Factor IXa - blocked active site (EGRck)

Human Factor IXa

Reference	Presentation	Format
9-BCIXA-DEGR	Vial	100 µg
9-BCIXA-DEGR-1	Vial	1 mg

**Formulation : 20 mM HEPES + 150 mM NaCl, pH 7.4**

< 1 % activity IXa - Active-site blocked MW(Da) : 45 000 Extinction coef. : 14 Structure: 2 subunits (MW(Da) : 28 000 & 17 000 ), Gla domain in terminal NH2 and 2 EGF domains. Determination of activity by a FIX coagulation test.

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH.

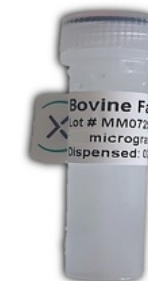
FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated to FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium. A person who is deficient in FIX has hemophilia B. DEGRck : Dansyl-EGRck (dansyl-Glu-Gly-Arg chloromethyl ketone) : 642.1 g/mol

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE. Expiration date of one year from delivery Delivery in large quantities Discount according to quantities

## Characteristics

All enzymes are accompanied by certificates of analysis which describe the appropriate storage conditions. Brief centrifugation of the enzymes in their original packaging will completely recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingly" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin. Prionex replaces BSA very advantageously.





## ENZYMES

## Factor IXa

## Bovine Factor IXa - blocked active site (EGRck)



## Associated products

Bovine Factor IXa

Bovine Factor IXa - blocked active site (DEGRck)

Human Factor IXa

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH.

FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated to FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium. A person who is deficient in FIX has hemophilia B. EGRck :Glu-Gly-Arg chloromethyl ketone. PM : 466 g/mol

Reference	Presentation	Format
9-BCIXA-EGR	Vial	100 µg
9-BCIXA-EGR-1	Vial	1 mg

**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

< 1 % activity IXa - Active-site blocked MW(Da) : 45 000 Extinction coef. : 14 Structure: 2 subunits (MW(Da) : 28 000 & 17 000 ), Gla domain in terminal NH2 and 2 EGF domains. Determination of activity by a FIX coagulation test.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE. Expiration date of one year from delivery Delivery in large quantities Discount according to quantities

## Characteristics

All enzymes are accompanied by certificates of analysis which describe the appropriate storage conditions. Brief centrifugation of the enzymes in their original packaging will completely recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingly" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin. Prionex replaces BSA very advantageously.



## ENZYMES

## Factor IXa

## Human Factor IXa



## Associated products

Bovine Factor IXa

Bovine Factor IXa - blocked active site (DEGRck)

Bovine Factor IXa - blocked active site (EGRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated to FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium. A person who is deficient in FIX has hemophilia B.

Reference	Presentation	Format
9-HCIXA-0050	Vial	100 µg
9-HCIXA-0050-1	Vial	1 mg

**Origin : Human Blood / Plasma****Buffer formulation : 50/50 (v/v) glycérol/H<sub>2</sub>O****Structure: 2 subunits (Molecular weight : 28 000 & 17 000 Da), Gla domain in terminal NH<sub>2</sub> and 2 EGF domains.**

Molecular weight (Da) : 45 000

Extinction coef. : 14.0

Determination of activity by a Factor IX clotting assay

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

All enzymes are accompanied by certificates of analysis which describe the appropriate storage conditions. Brief centrifugation of the enzymes in their original packaging will completely recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingly" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin. Prionex replaces BSA very advantageously.



## ENZYMES

## Factor IXa

## Human Factor IXa - blocked active site (DEGRck)



## Associated products

Bovine Factor IXa

Bovine Factor IXa - blocked active site (DEGRck)

Bovine Factor IXa - blocked active site (EGRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH.

FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated to FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium. A person who is deficient in FIX has hemophilia B. DEGRck : Dansyl-EGRck (dansyl-Glu-Gly-Arg chloromethyl ketone) : 642.1 g/mol

Reference	Presentation	Format
9-HCIXA-DEGR	Vial	100 µg
9-HCIXA-DEGR-1	Vial	1 mg

**Structure: 2 subunits (MW(Da) : 28 000 & 17 000 ), Gla domain in terminal NH2 and 2 EGF domains.**

**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

< 1 % activity IXa - Active-site blocked

MW(Da) : 45 000

Extinction coef. : 14

Determination of activity by a FIX coagulation test.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.

Expiration date of one year from delivery.

Delivery in large quantities.

Discount according to quantities.

## Characteristics

All enzymes are accompanied by certificates of analysis which describe the appropriate storage conditions. Brief centrifugation of the enzymes in their original packaging will completely recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingly" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin. Prionex replaces BSA very advantageously.



## ENZYMES

## Factor IXa

## Human Factor IXa - blocked active site (EGRck)



## Associated products

Human Factor IXa - blocked active site (EGRck)

Bovine Factor IXa - blocked active site (DEGRck)

Bovine Factor IXa - blocked active site (EGRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH.

FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated to FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium. A person who is deficient in FIX has hemophilia B. EGRck

:Glu-Gly-Arg chloromethyl ketone. MW : 466 g/mol

Reference	Presentation	Format
9-HCIXA-EGR	Vial	100 µg
9-HCIXA-EGR-1	Vial	1 mg

**Structure: 2 subunits (MW(Da) : 28 000 & 17 000), Gla domain in terminal NH2 and 2 EGF domains.**

**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

< 1 % activity IXa - Active-site blocked

MW(Da) : 45 000

Extinction coef. : 14

Determination of activity by a FIX coagulation test.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.

Expiration date of one year from deliver.

Delivery in large quantities.

Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Factor IXa

## Rat Factor IXa



## Associated products

Bovine Factor IXa

Bovine Factor IXa - blocked active site (DEGRck)

Bovine Factor IXa - blocked active site (EGRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated to FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium. A person who is deficient in FIX has hemophilia B.

Reference	Presentation	Format
9-RATIXA-9050	Vial	50 µg
9-RATIXA-9050-1	Vial	1 mg

**Structure: 2 subunits (MW(Da) : 28 000 & 17 000 ), Gla domain in terminal NH2 and 2 EGF domains.**

**Formulation : 50/50 (v/v) glycérol/H<sub>2</sub>O**

MW(Da) : 45 000

Extinction coef. : 14.0

Determination of activity by a FIX coagulation test.

Product manufactured only on request with minimum order quantity

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.





## ENZYMES

## Factor Xa

## Human Factor Xa (FXa) RVV-X Activated



## Associated products

Bovine Factor Xa

Bovine Factor Xa - blocked active site (DEGRck)

Bovine Factor Xa- blocked active site (EGRck)

## Informations

Factor X is a vitamin K dependant, two-chain glycoprotein zymogen (Mr = 59 000) synthesized in the liver that circulates in plasma at a concentration of approximately 10 µg/mL.

Activation to factor Xa occurs by interaction with the intrinsic factor Xase complex (factor VIIa / IXa / Ca<sup>2+</sup> / phospholipid) or the extrinsic factor Xase complex (Factor VIIa/tissue factor/Ca<sup>2+</sup>/phospholipid). Both complexes cleave the molecule at Arg52-Ile53, release an activation peptide from the heavy chain, resulting in factor Xa as a two-chain molecule where the light chain remains with a Mr of 17 000 and the heavy chain has been reduced to a Mr of 29 000.

Factor Xa provides the enzymatic activity of the prothrombinase complex (Factor Xa / Factor Va / Ca<sup>2+</sup> / phospholipid) which converts prothrombin to thrombin. While FXa can convert prothrombin to thrombin alone, its activity is greatly enhanced when a part of the complex. Its activity may be inhibited by inactivation of the factor Va cofactor or directly by a natural inhibitor such as antithrombin III (ATIII).

Reference

11-526

Presentation

Vial

Format

80 µg

**Human factor Xa is activated from human factor X, itself purified from human plasma, using activator from Russell's viper venom (RVV-X).**

The activity has been measured via factor Xa clotting assay in 1 mL of normal human plasma.

## Advantages

The lyophilized presentation allows greater stability until the expiration date.

## Characteristics

Screw-capped glass vial containing 80 µg of human factor Xa lyophilized.

All enzymes are accompanied by certificates of analysis which describe the appropriate storage conditions.

In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed.



## ENZYMES

## Factor Xa

## Bovine Factor Xa



## Associated products

Bovine Factor Xa - blocked active site (DEGRck)

Bovine Factor Xa- blocked active site (EGRck)

Human Factor Xa

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-BCXA-1060	Vial	100 µg
9-BCXA-1060-1	Vial	1 mg

**Structure: 2 PM subunits: 16 200 and 28 800 Da, N-terminal Gla domain and 2 EGF domains.**  
**Formulation : 50/50 (v/v) glycerol/H<sub>2</sub>O**

900 to 1 900 units/mg

MW(Da) : 45 300

Extinction coef. : 12.4

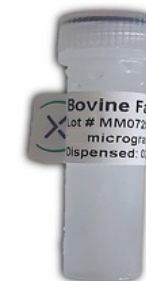
Activity determined by coagulation and chromogenic tests

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE. Expiration date of one year from delivery Delivery in large quantities Discount according to quantities

## Characteristics

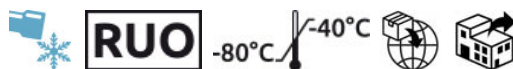
All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Factor Xa

## Bovine Factor Xa- blocked active site (EGRck)



## Associated products

Bovine Factor Xa

Bovine Factor Xa - blocked active site (DEGRck)

Human Factor Xa

Reference	Presentation	Format
9-BCXA-EGR	Vial	100 µg
9-BCXA-EGR-1	Vial	1 mg

**Structure: 2 PM subunits: 16 200 and 28 800 Da, N-terminal Gla domain and 2 EGF domains.**  
**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**



## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin. EGRck : Glu-Gly-Arg chloromethyl ketone. PM : 466 g/mol

&lt; 1 % FXa activity - Active-site blocked

MW (Da) : 45 300

Extinction coef.: 12.4

Activity determined by coagulation and chromogenic tests

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
 Expiration date of one year from delivery.  
 Delivery in large quantities.  
 Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.

## ENZYMES

## Factor Xa

## Human Factor Xa



## Associated products

Bovine Factor Xa

Bovine Factor Xa - blocked active site (DEGRck)

Bovine Factor Xa- blocked active site (EGRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-HCXA-0060	Vial	100 µg
9-HCXA-0060-1	Vial	1 mg

**Origin : Human Blood / Plasma****Formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)**

700 to 1 300 units/mg

MW(Da) : 46 000

Extinction coef. : 11.6

Activity determined by coagulation and chromogenic tests.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Factor Xa

## Human Factor Xa - blocked active site (BEGRck)



## Associated products

Bovine Factor Xa

Bovine Factor Xa - blocked active site (DEGRck)

Bovine Factor Xa - blocked active site (EGRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product.

Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH.

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation.

It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids.

FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-HCXA-BEGR	Vial	100 µg
9-HCXA-BEGR-1	Vial	1 mg

**Structure: 2 PM subunits: 16 200 and 28 800 Da, N-terminal Gla domain and 2 EGF domains.**  
**Formulation : 20 mM Hepes, 150 mM NaCl, pH 7.4**

< 1 % FXa activity - Active-site blocked.

MW(Da) : 46 000

Extinction coef. : 11.6

Activity determined by coagulation and chromogenic tests

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.

Expiration date of one year from delivery.

Delivery in large quantities

Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.





## ENZYMES

## Factor Xa

## Human Factor Xa - blocked active site (DEGRck)



## Associated products

Bovine Factor Xa

Bovine Factor Xa - blocked active site (DEGRck)

Bovine Factor Xa- blocked active site (EGRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin. DEGRck : Dansyl-EGRck (dansyl-Glu-Gly-Arg chloromethyl ketone) : 642.1 g/mol

Reference	Presentation	Format
9-HCXA-DEGR	Vial	100 µg
9-HCXA-DEGR-1	Vial	1 mg

**Structure: 2 PM subunits: 16 200 and 28 800 Da, N-terminal Gla domain and 2 EGF domains.**  
**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

&lt; 1 % FXa activity - Active-site blocked

MW(Da) : 46 000

Extinction coef. : 11.6

Activity determined by coagulation and chromogenic tests.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
 Expiration date of one year from delivery.  
 Delivery in large quantities.  
 Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Factor Xa

## Human Factor Xa - blocked active site (EGRck)



## Associated products

Bovine Factor Xa

Bovine Factor Xa - blocked active site (DEGRck)

Bovine Factor Xa- blocked active site (EGRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product.

Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K.

FX is involved in the common pathway of coagulation.

It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids.

FXa is neutralized by TFPI and antithrombin.

EGRck : Glu-Gly-Arg chloromethyl ketone.

Reference	Presentation	Format
9-HCXA-EGR	Vial	100 µg
9-HCXA-EGR-1	Vial	1 mg

**Structure: 2 PM subunits: 16 200 and 28 800 Da, N-terminal Gla domain and 2 EGF domains.**  
**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

< 1 % Fxa activity - Active-site blocked

MW(Da) : 46 000

Extinction coef. : 11.6

Activity determined by coagulation and chromogenic tests.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.

Expiration date of one year from delivery.

Delivery in large quantities.

Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Factor Xa

Human Gla-domainless  $\beta$ -Factor Xa

## Associated products

Bovine Factor Xa

Bovine Factor Xa - blocked active site (DEGRck)

Bovine Factor Xa- blocked active site (EGRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K.

FX is involved in the common pathway of coagulation.

It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids.

FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-HCXA-GD	Vial	100 $\mu$ g
9-HCXA-GD-1	Vial	1 mg

**Formulation : 10 mM HEPES, 50 mM NaCl, pH 7.4**

< 1 % FXa activity - Active-site blocked

MW(Da) : 39 800

Extinction coef. : 11.6

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.

Expiration date of one year from delivery.

Delivery in large quantities.

Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Factor Xa

Human  $\beta$ -Factor Xa

## Associated products

Bovine Factor Xa

Bovine Factor Xa - blocked active site (DEGRck)

Bovine Factor Xa- blocked active site (EGRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-HCBXA-0061	Vial	100 $\mu$ g
9-HCBXA-0061-1	Vial	1 mg

**Formulation : 50/50 (v/v) glycerol/H<sub>2</sub>O**

700 to 1 300 units/mg

MW(Da) : 44 859

Extinction coef. : 11.6

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE. Expiration date of one year from delivery. Delivery in large quantities. Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Factor XIa

## Human Factor XIa - blocked active site (EGRck)



## Associated products

Bovine Factor Xa - blocked active site (DEGRck)

Bovine Factor Xa- blocked active site (EGRck)

Human Factor Xa - blocked active site (BEGRck)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH.

Factor XI (FXI) is a protein synthesized by the liver. It participates in the contact phase which initiates the intrinsic pathway of coagulation.

It is activated by FXIIa to factor FXIa which will itself activate FIX in the presence of calcium ions.

EGRck :Glu-Gly-Arg chloromethyl ketone. MW : 466 g/mol

Reference	Presentation	Format
9-HCXIA-EGR	Vial	50 µg

**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

< 1 % activity XIa - Active-site blocked  
MW(Da) : 160 000  
Extinction coef. : 13.4

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.





## ENZYMES

## Factor XIa

## Human Factor XIa



Reference	Presentation	Format
9-HCXIA-0160	Vial	50 µg
9-HCXIA-0160-1	Vial	1 mg



## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH.

Factor XI (FXI) is a protein synthesized by the liver. It participates in the contact phase which initiates the intrinsic pathway of coagulation. It is activated by FXIIa to factor FXIa which will itself activate FIX in the presence of calcium ions.

**Origine : Human Blood / Plasma**

**Buffer formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)**

Molecular weight (Da) : 160 000

Extinction coef. : 13.4

Structure: 2 heavy chains of identical appearance (MW: 50,000 Da) and 2 light chains of identical appearance (MW: 30,000 Da) held together by disulfide bridges.

Each light chain contains a catalytic domain.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

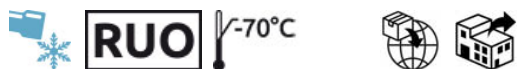
## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.

## ENZYMES

## Factor XIIa

## Human Activated Factor XII (FXIIa) (activated Hageman Factor)



## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Factor XII (FXII) is a glycoprotein synthesized by the liver. FXII participates in the contact phase which initiates the intrinsic pathway of coagulation. Activated on contact with a negatively charged surface, it becomes capable of activating prekallikrein and kallikrein (amplified by KHPM) then FXI to FXIa in the presence of KHPM. The FXIa thus formed activates the FXII in FXIIa, amplifying the reaction.

Reference	Presentation	Format
11-412HA	Vial	0.5 mg

**Formulation: 4mM sodium acetate, 150mM sodium chloride, pH 5.3.**

MW(Da) : 80 000  
Extinction coef. : 1,41

## Characteristics

All enzymes are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed.



## ENZYMES

## Factor XIIIa

## Human Factor XIIIa



## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Factor XIII is synthesized by the liver. Activated by thrombin, FXIII intervenes in the final phase of fibrin formation to stabilize the fibrin clot by forming covalent bonds in the fibrin polymer.

Reference	Presentation	Format
9-HCXIIIa-0165	Vial	50 µg
9-HCXIIIa-0165-1	Vial	1 mg

**Structure : Tetramer in the absence of calcium, 2 identical A chains (MW 71 kDa), each containing 6 free sulfhydryls and an active site, 2 identical B subunits (MW: 88 kDa).**

**Formulation : 50/50 (v/v) 50% glycérol, 0,5mM EDTA**

≈ 900 units/mg

MW(Da) : 312 000

Extinction coef. : 13.8

Activity determination: photometric determination

Isoelectric point : 5.2.



## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.

## ENZYMES

## Plasmin

## Human plasmin



## Associated products

Mouse plasmin

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Plasmin is the active form of plasminogen. It is a serine protease which catalyzes the hydrolysis of the peptide bonds located preferentially after a lysine residue or an arginine residue. It has a greater selectivity than trypsin.

Reference	Presentation	Format
9-HCPM-0140	Vial	500 µg
9-HCPM-0140-1	Vial	1 mg

**Origin : Human Blood / Plasma**

**Buffer formulation : 50/50 (v/v) glycérol/H<sub>2</sub>O**

**Structure: 2 subunits (molecular weight of heavy chain : 57,000 Da and light chain 26,000 ), linked by a disulfide bridge, 5 kringles domains, 22 disulfide bridges and an N-terminal lysine.**

Molecular weight (Da) : 83 000

Extinction coef. : 17

Determination of activity by chromogenic assay.

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

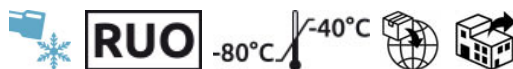
All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Activated protein C (APC)

## Bovine Activated Protein C - blocked active site (DEGR)



## Associated products

Bovine Activated Protein C (APC)

Human Activated Protein C

Human Activated Protein C - blocked active site (DEGR)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Protein C is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC is at the center of a physiological system that inhibits coagulation : the anticoagulant system of protein C. Thrombin associated with thrombomodulin loses its procoagulant properties at the same time as it activates PC to active protein C (PCa). PCa in the presence of protein S, calcium and phospholipids is capable of cleaving FVa and FVIIIa blocking the amplification loop of thrombin generation.

Reference	Presentation	Format
9-BCAPC-DEGR	Vial	50 µg

**2-chain structure : MW 35 000 and 21 000 Da, Gla domain in N-terminal and 2 EGF domains**  
**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

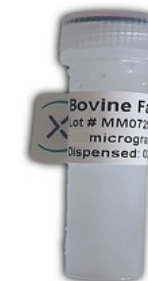
< 1 % activity PCa - Active-site blocked  
 MW(Da) : 52 650  
 Extinction coef. : 13.7  
 Determination of activity by chromogenic test  
 Isoelectric point : 4.2-4.5

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
 Expiration date of one year from delivery.  
 Delivery in large quantities.  
 Discount according to quantities.

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.





## ENZYMES

## Activated protein C (APC)

## Bovine Activated Protein C (APC)



## Associated products

Bovine Activated Protein C - blocked active site (DEGR)

Human Activated Protein C

Human Activated Protein C - blocked active site (DEGR)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Protein C is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC is at the center of a physiological system that inhibits coagulation : the anticoagulant system of protein C. Thrombin associated with thrombomodulin loses its procoagulant properties at the same time as it activates PC to active protein C (PCa). PCa in the presence of protein S, calcium and phospholipids is capable of cleaving FVa and FVIIIa blocking the amplification loop of thrombin generation.

Reference	Presentation	Format
9-BCAPC-1080	Vial	50 µg
9-BCAPC-1080-1	Vial	1 mg

**2-chain structure : MW 35 000 and 21 000 Da, Gla domain in N-terminal and 2 EGF domains  
Formulation 50/50 (v/v) glycerol/H<sub>2</sub>O**

6.0 to 18.5 units/mg  
MW(Da) : 52 650  
Extinction coef. : 13.7  
Determination of activity by chromogenic test  
Isoelectric point : 4.2-4.5

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

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## ENZYMES

## Activated protein C (APC)

## Human Activated Protein C



## Associated products

Bovine Activated Protein C - blocked active site (DEGR)

Bovine Activated Protein C (APC)

Human Activated Protein C - blocked active site (DEGR)

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Protein C is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC is at the center of a physiological system that inhibits coagulation : the anticoagulant system of protein C. Thrombin associated with thrombomodulin loses its procoagulant properties at the same time as it activates PC to active protein C (PCa). PCa in the presence of protein S, calcium and phospholipids is capable of cleaving FVa and FVIIIa blocking the amplification loop of thrombin generation.

Reference	Presentation	Format
9-HCAPC-0080	Vial	50 µg
9-HCAPC-0080-1	Vial	1 mg

**Origin : Human Blood / Plasma**

**Determination of activity by chromogenic test**

**2-chain structure : molecular weight 35 000 and 21 000 Da, Gla domain in N-terminal and 2 EGF domains**

Molecular weight (Da) : 56 200

Extinction coef. : 14.5

Buffer formulation : 50/50 (v/v) glycérol/H<sub>2</sub>O

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities  
Discount according to quantities

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20°C and remain in fluid phase. Temperatures lower than -30°C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20°C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Activated protein C (APC)

## Human Activated Protein C - blocked active site (DEGR)



## Associated products

Bovine Activated Protein C - blocked active site (DEGR)

Bovine Activated Protein C (APC)

Human Activated Protein C

## Informations

An enzyme is a protein that catalyzes a biochemical reaction. It converts a substrate into a product. Each enzyme has a structure adapted to its function and its activity is dependent on an optimum temperature and pH. Protein C is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC is at the center of a physiological system that inhibits coagulation : the anticoagulant system of protein C. Thrombin associated with thrombomodulin loses its procoagulant properties at the same time as it activates PC to active protein C (PCa). PCa in the presence of protein S, calcium and phospholipids is capable of cleaving FVa and FVIIIa blocking the amplification loop of thrombin generation.

Reference	Presentation	Format
9-HCAPC-DEGR	Vial	50 µg
9-HCAPC-DEGR-1	Vial	1 mg

**2-chain structure : MW 35 000 and 21 000 Da, Gla domain in N-terminal and 2 EGF domains**  
**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

< 1 % activity PCa - Active-site blocked  
 MW(Da) : 56 200  
 Extinction coef. : 14.5  
 Determination of activity by chromogenic test  
 Isoelectric point : 4.2-4.5

## Advantages

The vast majority of enzymes is pure (without additives) with > 95% purity SDS-PAGE. Expiration date of one year from delivery Delivery in large quantities Discount according to quantities

## Characteristics

All enzymes are accompanied by product information sheets which describe proper storage conditions. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), Prionex or gelatin. Prionex is better than BSA.



## ENZYMES

## Kallikrein

## Human kallikrein



Reference	Presentation	Format
11-473	Vial	1 mg

## Informations

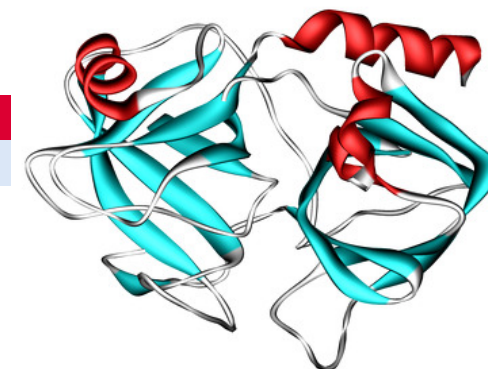
Kallikrein is a glycoprotein derived from prekallikrein. It is non-covalently complexed to the high molecular weight kininogen. FXIIa activates the transformation of prekallikrein into kallikrein which will activate FXII and hydrolyze KHPM into several fragments. In fibrinolysis, kallikrein is also able to activate pro-urokinase to urokinase.

**Structure : 52 kDa heavy chain and a 33 kDa light chain linked by disulfide bridges.**  
**Formulation : 1mg in a buffer composed of 4mM sodium acetate / hydrochloride, 150mM NaCl, pH 5.3**


















MW(Da) : 85 000  
 Coef. Extinction : 1.17

## Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Avoid freezing and thawing cycles.


















# HUMAN PLASMAS

Reference	Designation	Click to go to the product sheet	WEB
<b>Fibrinogen plasmas</b>			
6-PPFIB	→ Plasma set with different fibrinogen concentrations		
6-PPAFIB	→ Afibrinogenemia plasma		
6-PPFIBUL	→ Plasma with ultra low level of fibrinogen: <1 g/L		
6-PPFIBL	→ Plasma with low level of fibrinogen: 1 - 1.5 g/L		
6-PPFIBM	→ Plasma with normal level of fibrinogen: 1.5 - 4.5 g/L		
6-PPFIBH	→ Plasma with high level of fibrinogen: 4.5 - 10 g/L		
6-PPFIBUH	→ Plasma with ultra high level of fibrinogen: >10 g/L		
<b>Individual normal donors plasmas</b>			
CCNS-10	→ CRYOcheck™ Normal Donor Set		
6-PPNDCI	→ Normal donor citrated plasma (vol > 50mL)		
6-PPNEDTA	→ Normal donor plasma on EDTA anticoagulant		
<b>Weak control plasma</b>			
6-VL9C-05	→ Very Low IX Control Plasma		
6-VL8C-05	→ Very Low VIII Control Plasma		
6-VL11C-05	→ Very Low XI Control Plasma		
6-VL12C-05	→ Very Low XII Control Plasma		
<b>Normal donor serum</b>			
6-SPND-05	→ Normal donor serum		
6-SPOOL	→ Pool of fresh serum from healthy donors		
<b>Pool of plasma from healthy donors</b>			
6-PPOOL	→ Pool of fresh plasma from healthy donors		



# HUMAN PLASMAS

Reference	Designation	Click to go to the product sheet	WEB
<b>High Factor plasmas</b>			
6-PPATH	→ Plasma with high antithrombin level		
6-PP02H	→ High Factor II plasma (acquired) > 150 %		
6-PP05H	→ High Factor V plasma (acquired) > 150 %		
6-PP07H	→ High FVII plasma 100-150 % (acquired)		
6-PP08H	→ High FVIII plasma > 150 % (acquired)		
6-PP09H	→ High Factor IX plasma > 150 % (acquired)		
6-PP10H	→ High Factor X plasma > 150 % (acquired)		
6-PP11H	→ High Factor XI plasma > 150 % (acquired)		
6-PP12H	→ High Factor XII plasma > 150 % (acquired)		
6-PP13H	→ Factor XIII High > 150 % (acquired)		
<b>Plasmas with anticoagulant drugs</b>			
6-PPAOL	→ Plasma with oral anticoagulant plasma – INR < 2.00		
6-PPAOM	→ Plasma with oral anticoagulant plasma – INR 2.00-2.99		
6-PPAOH	→ Plasma with oral anticoagulant – INR 3.00–3.99		
6-PPAOUH	→ Plasma with oral anticoagulant plasma - INR ≥ 4.00		
6-PPARG	→ Anticoagulant plasma – DTI – Argatroban – U/mL		

## HUMAN PLASMAS

## Fibrinogen plasmas

## Plasma set with different fibrinogen concentrations



## Associated products

Afibrinogenemia plasma

Human dysfibrinogenemia plasma

Plasma with ultra low level of fibrinogen: <1 g/L

## Informations

Fibrinogen is a soluble protein made by the liver. Under the action of thrombin, fibrinogen is converted into fibrin.

In association with FXIII, calcium ions, fibrin forms a stable network which ensures coagulation.

Reference	Presentation	Format
6-PPFIB	Vial	10 x 1.0 mL

## Different concentrations.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## HUMAN PLASMAS

## Fibrinogen plasmas

## Afibrinogenemia plasma



## Associated products

Plasma set with different fibrinogen concentrations

Human dysfibrinogenemia plasma

Plasma with ultra low level of fibrinogen: <1 g/L

## Informations

Fibrinogen (Factor I) is a plasma soluble glycoprotein that is synthesized by the liver at a size of 340 kDa and circulating at a concentration of 2.6 to 3 mg/mL.

Fibrinogen is a dimer bound by disulfide bridges composed of 3 pairs of polypeptide chains not identical. Under the action of thrombin, fibrinogen is converted into fibrin. In combination with FXIII, calcium ions, fibrin forms a stable network that ensures coagulation.

Afibrinogenemic plasma is plasma that does not exhibit fibrinogen. The characteristic clinical signs are hemorrhages of the umbilical cord, epistaxis, haemarthrosis, gastrointestinal haemorrhages, menorrhagia, post-traumatic and post-surgical bleeding and more rarely intracranial haemorrhages.

Reference	Presentation	Format
6-PPAFIB	Vial	1 x 1.0 mL

**Plasma with no fibrinogen.**

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## HUMAN PLASMAS

## Fibrinogen plasmas

## Plasma with ultra low level of fibrinogen: &lt;1 g/L



## Associated products

Plasma set with different fibrinogen concentrations

Afibrinogenemia plasma

Human dysfibrinogenemia plasma

## Informations

Fibrinogen is a soluble protein made by the liver. Under the action of thrombin, fibrinogen is converted into fibrin. In association with FXIII, calcium ions, fibrin forms a stable network which ensures coagulation.

Reference	Presentation	Format
6-PPFIBUL	Vial	1 x 1.0 mL

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## HUMAN PLASMAS

## Fibrinogen plasmas

## Plasma with low level of fibrinogen: 1 - 1.5 g/L



## Associated products

Plasma set with different fibrinogen concentrations

Afibrinogenemia plasma

Human dysfibrinogenemia plasma

## Informations

Fibrinogen is a soluble protein made by the liver. Under the action of thrombin, fibrinogen is converted into fibrin. In association with FXIII, calcium ions, fibrin forms a stable network which ensures coagulation.

Reference	Presentation	Format
6-PPFIBL	Vial	1 x 1.0 mL

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ . We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.





## HUMAN PLASMAS

## Fibrinogen plasmas

## Plasma with normal level of fibrinogen: 1.5 - 4.5 g/L



## Associated products

Plasma set with different fibrinogen concentrations

Afibrinogenemia plasma

Human dysfibrinogenemia plasma

## Informations

Fibrinogen is a soluble protein made by the liver. Under the action of thrombin, fibrinogen is converted into fibrin. In association with FXIII, calcium ions, fibrin forms a stable network which ensures coagulation.

Reference	Presentation	Format
6-PPFIBM	Vial	1 x 1.0 mL

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ . We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## HUMAN PLASMAS

## Fibrinogen plasmas

## Plasma with high level of fibrinogen: 4.5 - 10 g/L



## Associated products

Plasma set with different fibrinogen concentrations

Afibrinogenemia plasma

Human dysfibrinogenemia plasma

## Informations

Fibrinogen is a soluble protein made by the liver. Under the action of thrombin, fibrinogen is converted into fibrin. In association with FXIII, calcium ions, fibrin forms a stable network which ensures coagulation.

Reference	Presentation	Format
6-PPFIBH	Vial	1 x 1.0 mL

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ . We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## HUMAN PLASMAS

## Fibrinogen plasmas

## Plasma with ultra high level of fibrinogen: &gt;10 g/L



## Associated products

Plasma set with different fibrinogen concentrations

Afibrinogenemia plasma

Human dysfibrinogenemia plasma

## Informations

Fibrinogen is a soluble protein made by the liver. Under the action of thrombin, fibrinogen is converted into fibrin. In association with FXIII, calcium ions, fibrin forms a stable network which ensures coagulation.

Reference	Presentation	Format
6-PPFIBUH	Vial	1 x 1.0 mL

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## HUMAN PLASMAS

## Individual normal donors plasmas

Fresh frozen plasmas

## CRYOcheck™ Normal Donor Set

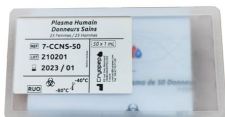


## Associated products

Pool of fresh plasma from healthy donors



Normal donor citrated plasma (vol &gt; 50mL)



Plasma from 50 healthy donors

Reference	Presentation	Format
CCNS-10	Kit	25 x 1.0 mL

## Normal plasmas from individual donors.

The CRYOcheck™ Normal Donor Set consists of 25 separate plasma vials, collected with great care from healthy individual male and female donors without drug treatment between 18 and 66 years of age.

The result is a very high quality product that truly represents a sample of a "normal" population. Each plasma is verified as having a normal coagulation profile in hemostasis.



## Components

- 25 cryotubes x 1 mL of frozen plasma

## Advantages

- No bovine additives or preservatives
- No reconstitution error
- No deterioration of plasmas linked to freeze-drying
- Ready to use after thawing (4 min in a water bath at 37 °C)
- Packaging in plastic cryotubes suitable for all STA-R type micro-cup supports

## Characteristics

- Results may vary depending on reagents and instrument used
- Kits can be ordered in multiples of 25 aliquots
- Flash freezing under nitrogen
- Checked negative for all serology tests required by the FDA Compact, color-coded boxes for easier identification in freezers
- Expiration date of 3 years from the date of manufacture with storage between -40 °C and -80 °C

# HUMAN PLASMAS

## Individual normal donors plasmas

### Normal donor citrated plasma (vol > 50mL)

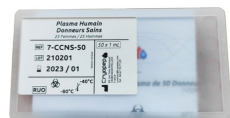


#### Associated products

Pool of fresh plasma from healthy donors



CRYOcheck™ Normal Donor Set



Plasma from 50 healthy donors

Reference	Presentation	Format
6-PPNDCI	Vial	1 x 1.0 mL

Normal citrated plasma from a healthy single donor. Each batch corresponds to a unique healthy donor.

Plasma is low in platelets and is not buffered. Plasma is available in 3.2% or 3.8% citrate.

This reference is dedicated to providing volumes greater than 50mL. (volumes available in 50mL, 100mL and 200mL bottles). The price indicated is per mL. Plasma can be aliquoted on request in 1mL vials. Contact us for specific requests.

#### Advantages

Minimize test time.  
Ready to use.

#### Characteristics

No buffer or preservatives are added.  
Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.





## HUMAN PLASMAS

## Individual normal donors plasmas

## Normal donor plasma on EDTA anticoagulant



## Associated products

Normal donor citrated plasma (vol > 50mL)

Normal donor plasma

Normal donor plasma on CPDA

## Informations

EDTA (Ethylenediaminetetraacetic) captures Ca<sup>2+</sup> + ions.

Calcium is required for a wide range of enzymatic reactions in the coagulation cascade.

Reference	Presentation	Format
6-PPNDEDTA	Vial	1 x 1.0 mL

**Normal donor plasma on ethylenediaminetetraacetic acid (EDTA) anticoagulant.**

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile.  
No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C.  
We carefully pack with dry ice during shipment.  
No additive or preservative.  
Expiry date > 1 year.  
Plastic vials.



## HUMAN PLASMAS

## Weak control plasma

Fresh frozen plasmas

## Very Low IX Control Plasma



## Associated products

Rox Factor IX

## Informations

Factor IX is a glycoprotein synthesized by the liver, zymogen of a serine protease.

It is a vitamin K dependent factor and its plasma half-life is 20-24 hours.

It can be activated to FIXa by FXIa or FVIIa in the presence of phospholipids and calcium.

Reference	Presentation	Format
6-VL9C-05	Kit	25 x 0.5 mL

**Human plasma pool from donors with congenital factor IX deficiency.  
Control plasma to measure the accuracy of the quantitative determination of Factor IX in hemostasis for a very low value.**

This low value control is titrated for Factor IX hemostasis values around 2%.

## Components

- 25 cryotubes x 0.5 mL of frozen plasma

## Characteristics

- Undiluted citrated human plasma.
- Ready to use.
- Plasma from donors with congenital deficiency.
- Certificate of analysis mentioning the value of the measured parameter on request.



## HUMAN PLASMAS

## Weak control plasma

Fresh frozen plasmas

## Very Low VIII Control Plasma



## Associated products

CRYOcheck™ Chromogenic Factor VIII

Rox Factor VIII

TECHNOCHROM® FVIII:C

## Informations

Factor VIII is a glycoprotein almost entirely synthesized by the liver and present in many tissues.

Its plasma half-life is thus 10 to 16 hours.

The free form of FVIII is present at very low concentration and has a half-life of 2 hours.

It circulates in the plasma in its form bound to VWF which protects it from its proteolytic degradation.

Reference	Presentation	Format
6-VL8C-05	Kit	25 x 0.5 mL

**Control plasma to measure the accuracy of the quantitative determination of Factor VIII in hemostasis for a very low value.**

From an adult donor with congenital Factor VIII deficiency.

This low value control is titrated for the hemostasis values of FVIII around 2%.

## Components

- 25 cryotubes x 0.5 mL of frozen plasma

## Characteristics

- Undiluted citrated human plasma
- Ready to use after 3 min at 37 °C
- Plasma from donors with congenital deficiency.
- Certificate of analysis mentioning the value of the measured parameter on request



## HUMAN PLASMAS

## Weak control plasma

Fresh frozen plasmas

## Very Low XI Control Plasma



## Informations

Factor XI (FXI) is a glycoprotein synthesized by the liver, zymogen of a serine protease. Its plasma half-life is 40 to 80 hours. This factor participates in the contact phase which initiates the intrinsic pathway of coagulation. It is activated by FXIIa to FXIa which will itself activate FIX in the presence of calcium ions.

Reference	Presentation	Format
6-VL11C-05	Kit	25 x 0.5 mL

**Control plasma to measure the accuracy of the quantitative determination of Factor XI in hemostasis for a very low value.**

This low value control is titrated for Factor XI hemostasis values around 2%.

## Components

- 25 cryotubes x 0.5 mL of frozen plasma

## Characteristics

- Undiluted citrated human plasma
- Ready to use after 3 min at 37°C
- Plasma from donors with congenital deficiency.
- Certificate of analysis mentioning the value of the measured parameter on request





## HUMAN PLASMAS

## Weak control plasma

Fresh frozen plasmas

## Very Low XII Control Plasma



## Informations

Factor XII is a glycoprotein synthesized by the liver, zymogen of a serine protease. Its plasma half-life is 50 to 70 hours. This factor participates in the contact phase which initiates the intrinsic pathway of coagulation.

Activated on contact with a negatively charged surface, it becomes capable of activating prekallikrein to kallikrein, then FXI to FXIa in the presence of KHPM.

It is also able to activate plasminogen into plasmin.

Reference	Presentation	Format
6-VL12C-05	Kit	25 x 0.5 mL

**Control plasma to measure the accuracy of the quantitative determination of Factor XII in hemostasis for a very low value.**

This low value control is titrated for Factor XII hemostasis values around 2%.

## Components

- 25 cryotubes x 0.5 mL of frozen plasma

## Characteristics

- Undiluted citrated human plasma
- Ready to use after 3 min at 37°C
- Plasma from donors with congenital deficiency.
- Certificate of analysis mentioning the value of the measured parameter on request





## HUMAN PLASMAS

## Normal donor serum

## Normal donor serum



## Associated products



Pool of fresh serum from healthy donors

Reference	Presentation	Format
6-SPND-05	Vial	1 x 0.5 mL
6-SPND-25	Vial	25 x 1.0 mL

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

The serum comes from healthy male and female donors without drug treatment between 18 and 66 years old. The result is a very high quality product.  
No buffer or preservatives are added. Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix.  
All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ .  
We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year.  
Plastic vials.



## HUMAN PLASMAS

## Normal donor serum

Fresh frozen serum

## Pool of fresh serum from healthy donors



## Associated products

Normal donor serum

Reference	Presentation	Format
6-SPOOL	Kit	10 x 1.0 mL
6-SPOOL-350	Kit	10 x 0.35 mL



## Informations

The serum is freed from coagulation factors and fibrinogen.

It is obtained by sampling on dry tubes without anticoagulant.

## Pool of fresh frozen normal human sera.

The serum pool is collected with great care from healthy male and female donors without drug treatment between 18 and 66 years old. The result is a very high quality product.

## Components

- 10 cryotubes x 0.35 mL or 1 mL

## Advantages

- Normal human serum, pool of at least 20 sera from at least 20 different healthy donors, decanted, centrifuged and frozen within 3 hours of collection.
- Packaging in plastic cryotubes.

## Characteristics

- No additives or preservatives
- No reconstitution error
- Ready to use after thawing (3 min at 37 °C) for 1 mL tubes
- This plasma is stable, if stored at -40 to -80 °C, until the end of the month of the expiration date indicated on the package
- Quality control : example : dosage of the complement

## HUMAN PLASMAS

Pool of plasma from healthy donors

## Pool of fresh plasma from healthy donors



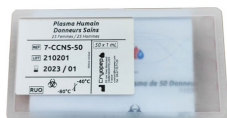
### Associated products



CRYOcheck™ Normal Donor Set



Normal donor citrated plasma (vol > 50mL)



Plasma from 50 healthy donors

Reference	Presentation	Format
6-PPOOL	Bottle	Minimum 50 mL
6-PPOOL-10	Kit	10 x 1 mL

### Pool of citrated fresh frozen plasma from several healthy donors.

Pooled Normal Plasma consists of a pool of normal citrated human plasma from healthy donors. Each batch was analyzed and confirmed to contain normal levels of clotting factors. This reference is available in several sizes (50 mL, 100 mL and 200 mL vials). Plasma can be aliquoted on request in 1mL vials. Contact us for specific requests.

### Characteristics

Recommended storage : -40 to -80°C until expiry date.



## HUMAN PLASMAS

## High Factor plasmas

## Plasma with high antithrombin level



## Associated products

Antithrombin human deficient plasma (acquired)

Plasminogen human deficient plasma (acquired)

Prekallikrein human deficient plasma (acquired)

## Informations

Previously called antithrombin III (abbreviated ATIII), human antithrombin is one of the major physiological inhibitors of coagulation. A natural serine protease inhibitor, antithrombin acts mainly on thrombin (IIa) and activated Factor X (FXa), as well as on activated forms of factors IX, XI and XII. This reaction is catalyzed by heparin. The normal level of antithrombin is between 80 and 120% in adults and it is about half in newborns. Antithrombin deficiency predisposes to thrombosis.

Reference	Presentation	Format
6-PPATH	Vial	1 x 1.0 mL

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at  $-80^{\circ}\text{C}$ , the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at  $-40^{\circ}\text{C}$  to  $-80^{\circ}\text{C}$ . We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## HUMAN PLASMAS

## High Factor plasmas

## High Factor II plasma (acquired) &gt; 150 %



## Associated products

High Factor II plasma (G20210A positive mutation) > 150%

High Factor V plasma (acquired) > 150 %

High FVII plasma 100-150 % (acquired)

## Informations

Factor II (FII) is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K-dependent clotting factor. Its half-life is 50 to 120 hours. FII is activated by the prothrombinase thrombin complex which plays a central role in the coagulation process. It will transform fibrinogen into fibrin, amplify its own formation and activate the protein C, TAFI and platelet systems. There are constitutional deficits in FII which are very rare and acquired deficits which can be observed during anti-vitamin K treatment or vitamin K deficiency, CIVD, anti-FII autoantibodies.

Reference	Presentation	Format
6-PP02H	Vial	1 x 1.0 mL

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.





## HUMAN PLASMAS

## High Factor plasmas

## High Factor V plasma (acquired) &gt; 150 %



## Associated products

High Factor II plasma (acquired) > 150 %

High Factor II plasma (G20210A positive mutation) > 150%

High FVII plasma 100-150 % (acquired)

## Reference

6-PP05H

## Presentation

Vial

## Format

1 x 1.0 mL

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates FII to FIIa. The FVa is neutralized by the PCa.

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## HUMAN PLASMAS

## High Factor plasmas

## High FVII plasma 100-150 % (acquired)



## Associated products

High Factor II plasma (acquired) > 150 %

High Factor II plasma (G20210A positive mutation) > 150%

High Factor V plasma (acquired) > 150 %

## Informations

Factor VII (FVII) is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K dependent factor belonging to the prothrombin complex. Its half-life is 4 to 6 hours and it is the only coagulation factor present in trace amounts in its active form. When tissue factor appears on the endothelial surface, activated FVII associates with it initiating the extrinsic pathway for coagulation. This complex (FT-FVIIa) will activate the FX in FXa and the FIX in FIXa.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.

Reference	Presentation	Format
6-PP07H	Vial	1 x 1.0 mL



## HUMAN PLASMAS

## High Factor plasmas

## High FVIII plasma &gt; 150 % (acquired)



## Associated products

High Factor II plasma (acquired) > 150 %

High Factor II plasma (G20210A positive mutation) > 150%

High Factor V plasma (acquired) > 150 %

## Informations

Factor VIII is a glycoprotein mainly synthesized by the liver. It circulates in the plasma in the form bound to VWF which protects it from rapid proteolytic degradation. It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa. A patient who is deficient in FVIII has hemophilia A.

Reference	Presentation	Format
6-PP08H	Vial	1 x 1.0 mL

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## HUMAN PLASMAS

## High Factor plasmas

## High Factor IX plasma &gt; 150 % (acquired)



## Associated products

High Factor II plasma (acquired) > 150 %

High Factor II plasma (G20210A positive mutation) > 150%

High Factor V plasma (acquired) > 150 %

## Informations

FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated to FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium. A person who is deficient in FIX has hemophilia B.

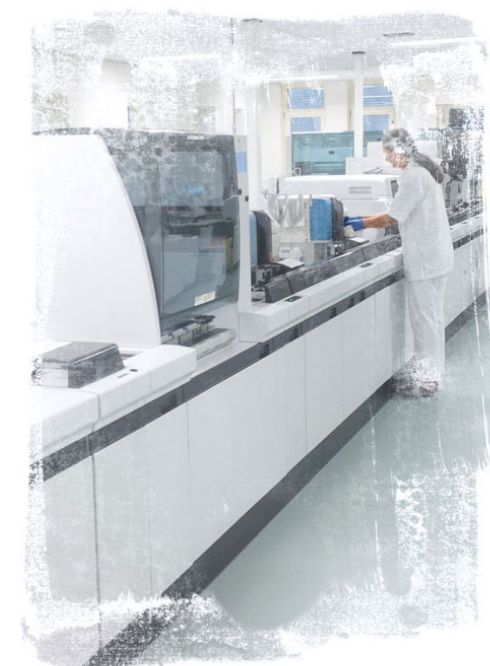
Reference	Presentation	Format
6-PP09H	Vial	1 x 1.0 mL

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.





## HUMAN PLASMAS

## High Factor plasmas

## High Factor X plasma &gt; 150 % (acquired)



## Associated products

High Factor II plasma (acquired) > 150 %

High Factor II plasma (G20210A positive mutation) > 150%

High Factor V plasma (acquired) > 150 %

## Informations

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin.

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.

Reference	Presentation	Format
6-PP10H	Vial	1 x 1.0 mL





## HUMAN PLASMAS

## High Factor plasmas

## High Factor XI plasma &gt; 150 % (acquired)



## Associated products

High Factor II plasma (acquired) > 150 %

High Factor II plasma (G20210A positive mutation) > 150%

High Factor V plasma (acquired) > 150 %

## Informations

Factor XI (FXI) is a protein synthesized by the liver. It participates in the contact phase which initiates the intrinsic pathway of coagulation. It is activated by FXIIa to factor FXIa which will itself activate FIX in the presence of calcium ions.

Reference	Presentation	Format
6-PP11H	Vial	1 x 1.0 mL

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials. .



## HUMAN PLASMAS

## High Factor plasmas

## High Factor XII plasma &gt; 150 % (acquired)



## Associated products

High Factor II plasma (acquired) > 150 %

High Factor II plasma (G20210A positive mutation) > 150%

High Factor V plasma (acquired) > 150 %

## Informations

Factor XII (FXII) is a glycoprotein synthesized by the liver. FXII participates in the contact phase which initiates the intrinsic pathway of coagulation. Activated on contact with a negatively charged surface, it becomes capable of activating prekallikrein and kallikrein (amplified by KHPM) then FXI to FXIa in the presence of KHPM. The FXIa thus formed activates the FXII in FXIIa, amplifying the reaction.

Reference	Presentation	Format
6-PP12H	Vial	1 x 1.0 mL

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## HUMAN PLASMAS

## High Factor plasmas

## Factor XIII High &gt; 150 % (acquired)



## Associated products

High Factor II plasma (acquired) > 150 %

High Factor II plasma (G20210A positive mutation) > 150%

High Factor V plasma (acquired) > 150 %

## Informations

Factor XIII is synthesized by the liver. Activated by thrombin, FXIII intervenes in the final phase of fibrin formation to stabilize the fibrin clot by forming covalent bonds in the fibrin polymer.

Reference	Presentation	Format
6-PP13H	Vial	1 x 1.0 mL

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with acquired deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## HUMAN PLASMAS

## Plasmas with anticoagulant drugs

## Plasma with oral anticoagulant plasma – INR &lt; 2.00



## Associated products

Plasma with oral anticoagulant plasma – INR 2.00-2.99

Plasma with oral anticoagulant – INR 3.00–3.99

Plasma with oral anticoagulant plasma - INR ≥ 4.00

Anticoagulant plasma – DTI – Argatroban – U/mL

Anticoagulant plasma – DTI – bivalirudin – U/mL

Plasma with low molecular weight heparin (Fragmin)

Plasma with low molecular weight heparin (Innohep)

Plasma with low molecular weight heparin (Lovenox)

Plasma with direct thrombin inhibitor (Lepirudin)

Plasma with NOAC – Fondaparinux (Arixtra®)

## Reference

6-PPAOL

## Presentation

Vial

## Format

1 x 1.0 mL

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



## HUMAN PLASMAS

## Plasmas with anticoagulant drugs

Plasma with oral anticoagulant plasma – INR  
2.00-2.99

## Associated products

Plasma with oral anticoagulant plasma – INR < 2.00

Plasma with oral anticoagulant – INR 3.00–3.99

Plasma with oral anticoagulant plasma - INR ≥ 4.00

Anticoagulant plasma – DTI – Argatroban – U/mL

Anticoagulant plasma – DTI – bivalirudin – U/mL

Plasma with low molecular weight heparin  
(Fragmin)

Plasma with low molecular weight heparin  
(Innohep)

Plasma with low molecular weight heparin  
(Lovenox)

Plasma with direct thrombin inhibitor (Lepirudin)

Plasma with NOAC – Fondaparinux (Arixtra®)

## Reference

6-PPAOM

## Presentation

Vial

## Format

1 x 1.0 mL

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.





## HUMAN PLASMAS

## Plasmas with anticoagulant drugs

## Plasma with oral anticoagulant – INR 3.00–3.99



## Associated products

Plasma with oral anticoagulant plasma – INR < 2.00

Plasma with oral anticoagulant plasma – INR 2.00-2.99

Plasma with oral anticoagulant plasma - INR ≥ 4.00

## Informations

Warfarin (Coumadin) is an antithrombotic agent from the group of anti-vitamin K (AVK).

In plasma, it is strongly bound to albumin (97%). Only the free fraction is active and metabolized. AVKs are involved in the hepatocyte in the vitamin K reduction mechanism.

Reduced vitamin K is the cofactor of a carboxylase which converts glutamic acid to gamma-carboxyglutamic acid which is necessary for the attachment of certain coagulation factors to phospholipid surfaces.

AVKs have an indirect anticoagulant effect by preventing the synthesis of the active forms of several coagulation factors (factors II, VII, IX, X).

When administered orally, VKA induce hypoprothrombinemia within 36 to 72 hours. After stopping the AVK, the anticoagulant action persists for 4 days, the speed of correction being a function of the hepatic synthesis capacities of vitamin K-dependent coagulation factors and the half-life of the AVK.

The times indicated may be prolonged, in particular in the elderly. The half-life of warfarin is in the range of 35 to 45 hours.

## Reference

6-PPAOH

## Presentation

Vial

## Format

1 x 1.0 mL

**Donor under Coumadin® treatment**

**Plasma collected by plasmapheresis at FDA approved donor centers.**

Anticoagulant : 3.2 % Sodium citrate

## Advantages

Minimize test time. Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added.

Store at -80/-40°C, stable until date stated on vial label when stored at -80/-40°C.

After thawed, stable during 4 hours at +2/+8°C in original vial.

No additive or preservative.

Expiry date > 1 year.

Plastic vials.



## HUMAN PLASMAS

## Plasmas with anticoagulant drugs

Plasma with oral anticoagulant plasma - INR  $\geq$  4.00

## Associated products

Plasma with oral anticoagulant plasma – INR < 2.00

Plasma with oral anticoagulant plasma – INR 2.00-2.99

Plasma with oral anticoagulant – INR 3.00–3.99

## Informations

Warfarin (Coumadin) is an antithrombotic agent from the group of anti-vitamin K (AVK).

In plasma, it is strongly bound to albumin (97%). Only the free fraction is active and metabolized. AVKs are involved in the hepatocyte in the vitamin K reduction mechanism.

Reduced vitamin K is the cofactor of a carboxylase which converts glutamic acid to gamma-carboxyglutamic acid which is necessary for the attachment of certain coagulation factors to phospholipid surfaces.

AVKs have an indirect anticoagulant effect by preventing the synthesis of the active forms of several coagulation factors (factors II, VII, IX, X).

When administered orally, VKA induce hypoprothrombinemia within 36 to 72 hours. After stopping the AVK, the anticoagulant action persists for 4 days, the speed of correction being a function of the hepatic synthesis capacities of vitamin K-dependent coagulation factors and the half-life of the AVK.

The times indicated may be prolonged, in particular in the elderly. The half-life of warfarin is in the range of 35 to 45 hours.

Reference	Presentation	Format
6-PPAOUH	Vial	1 x 1.0 mL

**Donor under Coumadin® treatment**

**Plasma collected by plasmapheresis at FDA approved donor centers.**

Anticoagulant : 3.2 % Sodium citrate

## Advantages

Minimize test time.  
Ready to use.

## Characteristics

Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added.

Store at -80/-40°C, stable until date stated on vial label when stored at -80/-40°C.

After thawed, stable during 4 hours at +2/+8°C in original vial.

No additive or preservative.

Expiry date > 1 year.

Plastic vials.



## HUMAN PLASMAS

## Plasmas with anticoagulant drugs

## Anticoagulant plasma – DTI – Argatroban – U/mL



## Associated products

Plasma with oral anticoagulant plasma – INR < 2.00

Plasma with oral anticoagulant plasma – INR 2.00-2.99

Plasma with oral anticoagulant – INR 3.00–3.99

## Informations

Argatroban is a synthetic derivative of L-arginine. It is a direct thrombin inhibitor, which acts independently of antithrombin. It inhibits the formation of fibrin, the activation of coagulation factors (V, VIII, XIII), the activation of protein C and platelet aggregation.

Reference	Presentation	Format
6-PPARG	Vial	1 x 1.0 mL

## Advantages




















Minimize test time. Ready to use.

## Characteristics






Special plasmas are derived from patients with a congenital deficiency, severe or moderate, or presenting a particular profile. No buffer or preservatives are added. Quickly frozen at -80° C, the plasma maintains perfectly intact the matrix. All plasmas are stable when stored at -40° C to -80° C. We carefully pack with dry ice during shipment. No additive or preservative. Expiry date > 1 year. Plastic vials.



# INHIBITORS

Reference	Designation	Click to go to the product sheet	PM (g/mol)	Activity	WEB
<b>Natural protease inhibitors</b>					
6-INH-APROT-2	→ Aprotinin concentrate liquid				
8-381-01	→ Pefabloc® TH (αNAPAP)		581.7		
9-ANG-01	→ Human angiotatin		≈ 50 000		
9-HCATIII-0120	→ Human antithrombin		58 000	0.7 à 1.0 moles	
6-ATIII-10	→ Human antithrombin (AT)		58 000	10 UI/mL	
6-INH-APROT-1	→ Concentrated Lyophilized Aprotinin			≥ 3.0 PEU/mg	
9-HCII-0190	→ Human heparin Cofactor II		65 600		
9-HA2AP-0230	→ Human α-2 Antiplasmin		58700		
9-CTI-01	→ Corn trypsin inhibitor		12 500		
6-H7035-P01	→ Recombinant tissue Factor pathway inhibitor (TFPI)		34 300		
9-HCPZ-0220	→ Human protein Z		62 000		
6-INH-HIR-2000	→ r-Hirudin		6 935.5		
9-TAFI-01	→ Human TAFI		60 000	2.0 à 9.2 unités/mg	
<b>Synthetic irreversible inhibitors</b>					
9-BEGRCK-06	→ Biotinylated EGR-chloromethylketone		882		
9-BFPRCK-06	→ Biotinylated FPR chloromethylketone		940		
9-EGRCK-01	→ EGR-chloromethylketone (GGACK)		466		
9-FEGRCK-06	→ Fluorescein-EGR chloromethylketone		788		
9-FPRCK-01	→ FPR-chloromethylketone (PPACK)		524.2		
9-FFPRCK-06	→ Fluorescein-FPR-chloromethylketone		846		

# INHIBITORS

Reference	Designation	Click to go to the product sheet	PM (g/mol)	Activity	WEB
6-INH-SC-5	→ Pepbloc AEBSF		239.7		
<i>Synthetic reversible inhibitors</i>					
8-099-11	→ Pefabloc® FG		485.5		
9-DAPA	→ DAPA		539		
6-INH-FG-50	→ PEPBLOC FG		485.5		
6-INH-NAPAP-5	→ Pepbloc NAPAP		581.7		



## INHIBITORS

## Natural protease inhibitors

## Aprotinin concentrate liquid



## Associated products

Aprotinin concentrated solution

Aprotinin Powder, Lyophilized 1Mio / KI

Human antithrombin (AT)

Reference	Presentation	Format
6-INH-APROT-2	Vial	1 x 50 mL

**Price according to Million KIU.**

## Informations

Aprotinin is a versatile reversible inhibitor of protease serines (trypsin, plasmin, u-PA, chymotrypsin, kallikreine, elastase...).

Aprotinin is used in chromogenic assays for the determination of antithrombin, heparin,  $\alpha$ 2-macroglobulin, FXa and thrombin to inhibit the unwanted activities of kallikrein or plasmin.

## Advantages

Glass bottle or cryotube packaging.  
All the references benefit from decreasing prices according to the quantities ordered.

## Characteristics

We offer a selection of benzamidine-derived inhibitors. They can help in the characterization of trypsin-type enzymes.  
Most inhibitors have a selective inhibition on the activity of certain trypsin proteases of physiological interest. However, each inhibitor may have a characteristic action on other protease serines.



## INHIBITORS

## Natural protease inhibitors

## Pefabloc® TH (αNAPAP)



## Associated products

Aprotinin concentrate liquid  
Aprotinin concentrated solution  
Human angiotensin

## Informations

Protease inhibitors greatly facilitate the detection and determination of proteases, the study of their interactions with their substrates or effectors, and the investigation of the physiological roles of enzymes.

Synthetic low molecular weight inhibitors are particularly useful and are used for the purification of proteins, for the characterization of proteases and also for the suppression of unwanted catalytic activity.

Binding an inhibitor may prevent a substrate from binding to the active site of the enzyme and/or the enzyme from catalyzing its reaction. This inhibition can be reversible or irreversible. Irreversible inhibitors usually react with the enzyme and modify it chemically. They bind covalently and modify key amino acid residues necessary for enzymatic activity.

Conversely, reversible inhibitors bind in a non-covalent manner and different types of inhibitions result depending on whether these inhibitors bind the enzyme, enzyme-substrate complex (ES) or both.

Reference	Presentation	Format
8-381-01	Vial	1 x 5 mg

**Formulation : N-α-(2-naphthylsulfonyl)glycyl-4-amidino-(D, L)-phénylananin pipéridid acétate (NAPAP)**

Formulation : C<sub>27</sub>H<sub>31</sub>O<sub>4</sub>N<sub>5</sub>S, AcOH

MW (Da) : 581.7

Pefabloc® TH (NAPAP) is one of the most potent and selective competitive thrombin inhibitors.

## Advantages

Inserts and certificates of analysis provided.  
Safety Data Sheets (SDS) provided.  
Prolonged stability after reconstitution (> 3 months).

## Characteristics

Pefabloc® TH can be used in diagnostic systems, analytical applications, research and industrial purification processes to exclude unwanted thrombin activity.  
It can also be used as a powerful anticoagulant in in vitro testing systems.



## INHIBITORS

## Natural protease inhibitors

## Human angiostatin



## Associated products

Human antithrombin

Mouse antithrombin

Human antithrombin (AT)

## Reference

9-ANG-01

9-ANG-01-1

## Presentation

Vial

Vial

## Format

500 µg

1 mg

**Formulation : 20 mM HEPES, 0.15 M NaCl, pH 7.4**

Inhibits the proliferation of endothelial cells MW(Da) :  $\approx 50\ 000$   
 Extinction coef. : 17.4

## Informations

Angiostatin is a single chain proteolytic fragment of glu-plasminogen. It is a powerful inhibitor of angiogenesis. The N-terminal domain of this fragment is identical to human glu-plasminogen.

## Advantages

Supplied lyophilized or frozen. Expiry date > 1 year. Glass vial or plastic tubes. Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.

## INHIBITORS

## Natural protease inhibitors

## Human antithrombin



## Associated products

Human angiostatin

Mouse antithrombin

Human antithrombin (AT)

## Informations

Antithrombin is a glycoprotein of the serpin family, synthesized by the liver with a half-life of 3 days. It is the most potent of the physiological inhibitors of coagulation. It mainly inhibits thrombin but also at a lower level FIXa, FXa, FXIa. Its inhibitory action is amplified in the presence of heparin or heparan sulfate.

Reference	Presentation	Format
9-HCATIII-0120	Vial	1 mg

**Formulation : 50/50 (v/v) glycerol/H<sub>2</sub>O**

Inactivates several serine proteinases

Activity : 0.7 to 1.0 mole thrombin / mole AT

MW(Da) : 58 000

Extinction coef. : 14.5

Isoelectric point: 4.9-5.3

Structure: single chain, 3 intrachain disulfide bonds, 10% alpha-helise, 30-40% structure-beta, 50% random coil, scissile bond (Arg 385-Ser 386)

## Advantages

Supplied lyophilized or frozen.

Expiry date &gt; 1 year.

Glass vial or plastic tubes.

Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.



## INHIBITORS

## Natural protease inhibitors

## Human antithrombin (AT)



## Associated products

Human angiostatin

Human antithrombin

Mouse antithrombin

## Informations

Antithrombin is a glycoprotein of the serpin family, synthesized by the liver with a half-life of 3 days. It is the most potent of the physiological inhibitors of coagulation. It mainly inhibits thrombin but also at a lower level FIXa, FXa, FXIa. Its inhibitory action is amplified in the presence of heparin or heparan sulfate.

Reference	Presentation	Format
6-ATIII-10	Vial	1,5 mg

**Formulation : tampon/NaCl**

Inactivates several serine proteinases  
Activity : 10 UI/mL  
MW(Da) : 58 000

## Advantages

Supplied lyophilized or frozen.  
Expiry date > 1 year.  
Glass vial or plastic tubes.  
Discount according to quantities.

## Characteristics

We offer a selection of inhibitors derived from benzamidine. They can help in the characterization of trypsin-like enzymes. Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.





## INHIBITORS

## Natural protease inhibitors

## Concentrated Lyophilized Aprotinin



## Associated products

Human angiotatin

Human antithrombin

Mouse antithrombin

## Informations

Aprotinin is a polyvalent reversible inhibitor of serine proteinases (trypsin, u-PA, chymotrypsin, kallikrein, elastase...). Aprotinin is used in chromogenic assays for the determination of antithrombin III, heparin,  $\alpha$ 2-macroglobulin, FXa and thrombin to inhibit disturbing kallikrein or plasmin activities.

Reference	Presentation	Format
6-INH-APROT-1	Vial	1 g

**Formulation : 0.12mg/mg NaCl, pH 6.0  $\pm$  1**

Activity :  $\geq$  3.0 PEU/mg  
(1PEU = 1.5 TIU (trypsin inhibitor unit))

Price according to the Million KIU.

## Advantages

Supplied lyophilized or frozen.  
Expiry date > 1 year.  
Glass vial or plastic tubes.  
Discount according to quantities.

## Characteristics

We offer a selection of inhibitors derived from benzamidine. They can help in the characterization of trypsin-like enzymes. Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.



## INHIBITORS

## Natural protease inhibitors

## Human heparin Cofactor II



## Associated products

Human angiostatin

Human antithrombin

Mouse antithrombin

## Informations

The second heparin cofactor is a serine protease inhibitor. It inhibits thrombin, chymotrypsin and other enzymes of the same group. Its rate of inhibition is amplified in the presence of heparin.

Reference	Presentation	Format
9-HCII-0190	Vial	100 µg
9-HCII-0190-1	Vial	1 mg

**Formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)**

Activity : 700 to 1 800 units/mg

MW(Da) : 65 600

Extinction coef. : 5.93

Inhibits thrombin, α-chymotrypsin, Cathepsin G, Streptomyces griseus protease B

Isoelectric point : 4.95-5.15

Structure : single chain glycoprotein, 3 potential chains of N-glycosylation, 2 repeated residues of 7 amino acids, reactive site (TVTTVGF MPL-STQVRFTVDR)

## Advantages

Supplied lyophilized or frozen.

Expiry date > 1 year.

Glass vial or plastic tubes.

Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.



## INHIBITORS

## Natural protease inhibitors

Human  $\alpha$ -2 Antiplasmin

## Associated products

Human angiostatin

Human antithrombin

Mouse antithrombin

## Informations

Physiological inhibitor of plasmin by forming an irreversible complex on its catalytic site; prevents the binding of plasmin to fibrin.

The  $\alpha$ -2 plasmin inhibitor is a single chain glycoprotein and is one of the major serine proteases circulating in plasma. It mainly inhibits plasmin and therefore plays an important role in the specific inhibition of fibrinolysis.

Reference	Presentation	Format
9-HA2AP-0230	Vial	100 $\mu$ g
9-HA2AP-0230-1	Vial	1 mg

**Human  $\alpha$ -2 plasmin inhibitor.****Formulation : 50 mM KPO<sub>4</sub> , 7.5 mM KCl, 75  $\mu$ M EDTA, pH 7.4**

MW(Da) : 58 700

Extinction coef. : 7.03

Concentration : 5.0 mg/mL

Specific activity : 1.3 mol HA2AP / 1 mol Plasmin

Structure: single chain molecule with 452 amino acids.

## Advantages

Supplied lyophilized or frozen.  
Expiry date > 1 year.  
Glass vial or plastic tubes.  
Discount according to quantities.

## Characteristics

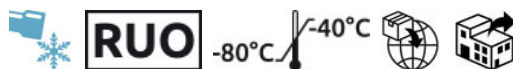
Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.



## INHIBITORS

## Natural protease inhibitors

## Corn trypsin inhibitor



## Associated products

Human angiostatin

Human antithrombin

Mouse antithrombin

## Informations

CTI is a small protein found in the kernels of most varieties of corn. CTI is not only an inhibitor of trypsin but also of human FXIIa observed in blood coagulation experiments. The inhibitor forms an equimolar complex with either trypsin or FXIIa and when added to plasma prolongs aPTT without affecting PT experiences.

Reference	Presentation	Format
9-CTI-01	Vial	1 mg

**Formulation du tampon : 20 mM Tris, 150 mM NaCl, pH 7.4**

Inhibits trypsin and human FXIIa

Molecular Weight (Da) : 12 500

Extinction coef. : 20.0

Structure: single chain of proteins comprising 112 amino acids.

## Advantages

Supplied lyophilized or frozen.

Expiry date &gt; 1 year.

Glass vial or plastic tubes.

Discount according to quantities.

## Characteristics

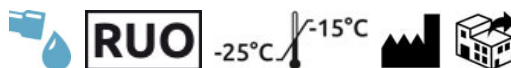
We offer a selection of inhibitors derived from benzamidine. They can help in the characterization of trypsin-like enzymes. Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.



## INHIBITORS

## Natural protease inhibitors

## Recombinant tissue Factor pathway inhibitor (TFPI)



## Associated products

Human angiostatin

Human antithrombin

Mouse antithrombin

## Informations

TFPI is an anticoagulant protein produced by the endothelial cell and found on its surface. Its role is to inhibit the early phases of coagulation by blocking the FT-FVIIa complex as well as the Fxa.

Tissue Factor Pathway Inhibitor (TFPI) produced in E.coli is a single, non-glycosylated polypeptide chain containing 299 amino acids (29-304) and having a molecular mass of 34.3kDa.

TFPI is fused to a 23 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

Reference	Presentation	Format
6-H7035-P01	Vial	5 µg
6-H7035-P01-50	Vial	50 µg

**Formulation : Sterile filtered colorless solution (1mg/ml) in 20mM Tris-HCl buffer (pH 8.0), 0.4M Urea, 10% glycerol.**

Inhibits the FVIIa and tissue Factor in the complexe Xa/TFPI/FVIIa/TF  
MW(Da) : 34 300

## Characteristics

We offer a selection of inhibitors derived from benzamidine. They can help in the characterization of trypsin-like enzymes. Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.

Store at +2°C/+8°C if entire vial will be used within 2-4 weeks.

Store, frozen at -25°C/-15°C for longer periods of time.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

Purity > 85.0% as determined by SDS-PAGE.

Avoid multiple freeze-thaw cycles.



## INHIBITORS

## Natural protease inhibitors

## Human protein Z



## Associated products

Human angiostatin

Human antithrombin

Mouse antithrombin

## Informations

Protein Z is a single chain vitamin K dependent protein produced by the liver. The protein contains an N-terminal Gla region important for its ability to bind to membrane phospholipids. Protein Z forms a complex with FXa, it has a role of low molecular weight heparin naturelle Protein Z is a cofactor of ZPI (protein Z-related protease inhibitor) for the inhibition of FXa. This reaction is accelerated 1000 times in the presence of PZ, phospholipids and Ca<sup>2+</sup>.

Reference	Presentation	Format
9-HCPZ-0220	Vial	100 µg
9-HCPZ-0220-1	Vial	1 mg

**Formulation : 50/50 (v/v) glycerol/H<sub>2</sub>O**

MW(Da) : 62 000

Extinction coef. : 12.0

Structure: single chain, structural similarity to other vitamin K dependent coagulation factors.

## Advantages

Supplied lyophilized or frozen.  
Expiry date > 1 year.  
Glass vial or plastic tubes.  
Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.



## INHIBITORS

## Natural protease inhibitors

## r-Hirudin



## Associated products

Human angiostatin

Human antithrombin

Mouse antithrombin

## Informations

Hirudin is the most potent and specific thrombin inhibitor known. It forms a stable equimolar complex with thrombin. The complete structure of hirudin has been elucidated [Dodt et al., 1984] and a gene coding for hirudin was subsequently synthesized and expressed in yeast [Meyhack et al., 1987].

r-Hirudin amino acid sequence corresponds to natural hirudin of the variant HV-I except for tyrosine 63 which lacks the sulphate group.

Reference	Presentation	Format
6-INH-HIR-2000	Vial	2 000 ATU

**This recombinant protein is the most potent and specific thrombin inhibitor known.**

Formula :  $C_{287}H_{440}N_{80}O_{110}S_6$

Molecular weight: 6 963.5 g/mol

## Advantages

Supplied lyophilized or frozen.  
Expiry date > 1 year.  
Glass vial or plastic tubes.  
Discount according to quantities.

## Characteristics

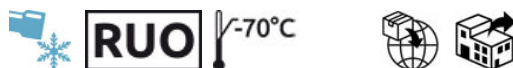
Hirudin can be utilised for many analytical and preparative purposes in hemostaseological test procedures as well as in blood and plasma fractionation to prevent the multiple enzymatic and non-enzymatic actions of thrombin. Hirudin may be added to test mixtures to exclude undesired thrombin actions due to contaminations of reagents with prothrombin or with prothrombin activators. Hirudin is used to selectively inhibit thrombin in certain assay conditions when cross-reactivity of thrombin and the chosen enzyme should lead to cleavage of the same chromogenic substrate.



## INHIBITORS

## Natural protease inhibitors

## Human TAFI



## Associated products

Human angiostatin

Human antithrombin

Mouse antithrombin

## Informations

After activation by thrombin, the mature protein negatively regulates fibrinolysis by removing plasminogen binding sites to fibrin. TAFI (Thrombin Activatable Fibrinolysis Inhibitor) is a single chain glycoprotein synthesized by the liver and circulating at a plasma concentration of 50 nM. Thrombin cleaves the zymogen and releases the 92 amino acids activating peptide containing 4 N-glycosylation sites and the plasminogen recognition site. TAFI plays an important role in the interaction between the fibrinolytic, anticoagulant and procoagulant systems.

Reference	Presentation	Format
9-TAFI-01	Vial	50 µg
9-TAFI-01-1	Vial	1 mg

**Formulation : 20 mM HEPES, 150 mM NaCl, pH 7.4**

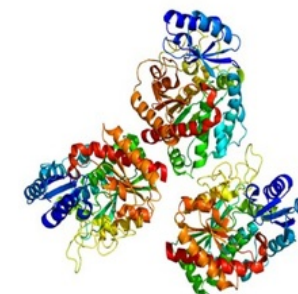
Activity : 2.0 to 9.2 units/mg MW(Da) : 60 000 Extinction coef. : 14.9 (calculated by cDNA)  
 Isoelectric point : 5.0 Structure : 92 amino acids single chain glycoprotein. N-terminal activation peptide, catalytic domain of 309 amino acids.

## Advantages

Frozen product.  
 Expiry date 1 year.  
 Plastic tubes.  
 Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.



## INHIBITORS

## Synthetic irreversible inhibitors

## Biotinylated EGR-chloromethylketone



## Associated products

Biotinylated FPR chloromethylketone

EGR-chloromethylketone (GGACK)

Fluorescein-EGR chloromethylketone

## Informations

Detection and determination of proteinases, studies on their interactions with substrates and effectors and the investigation of their physiological role are greatly facilitated by the use of proteinase inhibitors.

In this context, especially synthetic, low-molecular weight inhibitors of different selectivity are very useful. They are widely applied during purification and characterization of proteinases.

Furthermore, synthetic inhibitors are useful tools for suppression of undesired proteolytic activity. Depending upon the manner in which the inhibitor is attached to the enzyme, one distinguishes reversible and irreversible inhibitors.

Biotinylation allows the peptides to be used as specific probes for the detection and / or capture of serine protease via an avidin / biotin interaction.

Reference	Presentation	Format
9-BEGRCK-06	Vial	1 mg

## Formulation : 10 mM HCl

MW(Da) : 882

BEGRck: Biotinylated Glu-Gly-Arg-chloromethylketone which rapidly inhibits FXa. They are often used during protein purification to inhibit the activity of serine proteases and prevent the conversion of zymogens to active proteins.

## Advantages

Supplied lyophilized or frozen.  
Expiry date > 1 year.  
Glass vial or plastic tubes.  
Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.





## INHIBITORS

## Synthetic irreversible inhibitors

## Biotinylated FPR chloromethylketone



## Associated products

Biotinylated EGR-chloromethylketone

EGR-chloromethylketone (GGACK)

Fluorescein-EGR chloromethylketone

## Informations

Detection and determination of proteinases, studies on their interactions with substrates and effectors and the investigation of their physiological role are greatly facilitated by the use of proteinase inhibitors. In this context, especially synthetic, low-molecular weight inhibitors of different selectivity are very useful. They are widely applied during purification and characterization of proteinases. Furthermore, synthetic inhibitors are useful tools for suppression of undesired proteolytic activity. Depending upon the manner in which the inhibitor is attached to the enzyme, one distinguishes reversible and irreversible inhibitors. Biotinylation allows the peptides to be used as specific probes for the detection and / or capture of serine protease via an avidin / biotin interaction.

Reference	Presentation	Format
9-BFPRCK-06	Vial	1 mg

## Formulation : 10 mM HCl

MW(Da) : 940 BFPRck: Biotinylated phe-Pro-Arg-chloromethylketone which rapidly inhibits thrombin. They are often used during protein purification to inhibit serine protease activity and prevent the conversion of zymogens to active proteins.

## Advantages

Supplied lyophilized or frozen. Expiry date > 1 year. Glass vial or plastic tubes. Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.





## INHIBITORS

## Synthetic irreversible inhibitors

## EGR-chloromethylketone (GGACK)



## Associated products

Biotinylated EGR-chloromethylketone

Biotinylated FPR chloromethylketone

Fluorescein-EGR chloromethylketone

## Informations

Detection and determination of proteinases, studies on their interactions with substrates and effectors and the investigation of their physiological role are greatly facilitated by the use of proteinase inhibitors. In this context, especially synthetic, low-molecular weight inhibitors of different selectivity are very useful. They are widely applied during purification and characterization of proteinases. Furthermore, synthetic inhibitors are useful tools for suppression of undesired proteolytic activity. Depending upon the manner in which the inhibitor is attached to the enzyme, one distinguishes reversible and irreversible inhibitors. Biotinylation allows the peptides to be used as specific probes for the detection and / or capture of serine protease via an avidin / biotin interaction.

Reference	Presentation	Format
9-EGRCK-01	Vial	5 mg

## Formulation : H-Glu-Gly-Arg-chloromethylketone

MW(Da) : 466 EGR chloromethylketone (GGACK) and FPR chloromethylketone (PPACK) irreversibly inhibit various serine protease. PPACK is a rapid thrombin inhibitor and GGACK is a rapid FXa inhibitor.

## Advantages

Supplied lyophilized or frozen. Expiry date > 1 year. Glass vial or plastic tubes. Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.



## INHIBITORS

## Synthetic irreversible inhibitors

## Fluorescein-EGR chloromethylketone



## Associated products

Biotinylated EGR-chloromethylketone

Biotinylated FPR chloromethylketone

EGR-chloromethylketone (GGACK)

## Informations

Detection and determination of proteinases, studies on their interactions with substrates and effectors and the investigation of their physiological role are greatly facilitated by the use of proteinase inhibitors. In this context, especially synthetic, low-molecular weight inhibitors of different selectivity are very useful. They are widely applied during purification and characterization of proteinases. Furthermore, synthetic inhibitors are useful tools for suppression of undesired proteolytic activity. Depending upon the manner in which the inhibitor is attached to the enzyme, one distinguishes reversible and irreversible inhibitors.

Reference	Presentation	Format
9-FEGRCK-06	Vial	1 mg

Formulation : DMSO C<sub>2</sub>H<sub>6</sub>OS

MW(Da) : 788

EGRck: Glu-Gly-Arg-chloromethyl ketone which rapidly inhibits FXa.

They are often used during protein purification to inhibit the activity of serine proteases and prevent the conversion of zymogens to active proteins.

## Advantages

Supplied lyophilized or frozen. Expiry date > 1 year. Glass vial or plastic tubes. Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.



## INHIBITORS

## Synthetic irreversible inhibitors

## FPR-chloromethylketone (PPACK)



## Associated products

Biotinylated EGR-chloromethylketone

Biotinylated FPR chloromethylketone

EGR-chloromethylketone (GGACK)

## Informations

Detection and determination of proteinases, studies on their interactions with substrates and effectors and the investigation of their physiological role are greatly facilitated by the use of proteinase inhibitors. In this context, especially synthetic, low-molecular weight inhibitors of different selectivity are very useful. They are widely applied during purification and characterization of proteinases. Furthermore, synthetic inhibitors are useful tools for suppression of undesired proteolytic activity. Depending upon the manner in which the inhibitor is attached to the enzyme, one distinguishes reversible and irreversible inhibitors.

Reference	Presentation	Format
9-FPRCK-01	Vial	5 mg
9-FPRCK-01-100	Vial	100 mg

**Formulation : H-(D)-Phe-Pro-Arg-chloromethylketone. 2 HCl**

Molecular Weight (Da) : 524.2

EGR chloromethylketone (GGACK) and FPR chloromethylketone (PPACK) irreversibly inhibit various serine protease. PPACK is a rapid thrombin inhibitor and GGACK is a rapid FXa inhibitor.

## Advantages

Supplied lyophilized or frozen. Expiry date > 1 year. Glass vial or plastic tubes. Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.



## INHIBITORS

## Synthetic irreversible inhibitors

## Fluorescein-FPR-chloromethylketone



## Associated products

Biotinylated EGR-chloromethylketone

Biotinylated FPR chloromethylketone

EGR-chloromethylketone (GGACK)

## Informations

Detection and determination of proteinases, studies on their interactions with substrates and effectors and the investigation of their physiological role are greatly facilitated by the use of proteinase inhibitors. In this context, especially synthetic, low-molecular weight inhibitors of different selectivity are very useful. They are widely applied during purification and characterization of proteinases. Furthermore, synthetic inhibitors are useful tools for suppression of undesired proteolytic activity. Depending upon the manner in which the inhibitor is attached to the enzyme, one distinguishes reversible and irreversible inhibitors.

Reference	Presentation	Format
9-FFPRCK-06	Vial	1 mg

Formulation : DMSO C<sub>2</sub>H<sub>6</sub>OS

MW(Da) : 788

FPRck: Phe-Pro-Arg-chloromethyl ketone which rapidly inhibits thrombin.

They are often used during protein purification to inhibit the activity of serine proteases and prevent the conversion of zymogens to active proteins.

## Advantages

Supplied lyophilized or frozen. Expiry date > 1 year. Glass vial or plastic tubes. Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.





## INHIBITORS

## Synthetic irreversible inhibitors

## Pepbloc AEBSF



## Associated products

Biotinylated EGR-chloromethylketone

Biotinylated FPR chloromethylketone

EGR-chloromethylketone (GGACK)

## Informations

Detection and determination of proteinases, studies on their interactions with substrates and effectors and the investigation of their physiological role are greatly facilitated by the use of proteinase inhibitors. In this context, especially synthetic, low-molecular weight inhibitors of different selectivity are very useful. They are widely applied during purification and characterization of proteinases. Furthermore, synthetic inhibitors are useful tools for suppression of undesired proteolytic activity. Depending upon the manner in which the inhibitor is attached to the enzyme, one distinguishes reversible and irreversible inhibitors.

## Reference

6-INH-SC-5

## Presentation

Vial

## Format

5 mg

**Formulation : chlorhydrate de 4-(2-aminoéthyl)-benzènesulfonatyfluorure (AEBSF)**

PEPBLOC AEBSF is an irreversible proteinase inhibitor with a broad specificity for serum protease.

It is suitable for downstream biopharmaceutical purification due to its superior solubility, stability, inhibitory activity and low toxicity.

MW(Da) : 239.7

## Advantages

Supplied lyophilized or frozen. Expiry date > 1 year. Glass vial or plastic tubes. Discount according to quantities.

## Characteristics

Pepbloc AEBSF is an irreversible proteinase inhibitor with broad specificity for serine proteinases. It is suitable for biopharmaceutical downstream purification because of its superior solubility, stability, inhibitory activity and low toxicity. Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.





## INHIBITORS

## Synthetic reversible inhibitors

## Pefabloc® FG



## Associated products

DAPA

PEPBLOC FG

Pepbloc NAPAP

## Informations

Protease inhibitors greatly facilitate the detection and determination of proteases, the study of their interactions with their substrates or effectors, and the investigation of the physiological roles of enzymes.

Synthetic low molecular weight inhibitors are particularly useful and are used for the purification of proteins, for the characterization of proteases and also for the suppression of unwanted catalytic activity.

Binding an inhibitor may prevent a substrate from binding to the active site of the enzyme and/or the enzyme from catalyzing its reaction. This inhibition can be reversible or irreversible. Irreversible inhibitors usually react with the enzyme and modify it chemically. They bind covalently and modify key amino acid residues necessary for enzymatic activity.

Conversely, reversible inhibitors bind in a non-covalent manner and different types of inhibitions result depending on whether these inhibitors bind the enzyme, enzyme-substrate complex (ES) or both.

Reference	Presentation	Format
8-099-01	Vial	1 g
8-099-11	Vial	3 x 50 mg

**Formulation : H-Gly-Pro-Arg-Pro-OH, AcOH**

MW (g/mol): 485.5

Pepbloc FG binds to fibrinogen to inhibit the polymerization of the fibrin network, disrupting the mechanical properties of the clot.

Inhibits fibrino-formation and turbidity of fibrin network (e.g. TGT)

## Advantages

Inserts and certificates of analysis provided.  
Safety Data Sheets (SDS) provided.  
Prolonged stability after reconstitution (> 3 months).

## Characteristics

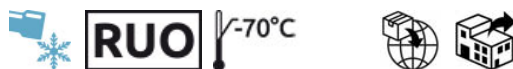
Most inhibitors have a selective inhibition on the activity of certain trypsin proteases of physiological interest. However, each inhibitor may have a characteristic action on other protease serines.



## INHIBITORS

## Synthetic reversible inhibitors

## DAPA



## Associated products

PEPBLOC FG

Pepbloc NAPAP

## Informations

Detection and determination of proteinases, studies on their interactions with substrates and effectors and the investigation of their physiological role are greatly facilitated by the use of proteinase inhibitors.

In this context, especially synthetic, low-molecular weight inhibitors of different selectivity are very useful. They are widely applied during purification and characterization of proteinases.

Furthermore, synthetic inhibitors are useful tools for suppression of undesired proteolytic activity. Depending upon the manner in which the inhibitor is attached to the enzyme, one distinguishes reversible and irreversible inhibitors.

## Reference

9-DAPA

## Presentation

Vial

## Format

1 mg

**Formulation : Dansylarginin, N-(3-ethyl-1.5-pentanediy)amid, HCl  
C25H39O3N6SCL**

MW(Da) : 539

Extinction coef. : 4010

Potent and specific synthetic thrombin inhibitor. ( $K_i=10^{-7}M$ ). Bound to thrombin, le fluorescence intensity increase 3 fold.

## Advantages

Supplied lyophilized or frozen.

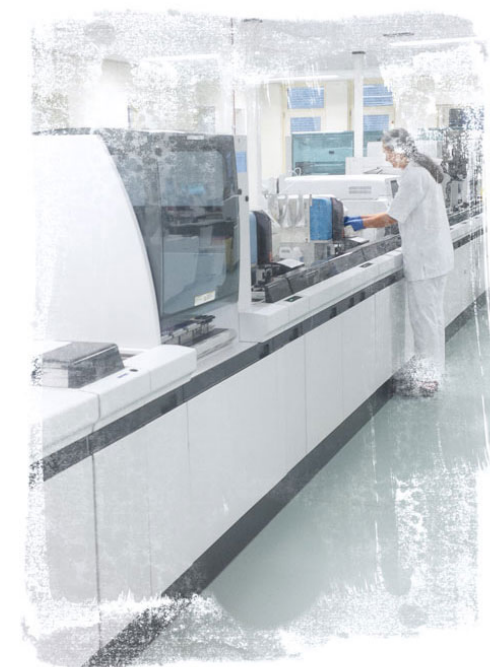
Expiry date &gt; 1 year.

Glass vial or plastic tubes.

Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.



## INHIBITORS

## Synthetic reversible inhibitors

## PEPBLOC FG



## Associated products

DAPA

Pepbloc NAPAP

## Informations

Detection and determination of proteinases, studies on their interactions with substrates and effectors and the investigation of their physiological role are greatly facilitated by the use of proteinase inhibitors. In this context, especially synthetic, low-molecular weight inhibitors of different selectivity are very useful.

They are widely applied during purification and characterization of proteinases. Furthermore, synthetic inhibitors are useful tools for suppression of undesired proteolytic activity.

Depending upon the manner in which the inhibitor is attached to the enzyme, one distinguishes reversible and irreversible inhibitors.

Reference	Presentation	Format
6-INH-FG-50	Vial	1 x 50 mg

**Fibrin polymerization inhibitor****Formulation : H-Gly-Pro-Arg-Pro-OH; AcOH**Chemical structure :  $C_{18}H_{31}N_7O_5$ ,  $C_2H_4O_2$ 

Molecular Weight : 485.5 g/mol

Pepbloc FG binds to fibrinogen to inhibit polymerization of the fibrin network, thereby disrupting the mechanical properties of the clot. Inhibits fibrin formation and turbidity of the fibrin network.

Pepbloc FG is also used to inhibit fibrin formation during purification and processing of clotting factors and other plasma proteins.

## Advantages

Supplied lyophilized or frozen.  
 Expiry date > 1 year.  
 Glass vial or plastic tubes.  
 Discount according to quantities.

## Characteristics

Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.



## INHIBITORS

## Synthetic reversible inhibitors

## Pepbloc NAPAP



## Associated products

DAPA

PEPBLOC FG

## Informations

Detection and determination of proteinases, studies on their interactions with substrates and effectors and the investigation of their physiological role are greatly facilitated by the use of proteinase inhibitors. In this context, especially synthetic, low-molecular weight inhibitors of different selectivity are very useful. They are widely applied during purification and characterization of proteinases. Furthermore, synthetic inhibitors are useful tools for suppression of undesired proteolytic activity. Depending upon the manner in which the inhibitor is attached to the enzyme, one distinguishes reversible and irreversible inhibitors.

Reference	Presentation	Format
6-INH-NAPAP-5	Vial	5 mg

**Formulation : N- $\alpha$ -(2-naphthylsulfonylglycyl)-4-amidino-(D, L)-phénylananin pipéridid acétate (NAPAP)**

MW(Da) : 581.7

Potent and selective competitive inhibitors of thrombin.













## Advantages

Supplied lyophilized or frozen.  
Expiry date > 1 year.  
Glass vial or plastic tubes.  
Discount according to quantities.

## Characteristics











Most inhibitors exhibit a selective inhibitory activity on certain trypsin-like proteinases of physiological relevance. However, each inhibitor will of course display a characteristic action on others serines proteinases.

# MONOCLONAL ANTIBODIES













Reference	Designation	Click to go to the product sheet	Antigen	Application	Source	PM (g/mol)	WEB
<b>Anti-thrombin</b>							
9-AHT-5020	→ Mouse monoclonal antibody anti-human thrombin, IgG1		Human thrombin	ELISA	Mouse		
<b>Anti-Factor V</b>							
9-ABV-5105	→ Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5105		Bovine FV/FVa	IB, RIA	Mouse		
9-ABV-5103	→ Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5103		Bovine FV	IB, ELISA	Mouse		
9-ABV-5104	→ Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5104		Bovine FV/FVa	IB, RIA, ELISA, Inhib.	Mouse		
9-ABV-5106	→ Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5106		Bovine FV/FVa	IB, ELISA	Mouse		
9-ABV-5107	→ Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5107		Bovine FV/FVa	IB, ELISA	Mouse		
9-AHV-5102	→ Mouse monoclonal antibody anti-human FV, IgG, AHV-5102		Human FV	RIA, IB	Mouse		
9-AHV-5108	→ Mouse monoclonal antibody anti-human FV, IgG, AHV-5108		Human FV and Va	RIA, IB	Mouse		
9-AHV-5146	→ Mouse monoclonal antibody anti-human FV, IgG, AHV-5146		Human FV et FVa	IB, ELISA	Mouse	150 000	
9-AHV-5101	→ Mouse monoclonal antibody anti-human FV, IgG1, AHV-5101		Human FV/FVa, and Bovine FV	RIA, Inhib.	Mouse		
9-AHV-5110	→ Mouse monoclonal antibody anti-human FV, IgG1, AHV-5110		Human FV	RIA, IB	Mouse		
9-AHV-5112	→ Mouse monoclonal antibody anti-human FV, IgG1, AHV-5112		Human FVa	RIA, IB	Mouse		














# MONOCLONAL ANTIBODIES

Reference	Designation	Click to go to the product sheet	Antigen	Application	Source	PM (g/mol)	WEB
<b>Anti-Factor VII</b>							
9-AHVII-5031	→ Mouse monoclonal antibody anti-human FVII, IgG1		Human FVII, FVIIa, BFPRck FVIIa	IB, ELISA, RIA	Mouse		
9-AMVII-9031	→ Rat monoclonal antibody anti-mouse FVII		Recombinant mouse FVII and FVIIa	IB, ELISA	Mouse		
<b>Anti-Factor VIIa</b>							
11-2282	→ Murine monoclonal antibody against human FVIIa IgG		FVIIa	IB, Inhib. FVIIa	Mouse		
<b>Anti-Factor VIII</b>							
26-ADGESH-5	→ Murine monoclonal antibody against human FVIII, heavy chain, clone ESH-5			IB, Immunopurif. et Immunodep., IF	Mouse		
26-ADGESH-4	→ Murine monoclonal antibody against human FVIII, light chain, clone ESH-4			Immunopurif. et Immunodep., IF	Mouse		
26-ADGESH-8	→ Murine monoclonal antibody against human FVIII, light chain, clone ESH-8			IB, IHC, Inhib.	Human		
9-AHVIII-5025	→ Mouse monoclonal antibody anti-human FVIII, IgG1		Human FVIII light chain	IB, ELISA	Mouse		
9-AMVIII-9035	→ Rat monoclonal antibody anti-mouse FVIII		Recombinant mouse FVIII	IB, ELISA	Rat		
<b>Anti-Factor IX</b>							
9-AHIX-5041	→ Mouse monoclonal antibody anti-human Factor IX, IgG1		Human FIX/FIXa and heavy chain of human FIX/FIXa	RIA, IB, ELISA, IHC	Mouse		
9-AMIXA-9041	→ Rat monoclonal antibody anti-mouse activated Factor IX (FIXa)		FIX and FIXa de Mouse	IB, ELISA	Rat		












# MONOCLONAL ANTIBODIES

Reference	Designation	Click to go to the product sheet	Antigen	Application	Source	PM (g/mol)	WEB
<b>Anti-Factor X</b>							
9-ABX-5051	→ Mouse monoclonal antibody anti-bovine Factor X, IgG1		Heavy chain of FX and FXa	IB, RIA, ELISA, purif.	Mouse		
9-AHX-5050	→ Mouse monoclonal antibody anti-human Factor X, IgG1		Human FX/FXa	Purif., Inhib.	Mouse		
9-AMX-9051	→ Rat monoclonal antibody anti-mouse Factor X, heavy chain		Mouse FX	IB, ELISA	Rat		
9-AMX-9050	→ Rat monoclonal antibody anti-mouse Factor X, heavy chain FX/FXa		Mouse FX/FXa, Human FX/FXa	IB, ELISA	Rat		
<b>Anti-Factor XI</b>							
9-AHXI-5061	→ Mouse monoclonal antibody anti-human Factor XI, IgG		Human Factor XI	IB, RIA, Purif, Inhib.	Mouse		
<b>Anti-Gamma Carboxylglutamyl (Gla) residues</b>							
11-3570	→ Murine monoclonal antibody anti-gamma-carboxyglutamyl(Gla) residues		Gla residues of human proteins	IB, IP	Mouse		
<b>Anti-scu-PA (Single chain urokinase plasminogen activator)</b>							
4-TC21393	→ Mouse monoclonal antibody anti-scu-PA, 1scu-PA, IgG1		Single and double chain urokinase	IB, ELISA	Mouse		
4-TC21293	→ Mouse monoclonal antibody anti-scu-PA, 14scu-PA, IgG1		Urokinase	IB, ELISA, Inhib.	Mouse		
4-TC21283	→ Mouse monoclonal antibody anti-scu-PA, 35scu-PA, IgG1		Pro-urokinase	ELISA, IHC	Mouse		
4-TC21383	→ Mouse monoclonal antibody anti-scu-PA, PUK		Single chain of urokinase	ELISA	Mouse		
<b>Anti-prothrombin</b>							
9-AHP-5013	→ Mouse monoclonal antibody anti-human prothrombin, IgG2a		Human Prothrombin	IB, ELISA, Inhib.	Mouse	150 000	
9-AMP-9013	→ Rat monoclonal antibody anti-mouse prothrombin		Mouse prothrombin	IB, ELISA	Rat		

# MONOCLONAL ANTIBODIES

Reference	Designation	Click to go to the product sheet	Antigen	Application	Source	PM (g/mol)	WEB
<b>Anti-TAFI</b>							
9-AHTAFI-5024	→ Mouse monoclonal antibody anti-human TAFI activated, IgG1		Human TAFI and activated TAFI	IB, ELISA	Mouse		
9-AHTAFI-5026	→ Mouse monoclonal antibody anti-human TAFI purified, IgG1		Human TAFI	IB (only TAFI), ELISA	Mouse		
9-AHTAFI-5081	→ Mouse monoclonal antibody anti-human TAFI, IgG2b		Human TAFI	IB, ELISA	Mouse		
<b>Anti-vitronectin</b>							
4-TC21511	→ Mouse monoclonal antibody anti-vitronectin, 2VN, IgG		Human vitronectin	IB, ELISA	Mouse		
<b>Anti-fibrin</b>							
11-350	→ Murine monoclonal antibody anti-human fibrin $\beta$ -chain (IgG1)		Beta chain of fibrinogen / human fibrin	IHC	Mouse		
<b>Anti-fibronectin</b>							
4-TC21223	→ Mouse monoclonal antibody anti-fibronectin, 2FN, IgG		Human fibronectin	IB, ELISA	Mouse		
4-TC21243	→ Mouse monoclonal antibody anti-fibronectin, 6FN, IgG2a		Human fibronectin	IB, ELISA	Mouse		
<b>Anti-plasminogen activator inhibitor type-1 (PAI-1)</b>							
4-TC21163	→ Mouse monoclonal antibody anti-human PAI-1, 1PAI, IgG2b		PAI-1	ELISA, immunod.	Mouse		
4-TC21173	→ Mouse monoclonal antibody anti-human PAI-1, 3PAI, (IgG2b)		PAI-1	ELISA, IHC, immunod.	Mouse		
4-TC21193	→ Mouse monoclonal antibody anti-human PAI-1, 5PAI, (IgG1)		PAI-1	ELISA, IHC, immunod.	Mouse		
<b>Anti-TFPI</b>							
9-AHTFPI-5138	→ Anti-human Tissue Factor Pathway Inhibitor, IgG		Human TAFI	IB, ELISA	Mouse	150 000	

# MONOCLONAL ANTIBODIES





Reference	Designation	Click to go to the product sheet	Antigen	Application	Source	PM (g/mol)	WEB
<b>Anti-Protein C inhibitor</b>							
4-TC21353	→ Mouse monoclonal antibody anti-protein C inhibitor, 4PCI, PCI and PCI target (IgG1)			ELISA	Mouse		
<b>Anti-osteocalcin</b>							
9-ABOC-5021	→ Mouse monoclonal antibody anti-bovine osteocalcin, IgG1		Human and bovine bone osteocalcin	IB, RIA, ELISA, IHC, purif.	Mouse		
<b>Anti-urokinase type plasminogen activator (u-PA)</b>							
26-ADG3689	→ Murine monoclonal antibody against human uPA		Urokinase	IB, ELISA, IHC, Inhib.	Mouse		
4-TC21063	→ Mouse monoclonal antibody anti-human u-PA, 4UK, IgG1		Urokinase	ELISA	Mouse		
<b>Anti-osteonectin</b>							
9-AON-5031	→ Mouse monoclonal antibody anti-human osteonectin (IgG1)		Mouse Osteonectin	RIA, IB, ELISA, IHC, purif.	Mouse		
<b>Anti-tissue type plasminogen activator (t-PA)</b>							
4-TC21053	→ Mouse monoclonal antibody anti-t-PA (epitope kringle 2 domain) 7VPA, (IgG1)		t-PA	ELISA, inhib.	Mouse		
4-TC21023	→ Mouse monoclonal antibody anti-t-PA, (IgG1)		t-PA	ELISA, inhib.	Mouse		
4-TC21013	→ Mouse monoclonal antibody anti-t-PA (epitope on the light chain) 2VPa, (IgM)		t-PA	ELISA	Mouse		
<b>Anti-plasminogen</b>							
9-AMPG-9130	→ Rat monoclonal antibody anti-mouse plasminogen		Mouse plasminogen/plasmin	IB, ELISA	Rat		
4-TC21103	→ Mouse monoclonal antibody anti-human plasminogen, 1PG, IgG1		Glu-Plasminogen	ELISA, separation, biochemical studies	Mouse		
4-TC21113	→ Mouse monoclonal antibody anti-human plasminogen, 2PG, IgG1		Glu-Plasminogen	ELISA, biochemical studies	Mouse		

# MONOCLONAL ANTIBODIES

Reference	Designation	Click to go to the product sheet	Antigen	Application	Source	PM (g/mol)	WEB
4-TC21123	→ Mouse monoclonal antibody anti-human plasminogen, 4PG, IgG1		Plasminogen and free plasmin only	ELISA, biochemical studies	Mouse		<a href="#">🌐</a>
4-TC21133	→ Mouse monoclonal antibody anti-human plasminogen, 7PG, IgG1		Free plasminogen or plasmin	Biochemical studies	Mouse		<a href="#">🌐</a>
<b>Anti-<math>\alpha</math>-2-antiplasmin</b>							
4-TC21083	→ Mouse monoclonal antibody anti- $\alpha$ -2-Antiplasmin, 2AP, IgG1		Native $\alpha$ -2-antiplasmin	ELISA	Mouse		<a href="#">🌐</a>
4-TC21093	→ Mouse monoclonal antibody anti- $\alpha$ -2-Antiplasmin, 3AP, IgG1		Native $\alpha$ -2-antiplasmin	Separation of forms	Mouse		<a href="#">🌐</a>
4-TC21265	→ Mouse monoclonal antibody anti- $\alpha$ -2-Antiplasmin, 14AP, IgG2a		$\alpha$ -2-antiplasmin	ELISA, Inhib.	Mouse		<a href="#">🌐</a>
4-TC21263	→ Mouse monoclonal antibody anti- $\alpha$ -2-Antiplasmin, 7AP, IgG1		$\alpha$ -2-antiplasmin	IB, ELISA, Inhib.	Mouse		<a href="#">🌐</a>
<b>Anti-protein C</b>							
9-AMPC-9071	→ Rat monoclonal antibody anti-mouse Protein C		Mouse PC	IB, ELISA	Rat		<a href="#">🌐</a>
9-AMPC-9072	→ Rat monoclonal antibody anti-mouse PC		Mouse PC	WB, ELISA	Rat		<a href="#">🌐</a>
9-AHPC-5071	→ Mouse monoclonal antibody anti-human protein C, IgG1		Human antigen PC and aPC	IB, ELISA, RIA, purif.	Mouse		<a href="#">🌐</a>
9-AHPC-5072	→ Mouse monoclonal antibody anti-human protein C, IgG2b		Mouse PC and aPC	IB, RIA, ELISA, purif.	Mouse		<a href="#">🌐</a>
<b>Anti-tissue Factor</b>							
26-ADG4508	→ Monoclonal Antibody against Human Tissue Factor		Tissue Factor	IB, IHC, FC	Human		<a href="#">🌐</a>
9-AHTF-5264	→ Anti-Tissue Factor (IgG) murine monoclonal antibody		Tissue factor	IB, ELISA	Mouse		<a href="#">🌐</a>
11-4507CJ	→ Murine monoclonal antibody anti-human tissue Factor, FITC conjugated		Tissue factor	Inhib. Thromboplastin	Mouse		<a href="#">🌐</a>



# MONOCLONAL ANTIBODIES

Reference	Designation	Click to go to the product sheet	Antigen	Application	Source	PM (g/mol)	WEB
11-4509	→ Murine monoclonal antibody anti-human tissue Factor, IIID8		Tissue factor	IHC, IB, inhib.	Mouse		
11-4503	→ Murine monoclonal antibody anti-human tissue Factor, IgG		Tissue factor	FC, IHC, IP, IB	Mouse		
<b>Anti-protein S</b>							
9-AHPS-5092	→ Mouse monoclonal antibody anti-human protein S, IgG1		Human protein S	IB, RIA, ELISA, purif.	Mouse		
9-AHPS-5091	→ Mouse monoclonal antibody anti-human protein S, IgG2b		Human protein S	IB, RIA, ELISA, purif.	Mouse		

## MONOCLONAL ANTIBODIES

## Anti-thrombin

## Mouse monoclonal antibody anti-human thrombin, IgG1



## Informations

During the coagulation cascade, prothrombin is activated by the prothrombinase complex (FXa, FVa in the presence of phospholipid and calcium) into thrombin which plays a central role in the coagulation process. It will indeed transform fibrinogen into fibrin, amplify its own formation and activate the protein C, TAFI and platelet systems.

Reference	Presentation	Format
9-AHT-5020	Vial	100 µg

**Antigen : Human thrombin, thrombin-ATIII complex, thrombin-PPACK, human thrombin**

Application : ELISA, inhibits the clot but not amidase activity.

KD (IIa)= 1.4.10<sup>-8</sup> M; KD (IIa-ATIII)= 1.4.10<sup>-8</sup> M Inhibits clotting but not amidase activity

Host : Mouse.

Immunogen : purified human thrombin

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

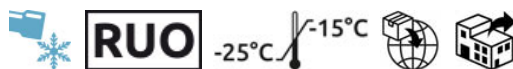
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE.  
Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use.  
Both small, laboratory scale and bulk, production scale quantities are available.  
Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor V

# Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5105



## Associated products

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5103

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5104

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5106

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-ABV-5105	Vial	100 µg

**Antigen : bovine FVa light chain, bovine FV in the absence of Ca<sup>2+</sup>**

Application : RIA, Immunoblotting

Host : Mouse

Immunogen: Purified bovine factor V

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor V

# Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5103



## Associated products

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5105

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5104

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5106

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-ABV-5103	Vial	100 µg

**Antigen : bovine FV, epitope on the activation peptide of bovine FV**

Application : Immunoblotting, ELISA

Host : Mouse

Immunogen : Purified bovine factor V

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

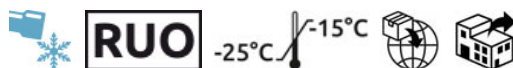
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor V

# Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5104



## Associated products

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5105

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5103

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5106

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-ABV-5104	Vial	100 µg

**Antigen: heavy chain of bovine FVa and low specificity with intact bovine FV**

Application : RIA, Immunoblotting, ELISA, inhibitory

Host : Mouse

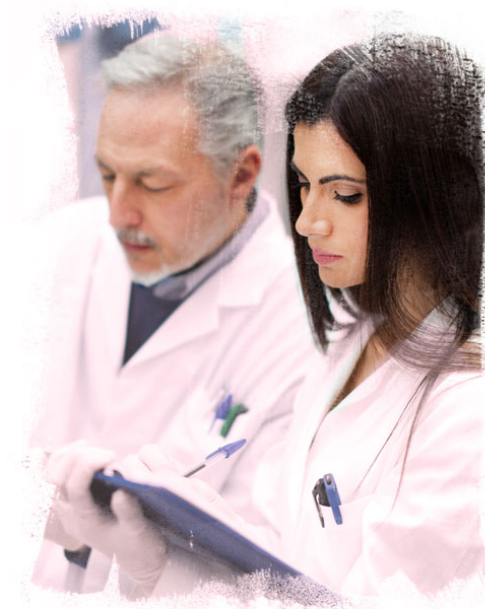
Immunogen: Purified bovine factor V

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-Factor V

# Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5106



## Associated products

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5105

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5103

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5104

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-ABV-5106	Vial	100 µg

**Antigen: heavy chain of bovine FVa and low specificity with intact bovine FV**

Application : Immunoblotting, ELISA

Host : Mouse

Immunogen: Purified bovine factor V

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

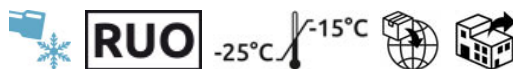
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor V

# Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5107



## Associated products

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5105

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5103

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5104

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-ABV-5107	Vial	100 µg

### Antigen : bovine FVa light chain, bovine FV

Application : Immunoblotting, ELISA

Host : Mouse

Immunogen: Purified bovine factor V

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities.

## Characteristics

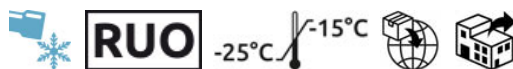
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor V

# Mouse monoclonal antibody anti-human FV, IgG, AHV-5102



## Associated products

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5105

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5103

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5104

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-AHV-5102	Vial	100 µg

**Antigen : 120 KDa activation peptide of human FV.**

Application : RIA, Immunoblotting,

Kd =  $4 \times 10^{-9}$

Host : Mouse

Immunogen: Purified bovine factor V

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor V

# Mouse monoclonal antibody anti-human FV, IgG, AHV-5108



## Associated products

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5105

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5103

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5104

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-AHV-5108	Vial	100 µg

**Antigen : human FV and Va, light chain (fragment E, 74 kDa) of FVa**

Application : RIA, Immunoblotting

Host : Mouse

Immunogen: Purified bovine factor V

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-Factor V

# Mouse monoclonal antibody anti-human FV, IgG, AHV-5146



## Associated products

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5105

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5103

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5104

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa.

It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin.

The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-AHV-5146	Vial	100 µg

**Antigen: Epitope within the factor Va heavy chain**

**Origin: Mouse monoclonal antibody (IgG1)**

**Buffer formulation: 50 % Glycerol / H<sub>2</sub>O (v/v)**

Application : Immunoblotting (+), ELISA (+)

Molecular weight (Da) : 150 000

Extinction coefficient : 14.0

Host : Mouse

Immunogen: Purified bovine factor V

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.

Special formulations are available upon request.

Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use.

Both small, laboratory scale and bulk, production scale quantities are available.

Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-Factor V

# Mouse monoclonal antibody anti-human FV, IgG1, AHV-5101



## Associated products

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5105

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5103

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5104

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-AHV-5101	Vial	100 µg

**Antigen : light chain of human FV, human FV, human FVa, bovine FV**

Application : RIA, Inhibitor on coagulation tests,  
Kd =  $3 \times 10^{-9}$   
Host : Mouse  
Immunogen: Purified bovine factor V

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor V

# Mouse monoclonal antibody anti-human FV, IgG1, AHV-5110



## Associated products

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5105

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5103

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5104

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa.

It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin.

The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-AHV-5110	Vial	100 µg

**Antigen : 120 kDa activation peptide of human FV**

Application : RIA, Immunoblotting, useful for purification of activation peptide

Host : Mouse

Immunogen: Purified bovine factor V

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.

Special formulations are available upon request.

Discount according to quantities

## Characteristics

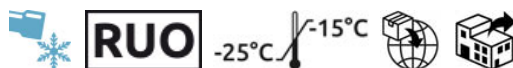
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor V

# Mouse monoclonal antibody anti-human FV, IgG1, AHV-5112



## Associated products

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5105

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5103

Mouse monoclonal antibody anti-bovine FV, IgG1, ABV-5104

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa.

It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin.

The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-AHV-5112	Vial	100 µg

**Antigen : human FVa light chain (fragment E, 74 kDa)**

Application : RIA, Immunoblotting,

Host : Mouse

Immunogen: Purified bovine factor V

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.

Special formulations are available upon request.

Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor VII

# Mouse monoclonal antibody anti-human FVII, IgG1



## Associated products

Rat monoclonal antibody anti-mouse FVII

## Informations

Factor VII (FVII) is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K dependent factor belonging to the prothrombin complex. Its half-life is 4 to 6 hours and it is the only coagulation factor present in trace amounts in its active form.

When tissue factor appears on the endothelial surface, activated FVII associates with it initiating the extrinsic pathway for coagulation.

This complex (FT-FVIIa) will activate the FX in FXa and the FIX in FIXa.

Reference	Presentation	Format
9-AHVII-5031	Vial	100 µg

**Antigen: Human Factor VII, VIIa, BFPPrck VIIa**

**Origin: Mouse monoclonal antibody (IgG1)**

**Buffer formulation: Glycérol 50 % / H<sub>2</sub>O (v/v)**

Application: ELISA (+), RIA (+), Immunoblotting (+)

Molecular weight (Da): 150 000

Extinction coefficient: 14.0

Host: Mouse

Immunogen: Purified human FVII

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.

Special formulations are available upon request.

Discount according to quantities.

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE.

Stock antibodies are supplied in 50 %

glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available.

Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-Factor VII

## Rat monoclonal antibody anti-mouse FVII



## Associated products

Mouse monoclonal antibody anti-human FVII, IgG1

## Informations

Factor VII (FVII) is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K dependent factor belonging to the prothrombin complex. Its half-life is 4 to 6 hours and it is the only coagulation factor present in trace amounts in its active form. When tissue factor appears on the endothelial surface, activated FVII associates with it initiating the extrinsic pathway for coagulation. This complex (FT-FVIIa) will activate the FX in FXa and the FIX in FIXa.

Reference	Presentation	Format
9-AMVII-9031	Vial	100 µg

**Antigen : Recombinant mouse FVII and FVIIa (unreduced form only).  
Native mouse FVII (unreduced form only)**

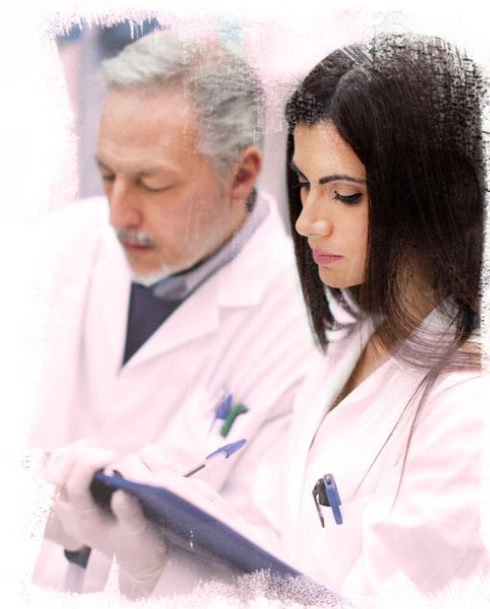
Application : Immunoblotting (unreduced condition only)  
ELISA: mouse rFVII / rFVIIa  
Host : Mouse  
Immunogen : FVII recombinant mouse

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE.  
Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use.  
Both small, laboratory scale and bulk, production scale quantities are available.  
Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-Factor VIIa

## Murine monoclonal antibody against human FVIIa IgG



## Informations

Factor VII (FVII) is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K dependent factor belonging to the prothrombin complex. Its half-life is 4 to 6 hours and it is the only coagulation factor present in trace amounts in its active form. When tissue factor appears on the endothelial surface, activated FVII associates with it initiating the extrinsic pathway for coagulation. This complex (FT-FVIIa) will activate the FX in FXa and the FIX in FIXa.

Reference	Presentation	Format
11-2282	Vial	200 µg

Application: Inhibitor of the activity of FVIIa, Immunoblotting (in non-reduced condition)

Host : Mouse

Immunogen : Human purified FVIIa

## Advantages

The lyophilized presentation allows greater stability until the expiration date.

## Characteristics

Antibody lyophilized in 400 µl of PBS and 100 mM mannitol, pH 7.4. To be reconstituted with 0.4mL of distilled water. After reconstitution stored at -20 ° C and avoid freeze / thaw cycles.



## MONOCLONAL ANTIBODIES

## Anti-Factor VIII

## Murine monoclonal antibody against human FVIII, heavy chain, clone ESH-5



## Associated products

Murine monoclonal antibody against human FVIII, light chain, clone ESH-4

Murine monoclonal antibody against human FVIII, light chain, clone ESH-8



Mouse monoclonal antibody anti-human FVIII, IgG1



Rat monoclonal antibody anti-mouse FVIII

Reference	Presentation	Format
26-ADGESH-5	Vial	1 x 0,5 mg

**The antibody is purified from cell cultures via Protein G affinity chromatography. Purified human Factor VIII:C cryoprecipitate was used as an immunizing antigen.**

Applications : Immunoblotting, inhibition, immunohistochemistry, immunopurification and immunodepletion.

Source : Human.

Immunogen: human urokinase.

## Advantages

Factor VIII is a glycoprotein synthesized primarily by the liver. It circulates in plasma in a VWF-bound form that protects it from rapid proteolytic degradation.

It is activated by FXa or thrombin in FVIIIa which will be complexed with FIXa in the presence of phospholipids to activate FX in FXa.

The mature form of FVIII is a single-chain protein with a molecular ratio of about 265 kDa.

## Characteristics

Screw cap vial containing 500 µg of purified antibodies in PBS, ProClin 0.01%, pH7.4, sterile. Purity > 90%.

Concentration: 1 mg/mL

For long-term storage, the antibody must be aliquot and kept at a temperature below -20°C.

Avoid freezing-thaw cycles.



## MONOCLONAL ANTIBODIES

## Anti-Factor VIII

## Murine monoclonal antibody against human FVIII, light chain, clone ESH-4



## Associated products

Murine monoclonal antibody against human FVIII, heavy chain, clone ESH-5

Murine monoclonal antibody against human FVIII, light chain, clone ESH-8

Mouse monoclonal antibody anti-human FVIII, IgG1

## Informations

Factor VIII is a glycoprotein mainly synthesized by the liver. It circulates in the plasma in the form bound to VWF which protects it from rapid proteolytic degradation.

It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa. A patient who is deficient in FVIII has hemophilia A.

Reference	Presentation	Format
26-ADGESH-4	Vial	1 x 0,5 mg

**Murine MAb against human Factor VIII Ag, clone ESH-4, light chain. aa 2303-2332 of C2 domain of the light chain.**

Application: Immunopurification and Immunodepletion, IF  
Immunogen: FVIII: C purified and cryoprecipitated.

## Advantages

The lyophilized presentation allows greater stability until the expiration date.

## Characteristics

Lyophilized antibody to be reconstituted with 0.5mL of distilled water.  
Antibody also reacts with baboon and rabbit FVIII.



## MONOCLONAL ANTIBODIES

## Anti-Factor VIII

## Murine monoclonal antibody against human FVIII, light chain, clone ESH-8



## Associated products

Murine monoclonal antibody against human FVIII, heavy chain, clone ESH-5

Murine monoclonal antibody against human FVIII, light chain, clone ESH-4

Mouse monoclonal antibody anti-human FVIII, IgG1

## Informations

Factor VIII is a glycoprotein synthesized primarily by the liver. It circulates in plasma in a VWF-bound form that protects it from rapid proteolytic degradation.

It is activated by FXa or thrombin in FVIIIa which will be complexed with FIXa in the presence of phospholipids to activate FX in FXa.

The mature form of FVIII is a single-chain protein with a molecular ratio of about 265 kDa.

Reference	Presentation	Format
26-ADGESH-8	Vial	1 x 0,5 mg

**The antibody is purified from cell cultures via Protein G affinity chromatography. Purified human Factor VIII:C cryoprecipitate was used as an immunizing antigen.**

Applications : Immunoblotting, inhibition, immunohistochemistry, immunopurification and immunodepletion.

Source : Human.

Immunogen: human urokinase.

## Characteristics

Screw cap vial containing 500 µg of purified antibodies in PBS, ProClin 0.01%, pH7.4, sterile. Purity > 90%. Concentration: 1 mg/mL

For long-term storage, the antibody must be aliquot and kept at a temperature below -20°C. Avoid freezing-thaw cycles.





## MONOCLONAL ANTIBODIES

## Anti-Factor VIII

# Mouse monoclonal antibody anti-human FVIII, IgG1



## Associated products

Rat monoclonal antibody anti-mouse FVIII

## Informations

Factor VIII is a glycoprotein mainly synthesized by the liver. It circulates in the plasma in the form bound to VWF which protects it from rapid proteolytic degradation.

It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa. A patient who is deficient in FVIII has hemophilia A.

Reference	Presentation	Format
9-AHVIII-5025	Vial	100 µg

**Antigen : Human FVIII light chain**

Application : Immunoblotting, ELISA

Host : Mouse

Immunogen : Human purified FVIII

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.

Special formulations are available upon request.

Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-Factor VIII

## Rat monoclonal antibody anti-mouse FVIII



## Associated products

Mouse monoclonal antibody anti-human FVIII, IgG1

## Informations

Factor VIII is a glycoprotein mainly synthesized by the liver. It circulates in the plasma in the form bound to VWF which protects it from rapid proteolytic degradation. It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa. A patient who is deficient in FVIII has hemophilia A.

Reference	Presentation	Format
9-AMVIII-9035	Vial	100 µg

**Antigen : Recombinant mouse FVIII**

Application : Immunoblotting, ELISA  
Host : Rat

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor IX

## Mouse monoclonal antibody anti-human Factor IX, IgG1



## Associated products

Rat monoclonal antibody anti-mouse activated Factor IX (FIXa)

## Informations

FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated into FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium.  
A person who is deficient in FIX has hemophilia B.

Reference	Presentation	Format
9-AHIX-5041	Vial	100 µg

**Antigen: Human factor IX, Human factor IXa, heavy chain of human factors IX and IXa**  
**Origin: Mouse monoclonal antibody (IgG1)**  
**Buffer formulation: 50 % Glycerol / H<sub>2</sub>O (v/v)**

Application: RIA (+), Immunoblotting (+), ELISA (+), Immunohistochemistry (+)  
 Molecular weight (Da): 150 000  
 Extinction coefficient: 14.0  
 Host: Mouse  
 Immunogen: Human purified FVIII

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
 Special formulations are available upon request.  
 Discount according to quantities

## Characteristics

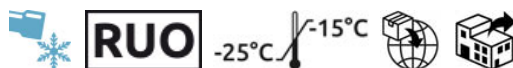
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor IX

## Rat monoclonal antibody anti-mouse activated Factor IX (FIXa)



## Associated products

Mouse monoclonal antibody anti-human Factor IX, IgG1

## Informations

FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated into FIX in FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium. A person who is deficient in FIX has hemophilia B.

Reference	Presentation	Format
9-AMIXA-9041	Vial	100 µg
9-AMIXA-9042	Vial	100 µg

## Antigen : mouse FIX and FIXa

Application : Immunoblotting, ELISA, Purification  
Host : Rat Immunogen: Purified mouse FIXa

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor X

# Mouse monoclonal antibody anti-bovine Factor X, IgG1



## Associated products

Mouse monoclonal antibody anti-human Factor X, IgG1

Rat monoclonal antibody anti-mouse Factor X, heavy chain

Rat monoclonal antibody anti-mouse Factor X, heavy chain FX/FXa

## Informations

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-ABX-5051	Vial	100 µg

**Antigen : heavy chain of FX and FXa (reactive toward human, bovine, rabbit, sheep, porcine and canine Factor X), BEGRck FXa**

Application :  
kDa = 9X10-11, RIA, Immunoblotting, ELISA, purification, inhibitor (aPTT and PT), partial calcium dependence.

Host : Mouse

Immunogen: Purified bovine FX

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities.

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-Factor X

# Mouse monoclonal antibody anti-human Factor X, IgG1



## Associated products

Mouse monoclonal antibody anti-bovine Factor X, IgG1

Rat monoclonal antibody anti-mouse Factor X, heavy chain

Rat monoclonal antibody anti-mouse Factor X, heavy chain FX/FXa

## Informations

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation.

It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids.

FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-AHX-5050	Vial	100 µg

**Origin :** Mouse monoclonal antibody IgG1

**Antigen :** heavy chains of human FXa and FX, does not bind bovine Factor FX or BEGRck-FXa

Application : Purification, Inhibitor (PT, prothrombinase, aPTT partially but not amidase activity)

Host : Mouse

Immunogen : Human FX purified

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.

Special formulations are available upon request.

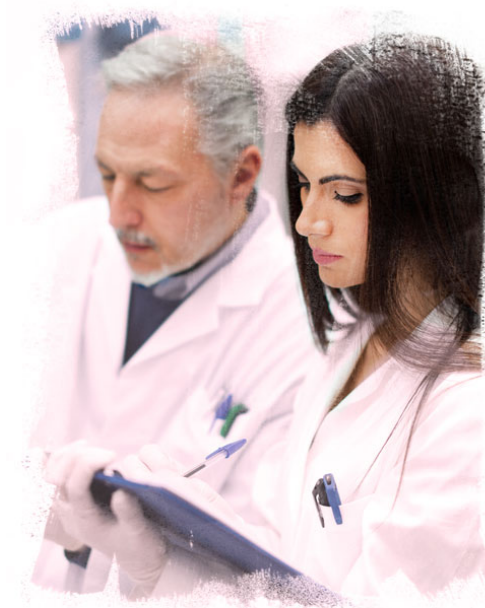
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE.

Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use.

Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-Factor X

## Rat monoclonal antibody anti-mouse Factor X, heavy chain



## Associated products

Mouse monoclonal antibody anti-bovine Factor X, IgG1

Mouse monoclonal antibody anti-human Factor X, IgG1

Rat monoclonal antibody anti-mouse Factor X, heavy chain FX/FXa

## Informations

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K.

FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids.

FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-AMX-9051	Vial	100 µg

**Antigen : heavy chain of mouse FX**

Application : Immunoblotting, ELISA

Host : Mouse

Immunogen : Purified mouse FX

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.

Special formulations are available upon request.

Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available.

Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor X

## Rat monoclonal antibody anti-mouse Factor X, heavy chain FX/FXa



## Associated products

Mouse monoclonal antibody anti-bovine Factor X, IgG1

Mouse monoclonal antibody anti-human Factor X, IgG1

Rat monoclonal antibody anti-mouse Factor X, heavy chain

## Informations

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-AMX-9050	Vial	100 µg

**Antigen : heavy chain of mouse FX and FXa, human FX and FXa**

Application : Immunoblotting (mouse FX / FXa heavy chain and human FX / FXa), ELISA (mouse FX and FXa)

Host : Mouse

Immunogen : Purified mouse FX

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

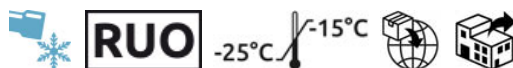
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Factor XI

## Mouse monoclonal antibody anti-human Factor XI, IgG



Reference	Presentation	Format
9-AHXI-5061	Vial	100 µg

## Informations

Factor XI (FXI) is a protein synthesized by the liver. It participates in the contact phase which initiates the intrinsic pathway of coagulation. It is activated by FXIIa to factor FXIa which will itself activate FIX in the presence of calcium ions.

**Antigen: human FXI antigen, human FXIa,**  
**Origine: Mouse monoclonal antibody (IgG)**  
**Buffer formulation: 50 % Glycerol / H<sub>2</sub>O (v/v)**

Application: Inhibitory in clotting assay, Purification, RIA (+), Wesrten blot (+) non reduced only  
 Molecular weight (Da): 150 000  
 Extinction coefficient: 14.0  
 Host: Mouse  
 Immunogen: Purified human FXI

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
 Special formulations are available upon request.  
 Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

Anti-Gamma Carboxylglutamyl (Gla)  
residuesMurine monoclonal antibody  
anti-gamma-carboxylglutamyl (Gla) residues

## Informations

Gamma-Carboxylglutamic Acid is an amino acid derived from glutamate in a reaction that involves vitamin K. There are many Gla residues of coagulation proteins. Gla residues are ligands for Ca<sup>2+</sup> ions, a critical reaction for the activity of coagulation factors and proteins.

Reference	Presentation	Format
11-3570	Vial	0.5 mg

**Antigen: Gla residues of human proteins and other species and also in venoms.**

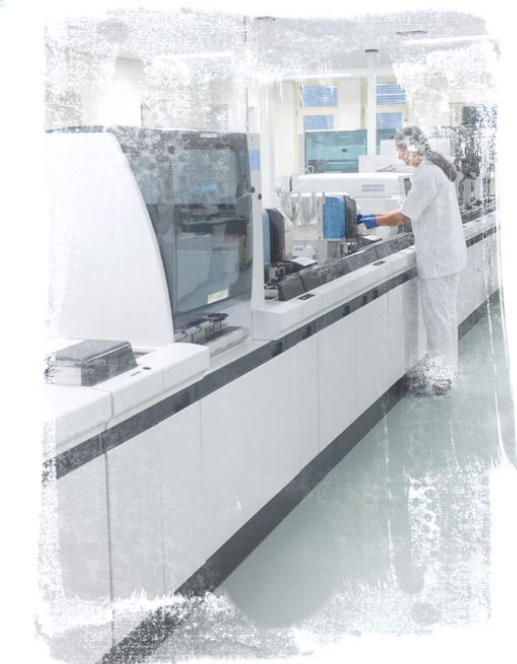
Application : Immunoblotting, IP  
Host : Mouse  
Immunogen: 8 synthetic Gla groups

## Advantages

The lyophilized presentation allows greater stability until the expiration date.

## Characteristics

Lyophilized 0.5mg antibody from a 0.5mL solution containing 10mM PBS buffer, 140mM NaCl and 100mM mannitol pH 7.4.





## MONOCLONAL ANTIBODIES

Anti-scu-PA (Single chain urokinase plasminogen activator)

### Mouse monoclonal antibody anti-scu-PA, 1scu-PA, IgG1



#### Associated products

Mouse monoclonal antibody anti-scu-PA, 14scu-PA, IgG1

Mouse monoclonal antibody anti-scu-PA, 35scu-PA, IgG1

#### Informations

Belonging to the family of serine proteases. UPA activates plasminogen to convert it into plasmin, an enzyme that breaks down fibrin.

It intervenes in the phases of dissolution of the clot during fibrinolysis.

It has also been shown to increase the amount of u-PA in some tumors.

Reference	Presentation	Format
4-TC21393	Vial	500 µg

**Antigen: single and double chain urokinase**

Application : Immunoblotting, ELISA

Host : Mouse

Immunogen : human single chain recombinant urokinase

#### Characteristics

Antibodies lyophilized from a solution of 1 mg/mL in PBS buffer at pH 7,4.

After reconstitution the antibodies should be aliquoted and stored at -20 °C.

Avoid repeated cycles of freezing and thawing.





## MONOCLONAL ANTIBODIES

Anti-scu-PA (Single chain urokinase plasminogen activator)

## Mouse monoclonal antibody anti-scu-PA, 14scu-PA, IgG1



### Associated products

Mouse monoclonal antibody anti-scu-PA, 1scu-PA, IgG1

Mouse monoclonal antibody anti-scu-PA, 35scu-PA, IgG1

### Informations

Belonging to the family of serine proteases. UPA activates plasminogen to convert it into plasmin, an enzyme that breaks down fibrin.

It intervenes in the phases of dissolution of the clot during fibrinolysis.

It has also been shown to increase the amount of u-PA in some tumors.

Reference	Presentation	Format
4-TC21293	Vial	500 µg

**Antigen : binds to single chain urokinase, two-chain urokinase, and low molecular weight urokinase.**

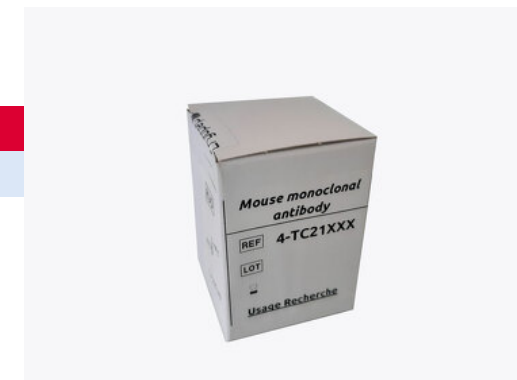
Application : Immunoblotting, ELISA, inhibit functional activity

Host : Mouse

Immunogen: Recombinant single chain human urokinase

### Characteristics

Antibodies lyophilized from a solution of 1 mg / mL in PBS buffer at pH 7.4 with 0.02% sodium azide and 20 mg / mL mannitol. After reconstitution should be aliquoted and stored at -20 °C. Avoid repeated cycles of freezing and thawing.



## MONOCLONAL ANTIBODIES

### Anti-scu-PA (Single chain urokinase plasminogen activator)

## Mouse monoclonal antibody anti-scu-PA, 35scu-PA, IgG1



#### Associated products

Mouse monoclonal antibody anti-scu-PA, 1scu-PA, IgG1

Mouse monoclonal antibody anti-scu-PA, 14scu-PA, IgG1

#### Informations

Belonging to the family of serine proteases. UPA activates plasminogen to convert it into plasmin, an enzyme that breaks down fibrin.

It intervenes in the phases of dissolution of the clot during fibrinolysis.

It has also been shown to increase the amount of u-PA in some tumors.

Reference	Presentation	Format
4-TC21283	Vial	500 µg

**Antigen : binds to single chain pro-urokinase, two-chain urokinase, and low molecular weight urokinase.**

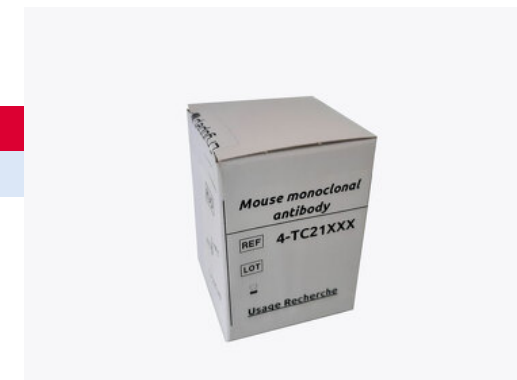
Application : ELISA, IHC

Host : Mouse

Immunogen: Recombinant single chain human pro-urokinase

#### Characteristics

Antibody lyophilized from a solution of 1 mg/mL in PBS buffer at pH 7.4. After reconstitution the antibodies should be aliquoted and stored at -20°C. Avoid repeated cycles of freezing and thawing.



## MONOCLONAL ANTIBODIES

### Anti-scu-PA (Single chain urokinase plasminogen activator)

## Mouse monoclonal antibody anti-scu-PA, PUK



### Informations

Belonging to the family of serine proteases. UPA activates plasminogen to convert it into plasmin, an enzyme that breaks down fibrin. It intervenes in the phases of dissolution of the clot during fibrinolysis. It has also been shown to increase the amount of u-PA in some tumors.

Reference	Presentation	Format
4-TC21383	Vial	500 µg

**Antigen: single chain of urokinase**

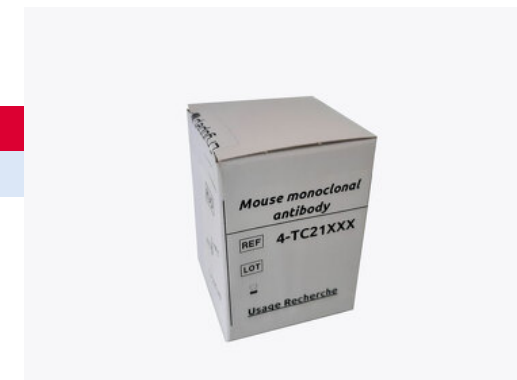
Application : ELISA

Host : Mouse

Immunogen: single chain of recombinant human urokinase

### Characteristics

Antibodies lyophilized from a solution of 0.5 mg/mL in 10 mM bicarbonat buffer, pH 9.6  
After reconstitution the antibodies should be aliquoted and stored at -20°C.  
Avoid repeated freezing and thawing cycles.



## MONOCLONAL ANTIBODIES

## Anti-prothrombin

## Mouse monoclonal antibody anti-human prothrombin, IgG2a



## Associated products

Rat monoclonal antibody anti-mouse prothrombin

## Informations

Factor II (FII) or prothrombin is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K-dependent clotting factor. Its half-life is 50 to 120 hours. FII is activated by the prothrombinase thrombin complex which plays a central role in the coagulation process. It will transform fibrinogen into fibrin, amplify its own formation and activate the protein C, TAFI and platelet systems. There are constitutional deficits in FII which are very rare and acquired deficits which can be observed during anti-vitamin K treatments or vitamin K deficiency, CIVD, anti-FII autoantibodies.

Reference	Presentation	Format
9-AHP-5013	Vial	100 µg

**Antigen recognized : Human prothrombin, prethrombin-1, fragment 1.2, meizothrombin and human prothrombin**

Application : Immunoblotting, ELISA, inhibits clotting and prothrombin activation.

Host : Mouse

Immunogen : Human prothrombin purified

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-prothrombin

## Rat monoclonal antibody anti-mouse prothrombin



## Associated products

Mouse monoclonal antibody anti-human prothrombin, IgG2a

## Informations

Factor II (FII) or prothrombin is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K-dependent clotting factor. Its half-life is 50 to 120 hours. FII is activated by the prothrombinase thrombin complex which plays a central role in the coagulation process. It will transform fibrinogen into fibrin, amplify its own formation and activate the protein C, TAFI and platelet systems. There are constitutional deficits in FII which are very rare and acquired deficits which can be observed during anti-vitamin K treatments or vitamin K deficiency, CIVD, anti-FII autoantibodies.

Reference	Presentation	Format
9-AMP-9013	Vial	100 µg

**Antigen : mouse prothrombin**

Application : Immunoblotting, ELISA

Host : Rat

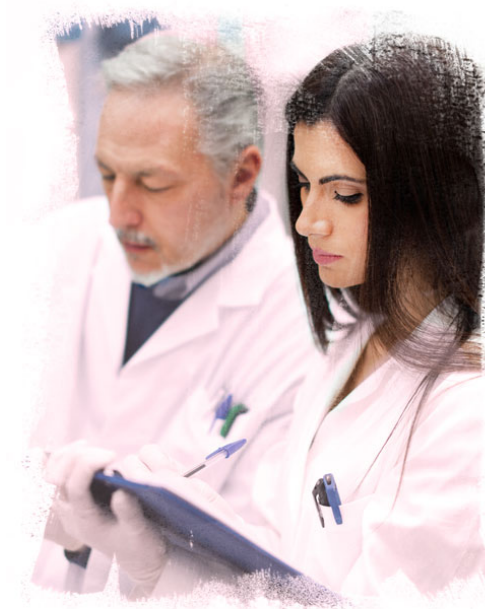
Immunogen: Purified mouse prothrombin

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-TAFI

# Mouse monoclonal antibody anti-human TAFI activated, IgG1



## Associated products

Mouse monoclonal antibody anti-human TAFI purified, IgG1

Mouse monoclonal antibody anti-human TAFI, IgG2b

## Informations

TAFI is an enzyme that stabilizes the clot by protecting the fibrin from the clot from lysis. TAFI is activated by thrombin and its activation is amplified in the presence of thrombomodulin. Activated TAFI removes the C-terminal lysine and arginine residues of fibrin which are necessary for the binding of t-PA, plasmin and plasminogen to fibrin.

Reference	Presentation	Format
9-AHTAFI-5024	Vial	100 µg

### Antigen : Human TAFI and activated TAFI

Application : Immunoblotting, ELISA, inhibits activation and activated TAFI

Host : Mouse

Immunogen: Human TAFI purified

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-TAFI

# Mouse monoclonal antibody anti-human TAFI purified, IgG1



## Associated products

Mouse monoclonal antibody anti-human TAFI activated, IgG1

Mouse monoclonal antibody anti-human TAFI, IgG2b

## Informations

TAFI is an enzyme that stabilizes the clot by protecting the fibrin from the clot from lysis. TAFI is activated by thrombin and its activation is amplified in the presence of thrombomodulin. Activated TAFI removes the C-terminal lysine and arginine residues of fibrin which are necessary for the binding of t-PA, plasmin and plasminogen to fibrin.

Reference	Presentation	Format
9-AHTAFI-5026	Vial	100 µg

**Antigen : Human TAFI**

Application : Immunoblotting (TAFI only), ELISA, inhibits TAFI activation

Host : Mouse

Immunogen : purified human TAFI

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

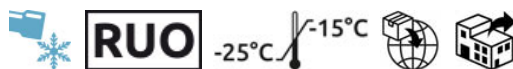
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-TAFI

# Mouse monoclonal antibody anti-human TAFI, IgG2b



## Associated products

Mouse monoclonal antibody anti-human TAFI activated, IgG1

Mouse monoclonal antibody anti-human TAFI purified, IgG1

## Informations

TAFI is an enzyme that stabilizes the clot by protecting the fibrin from the clot from lysis. TAFI is activated by thrombin and its activation is amplified in the presence of thrombomodulin. Activated TAFI removes the C-terminal lysine and arginine residues of fibrin which are necessary for the binding of t-PA, plasmin and plasminogen to fibrin.

Reference	Presentation	Format
9-AHTAFI-5081	Vial	100 µg

### Antigen : Human TAFI

Application : Immunoblotting (TAFI only), ELISA, non-inhibitory  
Host : Mouse  
Immunogen : purified human TAFI

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-vitronectin

# Mouse monoclonal antibody anti-vitronectin, 2VN, IgG



## Informations

Vitronectin (Vn) is an adhesive glycoprotein, synthesized by the liver, released in plasma and present in the extracellular matrix. Vn binds PAI-1. This complex fully activates PAI-1, unlike PAI-1 in solution, where it does not appear to be stable and inactive. Vn therefore seems to regulate the enzymatic specificity of PAI-1, by stabilizing it. Decreased Vn levels occur in DICs and liver disease (cirrhosis). Vn deposition is associated with atherosclerotic lesions.

Reference	Presentation	Format
4-TC21511	Vial	500 µg

## Human vitronectin

Application : Immunoblotting, ELISA  
 Host : Mouse  
 Immunogen: purified human vitronectin

## Characteristics

Antibodies lyophilized from a solution of 1 mg/mL in PBS buffer at pH 7,4. After reconstitution the antibodies should be aliquoted and stored at -20°C. Avoid repeated freezing and thawing cycles.





## MONOCLONAL ANTIBODIES

## Anti-fibrin

Murine monoclonal antibody anti-human fibrin  
 $\beta$ -chain (IgG1)

Reference	Presentation	Format
11-350	Vial	0.5 mg

## Informations

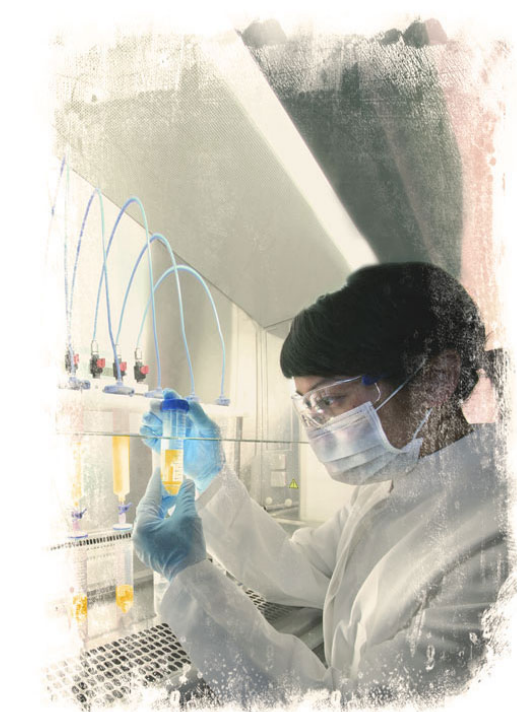
The cleavage of fibrinogen to fibrin by thrombin is the final event of the coagulation cascade. Fibrinogen is an M40 kDa glycoprotein synthesized by the liver. Thrombin cleaves the NH2 end of the Aa chain releasing fibrinopeptide A and generating fibrin. Thrombin also cleaves the NH2 end of the Bb chain releasing fibrinopeptide B. Fibrinopeptides allow the Aa and Bb chains to polymerize and form the fibrin network.

**Antigen: Beta chain of fibrinogen / human fibrin (57 kDa)**

Application : IHC  
Host : Mouse

## Advantages

The lyophilized presentation allows greater stability until the expiration date.





## MONOCLONAL ANTIBODIES

## Anti-fibronectin

# Mouse monoclonal antibody anti-fibronectin, 2FN, IgG



## Associated products

Mouse monoclonal antibody anti-fibronectin, 6FN, IgG2a

## Informations

Fibronectin is a glycoprotein that exists in soluble form in plasma or in fibrillar form in the extracellular matrix. This protein modulates the interactions between cells and the extracellular matrix. In the absence of fibrinogen, fibronectin controls coagulation. Fibronectin can bind to fibrin to strengthen clots and make them more stable. Fibronectin has shown roles in platelet function, fibrinolysis, chemotaxis, phagocytosis, and opsonization. In certain pathologies such as trauma, sepsis, liver disorders, the fibronectin level may be low. Conversely, some cancers can have high fibronectin levels.

Reference	Presentation	Format
4-TC21223	Vial	500 µg

### Human fibronectin.

Application : Immunoblotting, ELISA  
Host : Mouse

## Characteristics

Antibody lyophilized from an isotonic solution of 1 mg / mL in PBS buffer pH 7.4 containing 0.02% sodium azide. They must be reconstituted with 0.5mL of distilled water.



## MONOCLONAL ANTIBODIES

## Anti-fibronectin

# Mouse monoclonal antibody anti-fibronectin, 6FN, IgG2a



## Associated products

Mouse monoclonal antibody anti-fibronectin, 2FN, IgG

## Informations

Fibronectin is a glycoprotein that exists in soluble form in plasma or in fibrillar form in the extracellular matrix. This protein modulates the interactions between cells and the extracellular matrix. In the absence of fibrinogen, fibronectin controls coagulation.

Fibronectin can bind to fibrin to strengthen clots and make them more stable. Fibronectin has shown roles in platelet function, fibrinolysis, chemotaxis, phagocytosis, and opsonization. In certain pathologies such as trauma, sepsis, liver disorders, the fibronectin level may be low.

Conversely, some cancers can have high fibronectin levels.

Reference	Presentation	Format
4-TC21243	Vial	500 µg

## Human fibronectin.

Application : Immunoblotting, ELISA

Host : Mouse

Immunogen: human fibronectin purified

## Characteristics

Antibody lyophilized from an isotonic solution of 1 mg / mL in PBS buffer pH 7.4 containing 0.02% sodium azide. They must be reconstituted with 0.5mL of distilled water.



## MONOCLONAL ANTIBODIES

## Anti-plasminogen activator inhibitor type-1 (PAI-1)

## Mouse monoclonal antibody anti-human PAI-1, 1PAI, IgG2b



## Associated products

Mouse monoclonal antibody anti-human PAI-1, 3PAI, (IgG2b)

Mouse monoclonal antibody anti-human PAI-1, 5PAI, (IgG1)

## Informations

Plasminogen activator inhibitor 1 (PAI-1) is a glycoprotein, the primary inhibitor of t-PA and u-PA. It plays an essential role in controlling any excessive activation of fibrinolysis. It is present in plasma associated with vitronectin, in free form or associated with t-PA and in the alpha granules of platelets. Fibrinolysis corresponds to the solubilization of the fibrinous thrombus by plasmin, an enzyme originating from plasminogen adsorbed to fibrin. Plasminogen is activated by t-PA and u-Pa. PAI-1 by inhibiting plasminogen activators, controls the degradation of fibrinous thrombus. A decrease in fibrinolytic activity promotes the occurrence of thrombosis, while excessive fibrinolysis leads to hemorrhages.

Reference	Presentation	Format
4-TC21163	Vial	500 µg

**Antigen : active PAI-1, latent PAI-1 and t-PA-PAI-1 complexes; no cross reaction with PAI-2 or PAI-3.**

Application : ELISA, immunodepletion

Host : Mouse

Immunogen: purified PAI-1 from the human melanoma cell line

## Characteristics

Antibody lyophilized from an isotonic solution of 1 mg / mL in PBS buffer pH 7.4 containing 0.02% sodium azide. They must be reconstituted with 0.5mL of distilled water.



## MONOCLONAL ANTIBODIES

## Anti-plasminogen activator inhibitor type-1 (PAI-1)

## Mouse monoclonal antibody anti-human PAI-1, 3PAI, (IgG2b)



## Associated products

Mouse monoclonal antibody anti-human PAI-1, 1PAI, IgG2b

Mouse monoclonal antibody anti-human PAI-1, 5PAI, (IgG1)

## Informations

Plasminogen activator inhibitor 1 (PAI-1) is a glycoprotein, the primary inhibitor of t-PA and u-PA. It plays an essential role in controlling any excessive activation of fibrinolysis. It is present in plasma associated with vitronectin, in free form or associated with t-PA and in the alpha granules of platelets. Fibrinolysis corresponds to the solubilization of the fibrinous thrombus by plasmin, an enzyme originating from plasminogen adsorbed to fibrin. Plasminogen is activated by t-PA and u-Pa. PAI-1 by inhibiting plasminogen activators, controls the degradation of fibrinous thrombus. A decrease in fibrinolytic activity promotes the occurrence of thrombosis, while excessive fibrinolysis leads to hemorrhages.

Reference	Presentation	Format
4-TC21173	Vial	500 µg

**Antigen : active PAI-1, latent PAI-1 and t-PA-PAI-1 complexes; no cross-reaction with PAI-2 or with PAI-3. Interferes with the functional activity of PAI-1.**

Application : ELISA, immunodepletion  
Host : Mouse

## Characteristics

Antibody lyophilized from an isotonic solution of 1 mg / mL in PBS buffer pH 7.4 containing 0.02% sodium azide. They must be reconstituted with 0.5mL of distilled water.





## MONOCLONAL ANTIBODIES

## Anti-plasminogen activator inhibitor type-1 (PAI-1)

## Mouse monoclonal antibody anti-human PAI-1, 5PAI, (IgG1)



## Associated products

Mouse monoclonal antibody anti-human PAI-1, 1PAI, IgG2b

Mouse monoclonal antibody anti-human PAI-1, 3PAI, (IgG2b)

## Informations

Plasminogen activator inhibitor 1 (PAI-1) is a glycoprotein, the primary inhibitor of t-PA and u-PA. It plays an essential role in controlling any excessive activation of fibrinolysis. It is present in plasma associated with vitronectin, in free form or associated with t-PA and in the alpha granules of platelets. Fibrinolysis corresponds to the solubilization of the fibrinous thrombus by plasmin, an enzyme originating from plasminogen adsorbed to fibrin. Plasminogen is activated by t-PA and u-Pa. PAI-1 by inhibiting plasminogen activators, controls the degradation of fibrinous thrombus. A decrease in fibrinolytic activity promotes the occurrence of thrombosis, while excessive fibrinolysis leads to hemorrhages.

Reference	Presentation	Format
4-TC21193	Vial	500 µg

**Antigen : Reaction with active and latent PAI-1 and t-PA-PAI-1 complexes; no cross-reaction with PAI-2 or with PAI-3. Interferes with the functional activity of PAI-1.**

Application : ELISA, immunodepletion, IHC  
Host : Mouse

## Characteristics

Antibody lyophilized from an isotonic solution of 1 mg / mL in PBS buffer pH 7.4 containing 0.02% sodium azide. They must be reconstituted with 0.5mL of distilled water.

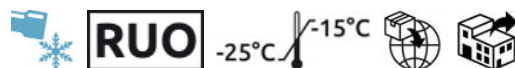




## MONOCLONAL ANTIBODIES

## Anti-TFPI

## Anti-human Tissue Factor Pathway Inhibitor, IgG



Reference	Presentation	Format
9-AHTFPI-5138	Vial	100 µg

## Informations

TFPI (Tissue Factor Pathway Inhibitor) is an anticoagulant protein produced by the endothelial cell and found on its surface.

Its role is to inhibit the early phases of coagulation by blocking the FT-FVIIa complex as well as the FXa.

**Antigen : Human TFPI**

**Formulation : 50 % Glycerol / H2O (v/v)**

Application : Immunoblotting, ELISA

Host : Mouse monoclonal IgG

Immunogen : 16 Amino Acid N-Terminal Peptide

(Asp-Ser-Glu-Glu-Asp-Glu-Glu-His-Thr-Ile-Ile-Thr-Asp-Thr-Glu-Cys)

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE.  
Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use.  
Both small, laboratory scale and bulk, production scale quantities are available.  
Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-Protein C inhibitor

# Mouse monoclonal antibody anti-protein C inhibitor, 4PCI, (IgG1)



## Informations

Protein C inhibitor (PCI) is a plasma serine protease which primarily inhibits protein C but also inhibits thrombin, FXa, t-PA, trypsin, chymotrypsin. Its action is amplified in the presence of high concentrations of heparin.

Reference	Presentation	Format
4-TC21353	Vial	500 µg

**Antigen : PCI and PCI target enzyme complexes.**

Application : ELISA, immunodepletion, purification  
Host : Mouse

## Characteristics

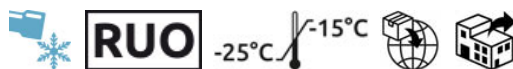
Antibody lyophilized from an isotonic solution of 1 mg / mL in PBS buffer pH 7.4 containing 0.02% sodium azide. They must be reconstituted with 0.5mL of distilled water.



## MONOCLONAL ANTIBODIES

## Anti-osteocalcin

## Mouse monoclonal antibody anti-bovine osteocalcin, IgG1



## Informations

Osteocalcin is a major protein in the inter-fibrillar substance of bone tissue, of which it constitutes one of the non-collagenic proteins. With a mass of 5800 Da, 90% of it is incorporated into the organic matrix of the bone and 10% passes intact into the bloodstream with a half-life of 5 min. Osteocalcin promotes the formation of hydroxyapatite crystals, essential components of the mineral substance of bone which ensures its rigidity and solidity.

Reference	Presentation	Format
9-ABOC-5021	Vial	100 µg

**Antigen : Human and bovine bone osteocalcin**

Application : RIA, Immunoblotting, ELISA, IHC, purification, (calcium dependent)

Host : Mouse

Immunogen: unfractionated bovine bone extract

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE.  
Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use.  
Both small, laboratory scale and bulk, production scale quantities are available.  
Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

Anti-urokinase type plasminogen activator  
(u-PA)

## Murine monoclonal antibody against human uPA



## Informations

Belonging to the serine protease family, uPA activates plasminogen to convert it into plasmin, an enzyme allowing the degradation of fibrin. It intervenes in the phases of dissolution of the clot during fibrinolysis.

Reference	Presentation	Format
26-ADG3689	Vial	1 x 250 µg

**This monoclonal antibody (HD-UK1 clone, IgG1) is a murine antibody recognizing human urokinase (uPA) plasminogen type plasminogen activator (uPA). It has been purified from the cell culture supernatant using protein G affinity chromatography.**

Applications: Immunoblotting, ELISA, inhibition of plasminogen activation, immunohistochemistry and flow cytometry.

Source: Mouse

Immunogen: Human urokinase

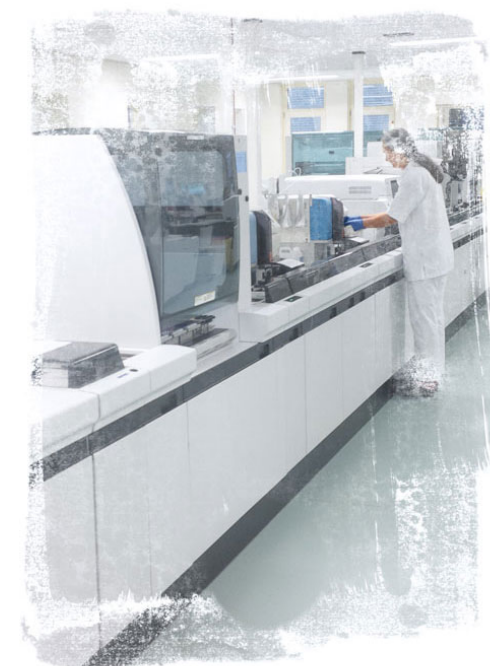
## Characteristics

Sterile product filtered through 0.2 µm. Purity > 90%. Concentration: 1 mg/mL

No preservatives added.

For long term storage, the antibody should be aliquoted and stored at -20°C or colder.

It is recommended to avoid freeze-thaw cycles.





## MONOCLONAL ANTIBODIES

Anti-urokinase type plasminogen activator  
(u-PA)

## Mouse monoclonal antibody anti-human u-PA, 4UK, IgG1



### Informations

Belonging to the family of serine proteases. UPA activates plasminogen to convert it into plasmin, an enzyme that breaks down fibrin. It intervenes in the phases of dissolution of the clot during fibrinolysis.

Reference	Presentation	Format
4-TC21063	Vial	500 µg

**Antigen: double chain of urokinase and single chain of pro-urokinase.**

Application : ELISA

Host : Mouse

Immunogen: high molecular weight purified human urokinase of urinary origin

### Characteristics

Antibodies lyophilized from a solution of 1 mg/mL in PBS buffer at pH 7.4. After reconstitution the antibodies should be aliquoted and stored at -20 °C. Avoid repeated freezing and thawing cycles.





## MONOCLONAL ANTIBODIES

## Anti-osteonectin

## Mouse monoclonal antibody anti-human osteonectin (IgG1)



## Informations

Osteonectin is an adhesion protein to the extracellular matrix. It plays an important role in cell cohesion as well as in embryogenesis and healing processes.

Reference	Presentation	Format
9-AON-5031	Vial	100 µg

**Antigen : Mouse, rat, human osteonectin, platelet osteonectin and mouse osteonectin in IHC**

Application : RIA, Immunoblotting, ELISA, IHC, purification, (calcium dependent)

Host : Mouse

Immunogen : Purified human osteonectin

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE.  
Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use.  
Both small, laboratory scale and bulk, production scale quantities are available.  
Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

### Anti-tissue type plasminogen activator (t-PA)

## Mouse monoclonal antibody anti-t-PA (epitope kringle 2 domain) 7VPA, (IgG1)



#### Associated products

Mouse monoclonal antibody anti-t-PA, (IgG1)

Mouse monoclonal antibody anti-t-PA (epitope on the light chain) 2VPA, (IgM)

#### Informations

Tissue plasminogen activator (t-PA) is a protein involved in breaking down the blood clot. It is a serine protease found in the endothelial cells that line the blood vessels.

Like any enzyme, it converts plasminogen into plasmin, the main blood clot lysis enzyme.

Due to its lysis activity, t-PA is used in clinical medicine to treat cerebral embolism and thrombosis.

Its use is contraindicated in cases of cerebral hemorrhage or head trauma.

Reference	Presentation	Format
4-TC21053	Vial	500 µg

**Antigen : Reaction with an epitope expressed on kringle 2.**

Application : ELISA, competitive inhibition  
Host : Mouse

#### Characteristics

Antibodies lyophilized from a solution of 1 mg/mL in PBS buffer at pH 7.4 containing 0.02% sodium azide and 20 mg/mL mannitol.

After reconstitution the antibodies should be aliquoted and stored at -20°C.

Avoid repeated freezing and thawing cycles.



## MONOCLONAL ANTIBODIES

## Anti-tissue type plasminogen activator (t-PA)

## Mouse monoclonal antibody anti-t-PA, (IgG1)



## Associated products

Mouse monoclonal antibody anti-t-PA (epitope kringle 2 domain) 7VPA, (IgG1)

Mouse monoclonal antibody anti-t-PA (epitope on the light chain) 2VPA, (IgM)

## Informations

Tissue plasminogen activator (t-PA) is a protein involved in breaking down the blood clot. It is a serine protease found in the endothelial cells that line the blood vessels.

Like any enzyme, it converts plasminogen into plasmin, the main blood clot lysis enzyme. Due to its lysis activity, t-PA is used in clinical medicine to treat cerebral embolism and thrombosis.

Its use is contraindicated in cases of cerebral hemorrhage or head trauma.

Reference	Presentation	Format
4-TC21023	Vial	500 µg

**Antigen : epitope expressed on both the finger domain and growth Factor domain of t-PA. 3VPA, Binds to t-PA.**

Application : ELISA, competitive inhibition  
Host : Mouse

## Characteristics

Antibodies lyophilized from a solution of 1 mg/mL in PBS buffer at pH 7.4 containing 0.02% sodium azide and 20 mg/mL mannitol.

After reconstitution the antibodies should be aliquoted and stored at -20°C.

Avoid repeated freezing and thawing cycles.



## MONOCLONAL ANTIBODIES

## Anti-tissue type plasminogen activator (t-PA)

## Mouse monoclonal antibody anti-t-PA (epitope on the light chain) 2VPa, (IgM)



## Associated products

Mouse monoclonal antibody anti-t-PA (epitope kringle 2 domain) 7VPA, (IgG1)

Mouse monoclonal antibody anti-t-PA, (IgG1)

## Informations

Tissue plasminogen activator (t-PA) is a protein involved in breaking down the blood clot. It is a serine protease found in the endothelial cells that line the blood vessels. Like any enzyme, it converts plasminogen into plasmin, the main blood clot lysis enzyme. Due to its lysis activity, t-PA is used in clinical medicine to treat cerebral embolism and thrombosis. Its use is contraindicated in cases of cerebral hemorrhage or head trauma.

Reference	Presentation	Format
4-TC21013	Vial	500 µg

**Antigen : reaction with free t-PA and t-PA-PAI-1 complexes, no cross-reaction with u-PA. Directed against an epitope on the light chain of t-PA away from the active site.**

Application : ELISA

Host : Mouse

Immunogen: purified t-PA from melanoma

## Characteristics

Antibodies lyophilized from a solution of 1 mg/mL in PBS buffer at pH 7.4 containing 0.02% sodium azide and 20 mg/mL mannitol. After reconstitution the antibodies should be aliquoted and stored at -20°C. Avoid repeated freezing and thawing cycles.





## MONOCLONAL ANTIBODIES

## Anti-plasminogen

## Rat monoclonal antibody anti-mouse plasminogen



## Associated products

Mouse monoclonal antibody anti-human plasminogen, 1PG, IgG1

Mouse monoclonal antibody anti-human plasminogen, 2PG, IgG1

Mouse monoclonal antibody anti-human plasminogen, 4PG, IgG1

## Informations

Plasminogen is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

Reference	Presentation	Format
9-AMPG-9130	Vial	100 µg

**Antigen : mouse plasminogen in reduced and unreduced condition and plasmin in unreduced condition**

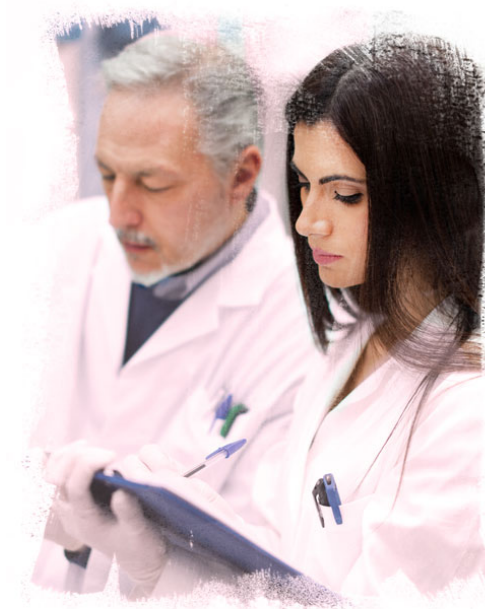
Application : Immunoblotting, ELISA Host : Rat Immunogen : Purified mouse plasminogen

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-plasminogen

# Mouse monoclonal antibody anti-human plasminogen, 1PG, IgG1



## Associated products

Rat monoclonal antibody anti-mouse plasminogen

Mouse monoclonal antibody anti-human plasminogen, 2PG, IgG1

Mouse monoclonal antibody anti-human plasminogen, 4PG, IgG1

## Informations

Plasminogen is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea.

It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form).

The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

Reference	Presentation	Format
4-TC21103	Vial	500 µg

**Antigen : Glu-Plasminogen, reaction with Lys-Plasminogen; reaction with Plasmin-Alpha-2-Antiplasmin complexes with Glu-forms.**

Application : ELISA, Glu/Lys separation, biochemical and pharmacological studies

Host : Mouse

Immunogen: purified human plasminogen

## Characteristics

Lyophilized antibody stored at 4 °C from a 1 mg / mL solution in PBS buffer of pH 7.4 with 0.02% sodium azide and 20 mg / mL mannitol.

After reconstitution with 0.5mL of distilled water, aliquot the antibody and store it at -20 °C. Avoid repeated freeze / thaw cycles.



## MONOCLONAL ANTIBODIES

## Anti-plasminogen

## Mouse monoclonal antibody anti-human plasminogen, 2PG, IgG1



## Associated products

Rat monoclonal antibody anti-mouse plasminogen

Mouse monoclonal antibody anti-human plasminogen, 1PG, IgG1

Mouse monoclonal antibody anti-human plasminogen, 4PG, IgG1

## Informations

Plasminogen is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea.

It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form).

The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

Reference	Presentation	Format
4-TC21113	Vial	500 µg

**Antigen : Glu- and Lys-Plasminogen as well as with Plasmin-Alpha-2-Antiplasmin complexes. Directed against an epitope on the kringle 1-3 elastase fragment of plasminogen.**

Application : ELISA, biochemical and pharmacological studies

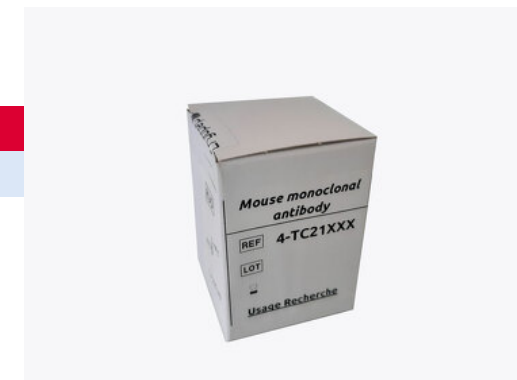
Host : Mouse Immunogen: purified human plasminogen

## Characteristics

Lyophilized antibody stored at 4 °C from a 1 mg / mL solution in PBS buffer of pH 7.4 with 0.02% sodium azide and 20 mg / mL mannitol.

After reconstitution with 0.5mL of distilled water, aliquot the antibody and store it at -20 °C.

Avoid repeated freeze / thaw cycles.



## MONOCLONAL ANTIBODIES

## Anti-plasminogen

## Mouse monoclonal antibody anti-human plasminogen, 4PG, IgG1



## Associated products

Rat monoclonal antibody anti-mouse plasminogen

Mouse monoclonal antibody anti-human plasminogen, 1PG, IgG1

Mouse monoclonal antibody anti-human plasminogen, 2PG, IgG1

## Informations

Plasminogen is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

Reference	Presentation	Format
4-TC21123	Vial	500 µg

**Antigen: plasminogen and free plasmin only.**

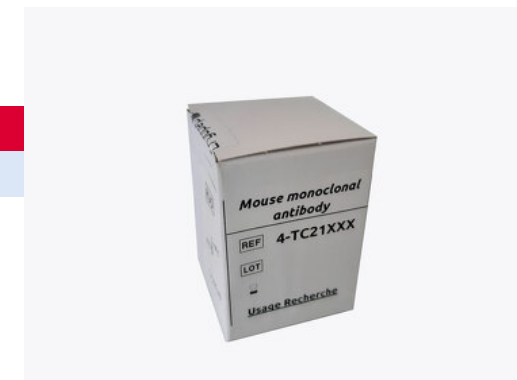
Application : ELISA, biochemical and pharmacological studies Inhibition of plasminogen activation

Host : Mouse

Immunogen : plasminogen

## Characteristics

Lyophilized antibody stored at 4 °C from a 1 mg / mL solution in PBS buffer of pH 7.4 with 0.02% sodium azide and 20 mg / mL mannitol. After reconstitution with 0.5mL of distilled water, aliquot the antibody and store it at -20 °C. Avoid repeated freeze / thaw cycles.



## MONOCLONAL ANTIBODIES

## Anti-plasminogen

## Mouse monoclonal antibody anti-human plasminogen, 7PG, IgG1



## Associated products

Rat monoclonal antibody anti-mouse plasminogen

Mouse monoclonal antibody anti-human plasminogen, 1PG, IgG1

Mouse monoclonal antibody anti-human plasminogen, 2PG, IgG1

## Informations

Plasminogen is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form).

The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

Reference	Presentation	Format
4-TC21133	Vial	500 µg

**Free plasminogen or plasmin in complex with Alpha-2-Antiplasmin. Directed against an epitope on the kringle 4 elastase fragment of plasminogen.**

Application : Research, biochemical and pharmacological studies

Host : Mouse

Immunogen : plasminogen

## Characteristics

Lyophilized antibody stored at 4 ° C from a 1 mg / mL solution in PBS buffer of pH 7.4 with 0.02% sodium azide and 20 mg / mL mannitol.

After reconstitution with 0.5mL of distilled water, aliquot the antibody and store it at -20 ° C.

Avoid repeated freeze / thaw cycles.





## MONOCLONAL ANTIBODIES

Anti- $\alpha$ -2-antiplasmin

# Mouse monoclonal antibody anti- $\alpha$ -2-Antiplasmin, 2AP, IgG1



## Associated products

Mouse monoclonal antibody  
anti- $\alpha$ -2-Antiplasmin, 14AP, IgG2a

Mouse monoclonal antibody  
anti- $\alpha$ -2-Antiplasmin, 7AP, IgG1

## Informations

Alpha 2-antiplasmin ( $\alpha$ -2-antiplasmin or  $\alpha$ -2-AP) is the main inhibitor of plasmin, a key enzyme in fibrinolysis. It binds to FXIII and fibrin, allowing stabilization of the thrombus.

Reference	Presentation	Format
4-TC21083	Vial	500 $\mu$ g

**Antigen : native  $\alpha$ -2-antiplasmin and degraded  $\alpha$ -2-antiplasmin and plasmin- $\alpha$ -2-antiplasmin complexes.**

Application : ELISA

Host : Mouse

Immunogen: purified  $\alpha$ -2-antiplasmin

## Characteristics

Antibodies lyophilized from a solution of 1 mg/mL in PBS buffer at pH 7.4 containing 0.02% sodium azide and 20 mg/mL mannitol.

After reconstitution the antibodies should be aliquoted and stored at -20°C.

Avoid repeated freezing and thawing cycles.





## MONOCLONAL ANTIBODIES

Anti- $\alpha$ -2-antiplasmin

# Mouse monoclonal antibody anti- $\alpha$ -2-Antiplasmin, 3AP, IgG1



## Associated products

Mouse monoclonal antibody anti- $\alpha$ -2-Antiplasmin, 2AP, IgG1

Mouse monoclonal antibody anti- $\alpha$ -2-Antiplasmin, 14AP, IgG2a

Mouse monoclonal antibody anti- $\alpha$ -2-Antiplasmin, 7AP, IgG1

## Informations

Alpha 2-antiplasmin ( $\alpha$ -2-antiplasmin or  $\alpha$ -2-AP) is the main inhibitor of plasmin, a key enzyme in fibrinolysis.

It binds to FXIII and fibrin, allowing stabilization of the thrombus.

Reference	Presentation	Format
4-TC21093	Vial	500 $\mu$ g

**Antigen : native  $\alpha$ -2-antiplasmin and plasmin- $\alpha$ -2-antiplasmin complexes.**

Application : Separation of the  $\alpha$ -2-AP form bound / free to plasminogen, detection of uncleaved  $\alpha$ -2-antiplasmin.

Host : Mouse

## Characteristics

Antibodies lyophilized from a solution of 1 mg/mL in PBS buffer at pH 7.4 containing 0.02% sodium azide and 20 mg/mL mannitol.

After reconstitution the antibodies should be aliquoted and stored at -20°C.

Avoid repeated freezing and thawing cycles.



## MONOCLONAL ANTIBODIES

Anti- $\alpha$ -2-antiplasmin

# Mouse monoclonal antibody anti- $\alpha$ -2-Antiplasmin,14AP, IgG2a



## Associated products

Mouse monoclonal antibody  
anti- $\alpha$ -2-Antiplasmin,7AP, IgG1

Reference

4-TC21265

Presentation

Vial

Format

500  $\mu$ gFunctional  $\alpha$ -2-antiplasmin.

Application : ELISA, activity  $\alpha$ -2-antiplasmin inhibition

Host : Mouse

Immunogen: purified  $\alpha$ -2-antiplasmin

## Informations

Alpha 2-antiplasmin ( $\alpha$ -2-antiplasmin or  $\alpha$ -2-AP) is the main inhibitor of plasmin, a key enzyme in fibrinolysis.

It binds to FXIII and fibrin, allowing stabilization of the thrombus.

## Characteristics

Antibodies lyophilized from a solution of 1 mg/mL in PBS buffer at pH 7.4 containing 0.02% sodium azide and 20 mg/mL mannitol. After reconstitution the antibodies should be aliquoted and stored at -20°C. Avoid repeated freezing and thawing cycles.



## MONOCLONAL ANTIBODIES

Anti- $\alpha$ -2-antiplasmin

# Mouse monoclonal antibody anti- $\alpha$ -2-Antiplasmin,7AP, IgG1



## Associated products

Mouse monoclonal antibody  
anti- $\alpha$ -2-Antiplasmin,14AP, IgG2a

## Informations

Alpha 2-antiplasmin ( $\alpha$ -2-antiplasmin or  $\alpha$ -2-AP) is the main inhibitor of plasmin, a key enzyme in fibrinolysis.

It binds to FXIII and fibrin, allowing stabilization of the thrombus.

Reference	Presentation	Format
4-TC21263	Vial	500 $\mu$ g

**Antigen : Recognizes the neoantigen of the plasmin-alpha-2-antiplasmin complex. Does not react with free plasminogen or free alpha-2-antiplasmin.**

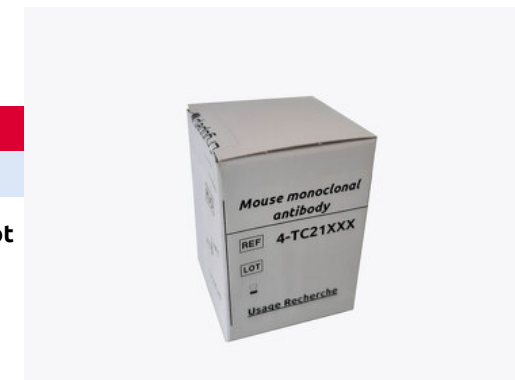
Application : Immunoblotting, ELISA, inhibition of AP

Host : Mouse

Immunogen :  $\alpha$ -2-antiplasmin

## Characteristics

Antibodies lyophilized from a solution of 1 mg/mL in PBS buffer at pH 7.4 containing 0.02% sodium azide and 20 mg/mL mannitol. After reconstitution the antibodies should be aliquoted and stored at -20°C. Avoid repeated freezing and thawing cycles.



## MONOCLONAL ANTIBODIES

## Anti-protein C

## Rat monoclonal antibody anti-mouse Protein C



## Associated products

Rat monoclonal antibody anti-mouse PC

Mouse monoclonal antibody anti-human protein C, IgG1

Mouse monoclonal antibody anti-human protein C, IgG2b

## Informations

Protein C (PC) is a vitamin K dependent plasma protein that regulates coagulation by inhibiting FVa and FVIIIa and helps limit the extension of the thrombus. Numerous clinical studies have shown that a PC deficiency (acquired or congenital) is a risk factor for venous thrombosis. PC is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC circulates in plasma in an inactive form, at a concentration of approximately 4 µg/mL. Thrombin bound to thrombomodulin loses its procoagulant properties and activates PC into activated PC. PCa in the presence of its cofactor, protein S, calcium and phospholipids, is capable of to inactivate the FVa and FVIIIa, true catalysts of coagulation, thus blocking the amplification loop of thrombin generation and limiting the extension of the thrombus.

Reference	Presentation	Format
9-AMPC-9071	Vial	100 µg

**Antigen : mouse Protein C**

Application : Immunoblotting, ELISA

Host : Rat

Immunogen : Purified Mouse Protein C

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-protein C

## Rat monoclonal antibody anti-mouse PC



## Associated products

Rat monoclonal antibody anti-mouse Protein C

Mouse monoclonal antibody anti-human protein C, IgG1

Mouse monoclonal antibody anti-human protein C, IgG2b

## Informations

Protein C (PC) is a vitamin K dependent plasma protein that regulates coagulation by inhibiting FVa and FVIIIa and helps limit the extension of the thrombus. Numerous clinical studies have shown that a PC deficiency (acquired or congenital) is a risk factor for venous thrombosis. PC is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC circulates in plasma in an inactive form, at a concentration of approximately 4 µg/mL. Thrombin bound to thrombomodulin loses its procoagulant properties and activates PC into activated PC. PCa in the presence of its cofactor, protein S, calcium and phospholipids, is capable of to inactivate the FVa and FVIIIa, true catalysts of coagulation, thus blocking the amplification loop of thrombin generation and limiting the extension of the thrombus.

Reference	Presentation	Format
9-AMPC-9072	Vial	100 µg

**Origin: Rat monoclonal antibody**  
**Antigen: Mouse Protein C (PC) and activated protein C (aPC)**

Application: ELISA: Protein C and activated protein C  
 Western blot: Protein C only (not activated Protein C), does not cross-react with human Protein C/activated Protein C. Does not inhibit activated Protein C. Weak inhibition of PC activation

Molecular weight (Da): 150 000

Extinction coefficient: 14.0

Host: Rat

Immunogen: Purified Mouse Protein C

Formulation: 50 % Glycerol / H<sub>2</sub>O (v/v)

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-protein C

## Mouse monoclonal antibody anti-human protein C, IgG1



## Associated products

Rat monoclonal antibody anti-mouse Protein C

Rat monoclonal antibody anti-mouse PC

Mouse monoclonal antibody anti-human protein C, IgG2b

## Informations

Protein C (PC) is a vitamin K dependent plasma protein that regulates coagulation by inhibiting FVa and FVIIIa and helps limit the extension of the thrombus. Numerous clinical studies have shown that a PC deficiency (acquired or congenital) is a risk factor for venous thrombosis.

PC is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC circulates in plasma in an inactive form, at a concentration of approximately 4 µg/mL.

Thrombin bound to thrombomodulin loses its procoagulant properties and activates PC into activated PC. PCa in the presence of its cofactor, protein S, calcium and phospholipids, is capable of to inactivate the FVa and FVIIIa, true catalysts of coagulation, thus blocking the amplification loop of thrombin generation and limiting the extension of the thrombus.

Reference	Presentation	Format
9-AHPC-5071	Vial	100 µg

**Origin: Anticorps monoclonal de souris (IgG<sub>1</sub>)**  
**Antigen: human Protein C (PC) and activated Protein C (aPC)**

Application: Immunoblotting, ELISA, RIA, purification

Molecular weight (DA): 150 000

Extinction coefficient: 14.0

Host: Mouse

Immunogen: Purified human protein C, and activated Protein C

Buffer formulation: 50 % Glycerol / H<sub>2</sub>O (v/v)

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.

Special formulations are available upon request.

Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-protein C

# Mouse monoclonal antibody anti-human protein C, IgG2b



## Associated products

Rat monoclonal antibody anti-mouse Protein C

Rat monoclonal antibody anti-mouse PC

Mouse monoclonal antibody anti-human protein C, IgG1

## Informations

Protein C (PC) is a vitamin K dependent plasma protein that regulates coagulation by inhibiting FVa and FVIIIa and helps limit the extension of the thrombus. Numerous clinical studies have shown that a PC deficiency (acquired or congenital) is a risk factor for venous thrombosis. PC is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC circulates in plasma in an inactive form, at a concentration of approximately 4 µg/mL. Thrombin bound to thrombomodulin loses its procoagulant properties and activates PC into activated PC. PCa in the presence of its cofactor, protein S, calcium and phospholipids, is capable of to inactivate the FVa and FVIIIa, true catalysts of coagulation, thus blocking the amplification loop of thrombin generation and limiting the extension of the thrombus.

Reference	Presentation	Format
9-AHPC-5072	Vial	100 µg

**Antigen : mouse PC and aPC**

Application : ELISA, purification, Immunoblotting

Host : Mouse

Immunogène : Protéine C humaine purifiée

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-tissue Factor

## Monoclonal Antibody against Human Tissue Factor



## Associated products

Anti-Tissue Factor (IgG) murine monoclonal antibody

Murine monoclonal antibody anti-human tissue Factor, FITC conjugated

Murine monoclonal antibody anti-human tissue Factor, IID8

## Informations

Tissue Factor (TF, CD142) is a 45 kDa transmembrane cell surface glycoprotein known for its role in initiating coagulation.

It is comprised of three domains: an extracellular domain (aa 1-219), a hydrophilic spanning domain (aa 220-242) and a cytoplasmic tail (aa 243-263).

Reference	Presentation	Format
26-ADG4508	Vial	0.5 mg

**The monoclonal antibody ADG4508 (clone VD8, subclass IgG1) is directed against an epitope within aa 1-25, the extracellular domain of human tissue factor.**

Applications : Immunoblotting, Immunohistochemistry, Flow Cytometry, Host : Human  
Immunogen : Tissue Factor

## Characteristics

Screw capped vial containing 0.5 mg of purified antibody in PBS pH 7.4, 0.01 % ProClin, sterile. The IgG concentration is 2 mg/mL. Spin the vial briefly before opening.

For long-term storage the antibody should be aliquoted and stored at -20°C or colder. It is recommended to avoid freeze-thaw cycles.



## MONOCLONAL ANTIBODIES

## Anti-tissue Factor

## Anti-Tissue Factor (IgG) murine monoclonal antibody



## Associated products

Murine monoclonal antibody anti-human tissue Factor, FITC conjugated

Murine monoclonal antibody anti-human tissue Factor, IID8

Murine monoclonal antibody anti-human tissue Factor, IgG

## Informations

Tissue Factor or FT is a cell surface glycoprotein. This factor initiates the extrinsic pathway of the coagulation cascade and is a high affinity receptor for FVII. The FVIIa / FT complex catalyzes the conversion of FX to FXa.

Reference	Presentation	Format
9-AHTF-5264	Vial	100 µg

## Antigen : FT humain

Application : Immunoblotting, ELISA

Host : Mouse

Immunogen: Purified recombinant tissue factor (full-length)

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE.  
Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use.  
Both small, laboratory scale and bulk, production scale quantities are available.  
Expiration date of one year from delivery.





## MONOCLONAL ANTIBODIES

## Anti-tissue Factor

## Murine monoclonal antibody anti-human tissue Factor, FITC conjugated



## Associated products

Anti-Tissue Factor (IgG) murine monoclonal antibody

Murine monoclonal antibody anti-human tissue Factor, IID8

Murine monoclonal antibody anti-human tissue Factor, IgG

## Reference

11-4507CJ

11-4508CJ

## Presentation

Vial

Vial

## Format

50 µg

50 µg

**Antigen: epitope on amino acids of human tissue factor.**

Application: Brain and placental thromboplastin inhibitor, IF and flow cytometry

Host: Mouse

Immunogen: Purified tissue factor

## Informations

Tissue Factor or FT is a cell surface glycoprotein. This factor initiates the extrinsic pathway of the coagulation cascade and is a high affinity receptor for FVII. The FVIIa / FT complex catalyzes the conversion of FX to FXa.

## Advantages

The lyophilized presentation allows greater stability until the expiration date.

## Characteristics

Antibodies lyophilized in 0.15M PBS buffer, 1% BSA, 0.01% gentamicin, pH 7.4.  
After reconstitution, stored in the dark at -20 ° C.





## MONOCLONAL ANTIBODIES

## Anti-tissue Factor

## Murine monoclonal antibody anti-human tissue Factor, IID8



## Associated products

Anti-Tissue Factor (IgG) murine monoclonal antibody

Murine monoclonal antibody anti-human tissue Factor, FITC conjugated

Murine monoclonal antibody anti-human tissue Factor, IgG

## Informations

Tissue Factor or FT is a cell surface glycoprotein. This factor initiates the extrinsic pathway of the coagulation cascade and is a high affinity receptor for FVII. The FVIIa / FT complex catalyzes the conversion of FX to FXa.

Reference	Presentation	Format
11-4509	Vial	0.5 mg

**Antigen: epitope comprising amino acids 1 to 25 (extracellular domain of human tissue factor).**

**FT human and rabbit**

Applications : IHC, Immunoblotting, inhibitor of the procoagulant activity of FT

Host: Mouse

Immunogen: purified human FT (47 kDa)

## Advantages

All the references benefit from decreasing prices according to the quantities ordered. The lyophilized presentation allows greater stability until the expiration date.

## Characteristics

Lyophilized antibody in a buffer containing 0.15M PBS, pH 6.8 with 100mM mannitol. Aliquot in distilled water to obtain a concentration of 0.5 mg/mL. Store at -20 °C.



## MONOCLONAL ANTIBODIES

## Anti-tissue Factor

## Murine monoclonal antibody anti-human tissue Factor, IgG



## Associated products

Anti-Tissue Factor (IgG) murine monoclonal antibody

Murine monoclonal antibody anti-human tissue Factor, FITC conjugated

Murine monoclonal antibody anti-human tissue Factor, IIID8

## Informations

Tissue Factor or FT (CD142) is a cell surface glycoprotein. This factor initiates the extrinsic pathway of the coagulation cascade and is a high affinity receptor for FVII. The FVIIa / FT complex catalyzes the conversion of FX to FXa.

Reference	Presentation	Format
11-4503	Vial	0.5 mg

**Murine IgG1 monoclonal antibody purified from ascites by Protein G affinity chromatography.**

**Native human brain tissue factor, molecular weight of 47 000 Da, was used as the immunizing antigen.**

Applications : Immunoblotting, Cytométrie de Flux, Immunohistochimie, Immunoprécipitation

Host : Mouse

Immunogen : Purified Human TF (47 kDa)

## Components

Screw-capped glass vial containing 0.5 mg of purified antibody lyophilized from a 0.5 mL solution of 0.15 M Phosphate Buffered Saline, 100 mM Mannitol, pH 7.4.

## Advantages

The lyophilized presentation allows greater stability until the expiration date.

## Characteristics

Add 0.5 mL of filtered deionized or sterile water to generate a 1.0 mg/mL stock solution. Store lyophilized antibody at +2°/+8°C. Aliquot and store reconstituted antibody at -20°C or colder.



## MONOCLONAL ANTIBODIES

## Anti-protein S

# Mouse monoclonal antibody anti-human protein S, IgG1



## Associated products

Mouse monoclonal antibody anti-human protein S, IgG2b

## Informations

Protein S is a vitamin K dependent protein. It is a physiological inhibitor of coagulation. It acts as a cofactor of activated protein C by promoting the inactivation of FVa and FVIIIa, prothrombin, of the prothrombinase complex, FX. A protein S deficiency can be either acquired (hepatocellular insufficiency, vitamin K deficiency, anti-protein S antibody, ...) or constitutional (heterozygous or homozygous deficiency) grouped into 2 types depending on whether the deficiency is quantitative (type I) or qualitative (type II).

Reference	Presentation	Format
9-AHPS-5092	Vial	100 µg

**Antigen : Human protein S**

Application : ELISA, Immunoblotting, RIA, purification  
 Host : Mouse  
 Immunogen: Human protein S

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
 Special formulations are available upon request.  
 Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## MONOCLONAL ANTIBODIES

## Anti-protein S

# Mouse monoclonal antibody anti-human protein S, IgG2b



## Associated products

Mouse monoclonal antibody anti-human protein S, IgG1

## Informations

Protein S is a vitamin K dependent protein. It is a physiological inhibitor of coagulation. It acts as a cofactor of activated protein C by promoting the inactivation of FVa and FVIIIa, prothrombin, of the prothrombinase complex, FX. A protein S deficiency can be either acquired (hepatocellular insufficiency, vitamin K deficiency, anti-protein S antibody, ...) or constitutional (heterozygous or homozygous deficiency) grouped into 2 types depending on whether the deficiency is quantitative (type I) or qualitative (type II).

Reference	Presentation	Format
9-AHPS-5091	Vial	100 µg

**Antigen : Human protein S and protein S/C4BP complex**

Application : RIA, Immunoblotting, ELISA, purification

Host : Mouse

Immunogen: Purified human protein S

## Advantages

Custom needs by supplying you conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.
















# PLASMA DERIVED PROTEINS

Reference	Designation	Click to go to the product sheet	PM (g/mol)	Extinction coefficient	Activity	WEB
<b>Lactadherin MFGE-8 protein (Milk fat globule-EGF Factor 8 protein)</b>						
9-BLAC-1200	→ Bovine Lactadherin		47 000	16.5		<a href="#">🌐</a>
9-BLAC-FITC	→ Bovine lactadherin coupled to FITC		47 000	16.5		<a href="#">🌐</a>
<b>Lys-plasminogen</b>						
4-TC41014	→ Human lys-plasminogen (lyophilized)				Lys-Plg > 90 % - Glu-Plg < 10 %	<a href="#">🌐</a>
<b>Osteocalcin</b>						
9-BOC-3020	→ Bovine osteocalcin (bone)		5 800	13.3		<a href="#">🌐</a>
9-HOC-0302	→ Human osteocalcin		5 800	13.3		<a href="#">🌐</a>
<b>Osteonectin</b>						
9-BON-3010	→ Bovine osteonectin (bone)		29 000	8.0		<a href="#">🌐</a>
9-HON-0303	→ Human osteonectin		32 700	8.0		<a href="#">🌐</a>
<b>scu-PA (Single chain urokinase plasminogen activator)</b>						
4-TC41052	→ scu-PA purified protein				0.8 mg/MI	<a href="#">🌐</a>
<b>urokinase-type plasminogen activator (u-PA)</b>						
4-TC42000	→ u-PA purified protein				12 500 U	<a href="#">🌐</a>
<b>Thrombospondin</b>						
9-HCTP-0200	→ Human thrombospondin		450 000	10.5		<a href="#">🌐</a>
<b>Tissue-type Plasminogen Activator (t-PA)</b>						
4-TC41072	→ t-PA purified protein				> 300 000 U/mg	<a href="#">🌐</a>
<b>Vitronectin</b>						
9-HVN-0230	→ Human vitronectin		75 000	13.8		<a href="#">🌐</a>
4-TC41140	→ Purified vitronectin		55 000 à 72 000			<a href="#">🌐</a>



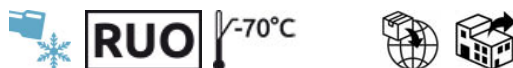
# PLASMA DERIVED PROTEINS

Reference	Designation	Click to go to the product sheet	PM (g/mol)	Extinction coefficient	Activity	WEB
<b><u>β-2-glycoprotein I (B2GI)</u></b>						
9-B2GI-0001	→ Human β-2-glycoprotein I (B2GI)		54 200	10.0		
<b><u>β-thromboglobulin</u></b>						
9-HBTG-0210	→ Human β-thromboglobulin		35 800	2.6		
<b><u>CNBr</u></b>						
4-TC41104	→ CNBr Fibrinogen fragments				7.4 mg/mL	
<b><u>Platelet Factor -4</u></b>						
9-HPF4-0180	→ Human platelet Factor-4		29 000	2.6		
<b><u>Tissue Factor</u></b>						
11-4500	→ Recombinant human tissue factor					
9-RTF-0300	→ Recombinant tissue Factor		35 000	12.6		
11-4500L/B	→ Relipidated recombinant human tissue Factor protein		45 000			
<b><u>Fibrinogen</u></b>						
9-HCI-0150R	→ Human fibrinogen		340 000	15.1		
9-HCI-0150D	→ Human fibrinogen fragment D		83 000	20.7		
9-HCI-0150E	→ Human fibrinogen fragment E		50 000	10.2		
<b><u>Fibronectin</u></b>						
4-TC41150	→ Fibronectin protein		440 000			
<b><u>Glu-plasminogen</u></b>						
4-TC41004	→ Human glu-plasminogen				Glu-Plg > 90 % - Lys Plg < 10 %	
<b><u>Plasminogen activator inhibitor-type 1 (PAI-1)</u></b>						
4-TC41067	→ PAI-1 purified protein					

## PLASMA DERIVED PROTEINS

### Lactadherin MFGE-8 protein (Milk fat globule-EGF Factor 8 protein)

## Bovine Lactadherin



#### Associated products

Bovine lactadherin coupled to FITC

#### Informations

Lactadherin is a glycoprotein secreted by the mammary glands. It is involved in the recognition of apoptotic cells by macrophages, it has sequence homology with an angiogenic protein Del-1 and has an RGD sequence allowing it to bind to certain integrins. It binds the phosphatidyl-L-serines independently of calcium via the C2 domain playing an anticoagulant role and the integrins via the EGF domain.

Reference	Presentation	Format
9-BLAC-1200	Vial	50 µg

**Formulation : 70 mM sodium phosphate, pH 7.0**

MW(Da) : 47 000  
 Extinction coef. : 16,5  
 Structure : single chain with 2 EGF domains and 2 C domains.  
 Lactadherin is purified from unpasteurized bovine milk.

#### Advantages

The vast majority of plasma derivatives is pure (without additives) with > 95 % purity SDS-PAGE. Expiration date of one year from delivery. Delivery in large quantities. Discount according to quantities.

#### Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Brief centrifugation of the zymogens in their original packaging will fully recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingy" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin.



## PLASMA DERIVED PROTEINS

### Lactadherin MFGE-8 protein (Milk fat globule-EGF Factor 8 protein)

## Bovine lactadherin coupled to FITC



#### Associated products

Bovine Lactadherin

#### Informations

Lactadherin is a glycoprotein secreted by the mammary glands. It is involved in the recognition of apoptotic cells by macrophages, it has sequence homology with an angiogenic protein Del-1 and has an RGD sequence allowing it to bind to certain integrins. It binds the phosphatidyl-L-serines independently of calcium via the C2 domain playing an anticoagulant role and the integrins via the EGF domain.

Fluorescein isothiocyanate or FITC is a derivative of fluorescein, used in a wide spectrum of applications such as flow cytometry. FITC is a functionalized fluorescein molecule with an isothiocyanate reactive group, replacing a hydrogen atom on the lowest ring of the structure.

Reference	Presentation	Format
9-BLAC-FITC	Vial	83 µg

**Buffer formulation: TBS, 1 % Bovine Serum Albumin (w/v), 0.02 % Sodium Azide, pH 7.4**

Molecular weight (Da) : 47 000

Extinction coef. : 16.5

Structure: single chain with 2 EGF domains and 2 C domains.

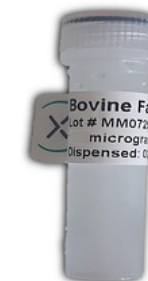
Lactadherin is purified from unpasteurized bovine milk

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Delivery in large quantities.  
Discount according to quantities.

#### Characteristics

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## PLASMA DERIVED PROTEINS

## Lys-plasminogen

## Human lys-plasminogen (lyophilized)



## Informations

Plasminogen is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

Reference	Presentation	Format
4-TC41014	Vial	1 mg
4-TC41015	Vial	5 mg

**Formulation : 0.1M NaCl, 0.02M phosphate buffer, pH = 7.3**

Ratio : Lys-Plg > 90 % - Glu-Plg < 10 % From human plasma

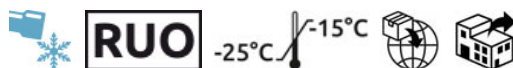
## Characteristics

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## PLASMA DERIVED PROTEINS

## Osteocalcin

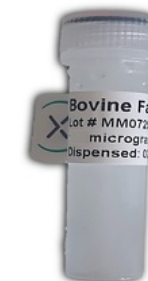
## Bovine osteocalcin (bone)



## Associated products

Human osteocalcin

Reference	Presentation	Format
9-BOC-3020	Vial	100 µg
9-BOC-3020-1	Vial	1 mg



## Informations

Osteocalcin is a vitamin K dependent protein produced by osteoblasts and found in high concentrations in bone.

It binds to phospholipids in the presence of calcium and binds hydroxyapatite suggesting a regulatory role in bone mineralization.

**Formulation: 50% (vol / vol) glycerol / 0.01M tris, 0.075M NaCl, pH 7.4.**

MW(Da) : 5 800

Extinction coef. : 13.3

Isoelectric point: 4.0-4.5

Structure: single chain, an intrachain disulfide bridge Cys 23-29

## Advantages

The vast majority of plasma derivatives is pure (without additives) with > 95 % purity SDS-PAGE.

Expiration date of one year from delivery.

Delivery in large quantities.

Discount according to quantities.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50% (vol / vol) glycerol which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps.

All products which are formulated with either glycerol or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished.

All products which are formulated with glycerol should be stored at -20° C. Temperatures lower than -30° C should be avoided in order to prevent a phase transition.

When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette.

Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation.

Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form.

Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), or gelatin.



## PLASMA DERIVED PROTEINS

## Osteocalcin

## Human osteocalcin



## Associated products

Bovine osteocalcin (bone)

## Informations

Osteocalcin is a vitamin K dependent protein produced by osteoblasts and found in high concentrations in bone.

It binds to phospholipids in the presence of calcium and binds hydroxyapatite suggesting a regulatory role in bone mineralization.

Reference	Presentation	Format
9-HOC-0302	Vial	20 µg

**Formulation : 20 mM Tris, 150 mM NaCl, 2mM CaCl<sub>2</sub>, pH 7.4**

MW(Da) : 5 800

Extinction coef. : 13.3

Isoelectric point: 4.0-4.5

Structure: single chain, an intrachain disulfide bridge Cys 23-29

## Advantages

The vast majority of plasma derivatives is pure (without additives) with > 95 % purity SDS-PAGE.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according to quantities.

## Characteristics

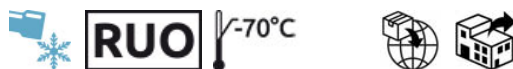
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By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished.  
All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20° C. Temperatures lower than -30° C should be avoided in order to prevent a phase transition.  
Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation.  
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## PLASMA DERIVED PROTEINS

## Osteonectin

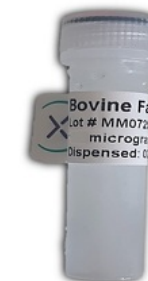
## Bovine osteonectin (bone)



## Associated products

Human osteonectin

Reference	Presentation	Format
9-BON-3010	Vial	50 µg
9-BON-3010-1	Vial	1 mg



## Informations

Osteonectin is an extracellular matrix adhesion glycoprotein. In vitro, osteonectin binds type I collagen, calcium and hydroxyapatite. It plays an important role in cell cohesion as well as in embryogenesis and healing processes. Osteonectin has also been identified in the alpha granules of platelets and is secreted during activation.

**Formulation : 20 mM Tris, 150 mM NaCl, pH 7.4**

MW(Da) : 29 000

Extinction coef. : 8

Isoelectric point : 5.5

Structure: single chain, N-terminal acid domain, cysteine-rich serpine homology domain, 2 EF-hand domains

## Advantages

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## Characteristics

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## PLASMA DERIVED PROTEINS

## Osteonectin

## Human osteonectin



## Associated products

Bovine osteonectin (bone)

Reference	Presentation	Format
9-HON-0303	Vial	50 µg
9-HON-0303-1	Vial	1 mg



## Informations

Osteonectin is an extracellular matrix adhesion glycoprotein. In vitro, osteonectin binds type I collagen, calcium and hydroxyapatite.

It plays an important role in cell cohesion as well as in embryogenesis and healing processes.

Osteonectin has also been identified in the alpha granules of platelets and is secreted during activation.

**Formulation : 20 mM Tris, 150 mM NaCl, pH 7.4**

MW(Da) : 32 700

Extinction coef. : 8

Structure: single chain, N-terminal acid domain, cysteine-rich serpine homology domain, 2 EF-hand domains

## Advantages

The vast majority of plasma derivatives is pure (without additives) with > 95 % purity SDS-PAGE.

Expiration date of one year from delivery.

Delivery in large quantities.

Discount according to quantities.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times.

By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished.

All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20° C. Temperatures lower than -30° C should be avoided in order to prevent a phase transition.

Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation.

Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form.

Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), or gelatin.

## PLASMA DERIVED PROTEINS

## scu-PA (Single chain urokinase plasminogen activator)

## scu-PA purified protein



## Informations

Belonging to the family of serine proteases, U-PA activates plasminogen to convert it into plasmin, an enzyme that breaks down fibrin. It intervenes in the phases of dissolution of the clot during fibrinolysis. It has also been shown to increase the amount of u-PA in some tumors.

Reference	Presentation	Format
4-TC41052	Vial	100 µg

**Formulation: 0.1 sodium acetate, 0.1M NaCl, pH 4.8.**

Activity : 0.8 mg/mL Scu-PA comes from culture medium conditioned according to the method of Wojta et al (1)

(1) Wojta et al, Thrombosis and haemostasis 55 (3): 347. 1986.

## Characteristics

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## PLASMA DERIVED PROTEINS

### urokinase-type plasminogen activator (u-PA)

## u-PA purified protein



#### Informations

Belonging to the family of serine proteases, U-PA activates plasminogen to convert it into plasmin, an enzyme that breaks down fibrin. It intervenes in the phases of dissolution of the clot during fibrinolysis. It has also been shown to increase the amount of u-PA in some tumors.

Reference	Presentation	Format
4-TC42000	Vial	1 mg

#### Formulation : Phosphate buffer + human albumin

Activity : 12 500 U From human plasma

#### Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50% (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20° C. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), or gelatin.



## PLASMA DERIVED PROTEINS

## Thrombospondin

## Human thrombospondin



## Informations

Thrombospondin is a high molecular weight, calcium-binding, heparin-binding glycoprotein found in human platelets. It is one of the most abundant proteins in the alpha granules of platelets. It is stimulated by thrombin and there are several receptors binding thrombospondin such as CD36, CD47 and integrins.

Reference	Presentation	Format
9-HCTP-0200	Vial	100 µg
9-HCTP-0200-1	Vial	1 mg

**Formulation : 50/50 (v/v) glycerol+H<sub>2</sub>O**

MW(Da) : 450 000

Extinction coef. : 10.5

Obtained by the activated platelet supernatant. Isoelectric point: 4.7

Homotrimer structure (monomer: 150 kDa)



## Advantages

The vast majority of plasma derivatives is pure (without additives) with > 95 % purity SDS-PAGE. Expiration date of one year from delivery Delivery in large quantities Discount according to quantities

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50% (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. All products which are formulated with glycerol/H<sub>2</sub>O should be stored at -20° C. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), or gelatin.

## PLASMA DERIVED PROTEINS

### Tissue-type Plasminogen Activator (t-PA)

### t-PA purified protein



#### Informations

Tissue plasminogen activator (t-PA) is a protein involved in breaking down the blood clot. It is a serine protease found in the endothelial cells that line the blood vessels. Like any enzyme, it converts plasminogen into plasmin, the main blood clot lysis enzyme. Due to its lysis activity, t-PA is used in clinical medicine to treat cerebral embolism and thrombosis. Its use is contraindicated in cases of cerebral hemorrhage or head trauma.

Reference	Presentation	Format
4-TC41072	Vial	100 µg

#### Recombinant

Activity : > 300 000 U/mg

Formulation : 0.1 M phosphate buffer, 3.5 mg/mL L-arginine, 0.001% tween 80

#### Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Brief centrifugation of the zymogens in their original packaging will fully recover the sample at the bottom of the tube. After reconstitution the antibodies should be aliquoted and stored at -70 °C. Avoid repeated freezing and thawing cycles. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingly" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin.

## PLASMA DERIVED PROTEINS

## Vitronectin

## Human vitronectin



## Associated products

Purified vitronectin

Reference	Presentation	Format
9-HVN-0230	Vial	100 µg
9-HVN-0230-1	Vial	1 mg



## Informations

Vitronectin (Vn) is an adhesive glycoprotein, synthesized by the liver, released in plasma and present in the extracellular matrix. Vn binds PAI-1. This complex fully activates PAI-1, unlike PAI-1 in solution, where it does not appear to be stable and inactive. Vn therefore seems to regulate the enzymatic specificity of PAI-1, by stabilizing it. Decreased Vn levels occur in DICs and liver disease (cirrhosis). Vn deposition is associated with atherosclerotic lesions.

**Formulation : 50 mM sodium phosphate; 150 mM NaCl, pH 7.4**

MW(Da) : 75 000 (single chain form) 10 and 65 kda double chain form

Extinction coefficient: 13.8

Isoelectric point: 4.75 - 5.25

Structure: circular shape if monomeric or dimeric and possibility in oligomeric form.

Monomer: 459 amino acids, single chain polypeptide with 7 intrachain disulfide bonds and 1 free sulfhydryl.

## Advantages

The vast majority of plasma derivatives is pure (without additives) with > 95 % purity SDS-PAGE. Expiration date of one year from delivery. Delivery in large quantities. Discount according to quantities.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, poly(ethylene glycol), or gelatin.

## PLASMA DERIVED PROTEINS

## Vitronectin

## Purified vitronectin



## Associated products

Human vitronectin

## Reference

4-TC41140

## Presentation

Vial

## Format

50 µg

**Formulation : 0.02M potassium phosphate buffer, 0.1M NaCl, pH 7.4**

## Informations

Vitronectin (Vn) is an adhesive glycoprotein, synthesized by the liver, released in plasma and present in the extracellular matrix. Vn binds PAI-1. This complex fully activates PAI-1, unlike PAI-1 in solution, where it does not appear to be stable and inactive. Vn therefore seems to regulate the enzymatic specificity of PAI-1, by stabilizing it. Decreased Vn levels occur in DICs and liver disease (cirrhosis). Vn deposition is associated with atherosclerotic lesions.

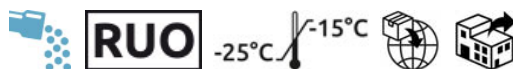
MW(Da) : 55 000 to 72 000

From human plasma

## Characteristics

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## PLASMA DERIVED PROTEINS

 $\beta$ -2-glycoprotein I (B2GI)Human  $\beta$ -2-glycoprotein I (B2GI)

## Informations

Beta-2-Glycoprotein I (or apolipoprotein H) is a 326 amino acid protein synthesized by the liver, endothelial cells or trophoblast. It is made up of 5 domains of 60 amino acids. The 5th domain is the site of interaction with anionic phospholipids. Due to its binding to anionic phospholipids, it would have an inhibitory activity on platelet aggregation and on the various stages of coagulation.

Reference	Presentation	Format
9-B2GI-0001	Vial	100 $\mu$ g
9-B2GI-0001-1	Vial	1 mg

**Formulation : 0.2 M glycine; 0.15 M NaCl, pH 7.4**

MW(Da) : 54 200 Extinction coef. : 10

## Advantages

The vast majority of plasma derivatives is pure (without additives) with > 95 % purity SDS-PAGE. Expiration date of one year from delivery. Delivery in large quantities. Discount according to quantities.

## Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Brief centrifugation of the zymogens in their original packaging will fully recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingy" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin.



## PLASMA DERIVED PROTEINS

 $\beta$ -thromboglobulinHuman  $\beta$ -thromboglobulin

## Informations

Beta-thromboglobulin is a protein derived from platelets, low molecular weight and binding to heparin. It is similar to platelet factor-4 in that it is localized in the alpha platelet granules. It is a marker of platelet activation.

Reference	Presentation	Format
9-HBTG-0210	Vial	100 $\mu$ g
9-HBTG-0210-1	Vial	1 mg

**Formulation : 25 mM HEPES, 150 mM NaCl, pH 7.4**

MW(Da) : 35 800 Extinction coef. : 2.6 Structure: homotetramer (approx. 8800 Da)



## Advantages

The vast majority of plasma derivatives is pure (without additives) with > 95 % purity SDS-PAGE. Expiration date of one year from delivery. Delivery in large quantities. Discount according to quantities.

## Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Brief centrifugation of the zymogens in their original packaging will fully recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingy" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin.

## PLASMA DERIVED PROTEINS

CNBr

## CNBr Fibrinogen fragments



### Informations

Fibrinogen (Factor I) is a blood plasma soluble glycoprotein that is synthesized by the liver at a size of 340 kDa and circulating at a concentration of 2.6 to 3 mg/mL.

Fibrinogen is a dimer bound by disulfide bridges composed of 3 pairs of polypeptide chains not identical.

Under the action of thrombin, fibrinogen is converted into fibrin. In combination with FXIII, calcium ions, fibrin forms a stable network that ensures coagulation.

Reference	Presentation	Format
4-TC41104	Vial	1 mg
4-TC41105	Vial	5 mg

### Human fibrinogen

Activity : 7.4 mg/mL

Prepare from purified human fibrinogen according to the Blombäck method et al (1).

(1) J.Wojta et al, Thrombosis and Haemostasis, 55: 347, 1986.

### Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Brief centrifugation of the zymogens in their original packaging will fully recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingly" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin.

## PLASMA DERIVED PROTEINS

## Platelet Factor -4

## Human platelet Factor-4



## Informations

Platelet factor 4 (PF4) is a peptide monomer of 70 amino acids (MW 7800 Da). PF4 is released from activated platelet alpha granules in a tetrameric form complexed with platelet proteoglycan. On release, the half-life of PF4 is very short, less than 5 minutes, because it quickly binds to glycosaminoglycans in the endothelial cells where it is stored. PF4 possesses potent anti-heparin activity by binding to it, forming a stoichiometric complex, where 1 mg of PF4 will inhibit 27 IU of heparin.

Reference	Presentation	Format
9-HPF4-0180	Vial	100 µg
9-HPF4-0180-1	Vial	1 mg

**Formulation : 25 mM HEPES, 2 M NaCl, pH 7.4**

MW(Da) : 29 000

Extinction coef. : 2.6

Determination of activity: neutralization with heparin

Isoelectric point: 7.6

Structure: homotetramer (approx. 7800 da)

## Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Brief centrifugation of the zymogens in their original packaging will fully recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingly" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin.



## PLASMA DERIVED PROTEINS

## Tissue Factor

## Recombinant human tissue factor



## Associated products

Recombinant tissue Factor

Relipidated recombinant human tissue Factor protein

## Informations

Tissue factor (FT) is a transmembrane glycoprotein which is primarily responsible for activating coagulation cascades in the event of a vascular breach.

The binding of FVII to its receptor, expressed by the cells of the subendothelium exposed by the lesion, allows its very rapid activation by traces of FXa, circulating in trace amounts in vivo.

The FT-FVIIa complex then causes the activation of FIX and FX and the formation of thrombin.

Reference	Presentation	Format
11-4500	Vial	25 µg

**Formulation: lyophilized protein in a 10 mM Tris-HCl buffer, 150 mM NaCl, 0.01% CHAPS, pH 8, 200 mM Mannitol.**

Whole recombinant human FT.

Animated acids 1 to 263 including the extracellular, transmembrane, cytoplasmic domains.

MW(Da) : 35 000 (38 kDa band under reduced conditions)

## Components

Screw capped clear glass vials of 25 µg of protein lyophilized from 10 mM TRIS HCl, 150 mM NaCl, 0.01% CHAPS, pH 8.0, with 200 mM mannitol.

## Advantages

The lyophilized presentation allows greater stability until the expiration date.

## Characteristics

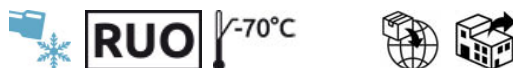
Upon relipidation, this product will promote clotting in a two-stage prothrombin time test. Add 1.0 mL of filtered deionized or sterile water to generate a 25 µg/mL. Store lyophilized vials at +2/+8°C. Store reconstituted protein in aliquots frozen at -20°C or colder, avoid freeze-thaw cycles.



## PLASMA DERIVED PROTEINS

## Tissue Factor

## Recombinant tissue Factor



## Associated products

Recombinant human tissue factor

Relipidated recombinant human tissue Factor protein

Reference

9-RTF-0300

Presentation

Vial

Format

10 µg

**Formulation : 20 mM Tris, 150 mM NaCl, 10 mM CHAPS, pH 8.0**

MW(Da) : 35 000 Extinction coef. : 12.6

## Informations

Tissue factor (TF) is a transmembrane glycoprotein which is primarily responsible for activating coagulation cascades in the event of a vascular breach. The binding of FVII to its receptor, expressed by the cells of the subendothelium exposed by the lesion, allows its very rapid activation by traces of FXa, circulating in trace amounts in vivo. The TF-FVIIa complex then causes the activation of FIX and FX and the formation of thrombin.

## Advantages

The vast majority of plasma derivatives is pure (without additives) with > 95 % purity SDS-PAGE. Expiration date of one year from delivery. Delivery in large quantities. Discount according to quantities.

## Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Brief centrifugation of the zymogens in their original packaging will fully recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingy" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin.



## PLASMA DERIVED PROTEINS

## Tissue Factor

## Relipidated recombinant human tissue Factor protein



## Associated products

Recombinant human tissue factor

Recombinant tissue Factor

## Informations

Tissue factor (FT) is a transmembrane glycoprotein which is primarily responsible for activating coagulation cascades in the event of a vascular breach. The binding of FVII to its receptor, expressed by the cells of the subendothelium exposed by the lesion, allows its very rapid activation by traces of FXa, circulating in trace amounts in vivo. The FT-FVIIa complex then causes the activation of FIX and FX and the formation of thrombin.

Reference	Presentation	Format
11-4500L/B	Vial	250 ng

**Formulation: 50mM tris buffer, 100mM NaCl, pH 7.6 and 200 mg / mL of trehalose.**

Structure: The protein contains amino acids 1 to 263 including the extracellular, transmembrane and cytoplasmic domains.

MW(Da) : 45 000

## Advantages

The lyophilized presentation allows greater stability until the expiration date.

## Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. To be taken up with 0.5 mL of distilled water to generate a solution of 500 nG / mL. Aliquot and freeze at -70 ° C to avoid freeze / thaw cycles.



## PLASMA DERIVED PROTEINS

## Fibrinogen

## Human fibrinogen



## Associated products

Human fibrinogen fragment D

Human fibrinogen fragment E

Mouse fibrinogen

## Informations

Fibrinogen (Factor I) is a blood plasma soluble glycoprotein that is synthesized by the liver at a size of 340 kDa and circulating at a concentration of 2.6 to 3 mg/mL.

Fibrinogen is a dimer bound by disulfide bridges composed of 3 pairs of polypeptide chains not identical.

Under the action of thrombin, fibrinogen is converted into fibrin. In combination with FXIII, calcium ions, fibrin forms a stable network that ensures coagulation.

Reference	Presentation	Format
9-HCI-0150R	Vial	2 mg
9-HCI-0150R-1	Vial	1 mg

**Fibrinogen, is a soluble plasma glycoprotein that is synthesized in the hepatic cells.**

Formulation : 10 mM citrate sodium, 10 mM sodium phosphate, pH 7.3

MW(Da) : 340 000

Extinction coef. : 15.1

Isoelectric point between 5.1-6.3

CAS 9001-32-5

## Advantages

The vast majority of plasma derivatives is pure (without additives) with > 95 % purity SDS-PAGE. Expiration date of one year from delivery. Delivery in large quantities. Discount according to quantities.

## Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Brief centrifugation of the zymogens in their original packaging will fully recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingy" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin.



## PLASMA DERIVED PROTEINS

## Fibrinogen

## Human fibrinogen fragment D



## Associated products

Human fibrinogen

Human fibrinogen fragment E

Mouse fibrinogen

## Informations

Fibrinogen (Factor I) is a blood plasma soluble glycoprotein that is synthesized by the liver at a size of 340 kDa and circulating at a concentration of 2.6 to 3 mg/mL.

Fibrinogen is a dimer bound by disulfide bridges composed of 3 pairs of polypeptide chains not identical. Under the action of thrombin, fibrinogen is converted into fibrin. In combination with FXIII, calcium ions, fibrin forms a stable network that ensures coagulation.

The degradation products of the fibrinogen end, produces Fragments D and E. Fragment D corresponds to globular domains of fibrinogen, or fragment E corresponds to amino acids of the N-terminal domain of disulfide - knot domain.

Reference	Presentation	Format
9-HCI-0150D	Vial	200 µg
9-HCI-0150D-1	Vial	1 mg

**Fibrinogen fragment D is a native human plasma protein obtained by degradation of plasminogen with plasmin.**

MW(Da) : 83 000

Extinction coef. : 20.7

Concentration : 2mg/mL

Isoelectric point between 5.1-6.3

Formulation : 0.9 % NaCl, 3 % glycine

## Advantages

The vast majority of plasma derivatives is pure (without additives) with > 95 % purity SDS-PAGE. Expiration date of one year from delivery. Delivery in large quantities. Discount according to quantities.

## Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Brief centrifugation of the zymogens in their original packaging will fully recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingy" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin.



## PLASMA DERIVED PROTEINS

## Fibrinogen

## Human fibrinogen fragment E



## Associated products

Human fibrinogen

Human fibrinogen fragment D

Mouse fibrinogen

## Informations

Fibrinogen (Factor I) is a blood plasma soluble glycoprotein that is synthesized by the liver at a size of 340 kDa and circulating at a concentration of 2.6 to 3 mg/mL.

Fibrinogen is a dimer bound by disulfide bridges composed of 3 pairs of polypeptide chains not identical. Under the action of thrombin, fibrinogen is converted into fibrin. In combination with FXIII, calcium ions, fibrin forms a stable network that ensures coagulation.

The degradation products of the fibrinogen end, produces Fragments D and E. Fragment D corresponds to globular domains of fibrinogen, or fragment E corresponds to amino acids of the N-terminal domain of disulfide - knot domain.

Reference	Presentation	Format
9-HCI-0150E	Vial	100 µg
9-HCI-0150E-1	Vial	1 mg

**Fibrinogen fragment E is a native human plasma protein obtained by degradation of plasminogen with plasmin.**

MW(Da) : 50 000

Extinction coef. : 10.2

Concentration : 0.32 mg/mL

Isoelectric point between 5.1-6.3

Formulation : 0.9 % NaCl, 3 % glycine

## Advantages

The vast majority of plasma derivatives is pure (without additives) with > 95 % purity SDS-PAGE. Expiration date of one year from delivery. Delivery in large quantities. Discount according to quantities.

## Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Brief centrifugation of the zymogens in their original packaging will fully recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingy" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin.



## PLASMA DERIVED PROTEINS

## Fibronectin

## Fibronectin protein



## Informations

Fibronectin is a glycoprotein that exists in soluble form in plasma or in fibrillar form in the extracellular matrix. This protein modulates the interactions between cells and the extracellular matrix. In the absence of fibrinogen, fibronectin controls coagulation. Fibronectin can bind to fibrin to strengthen clots and make them more stable. Fibronectin has shown roles in platelet function, fibrinolysis, chemotaxis, phagocytosis, and opsonization. In certain pathologies such as trauma, sepsis, liver disorders, the fibronectin level may be low. Conversely, some cancers can have high fibronectin levels.

Reference	Presentation	Format
4-TC41150	Vial	1 mg

**Formulation : 0.05M Tris, 0.15M NaCl, 0.03% NaN<sub>3</sub>, pH 7.4**

From human plasma

MW(Da) : 440 000 without reduction (double chain) and 22 000 in reduced condition.

## Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Brief centrifugation of the zymogens in their original packaging will fully recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingly" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin.



## PLASMA DERIVED PROTEINS

## Glu-plasminogen

## Human glu-plasminogen



## Informations

Plasminogen is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms : glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

Reference	Presentation	Format
4-TC41004	Vial	1 mg
4-TC41005	Vial	5 mg

**Formulation : 1% Hepes, 1% glycine, 1% saccharose, 2.5% Mannit buffer, pH 6.6**

Ratio : Glu-Plg > 90 % - Lys Plg < 10 % From human plasma

## Characteristics

All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions. In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed. Brief centrifugation of the zymogens in their original packaging will fully recover the sample at the bottom of the tube. Never allow protein solutions to stay at room temperature for excessive periods of time. High temperatures can increase the rate of protein degradation. Avoid storing or maintaining diluted protein samples for an extended period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are "clingly" by nature. To avoid protein loss due to adsorption, extremely diluted protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, Prionex or gelatin.

## PLASMA DERIVED PROTEINS

Plasminogen activator inhibitor-type 1  
(PAI-1)

## PAI-1 purified protein



## Informations

Plasminogen activator inhibitor 1 (PAI-1) is a glycoprotein, the primary inhibitor of t-PA and u-PA. It plays an essential role in controlling any excessive activation of fibrinolysis. It is present in plasma associated with vitronectin, in free form or associated with t-PA and in the alpha granules of platelets. Fibrinolysis corresponds to the solubilization of the fibrinous thrombus by plasmin, an enzyme originating from plasminogen adsorbed to fibrin. Plasminogen is activated by t-PA and u-PA. PAI-1 by inhibiting plasminogen activators, it controls the degradation of fibrinous thrombus. A decrease in fibrinolytic activity promotes the occurrence of thrombosis, while excessive fibrinolysis leads to hemorrhages.

Reference	Presentation	Format
4-TC41067	Vial	500 U














**Formulation: 50mM sodium acetate, 100mM sodium chloride, 60mM L-Arginine-monohydrochloride, 0.01% tween 80.**

Recombinant














## Characteristics

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# POLYCLONAL ANTIBODIES

Reference	Designation	Click to go to the product sheet	Antigen	Application	Source	PM (g/mol)	Extinction coefficient	WEB
<b>Anti-thrombin</b>								
9-PAHT-S	→ Sheep polyclonal antibody anti-human thrombin		Human and mouse thrombin	IB, ELISA	Sheep			
<b>Anti-Factor V</b>								
9-PAHFV-H	→ Horse polyclonal antibody anti-human Factor V		Human Factor V	IB, ELISA	Horse			
9-PABFV-S	→ Sheep polyclonal antibody anti-bovine Factor V		Bovine Factor V	IB, ELISA	Sheep			
9-PAHFV-S	→ Sheep polyclonal antibody anti-human Factor V		Human Factor V	IB, ELISA	Sheep	150 000		
<b>Anti-Factor Va</b>								
9-PAHFVA-S	→ Sheep polyclonal antibody anti-human Factor Va		Human FV et FVa	IB, ELISA	Sheep			
<b>Anti-Factor VII</b>								
9-PAHFVII-S	→ Sheep polyclonal antibody anti-human FVII		Human Factor VII and VIIa	IB, ELISA	Sheep	150 000		
<b>Anti-Factor VIIa</b>								
9-PAHFVIIA-RAB	→ Rabbit polyclonal antibody anti-human FVIIa		Human Factor VIIa	IB, ELISA	Rabbit			
<b>Anti-Factor VIII</b>								
9-PAHFVIII-S	→ Sheep polyclonal antibody anti-human FVIII		Human Factor VIII	IB, ELISA, RIEP	Sheep			
<b>Anti-Factor IX</b>								
9-PAHFIX-C	→ Chicken polyclonal antibody anti-human Factor IX		Human Factor IX	IB, ELISA	Chicken			
9-PAHFIX-S	→ Sheep polyclonal antibody anti-human Factor IX		Human Factor IX	IB, ELISA	Sheep			
9-PARFIX-S	→ Sheep polyclonal antibody Anti-rat Factor IX		Factor IX	IB, ELISA	Sheep			
<b>Anti-Factor X</b>								
9-PAHFX-S	→ Sheep polyclonal antibody anti-human Factor X		Human FX	IB, ELISA, RIEP	Sheep	150 000		
9-PAMFX-S	→ Sheep polyclonal antibody anti-mouse Factor X		Factor X	IB, ELISA	Sheep			

# POLYCLONAL ANTIBODIES





Reference	Designation	Click to go to the product sheet	Antigen	Application	Source	PM (g/mol)	Extinction coefficient	WEB
9-PAMFX-SIA	→ Sheep pAb anti-mouse Factor X Immuno Adsorbed		Factor X	IB, ELISA	Sheep			
<b>Anti-Factor XI</b>								
9-PAHFXI-S	→ Sheep polyclonal antibody anti-human Factor XI		Human Factor XI	IB, ELISA, RIEP	Sheep	150 000		
<b>Anti-Factor XII</b>								
9-PAHFXII-S	→ Sheep polyclonal antibody anti-human Factor XII		Human FXII	IB, ELISA, RIEP	Sheep	150 000		
<b>Anti-Factor XIII</b>								
9-PAHFXIII-S	→ Sheep polyclonal antibody anti-human Factor XIII			IB, ELISA	Sheep			
<b>Anti-fibrinogen</b>								
9-PAPFGN-S	→ Sheep pAb anti-porcine fibrinogen		Fibrinogen	IB, ELISA	Sheep			
<b>Anti-heparin</b>								
9-PAHCII-S	→ Sheep polyclonal antibody anti-Human heparin coFactor II		Heparin	IB, ELISA	Sheep			
<b>Anti-plasminogen activator inhibitor type-1 (PAI-1)</b>								
4-TC31024	→ Rabbit polyclonal antibody anti-human PAI-1		PAI-1	IB, ELISA	Rabbit			
<b>Anti-plasminogen</b>								
9-PAHPG-S	→ Sheep polyclonal antibody anti-Human plasminogen		Human plasminogen	IB, ELISA	Sheep			
9-PAMPG-S	→ Sheep pAb anti-mouse plasminogen		Plasminogen	IB, ELISA	Sheep			
<b>Anti-protein C</b>								
9-PAHPC-C	→ Chicken polyclonal antibody anti-human protein C		Human and murine protein C	IB, ELISA	Chicken			
9-PAHPC-H	→ Horse polyclonal antibody anti-human protein C		Human protein C	IB, ELISA	Horse			
9-PAHPC-S	→ Sheep polyclonal antibody anti-human protein C		Human protein C	IB, ELISA	Sheep			
9-PAMPC-S	→ Sheep polyclonal antibody anti-mouse protein C		Murine and Human Protein C	IB, ELISA	Sheep			

# POLYCLONAL ANTIBODIES

Reference	Designation	Click to go to the product sheet	Antigen	Application	Source	PM (g/mol)	Extinction coefficient	WEB
<b>Anti-antithrombin</b>								
9-PAHAT-S	→ Sheep polyclonal antibody anti-human antithrombin		Human antithrombin	WB, ELISA	Sheep	150 000		
9-PAMAT-S	→ Sheep polyclonal antibody anti-mouse antithrombin		Mouse antithrombin	IB, ELISA	Sheep	150 000		
<b>Anti-protein S</b>								
9-PAHPS-S	→ Sheep polyclonal antibody anti-human protein S		Human S protein	IB, ELISA, RIEP	Sheep			
<b>Anti-protein Z</b>								
9-PAHPZ-S	→ Sheep polyclonal antibody anti-human protein Z		Human Z protein	IB, ELISA	Sheep			
<b>Anti-tissue Factor</b>								
11-4501	→ Goat polyclonal antibody anti-human tissue Factor (IgG)		Tissue factor	IB, Inhib.	Goat			
9-PAHTF-S	→ Sheep polyclonal antibody anti-human tissue Factor		Tissue factor	IB, ELISA	Sheep			
<b>Anti-prothrombin</b>								
9-PAHFII-BU	→ Burro polyclonal antibody anti-human prothrombin		Human prothrombin	IB, ELISA	Burro			
9-PAHFII-S	→ Sheep polyclonal antibody anti-human prothrombin		Human prothrombin	IB, ELISA	Sheep			
9-PAMFII-S	→ Sheep polyclonal antibody anti-mouse prothrombin		Mouse, rat, human prothrombin.	IB, ELISA	Sheep	150 000		
<b>Anti-TAFI</b>								
9-PATAFI-S	→ Sheep polyclonal antibody anti-human TAFI		Human TAFI	IB, ELISA, RIEP	Sheep	150 000		
<b>Anti-TFPI</b>								
9-PAHTFPI-S	→ Sheep polyclonal antibody anti-Human TFPI		Human TFPI	IB, ELISA	Sheep			



## POLYCLONAL ANTIBODIES

Reference	Designation	Click to go to the product sheet	Antigen	Application	Source	PM (g/mol)	Extinction coefficient	WEB
<u>Anti-tissue type plasminogen activator (t-PA)</u>								
4-TC31004	→ Rabbit polyclonal antibody anti- human t-PA		t-PA	IB, ELISA	Rabbit			
<u>Anti-urokinase type plasminogen activator (u-PA)</u>								
4-TC31014	→ Rabbit polyclonal antibody anti-u-PA		u-PA	RIA, ELISA, purif.	Rabbit			
<u>Anti-vitronectin</u>								
4-TC31054	→ Rabbit polyclonal antibody anti-human vitronectin		Human vitronectin	ELISA	Rabbit			
<u>Anti-VWF</u>								
9-PAHVWF-S	→ Sheep polyclonal antibody anti-human VWF		Human VWF	IB, ELISA	Sheep	150 000		

## POLYCLONAL ANTIBODIES

## Anti-thrombin

## Sheep polyclonal antibody anti-human thrombin



## Informations

An active form of prothrombin, thrombin is the key enzyme in the coagulation cascade that converts fibrinogen into fibrin to form a clot. Thrombin is a glycoprotein formed of 2 polypeptide chains joined by a disulfide bridge. It acts as a protease by hydrolyzing several coagulation factors and acts as a messenger by attaching itself to cellular receptors linked to G proteins, called PAR.

Reference	Presentation	Format
9-PAHT-S	Vial	1 mg

**Antigen: Human and mouse thrombin**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen : purified human thrombin

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

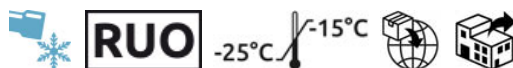
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-Factor V

## Horse polyclonal antibody anti-human Factor V



## Associated products

Sheep polyclonal antibody anti-bovine Factor V

Sheep polyclonal antibody anti-human Factor V

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa.

It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin.

The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-PAHFV-H	Vial	1 mg

**Antigen: Human Factor V**

Application : Immunoblotting, ELISA

Host : Horse

Immunogen: Purified human factor V

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates.

Special formulations are available upon request.

Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE.

Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available.

Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-Factor V

## Sheep polyclonal antibody anti-bovine Factor V



## Associated products

Horse polyclonal antibody anti-human Factor V

Sheep polyclonal antibody anti-human Factor V

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-PABFV-S	Vial	1 mg

**Antigen: Bovine Factor V**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen: Purified human factor V

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

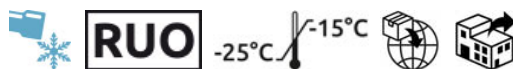
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-Factor V

## Sheep polyclonal antibody anti-human Factor V



## Associated products

[Horse polyclonal antibody anti-human Factor V](#)

[Sheep polyclonal antibody anti-bovine Factor V](#)

## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-PAHFV-S	Vial	1 mg

**Antigen: Human Factor V**

Application : Immunoblotting, ELISA  
 MW (Da) : 150 000  
 Extinction Coef. : 14.0  
 Host : Sheep  
 Immunogen : Purified human factor V

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## POLYCLONAL ANTIBODIES

## Anti-Factor Va

## Sheep polyclonal antibody anti-human Factor Va



## Informations

Factor V (FV) is a protein mainly synthesized by the liver. It is the enzymatic cofactor of FX and is activated in FVa by thrombin and / or FXa. It forms with FXa a complex which, in the presence of phospholipids and calcium, activates prothrombin to thrombin. The FVa is neutralized by the PCa.

Reference	Presentation	Format
9-PAHFVA-S	Vial	1 mg

**Antigen : Human FV et FVa**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen: Purified human factor V

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

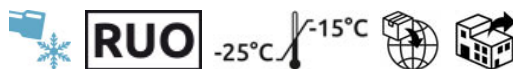
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-Factor VII

## Sheep polyclonal antibody anti-human FVII



## Informations

Factor VII (FVII) is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K dependent factor belonging to the prothrombin complex. Its half-life is 4 to 6 hours and it is the only coagulation factor present in trace amounts in its active form. When tissue factor appears on the endothelial surface, activated FVII associates with it initiating the extrinsic pathway for coagulation. This complex (FT-FVIIa) will activate the FX in FXa and the FIX in FIXa.

Reference	Presentation	Format
9-PAHFVII-S	Vial	1 mg

**Antigen: Human Factor VII and VIIa**

Application : Immunoblotting, ELISA

MW(Da) : 150 000

Host : Sheep

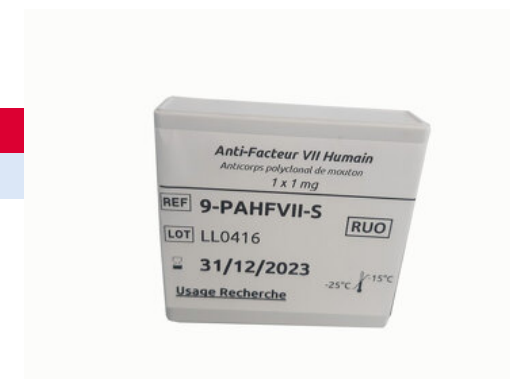
Immunogen: Purified human Factor V

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

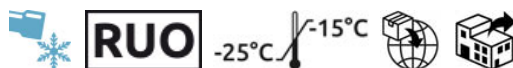
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-Factor VIIa

## Rabbit polyclonal antibody anti-human FVIIa



## Informations

Factor VII (FVII) is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K dependent factor belonging to the prothrombin complex. Its half-life is 4 to 6 hours and it is the only coagulation factor present in trace amounts in its active form. When tissue factor appears on the endothelial surface, activated FVII associates with it initiating the extrinsic pathway for coagulation. This complex (FT-FVIIa) will activate the FX in FXa and the FIX in FIXa.

Reference	Presentation	Format
9-PAHFVIIA-RAB	Vial	1 mg

**Antigen: Human Factor VIIa**

Application : Immunoblotting, ELISA

Source : Rabbit

Immunogen: Recombinant human FVIIa

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-Factor VIII

## Sheep polyclonal antibody anti-human FVIII



## Informations

Factor VIII is a glycoprotein mainly synthesized by the liver. It circulates in the plasma in the form bound to VWF which protects it from rapid proteolytic degradation. It is activated by FXa or thrombin in FVIIIa which will complex with FIXa in the presence of phospholipids to activate FX in FXa. A patient who is deficient in FVIII has hemophilia A.

Reference	Presentation	Format
9-PAHFVIII-S	Vial	1 mg

**Antigen: Human Factor VIII**  
**Formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)**

Application : Immunoblotting, ELISA, RIEP  
 Host : Sheep  
 Immunogen: Human FVIII: C

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## POLYCLONAL ANTIBODIES

## Anti-Factor IX

## Chicken polyclonal antibody anti-human Factor IX



## Associated products

Sheep polyclonal antibody anti-human Factor IX

Sheep polyclonal antibody Anti-rat Factor IX

## Informations

Factor IX is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a factor dependent on vitamin K and its plasma half-life is 20 to 24 hours. It can be activated to FIXa by FXIa or FVIIa in the presence of phospholipids and calcium.

Reference	Presentation	Format
9-PAHFIX-C	Vial	1 mg

**Antigen: Human Factor IX**

Application : Immunoblotting

Host : Chicken

Immunogen: Purified human FIX

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## POLYCLONAL ANTIBODIES

## Anti-Factor IX

## Sheep polyclonal antibody anti-human Factor IX



## Associated products

Chicken polyclonal antibody anti-human Factor IX

Sheep polyclonal antibody anti-human Factor XI

Sheep polyclonal antibody Anti-rat Factor IX

Reference	Presentation	Format
9-PAHFIX-S	Vial	1 mg
9-PAHFIX-S-5	Vial	5 mg
9-PAHFIX-SAP	Vial	100 µg

**Antigen: Human Factor IX**

**Origin: Sheep polyclonal antibody**

**Buffer formulation: 50 % Glycerol / H<sub>2</sub>O (v/v)**

Application : Immunoblotting (+), ELISA (+)

Molecular weight: 150 000

Extinction coefficient: 14.0

Host : Sheep

Immunogen: Purified human FIX

## Informations

Factor IX is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a factor dependent on vitamin K and its plasma half-life is 20 to 24 hours. It can be activated to FIXa by FXIa or FVIIa in the presence of phospholipids and calcium.

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-Factor IX

## Sheep polyclonal antibody Anti-rat Factor IX



## Associated products

Chicken polyclonal antibody anti-human Factor IX

Sheep polyclonal antibody anti-human Factor IX

Sheep polyclonal antibody anti-human Factor XI

## Informations

Factor IX is a glycoprotein synthesized by the liver, zymogen of a serine protease.

It is a factor dependent on vitamin K and its plasma half-life is 20 to 24 hours.

It can be activated to FIXa by FXIa or FVIIa in the presence of phospholipids and calcium.

Reference	Presentation	Format
9-PARFIX-S	Vial	1 mg

**Antigen : rat and mouse FIX, human and bovine FIX**

Application : Immunoblotting, ELISA (Rat and mouse FIX only)

Host : Sheep

Immunogen: Purified rat FIX

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

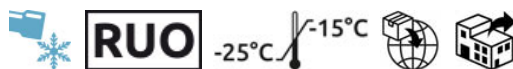
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-Factor X

## Sheep polyclonal antibody anti-human Factor X



## Associated products

Sheep polyclonal antibody anti-mouse Factor X

Sheep pAb anti-mouse Factor X Immuno Adsorbed

## Informations

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-PAHFX-S	Vial	1 mg

**Antigen: human FX (heavy and light chain)**

Application : Immunoblotting, ELISA, Radioimmuno-electrophoresis,

MW (Da) : 150 000

Extinction coefficient : 14.0

Host : Sheep

Immunogen : Purified human FX

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-Factor X

## Sheep polyclonal antibody anti-mouse Factor X



## Associated products

Sheep polyclonal antibody anti-human Factor X

Sheep pAb anti-mouse Factor X Immuno Adsorbed

## Informations

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-PAMFX-S	Vial	1 mg

**Antigen: Mouse, rat, human FX**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen: Purified Mouse FX

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## POLYCLONAL ANTIBODIES

## Anti-Factor X

## Sheep pAb anti-mouse Factor X Immuno Adsorbed



## Associated products

Sheep polyclonal antibody anti-human Factor X

Sheep polyclonal antibody anti-mouse Factor X

## Informations

Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-PAMFX-SIA	Vial	1 mg

**Antigen: Mouse and rat FX - Immuno Adsorbed**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen: Purified Mouse FX

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.

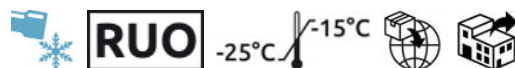




## POLYCLONAL ANTIBODIES

## Anti-Factor XI

## Sheep polyclonal antibody anti-human Factor XI



## Associated products

Chicken polyclonal antibody anti-human Factor IX

Sheep polyclonal antibody anti-human Factor IX

Sheep polyclonal antibody Anti-rat Factor IX

## Informations

Factor XI (FXI) is a protein synthesized by the liver. It participates in the contact phase which initiates the intrinsic pathway of coagulation. It is activated by FXIIa to factor FXIa which will itself activate FIX in the presence of calcium ions.

Reference	Presentation	Format
9-PAHFXI-S	Vial	1 mg
9-PAHFXI-SAP	Vial	100 µg

**Antigen : human Factor XI**

Application : Immunoblotting, ELISA, Radioimmuno-electrophoresis,

Host : Sheep

Immunogen : Purified human FXI

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-Factor XII

## Sheep polyclonal antibody anti-human Factor XII



## Informations

Factor XII (FXII) is a glycoprotein synthesized by the liver. FXII participates in the contact phase which initiates the intrinsic pathway of coagulation. Activated on contact with a negatively charged surface, it becomes capable of activating prekallikrein and kallikrein (amplified by KHPM) then FXI to FXIa in the presence of KHPM. The FXIa thus formed activates the FXII in FXIIa, amplifying the reaction.

Reference	Presentation	Format
9-PAHFXII-S	Vial	1 mg

**Antigen: Human FXII**

Application : Immunoblotting, ELISA, Radioimmuno-electrophoresis,  
 MW (Da) : 150 000  
 Host : Sheep  
 Immunogen : Purified human FXII

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

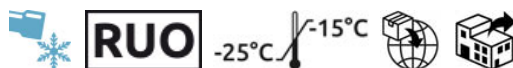
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-Factor XIII

## Sheep polyclonal antibody anti-human Factor XIII



## Informations

Haematologic Technologies' and Technoclone's lines of monoclonal and polyclonal antibodies perfectly complete our line of coagulation proteins. They are useful in a variety of applications such as ELISA, Western blot, immunohistochemistry and purification. Our polyclonal antibodies are generally supplied as purified IgG fractions although affinity purified and conjugated forms are available upon request. We also offer a line of rat anti-murine monoclonal and sheep anti-murine polyclonal antibodies against mouse coagulation proteins.

Application : Immunoblotting, ELISA  
Host : Sheep

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.

Reference	Presentation	Format
9-PAHFXIII-S	Vial	1 mg



## POLYCLONAL ANTIBODIES

## Anti-fibrinogen

## Sheep pAb anti-porcine fibrinogen



## Informations

Fibrinogen is a soluble protein made by the liver. Under the action of thrombin, fibrinogen is converted into fibrin. In association with FXIII, calcium ions, fibrin forms a stable network which ensures coagulation.

Reference	Presentation	Format
9-PAPFGN-S	Vial	1 mg

**Antigen: porcine fibrinogen**

Application : Immunoblotting, ELISA  
Host : Sheep

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE.  
Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use.  
Both small, laboratory scale and bulk, production scale quantities are available.  
Expiration date of one year from delivery.





## POLYCLONAL ANTIBODIES

## Anti-heparin

## Sheep polyclonal antibody anti-Human heparin coFactor II



## Informations

The second heparin cofactor is a serine protease inhibitor. It inhibits thrombin, chymotrypsin and other enzymes of the same group. Its rate of inhibition is amplified in the presence of heparin.

Reference	Presentation	Format
9-PAHCII-S	Vial	1 mg

**Antigen: human heparin cofactor II**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen: Purified human heparin cofactor II

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## POLYCLONAL ANTIBODIES

## Anti-plasminogen activator inhibitor type-1 (PAI-1)

## Rabbit polyclonal antibody anti-human PAI-1



## Informations

Plasminogen activator inhibitor 1 (PAI-1) is a glycoprotein, the primary inhibitor of t-PA and u-PA. It plays an essential role in controlling any excessive activation of fibrinolysis. It is present in plasma associated with vitronectin, in free form or associated with t-PA and in the alpha granules of platelets. Fibrinolysis corresponds to the solubilization of the fibrinous thrombus by plasmin, an enzyme originating from plasminogen adsorbed to fibrin. Plasminogen is activated by t-PA and u-Pa. PAI-1 by inhibiting plasminogen activators, controls the degradation of fibrinous thrombus. A decrease in fibrinolytic activity promotes the occurrence of thrombosis, while excessive fibrinolysis leads to hemorrhages.

Reference	Presentation	Format
4-TC31024	Vial	1 mg
4-TC31025	Vial	5 mg

**Antigen : PAI-1 from endothelial cells, platelets and human plasma as well as with PAI-1, recognizes free and complexed PAI-1 as well as latent PAI-1.**

Application : Immunoblotting, ELISA

Host : Rabbit

## Characteristics

Antibody lyophilized from a solution of 1 mg / mL in PBS buffer at pH 7.4 containing 0.02% sodium azide and 20 mg / mL mannitol. After reconstitution the antibodies should be aliquoted and stored at -20 ° C. Avoid repeated freezing and thawing cycles.



## POLYCLONAL ANTIBODIES

## Anti-plasminogen

## Sheep polyclonal antibody anti-Human plasminogen



## Associated products

Sheep pAb anti-mouse plasminogen

## Informations

Plasminogen is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

Reference	Presentation	Format
9-PAHPG-S	Vial	1 mg

**Antigen: human plasminogen**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen : Purified human plasminogen

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

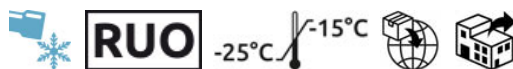
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-plasminogen

## Sheep pAb anti-mouse plasminogen



## Associated products

Sheep polyclonal antibody anti-Human plasminogen

## Informations

Plasminogen is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

Reference	Presentation	Format
9-PAMPG-S	Vial	1 mg

**Antigen: mouse, rat, human plasminogen.**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen : Purified mouse plasminogen

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities.

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-protein C

## Chicken polyclonal antibody anti-human protein C



## Associated products

Horse polyclonal antibody anti-human protein C

Sheep polyclonal antibody anti-human protein C

Sheep polyclonal antibody anti-mouse protein C

## Informations

Protein C (PC) is a vitamin K dependent plasma protein that regulates coagulation by inhibiting FVa and FVIIIa and helps limit the extension of the thrombus. Numerous clinical studies have shown that a PC deficiency (acquired or congenital) is a risk factor for venous thrombosis. PC is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC circulates in plasma in an inactive form, at a concentration of approximately 4 µg/mL. Thrombin bound to thrombomodulin loses its procoagulant properties and activates PC into activated PC. PCa in the presence of its cofactor, protein S, calcium and phospholipids, is capable of to inactivate the FVa and FVIIIa, true catalysts of coagulation, thus blocking the amplification loop of thrombin generation and limiting the extension of the thrombus.

Reference	Presentation	Format
9-PAHPC-C	Vial	1 mg

**Antigen: Human and murine protein C**

Application : Immunoblotting, ELISA

Host : Chicken

Immunogen : Purified Human Protein C

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## POLYCLONAL ANTIBODIES

## Anti-protein C

## Horse polyclonal antibody anti-human protein C



## Associated products

Chicken polyclonal antibody anti-human protein C

Sheep polyclonal antibody anti-human protein C

Sheep polyclonal antibody anti-mouse protein C

## Informations

Protein C (PC) is a vitamin K dependent plasma protein that regulates coagulation by inhibiting FVa and FVIIIa and helps limit the extension of the thrombus. Numerous clinical studies have shown that a PC deficiency (acquired or congenital) is a risk factor for venous thrombosis. PC is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC circulates in plasma in an inactive form, at a concentration of approximately 4 µg/mL. Thrombin bound to thrombomodulin loses its procoagulant properties and activates PC into activated PC. PCa in the presence of its cofactor, protein S, calcium and phospholipids, is capable of to inactivate the FVa and FVIIIa, true catalysts of coagulation, thus blocking the amplification loop of thrombin generation and limiting the extension of the thrombus.

Reference	Presentation	Format
9-PAHPC-H	Vial	1 mg

**Antigen: Human protein C**

Application : Immunoblotting, ELISA

Host : Horse

Immunogen : Purified Human Protein C

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE.  
Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use.  
Both small, laboratory scale and bulk, production scale quantities are available.  
Expiration date of one year from delivery.





## POLYCLONAL ANTIBODIES

## Anti-protein C

## Sheep polyclonal antibody anti-human protein C



## Associated products

Chicken polyclonal antibody anti-human protein C

Horse polyclonal antibody anti-human protein C

Sheep polyclonal antibody anti-mouse protein C

## Informations

Protein C (PC) is a vitamin K dependent plasma protein that regulates coagulation by inhibiting FVa and FVIIIa and helps limit the extension of the thrombus. Numerous clinical studies have shown that a PC deficiency (acquired or congenital) is a risk factor for venous thrombosis. PC is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC circulates in plasma in an inactive form, at a concentration of approximately 4 µg/mL. Thrombin bound to thrombomodulin loses its procoagulant properties and activates PC into activated PC. PCa in the presence of its cofactor, protein S, calcium and phospholipids, is capable of to inactivate the FVa and FVIIIa, true catalysts of coagulation, thus blocking the amplification loop of thrombin generation and limiting the extension of the thrombus.

Reference	Presentation	Format
9-PAHPC-S	Vial	1 mg

**Antigen: Human protein C**

Application : Immunoblotting, ELISA

Host : Sheep

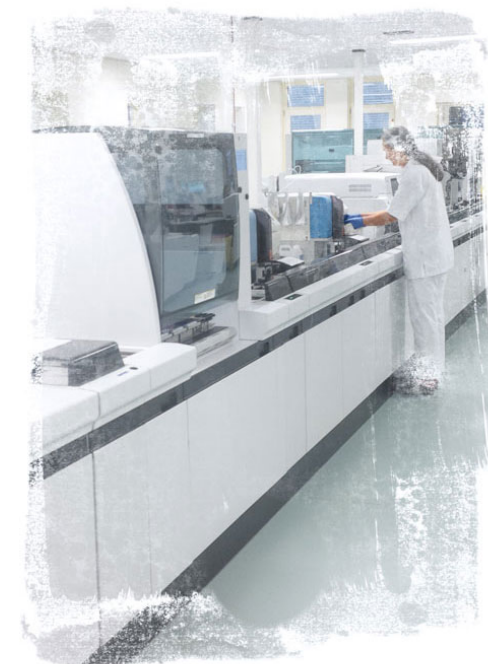
Immunogen : Purified Human Protein C

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-protein C

## Sheep polyclonal antibody anti-mouse protein C



## Associated products

Chicken polyclonal antibody anti-human protein C

Horse polyclonal antibody anti-human protein C

Sheep polyclonal antibody anti-human protein C

## Informations

Protein C (PC) is a vitamin K dependent plasma protein that regulates coagulation by inhibiting FVa and FVIIIa and helps limit the extension of the thrombus. Numerous clinical studies have shown that a PC deficiency (acquired or congenital) is a risk factor for venous thrombosis. PC is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC circulates in plasma in an inactive form, at a concentration of approximately 4 µg/mL. Thrombin bound to thrombomodulin loses its procoagulant properties and activates PC into activated PC. PCa in the presence of its cofactor, protein S, calcium and phospholipids, is capable of to inactivate the FVa and FVIIIa, true catalysts of coagulation, thus blocking the amplification loop of thrombin generation and limiting the extension of the thrombus.

Reference	Presentation	Format
9-PAMPC-S	Vial	1 mg

**Origine : Sheep polyclonal antibody**  
**Antigen: Murine Protein C and Human Protein C (WB only)**

Application : Immunoblotting, ELISA  
 Molecular weight : 150 000  
 Extinction coefficient : 14.0  
 Host : Sheep  
 Immunogen : Purified Mouse Protein C  
 Buffer formulation: 50 % Glycerol / H<sub>2</sub>O (v/v)

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates.  
 Special formulations are available upon request.  
 Discount according to quantities.

## Characteristics

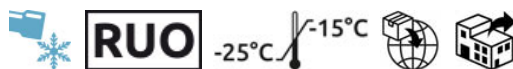
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-antithrombin

## Sheep polyclonal antibody anti-human antithrombin



## Associated products

Sheep polyclonal antibody anti-mouse antithrombin

## Informations

Previously called antithrombin III (abbreviated AT III), human antithrombin is one of the major physiological inhibitors of coagulation. A natural serine protease inhibitor, antithrombin acts mainly on thrombin (IIa) and activated factor X (FXa), as well as on the activated forms of factors IX, XI and XII. This reaction is catalyzed by heparin. The normal level of antithrombin is between 80 and 120% in adults and it is about half in newborns. Antithrombin deficiency predisposes to thrombosis.

Reference	Presentation	Format
9-PAHAT-S	Vial	1 mg

**Antigen : Human antithrombin**  
**Origin : Sheep polyclonal antibody**

Application : Western Blot, ELISA  
 Molecular weight (Da) : 150 000  
 Extinction Coef. : 14.0  
 Host : Sheep  
 Immunogen: Human purified antithrombin  
 Buffer formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates.  
 Special formulations are available upon request.  
 Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE.  
 Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use.  
 Both small, laboratory scale and bulk, production scale quantities are available.  
 Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-antithrombin

## Sheep polyclonal antibody anti-mouse antithrombin



## Associated products

Sheep polyclonal antibody anti-human antithrombin

## Informations

Previously called antithrombin III (abbreviated AT III), human antithrombin is one of the major physiological inhibitors of coagulation. A natural serine protease inhibitor, antithrombin acts mainly on thrombin (IIa) and activated factor X (FXa), as well as on the activated forms of factors IX, XI and XII. This reaction is catalyzed by heparin. The normal level of antithrombin is between 80 and 120% in adults and it is about half in newborns. Antithrombin deficiency predisposes to thrombosis.

Reference	Presentation	Format
9-PAMAT-S	Vial	1 mg

**Antigen : Mouse antithrombin  
Sheep polyclonal antibody**

Application : Immunoblotting, ELISA,  
Molecular weight (Da) : 150 000  
Extinction Coef. : 14.0  
Host : Sheep  
Buffer formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## POLYCLONAL ANTIBODIES

## Anti-protein S

## Sheep polyclonal antibody anti-human protein S



## Informations

Protein S is a vitamin K dependent protein. It is a physiological inhibitor of coagulation. It acts as a cofactor of activated protein C by promoting the inactivation of FVa and FVIIIa, prothrombin, of the prothrombinase complex, FX. A protein S deficiency can be either acquired (hepatocellular insufficiency, vitamin K deficiency, anti-protein S antibody, ...) or constitutional (heterozygous or homozygous deficiency) grouped into 2 types depending on whether the deficiency is quantitative (type I) or qualitative (type II).

Reference	Presentation	Format
9-PAHPS-S	Vial	1 mg

**Origin :** Sheep polyclonal antibody  
**Antigen:** Human S protein

Application : Immunoblotting, ELISA, RIEP  
 Host : Sheep  
 Molecular weight : 150 000  
 Extinction coefficient : 1.4  
 Immunogen: Purified human protein S  
 Buffer formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## POLYCLONAL ANTIBODIES

## Anti-protein Z

## Sheep polyclonal antibody anti-human protein Z



## Informations

Protein Z is a vitamin K dependent protein. It is a cofactor of ZPI (protein Z-related protease inhibitor) to inhibit FXa. This reaction is accelerated 1000 times in the presence of PZ.

Reference	Presentation	Format
9-PAHPZ-S	Vial	1 mg

**Antigen: Human Z protein**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen: Purified human Z protein

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-tissue Factor

## Goat polyclonal antibody anti-human tissue Factor (IgG)



## Associated products

Sheep polyclonal antibody anti-human tissue Factor

## Informations

Tissue Factor or FT is a cell surface glycoprotein. This factor initiates the extrinsic pathway of the coagulation cascade and is a high affinity receptor for FVII. The FVIIa / FT complex catalyzes the conversion of FX to FXa.

Reference	Presentation	Format
11-4501	Vial	1 mg

**Antigen: human FT, rat, rabbit**

Application: Inhibitor in coagulation tests, partially neutralizes thromboplastin, Immunoblotting,  
Source : Goat  
Immunogen: human FT

## Advantages

The lyophilized presentation allows greater stability until the expiration date.

## Characteristics

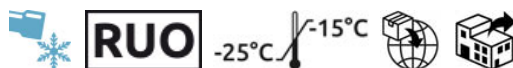
Antibody lyophilized from a solution of 1 mg / mL in a solution of 10 mM sodium phosphate 140 mM sodium chloride, pH 7.4 with 100 mM mannitol.



## POLYCLONAL ANTIBODIES

## Anti-tissue Factor

## Sheep polyclonal antibody anti-human tissue Factor



## Associated products

Goat polyclonal antibody anti-human tissue Factor (IgG)

## Informations

Tissue Factor or FT is a cell surface glycoprotein. This factor initiates the extrinsic pathway of the coagulation cascade and is a high affinity receptor for FVII. The FVIIa / FT complex catalyzes the conversion of FX to FXa.

Reference	Presentation	Format
9-PAHTF-S	Vial	1 mg

**Antigen: human FT**

Application : Immunoblotting (+), ELISA (+), RIEP ( )  
 Molecular weight (Da) : 150 000  
 Extinction coefficient : 14.0  
 Host : Sheep  
 Immunogen: Purified recombinant tissue factor

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-prothrombin

## Burro polyclonal antibody anti-human prothrombin



## Associated products

Sheep polyclonal antibody anti-human prothrombin

Sheep polyclonal antibody anti-mouse prothrombin

## Informations

Factor II (FII) or prothrombin is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K-dependent clotting factor. Its half-life is 50 to 120 hours. FII is activated by the prothrombinase thrombin complex which plays a central role in the coagulation process. It will transform fibrinogen into fibrin, amplify its own formation and activate the protein C, TAFI and platelet systems. There are constitutional deficits in FII which are very rare and acquired deficits which can be observed during anti-vitamin K treatments or vitamin K deficiency, CIVD, anti-FII autoantibodies.

Reference	Presentation	Format
9-PAHFII-BU	Vial	1 mg

**Antigen : human prothrombin**

Application : Immunoblotting, ELISA

Host : Burro

Immunogen : Human prothrombin purified

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## POLYCLONAL ANTIBODIES

## Anti-prothrombin

## Sheep polyclonal antibody anti-human prothrombin



## Associated products

Burro polyclonal antibody anti-human prothrombin

Sheep polyclonal antibody anti-mouse prothrombin

## Informations

Factor II (FII) or prothrombin is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K-dependent clotting factor. Its half-life is 50 to 120 hours. FII is activated by the prothrombinase thrombin complex which plays a central role in the coagulation process. It will transform fibrinogen into fibrin, amplify its own formation and activate the protein C, TAFI and platelet systems. There are constitutional deficits in FII which are very rare and acquired deficits which can be observed during anti-vitamin K treatments or vitamin K deficiency, CIVD, anti-FII autoantibodies.

Reference	Presentation	Format
9-PAHFII-S	Vial	1 mg
9-PAHFII-SAP	Vial	100 µg

**Antigen: human prothrombin and prothrombin activation products. Mouse prothrombin**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen : Human prothrombin purified

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.





## POLYCLONAL ANTIBODIES

## Anti-prothrombin

## Sheep polyclonal antibody anti-mouse prothrombin



## Associated products

[Burro polyclonal antibody anti-human prothrombin](#)

[Sheep polyclonal antibody anti-human prothrombin](#)

## Informations

Factor II (FII) or prothrombin is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K-dependent clotting factor. Its half-life is 50 to 120 hours. FII is activated by the prothrombinase thrombin complex which plays a central role in the coagulation process. It will transform fibrinogen into fibrin, amplify its own formation and activate the protein C, TAFI and platelet systems. There are constitutional deficits in FII which are very rare and acquired deficits which can be observed during anti-vitamin K treatments or vitamin K deficiency, CIVD, anti-FII autoantibodies.

Reference	Presentation	Format
9-PAMFII-S	Vial	1 mg

**Antigen: Mouse prothrombin, rat, human prothrombin.**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen: Purified mouse prothrombin

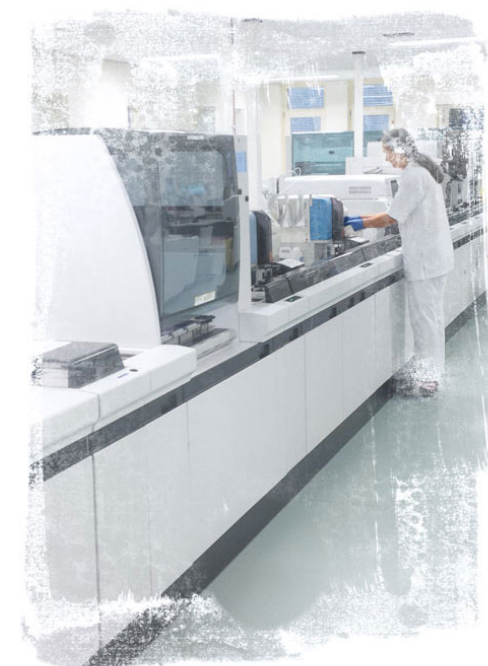
50 % Glycerol / H<sub>2</sub>O (v/v)

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates.  
Special formulations are available upon request.  
Discount according to quantities.

## Characteristics

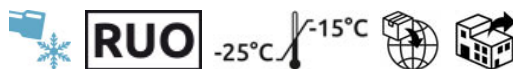
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-TAFI

## Sheep polyclonal antibody anti-human TAFI



## Informations

TAFI is an enzyme that stabilizes the clot by protecting the fibrin from the clot from lysis. TAFI is activated by thrombin and its activation is amplified in the presence of thrombomodulin. Activated TAFI removes the C-terminal lysine and arginine residues of fibrin which are necessary for the binding of t-PA, plasmin and plasminogen to fibrin.

Reference	Presentation	Format
9-PATAFI-S	Vial	1 mg

**Antigen: Human TAFI**  
**Origine : Sheep polyclonal antibody**  
**Formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)**

MW(Da) : 150 000  
 Extinction coef. : 14.0  
 Application : Immunoblotting, ELISA, RIEP  
 Host : Sheep  
 Immunogen : purified human TAFI

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

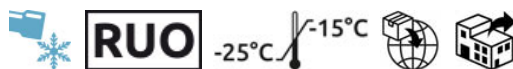
The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

## Anti-TFPI

## Sheep polyclonal antibody anti-Human TFPI



## Informations

TFPI (Tissue Factor Signaling Pathway Inhibitor) is an anticoagulant protein produced by the endothelial cell and found on its surface. Its role is to inhibit the early phases of coagulation by blocking the FT-FVIIa complex as well as the FXa.

Reference	Presentation	Format
9-PAHTFPI-S	Vial	1 mg

**Antigen : Human TFPI**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen: domain 1 and 2 of purified recombinant TFPI truncated from the C-terminal part

## Advantages

Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



## POLYCLONAL ANTIBODIES

Anti-tissue type plasminogen activator  
(t-PA)

## Rabbit polyclonal antibody anti- human t-PA



## Informations

Tissue plasminogen activator (t-PA) is a protein involved in breaking down the blood clot. It is a serine protease found in the endothelial cells that line blood vessels. Like any enzyme, it converts plasminogen into plasmin, the main blood clot lysis enzyme. Due to its lysis activity, t-PA is used in clinical medicine to treat cerebral embolism and thrombosis. Its use is contraindicated in cases of cerebral hemorrhage or head trauma.

Reference	Presentation	Format
4-TC31004	Vial	1 mg
4-TC31005	Vial	5 mg

**Antigen : free t-PA and t-PA inhibitor complexes, no reaction with other plasma proteins.**

Application : Immunoblotting, ELISA

Host : Rabbit

## Characteristics

Antibodies lyophilized from a solution of 1 mg / mL in PBS buffer at pH 7.4 containing 0.02% sodium azide and 20 mg / mL mannitol. After reconstitution the antibodies should be aliquoted and stored at -20 ° C. Avoid repeated freezing and thawing cycles.





## POLYCLONAL ANTIBODIES

Anti-urokinase type plasminogen activator  
(u-PA)

## Rabbit polyclonal antibody anti-u-PA



## Informations

Belonging to the family of serine proteases. U-PA activates plasminogen to convert it into plasmin, an enzyme that breaks down fibrin. It intervenes in the phases of dissolution of the clot during fibrinolysis. It has also been shown to increase the amount of u-PA in some tumors.

Reference	Presentation	Format
4-TC31014	Vial	1 mg
4-TC31015	Vial	5 mg

**Antigen: high and low molecular weight urokinase, scu-uPA, u-PA bound inhibitor complex.**

Application : RIA, ELISA, purification

Host : Rabbit

Immunogen: high molecular weight urokinase

## Characteristics

Antibodies lyophilized from a solution of 1 mg / mL in PBS buffer at pH 7.4 containing 0.02% sodium azide and 20 mg / mL mannitol. After reconstitution the antibodies should be aliquoted and stored at -20 ° C. Avoid repeated cycles of freezing and thawing.





## POLYCLONAL ANTIBODIES

## Anti-vitronectin

## Rabbit polyclonal antibody anti-human vitronectin



## Associated products

Human vitronectin

Purified vitronectin

## Informations

Vitronectin (Vn) is an adhesive glycoprotein, synthesized by the liver, released in plasma and present in the extracellular matrix. Vn binds PAI-1. This complex fully activates PAI-1, unlike PAI-1 in solution, where it does not appear to be stable and inactive. Vn therefore seems to regulate the enzymatic specificity of PAI-1, by stabilizing it. Decreased Vn levels occur in DICs and liver disease (cirrhosis). Vn deposition is associated with atherosclerotic lesions.

Reference	Presentation	Format
4-TC31054	Vial	1 mg

**Antigen : vitronectin and complexes with PAI-1, no reaction with other plasma proteins.**

Application : ELISA

Host : Rabbit

## Characteristics

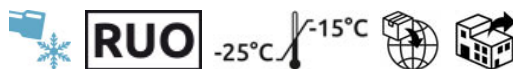
Antibody lyophilized from a solution of 0.5 mg / mL in 10 mM bicarbonate buffer pH 9.6. After reconstitution the antibodies should be aliquoted and stored at -20 ° C. Avoid repeated freezing and thawing cycles.



## POLYCLONAL ANTIBODIES

## Anti-VWF

## Sheep polyclonal antibody anti-human VWF



Reference	Presentation	Format
9-PAHVWF-S	Vial	1 mg

## Informations

VWF is composed of 15 to 20 multimers ranging in molecular weight from 500 kDa to 20,000 kDa and high molecular weight multimers are essential for biological activity. Its role is on the one hand to transport FVIII in the circulation to protect it from its degradation and on the other hand it participates in adhesion and platelet aggregation.

**Antigen: Human VWF**

Application : Immunoblotting, ELISA

Host : Sheep

Immunogen: Human purified VWF

## Advantages







Custom needs by supplying you antibodies conjugated with biotin, HRP, FITC or other conjugates. Special formulations are available upon request. Discount according to quantities

## Characteristics

The vast majority of antibodies is pure (without additives) with > 95 % purity SDS-PAGE. Stock antibodies are supplied in 50 % glycerol/water (v/v) for ease of storage and use. Both small, laboratory scale and bulk, production scale quantities are available. Expiration date of one year from delivery.



# SAMPLE COLLECTION TUBES

Reference	Designation	Click to go to the product sheet	Formulation	WEB
<a href="#">Sample collection tubes</a>				
25-18004	→ BAPA Tube T-TAS® 01			
9-SCAT-27-1.8/5	→ Special CTI collection tubes		11 mM Citrate et 50 µg/mL CTI (final)	
9-SCAT-ACT	→ Collection tubes with draw volume 2 mL		6 mg kaolin/mL de sang	
9-SCAT-I-3	→ Special collection tubes PPACK Aprotinin / EDTA		25 µM PPACK, 200 KIU/mL aprotinine, 4,5 mM EDTA, 0.1% Mannitol (p/v)	
9-SCAT-II-3	→ Special collection tubes PPACK Na Citrate / Mannitol		25 µM PPACK, 11 mM citrate de sodium, 0.1% Mannitol (p/v)	
9-SCAT-875B-3	→ Special collection tubes 75µM PPACK D-Mannitol		75 µM PPACK (Phe-Pro-Arg-chloromethylketone), 0.1% D-Mannitol (p/v)	

## SAMPLE COLLECTION TUBES

## Sample collection tubes

Analyzers

## BAPA Tube T-TAS® 01



## Associated products

T-TAS® 01

Barcode Scanner T-TAS® 01

HD Chip T-TAS® 01

Reference

25-18004

Presentation

Consumables

Format

1 x 50 tubes

**The BAPA Tube for T-TAS® 01 is intended to be used for the collection, transport and storage of blood samples used as part of the T-TAS® 01 System for PL Chip.**



## Informations

Benzylsulfonyl-D-Arg-Pro-4-amidinobenzylamid (BAPA) is a potent synthetic anticoagulant which inhibits Factor Xa and thrombin.

A complex web of biochemical and physical reactions between platelets and clotting factors at the site of vascular injury is required to achieve hemostasis.

Under flow conditions, platelet activation and coagulation processes are dynamically intertwined with each other affected by platelets, coagulation factors and their various inhibitors and activators.

## Components

- 1 box x 50 collection tubes 3 mL

## Characteristics

Measurements with the T-TAS® 01 system involve evaluation of biological activity and depend on the quality of the blood collection.

Blood samples collected for analysis with the PL Chip should only be collected with the BAPA tube specified for T-TAS® 01.

50 tubes of 3 mL containing the spray-dried anticoagulant BAPA.

The concentration indicated in the BAPA tube for a blood sample is  $\geq 50 \mu\text{g} / \text{mL}$ .



## SAMPLE COLLECTION TUBES

## Sample collection tubes

## Special CTI collection tubes



## Associated products

Collection tubes with draw volume 2 mL

Special collection tubes PPACK Aprotinin / EDTA

Special collection tubes PPACK Na Citrate / Mannitol

## Informations

Many non-routine tests and applications which require the collection of blood or other body fluids, also require the use of special anti-coagulant or proteinase inhibitor cocktails to preserve the integrity of the sample. Good examples of such tests include the measurements of Fibrinopeptide-A (FPA), Prothrombin Fragment 1•2 (F1•2), Fibrinogen Degradation Products (FDP) and the Thrombin/Antithrombin III complex (TAT), all of which are highly influenced by persistent protease activity in blood or plasma samples.

Reference	Presentation	Format
9-SCAT-27-1.8/5	Consumables	1 x 2 mL
9-SCAT-27-2.7/5	Consumables	1 x 3 mL
9-SCAT-27-4.5/5	Consumables	1 x 5 mL

**Formulation : 11 mM Citrate and 50 µg / mL CTI (final)**

The minimum order quantity is 100 tubes.  
Discount according to quantities.

## Advantages

These tubes (our SCAT-27 line) simplify the process of conducting TF-dependent studies by allowing you to draw blood directly onto an anticoagulant containing CTI. You may choose to use our standard CTI/Citrate formulation (11mM Citrate, 50 µg/mL CTI) or you may create your own custom formulation. Blood collection tubes are not sterile and are manufactured and sold for research use only. Three standard sizes are available although custom sizes can be manufactured for you.

## Characteristics

The SCAT series of collection tubes (Sample Collection/Anticoagulant Tubes) were developed specifically to minimize in vitro artifact by rapidly quenching unwanted protease activity. SCAT tubes are carefully formulated to yield a reproducible concentration of inhibitors with rapid dissolution properties (by ray at tf). The tubes are evacuated and stoppered under controlled conditions so that the tubes will automatically fill to the proper volume. Although the SCAT tubes may resemble a standard phlebotomy blood collection tube, it should be noted that these tubes are NOT STERILE, and therefore should not be used as a standard blood collection tube. Instead, it is recommended that the technique used to collect the sample (whether it be blood or another fluid sample), be direct collection into the SCAT tube through a catheter of at least five inches, and equipped with a multi-sample luer adapter (MSLA) to eliminate the possibility of a back-flush from the non-sterile tube to the patient.





## SAMPLE COLLECTION TUBES

## Sample collection tubes

## Collection tubes with draw volume 2 mL



## Associated products

Special CTI collection tubes

Special collection tubes PPACK Aprotinin / EDTA

Special collection tubes PPACK Na Citrate / Mannitol

## Informations

Many non-routine tests and applications which require the collection of blood or other body fluids, also require the use of special anti-coagulant or proteinase inhibitor cocktails to preserve the integrity of the sample. Good examples of such tests include the measurements of Fibrinopeptide-A (FPA), Prothrombin Fragment 1•2 (F1•2), Fibrinogen Degradation Products (FDP) and the Thrombin/Antithrombin III complex (TAT), all of which are highly influenced by persistent protease activity in blood or plasma samples.

Reference	Presentation	Format
9-SCAT-ACT	Consumables	1 x 2 mL

**Formulation : 6 mg kaolin/ mL blood**

The minimum order quantity is 100 tubes.  
Discount according to quantitie.

## Advantages

These tubes are used primarily to assess for dysfunction in the intrinsic pathway of the coagulation cascade used in veterinary medicine. Normal clotting time in animals: Dog <120 seconds Chat <100 seconds Horse <45 seconds Beef <145 seconds

## Characteristics

The SCAT series of collection tubes (Sample Collection/Anticoagulant Tubes) were developed specifically to minimize in vitro artifact by rapidly quenching unwanted protease activity. SCAT tubes are carefully formulated to yield a reproducible concentration of inhibitors with rapid dissolution properties (by ray at tf). The tubes are evacuated and stoppered under controlled conditions so that the tubes will automatically fill to the proper volume. Although the SCAT tubes may resemble a standard phlebotomy blood collection tube, it should be noted that these tubes are NOT STERILE, and therefore should not be used as a standard blood collection tube. Instead, it is recommended that the technique used to collect the sample (whether it be blood or another fluid sample), be direct collection into the SCAT tube through a catheter of at least five inches, and equipped with a multi-sample luer adapter (MSLA) to eliminate the possibility of a back-flush from the non-sterile tube to the patient.



## SAMPLE COLLECTION TUBES

## Sample collection tubes

## Special collection tubes PPACK Aprotinin / EDTA



## Associated products

Special CTI collection tubes

Collection tubes with draw volume 2 mL

Special collection tubes PPACK Na Citrate / Mannitol

## Informations

Many non-routine tests and applications which require the collection of blood or other body fluids, also require the use of special anti-coagulant or proteinase inhibitor cocktails to preserve the integrity of the sample. Good examples of such tests include the measurements of Fibrinopeptide-A (FPA), Prothrombin Fragment 1•2 (F1•2), Fibrinogen Degradation Products (FDP) and the Thrombin/Antithrombin III complex (TAT), all of which are highly influenced by persistent protease activity in blood or plasma samples.

Reference	Presentation	Format
9-SCAT-I-10	Consumables	1 x 10 mL
9-SCAT-I-3	Consumables	1 x 3 mL
9-SCAT-I-5	Consumables	1 x 5 mL

**Formulation : 25 µM PPACK, 200 KIU/mL aprotinine, 4.5 mM EDTA, 0.1% Mannitol (w/v)**

The minimum order quantity is 100 tubes.  
Discount according to quantities.

## Characteristics

Many non-routine tests and applications which require the collection of blood or other body fluids, also require the use of special anti-coagulant or proteinase inhibitor cocktails to preserve the integrity of the sample. Good examples of such tests include the measurements of Fibrinopeptide-A (FPA), Prothrombin Fragment 1•2 (F1•2), Fibrinogen Degradation Products (FDP) and the Thrombin/Antithrombin III complex (TAT), all of which are highly influenced by persistent protease activity in blood or plasma samples. The SCAT series of collection tubes (Sample Collection/Anticoagulant Tubes) were developed specifically to minimize in vitro artifact by rapidly quenching unwanted protease activity. SCAT tubes are carefully formulated to yield a reproducible concentration of inhibitors with rapid dissolution properties (by ray at tf). The tubes are evacuated and stoppered under controlled conditions so that the tubes will automatically fill to the proper volume. Although the SCAT tubes may resemble a standard phlebotomy blood collection tube, it should be noted that these tubes are NOT STERILE, and therefore should not be used as a standard blood collection tube. Instead, it is recommended that the technique used to collect the sample (whether it be blood or another fluid sample), be direct collection into the SCAT tube through a catheter of at least five inches, and equipped with a multi-sample luer adapter (MSLA) to eliminate the possibility of a back-flush from the non-sterile tube to the patient.



## SAMPLE COLLECTION TUBES

## Sample collection tubes

## Special collection tubes PPACK Na Citrate / Mannitol



## Associated products

Special CTI collection tubes

Collection tubes with draw volume 2 mL

Special collection tubes PPACK Aprotinin / EDTA

## Informations

Many non-routine tests and applications which require the collection of blood or other body fluids, also require the use of special anti-coagulant or proteinase inhibitor cocktails to preserve the integrity of the sample. Good examples of such tests include the measurements of Fibrinopeptide-A (FPA), Prothrombin Fragment 1•2 (F1•2), Fibrinogen Degradation Products (FDP) and the Thrombin/Antithrombin III complex (TAT), all of which are highly influenced by persistent protease activity in blood or plasma samples.

Reference	Presentation	Format
9-SCAT-II-10	Consumables	1 x 10 mL
9-SCAT-II-3	Consumables	1 x 3 mL
9-SCAT-II-5	Consumables	1 x 5 mL

**Formulation : 25 µM PPACK, 11 mM citrate de sodium, 0.1% Mannitol (w/v)**

The minimum order quantity is 100 tubes.  
Discount according to quantities.

## Characteristics

The SCAT series of collection tubes (Sample Collection/Anticoagulant Tubes) were developed specifically to minimize in vitro artifact by rapidly quenching unwanted protease activity. SCAT tubes are carefully formulated to yield a reproducible concentration of inhibitors with rapid dissolution properties (by ray at tf). The tubes are evacuated and stoppered under controlled conditions so that the tubes will automatically fill to the proper volume. Although the SCAT tubes may resemble a standard phlebotomy blood collection tube, it should be noted that these tubes are NOT STERILE, and therefore should not be used as a standard blood collection tube. Instead, it is recommended that the technique used to collect the sample (whether it be blood or another fluid sample), be direct collection into the SCAT tube through a catheter of at least five inches, and equipped with a multi-sample luer adapter (MSLA) to eliminate the possibility of a back-flush from the non-sterile tube to the patient.



## SAMPLE COLLECTION TUBES

## Sample collection tubes

Special collection tubes 75µM PPACK  
D-Mannitol

## Associated products

Special CTI collection tubes

Collection tubes with draw volume 2 mL

Special collection tubes PPACK Aprotinin / EDTA

## Informations

Many non-routine tests and applications which require the collection of blood or other body fluids, also require the use of special anti-coagulant or proteinase inhibitor cocktails to preserve the integrity of the sample. Good examples of such tests include the measurements of Fibrinopeptide-A (FPA), Prothrombin Fragment 1+2 (F1+2), Fibrinogen Degradation Products (FDP) and the Thrombin/Antithrombin III complex (TAT), all of which are highly influenced by persistent protease activity in blood or plasma samples.

Reference	Presentation	Format
9-SCAT-875B-10	Consumables	1 x 10 mL
9-SCAT-875B-3	Consumables	1 x 3 mL
9-SCAT-875B-5	Consumables	1 x 5 mL

**Formulation : 75 µM PPACK (Phe-Pro-Arg-chloromethylketone), 0.1% D-Mannitol (p/v)**
















The minimum order quantity is 100 tubes. Discount according to quantities.

## Characteristics

The SCAT series of collection tubes (Sample Collection/Anticoagulant Tubes) were developed specifically to minimize in vitro artifact by rapidly quenching unwanted protease activity. SCAT tubes are carefully formulated to yield a reproducible concentration of inhibitors with rapid dissolution properties (by ray at tf). The tubes are evacuated and stoppered under controlled conditions so that the tubes will automatically fill to the proper volume. Although the SCAT tubes may resemble a standard phlebotomy blood collection tube, it should be noted that these tubes are NOT STERILE, and therefore should not be used as a standard blood collection tube. Instead, it is recommended that the technique used to collect the sample (whether it be blood or another fluid sample), be direct collection into the SCAT tube through a catheter of at least five inches, and equipped with a multi-sample luer adapter (MSLA) to eliminate the possibility of a back-flush from the non-sterile tube to the patient.



# VENOM PROTEASES

Reference	Designation	Click to go to the product sheet	PM (g/mol)	WEB
<b>Agkistrodon contortrix venom snake</b>				
8-113-01	→ Protac® 3U		36 000 - 42 000	
6-VEN-PROT-3	→ Protac		36 000 à 42 000	
<b>Daboia Russelii venom</b>				
9-RVVX-2010	→ Daboia Russelii venom (frozen)		67 000	
6-VEN-RVVX-100	→ Daboia Russelii venom (lyophilized)		67 000	
<b>Echis carinatus venom snake</b>				
8-116-01	→ Ecarin 50 EU		55 000 à 60 000	
6-VEN-ECAR-50	→ Ecarin		55 000 à 60 000	
9-ECVVII-2011	→ Prothrombin activator (echarin)		56 000	
<b>Vipera Russelii venom</b>				
8-121-03	→ RVV-Facteur V Activator		28 000	
8-121-07	→ RVV Facteur X Activator		120 000	
9-RVVV-2000	→ RVV-V Venin de Vipera Russelii (frozen)		28 000	
6-VEN-RVVV-100	→ RVV-V Venin de Vipera Russelii (lyophilized)		28 000	
<b>Bothrops atrox venom snake</b>				
8-101-04	→ Batroxobin Maranhao 100BU		43 000	
6-VEN-BATRO-50	→ Batroxobin		43 000	
<b>Crotalus durissus terrificus venom snake</b>				
8-119-02	→ Convulxin 50 µg		84 000	
6-VEN-CONV-50	→ Convulxin		84 000	



## VENOM PROTEASES

Agkistrodon contortrix venom snake

## Protac® 3U



## Associated products

Protac

## Informations

Snake venom proteases are useful tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mostly proteins and polypeptides. Some of the proteins in snake venom have very specific effects on various biological functions including blood coagulation, blood pressure regulation, transmission of the nervous or muscular impulse and have been developed for use as diagnostic tools. Plasma coagulation Factors are usually inactive and require proteolytic activation as a first step towards a chrometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation Factors rather than physiological activators. In contrast to other activators, many snake venom enzymes are not dependent from cofactors, phospholipid or calcium ions.

Reference	Presentation	Format
8-113-01	Vial	1 x 3 U

**Product derived from Agkistrodon venom contortrix in freeze-dried form.**

MW (Da): 36,000 to 42,000

CAS: 103469-93-8

The Protac®, a single-chain glycoprotein, is a fast-acting activator of protein C, isolated from the venom of the copper-headed snake Agkistrodon contortrix. It rapidly converts human C protein and other vertebrates into activated C protein that can be determined, either by measuring its effect on the extension of an activated cephalin time (TCA) by measuring its enzymatic activity using a specific chromogenic substrate. Protac is therefore used to determine the levels of C protein and S protein in plasma.

## Advantages

The venom proteases offered are highly purified, homogenous preparations with the indicated activities.

## Characteristics

All of our venom products are supplied in 50 % glycerol / water for storage at -20° C or supplied lyophilized at 2-8° C. Expiry date = 1 year.



## VENOM PROTEASES

## Agkistrodon contortrix venom snake

## Protac



## Associated products

Protac® 3U

## Informations

Snake venom proteases are useful tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mostly proteins and polypeptides. Some of the proteins in snake venom have very specific effects on various biological functions including blood coagulation, blood pressure regulation, transmission of the nervous or muscular impulse and have been developed for use as diagnostic tools. Plasma coagulation Factors are usually inactive and require proteolytic activation as a first step towards a chromometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation Factors rather than physiological activators. In contrast to other activators, many snake venom enzymes are not dependent from cofactors, phospholipid or calcium ions.

Reference	Presentation	Format
6-VEN-PROT-3	Vial	1 x 3 U

**Product derived from Agkistrodon contortrix venom in lyophilized form.  
Protac is used for the determination of protein C and protein S levels in plasma.**

Molecular Weight (Da) : 36 000 à 42 000

Protac, a single chain glycoprotein, is a fast-acting protein C activator isolated from the venom of the copperhead snake Agkistrodon contortrix and closely related snake species. This serine proteinase rapidly converts protein C of man and other vertebrates into activated protein C which may be determined either by measuring its prolonging effect on the activated partial thromboplastin time (APTT) or by measuring its enzyme activity by means of a specific chromogenic substrate.

## Advantages

The venom proteases offered are highly purified, homogenous preparations with the indicated activities.

## Characteristics

Stability before reconstitution: Expiry date indicated on the vial.  
After reconstitution: 1 year at -25/-15°C, 30 days at +2/+8°C



## VENOM PROTEASES

## Daboia Russelii venom

## Daboia Russelii venom (frozen)



## Associated products

Daboia Russelii venom (lyophilized)

## Informations

Snake venom proteases are useful tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mostly proteins and polypeptides. Some of the proteins in snake venom have very specific effects on various biological functions including blood coagulation, blood pressure regulation, transmission of the nervous or muscular impulse and have been developed for use as diagnostic tools. Plasma coagulation Factors are usually inactive and require proteolytic activation as a first step towards a chronometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation Factors rather than physiological activators. In contrast to other activators, many snake venom enzymes are not dependent from cofactors, phospholipid or calcium ions.

Reference	Presentation	Format
9-RVVX-2010	Vial	100 µg
9-RVVX-2010-1	Vial	1 mg

**Product derived from poisonous snake venom in frozen form.**

MW(Da) : 67 000

RVV-X is a specific activator of Factor X to Xa and Factor IX to IXa from Russell's viper venom.

RVV-X is used in lupus anticoagulant testing.

## Advantages

The venom proteases offered are highly purified, homogenous preparations with the indicated activities.

## Characteristics

All of our venom products are supplied in 50 % glycerol / water for storage at -20° C or supplied lyophilized at 2-8° C. Expiry date = 1 year



## VENOM PROTEASES

## Daboia Russelii venom

## Daboia Russelii venom (lyophilized)



## Associated products

Daboia Russelii venom (frozen)

## Informations

Snake venom proteases are useful tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mostly proteins and polypeptides. Some of the proteins in snake venom have very specific effects on various biological functions including blood coagulation, blood pressure regulation, transmission of the nervous or muscular impulse and have been developed for use as diagnostic tools. Plasma coagulation Factors are usually inactive and require proteolytic activation as a first step towards a chromometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation Factors rather than physiological activators. In contrast to other activators, many snake venom enzymes are not dependent from cofactors, phospholipid or calcium ions.

Reference	Presentation	Format
6-VEN-RV VX-100	Vial	100 µg

**Product derived from poisonous snake venom in lyophilized form.**

MW(Da) : 67 000

Specific FX activator from Russell's viper venom. Zn<sup>2+</sup> dependant endopeptidase, glycoprotein 2 disulfide linked subunits (Mr = 67 kDa, 26 kDa). RVV-X is used in diagnostic procedures to quantitatively convert the zymogen FX into FXa and zymogen FIX into FIXa. RVV-X is used in testing of lupus anticoagulants.

## Advantages

The venom proteases offered are highly purified, homogenous preparations with the indicated activities.

## Characteristics

All of our venom products are supplied in 50 % glycerol / water for storage at -20° C or supplied lyophilized at 2-8° C. Expiry date = 1 year





## VENOM PROTEASES

Echis carinatus venom snake

## Ecarin 50 EU



## Associated products

Ecarin

Prothrombin activator (echarin)

## Informations

Snake venom proteases are interesting tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mainly proteins and polypeptides. Some snake venoms have very specific effects on various biological functions, including blood clotting, regulation of blood pressure, transmission of nerve or muscle impulses. They were developed for use as diagnostic tools. Plasma coagulation factors are usually inactive and require proteolytic activation as a first step towards a chrometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation factors rather than using physiological activators. In contrast to other activators, many snake venom enzymes are not dependent on cofactors, phospholipids, or calcium ions.

Reference	Presentation	Format
8-116-01	Vial	1 x 50 U

## Product derived from Echis carinatus venom in lyophilized form.

MW (Da) : 55 000 à 60 000

Ecarin is a snake (*Echis carinatus*) venom that directly activates prothrombin to meizothrombin. The use of the measurement of the coagulation time by ecarin allows the biological monitoring of the anticoagulant by hirudin. The meizothrombin can then bind stoichiometrically to the hirudin to be assayed.

## Advantages

The proposed venom proteases are obtained from highly purified homogeneous preparations with indication of the activities.

## Characteristics

All venoms are supplied in a 50% glycerol / water liquid solution for storage at -20 °C or lyophilized at 2-8 °C.

The expiration date is 1 year.





## VENOM PROTEASES

## Echis carinatus venom snake

## Ecarin



## Associated products

Prothrombin activator (echarin)

## Informations

Snake venom proteases are useful tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mostly proteins and polypeptides. Some of the proteins in snake venom have very specific effects on various biological functions including blood coagulation, blood pressure regulation, transmission of the nervous or muscular impulse and have been developed for use as diagnostic tools. Plasma coagulation Factors are usually inactive and require proteolytic activation as a first step towards a chrometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation Factors rather than physiological activators. In contrast to other activators, many snake venom enzymes are not dependent from cofactors, phospholipid or calcium ions.

Reference	Presentation	Format
6-VEN-ECAR-50	Vial	50 µg

**Product derived from Echis carinatus venom in lyophilized form.**

MW(Da) : 55 000 à 60 000 Ecarin is a snake (Echis carinatus) venom that directly activates prothrombin to meizothrombin. The use of the measurement of the coagulation time by ecarin allows the biological monitoring of the anticoagulant by hirudin. The meizothrombin can then bind stoichiometrically to the hirudin to be assayed. Coagulation only takes place when all of the hirudin is bound to meizothrombin.

## Advantages

The venom proteases offered are highly purified, homogenous preparations with the indicated activities.

## Characteristics

All of our venom products are supplied in 50 % glycerol / water for storage at -20° C or supplied lyophilized at 2-8° C. Expiry date = 1 year



## VENOM PROTEASES

## Echis carinatus venom snake

## Prothrombin activator (echarin)



## Associated products

Ecarin

## Informations

Snake venom proteases are useful tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mostly proteins and polypeptides. Some of the proteins in snake venom have very specific effects on various biological functions including blood coagulation, blood pressure regulation, transmission of the nervous or muscular impulse and have been developed for use as diagnostic tools. Plasma coagulation Factors are usually inactive and require proteolytic activation as a first step towards a chromometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation Factors rather than physiological activators. In contrast to other activators, many snake venom enzymes are not dependent from cofactors, phospholipid or calcium ions.

Reference	Presentation	Format
9-ECVII-2011	Vial	100 µg
9-ECVII-2011-1	Vial	1 mg

## Product derived from Echis carinatus venom in frozen form.

MW(Da) : 56 000 Metalendo-peptidase, single chain, Prothrombin activator, Cleavage of Arg323-Ile324 bond in prothrombin to form meizothrombin. The use of the measurement of the coagulation time by ecarin allows the biological monitoring of the anticoagulant by hirudin. The meizothrombin can then bind stoichiometrically to the hirudin to be assayed. Coagulation only takes place when all of the hirudin is bound to meizothrombin.

## Advantages

The venom proteases offered are highly purified, homogenous preparations with the indicated activities.

## Characteristics

All of our venom products are supplied in 50 % glycerol / water for storage at -20° C or supplied lyophilized at 2-8° C. Expiry date = 1 year



## VENOM PROTEASES

## Vipera Russellii venom

## RVV-Facteur V Activator



## Associated products

Daboia Russelii venom (frozen)

Daboia Russelii venom (lyophilized)

## Informations

Snake venom proteases are interesting tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mainly proteins and polypeptides. Some snake venoms have very specific effects on various biological functions, including blood clotting, regulation of blood pressure, transmission of nerve or muscle impulses. They were developed for use as diagnostic tools. Plasma coagulation factors are usually inactive and require proteolytic activation as a first step towards a chronometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation factors rather than using physiological activators. In contrast to other activators, many snake venom enzymes are not dependent on cofactors, phospholipids, or calcium ions.

Reference	Presentation	Format
8-121-03	Vial	1 x 1000 U

**Product derived from the venom of Vipera russelli in lyophilized form.**

MW (Da) : 28 000

RVV-V is a specific activator of FV to FVa from Russell's viper venom which converts single chain FV into an active 2 chain compound. Activated FV is not stable and loses activity within 20 hours at 37 °C.

Therefore, RVV-V is also used to selectively inactivate FV in plasma in order to prepare a routine reagent for determination of FV.

## Advantages

Venom proteases are obtained from highly purified homogeneous preparations with indication of the activities.

## Characteristics

The isolated snake venom proteins can be used in coagulation and platelet aggregation tests, in photometric tests as well as in immunological systems.



## VENOM PROTEASES

## Vipera Russellii venom

## RVV Facteur X Activator



## Associated products

Daboia Russelii venom (frozen)

Daboia Russelii venom (lyophilized)

## Informations

Snake venom proteases are interesting tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mainly proteins and polypeptides. Some snake venoms have very specific effects on various biological functions, including blood clotting, regulation of blood pressure, transmission of nerve or muscle impulses. They were developed for use as diagnostic tools.

Plasma coagulation factors are usually inactive and require proteolytic activation as a first step towards a chromometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation factors rather than using physiological activators. In contrast to other activators, many snake venom enzymes are not dependent on cofactors, phospholipids, or calcium ions.

Reference

8-121-07

Presentation

Vial

Format

1 x 50 U

**Product derived from poisonous snake venom in lyophilized form.**

MW (Da): 120,000

Specific activator of FX to FXa and FIX to FIXa from the venom of Russell's viper, Zn<sup>2+</sup> + dependent endopeptidase. Glycoprotein bound to 2 subunits (67 kDa, 26 kDa).

RVV-X is used in lupus anticoagulant testing.

## Advantages

Venom proteases are obtained from highly purified homogeneous preparations with indication of the activities.

## Characteristics

Stabilizer : Prionex®

Lyophilised form to be stored in the dark between +2/+8°C.

Activity 50U/vial.





## VENOM PROTEASES

## Vipera Russellii venom

## RVV-V Venin de Vipera Russellii (frozen)



## Associated products

RVV-V Venin de Vipera Russellii (lyophilized)

## Informations

Snake venom proteases are useful tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mostly proteins and polypeptides. Some of the proteins in snake venom have very specific effects on various biological functions including blood coagulation, blood pressure regulation, transmission of the nervous or muscular impulse and have been developed for use as diagnostic tools. Plasma coagulation Factors are usually inactive and require proteolytic activation as a first step towards a chrometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation Factors rather than physiological activators. In contrast to other activators, many snake venom enzymes are not dependent from cofactors, phospholipid or calcium ions.

Reference	Presentation	Format
9-RVVV-2000	Vial	100 µg
9-RVVV-2000-1	Vial	1 mg

## Product derived from poisonous snake venom in frozen form.

MW(Da) : 28 000 RVV-V is a specific Factor V activator from Russell's viper venom converts single chain Factor V to an active two chain form. Activated Factor V is not stable and loses its activity within 20 hours at 37° C. Therefore, RVV-V is used to destabilize and selectively inactivate Factor V in plasma and thus to prepare a routine reagent for the Factor V determination.

## Advantages

The venom proteases offered are highly purified, homogenous preparations with the indicated activities.

## Characteristics

All of our venom products are supplied in 50 % glycerol / water for storage at -20° C or supplied lyophilized at 2-8° C. Expiry date = 1 year





## VENOM PROTEASES

## Vipera Russellii venom

## RVV-V Venin de Vipère Russellii (lyophilized)



## Associated products

RVV-V Venin de Vipera Russellii (frozen)

## Informations

Snake venom proteases are useful tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mostly proteins and polypeptides. Some of the proteins in snake venom have very specific effects on various biological functions including blood coagulation, blood pressure regulation, transmission of the nervous or muscular impulse and have been developed for use as diagnostic tools. Plasma coagulation Factors are usually inactive and require proteolytic activation as a first step towards a chronometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation Factors rather than physiological activators. In contrast to other activators, many snake venom enzymes are not dependent from cofactors, phospholipid or calcium ions.

Reference	Presentation	Format
6-VEN-RVVV-100	Vial	100 µg

**Product derived from the venom of Vipera russelli in lyophilized form.**

500 à 1000 U MW(Da) : 28 000 RVV-V is a specific FV activator from Russell's viper venom converts single chain FV to an active two chain form. Activated FV is not stable and loses its activity within 20 hours at 37° C. Therefore, RVV-V is used to destabilize and selectively inactivate FV in plasma and thus to prepare a routine reagent for the FV determination.

## Advantages

The venom proteases offered are highly purified, homogenous preparations with the indicated activities.

## Characteristics

All of our venom products are supplied in 50 % glycerol / water for storage at -20° C or supplied lyophilized at 2-8° C. Expiry date = 1 year



## VENOM PROTEASES

Bothrops atrox venom snake

## Batroxobin Maranhao 100BU



## Associated products

Batroxobin

## Informations

Snake venom proteases are useful tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mostly proteins and polypeptides. Some of the proteins in snake venom have very specific effects on various biological functions including blood coagulation, blood pressure regulation, transmission of the nervous or muscular impulse and have been developed for use as diagnostic tools. Plasma coagulation Factors are usually inactive and require proteolytic activation as a first step towards a chrometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation Factors rather than physiological activators. In contrast to other activators, many snake venom enzymes are not dependent from cofactors, phospholipid or calcium ions.

Reference	Presentation	Format
8-101-04	Vial	1 x 100 BU
8-101-06	Vial	1 x 1000 BU
8-101-06	Vial	1 x 1000 BU

**Product derived from Bothrops atrox venom in lyophilized form.**

MW(Da) : 43 000

Due to its specification on fibrinogen (cleaves alpha chain) and its ability to clot platelet-rich plasma without affecting the integrity and functions of platelets, and thanks to its insensitivity to thrombin inhibitors, batroxobin has found several applications as a tool in blood coagulation research and diagnosis. Batroxobin can be used to determine fibrinogen in plasma, to measure the batroxobin clotting time (Reptilase® time) as a heparin-insensitive parallel to the thrombin time, to investigate dysfibrinogenemias, and to test the contractile system of platelets. Furthermore, batroxobin is used for defibrinogenation of plasma.

## Advantages

The venom proteases offered are highly purified, homogenous preparations with the indicated activities.

## Characteristics

All of our venom products are supplied in 50 % glycerol / water for storage at -20° C or supplied lyophilized at 2-8° C.  
Expiry date = 1 year



## VENOM PROTEASES

Bothrops atrox venom snake

## Batroxobin



## Informations

Snake venom proteases are useful tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mostly proteins and polypeptides. Some of the proteins in snake venom have very specific effects on various biological functions including blood coagulation, blood pressure regulation, transmission of the nervous or muscular impulse and have been developed for use as diagnostic tools. Plasma coagulation Factors are usually inactive and require proteolytic activation as a first step towards a chronometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation Factors rather than physiological activators. In contrast to other activators, many snake venom enzymes are not dependent from cofactors, phospholipid or calcium ions.

Reference	Presentation	Format
6-VEN-BATRO-50	Vial	50 µg

**Product derived from Bothrops atrox venom in lyophilized form. MW(Da) : 43 000**

Due to its specification on fibrinogen (cleaves alpha chain) and its ability to clot platelet-rich plasma without affecting the integrity and functions of platelets, and thanks to its insensitivity to thrombin inhibitors, batroxobin has found several applications as a tool in blood coagulation research and diagnosis. Batroxobin can be used to determine fibrinogen in plasma, to measure the batroxobin clotting time (Reptilase® time) as a heparin-insensitive parallel to the thrombin time, to investigate dysfibrinogenemias, and to test the contractile system of platelets. Furthermore, batroxobin is used for defibrinogenation of plasma.

## Components

Bottle of approximately 100 BU of purified batroxobin. The exact value varies according to each batch, referring to the certificate of analysis.

## Advantages

The venom proteases offered are highly purified, homogenous preparations with the indicated activities.

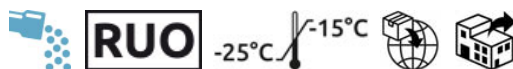
## Characteristics

All venoms are supplied in a 50% liquid glycerol/water solution for storage at -20°C or freeze-dried at 2-8°C.  
Vials reconstituted with 1 mL of PPI type water:  
The reconstituted product can be:  
Aliquoted and frozen immediately and stored:  
- 1 year at -80°C  
- 1 month at -15/-25°C  
- 8 hours at 15-25°C  
stored at +2/+8°C for 2 days

## VENOM PROTEASES

Crotalus durissus terrificus venom snake

## Convulxin 50 µg



## Associated products

Convulxin

## Informations

Snake venom proteases are interesting tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mainly proteins and polypeptides. Some snake venoms have very specific effects on various biological functions, including blood clotting, regulation of blood pressure, transmission of nerve or muscle impulses. They were developed for use as diagnostic tools. Plasma coagulation factors are usually inactive and require proteolytic activation as a first step towards a chrometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation factors rather than using physiological activators. In contrast to other activators, many snake venom enzymes are not dependent on cofactors, phospholipids, or calcium ions.

Reference	Presentation	Format
8-119-02	Vial	50 µg

**Product derived from the venom of Crotalus durissus terrificus in frozen form.**

MW (Da): 84,000

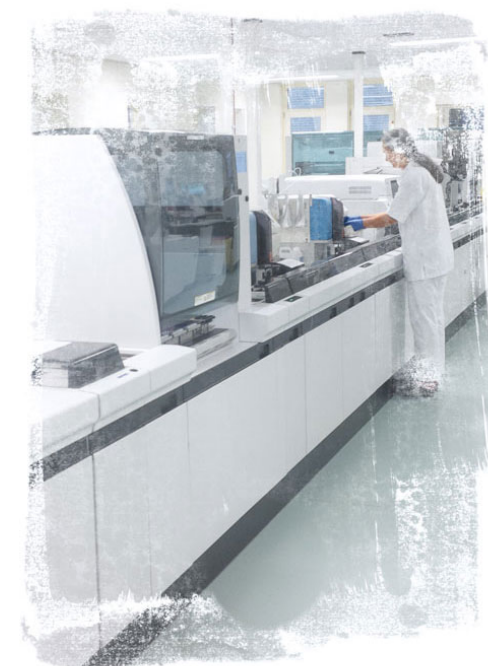
Convulxin, a heterodimeric type C lectin isolated from the venom of the Brazilian rattlesnake *Crotalus durissus terrificus*, activates mammalian blood platelets by specifically binding to the collagen receptor p62 / GPVI of blood platelets under physiological conditions. Convulxin can be used in platelet receptor studies.

## Advantages

Venom proteases are obtained from highly purified homogeneous preparations with indication of the activities.

## Characteristics

All venoms are supplied in a 50% glycerol / water liquid solution for storage at -20 °C or lyophilized at 2-8 °C. The expiration date is 1 year.





## VENOM PROTEASES

Crotalus durissus terrificus venom snake

## Convulxin



## Associated products

Convulxin 50 µg

## Informations

Snake venom proteases are useful tools for studying coagulation reactions. Venoms contain more than 20 different compounds, mostly proteins and polypeptides. Some of the proteins in snake venom have very specific effects on various biological functions including blood coagulation, blood pressure regulation, transmission of the nervous or muscular impulse and have been developed for use as diagnostic tools. Plasma coagulation Factors are usually inactive and require proteolytic activation as a first step towards a chrometric or colorimetric assay. It is often advantageous to use specific enzymes from snake venoms to activate coagulation Factors rather than physiological activators. In contrast to other activators, many snake venom enzymes are not dependent from cofactors, phospholipid or calcium ions.

Reference	Presentation	Format
6-VEN-CONV-50	Vial	50 µg

**Product derived from the venom of Crotalus durissus terrificus in freeze-dried form.  
Molecular weight (Da) : 84 000**

Convulxin (CVX), a potent platelet aggregation protein belonging to the C-type heterodimeric lectin family, is isolated from the venom of the snake Crotalus durissus terrificus. Neither antibodies against GPIb nor against echicetin had any effect on convulxin-induced platelet aggregation, demonstrating that, unlike other venom C-type lectins acting on platelets, GPIb is not not involved in convulxin-induced platelet activation.

Convulxin activates mammalian platelets via binding to the platelet collagen receptor p62/GPVI and clustering of glycoprotein VI (GPVI) receptors under physiological conditions.

GPVI occupancy and clustering activates Src family kinases, phosphorylating the Fc receptor  $\gamma$  chain and activating p72SYK which is critical for downstream activation of platelets. Allows the study of platelet receptors.

## Advantages

The venom proteases offered are highly purified, homogenous preparations with the indicated activities.

















## Characteristics

All venoms are supplied in freeze-dried format at  $-20^{\circ}\text{C}$ . The expiration date is 1 year at  $-20^{\circ}\text{C}$  or 3 years at  $-80^{\circ}\text{C}$ . Vials reconstituted with 1 mL of PPI type water:  
the reconstituted product can be frozen immediately and stored for 1 month at  $-80^{\circ}\text{C}$ .  
2 days at  $2-8^{\circ}\text{C}$   
8 hours at  $15-25^{\circ}\text{C}$





# ZYMOGENS

Reference	Designation	Click to go to the product sheet	PM (g/mol)	Extinction coefficient	WEB
<b>Factor VII</b>					
9-HCVII-0030	→ Human Factor VII		50 000	13.9	
<b>Factor IX</b>					
9-BCIX-1040	→ Bovine Factor IX		55 400	12.0	
9-HCIX-0040	→ Human Factor IX		55 000	13.2	
9-RATIX-9040	→ Rat Factor IX		51800	12.7	
<b>Factor X</b>					
9-BCX-1050	→ Bovine Factor X		55 100	12.4	
9-HCX-0050	→ Human Factor X		58 900	11.6	
9-HCX-GD	→ Human Gla-domainless Factor X				
9-MCX-5050	→ Mouse Factor X		58 900	11.6	
9-RATX-9050	→ Rat Factor X				
<b>Factor XI</b>					
9-HCXI-0150	→ Human Factor XI		160 000	13.4	
<b>Factor XII</b>					
9-HCXII-0155	→ Human Factor XII		80 000	14.0	
<b>Factor XIII</b>					
9-HCXIII-0160	→ Human Factor XIII		320 000	13.8	
<b>Plasminogen</b>					
<b>Glu-plasminogen</b>					
11-416	→ Bovin glu-plasminogen (lyophilized)				
9-BCPG-1130	→ Bovine Glu-plasminogen		88 000	17.0	
9-HCPG-0130	→ Human glu-plasminogen (frozen)		88 000	17.0	
11-400	→ Human glu-plasminogen (lyophilized)		88000	17.0	

# ZYMOGENS

Reference	Designation	Click to go to the product sheet	PM (g/mol)	Extinction coefficient	WEB
9-HCPG-0131	→ Human glu-plasminogen variant I (carbohydrate)		88 000	17.0	<a href="#">🌐</a>
9-HCPG-0132	→ Human glu-plasminogen variant II (carbohydrate)		88 000	17.0	<a href="#">🌐</a>
<b>Lys-plasminogen</b>					
9-HCPG-0133	→ Human lys-plasminogen (frozen)		83 000	17.0	<a href="#">🌐</a>
<b>Prethrombin</b>					
9-HCP1-0011	→ Human prethrombin-1		49 900	17.8	<a href="#">🌐</a>
9-HCP2-0011	→ Human prethrombin-2		37 580	18.3	<a href="#">🌐</a>
<b>Protein C</b>					
9-BCPC-1070	→ Bovine protein C		58 000	13.7	<a href="#">🌐</a>
9-HCPC-0070	→ Human protein C		62 000	14.5	<a href="#">🌐</a>
<b>Prekallikrein</b>					
26-ADG472	→ Human prekallikrein				<a href="#">🌐</a>
<b>Prothrombin</b>					
9-BCP-1010	→ Bovine prothrombin		72 000	14.4	<a href="#">🌐</a>
9-HCP-0010	→ Human prothrombin		72 000	13.8	<a href="#">🌐</a>
9-HCP1-0010	→ Human prothrombin fragment 1		21 700	11.9	<a href="#">🌐</a>
9-HCP12-0010	→ Human prothrombin fragment 1 – 2		34 566	10.8	<a href="#">🌐</a>
9-HCP2-0010	→ Human prothrombin fragment 2		12 866	12.5	<a href="#">🌐</a>

## ZYMOGENS

## Factor VII

## Human Factor VII



## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Factor VII (FVII) is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K dependent factor belonging to the prothrombin complex. Its half-life is 4 to 6 hours and it is the only coagulation factor present in trace amounts in its active form. When tissue factor appears on the endothelial surface, activated FVII associates with it initiating the extrinsic pathway for coagulation. This complex (FT-FVIIa) will activate the FX in FXa and the FIX in FIXa.

Reference	Presentation	Format
9-HCVII-0030	Vial	20 µg
9-HCVII-0030-1	Vial	1 mg

**Structure : Single chain, N-terminal Gla-domain, 2 EGF domains**

**Origin : Human Blood / Plasma**

**Formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)**

MW(Da) : 50 000

Extinction coef. : 13.9

Concentration : 2.0 mg/mL

Isoelectric point: 4.8 - 5.1



## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.

## ZYMOGENS

## Factor IX

## Bovine Factor IX

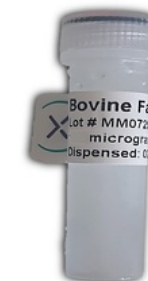


## Associated products

Human Factor IX

Rat Factor IX

Reference	Presentation	Format
9-BCIX-1040	Vial	100 µg
9-BCIX-1040-1	Vial	1 mg



## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated to FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium.

**Structure: single chain with N-terminal Gla domain and 2 EGF domains**

MW(Da) : 55 400  
 Extinction coef. : 12.0  
 Isoelectric point: 3.7

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE.  
 No additive or preservative.

## Characteristics

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## ZYMOGENS

## Factor IX

## Human Factor IX



## Associated products

Bovine Factor IX

Rat Factor IX

Reference	Presentation	Format
9-HCIX-0040	Vial	100 µg
9-HCIX-0040-1	Vial	1 mg



## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme.

FIX is a vitamin K dependent glycoprotein synthesized by the liver.

FIX can be activated to FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium.

**Origin: Human Blood / Plasma**

**Buffer formulation: 50 % Glycerol / H<sub>2</sub>O (v/v)**

**Structure: single chain with N-terminal Gla domain and 2 EGF domains**

Molecular weight (Da): 55 000

Extinction coef.: 13.2

Activity determined by factor IX clotting assay

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

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## ZYMOGENS

## Factor IX

## Rat Factor IX



## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. FIX is a vitamin K dependent glycoprotein synthesized by the liver. FIX can be activated to FIXa by FXIa or by FVIIa in the presence of phospholipids and calcium.

MW(Da) : 51 800  
 Extinction coef. : 12.7  
 Isoelectric point : 5.21

Reference	Presentation	Format
9-RATIX-9040	Vial	50 µg



## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

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## ZYMOGENS

## Factor X

## Bovine Factor X



## Associated products

Human Factor X

Human Gla-domainless Factor X

Mouse Factor X

Reference	Presentation	Format
9-BCX-1050	Vial	100 µg
9-BCX-1050-1	Vial	1 mg

**Structure: 2 subunits (16 500 & 39 300), N-terminal Gla domain and 2 EGF domains**

MW(Da) : 55 100

Extinction coef. : 12.4

Isoelectric point: 4.8-5.2

## Informations

A zymogen (or proenzyme) is an inactive enzyme precursor. A zymogen requires a biochemical change for it to become an active enzyme. A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin.

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.



## ZYMOGENS

## Factor X

## Human Factor X



## Associated products

Bovine Factor X

Human Gla-domainless Factor X

Mouse Factor X

## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and by antithrombin.

Reference	Presentation	Format
9-HCX-0050	Vial	100 µg
9-HCX-0050-1	Vial	1 mg

**Origin : Human Blood / Plasma****Structure: 2 subunits (16 200 & 42 000), N-terminal Gla domain and 2 EGF domains**

Molecular Weight (Da) : 58 900

Extinction coef. : 11.6

Isoelectric point: 4.9-5.2

Buffer formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.



## ZYMOGENS

## Factor X

## Human Gla-domainless Factor X



## Associated products

Bovine Factor X  
Human Factor X  
Mouse Factor X

Reference	Presentation	Format
9-HCX-GD	Vial	100 µg
9-HCX-GD-1	Vial	1 mg



## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin. Gla domains serve to bind calcium ions by chelating them between 2 carboxylic acid residues.

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

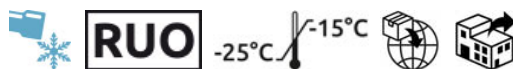
## Characteristics

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## ZYMOGENS

## Factor X

## Mouse Factor X



## Associated products

Bovine Factor X

Human Factor X

Human Gla-domainless Factor X

## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-MCX-5050	Vial	> 1 mg

Molecular weight (Da) : 58 900

Extinction coef. : 11.6

Isoelectric point: 4.9-5.2

Structure: 2 subunits (16 200 &amp; 42 000), N-terminal Gla domain and 2 EGF domains.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin. The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.





## ZYMOGENS

## Factor X

## Rat Factor X



## Associated products

Bovine Factor X

Human Factor X

Human Gla-domainless Factor X

## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Factor X (FX) is a glycoprotein synthesized by the liver, dependent on vitamin K. FX is involved in the common pathway of coagulation. It is activated in FXa by the FT-FVIIa complex or by the FVIIIa-FIXa complex in the presence of phospholipids. FXa is neutralized by TFPI and antithrombin.

Reference	Presentation	Format
9-RATX-9050	Vial	100 µg



## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.

## ZYMOGENS

## Factor XI

## Human Factor XI



## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Factor XI (FXI) is a protein synthesized by the liver.

It participates in the contact phase which initiates the intrinsic pathway of coagulation.

It is activated by FXIIa to factor FXIa which will itself activate FIX in the presence of calcium ions.

Reference	Presentation	Format
9-HCXI-0150	Vial	50 µg
9-HCXI-0150-1	Vial	1 mg

**Structure: homodimer comprising 2 subunits of 80 kDa linked together by disulfide bridges. The monomers contain 4 repeated amino acid regions in tandem which they share with plasma prekallikrein.**

**Origin : Human Blood / Plasma**

MW(Da): 160 000

Extinction coef.: 13.4

Formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)



## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.

## ZYMOGENS

## Factor XII

## Human Factor XII



## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Factor XII (FXII) is a glycoprotein synthesized by the liver.

FXII participates in the contact phase which initiates the intrinsic pathway of coagulation.

Activated on contact with a negatively charged surface, it becomes capable of activating prekallikrein and kallikrein (amplified by KHPM) then FXI to FXIa in the presence of KHPM.

The FXIa thus formed activates the FXII in FXIIa, amplifying the reaction.

Reference	Presentation	Format
9-HCXII-0155	Vial	100 µg
9-HCXII-0155-1	Vial	1 mg

**Origin : Human Blood / Plasma**

**Structure : single chain organized into 6 domains based on sequence homology**

**Formulation : 50 % / Glycerol / 4 mM Sodium Acetate, 150 mM NaCl, pH 5.3 (v/v)**

Molecular weight (Da) : 80 000

Extinction coef. : 14.0

Isoelectric point : 6.8

Buffer formulation : 50 % Glycerol / 4 mM Sodium Acetate, 150 mM NaCl, pH 5.3 (v/v)



## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.

## ZYMOGENS

## Factor XIII

## Human Factor XIII



## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Factor XIII is synthesized by the liver.

Activated by thrombin, FXIII intervenes in the final phase of fibrinof formation to stabilize the fibrin clot by forming covalent bonds in the fibrin polymer.

Reference	Presentation	Format
9-HCXIII-0160	Vial	100 µg
9-HCXIII-0160-1	Vial	1 mg

**Origin: Human Blood / Plasma**

**Tetrameric structure of 2 non-identical subunits associated non-covalently.**

**Buffer formulation : 50% glycérol / 500µM EDTA**

Molecular weight (Da): 320 000

Extinction coef. : 13.8



## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

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## ZYMOGENS

## Glu-plasminogen

## Bovin glu-plasminogen (lyophilized)



## Associated products

Human glu-plasminogen (frozen)

Human glu-plasminogen (lyophilized)

Human glu-plasminogen variant I (carbohydrate)

## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Plasminogen (88 kDa) is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

Reference	Presentation	Format
11-416	Vial	1 mg

**Formulation: 10mM sodium phosphate, 140mM NaCl, 100mM Mannitol Ph7.4.**

Low traces of plasmin /  $\alpha$ -2-antiplasmin complex.

## Advantages

The lyophilized presentation allows greater stability until the expiration date.

## Characteristics

Reconstitute with 2 mL of water, aliquot and store at -70 ° C to avoid freezing and thawing cycles.





## ZYMOGENS

## Glu-plasminogen

## Bovine Glu-plasminogen



## Associated products

Bovin glu-plasminogen (lyophilized)

Human glu-plasminogen (frozen)

Human glu-plasminogen (lyophilized)

## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Plasminogen (88 kDa) is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA. The 2 carbohydrate variants of glu-plasminogen (CHOI and CHOII) are isolated by a gradient elution on sepharose-lysine using a lysine analogue (aminocaproic acid).

Reference	Presentation	Format
9-BCPG-1130	Vial	1 mg

**Structure: single chain with 24 intrachain disulfide bonds, 5 kringle regions.**

MW(Da) : 88 000  
Extinction coef. : 17

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.



## ZYMOGENS

## Glu-plasminogen

## Human glu-plasminogen (frozen)



## Associated products

Bovin glu-plasminogen (lyophilized)

Human glu-plasminogen (lyophilized)

Human glu-plasminogen variant I (carbohydrate)

## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Plasminogen (88 kDa) is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

Reference	Presentation	Format
9-HCPG-0130	Vial	1 mg

**Structure : single chain with 24 intrachain disulfide bonds, 5 kringle regions.**

MW(Da) : 88 000  
 Extinction coef. : 17  
 Isoelectric point : 6.2

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE.  
 No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.



## ZYMOGENS

## Glu-plasminogen

## Human glu-plasminogen (lyophilized)



## Associated products

Bovin glu-plasminogen (lyophilized)

Human glu-plasminogen (frozen)

Human glu-plasminogen variant I (carbohydrate)

## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Plasminogen (88 kDa) is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA.

Reference	Presentation	Format
11-400	Vial	5 mg

**Formulation : 10mM sodium phosphate, 140mM NaCl, 100mM Mannitol Ph7.4.**

Low traces of plasmin /  $\alpha$ -2-antiplasmin complex.  
MW(Da) : 88 000  
Extinction coef. : 17

## Advantages

The lyophilized presentation allows greater stability until the expiration date.  
Pure protein > 95%.

## Characteristics

Reconstitute with 2 mL of water, aliquot and store at -70 ° C to avoid freezing and thawing cycles.



## ZYMOGENS

## Glu-plasminogen

## Human glu-plasminogen variant I (carbohydrate)



## Associated products

Bovin glu-plasminogen (lyophilized)

Human glu-plasminogen (frozen)

Human glu-plasminogen (lyophilized)

## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Plasminogen (88 kDa) is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA. The 2 carbohydrate variants of glu-plasminogen (CHOI and CHOII) are isolated by a gradient elution on sepharose-lysine using a lysine analogue (aminocaproic acid).

Reference	Presentation	Format
9-HCPG-0131	Vial	1 mg

**Structure : single chain with 24 intrachain disulfide bonds, 5 kringle regions.**

MW(Da) : 88 000  
 Extinction coef. : 17  
 Isoelectric point : 6.2

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.



## ZYMOGENS

## Glu-plasminogen

Human glu-plasminogen variant II  
(carbohydrate)

## Associated products

Bovin glu-plasminogen (lyophilized)

Human glu-plasminogen (frozen)

Human glu-plasminogen (lyophilized)

## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Plasminogen (88 kDa) is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA. The 2 carbohydrate variants of glu-plasminogen (CHOI and CHOI) are isolated by a gradient elution on sepharose-lysine using a lysine analogue (aminocaproic acid).

Reference	Presentation	Format
9-HCPG-0132	Vial	1 mg

MW(Da) : 88 000

Extinction coef. : 17

Isoelectric point : 6.2

Structure : single chain with 24 intrachain disulfide bonds, 5 kringle regions.

## Characteristics

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## ZYMOGENS

## Lys-plasminogen

## Human lys-plasminogen (frozen)



## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Plasminogen (88 kDa) is the zymogen of plasmin, a key enzyme in the fibrinolysis system. Plasminogen is synthesized mainly by the liver but also the eosinophils, the kidney and the cornea. It exists in 2 molecular forms: glu-plasminogen (native form) and lys-plasminogen (more active form). The main pathways for activating plasminogen to plasmin involve t-PA and u-PA. The 2 carbohydrate variants of glu-plasminogen (CHOI and CHOII) are isolated by a gradient elution on sepharose-lysine using a lysine analogue (aminocaproic acid).

Reference	Presentation	Format
9-HCPG-0133	Vial	1 mg

**Structure : single chain with 24 intrachain disulfide bridges, 5 kringle regions.**

MW(Da) : 83 000  
 Extinction coef. : 17  
 Isoelectric point : 6.7-8.3

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE.  
 No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.



## ZYMOGENS

## Prethrombin

## Human prethrombin-1



## Associated products

Human prethrombin-2

## Informations

A zymogen (or proenzyme) is an inactive enzyme precursor. A zymogen requires a biochemical change for it to become an active enzyme. A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Prothrombin-1 contains the uncleaved protease domain and the kringle 2 domain of prothrombin. Cleavage takes place in vitro.

Reference	Presentation	Format
9-HCP1-0011	Vial	1 mg

MW(Da) : 49 900  
Extinction coef. : 17.8

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.



## ZYMOGENS

## Prethrombin

## Human prethrombin-2



## Associated products

Human prethrombin-1

## Informations

A zymogen (or proenzyme) is an inactive enzyme precursor. A zymogen requires a biochemical change for it to become an active enzyme. A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Prothrombin -2 contains only the protease domain of prothrombin. The cleavage at position Arg 271 and Thr 272 of meizothrombin forms prethrombin 2 and fragment 1 + 2.

Reference	Presentation	Format
9-HCP2-0011	Vial	1 mg

MW(Da) : 37 580  
Extinction coef. : 18.3

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.



## ZYMOGENS

## Protein C

## Bovine protein C



## Associated products

Human protein C

## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Protein C (PC) is a vitamin K dependent plasma protein that regulates coagulation by inhibiting FVa and FVIIIa and helps limit the extension of the thrombus. Numerous clinical studies have shown that a PC deficiency (acquired or congenital) is a risk factor for venous thrombosis. PC is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. PC circulates in plasma in an inactive form at a concentration of approximately 4 µg / ml. Thrombin bound to thrombomodulin loses its procoagulant properties and activates PC into activated PC. The PCa in the presence of its cofactor, protein S, of calcium and phospholipids, is able to inactivate the FVa and FVIIIa, true catalysts of coagulation, thus blocking the amplification loop of the generation of thrombin and limiting the extension of the thrombus.

Reference	Presentation	Format
9-BCPC-1070	Vial	100 µg
9-BCPC-1070-1	Vial	1 mg

**Structure : 1 heavy chain of 41 kDa and 1 light chain of 21 kDa linked by disulfide bridges.**

MW(Da) : 58 000

Extinction coef. : 13.7

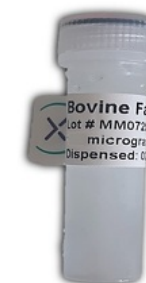
Isoelectric point : 4.2-4.5

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.



## ZYMOGENS

## Protein C

## Human protein C



## Associated products

Bovine protein C

## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Protein C (PC) is a vitamin K dependent plasma protein that regulates coagulation by inhibiting FVa and FVIIIa and helps limit the extension of the thrombus. Numerous clinical studies have shown that a Protein C deficiency (acquired or congenital) is a risk factor for venous thrombosis.

Protein C is a 62 kDa glycoprotein, synthesized by the liver in the presence of vitamin K. Protein C circulates in plasma in an inactive form at a concentration of approximately 4 µg / ml. Thrombin bound to thrombomodulin loses its procoagulant properties and activates Protein C into activated Protein C.

The PCa in the presence of its cofactor, protein S, of calcium and phospholipids, is able to inactivate the FVa and FVIIIa, true catalysts of coagulation, thus blocking the amplification loop of the generation of thrombin and limiting the extension of the thrombus.

Reference	Presentation	Format
9-HCPC-0070	Vial	100 µg
9-HCPC-0070-1	Vial	1 mg

## Human protein C

Origin : Human Blood / Plasma

Structure : 1 heavy chain of 41 kDa and 1 light chain of 21 kDa linked by disulfide bridges.

Molecular weight (Da) : 62 000

Extinction coef. : 14.5

Specific activity : &lt; 1 % HCAPC activity, Determinated by chromogenic assay.

Isoelectric point : 4.4-4.8

Buffer formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)

## Advantages

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## ZYMOGENS

## Prekallikrein

## Human prekallikrein



## Informations

Prekallikrein (PK), also known as Fletcher factor, is a serine protease that complexes with high molecular-weight kininogen.

Prekallikrein is the zymogen form of plasma kallikrein, which is a serine protease that activates kinins. It is cleaved to produce kallikrein by activated FXII (Hageman factor).

Reference	Presentation	Format
26-ADG472	Vial	1 mg

Sodium acetate, 0.15 M sodium chloride, pH 5.3.

MW(Da) : 86 000

Extinction coef. : 11.7

Purity > 95%

## Components

1 vial containing 1.0 mg of lyophilized 4 mM protein

## Characteristics

The protein is > 95% pure according to SDS-PAGE gels and shows no reduction when incubated with 2-mercaptoethanol.

We recommend that you reconstitute the vial in the original volume with filtered deionized water. All proteins are accompanied by certificates of analysis which describe the appropriate storage conditions.

In order for us to guarantee the stability of the product, it is imperative that the storage conditions are observed.

Avoid freezing and thawing cycles.



## ZYMOGENS

## Prothrombin

## Bovine prothrombin



## Associated products

Human prothrombin

Mouse prothrombin

Human prothrombin fragment 1

## Informations

A zymogen (or proenzyme) is an inactive enzyme precursor. A zymogen requires a biochemical change for it to become an active enzyme. A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Factor II (FII) or prothrombin is a glycoprotein synthesized by the liver, zymogen of a serine protease. It is a vitamin K-dependent clotting factor. Its half-life is 50 to 120 hours. FII is activated by the prothrombinase thrombin complex which plays a central role in the coagulation process. It will transform fibrinogen into fibrin, amplify its own formation and activate the protein C, TAFI and platelet systems. There are constitutional deficits in FII which are very rare and acquired deficits which can be observed during antivitamin K treatment or deficiency in vitamin K, CIVD, anti-FII autoantibodies.

Reference	Presentation	Format
9-BCP-1010	Vial	2 mg
9-BCP-1010-1	Vial	1 mg

**Structure : 1 N-terminal Gla domain, 2 kringle domains and a protease domain.**

MW(Da) : 72 000

Extinction coef. : 14.4

Isoelectric point : 4.4-4.9

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE.  
No additive or preservative.  
Expiration date of one year from delivery.  
Delivery in large quantities.  
Discount according the quantities.

## Characteristics

All proteins are accompanied by product information sheets which describe proper storage conditions. In order that we may warrant product stability, it is imperative that these storage conditions be maintained at all times. Many of our protein preparations are formulated in 50 % (vol / vol) glycerol/H<sub>2</sub>O which will remain in fluid phase during storage at -20° C. This preferred method of storage yields the greatest protein stability while still allowing access to the stock protein sample without repeated thawing and freezing steps. All products which are formulated with either glycerol/H<sub>2</sub>O or aqueous buffer are delivered in microcentrifuge tubes. By briefly centrifuging the samples in their original containers, complete recovery of the sample at the bottom of the tube will be accomplished. Temperatures lower than -30° C should be avoided in order to prevent a phase transition. When preparing to make a dilution of the stock sample, remove the sample from storage at -20° C and place on ice for a brief period of time (5-10 min). The sample will become less viscous and thus easier to pipette. Never allow protein solutions to remain at room temperature for excessive periods of time. Elevated temperatures may enhance the rate of protein degradation. Avoid storing or maintaining dilute protein samples for a long period of time. In general, purified proteins are inherently more stable in concentrated form. Many proteins are «sticky» by nature. To avoid losing protein due to adsorption, extremely dilute protein samples should be prepared in buffers containing excipients such as bovine serum albumin, polyethylene glycol, or gelatin.



## ZYMOGENS

## Prothrombin

## Human prothrombin



## Associated products

Bovine prothrombin

Mouse prothrombin

Human prothrombin fragment 1

## Informations

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Reference	Presentation	Format
9-HCP-0010	Vial	2 mg
9-HCP-0010-1	Vial	1 mg

**Structure : 1 N-terminal Gla domain, 2 kringles domains and a protease domain.**

**Origin : Human Blood / Plasma**

**Formulation : 50 % Glycerol / H<sub>2</sub>O (v/v)**

MW(Da) : 72 000

Extinction coef. : 13.8

Isoelectric point : 4.7-4.9

## Advantages

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## ZYMOGENS

## Prothrombin

## Human prothrombin fragment 1



## Associated products

Bovine prothrombin  
Human prothrombin  
Mouse prothrombin

## Reference

9-HCP1-0010

## Presentation

Vial

## Format

1 mg

MW(Da) : 21 700  
Extinction coef. : 11.9



## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Fragment 1 of prothrombin corresponds to the N-terminal Gla domain as well as to the kringle -1 domain.

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

## Characteristics

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## ZYMOGENS

## Prothrombin

## Human prothrombin fragment 1 – 2



## Associated products

Bovine prothrombin  
Human prothrombin  
Mouse prothrombin

## Reference

9-HCP12-0010

## Presentation

Vial

## Format

1 mg

MW(Da) : 34 566  
Extinction coef. : 10.8



## Informations

A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. The 1 - 2 fragment of prothrombin corresponds to the N-terminal Gla domain as well as to the kringle -1 and kringle -2 domains.

## Advantages

The vast majority of zymogens is pure (without additives) with > 95 % purity SDS-PAGE. No additive or preservative.

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## ZYMOGENS

## Prothrombin

## Human prothrombin fragment 2



## Associated products

Bovine prothrombin  
Human prothrombin  
Mouse prothrombin

## Reference

9-HCP2-0010

## Presentation

Vial

## Format

1 mg

MW(Da) : 12 866

Extinction coef. : 12.5



## Informations

A zymogen (or proenzyme) is an inactive enzyme precursor. A zymogen requires a biochemical change for it to become an active enzyme. A proenzyme or zymogen is a protein precursor of an enzyme which can give, after activation, an active enzyme. Prothrombin -2 contains only the protease domain of prothrombin. The cleavage at position Arg 271 and Thr 272 of meizothrombin forms prothrombin 2 and fragment 1 + 2.

## Advantages

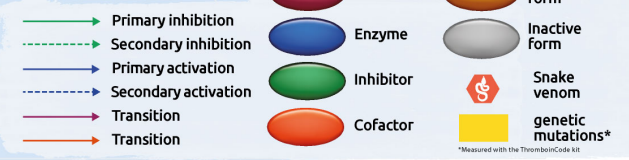
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# THE COAGULATION CASCADE

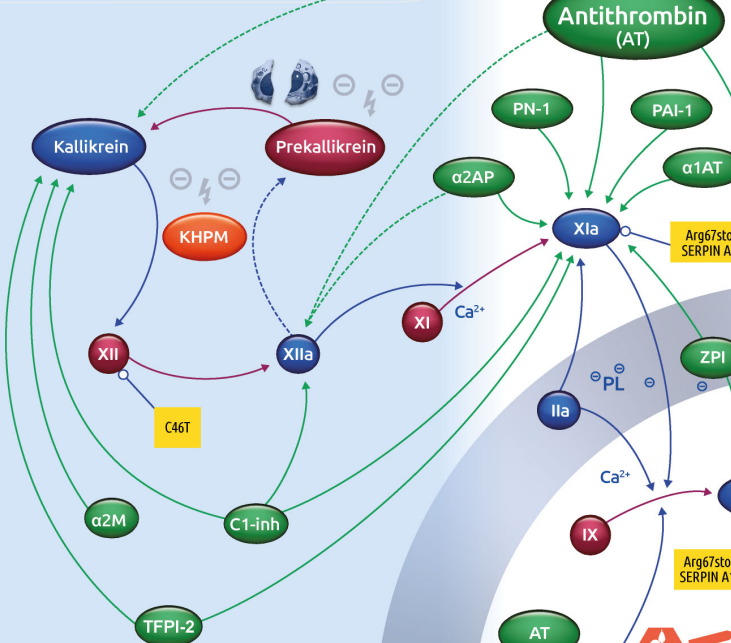
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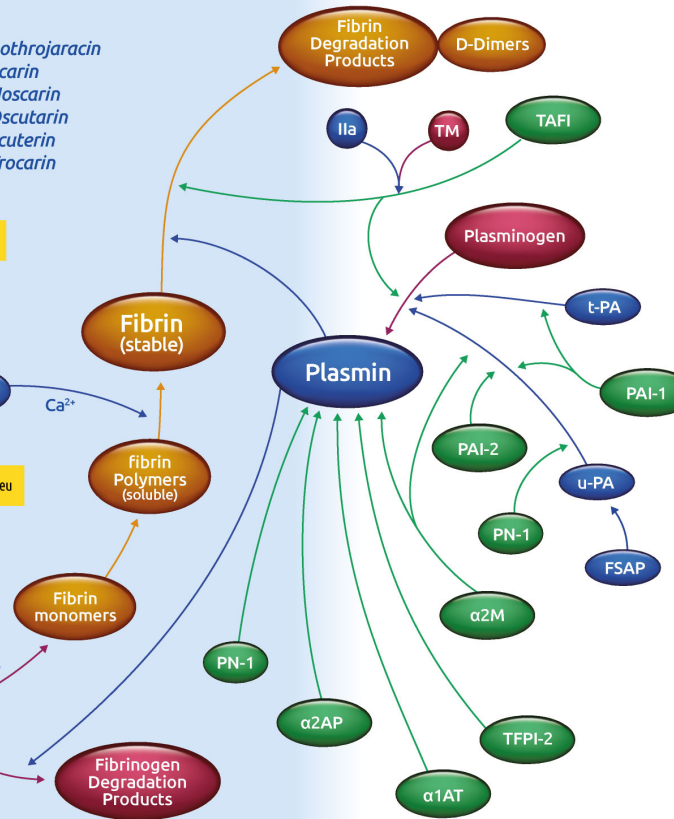
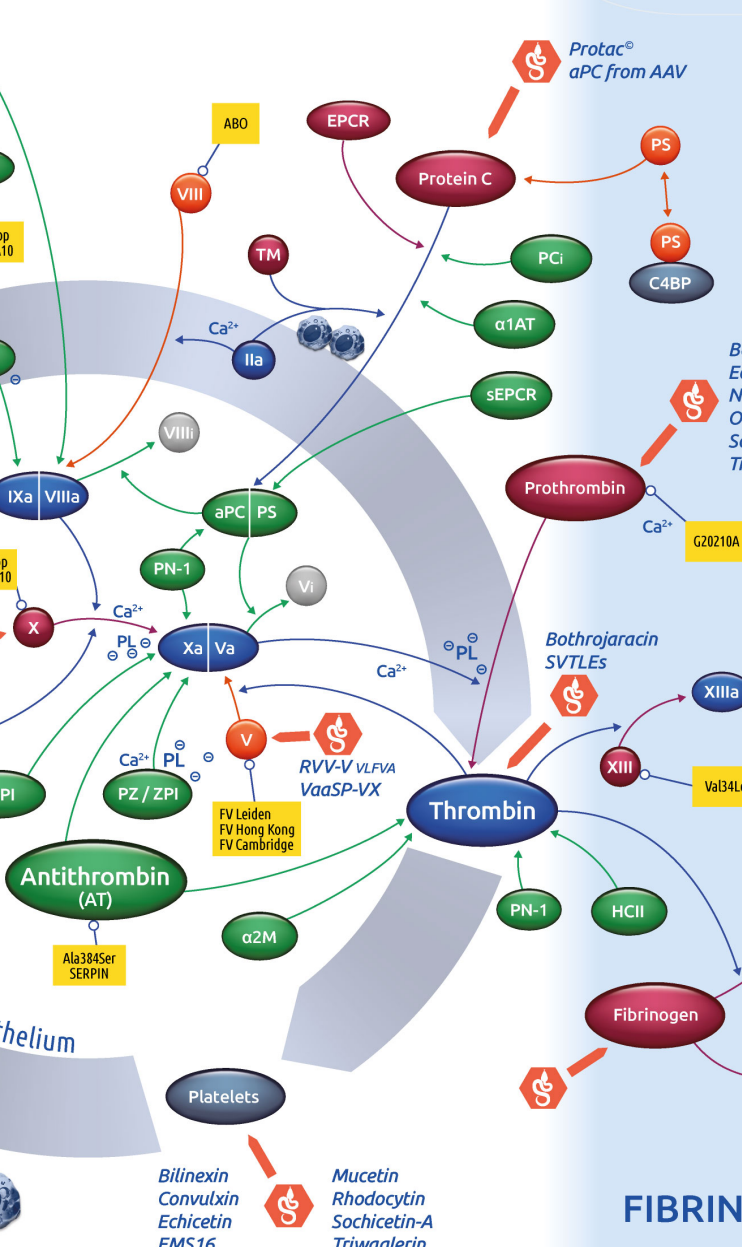
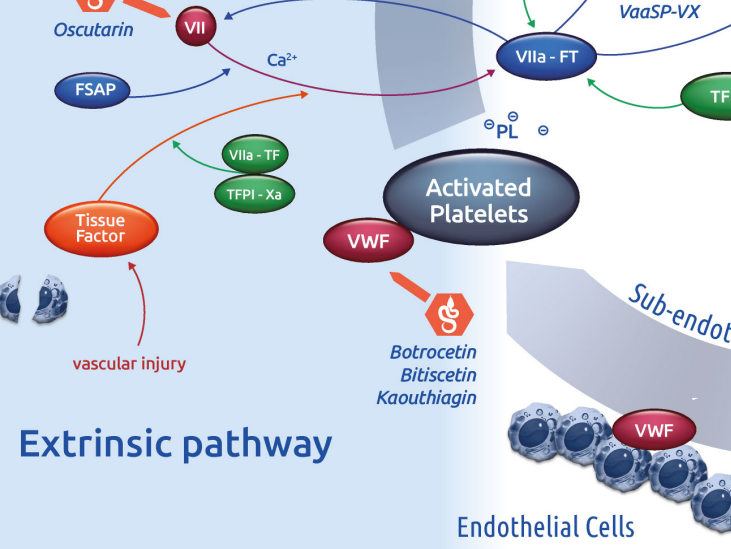
## Glossary

- a1AT : Alpha-1 Antitrypsin
- a2AP : Alpha-2 AntiPlasmin
- a2M : Alpha-2 Macroglobulin
- C1-inh : C1 inhibitor
- C4BP : C4 Binding Protein
- EPCR : Endothelial Protein C Receptor
- FSAP : Factor VII activating Protease
- TF : Tissue Factor
- HCII : Heparin Cofactor II
- HMWK : High Molecular Weight Kininogen
- PAI : Plasminogen Activator Inhibitor
- PC/PCI : Protein C / PC inhibitor
- PL : Phospholipids
- PN-1 : Protease Nexin-1
- Protac<sup>®</sup> : Agkistrodon contortrix venom
- PS : Protein S
- PZ : Protein Z
- sEPCR : soluble Endothelial Protein C Receptor
- SVTLEs : Snake Venom Thrombin Like Enzymes
- TAFI : Thrombin Activatable Fibrinolysis Inhibitor
- TFPI : Tissue Factor Pathway Inhibitor
- TM : Thrombomodulin
- t-PA : Tissue-type Plasminogen Activator
- u-PA : Urokinase Plasminogen Activator
- VaaSP : Venom activating activity Serin Protease
- VWF : Von Willebrand Factor
- ZPI : Protein Z Inhibitor

## Intrinsic pathway



## Extrinsic pathway



## ACTIVATION

## AMPLIFICATION

## FIBRINO-FORMATION

## FIBRINOLYSIS

# ALPHABETICAL INDEX

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Human plasma deficient in alpha-2-antiplasmin (acquired)	157	Mouse monoclonal antibody anti-human PAI-1, 5PAI, (IgG1)	323	Plasma with high level of fibrinogen: 4.5 - 10 g/L	220
Human plasmin	207	Mouse monoclonal antibody anti-human plasminogen, 1PG, IgG1	334	Plasma with low level of fibrinogen: 1 - 1.5 g/L	218
Human Plasminogen congenital deficient plasma	143	Mouse monoclonal antibody anti-human plasminogen, 2PG, IgG1	335	Plasma with normal level of fibrinogen: 1.5 - 4.5 g/L	219
Human platelet Factor-4	371	Mouse monoclonal antibody anti-human plasminogen, 4PG, IgG1	336	Plasma with oral anticoagulant – INR 3.00–3.99	244
Human prekallikrein	474	Mouse monoclonal antibody anti-human plasminogen, 7PG, IgG1	337	Plasma with oral anticoagulant plasma - INR ≥ 4.00	245
Human Prekallikrein congenital Deficient Plasma	168	Mouse monoclonal antibody anti-human protein C, IgG1	344	Plasma with oral anticoagulant plasma – INR < 2.00	242
Human prothrombin-1	470	Mouse monoclonal antibody anti-human protein C, IgG2b	345	Plasma with oral anticoagulant plasma – INR 2.00-2.99	243
Human prothrombin-2	471	Mouse monoclonal antibody anti-human protein S, IgG1	351	Plasma with ultra high level of fibrinogen: >10 g/L	221
Human protein C	473	Mouse monoclonal antibody anti-human protein S, IgG2b	352	Plasma with ultra low level of fibrinogen: <1 g/L	217
Human Protein C congenital deficient plasma	144	Mouse monoclonal antibody anti-human prothrombin, IgG2a	312	Plasminogen human deficient plasma (acquired)	153
Human protein S	93	Mouse monoclonal antibody anti-human TAFI activated, IgG1	314	Plasminogen Immunodepleted Deficient Human Plasma	120
Human protein Z	259	Mouse monoclonal antibody anti-human TAFI purified, IgG1	315	pNAPEP-0216	54
Human prothrombin	476	Mouse monoclonal antibody anti-human TAFI, IgG2b	316	pNAPEP-0238	52
Human prothrombin fragment 1	477	Mouse monoclonal antibody anti-human thrombin, IgG1	280	pNAPEP-0779	57
Human prothrombin fragment 1 – 2	478	Mouse monoclonal antibody anti-human u-PA, 4UK, IgG1	328	pNAPEP-0968	59
Human prothrombin fragment 2	479	Mouse monoclonal antibody anti-protein C inhibitor, 4PCI, (IgG1)	325	pNAPEP-1022	60
Human β thrombin	185	Mouse monoclonal antibody anti-scu-PA, 14scu-PA, IgG1	309	pNAPEP-1025	61
Human β-2-glycoprotein I (B2GI)	368	Mouse monoclonal antibody anti-scu-PA, 1scu-PA, IgG1	308	pNAPEP-1032	62
Human β-Factor Xa	202	Mouse monoclonal antibody anti-scu-PA, 35scu-PA, IgG1	310	pNAPEP-1065	63
Human β-thromboglobulin	369	Mouse monoclonal antibody anti-scu-PA, PUK	311	pNAPEP-1266	69
Human TAFI	261	Mouse monoclonal antibody anti-t-PA (epitope kringle 2 domain) 7VPA, (IgG3)	330	pNAPEP-1344	78
Human thrombospondin	364	Mouse monoclonal antibody anti-t-PA (epitope on the light chain) 2VPa, (IgM)	332	pNAPEP-1566	75
Human vitronectin	366	Mouse monoclonal antibody anti-t-PA, (IgG1)	331	pNAPEP-1588	79
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# TERMS AND CONDITIONS

## 1. APPLICABLE RIGHT

The customer recognizes and agrees that these Terms and Conditions (below "Terms") govern all relations with the company CRYOPEP and they supersede the terms of any purchase by the customer. Any additions, modifications or deletions made to these Terms and Conditions of Sale shall be null and void unless approved in writing by CRYOPEP. The failure or delay of CRYOPEP to enforce any of these Terms and Conditions of Sale shall not be deemed to be a waiver by CRYOPEP of any such terms. The parts shall designate by common agreement the French law as the only law applicable to contractual relations between CRYOPEP and his customer, and that the exclusion-specific provisions of the Vienna Convention.

## 2. JURISDICTION

It is made of jurisdiction to the courts of Montpellier, which have exclusive jurisdiction, regardless of the nature, cause and location of the dispute and which may be the special conditions of sale, even in the case of appeal or multiple defendants. Our deliveries, our belongings, our acceptances regulations do not constitute either novation or derogation from the jurisdiction clause.

## 3. ORDER

The order is final only if the order is received in the form of a letter, fax, email or through a recognized CRYOPEP website online ordering system and has references to the designation of products ordered, of quantity, price, and the identification of the customer's signature and only after acceptance of such order by CRYOPEP.

## 4. DELIVERY TIME

The delivery time is at least 24 to 72 hours and in any event, time that could be communicated to the customer by CRYOPEP are given only for illustrative purposes and do not constitute a commitment on CRYOPEP. They begin to run until all specifications are finalized by mutual agreement and that any payments have been paid by the customer CRYOPEP. CRYOPEP will not be obliged to pay any compensation or damages whatsoever for any delay in delivery due to the carrier or other third parties, and in cases of force majeure, in particular in case of strikes, social unrest, adverse weather conditions, etc.

## 5. DELIVERIES – SHIPMENTS

For France and Benelux: shipments are carriage paid when the net amount of the order exceeds one thousand two hundred EUR (€ 1,200). For orders of less than one thousand two hundred EUR (€ 1,200) excluding VAT, transport costs of forty EUR (€ 40) will be applied. Transport costs are increased by an additional forty EUR (40 €) if the products are shipped frozen.

For all other countries: shipping costs will be calculated based on the actual shipping costs with insurance. Transport costs are increased by an additional forty EUR (40 €) if the products are shipped frozen.

No product returns are accepted by CRYOPEP without prior written authorization.

## 6. PRICE AND BILL

The price of the products ordered is the one in force at the date of the order for the calendar year, or if the date of delivery thereof to the customer's request, is subsequent to the date of entry into force of the new rate.

## 7. PAYMENT

Invoices are payable upon receipt unless prior written agreement CRYOPEP. Payment is made at the address overleaf and failing that, to our headquarters. The financial cost of any delay in payment or deferment is charged by right, without the need of a formal notice at the rate of one and a half times the legal rate of interest. This interest is due from the first day of delay.

Effective 1 January 2013, a new fixed penalty will be due the creditor right, without the need of a formal notice to any payment made after the due date. Decree 2012-1115 of October 2, 2012 fixed this late penalty to forty EUR (€ 40). However, if the recovery costs incurred would be higher, CRYOPEP may, upon justification, claim a lump sum later.

## 8. GUARANTEE

Our products are guaranteed for one year from the date of delivery, unless otherwise stated, against any manufacturing defect or malfunction of the product with the exception of any incident due to normal wear and tear, due to handling or not in accordance with requirements contained in the documents and manuals delivered with the product or, more generally, for any abnormal operation or handling. The warranty covers the exchange of defective parts by CRYOPEP. This warranty does not cover glass parts. It does not include either the consequences of a possible detention of personnel or equipment or any other direct or indirect consequence of the failure of all or part of the products. This warranty begins on the date of delivery of the products. The interventions by CRYOPEP under this warranty do not have the effect of extending. CRYOPEP's responsibility is expressly limited to the warranty specified above and can in no way be held liable due to accidents to persons and things. CRYOPEP is not responsible for damage to customer property used for business purposes. In no event shall the responsibility of CRYOPEP exceed the price paid by the customer for the products concerned. The guarantee is removed and CRYOPEP is relieved of all responsibility when the product has been altered or modified, where the damage is due to negligence, improper storage, improper use, failure to follow instructions contained in the direction insert or if the customer does not meet its contractual payment obligations.

## 9. RETENTION OF TITLE

It is expressly agreed that CRYOPEP retains ownership of the goods to the order, until full payment of the price in principal and interest, the delivery of effects or other instrument creating an obligation to pay does not constitute a payment. CRYOPEP reserves the right to either initiate litigation as defined in paragraph 10 is to solve right sale 15 days after notice by registered letter with acknowledgment of receipt unsuccessful. In this case the customer must return the products purchased CRYOPEP.

In case of bankruptcy of the customer, products of the order may be asserted under the provisions of the Commercial Code. Products designated above remain the property of CRYOPEP until full payment of the price, it is expressly forbidden to the customer pledge or otherwise dispose of, to sell or transform. In case of seizure by third parties on these products, the customer is obliged to immediately inform CRYOPEP.

## 10. COMPLAINTS

Any complaints should be addressed to CRYOPEP within 2 days from the date of actual receipt. In case of default of payment of any invoice resulting from the use CRYOPEP litigation, it is applied as damages, an amount equivalent to 20% of the unpaid, in addition to legal fees and financial charges defined paragraph 7. In the event of a dispute concerning the interpretation of these Terms, the French version of the said Conditions shall be considered.



# Cryopep

Cryogenics at the service of haemostasis



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