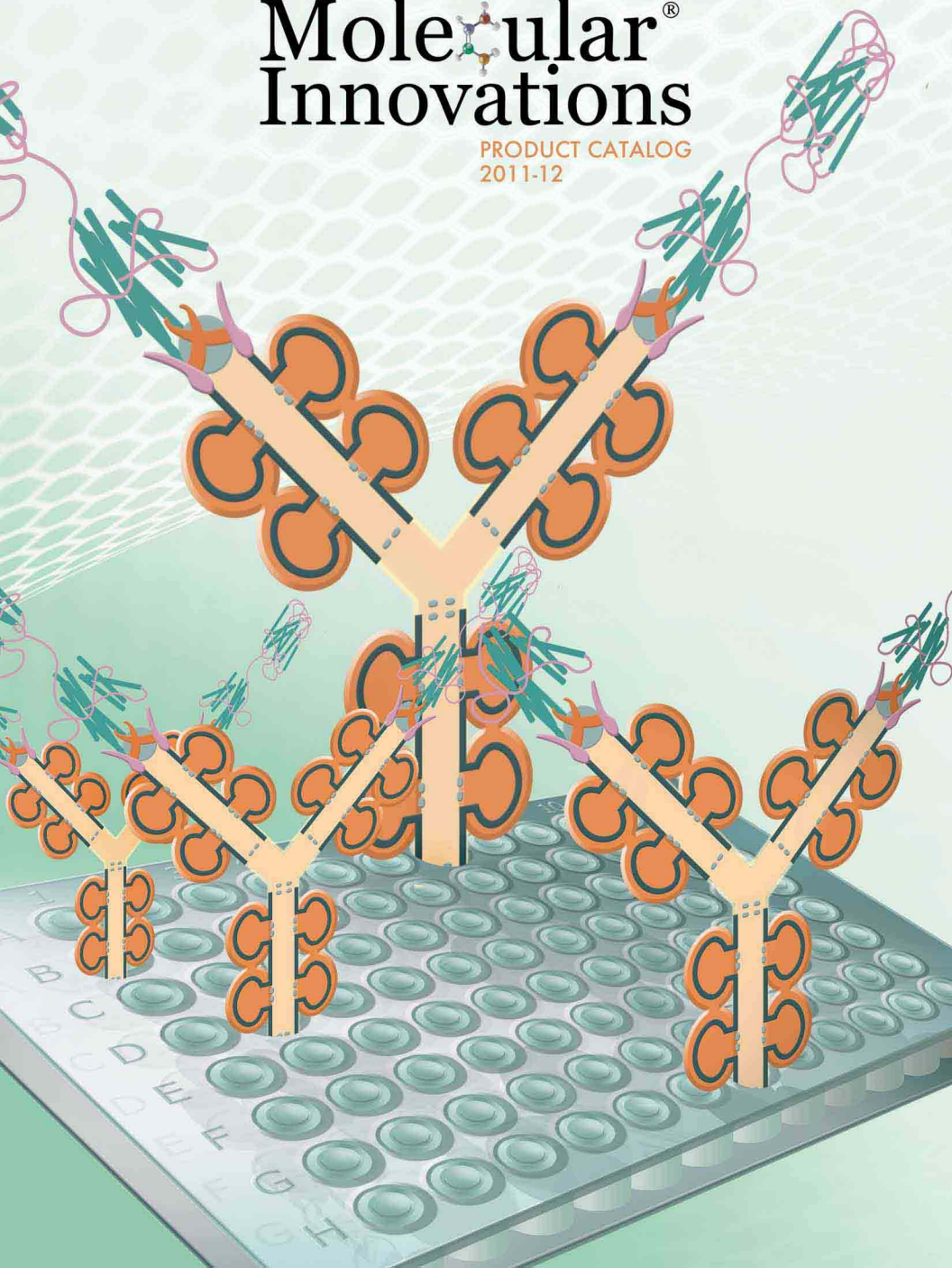


# Molecular<sup>®</sup> Innovations

PRODUCT CATALOG  
2011-12





# WELCOME TO MOLECULAR INNOVATIONS

## Catalog Puzzle Challenge!!! - Receive a Free T-Shirt and Win Prizes

There are 51 symbols scattered throughout this catalog starting on page 10. Find them all and crack the code to answer the following question:

### What does Molecular Innovations provide to our customers?

Clues and an entry form are on our website. Every respondent will receive a free T-shirt. Correct answers are entered into an annual drawing for fantastic prizes like an Apple iPad!

### New Products

Please check our website for new products and current pricing. We will also send you updates to add to the end of this catalog.

### Bulk Discounts

We offer bulk discounts for large orders. Please feel free to contact us for a price quote on quantities greater than listed in this catalog.

### Custom Projects

Monoclonal antibody development at our full service facility includes immunization, fusion, screening, sub-cloning, isotyping, cell culture expression and purification. Molecular Innovations offers custom protein expression in *E. coli*, *Drosophilla*, Human Embryonic Kidney and Chinese Hamster Ovary cell expression systems. Our laboratory can manage all aspects of your project from molecular biology to expression to purification. Please contact us about custom protein purification from plasma or serum of any species. Most proteins and antibodies in our catalog can be labeled with biotin, FITC, or any other commercially available dye. Many products are available lyophilized upon request. We can analyze your biological samples using our ELISA kits or develop custom assays.

### Antibody Applications

Each laboratory should determine an optimum working dilution for use in its particular application. Applications other than those listed have not yet been tested but usefulness should not necessarily be excluded. The following abbreviations are used in product descriptions:

ELISA	Detection of antigen coated directly on plate or captured in a sandwich ELISA
Capture	Coat on plates to capture antigen in biological samples
WB	Western blotting
Blocking	Prevents binding of antigen to target or receptor
Neutralizing	Inhibits the activity of antigen when bound
AP	Affinity purification when immobilized to chromatography resin
EM	Electron microscopy
FC	Flow cytometry
ICC	Immunocytochemistry
IEP	Immunoelectrophoresis
IF	Immunofluorescence
IHC	Immunohistochemistry of frozen, paraffin embedded or PFA fixed sections
IP	Immunoprecipitation
RIA	Radioimmunoassay



## GENERAL INFORMATION

### **Product Use**

All Molecular Innovations Inc. products are clearly labeled “For In Vitro Research Use Only”. To comply with U.S. Food and Drug Administration (FDA) Regulations, these products are not for use in Clinical, Diagnostic or Therapeutic Procedures.

### **Human Plasma Products**

All human plasma and plasma proteins manufactured by Molecular Innovations are prepared from plasma, serum, whole blood and tissues found negative by FDA approved tests for HIV-1, HIV-2, Hepatitis B, Hepatitis C and Syphilis. Because no test method can provide total assurance of the absence of an infectious agent, please follow Universal Precautions when working with these materials.

### **Storage and Handling**

Store all protein, antibody and plasma samples as directed in the product description and included data sheet. Freeze proteins in a concentrated form and make dilutions immediately prior to use. Limit freeze/thaw cycles to minimize activity loss by storing in small aliquots.

### **Warranty**

Molecular Innovations guarantees that the performance of our products meets our stated claims at the time of shipment. Molecular Innovations shall not be liable for incidental, consequential, third party or special damages of any kind resulting from any use or failure of the products. The company's sole liability and buyers exclusive remedy for a breach of this warranty is limited to replacement or refund at the option of Molecular Innovations. This warranty applies to products in original containers and does not apply to a product that has been subjected to alteration. The buyer is responsible for any patent infringement resulting from use of our products.

### **Shipping**

Orders received by 2:00 PM EST will ship the same day if the product is in stock. Products are shipped to domestic locations by overnight carrier. Domestic orders are shipped on Monday through Thursday. International orders are shipped on Monday and Friday. International shipments are packed with enough dry ice or cold packs for a 4-day transit. All duties and taxes are the responsibility of the recipient. It is recommended to provide a Federal Express account number for international orders.

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## ORDERING INFORMATION

### Ordering Methods

#### Online

<http://www.mol-innov.com>

#### Email

[orders@mol-innov.com](mailto:orders@mol-innov.com)

#### Telephone

(888) 557-5055 or (248) 896-0142

#### Fax

(248) 896-0148

#### Mail

Molecular Innovations  
Attn: Customer Service  
46430 Peary Court  
Novi, MI 48377 USA

### When placing an order please include the following information

- Purchase Order number or Credit Card number. We accept Visa, American Express and MasterCard.
- Shipping and billing address.
- Federal Express account number for international shipments.
- Product catalog number and description.
- Product size and quantity.
- Contact name, phone number and email address.

### Pricing & Payment

Prices do not include shipping, handling, box charges, duties or taxes. All pricing is subject to change without notice. Molecular Innovations is not responsible for typographic errors. Payments are due within 30 days of the invoice date and should be directed to the address below. We accept payment by check, credit card or wire transfer of funds. All payments must be in United States Dollars. Overdue accounts are subject to a charge of 1.5% per month. The customer will be responsible for all fees and court costs incurred in the collection of past due accounts.

Molecular Innovations  
Attn: Accounts Payable  
46430 Peary Court  
Novi, MI 48377 USA



## INTERNATIONAL DISTRIBUTORS

### Africa

**BIOCOM Biotech** - [www.biocombiotech.co.za](http://www.biocombiotech.co.za) - South Africa  
P.O. Box 13004, Clubview 0014, South Africa

### Americas

**AllScience LLC** - [www.allscience.co](http://www.allscience.co) - Central and South America  
20533 Biscayne Blvd, Aventura, FL 33180, USA

**Cedarlane Laboratories Ltd** - [www.cedarlanelabs.com](http://www.cedarlanelabs.com) - Canada  
4410 Paletta Court, Burlington, Ontario L7L 5R2, Canada

**Diagnos Med SRL** - [www.diagnosmed.com](http://www.diagnosmed.com) - Argentina  
Conesa 859, 1426 Buenos Aires, Argentina

**Life Sciences** - [www.life-sciences.com.br](http://www.life-sciences.com.br) - Brazil  
1080 Rua Fabia, Lapa, 05051-030 Sao Paulo, Brazil

**Probiotek** - [www.probiotek.com](http://www.probiotek.com) - Mexico  
Xochitl 120 Col. Azteca, San Nicolas de los Garza, Nuevo Leon 66480, Mexico

### Europe

**Anadrasi Medical Equipment** - [www.anadrasi.gr](http://www.anadrasi.gr) - Greece  
Kimonos Voga 36 & Mavrokordatou 12, 54645 Thesaloniki, Greece

**Biotest Systems Ltd** - [www.biotst.net](http://www.biotst.net) - Russia, Ukraine  
2 Kurchatov sq., 123182 Moscow, Russia

**BioVendor Laboratorni Medicina AS** - [www.biovendor.cz](http://www.biovendor.cz) - Czech Republic  
Palackeho 56, 61200 Brno, Czech Republic

**Duotech SRL** - [www.duotech.it](http://www.duotech.it) - Italy  
Via F. Ferruccio 6, 20145 Milano, Italy

**Gentaur Molecular Products** - [www.gentaur.com](http://www.gentaur.com) - Belgium, France  
Avenue de l'Armee 68, 1040 Brussels, Belgium

**Kordia** - [www.kordia.nl](http://www.kordia.nl) - The Netherlands (Holland), France, Belgium  
P.O. Box 4018, 2301 RA Leiden, The Netherlands

**Labinova** - [www.labinova.se](http://www.labinova.se) - Sweden, Denmark, Finland, Norway  
Centralvägen 2-4, 19482 Upplands Väsby, Sweden

**LOXO GmbH** - [www.loxo.de](http://www.loxo.de) - Germany, Austria, France, Hungary, Italy, Poland,  
Portugal, Spain, Slovakia, Slovenia, Switzerland  
Gerhart-Hauptmann Street 48, 69221 Dossenheim, Germany

**Nordic Diagnostica Service AB** - [www.diaservice.se](http://www.diaservice.se) - Sweden, Denmark  
Kungsporten 4e, 42750 Billdal, Sweden

**Progen Biotechnik GmbH** - [www.progen.de](http://www.progen.de) - Germany  
Maass-Strasse 30, 69123 Heidelberg, Germany

**Stratech Scientific Ltd** - [www.stratech.co.uk](http://www.stratech.co.uk) - United Kingdom  
Unit 7 Acorn Business Centre, Oaks Drive, Newmarket Suffolk CB8 7SY, England



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**Angene Co Ltd** - [angene@ms1.hinet.net](mailto:angene@ms1.hinet.net) - Taiwan  
8F No. 189, Sec. 3, Nanking East Road, Taipei, Taiwan R.O.C.

**Beijing Biolead Biology Sci & Tech Co Ltd** - [www.biolead.com.cn](http://www.biolead.com.cn) - China  
Room 9B Yangming Plaza No. 10, Xiaoying Road, Chaoyang, Beijing 100101, China

**Beijing Shengkeboyan Bio-tech Co Ltd** - [www.fanbiotech.com](http://www.fanbiotech.com) - China  
Room C301-03 Building 3, Shangdi 3 Street, Haidian, Beijing 100085, China

**BioPCR Zhonghao Inc** - [www.biopcr.com](http://www.biopcr.com) - China  
Room 207 KaiCheng Bld 1, QingYuanXiLi, QingHe, Haidian, Beijing 100085, China

**Biovendor Laboratories Ltd** - [www.biovendor.com](http://www.biovendor.com) - China, Hong Kong  
Room 2405 YiYa Tower No. 150, Lihe Zhong Road, Guang Zhou, China  
Room 4008 Hong Kong Plaza No. 188, Connaught Road West, Hong Kong

**Cosmo Bio Co Ltd** - [www.cosmobio.co.jp](http://www.cosmobio.co.jp) - Japan  
Toyo Ekimae Bld, 2-2-20, Toyo Koto-ku, Tokyo 135-0016, Japan

**Union Biomed Inc** - [www.unionbiomed.com.tw](http://www.unionbiomed.com.tw) - Taiwan  
9F No. 202, Sec. 1, Hoping East Road, Taipei, Taiwan R.O.C.

**Woongbee MeDiTech Inc** - [www.woongbee.com](http://www.woongbee.com) - Korea  
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**Cliniresearch** - [www.immunoshop.com](http://www.immunoshop.com) - India  
309, Raheja Arcade, Sector 11, CBD, Mumbai 400614, India

**Krishgen Biosystems** - [www.krishgen.com](http://www.krishgen.com) - India  
135/37 Sonawala Bldg., 2nd floor, Zaveri Bazar, Mumbai 400002, India

**Manar Lab** - [www.manarlab.com](http://www.manarlab.com) - Egypt  
54 El Hakim Street, Victoria Square, Shoubra, Cairo, Egypt

**MD Biosciences Ltd** - [www.mdbiosciences.co.il](http://www.mdbiosciences.co.il) - Israel  
Medinat Hayehudim 103, Akerstein Building, Herzelia-Pituah 70400, Israel

**MedSanTek Ltd Co** - [www.medsantek.com.tr](http://www.medsantek.com.tr) - Turkey  
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20 Tuas Street, 638457 Singapore

**Biosyntech Sdn Bhd** - [www.bstmgroup.com](http://www.bstmgroup.com) - Malaysia, Brunei, Indonesia  
No. 12A, Jalan TP5, 47600 UEP Subang Jaya, Selangor Darul Ehsan, Malaysia

**Chemoscience Sdn Bhd** - [www.chemoscience.com](http://www.chemoscience.com) - Malaysia  
No. 22A, Jalan SS2/66, 47300 Petaling Jaya, Selangor Darul Ehsan, Malaysia

**Sapphire Bioscience** - [www.sapphirebioscience.com](http://www.sapphirebioscience.com) - Australia, New Zealand  
126 Cope Street, Waterloo NSW 2017, Australia

For a current list of distributors visit [www.mol-innov.com/index.php?page=distro](http://www.mol-innov.com/index.php?page=distro)  
Direct shipment is also available for many countries.



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## I. ANHYDROTRYP SIN

### ANHT

### Anhydrotrypsin

Treatment of trypsin with phenylmethylsulfonyl fluoride (PMSF) followed by a strong base leads to the conversion of Serine 195 to dehydroalanine at the active site (1). Alpha and beta forms of anhydrotrypsin are separated by immobilized soybean trypsin inhibitor. The activity of anhydrotrypsin is greatly reduced compared to native trypsin as quantified by chromogenic substrate (2). Anhydrotrypsin provided by our company is the single chain beta-form prepared from Type XIII bovine trypsin.

#### Scientific References

1. Ako, H. et al. (1972) *Biochem Biophys Res Commun.* 47:1402-1407.
2. Olson, S.T. et al. (1995) *J. Biol. Chem.* 270:30007-30017.

#### Selected Product Citations

1. Cale, J.M. et al. (2010) *J. Biol. Chem.* 285:7892-7902.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$340
1.0 mg	\$2,720

### ANHT-I

### Immobilized Anhydrotrypsin

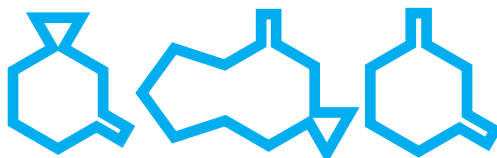
Immobilized anhydrotrypsin selectively adsorbs peptides with Arg, Lys or AECys (S-aminoethyl cysteine) residues at the C-terminus under weak acidic conditions (1). Strongly acidic conditions are used to elute the bound peptides. Peptides with these amino acids at the N-terminus or internally, as well as free amino acids are not bound. Serine protease inhibitors such as ecotin and PAI-1 may also be purified on this resin (2). May be used repeatedly.

#### Scientific References

1. Kumazaki, T. et al. (1987) *J. Biochem. (Tokyo)* 102:1539-1546.
2. Blouse, G. E. et al. (2003) *Biochemistry* 42:12260-12272.

Form: Resin • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 ml	\$565
10 ml	\$4,495





## II. ANTITHROMBIN

**MW:** 58 kDa

**Synthesis:** Liver

Antithrombin III (ATIII) is a single-chain glycoprotein which is considered to be the main physiological inhibitor of thrombin and Factor Xa. In the presence of heparin, the inhibition of thrombin and Factor Xa is enhanced 300 to 1,000 fold.

### Technical Information

Molecular Innovations antithrombin migrates as a single band on 10% SDS-PAGE and is fully complexible with thrombin. The protein is stable for greater than 3 years at -70°C and the extinction coefficient is 0.66 mg<sup>-1</sup> ml<sup>-1</sup>.

### HATIII Human Antithrombin III

Prepared from fresh human plasma using several chromatographic steps.

Selected Product Citations

1. Gardell, S.J. et al. (2007) Mol. Pharmacol. 72:897-906.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$155
10 mg	\$1,240

### MATIII Mouse Antithrombin III

Prepared from fresh mouse plasma using several chromatographic steps.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$440
10 mg	\$3,520

### RBATIII Rabbit Antithrombin III

Prepared from fresh rabbit plasma using several chromatographic steps.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$370
10 mg	\$2,960

### RATIII Rat Antithrombin III

Prepared from fresh rat plasma using several chromatographic steps.

Selected Product Citations

1. Huang, C.Y. et al. (2010) Surgical Innovation 17:132-135.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$370
10 mg	\$2,960



### III. APOLIPOPROTEINS

#### HAPO-A1 Apolipoprotein A1, Human Plasma, HDL

75% of Apo A in HDL is Apo AI. Levels of Apo AI are inversely related to the risk of coronary heart disease. Apo AI is also thought to activate LCAT (lecithin cholesterol acyl tranferase). In normal plasma, Apo AI levels range from 90-130 mg per 100 ml. >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$220
2.5 mg	\$440

#### HAPO-A2 Apolipoprotein A2, Human Plasma, HDL

25% of Apo A in HDL is Apo AII. Levels of Apo AII in normal plasma range from 30-50 mg per 100 ml. The physiological role of the protein is unknown. Alcohol consumption, however, increases Apo AII levels. >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$220
2.5 mg	\$440

#### HAPO-B Apolipoprotein B, Human Plasma, LDL

Apolipoprotein B is the dominant protein constituent of LDL. The concentration of Apo B in normal plasma is 90 mg per 100 ml. Apo B is thought to stabilize lipid emulsions, serve as a cofactor and modulator of enzymatic reactions, manage export of lipids out of cells and direct lipids to target organs. Apo B levels are positively correlated with the risk of coronary disease. Apo B levels may be a more sensitive predictor of cardiovascular risk than LDL levels and do not involve fasting for accurate measurement. Two forms of Apo B exist: Apo B-100 and Apo B-48. The first is found in VLDL and LDL and is produced by the liver. The second is found in chylomicrons and originates in the intestine. Prepared from fresh, non-frozen human plasma. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$220
2.5 mg	\$440



## HAPO-C1

## Apolipoprotein C1, Human Plasma, VLDL

Apolipoprotein C1 is one of the protein components of VLDL lipoprotein. The normal plasma concentration of Apo C1 is 4-7 mg per 100 ml. Elevated levels of Apo C1 may offer some protection from obesity and insulin-dependent diabetes. Some evidence exists that the Apo C1 H2 gene is positively associated with late-onset Alzheimer's disease. Prepared from fresh, non-frozen human plasma. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
0.2 mg	\$220
0.5 mg	\$440

## HAPO-C2

## Apolipoprotein C2, Human Plasma, VLDL

Apo CII activates lipoprotein lipase which then hydrolyzes VLDL triglyceride to form IDL (intermediate density lipoproteins). The concentration of Apo CII in normal plasma is 3-8 mg per 100 ml. Prepared from fresh, non-frozen human plasma. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$220
0.25 mg	\$440

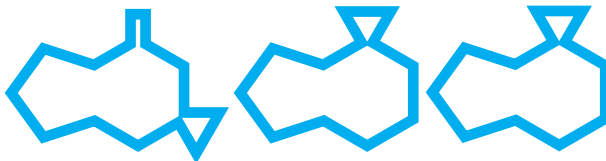
## HAPO-C3

## Apolipoprotein C3, Human Plasma, VLDL

Apo CIII inhibits the activation of lipoprotein lipase by Apo CII. Reduced levels of Apo CIII result in higher fatty acid uptake from plasma triglycerides into adipose tissue. Thus, Apo CIII is a potential target for treatment of obesity and insulin resistance. The normal plasma concentration of Apo CIII is 8-15 mg per 100 ml. Prepared from fresh, non-frozen human plasma. >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.2 mg	\$220
0.5 mg	\$440



## HAPO-E

## Apolipoprotein E, Human Plasma, VLDL

Apolipoprotein E serves as a ligand for low density receptors and participates in the transport and redistribution of cholesterol and other lipids. Other functions include immunoregulation and cell growth modulation and differentiation. Apo E is thought to be involved in tissue repair as increased amounts of the protein are found at sites of peripheral nerve injury and regeneration. A mutant form is associated with familial type III hyperlipoproteinemia. The concentration of Apo E in normal plasma is 5 mg per 100 ml. Prepared from fresh, non-frozen human plasma. >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.05 mg	\$220
0.1 mg	\$330

## HAPO-H

## Apolipoprotein H, Human Plasma

Apolipoprotein H, also known as beta2Glycoprotein-1 (B2GP-1) is a plasma glycoprotein that circulates at a concentration of 200 µg/mL (4mM). B2GP-1 has been identified as a constituent of chylomicrons, very low density lipoproteins and high density lipoproteins in Human plasma. It has also been demonstrated to bind phospholipids, heparin and platelets where it can modulate the activity of adenylate (19%). Although the precise function(s) are as yet unknown, B2GP-1 has been shown to interfere with blood coagulation by competitively binding to phospholipids exposed during cell activation or damage. Recent evidence also implicates B2GP-1 as a cofactor recognized by some anti-phospholipid antibodies present in autoimmune disorders such as systemic lupus erythematosus (SLE).

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$220
0.5 mg	\$995





## IV. BOVINE SERUM ALBUMIN (BSA)

### A. Monoclonal Antibodies to BSA

#### BSA12C8D4      Mouse Anti BSA

Monoclonal antibody (host mouse). IgG fraction purified by immobilized Protein A. Isotype IgG1Kappa. Clone 12C8D4.

Species reactivity: Cow • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$215
10 mg	\$1,720

#### BSA9E2C2      Mouse Anti BSA

Monoclonal antibody (host mouse). IgG fraction purified by immobilized Protein A. Isotype IgG1Kappa. Clone 9E2C2.

Species reactivity: Cow • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$215
10 mg	\$1,720

### B. Polyclonal Antibodies to BSA

#### ASBSA      Rabbit Anti BSA Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Human, Cow • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$215
10 ml	\$1,720

#### ASBSA-GF      Rabbit Anti BSA IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human, Cow • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$215
10 mg	\$1,720





## ASBSA-GF-BIO Rabbit Anti BSA IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human, Cow • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## ASBSA-GF-FITC Rabbit Anti BSA IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human, Cow • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## ASBSA-GF-HRP Rabbit Anti BSA IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human, Cow • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## ASBSA-GF-HT Rabbit Anti BSA, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized BSA.

Species reactivity: Human, Cow • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600



## V. CATHEPSINS

### A. Human Cathepsins

#### HCB Cathepsin B, Human Liver

Cathepsin B, a cysteine proteinase, is located in lysosomes and is involved in tissue degradation and restructuring. Specifically, cathepsin B is believed to be involved in the intracellular digestion of extracellular proteins taken up by endocytosis. Activity: greater than 200 units per mg protein. One unit is defined as the amount of enzyme that hydrolyzes one  $\mu$ mole of Z-R-R-B-naphthylamide per minute at 40°C, using 100 mM Na/K phosphate, pH 6.0, with 1.33 mM EDTA and 2 mM DTT as the activation buffer. Prepared from human liver tissue and >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.025 mg	\$220
0.1 mg	\$550

#### HCD Cathepsin D, Human Liver

Cathepsin D is an estrogen-regulated protein associated with tissue breakdown. Levels of cathepsin D have been positively correlated with recurring breast cancers of both node-negative and node-positive types. Additionally cathepsin D has been associated with amyloid formation in Alzheimer's plaques. As cathepsin D activity is increased by cigarette smoke, the enzyme may contribute to lung tissue damage in smokers. Activity:  $\geq$ 300 units per mg protein. One unit is defined as the amount of enzyme that digests hemoglobin-releasing peptides which are soluble in 10% TCA. The reaction is measured by an increase of an A 280 of 1.0 per 60 minutes at 37°C. Substrate: acid denatured hemoglobin, pH 1.8 (0.2% in reaction mixture). Buffer: 100 mM formate, pH 3.3. Prepared from human liver tissue and >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
0.025 mg	\$220
0.1 mg	\$550

#### HCG Human Cathepsin G

Cathepsin G is a serine protease purified from neutrophils that has multiple functions in the inflammatory process. Applications include substrate cleavage and inhibitor screening.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$260
1.0 mg	\$500

## HCH

## Cathepsin H, Human Liver

A more basic protein than Cathepsin B or L. Functions as both an aminopeptidase and endopeptidase. Cathepsin H, like cathepsin L and B, is involved in the catabolism of proteins in the lysosomal system. Activity: greater than 1 unit per mg protein. One unit is defined as the amount of enzyme that hydrolyzes one  $\mu$ mole of L-arginine-beta-naphthylamide per minute at 40°C using 75 mM potassium phosphate, pH 6.8, with 1 mM EDTA and 3 mM cysteine as the activation buffer. Prepared from human liver tissue and >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.025 mg	\$220
0.1 mg	\$660

## HCL

## Cathepsin L, Human Liver

The most powerful of the lysosomal proteases. It has a higher specific activity than cathepsin B and H in the degradation of a variety of physiological protein substrates. The level of cathepsin L is a strong predictor of relapse and survival following treatment of a primary breast tumor. Activity: Greater than 1 unit per mg of protein. One unit is defined as the amount of enzyme that hydrolyzes one micromole of Z-Phe-Arg-AFC per minute at 25°C using 400 mM Na Acetate, pH 5.5 with 4 mM EDTA and 8 mM DTT as the activation buffer in the presence of Brij. Prepared from human liver tissue and >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.025 mg	\$275
0.1 mg	\$715



## B. Polyclonal Antibodies to Human Cathepsins

### ASHCB-AS Rabbit Anti Human Cathepsin B, Standard Antisera

Polyclonal antibody (host rabbit). Gamma globulin purified by ammonium sulfate fractionation. Reacts to human liver cathepsin B and does not react with human liver cathepsin D, H and L.

Species reactivity: Human • Tested applications: ELISA, WB, IEP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$220
10 ml	\$2,090

### ASHCD-AS Rabbit Anti Human Cathepsin D, Standard Antisera

Polyclonal antibody (host rabbit). Gamma globulin purified by ammonium sulfate fractionation. Reacts to human liver cathepsin D and does not react with human liver cathepsin B, H and L.

Species reactivity: Human • Tested applications: ELISA, WB, IEP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$220
10 ml	\$2,090

### ASHCG-AS Rabbit Anti Human Cathepsin G, Standard Antisera

Polyclonal antibody (host rabbit). Gamma globulin purified by ammonium sulfate fractionation. Reacts to human neutrophil cathepsin G.

Species reactivity: Human • Tested applications: ELISA, WB, IEP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$220
10 ml	\$2,090

### ASHCH-AS Rabbit Anti Human Cathepsin H, Standard Antisera

Polyclonal antibody (host rabbit). Gamma globulin purified by ammonium sulfate fractionation. Reacts to human liver cathepsin H and does not react with human liver cathepsin B, D and L.

Species reactivity: Human • Tested applications: ELISA, WB, IEP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$220
10 ml	\$2,090



## VI. CHROMOGENIC SUBSTRATES

### D-VLK-pNA

### Chromogenic Substrate for Plasmin

The plasmin substrate provided by our company is chemically and functionally identical to Chromogenix S-2251. Each 25 mg of substrate is lyophilized with 60 mg mannitol as a bulking agent. Formula: H-D-Val-Leu-Lys-pNA • 2HCl

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
25 mg	\$225
100 mg	\$720





## VII. COAGULATION FACTOR PROTEINS AND KITS

### A. Human Coagulation Enzymes

#### HAPC Human Activated Protein C

Activated Protein C (APC) is a serine protease derived from the two chain vitamin K dependent zymogen Protein C. APC inhibits blood coagulation through the selective inactivation of the cofactors Va and VIIIa. APC is prepared from Protein C by activation with purified thrombin. This thrombin is removed after activation by ion exchange chromatography. Activated Protein C purity is determined by SDS-PAGE and shows complete reduction upon incubation with 2-mercaptoethanol.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$295
1.0 mg	\$1,190

#### HBT Human beta-Thrombin

Human beta-thrombin is prepared from purified a-thrombin by limited proteolysis with TPCK-treated trypsin. Beta-thrombin is generated by cleavage of the B-chain at the Arg106-Tyr107 bond. Purity is assessed by SDS-PAGE and activity is assessed using a fibrinogen clotting assay.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$550
2.0 mg	\$1,090

#### HFIXA Human Factor IXa-beta

Human Factor IXa is prepared from purified Human Factor IX by activation with Factor XIa. The Factor XIa is removed after activation. Complete activation is observed by SDS-PAGE. Factor XIa activates Factor IX in a two-step reaction. An internal Arg-Ala bond is cleaved in the first step and an Arg-Val bond is cleaved in the second step. The second cleavage leads to the liberation of an activation peptide from the NH<sub>2</sub>-terminal portion of the heavy chain to produce Factor IXa-beta. Cleavage of only the Arg-Val bond by Russell's Viper Venom generates Factor IXa-alpha which possesses about half the coagulant activity of Human Factor IXa-beta. Complete activation is observed by SDS-PAGE. This protein purity is determined by SDS-PAGE and shows total reduction upon incubation with 2-mercaptoethanol.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$395
2.5 mg	\$1,295



## HFIXA-FL

## Human Factor IXa, Active Site Fluorescein Labeled

Purified Human Factor IXa is active site labeled by incubation with Fluorescein-Phe-Phe-Arg-CMK (FL-INFFR). Excess dye is removed by dialysis.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$330
1.0 mg	\$2,750

## HFVA

## Human Factor Va

Factor Va is prepared by activating purified Factor V with thrombin and is subsequently purified by immunoaffinity chromatography. This process results in cofactor preparations which are free of both activation peptides and thrombin. Purity is determined by SDS-PAGE analysis and activity is measured in a Factor Va clotting assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 6 months from delivery

Size	Price
0.05 mg	\$345
0.25 mg	\$1,340

## HFVIIA

## Human Factor VIIa

Prepared from purified Human Factor VII using Human Factor XIIa. The Factor XIIa is removed using affinity chromatography. Purity is determined by SDS-PAGE. Human Factor VIIa reduces to 29,500 and 23,500 with the addition of 2-mercaptoethanol. Activity is determined via clotting assay. Factor VIIa, in the presence of calcium ions and Tissue Factor, activates Factors IX and X to their enzymatically active forms, Factor IXa and Xa.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$295
1.0 mg	\$1,995

## HFXA

## Human Factor Xa

Factor Xa is prepared by activating purified Factor X with the Factor X activator isolated from Russell's viper venom. Cleavage occurs at the Arg51-Ile52 bond and releases an activation peptide. Factor Xa is purified from the activation mixture by chromatography over immobilized benzamidine. Purity is determined by SDS-PAGE analysis and activity is measured in a Factor Xa clotting assay and/or chromogenic substrate assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.5 mg	\$345
1.0 mg	\$615



## HFXA-B

## Human Factor Xa-beta

Factor Xa-beta is prepared by autoprolysis of purified Factor Xa in the presence of calcium and phospholipid followed by chromatography over immobilized benzamidine. Cleavage occurs at the Arg290-Gly291 peptide bond. Purity is determined by SDS-PAGE analysis and activity is measured in a Factor Xa clotting assay and/or chromogenic substrate assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.5 mg	\$395
1.0 mg	\$770

## HFXIA

## Human Factor XIa

Human Factor XIa is prepared from Human Factor XI using Human Factor XIIa. Factor XIIa is removed using a corn trypsin inhibitor column. Factor XI is activated to Factor XIa by Factor XIIa and High Molecular Weight Kininogen in the contact pathway of the coagulation cascade. FXI undergoes proteolytic cleavage in which the 80,000 chain reportedly is cleaved to a heavy and light chain with molecular weights of about 48,000 and 33,000. Factor XIa is responsible for the activation of Factor IX to Factor IXa. Unlike other examples of activation of Vitamin K-dependent blood-clotting proteins, Factor XIa proteolysis of Factor IX does not require membrane surfaces. Complete activation and >95% purity is observed by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$245
1.0 mg	\$1,495

## HFXIIA

## Human Factor XIIa

Human Factor alpha-XIIa is a serine protease responsible for the activation of Factor XI to XIa in the contact activation system. Human Factor XII and prekallikrein are thought to be involved in a reciprocal activation mechanism in which Factor XIIa activates prekallikrein to kallikrein, which in turn converts Factor XII to XIIa. Factor XIIa activates Factor XI to XIa thereby triggering the Contact Factor cascade. Human Factor alpha-XIIa is activated from homogeneous Human Factor XII by an autoactivation process with Dextran Sulfate. Dextran Sulfate is removed after activation. Complete activation is observed on SDS-PAGE. Factor XIIa is >95% pure by SDS-PAGE and activity is determined via clotting assay.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$345
1.0 mg	\$545





## HFXIIAB

## Human Factor XIIa Beta

Human Factor beta-XIIa is activated from homogeneous Human Factor XII by an autoactivation process with Dextran Sulfate. Dextran Sulfate is removed after activation. Complete activation is observed on SDS-PAGE. Factor XIIa is >95% pure by SDS-PAGE and activity is determined via clotting assay.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$195
1.0 mg	\$950

## HFXIIIA

## Human Factor XIIIa

Human Factor XIIIa is activated from Factor XIII by cleavage with human alpha thrombin. The thrombin is subsequently removed via chromatography. Factor XIIIa is responsible for catalyzing the formation of covalent bridges between fibrin units to increase the elasticity of the clot network. The resulting cross-linked fibrin is very insoluble and resistant to lysis.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.25 mg	\$395
1.0 mg	\$995

## HGT

## Human gamma-Thrombin

A non-clotting derivative thrombin produced from Human alpha-Thrombin by controlled incubation with immobilized trypsin. Gamma-thrombin is generated by cleavage of the B-chain at both the Arg106-Tyr107 and Lys190-Gly191 bonds. Gamma-thrombin is a noncoagulant form of thrombin that retains much of its platelet-activating capacity. Gamma-thrombin purity is determined by SDS-PAGE and protein concentration is determined by BCA assay.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$550
2.0 mg	\$1,090

## HPKA

## Human Kallikrein

Activation of Prekallikrein with Factor alpha-XIIa produces the enzymatically active Kallikrein. Kallikrein is a serine protease which consists of a heavy chain (MW: 52 kD) and light chains (MW: 36 or 33 kD) linked by disulfide bridges. Kallikrein possesses enzymatic activity toward Factor XII, HK, Plasminogen, Factors XI, IX and VII, prorenin and the complement system. After activation, the activating enzyme Factor XIIa is removed by affinity chromatography. Human Kallikrein purity is >95% by SDS-PAGE and shows complete reduction upon incubation with 2-mercaptoethanol.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$445
5.0 mg	\$1,995



## HPS

## Human Protein S

Human protein S is isolated from fresh frozen plasma by a combination of conventional methods and immunoaffinity chromatography. Protein S exists in two forms in human plasma, as the free protein and in complex with C4b-binding protein. This is the free protein from plasma which serves as a cofactor for the anticoagulant activity of Activated Protein C. Human protein S is a single-chain glycoprotein with >95% purity as determined by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$595
2.0 mg	\$1,095

## HPZ

## Human Protein Z

Human protein Z is isolated from fresh frozen plasma by a combination of precipitations and column chromatography. HPZ purity is determined by SDS-PAGE and shows no reduction upon incubation with 2-mercaptoethanol.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,295

## HTHROM-A

## Human alpha-Thrombin

Human alpha-thrombin is prepared from purified prothrombin. Purity is determined by SDS-PAGE analysis and activity is measured in a thrombin specific clotting assay and compared to standardized NIH thrombin.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$225
10 mg	\$1,095

## HVWF

## Human von Willebrand Factor

vWF is prepared from citrated human plasma using a combination of chromatographic procedures. This preparation is >95% pure as judged by SDS-PAGE under reducing conditions and consists of large multimers as determined by electrophoresis in SDS/agarose gels. Molecular weight under native conditions ranges from 520 kDa (dimer) to >10,000 kDa (multimers). Protein concentration determined by total protein assay. Required thawing procedure: Thaw in a 37 degree celsius water bath for 2-3 minutes without agitation.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$345
0.5 mg	\$1,340





## B. Human Coagulation Zymogens

### HFII Human Prothrombin

Human prothrombin is prepared from fresh frozen human plasma. Human Prothrombin is a glycoprotein of molecular weight 72,000 and consists of a single polypeptide chain. Activation of Prothrombin by Factor Va, Xa and phospholipids yields the serine protease Thrombin. Prothrombin purity is determined by SDS-PAGE and shows no reduction upon incubation with 2-mercaptoethanol.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
9.0 mg	\$210
90 mg	\$2,040

### HFIX Human Factor IX

Human Factor IX is prepared from fresh frozen plasma by a combination of conventional procedures and immunoaffinity chromatography. This protein purity is determined by SDS-PAGE and shows no reduction upon incubation with 2-mercaptoethanol. Activity is determined via clotting assay.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$295
2.5 mg	\$1,195

### HFV Human Factor V

Human Factor V is prepared from fresh frozen human plasma using immunoaffinity chromatography. Purity is determined by SDS-PAGE analysis and activity is measured in a Factor V clotting assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 6 months from delivery

Size	Price
0.05 mg	\$345
0.25 mg	\$1,340

### HFVII Human Factor VII

Human Factor VII is purified using a combination of conventional techniques and immunoaffinity chromatography. Human Factor VII is a single-chain vitamin K dependent glycoprotein found in trace quantities in plasma (0.5 mg/Liter). In the Tissue Factor Pathway of coagulation, Human Factor VIIa, in the presence of calcium ions and Tissue Factor, activates Factors IX and X to their enzymatically active forms, Factor IXa and Xa. Purity is determined by SDS-PAGE analysis and activity is measured in a Factor VII clotting assay.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$245
1.0 mg	\$1,595



## HFX

## Human Factor X

Human Factor X is isolated from fresh frozen human plasma by a combination of conventional techniques and immunoaffinity chromatography. In addition to the standard human Factor X preparation, Gla-domainless human Factor X is also available. Purity is determined by SDS-PAGE analysis and activity is measured in a Factor X clotting assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.5 mg	\$295
5 mg	\$1,685

## HFXI

## Human Factor XI

Human Factor XI is a two-chain glycoprotein prepared from fresh human plasma using several chromatographic steps. The two chains are identical disulfide bonded polypeptides with molecular weights of 80,000 daltons. Factor XI is activated to Factor XIa by Factor XIIa. Purity of Factor XI is >95% by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$195
1.0 mg	\$1,295

## HFXII

## Human Factor XII

Human Factor XII is a single chain glycoprotein prepared from fresh human plasma by ion exchange chromatography. Factor XII is converted, principally from the action of kallikrein, into an active serine protease (Factor alpha-XIIa) that functions in the in vivo initiation of blood coagulation, fibrinolysis and kinin formation. Purity of Factor XII is >95% by SDS-PAGE and activity is determined via clotting assay.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$295
1.0 mg	\$495

## HFXIII

## Human Factor XIII

Human Factor XIII is a tetramer composed of two pairs of chains held together by noncovalent bonds. After activation of the zymogen via Thrombin to its active enzyme form, Factor XIIIa is responsible for catalyzing the formation of covalent bridges between fibrin units to increase the elasticity of the clot network. The resulting cross-linked fibrin is very insoluble and resistant to lysis.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.25 mg	\$345
1.0 mg	\$795



## HK-HMW

## Human Kininogen, Single Chain HMW

HMW kininogen, synthesized by hepatocytes, is a multifunctional protein. It is the precursor protein of bradykinin. In addition, it is a nonenzymatic cofactor of the contact activation system of Factor XI, XII and prekallikrein and a major extra-cellular cysteine proteinase inhibitor. Kininogen links prekallikrein to a negatively charged surface thereby allowing activation to kallikrein by surface bound Factor alpha-XIIa. Kininogen also forms a complex with Factor XI and accelerates its activation to XIa by alpha-XIIa. Kininogens inhibit systemic proteases which are thought to have a part in various diseases such as cancer, muscular dystrophy and joint disease. >95% pure by SDS-PAGE and >95% single chain.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$245
5.0 mg	\$845

## HK-LMW

## Human Kininogen, LMW

LMW Kininogen is involved in blood pressure regulation since it is an endogenous protein substrate for tissue kallikrein. Proteolytic cleavage by kallikrein releases vasoactive bradykinin from LMW kininogen. In addition, LMW kininogen, like HMW kininogen, is a major extracellular cysteine protease inhibitor. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$220
0.5 mg	\$660

## HK-TC

## Human Kininogen, Two Chain HMW

The two chain form of kininogen is prepared by kallikrein digestion of single chain kininogen. Two chain kininogen repurified to remove traces of kallikrein and is kinin free. >95% pure by SDS-PAGE and shows complete reduction upon incubation with 2-mercaptoethanol.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$225
5.0 mg	\$725



## HPC

## Human Protein C

Human Protein C is prepared from fresh frozen human plasma using a combination of salt precipitations and column chromatography. The protein purity is determined by SDS-PAGE and shows total reduction upon incubation with 2-mercaptoethanol. Protein C is activated to the serine protease Activated Protein C (APC) by alpha-thrombin or the complex of alpha-thrombin/thrombomodulin. APC is a potent anticoagulant through the selective inactivation of Factors Va and VIIIa.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$245
1.0 mg	\$1,095

## HPK

## Human Prekallikrein

Zymogen precursor of the plasma serine protease kallikrein. Human Prekallikrein is a single chain gamma globulin glycoprotein that participates in the early phase of contact activation, kinin formation and fibrinolysis. Prekallikrein purity is >95% by SDS-PAGE and shows no reduction upon incubation with 2-mercaptoethanol. Activity is determined via clotting assay.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$345
5.0 mg	\$1,595



## C. Inhibitors and Substrates

### CTI Corn Trypsin Inhibitor

To begin the purification process, CTI is extracted from the kernels of fresh sweet corn into a physiologic buffer. The extract is then de-fatted using acetone and the protein is further purified by employing gel filtration and ion-exchange chromatography. The final CTI preparation appears as a single band by SDS-PAGE analyses under both reducing and non-reducing conditions. Preparations of CTI are tested for the ability to prolong the aPTT assay without affecting the PT assay. The specific activity of each lot of CTI is determined and one unit is defined as the amount of CTI required to double the aPTT of normal human plasma.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$195
10 mg	\$1,095

### HHCII Human Heparin Cofactor II

Heparin Cofactor II is a single chain glycoprotein prepared from fresh frozen human plasma. HCII is a specific inhibitor of thrombin with increased activity in the presence of heparin. Heparin Cofactor II purity is determined by SDS-PAGE and the activity is measured by the ability to inhibit thrombin in the presence of saturating concentrations of heparin.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

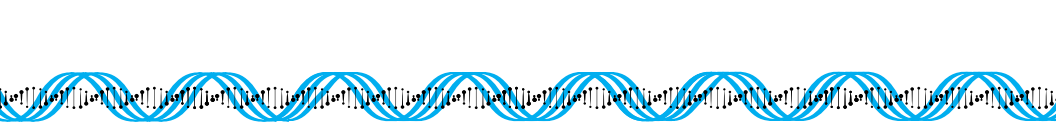
Size	Price
0.5 mg	\$595
1.0 mg	\$1,095

### TAFI Human Thrombin Activatable Fibrinolysis Inhibitor

Thrombin Activatable Fibrinolysis Inhibitor (TAFI), also known as plasma procarboxypeptidase-B and carboxypeptidase-U, is a single chain glycoprotein that is cleaved by thrombin, plasmin and trypsin. TAFI is purified from normal human plasma using immunoaffinity and ion-exchange chromatography. Activated TAFI cleaves C-terminal lysines on fibrin and cell surfaces resulting in down-regulation of fibrinolysis by reducing the number of plasminogen and tPA binding sites on fibrin.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$395
0.5 mg	\$1,995



## D. Mouse Coagulation Enzymes

### MAPC

### Mouse Activated Protein C

Activated Protein C (APC) is prepared from purified Protein C by activation with thrombin followed by ion exchange chromatography. Purity is determined by SDS-PAGE analysis and activity is measured using a chromogenic substrate based assay. All production lots of APC are also tested for their ability to prolong the aPTT of normal human plasma, as required for the APC resistance assay. The results of this test are provided for each lot as an aPTT (+/- APC) ratio (10nM APC).

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.05 mg	\$1,030
0.1 mg	\$2,030

### MFIXA

### Mouse Factor IXa

Factor IXa is prepared from highly purified Factor IX by activation with Factor XIa. The Factor IXa is further purified by gel filtration, followed by immunoaffinity purification. Purity is assessed by SDS-PAGE analysis. Activity is determined in a one-stage clotting assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.05 mg	\$480
0.25 mg	\$2,140

### MFXA

### Mouse Factor Xa

Factor Xa is prepared by activating purified Factor X with the Factor X activator isolated from Russell's viper venom. Factor Xa is purified from the activation mixture by chromatography over immobilized benzamidine. Purity is determined by SDS-PAGE analysis and activity is measured in a Factor Xa clotting assay and/or chromogenic substrate assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.05 mg	\$495
0.1 mg	\$990

### MTHROM

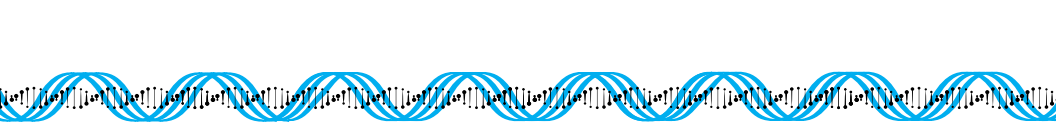
### Mouse Thrombin

Mouse thrombin is prepared from purified mouse prothrombin by activation with Saw Scaled Viper Venom. The venom is removed after activation. Complete activation is observed on SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.05 mg	\$245
0.25 mg	\$995





## E. Mouse Coagulation Zymogens

### MFII Mouse Prothrombin

Mouse prothrombin is prepared from fresh frozen mouse plasma. Purity is determined by SDS-PAGE analysis and activity is measured by clotting and/or chromogenic substrate assay, following conversion of prothrombin to thrombin.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$195
1.0 mg	\$995

### MFIX Mouse Factor IX

Factor IX is prepared from fresh frozen plasma by a combination of conventional procedures and immunoaffinity chromatography. Purity is determined by SDS-PAGE analysis and activity is measured using a Factor IX clotting assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.05 mg	\$795
0.1 mg	\$1,555

### MFX Mouse Factor X

Factor X is isolated from fresh frozen mouse plasma by a combination of conventional techniques and immunoaffinity chromatography. Purity is determined by SDS-PAGE analysis and activity is measured in a Factor X clotting assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$650
1.0 mg	\$6,325

### MFX-HIS Mouse Factor X, C-terminal His Tag

Recombinantly produced in HEK cell culture and purified by conventional and chelated metal affinity chromatography. Contains an 8x-Histidine tag at the C-terminus for purification. Fully activatable to FXa by Russell's Viper Venom. Complements for Factor X in human deficient plasma clotting assays. Concentration is determined by absorbance at 280 nm using an extinction coefficient of 0.953 mg<sup>-1</sup> ml<sup>-1</sup>.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$275
1.0 mg	\$2,200

## MPC

## Mouse Protein C

Protein C is prepared from fresh frozen mouse plasma using a combination of immunoaffinity chromatography and conventional techniques. Purity is determined by SDS-PAGE analysis and activity is measured using a chromogenic substrate based assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.05 mg	\$795
0.1 mg	\$1,555

## F. Rat Coagulation Enzymes

### RFIXA

### Rat Factor IXa

Factor IXa is prepared from highly purified Factor IX by activation with Factor XIa. The Factor IXa is further purified by gel filtration, followed by immunoaffinity purification. Purity is assessed by SDS-PAGE analysis. Activity is determined in a one-stage clotting assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.05 mg	\$415
0.25 mg	\$1,860

### RFXA

### Rat Factor Xa

Factor Xa is prepared from homogenous Factor X by activation with Russell's viper venom. The venom is removed after activation. Purity is determined by SDS-PAGE analysis and activity is measured in a Factor Xa clotting assay and/or chromogenic substrate assay.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$565
1.0 mg	\$5,500

### RTHROM

### Rat Thrombin

Rat Thrombin is prepared from purified rat prothrombin by activation with Russell's Viper Venom. This venom is removed after activation. Purity is >90% as determined by SDS-PAGE analysis. Activity is measured in a thrombin specific clotting assay and compared to standardized NIH thrombin.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$395
0.5 mg	\$1,695



## G. Rat Coagulation Zymogens

### RFII Rat Prothrombin

Rat Prothrombin is prepared from fresh frozen rat plasma. Purity is determined by SDS-PAGE analysis and activity is measured by clotting and/or chromogenic substrate assay, following conversion of prothrombin to thrombin.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$195
1.0 mg	\$995

### RFIX Rat Factor IX

Rat Factor IX is prepared from fresh frozen plasma by a combination of conventional procedures and immunoaffinity chromatography. Purity is determined by SDS-PAGE analysis and activity is measured using a Factor IX clotting assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.05 mg	\$345
0.25 mg	\$1,405

### RFX Rat Factor X

Rat Factor X is prepared from fresh frozen plasma by a combination of conventional procedures and immunoaffinity chromatography. Purity is determined by SDS-PAGE analysis and activity is measured using a Factor X clotting assay.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$595
0.5 mg	\$2,495



## H. Platelet Proteins

### HPF4

### Human Platelet Factor 4

Human Platelet Factor 4 (PF-4) is prepared from the supernatant of thrombin-activated platelets by heparin-agarose affinity chromatography. Purity is assessed by SDS-PAGE analysis and heparin-neutralizing activity is verified by clotting assay.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$660

### HPF4-R

### Human Platelet Factor 4, Recombinant

Human PF-4 is expressed recombinantly and purified by chromatography. The purified protein in PBS is sterile filtered and lyophilized. Protein identity is confirmed by mass spectrometry (7.8 kDa monomer) and N-terminal sequencing (M-E-A-E-E). Purity is >95% by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Frozen liquid • Storage: -70°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.2 mg	\$995
1.0 mg	\$1,995

### MPF4-R

### Mouse Platelet Factor 4, Recombinant

Mouse PF-4 is expressed recombinantly and purified by chromatography. The purified protein in PBS is sterile filtered and lyophilized. Protein identity is confirmed by mass spectrometry (8.2 kDa monomer) and N-terminal sequencing (M-G-P-E-E). Purity is >95% by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$995
1.0 mg	\$3,995



## GP2B3A

## Human GPIIbIIIa

Platelet membrane glycoproteins IIb and IIIa (GPIIb and GPIIIa) constitute the fibrinogen receptor and are required for platelet aggregation. Glycoprotein IIb consists of 2 disulfide-linked subunits GPIIb (MW = 125,000) and GPII (MW = 23,000) while GPIIIa has only one polypeptide chain (MW = 108,000). GPIIbIIIa migrates on gels as follows: GPIIb 136,000 non-reduced and 125,000 reduced. GPIIIa is 97,000 non-reduced and 108,000 reduced. Protein concentration is determined via the Bradford method.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$295
2.0 mg	\$495

## HTSP

## Human Thrombospondin

A cellular adhesion protein purified from platelets. Thrombospondin is a component of the coagulation mechanism and is believed to have potential as a marker for platelet activation and renal failure. Aliquoted in siliconized tubes. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.025 mg	\$220
0.1 mg	\$440





## I. Snake Venom Proteases

### ECV-II

### E. Carinatus Viper Venom Prothrombin Activator

Purified from Echis Carinatus Viper (Indian saw-scaled viper) Venom. Metal dependant endopeptidase that cleaves the Arg332-Ile323 bond in prothrombin to form meizothrombin. This protease is inhibited by EDTA, DTT and o-phenanthroline. ECV-II is a single chain glycoprotein and is highly pure and homogenous by SDS-PAGE.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$245
1.0 mg	\$1,495

### RVV-V

### Russell's Viper Venom Factor V Activator

Purified from Russell's Viper Venom. Serine protease that activates single chain Factor V to two chain active Va. This protease is inhibited by diisopropylfluorophosphate (DFP). RVV-V is a single chain glycoprotein and is highly pure and homogenous by SDS-PAGE.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,950

### RVV-X

### Russell's Viper Venom Factor X Activator

Purified from Russell's Viper Venom. Zinc dependant endopeptidase that activates Factor X to Xa and Factor IX to IXa-alpha. This protease is inhibited by EDTA and o-phenanthroline. RVV-X is a glycoprotein that consists of two disulfide linked subunits of molecular weights 67 kD and 26 kD and is highly pure and homogenous by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$195
10 mg	\$1,495

## J. Coagulation Factor ELISA Kits

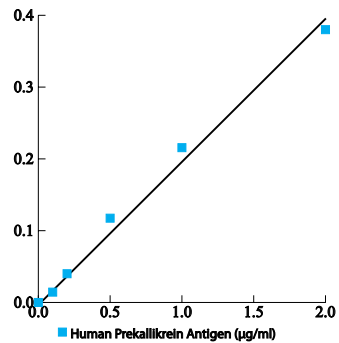
### HPKKT-TOT Total Human Prekallikrein Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total human prekallikrein antigen in plasma, serum, tissue extracts, cell culture media or lysates. Prekallikrein bound to kininogen will be detected by this assay. Active human kallikrein will not be detected by this assay.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.05 - 20 µg/ml
Linear range	0.05 - 2 µg/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950

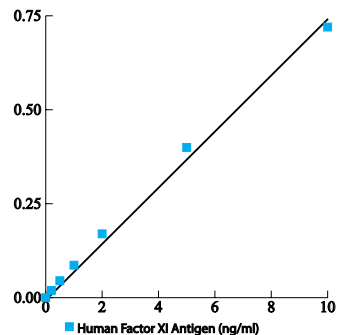
### HFXIKT-TOT Total Human Factor XI Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total human Factor XI antigen in plasma, serum, tissue extracts, cell culture media or lysates. Human Factor XI and XIa will be detected by this assay.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.1 - 100 ng/ml
Linear range	0.1 - 10 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950

## HFXKT-TOT

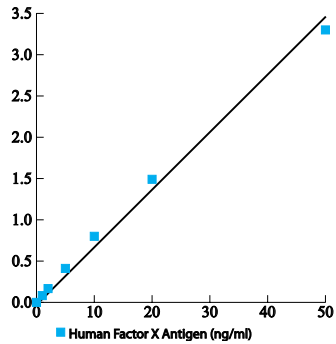
## Total Human Factor X Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total human Factor X antigen in plasma, serum, tissue extracts, cell culture media or lysates. Human Factor X and Xa will be detected by this assay.

### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.1 - 50 ng/ml
Linear range	0.1 - 50 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950

## MFXT-TOT

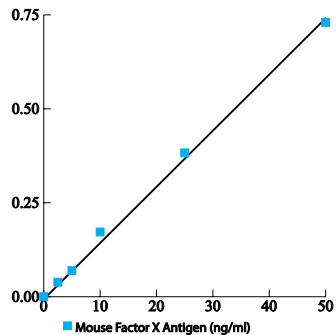
## Total Mouse Factor X Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total mouse Factor X antigen in plasma, serum, tissue extracts, cell culture media or lysates. Mouse Factor X and Xa will be detected by this assay.

### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	2.5 - 1000 ng/ml
Linear range	2.5 - 50 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950







## VIII. COAGULATION FACTOR ANTIBODIES

### A. Monoclonal Antibodies to Human Factor IX

#### FIX13F42F6      Mouse Anti Human Factor IX

Mouse monoclonal antibody to human Factor IX. IgG fraction purified by immobilized Protein G. Isotype IgG1Kappa. Clone 13F42F6.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,950

### B. Monoclonal Antibodies to Human Factor VII

#### FVII11G42D8      Mouse Anti Human Factor VII

Mouse monoclonal antibody to Human Factor VII. IgG fraction purified by immobilized Protein G. Isotype IgG2bKappa. Clone 11G42D8.

Species reactivity: Human • Tested applications: ELISA, Capture, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,950

### C. Monoclonal Antibodies to Human Factor X

#### FX3C8B9      Mouse Anti Human Factor X

Mouse monoclonal antibody to human Factor X. IgG fraction purified by immobilized Protein G. Isotype IgG1Kappa. Clone 3C8B9.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,950

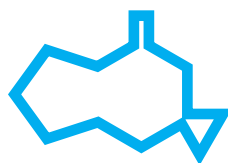
#### FX4E3F8      Mouse Anti Human Factor X

Mouse monoclonal antibody to human Factor X. IgG fraction purified by immobilized Protein G. Isotype IgG1. Clone 4E3F8.

Species reactivity: Human • Tested applications: ELISA, Capture, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,950





## D. Monoclonal Antibodies to Human Prekallikrein

### PK20E7B7 Mouse Anti Human Prekallikrein

Mouse monoclonal antibody to human prekallikrein. Strongly blots prekallikrein and kallikrein under non-reducing and reducing conditions. Binding epitope is on the light chain of kallikrein. IgG fraction purified by immobilized Protein G. Isotype IgG2b. Clone 20E7B7.

Species reactivity: Human • Tested applications: ELISA, Capture, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,950

## E. Monoclonal Antibodies to Other Human Coagulation Factors

### MA-HFII Mouse Anti Human Prothrombin

Clone number AHP-5013. Recognizes human prothrombin, prethrombin-1, fragment 2, meizothrombin. Mouse monoclonal of isotype IgG2a.

Species reactivity: Human • Tested applications: ELISA, WB, Neutralizing

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

### MA-HFIX Mouse Anti Human Factor IX

Clone number AHIX-5041. Recognizes human Factor IX, human Factor IXa, heavy chain of human Factor IX and IXa. Mouse monoclonal of isotype IgG1.

Species reactivity: Human • Tested applications: ELISA, RIA, WB, IHC, AP

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

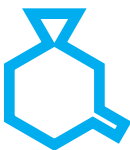
### MA-HFV-1 Mouse Anti Human Factor V, Clone 1

Clone number AHV-5101. Recognizes light chain of human Factor V, human Factor V, human Factor Va, bovine Factor Va. Mouse monoclonal of isotype IgG1.

Species reactivity: Human, Cow • Tested applications: RIA, Neutralizing, AP

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395



## MA-HFV-2

## Mouse Anti Human Factor V, Clone 2

Clone number AHV-5102. Recognizes 120,000 activation peptide of human Factor V. Does not recognize bovine Factor V or Va. Mouse monoclonal of isotype IgG.  
Species reactivity: Human • Tested applications: RIA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HFV-3

## Mouse Anti Human Factor V, Clone 3

Clone number AHV-5108. Recognizes human Factor V and Va, light chain (fragment E, 74,000) of Factor Va. Mouse monoclonal of isotype IgG.  
Species reactivity: Human • Tested applications: RIA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HFV-4

## Mouse Anti Human Factor V, Clone 4

Clone number AHV-5110. Recognizes 120,000 dalton activation peptide of human Factor V. Mouse monoclonal of isotype IgG1.  
Species reactivity: Human • Tested applications: RIA, WB, AP

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HFV-5

## Mouse Anti Human Factor V, Clone 5

Clone number AHV-5112. Recognizes human Factor Va light chain (fragment E, 74,000), reacts preferably to Factor Va over Factor V. Isotype IgG1.  
Species reactivity: Human • Tested applications: RIA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HFV-6

## Mouse Anti Human Factor V, Clone 6

Clone number AHV-5146. Recognizes human Factor V and Va, heavy chain (fragment D, 94,000) of Factor Va. Mouse monoclonal of isotype IgG.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HFVII

## Mouse Anti Human Factor VII

Clone number AHVII-5031. Recognizes human Factor VII, Factor VIIa, BFP<sub>R</sub>ck Factor VIIa. Mouse monoclonal of isotype IgG1.

Species reactivity: Human • Tested applications: ELISA, RIA, WB, AP

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HFVIII

## Mouse Anti Human Factor VIII

Clone number AHVII-5025. Recognizes human Factor VIII. Mouse monoclonal of isotype IgG1.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HFX

## Mouse Anti Human Factor X

Clone number AHX-5050. Recognizes heavy chains of human factors Xa and X. Does not recognize bovine Factor X or BEGR<sub>ck</sub>-Xa. Isotype IgG1.

Species reactivity: Human • Tested applications: ELISA, WB, Neutralizing, AP

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HFXI

## Mouse Anti Human Factor XI

Clone number AHXI-5061. Recognizes human Factor XI, 125I-Factor XI, Human Factor XIa, BEGR<sub>ck</sub>-Factor XIa. Does not recognize mouse Factor XI (Western blot on plasma). Mouse monoclonal of isotype IgG.

Species reactivity: Human • Tested applications: ELISA, RIA, WB, AP

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HFXII

## Mouse Anti Human Factor XII

Clone number AHXII-5155. Recognizes human Factor XII. Mouse monoclonal of isotype IgG1.

Species reactivity: Human • Tested applications: ELISA, WB, AP

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395



## MA-HPC-1

## Mouse Anti Human Protein C, Clone 1

Clone number AHPC-5071. Recognizes human Protein C and Activated Protein C. Partial calcium dependence. Mouse monoclonal of isotype IgG1.

Species reactivity: Human • Tested applications: ELISA, RIA, WB, AP

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HPC-2

## Mouse Anti Human Protein C, Clone 2

Clone number AHPC-5072. Recognizes human Protein C. Mouse monoclonal of isotype IgG2b.

Species reactivity: Human • Tested applications: ELISA, WB, AP

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HPS-2

## Mouse Anti Human Protein S

Clone number AHPS-5092. Recognizes human Protein S. Mouse monoclonal of isotype IgG1.

Species reactivity: Human • Tested applications: ELISA, RIA, WB, AP

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HTAFI-1

## Mouse Anti Human TAFI, Clone 1

Clone number AHTAFI-5024. Recognizes human TAFI, activated TAFI. Mouse monoclonal of isotype IgG1.

Species reactivity: Human • Tested applications: ELISA, WB, Neutralizing

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

## MA-HTAFI-2

## Mouse Anti Human TAFI, Clone 2

Clone number AHTAFI-5026. Recognizes human TAFI, activated TAFI. Mouse monoclonal of isotype IgG1.

Species reactivity: Human • Tested applications: ELISA, WB, Neutralizing

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

### MA-HTAFI-3

### Mouse Anti Human TAFI, Clone 3

Clone number AHTAFI-5065. Recognizes human TAFI, activated TAFI. Mouse monoclonal of isotype IgG3.

Species reactivity: Human • Tested applications: ELISA

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

### MA-HTAFI-4

### Mouse Anti Human TAFI, Clone 4

Clone number AHTAFI-5065. Recognizes human TAFI. Mouse monoclonal of isotype IgG2b.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

### MA-HTF

### Mouse Anti Human Tissue Factor

Clone number AHTF-5264. Recognizes human Tissue Factor. Mouse monoclonal of isotype IgG.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

### MA-HTFP1

### Mouse Anti Human Tissue Factor Pathway Inhibitor

Clone number AHTFP1-5138. Recognizes human Tissue Factor Pathway Inhibitor. Mouse monoclonal of isotype IgG.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395

### MA-HTHROM

### Mouse Anti Human Thrombin

Clone number AHT-5020. Recognizes human thrombin, thrombin-ATIII complex, thrombin-PPACK. Mouse monoclonal of isotype IgG1.

Species reactivity: Human • Tested applications: ELISA, Neutralizing

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$195
0.5 mg	\$395



## F. Monoclonal Antibodies to Mouse Coagulation Factors

### MA-MFIX-1 Rat Anti Mouse Factor IX, Clone 1

Clone number AMIXA-9041. Detects mouse Factor IX and Factor IXa in ELISA, Factor IX and Factor IXa heavy chain reduced and non-reduced in western blot. Host rat.

Species reactivity: Mouse • Tested applications: ELISA, WB, AP

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$215
0.5 mg	\$435

### MA-MFIX-2 Rat Anti Mouse Factor IX, Clone 2

Clone number AMIXA-9042. Detects mouse Factor IX and Factor IXa in ELISA, Factor IX and Factor IXa non-reduced in western blot. Host rat.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$215
0.5 mg	\$435

### MA-MFVII Rat Anti Mouse Factor VII

Clone number AMVII-9031. Detects recombinant mouse Factor VII and Factor VIIa in ELISA, recombinant mouse Factor VII and Factor VIIa non-reduced in western blot, does not cross react with human Factor VII and Factor VIIa. Host rat.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$215
0.5 mg	\$435

### MA-MFVIII Rat Anti Mouse Factor VIII

Clone number AMVIII-9035. Detects recombinant mouse Factor VIII in ELISA and recombinant mouse Factor VIII non-reduced in western blot. Native mouse and human Factor VIII have not been tested. Host rat.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$215
0.5 mg	\$435



## MA-MFX-1

## Rat Anti Mouse Factor X, Clone 1

Clone number AMX-9050. Detects mouse Factor X and Factor Xa in ELISA, Factor X and Factor Xa heavy chain reduced and non-reduced in western blot, cross reacts with human Factor X and Factor Xa. Host rat.

Species reactivity: Mouse, Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$215
0.5 mg	\$435

## MA-MFX-2

## Rat Anti Mouse Factor X, Clone 2

Clone number AMX-9051. Detects mouse Factor X in ELISA, Factor X heavy chain non-reduced in western blot. Host rat.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$215
0.5 mg	\$435

## MA-MPC-1

## Rat Anti Mouse Protein C, Clone 1

Clone number AMPC-9071. Detects mouse Protein C in ELISA, Protein C reduced and non-reduced in western blot, inhibits Protein C activation. Host rat.

Species reactivity: Mouse • Tested applications: ELISA, WB, Neutralizing

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$215
0.5 mg	\$435

## MA-MPC-2

## Rat Anti Mouse Protein C, Clone 2

Clone number AMPC-9072. Detects mouse Protein C and APC in ELISA, Protein C reduced and non-reduced in western blot. Host rat.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$215
0.5 mg	\$435



## MA-MPG

## Rat Anti Mouse Plasminogen

Clone number AMPG-9130. Detects mouse plasminogen and plasmin in ELISA, plasmin non-reduced and plasminogen reduced and non-reduced in western blot. Host rat.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$215
0.5 mg	\$435

## MA-MPT

## Rat Anti Mouse Prothrombin

Clone number AMP-9013. Detects mouse prothrombin in ELISA, prothrombin non-reduced in western blot, does not cross react with thrombin. Host rat.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$215
0.5 mg	\$435

## G. Polyclonal Antibodies to Human Factor VII

### ASHFVII

### Rabbit Anti Human Factor VII Antiserum

Polyclonal antiserum (host rabbit) to human Factor VII.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$325
10 ml	\$2,600

### ASHFVII-GF

### Rabbit Anti Human Factor VII IgG Fraction

Polyclonal antibody (host rabbit) to human Factor VII. IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$325
10 mg	\$2,600



## ASHFVII-GF-BIO

## Rabbit Anti Human Factor VII IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit) to human Factor VII. IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## ASHFVII-GF-FITC

## Rabbit Anti Human Factor VII IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit) to human Factor VII. IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## ASHFVII-GF-HRP

## Rabbit Anti Human Factor VII IgG, HRP Labeled

Horseshoe peroxidase labeled polyclonal antibody (host rabbit) to human Factor VII. IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## ASHFVII-GF-HT

## Rabbit Anti Human Factor VII IgG, Affinity Purified

Polyclonal antibody (host sheep). Affinity purified by immobilized human Factor VII.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$380
1.0 mg	\$3,040

## H. Polyclonal Antibodies to Human Factor IX

### SASHFIX Sheep Anti Human Factor IX Antiserum

Polyclonal antiserum (host sheep).

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$215
10 ml	\$1,720

### SASHFIX-GF Sheep Anti Human Factor IX IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$215
10 mg	\$1,720

### SASHFIX-GF-BIO Sheep Anti human Factor IX IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to human Factor IX. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

### SASHFIX-GF-FITC Sheep Anti Human Factor IX IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to human Factor IX. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

### SASHFIX-GF-HRP Sheep Anti Human Factor IX IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep) to human Factor IX. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## I. Polyclonal Antibodies to Human Factor X

### ASHFX Rabbit Anti Human Factor X Antiserum

Polyclonal antiserum (host rabbit) to human Factor X.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$325
10 ml	\$2,600

### ASHFX-GF Rabbit Anti Human Factor X IgG Fraction

Polyclonal antibody (host rabbit) to human Factor X. IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$325
10 mg	\$2,600

### ASHFX-GF-BIO Rabbit Anti Human Factor X IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit) to human Factor X. IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

### ASHFX-GF-FITC Rabbit Anti Human Factor X IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit) to human Factor X. IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

### ASHFX-GF-HRP Rabbit Anti Human Factor X IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit) to human Factor X. IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## ASHFX-GF-HT

## Rabbit Anti Human Factor X IgG, Affinity Purified

Polyclonal antibody (host sheep). Affinity purified by immobilized human Factor X.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$380
1.0 mg	\$3,040

## J. Polyclonal Antibodies to Human Factor XII

### SASHFXII

### Sheep Anti Human Factor XII Antiserum

Polyclonal antiserum (host rabbit) to human Factor XII.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$215
10 ml	\$1,720

### SASHFXII-GF

### Sheep Anti Human Factor XII IgG Fraction

Polyclonal antibody (host sheep) to human Factor XII. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$215
10 mg	\$1,720

### SASHFXII-GF-BIO

### Sheep Anti Human Factor XII IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to human Factor XII. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160



## SASHFXII-GF-FITC Sheep Anti Human Factor XII IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to human Factor XII. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## SASHFXII-GF-HRP Sheep Anti Human Factor XII IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep) to human Factor XII. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## SASHFXII-GF-HT Sheep Anti Human Factor XII IgG, Affinity Purified

Polyclonal antibody (host sheep). Affinity purified by immobilized human Factor XII.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$270
1.0 mg	\$2,160

## K. Polyclonal Antibodies to Other Human Coagulation Factors

### ASHPK-GF Rabbit Anti Human Kallikrein IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A. Reacts to human plasma kallikrein.

Species reactivity: Human • Tested applications: ELISA, WB, IEP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$220
10 ml	\$2,090



## HASHFV-GF

## Horse Anti Human Factor V IgG Fraction

Polyclonal antibody (host horse). IgG fraction purified by immobilized Protein A.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHCII-GF

## Sheep Anti Heparin Cofactor II IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHFII-GF

## Sheep Anti Human Prothrombin IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHFII-GF-HT

## Sheep Anti Human Prothrombin, Affinity Purified

Polyclonal antibody (host sheep). Affinity purified by immobilized human prothrombin.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$155
0.5 mg	\$395

## SASHFV-GF

## Sheep Anti Human Factor V IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHFVII-GF

## Sheep Anti Human Factor VII IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHFVIII-GF

## Sheep Anti Human Factor VIII IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHFX-GF

## Sheep Anti Human Factor X IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHFXIII-GF

## Sheep Anti Human Factor XIII IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHPC-GF

## Sheep Anti Human Protein C IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345





## SASHPS-GF

## Sheep Anti Human Protein S IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHPZ-GF

## Sheep Anti Human Protein Z IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHTAFI-GF

## Sheep Anti Human TAFI IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHTF-GF

## Sheep Anti Human Tissue Factor IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHTFPI-GF

## Sheep Anti Human Tissue Factor Pathway Inhibitor

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345



## SASHTHROM-GF Sheep Anti Human Thrombin IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$345

## SASHVWF-GF Sheep Anti Human von Willebrand Factor

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$155
5.0 mg	\$395

## L. Polyclonal Antibodies to Mouse Factor IX

### SASMFIX Sheep Anti Mouse Factor IX Antiserum

Polyclonal antiserum (host sheep) to mouse Factor IX.  
Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$295
10 ml	\$2,360

### SASMFIX-GF Sheep Anti Mouse Factor IX IgG Fraction

Polyclonal antibody (host sheep) to mouse Factor IX. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

### SASMFIX-GF-BIO Sheep Anti Mouse Factor IX IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to mouse Factor IX. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

### SASMFIX-GF-FITC Sheep Anti Mouse Factor IX IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to mouse Factor IX. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

### SASMFIX-GF-HRP Sheep Anti Mouse Factor IX IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep) to mouse Factor IX. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## M. Polyclonal Antibodies to Mouse Factor X

### SASMFIX Sheep Anti Mouse Factor X Antiserum

Polyclonal antiserum (host sheep) to mouse Factor X.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$325
10 ml	\$2,600

### SASMFIX-GF Sheep Anti Mouse Factor X IgG Fraction

Polyclonal antibody (host sheep) to mouse Factor X. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$325
10 mg	\$2,600

### SASMFIX-GF-BIO Sheep Anti Mouse Factor X IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to mouse Factor X. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## SASMFY-GF-FITC Sheep Anti Mouse Factor X IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to mouse Factor X. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## SASMFY-GF-HRP Sheep Anti Mouse Factor X IgG, HRP Labeled

Horseshradish peroxidase labeled polyclonal antibody (host sheep) to mouse Factor X. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## SASMFY-GF-HT Sheep Anti Mouse Factor X, Affinity Purified

Polyclonal antibody (host sheep). Affinity purified by immobilized mouse Factor X.

Species reactivity: Mouse • Tested applications: ELISA, WB, AP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600

## SASMFY-GF-IA Sheep Anti Mouse Factor X, Immuno Absorbed

Polyclonal antibody to Murine Factor X (Immuno absorbed against Human Factor X).

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600

## N. Polyclonal Antibodies to Mouse Protein C

### SASMPY Sheep Anti Mouse Protein C Antiserum

Polyclonal antiserum (host sheep) to mouse Protein C and APC.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$295
10 ml	\$2,360

## SASMP-C-GF

## Sheep Anti Mouse Protein C IgG Fraction

Polyclonal antibody (host sheep) to mouse Protein C and APC. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

## SASMP-C-GF-BIO

## Sheep Anti Mouse Protein C IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to mouse Protein C and APC. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASMP-C-GF-FITC

## Sheep Anti Mouse Protein C IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to mouse Protein C and APC. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASMP-C-GF-HRP

## Sheep Anti Mouse Protein C IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep) to mouse Protein C and APC. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760



## O. Polyclonal Antibodies to Mouse Prothrombin/Thrombin

### SASMPT

### Sheep Anti Mouse Prothrombin Antiserum

Polyclonal antiserum (host sheep) to mouse prothrombin and thrombin.

Species reactivity: Mouse, Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$295
10 ml	\$2,360

### SASMPT-GF

### Sheep Anti Mouse Prothrombin IgG Fraction

Polyclonal antibody (host sheep) to mouse prothrombin and thrombin. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse, Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

### SASMPT-GF-BIO

### Sheep Anti Mouse Prothrombin IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to mouse prothrombin and thrombin. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse, Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

### SASMPT-GF-FITC

### Sheep Anti Mouse Prothrombin IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to mouse prothrombin and thrombin. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse, Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760



## SASMPT-GF-HRP    Sheep Anti Mouse Prothrombin IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep) to mouse prothrombin and thrombin. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse, Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASMPT-GF-HT    Sheep Anti Mouse Prothrombin, Affinity Purified

Polyclonal antibody (host sheep). Affinity purified by immobilized mouse prothrombin.

Species reactivity: Mouse • Tested applications: ELISA, WB, AP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$345
1.0 mg	\$2,760



## IX. ECOTIN

**MW:** 16 kDa (Monomer)

Ecotin is a serine protease inhibitor that is found in the periplasm of *Escherichia coli*. It has a very broad range of inhibition including the pancreatic serine proteases trypsin and chymotrypsin, human leukocyte and porcine elastase and rat mast cell chymase. It has been described as a potent, tight-binding, reversible inhibitor of Factor Xa alluding to its potent anticoagulant activity forming stoichiometric 1:1 complexes with a  $K_i$  of 54 pM and a  $K_a$  of  $1.35 \times 10^6 \text{ M}^{-1} \text{ s}^{-1}$ . Ecotin does not inhibit the human plasma proteases thrombin, tissue factor-Factor VIIa, Factor XIa, Protein C, plasmin or tPA.

### Technical Information

Molecular Innovations ecotin is overexpressed and secreted to the periplasm of *E. coli*. The purity is at least 98% as determined by SDS-PAGE.

#### Scientific References

1. Seymour, J.L. et al. (1994) *Biochemistry* 33:3949-3958.

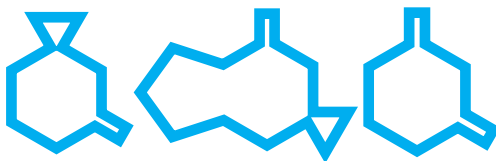
### ECOTIN

### Ecotin

Serine protease inhibitor purified from *E. coli*. At least 98% pure as determined by SDS-PAGE.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
1.0 mg	\$605
5.0 mg	\$2,420







## X. ELASTASE AND PROTEASES

### A. Elastases

#### HNE

#### Human Neutrophil Elastase

Chromatographically purified from human leukocytes. The neutrophil form of elastase is 218 amino acids long, with two asparagine-linked carbohydrate chains. Neutrophils are leukocytes whose primary role is to destroy any foreign particles, either by phagocytosis or by release of bacteriostatic agents. Neutrophils contain high concentrations of the serine proteinase neutrophil elastase that is stored in intracellular vacuoles termed the azurophilic granules. This proteinase is a major protein constituent of neutrophils, comprising around 1-3 pg per neutrophil. Their primary role is to digest any pathogens that the neutrophil has phagocytosed. No detectable amounts of Cathepsin G or MPO. Stability > 1 year at 4°C. Activity >10 u/ml @ 37°C.

#### Selected Product Citations

1. Luyendyk, J.P et al. (2005) J. Pharmacol. Exp. Ther. 314:1023-1031.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.5 mg	\$285
1.0 mg	\$550

#### HNE-L

#### Human Neutrophil Elastase, Lyophilized

Chromatographically purified from leucocytes of purulent human sputum and lyophilized. The lyophilized, salt-free, soluble powder is stable for over a year when stored at 5°C. The protein is greater than 95% pure by SDS-PAGE and is free of cathepsin G, MPO and lysozyme. 800-900 units per mg of protein on the substrate Suc-AI-AI-pNA. 15000-19000 units per mg protein on the substrate MeO-Suc-AI-AI-Pro-Val-pNA. One unit will hydrolyze 1 µmole of substrate per minute at pH 7.5 and 25°C. The following diluents and concentrations are recommended: 1) 1 mg/ml in 0.05 M Na Acetate pH 5.0 containing 0.1 M NaCl. Stable 7 days at 5°C (in ice). 2) 10 mg/ml in 50% glycerol 50% 0.02 M Na Acetate pH 5. Stable at least 60 days at -20°C with 20 cycles between -20°C and 5°C. 3) May be dissolved at 10 mg/ml in 2 mM HoAc and re-lyophilized in smaller quantities. Stability is better in acidic (pH 5.0) than basic buffers. Inactivation may occur at pH 8.0 due to autolysis and/or proteolysis by trypsin such as bovine pancreatic trypsin. Proteolysis can be inhibited by benamidine. Autolysis and proteolysis can be inhibited by elastatinal. However, elastatinal is also an inhibitor of elastase. Low pH protects the elastase from both autolysis and proteolysis.

**Form:** Lyophilized powder • **Storage:** 4°C • **Shipping:** Cold pack • **Shelf life:** 12 months from delivery

Size	Price
0.5 mg	\$490
1.0 mg	\$890





## MPE

## Mouse Pancreatic Elastase

Chromatographically prepared from the euglobin fraction of mouse pancreas by the method of Lewis et al. (1) then twice crystallized. Supplied as a salt free lyophilized powder that is free of trypsin and chymotrypsin. 95% pure by SDS-PAGE. Reconstitute with 0.05M Na Acetate 0.1M NaCl pH 5.0 to 1 mg/ml or desired concentration, aliquot and freeze remaining portion. Assay: 5-10  $\mu$ g in 0.1M Tris pH 8.8 at 37°C containing 0.2mM Suc-(Al)3-pNA.

### Scientific References

1. Lewis, U.J. et al. (1956) J. Biol. Chem. 22:705

**Form:** Lyophilized powder • **Storage:** 4°C • **Shipping:** Cold pack • **Shelf life:** 12 months from delivery

Size	Price
0.1 mg	\$545
1.0 mg	\$3,900

## PPE

## Porcine Pancreatic Elastase

Chromatographically prepared from the euglobin fraction of porcine pancreas by the method of Lewis et al. (1) then twice crystallized. Supplied as a salt free lyophilized powder that is free of trypsin and chymotrypsin. 95% pure by SDS-PAGE. Reconstitute with 0.05M Na Acetate 0.1M NaCl pH 5.0 to 1 mg/ml or desired concentration, aliquot and freeze remaining portion. Assay: 5-10  $\mu$ g in 0.1M Tris pH 8.8 at 37°C containing 0.2mM Suc-(Al)3-pNA.

### Scientific References

1. Lewis, U.J. et al. (1956) J. Biol. Chem. 22:705

**Form:** Lyophilized powder • **Storage:** 4°C • **Shipping:** Cold pack • **Shelf life:** 12 months from delivery

Size	Price
10 mg	\$175
20 mg	\$330

## RPE

## Rat Pancreatic Elastase

Chromatographically prepared from the euglobin fraction of rat pancreas by the method of Lewis et al. (1) then twice crystallized. Supplied as a salt free lyophilized powder that is free of trypsin and chymotrypsin. 95% pure by SDS-PAGE. Reconstitute with 0.05M Na Acetate 0.1M NaCl pH 5.0 to 1 mg/ml or desired concentration, aliquot and freeze remaining portion. Assay: 5-10  $\mu$ g in 0.1M Tris pH 8.8 at 37°C containing 0.2mM Suc-(Al)3-pNA.

### Scientific References

1. Lewis, U.J. et al. (1956) J. Biol. Chem. 22:705

**Form:** Lyophilized powder • **Storage:** 4°C • **Shipping:** Cold pack • **Shelf life:** 12 months from delivery

Size	Price
0.1 mg	\$295
1.0 mg	\$1,950



## B. Proteases

### HEC

### Catalase, Human Erythrocyte

Composed of four identical subunits each with a molecular weight of 58,000. Catalyzes the reaction  $2\text{H}_2\text{O}_2$  to  $\text{H}_2\text{O} + \text{O}_2$ . Catalase, along with the superoxides dismutase and glutathione peroxidase, controls the levels of oxygen-derived free radicals in mammalian cells and together may function as a somatic oxidant defense. Prepared from whole blood and >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage:  $-70^\circ\text{C}$  • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$220
5.0 mg	\$660

### HCT

### Chymotrypsin, Human Pancreas

Increased values of this enzyme and/or its zymogen have been found in patients with cystic fibrosis. Activity: 40-70 units per mg protein. One unit is defined as the amount of enzyme that hydrolyzes one  $\mu\text{mole}$  of Suc-Ala-Ala-Pro-Phe-pNA per minute at  $25^\circ\text{C}$ , pH 8.0. Prepared from human pancreatic tissue and >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage:  $-70^\circ\text{C}$  • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$220
0.5 mg	\$660

### HTRYP

### Trypsin, Human Pancreas

Hydrolyzes peptides, amides and ester bonds involving the carboxyl groups of L-arginine or L-lysine. Increased serum values of this enzyme and/or its zymogen (trypsinogen) have been found in patients with cystic fibrosis. Trypsinogen has three isoforms: cationic (trypsinogen 1), anionic (trypsinogen 2, MW 22,500) and mesotrypsinogen (trypsinogen 3, MW, 25,000). This trypsin is the cationic form. Activity: 2.5 units per mg protein. One unit is defined as the amount of enzyme that hydrolyzes one  $\mu\text{mole}$  of N-benzoyl-DL-arginine-pNA per minute at  $25^\circ\text{C}$  in 200 mM Tris-HCl, pH 7.8, with 20 mM  $\text{CaCl}_2$ . Prepared from human pancreatic tissue and >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage:  $-70^\circ\text{C}$  • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$220
0.5 mg	\$770



## MPO

## Myeloperoxidase, Human Neutrophil

Myeloperoxidase purified from leucocytes of purulent human sputum which is >98% pure. It is a lysosomal protein stored in azurophilic granules of the neutrophil which produces hypochlorous acid from hydrogen peroxide and chloride anion during the neutrophil respiratory burst. Supplied as a lyophilized, salt-free, green soluble powder which is stable for over a year when stored at 5°C. 150 -160 units per mg of protein. 1 unit will decompose 1  $\mu$ mole of H<sub>2</sub>O<sub>2</sub> per minute at pH 7.0 and 25°C using 4-amino-antipyrine as hydrogen donor.

Form: Lyophilized powder • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 mg	\$495
2.0 mg	\$880

## C. Polyclonal Antibodies to Elastase and Proteases

### ASHPA-AS

### Rabbit Anti Human Amylase Standard Antisera

Polyclonal antibody (host rabbit). Gamma globulin purified by ammonium sulfate fractionation. Reacts to human pancreatic amylase.

Species reactivity: Human • Tested applications: ELISA, WB, IEP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$220
10 ml	\$2,090

### ASHEC-GF

### Rabbit Anti Human Catalase IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A. Reacts to human erythrocyte catalase.

Species reactivity: Human • Tested applications: ELISA, WB, IEP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$220
10 ml	\$2,090

## ASHNE-AS

## Rabbit Anti Human Elastase Standard Antisera

Polyclonal antibody (host rabbit). Gamma globulin purified by ammonium sulfate fractionation. Reacts to human neutrophil elastase and does not react to human neutrophil cathepsin G, myeloperoxidase or proteinase 3.

Species reactivity: Human • Tested applications: ELISA, WB, IEP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$220
10 ml	\$2,090

## ASHMPO-GF

## Rabbit Anti Human Myeloperoxidase IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A. Reacts to human neutrophil myeloperoxidase.

Species reactivity: Human • Tested applications: ELISA, WB, IEP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$220
10 ml	\$2,090

## ASHTRYP-GF

## Rabbit Anti Human Trypsin IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A. Reacts to human pancreatic trypsin.

Species reactivity: Human • Tested applications: ELISA, WB, IEP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$220
10 ml	\$2,090

## ASSBTI-GF

## Rabbit Anti Soybean Trypsin Inhibitor IgG Fraction

Polyclonal antibody (host rabbit). Monospecific to Trypsin Inhibitor (Soy Bean) by IEP. Some cross reactivity with Trypsin Inhibitor of other species and tissues may occur. Immunoglobulin purified by delipidation, salt fractionation and ion-exchange chromatography.

Species reactivity: Soy • Tested applications: ELISA, WB, IHC (Paraffin), IF

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
25 mg	\$315
50 mg	\$545



## XI. FIBRINOGEN

**MW:** 330 kDa

**Synthesis:** Liver

**Plasma concentration:** 2-3 mg/ml

Soluble fibrinogen is cleaved by thrombin into insoluble fibrin. Fibrin monomers spontaneously polymerize into a network as the final step in the blood coagulation cascade.

### Technical Information

Molecular Innovations fibrinogen is purified from fresh frozen plasma using a combination of salt precipitations and affinity and immunoaffinity resins. In a functional assay this protein is greater than 95% clottable and is homogeneous on 4-20% SDS-PAGE gels. The extinction coefficient of fibrinogen is 1.51 mg<sup>-1</sup> ml<sup>-1</sup>.

### A. Human Fibrinogen

#### FIB Human Fibrinogen

Prepared from fresh human plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

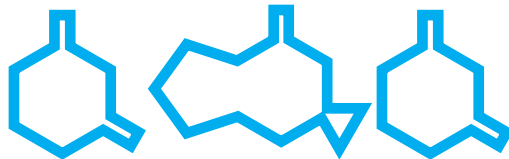
Size	Price
25 mg	\$95
100 mg	\$350

#### FIB-FITC FITC Labeled Human Fibrinogen

Human fibrinogen amino terminal labeled with fluorescein isothiocyanate (FITC). Prepared from fresh human plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use.

**Form:** Frozen liquid • **Storage:** -70°C in dark • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
10 mg	\$95
50 mg	\$380



## B. Polyclonal Antibodies to Human Fibrinogen

### ASHFBGN Rabbit Anti Human Fibrinogen Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$340
10 ml	\$2,720

### ASHFBGN-GF Rabbit Anti Human Fibrinogen IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$340
10 mg	\$2,720

### ASHFBGN-GF-BIO Rabbit Anti Human Fibrinogen IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$4,290

### ASHFBGN-GF-FITC Rabbit Anti Human Fibrinogen IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$4,290



## ASHFBGN-GF-HRP Rabbit Anti Human Fibrinogen IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$4,290

## ASHFBGN-GF-HT Rabbit Anti Human Fibrinogen, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized human fibrinogen.

Species reactivity: Human • Tested applications: ELISA, Capture, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$455
1.0 mg	\$4,290

## C. Mouse Fibrinogen

### MFBN Mouse Fibrinogen

Prepared from fresh mouse plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw protein in a 37°C water bath. Aliquot and freeze the unused portion. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$250
10 mg	\$2,450

### MFBN-FITC FITC Labeled Mouse Fibrinogen

Mouse fibrinogen amino terminal labeled with fluorescein isothiocyanate (FITC). Prepared from fresh mouse plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$500
10 mg	\$4,900





## D. Polyclonal Antibodies to Mouse Fibrinogen

### ASMFBGN Rabbit Anti Mouse Fibrinogen Antiserum

Polyclonal antiserum (host rabbit). Cross reacts with rat fibrinogen.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB, IHC (Frozen, Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$295
10 ml	\$2,360

### ASMFBGN-GF Rabbit Anti Mouse Fibrinogen IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A. Cross reacts with rat fibrinogen.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB, IHC (Frozen, Paraffin)

Selected Product Citations

1. Yarovoi, H. et al. (2005) Blood 105:4674-4676.
2. Adhami, F. et al. (2008) Am. J. Pathol. 172:1704-1716.
3. Tucker, T.A. et al. (2009) Am. J. Respir. Cell Mol. Biol. 42:685-696.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

### ASMFBGN-GF-BIO Rabbit Anti Mouse Fibrinogen IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A. Cross reacts with rat fibrinogen.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

Selected Product Citations

1. Sakamoto, K. et al. (2010) Infect. Immun. 78:1004-1011.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$395
10 mg	\$3,160



## ASMFBGN-GF-FITC Rabbit Anti Mouse Fibrinogen IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A. Cross reacts with rat fibrinogen.

Species reactivity: Mouse, Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$395
10 mg	\$3,160

## ASMFBGN-GF-HRP Rabbit Anti Mouse Fibrinogen IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A. Cross reacts with rat fibrinogen.

Species reactivity: Mouse, Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$395
10 mg	\$3,160

## ASMFBGN-GF-HT Rabbit Anti Mouse Fibrinogen, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized mouse fibrinogen.

Species reactivity: Mouse, Rat • Tested applications: ELISA, Capture, WB, IHC (Frozen, Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$395
1.0 mg	\$3,160

## E. Bovine Fibrinogen

### BFBGN Bovine Fibrinogen

Prepared from fresh bovine plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
25 mg	\$160
100 mg	\$550





## FBFGN-FITC

## FITC Labeled Bovine Fibrinogen

Bovine fibrinogen amino terminal labeled with fluorescein isothiocyanate (FITC). Prepared from fresh bovine plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
10 mg	\$160
40 mg	\$550

## F. Dog Fibrinogen

### DFBGN

### Dog Fibrinogen

Prepared from fresh dog plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$250
10 mg	\$2,450

### DFBGN-FITC

### FITC Labeled Dog Fibrinogen

Canine fibrinogen amino terminal labeled with fluorescein isothiocyanate (FITC). Prepared from fresh dog plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$500
10 mg	\$4,900

## G. Porcine Fibrinogen

### PFBGN

### Porcine Fibrinogen

Prepared from fresh porcine plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw protein in a 37°C water bath. Aliquot and freeze the unused portion. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
25 mg	\$250
100 mg	\$950



## PFGBGN-FITC

## FITC Labeled Porcine Fibrinogen

Porcine fibrinogen amino terminal labeled with fluorescein isothiocyanate (FITC). Prepared from fresh porcine plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
10 mg	\$250
40 mg	\$950

## H. Polyclonal Antibodies to Porcine Fibrinogen

### ASPFGBGN

### Rabbit Anti Porcine Fibrinogen Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Pig • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$215
10 ml	\$1,720

### ASPFGBGN-GF

### Rabbit Anti Porcine Fibrinogen IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Pig • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$215
10 mg	\$1,720

### ASPFGBGN-GF-BIO

### Rabbit Anti Porcine Fibrinogen IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Pig • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## ASPFBGN-GF-FITC Rabbit Anti Porcine Fibrinogen IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Pig • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## ASPFBGN-GF-HRP Rabbit Anti Porcine Fibrinogen IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Pig • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## ASPFBGN-GF-HT Rabbit Anti Porcine Fibrinogen, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized porcine fibrinogen.

Species reactivity: Pig • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$215
1.0 mg	\$1,720

## I. Rabbit Fibrinogen

### RbFBGN Rabbit Fibrinogen

Prepared from fresh rabbit plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
25 mg	\$260
100 mg	\$900

## RbFBGN-FITC

## FITC Labeled Rabbit Fibrinogen

Rabbit fibrinogen amino terminal labeled with fluorescein isothiocyanate (FITC). Prepared from fresh rabbit plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
10 mg	\$250
40 mg	\$950

## J. Polyclonal Antibodies to Rabbit Fibrinogen

### SASRbFBGN-GF

### Sheep Anti Rabbit Fibrinogen IgG fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G. Species reactivity: Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

## K. Rat Fibrinogen

### RFBGN

### Rat Fibrinogen

Prepared from fresh rat plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$250
10 mg	\$2,450

### RFBGN-FITC

### FITC Labeled Rat Fibrinogen

Rat fibrinogen amino terminal labeled with fluorescein isothiocyanate (FITC). Prepared from fresh rat plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$500
10 mg	\$4,900





## L. Sheep Fibrinogen

### SHFBGN Sheep Fibrinogen

Prepared from fresh sheep plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Add deionized water to original volume then incubate at 37°C without agitation until completely liquid. Gently mix before use. Aliquot and flash freeze unused portion.

**Form:** Lyophilized powder • **Storage:** -70°C • **Shipping:** Cold pack • **Shelf life:** 3 years from delivery

Size	Price
100 mg	\$195
1000 mg	\$1,560

### SHFBGN-FITC FITC Labeled Sheep Fibrinogen

Sheep fibrinogen amino terminal labeled with fluorescein isothiocyanate (FITC). Prepared from fresh sheep plasma using several chromatographic steps. Plasminogen depleted by lysine affinity chromatography. Thaw at 37°C without agitation until completely liquid, then gently mix before use. Keep fibrinogen at 25-37°C, aliquot and flash freeze unused portion.

**Form:** Frozen liquid • **Storage:** -70°C in dark • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
10 mg	\$160
40 mg	\$550

## M. Fibrinogen ELISA Kits

### HFIBKT

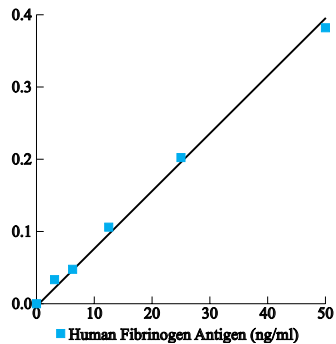
### Human Fibrinogen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of human fibrinogen in plasma and serum.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	3.125 - 800 ng/ml
Linear range	3.125 - 50 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 Kit	\$350
5 Kits	\$1,450

### MFBGNKT

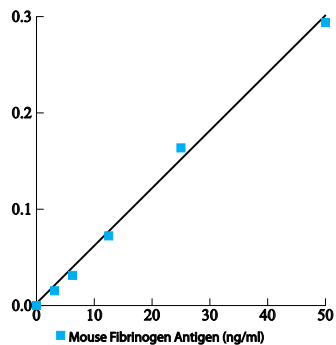
### Mouse Fibrinogen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of mouse fibrinogen in plasma and serum.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	3.125 - 800 ng/ml
Linear range	3.125 - 50 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$395
5 kits	\$1,750





## RFBGNKT

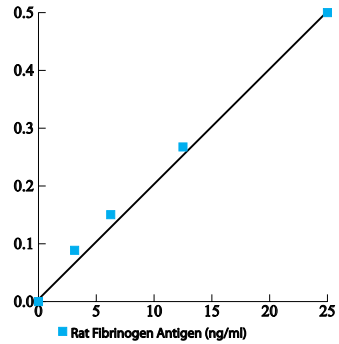
## Rat Fibrinogen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of rat fibrinogen in plasma and serum.

### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	3.125 - 800 ng/ml
Linear range	3.125 - 25 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$395
5 kits	\$1,750



## XII. FIBRONECTIN

**MW:** 500 kDa

**Synthesis:** Liver

**Plasma concentration:** 350 ng/ml

Human fibronectin is an adhesive glycoprotein found in the extracellular matrix and in plasma (1). Fibronectin is composed of two nearly identical polypeptide chains linked by a pair of disulfide bonds. Each subunit is organized into a variety of structural domains containing specific binding sites for cells, collagen, fibrin and glycosaminoglycans. Fibronectin also participates in complex interactions with other macromolecules to influence cellular properties including adhesion, morphology, migration, hemostasis and oncogenic transformation. The human fibronectin provided is suitable to promote the adhesion and propagation of cells in vitro when used to coat cell culture surfaces, including plasticware, glassware and microcarrier beads.

### Technical Information

Molecular Innovations fibronectin is purified from plasma and is provided in physiological buffer where it is stable at -20°C for up to one year. Repeated freeze/thaw cycles should be avoided. Protein concentration is determined spectrophotometrically at 280 nm using an extinction coefficient of 1.3 (0.1%). The purity is greater than 95% as determined by SDS-PAGE.

### Scientific References

1. Moser, T.L. et al. (1993) J. Biol. Chem. 268:18917-18923.

### HFBN

### Human Fibronectin

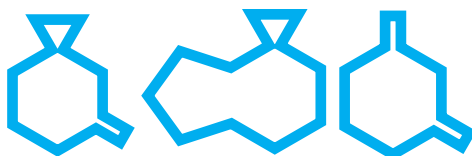
Prepared from fresh human plasma. Ideal reagent for tissue culture studies and protein-protein interactions. Thaw the fibronectin by placing the vial in a 37°C water bath and leaving it undisturbed until completely thawed. Do not disturb the vial at any time during the thawing process. If the vial is disturbed or removed prior to complete thawing, the fibronectin will form a gel and be unusable. Mix very gently with pipette after thawing. Vortexing, excessive agitation, repeated freezing and thawing of fibronectin are not recommended.

### Selected Product Citations

1. Zhu, S. et al. (2009) Am. J. Physiol. Lung Cell. Mol. Physiol. 297:L97-L108.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
1.0 mg	\$175
10 mg	\$1,400





## HMFBN

## Hamster Fibronectin

Prepared from fresh hamster plasma. Ideal reagent for tissue culture studies and protein-protein interactions. Thaw the fibronectin by placing the vial in a 37°C water bath and leaving it undisturbed until completely thawed. Do not disturb the vial at any time during the thawing process. If the vial is disturbed or removed prior to complete thawing, the fibronectin will form a gel and be unusable. Mix very gently with pipette after thawing. Vortexing, excessive agitation, repeated freezing and thawing of fibronectin are not recommended.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## MFBN

## Mouse Fibronectin

Prepared from fresh mouse plasma. Ideal reagent for tissue culture studies and protein-protein interactions. Thaw the fibronectin by placing the vial in a 37°C water bath and leaving it undisturbed until completely thawed. Do not disturb the vial at any time during the thawing process. If the vial is disturbed or removed prior to complete thawing, the fibronectin will form a gel and be unusable. Mix very gently with pipette after thawing. Vortexing, excessive agitation, repeated freezing and thawing of fibronectin are not recommended.

### Selected Product Citations

1. Reheman, A. et al. (2009) Blood 113:1809-1817.
2. Hartney, J.M. et al. (2010) Am. J. Pathol. 176:1157-1168.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760



## XIII. IMMOBILIZED PROTEINS

### HATIII-I

### Immobilized Human Antithrombin

May be used repeatedly. Protocol for purifying high affinity heparin with immobilized antithrombin:

1. Equilibrate immobilized antithrombin in TBS (0.1M Tris-HCl, 0.15M NaCl, pH 7.4) or PBS (0.05M Sodium Phosphate, 0.15M NaCl, pH 7.4).
2. Apply heparin in TBS or PBS. Binding capacity is ~0.1 mg high affinity heparin / ml resin and must be determined by the end user.
3. Wash and elute heparin with 3M NaCl in TBS or PBS.
4. Re-equilibrate resin in TBS or PBS.
5. Add 0.02% Sodium Azide for storage.

Form: Frozen liquid • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 ml	\$290
10 ml	\$2,600

### HTPA-I

### Immobilized Human Tissue Plasminogen Activator

May be used to immunopurify monoclonal and polyclonal antibodies directed against human tPA. May be used repeatedly.

Form: Resin • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 ml	\$565
10 ml	\$4,520

### HUPA-I

### Immobilized Human Urokinase

Immobilized human two-chain HMW urokinase is ideal for the controlled activation of plasminogen to plasmin. After the activation is complete, the resin is simply removed and the reaction is quenched. May be used to immunopurify monoclonal and polyclonal antibodies directed against human urokinase. May be used repeatedly.

Form: Resin • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 ml	\$565
10 ml	\$4,520

### ELAS-I

### Immobilized Porcine Pancreatic Elastase

Cleaves PAI-1 between the P3 and P4 residues to create a loop-inserted species that is non-inhibitory towards the target enzymes uPA and tPA.

Form: Resin • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
1.0 ml	\$340
10 ml	\$2,750



## SBTI-I

## Immobilized Soybean Trypsin Inhibitor

Soybean trypsin inhibitor (SBTI) is a reversible competitive inhibitor of trypsin and other trypsin-like proteases such as chymotrypsin, plasmin and plasma kallikrein. It has a MW of 22 kDa and a pI of 4.5 (1,2). We have immobilized SBTI on an agarose resin via coupling to primary amines to create an affinity resin with specificity for a number of serine proteases. SBTI binds free trypsin tighter with increasing pH from 4.5-8.0 that allows for a simple gradient to low pH (~2.5-3.0) for elution (1).

### Scientific References

1. Birk, Y. (1976) *Methods Enzymol.* 55:700-706.
2. Kassell, B. (1970) *Methods Enzymol.* 19:853-862.

**Form:** Resin • **Storage:** 4°C • **Shipping:** Cold pack • **Shelf life:** 12 months from delivery

Size	Price
10 ml	\$395
50 ml	\$1,750

## HPL-I

## Immobilized Human Plasmin

We have immobilized human Lys plasmin on agarose resin by coupling of primary amines. Plasmin retains catalytic activity when coupled and may be used to efficiently activate single-chain tPA and uPA to the two-chain form (1). It may also be used to convert plasminogen from its native Glu form to the Lys form by removing the first 77 amino acids.

### Scientific References

1. Wallen, P. et al. (1982) *Biochim. Biophys. Acta* 719:318-328.

**Form:** Resin • **Storage:** 4°C • **Shipping:** Cold pack • **Shelf life:** 12 months from delivery

Size	Price
1.0 ml	\$340
10 ml	\$2,720





## XIV. IMMUNOGLOBULINS

### A. Animal Immunoglobulins

#### AHT-GF Armenian Hamster IgG, Protein G Purified

Purified from normal serum by immobilized Protein G. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
50 mg	\$475
100 mg	\$900

#### CY-GF Cyno Monkey IgG, Protein A Purified

Purified from normal serum by immobilized Protein A. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
10 mg	\$175
50 mg	\$475

#### DK-GF Donkey IgG, Protein G Purified

Purified from normal serum by immobilized Protein G. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
50 mg	\$80
100 mg	\$130

#### GT-GF Goat IgG, Protein G Purified

Purified from normal serum by immobilized Protein G. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
50 mg	\$80
100 mg	\$130

#### HT-GF Hamster IgG, Protein G Purified

Purified from normal serum by immobilized Protein G. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
10 mg	\$60
50 mg	\$240



## HS-GF

## Horse IgG, Protein G Purified

Purified from normal serum by immobilized Protein G. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
50 mg	\$80
100 mg	\$130

## MSC57BL6-GF

## C57BL6 Mouse IgG, Protein A Purified

Purified from normal serum by immobilized Protein A. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
10 mg	\$175
50 mg	\$295

## MSCD1-GF

## CD1 Mouse IgG, Protein A Purified

Purified from normal serum by immobilized Protein A. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
10 mg	\$175
50 mg	\$295

## MS-GF

## Mouse IgG, Protein A Purified

Purified from normal serum by immobilized Protein A. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
10 mg	\$75
50 mg	\$110

## MS-GF-ED

## Mouse IgG, Protein A Purified, Low Endotoxin

Purified from normal serum by immobilized Protein A using low endotoxin methodology. The purified protein is sterile filtered and lyophilized from azide free PBS. >95% pure by SDS-PAGE and <1 EU/mg.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
50 mg	\$395
1000 mg	\$2,950

## RB-GF

## Rabbit IgG, Protein A Purified

Purified from normal serum by immobilized Protein A. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
500 mg	\$195
1000 mg	\$325

## RB-GF-BIO

## Rabbit IgG, Biotin Labeled

Rabbit IgG purified from normal serum by immobilized Protein A then biotin labeled. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$195
10 mg	\$1,560

## RB-GF-ED

## Rabbit IgG, Protein A Purified, Low Endotoxin

Purified from normal serum by immobilized Protein A using low endotoxin methodology. The purified protein is sterile filtered and lyophilized from azide free PBS. >95% pure by SDS-PAGE and <1 EU/mg.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
50 mg	\$395
1000 mg	\$1,995

## RS-GF

## Rhesus Monkey IgG, Protein A Purified

Purified from normal serum by immobilized Protein A. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
10 mg	\$195
50 mg	\$495

## SH-GF

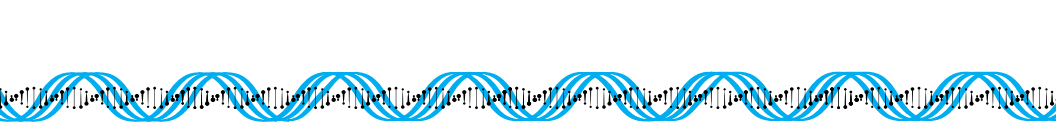
## Sheep IgG, Protein G Purified

Purified from normal serum by immobilized Protein G. >95% pure by SDS-PAGE and preservative free.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
50 mg	\$60
100 mg	\$95





## B. Human Immunoglobulins

### HU-IGA1M IgA1, Human Myeloma Plasma

In normal adult serum, the approximate percentage composition of IgA with respect to its subclasses is IgA1:90% and IgA2:10%. In secretory IgA, the subclass proportions may approach 50:50. The clinical significance of the subclasses has yet to be determined. Prepared from human myeloma plasma and >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$220
10 mg	\$330

### HU-IGA2M IgA2, Human Myeloma Plasma

In normal adult serum, the approximate percentage composition of IgA with respect to its subclasses is IgA1:90% and IgA2:10%. In secretory IgA, the subclass proportions may approach 50:50. The clinical significance of the subclasses has yet to be determined. Prepared from human myeloma plasma and >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$275
10 mg	\$440

### HU-IGD IgD, Human Plasma

IgD was first identified in 1965 and like other immunoglobulins, exists as both secreted and membrane forms. Its level in plasma is low with a mean concentration of 30 µg/ml. IgD is present in large quantities on the surface membrane of a majority of human circulating B lymphocytes. IgD enhances humoral immune responses through its induction of IgD-receptor expression on T lymphocytes. >95% pure by SDS-PAGE.

#### Scientific References

1. Coico RF, Siskind GW, Thorbecke GJ 1988. Immunol. Rev. 105:45.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.025 mg	\$220
0.1 mg	\$550



## HU-IGDM

## IgD, Human Myeloma Plasma

IgD was first identified in 1965 and like other immunoglobulins, exists as both secreted and membrane forms. Its level in plasma is low with a mean concentration of 30 µg/ml. IgD is present in large quantities on the surface membrane of a majority of human circulating B lymphocytes. IgD enhances humoral immune responses through its induction of IgD-receptor expression on T lymphocytes. Prepared from human myeloma plasma and >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$220
0.5 mg	\$660

## HU-IGG1M

## IgG1, Human Myeloma Plasma

In normal adult serum, the approximate percentage composition of IgG with respect to its subclasses is IgG1:65%, IgG2:23%, IgG3:6% and IgG4:6%. Abnormal levels of one or more subclasses may be associated with autoimmune, anaphylactic and gut diseases, as well as with recurrent infection. Prepared from human myeloma plasma and >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$220
10 mg	\$330

## HU-IGG2M

## IgG2, Human Myeloma Plasma

IgG2 is the only IgG subclass which passes through the placenta at a level generally lower than that found in the mother. A deficiency of IgG2 indicates a poor antibody response to bacterial polysaccharides and can lead to increased susceptibility to infections caused by encapsulated bacteria. Prepared from human myeloma plasma and >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$220
10 mg	\$330

## HU-IGM

## IgM, Human Plasma

IgM is found in normal plasma at a concentration of 1.2 to 4.0 mg/ml. It is the first immunoglobulin produced during the immune response, the first antibody in neonates and is involved in pathogenesis of autoimmune diseases. A diminished level of IgM is associated with Wiskott-Aldrich syndrome. >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$220
10 mg	\$385

## HU-IGMM

## IgM, Human Myeloma Plasma

IgM is found in normal plasma at a concentration of 1.2 to 4.0 mg/ml. It is the first immunoglobulin produced during the immune response, the first antibody in neonates and is involved in pathogenesis of autoimmune diseases. A diminished level of IgM is associated with Wiskott-Aldrich syndrome. Prepared from human myeloma plasma and >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$220
10 mg	\$330

## HU-FAB

## IgG, Fab Fragment, Human Plasma

Isolated fab fragments can be used to bind antigen to antibody in solution or on the cell surface without causing the undesired complications of cross-linking and precipitation or patching and capping, respectively. No reaction by IEP to antisera to human IgG-fc. >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$220
10 mg	\$330

## HU-FC

## IgG, Fc Fragment, Human Plasma

The IgG fc fragment does not bind antigen; however, it does contain the classic antigenic determinants and biological activity with respect to cytotrophic reactions, binding of complement and catabolic rate control. No reaction by IEP to antisera to human IgG-fab. >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$220
10 mg	\$330



## HU-GF

## IgG, Human Plasma

Purified from normal serum by immobilized Protein A. IgG is the most abundant immunoglobulin in plasma, found at a concentration of 8 to 18 mg/ml. This immunoglobulin plays a very important role in the defense against infection for newborns because of its transfer through the placenta during pregnancy. It readily diffuses into the extravascular body spaces where it plays a major role in neutralizing bacterial toxins and in enhancing the phagocytosis of microorganisms. IgG binds to bacteria and these complexes adhere to phagocytic cells which have surface receptors specific for IgG. >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
50 mg	\$95
1000 mg	\$350

## HU-GF-ED

## IgG, Human Plasma, Low Endotoxin

Purified from normal serum by immobilized Protein A using low endotoxin methodology. The purified protein is sterile filtered and lyophilized from azide free PBS. >95% pure by SDS-PAGE and <1 EU/mg.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
50 mg	\$395
1000 mg	\$1,995

## HU-IGA

## IgA, Human Plasma

IgA is the most abundant immunoglobulin in body fluids and the second most abundant immunoglobulin in plasma, found at a concentration of 0.4 to 2.2 mg/ml. It plays a very important role in the first specific defense against natural infection. Secretory IgA differs from serum IgA in that it contains two additional peptides: the secretory component and the J chain. >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$220
10 mg	\$330

## C. IgG Depleted Serum

### HPLA-SER-GF

### Human IgG Depleted Serum

Prepared from frozen human serum using immobilized Protein A.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
100 ml	\$295
500 ml	\$1,180

## D. Immunoglobulin ELISA Kits

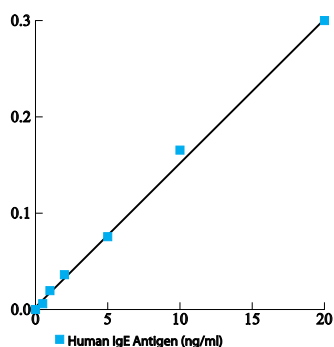
### HUIGEKT Total Human Immunoglobulin E Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total human IgE antigen in serum, plasma, hybridoma cell supernatants, ascites or other biological fluids.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.5 - 500 ng/ml
Linear range	0.5 - 20 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	75 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$395
5 kits	\$1,750

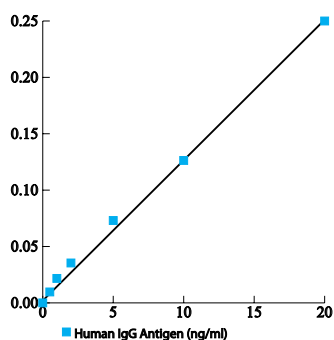
### HUIGGKT Total Human Immunoglobulin G Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total human IgG antigen in serum, plasma, hybridoma cell supernatants, ascites or other biological fluids. The assay does not distinguish IgG subclasses.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.5 - 500 ng/ml
Linear range	0.5 - 20 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	75 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$395
5 kits	\$1,750



## XV. NEUROSERPIN

### A. Mouse Neuroserpin

#### MNSP

#### Recombinant Mouse Neuroserpin

Recombinantly produced in insect cells as a fusion protein with a proprietary purification tag. The tag is removed by TEV cleavage after purification.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$215
1.0 mg	\$1,925

### B. Polyclonal Antibodies to Mouse Neuroserpin

#### SASMNSP

#### Sheep Anti Mouse Neuroserpin Antiserum

Polyclonal antiserum (host sheep) to mouse neuroserpin (His Tag).

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$325
10 ml	\$2,600

#### SASMNSP-GF

#### Sheep Anti Mouse Neuroserpin IgG Fraction

Polyclonal antibody (host sheep) to mouse neuroserpin (His Tag). IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$325
10 mg	\$2,600

#### SASMNSP-GF-BIO

#### Sheep Anti Mouse Neuroserpin IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to mouse neuroserpin (His Tag). IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760



## SASMNSP-GF-FITC Sheep Anti Mouse Neuroserpin IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to mouse neuroserpin (His Tag). IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASMNSP-GF-HRP Sheep Anti Mouse Neuroserpin IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep) to mouse neuroserpin (His Tag). IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASMNSP-GF-HT Sheep Anti Mouse Neuroserpin, Affinity Purified

Polyclonal antibody (host sheep) to mouse neuroserpin (His Tag). Affinity purified by immobilized mouse neuroserpin.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$295
1.0 mg	\$2,860

## SASMNSP-GF-HT-BIO Sheep Anti Mouse Neuroserpin, Affinity Purified Biotin Labeled

Biotin labeled affinity purified polyclonal antibody (host sheep) to mouse neuroserpin (His Tag). Affinity purified by immobilized mouse neuroserpin followed by biotin conjugation.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.5 mg	\$495
5.0 mg	\$3,950



## XVI. PLASMA PROTEINS

### HA1AC

#### Alpha-1 Antichymotrypsin, Human Plasma

An acute-phase plasma protein found at 45 mg per 100 ml. ACT functions as a specific inhibitor of chymotrypsin-like serine proteases. Clinically, it is elevated in inflammatory conditions, some malignancies, Crohn's disease, ulcerative colitis and burn injuries. The PSA-ACT complex level is considered a biomarker for prostate cancer. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$220
1.0 mg	\$330

### HA1AT

#### Alpha-1-Antitrypsin, Human Plasma

An acute-phase plasma protein found at 290 mg per 100 ml that functions as a protease inhibitor. Clinically, its deficiency is associated with two major diseases: pulmonary emphysema and early onset/juvenile hepatic cirrhosis. It is elevated in inflammatory conditions, malignancies, liver disease and pregnancy and also after surgical trauma and use of oral contraceptives. The simultaneous quantitative determination of alpha-1-PI and ceruloplasmin permits differential diagnosis of liver afflictions. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$220
10 mg	\$395

### HA1GP

#### Alpha-1-Acid Glycoprotein, Human Plasma

Found in human plasma in concentrations of 55-140 mg per 100 ml. Classical standard glycoprotein for studies on the structure of the oligosaccharide units. Carbohydrate content is 40%. Its biological significance is unknown although it can bind progesterone 15 times as strongly as albumin. Sialic-acid-deficient alpha-1-AG has an affinity for vitamin B-12. Clinically, alpha 1 acid glycoprotein is an acute-phase reactant that together with haptoglobin is an indicator of acute inflammation. The alpha 1 acid glycoprotein:haptoglobin ratio is useful in studies of bone marrow disorders, hemolytic processes and metastases. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
10 mg	\$220
25 mg	\$330



## HA2GP

### Alpha-2-HS-Glycoprotein, Human Plasma

Found in human serum at 60 mg per 100 ml. This protein is a negative acute-phase reactant. Clinically, concentrations are reduced in cancer patients. Alpha-2-HS-Glycoprotein levels are positively correlated with gestational diabetes and negatively correlated with neonatal skeletal development. Studies show this protein to be present at high concentrations in the peritoneal fluids of patients with endometriosis. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$220
5.0 mg	\$440

## HA2MG

### Alpha-2-Macroglobulin, Human Plasma

A major serum protein found at concentrations of 240 mg per 100 ml in men and 290 mg per 100 ml in women. Multifunctional, it promotes growth of mammalian cells in culture, stimulates the regeneration of lymphocytes in irradiated mice, possesses a transport function for zinc and is a proteinase inhibitor that controls the clotting and fibrinolytic system. Clinically levels are increased in liver cirrhosis, nephrotic syndrome, diabetes and severe burn cases. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$220
10 mg	\$395

## HC1EIN

### C-1 Esterase Inhibitor, Human Plasma

A single chain glycoprotein which inhibits C1, C1r, C1s, plasma kallikrein, Factors XIa, XIIa and plasmin. Present in plasma at 16-33 mg per 100 ml. C1 esterase inhibitor deficiency is a rare condition resulting in facial swelling and abdominal cramping. Usually the condition is hereditary, though it may also occur when the C1EIN is non-functional. >95% pure by SDS-PAGE.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$220
5.0 mg	\$660



## HCP

## Ceruloplasmin, Human Plasma

An acute-phase reactant. Increased levels are associated with normal pregnancy, rheumatoid arthritis and cirrhosis. Decreased levels are associated with hepatolenticular degeneration (Wilson's Disease). An elevated level of Ceruloplasmin is found in patients with progressive tumors. Additionally, as Ceruloplasmin is a prooxidant, an elevated level is a sign of cardiovascular disease. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$220
5.0 mg	\$440

## HGCG

## GC Globulin, Human Plasma, Mixed Type

An alpha 2 glycoprotein composed of a single polypeptide chain and present in plasma at levels of 20-55 mg/100 ml. It functions in the binding and transport of vitamin D and may also play an important role in actin homeostasis since it has been shown to bind monomeric actin with high affinity. GC Globulin also binds membranes of both circulating B and T lymphocytes. Clinically, concentrations are reduced in patients with severe liver diseases. GC Globulin may also play an important role in the mechanism of the osteomalacia that occurs with Itai-Itai disease. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$220
5.0 mg	\$440

## HHP

## Haptoglobin, Human Plasma

An acute-phase plasma protein found in human plasma at 100-300 mg per 100 ml. Binds hemoglobin, thus preventing loss of iron through the kidneys. Humans are polymorphic for haptoglobin, with three major phenotypes. Hp 1-1 is the most common and the most effective in binding free hemoglobin. Hp 2-2 is the least effective. This functional difference may be associated with the frequency and severity of epilepsy attacks, as researchers have found a correlation between recurring seizures and the Hp 2-2 phenotype. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion. Molecular Weights by phenotype - Hp 1-1: 86,000; Hp 2-1: 200,000; Hp 2-2: 400,000.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$220
10 mg	\$330

## HSA

## Albumin, Human Plasma

Albumin is a water-soluble protein with considerable structural stability. It is the most abundant of the human proteins, making up 60% of the total protein of plasma. It functions as a carrier of hormones, enzymes, fatty acids, metal ions and medicinal products. For over fifty years, it has been used as a therapeutic agent for the restoration and maintenance of circulating blood volume for trauma, surgery and burn patients. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

**Form:** Lyophilized powder • **Storage:** -70°C • **Shipping:** Cold pack • **Shelf life:** 3 years from delivery

Size	Price
100 mg	\$220
200 mg	\$330

## HSPA

## Prealbumin, Human Plasma

Serum protein found in plasma at 30 mg per 100 ml. Functions in the transport of thyroxine, vitamin A and retinol-binding protein. Clinically, prealbumin is a sensitive indicator of impaired liver function; low levels are found in viral hepatitis, cirrhosis, malnutrition, inflammation and surgical trauma. >95% pure by SDS-PAGE.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
1.0 mg	\$220
5.0 mg	\$440

## HAPOTF

## Apotransferrin, Human Plasma

Apotransferrin consists of transferrin without the iron molecule. Like transferrin, apotransferrin has a physiological role in the transportation and distribution of iron among the body organs. It is also an important transport factor used in defined culture media. Purified to have less than 0.02 mg iron per gram of transferrin. Each human transferrin molecule has the ability to carry two iron ions in the ferric form (Fe<sup>3+</sup>). Dissolves in water at 10 mg per ml. Total protein determination by the Lowry method. >95% pure and shows only one major band corresponding to the molecular weight of transferrin by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

**Form:** Lyophilized powder • **Storage:** -70°C • **Shipping:** Cold pack • **Shelf life:** 3 years from delivery

Size	Price
100 mg	\$220
1000 mg	\$395





## HTF

## Transferrin, Human Plasma

Transferrin is a monomeric glycoprotein found in plasma at an average concentration of 250 mg/100 ml. This Holo form of transferrin is iron saturated and is also called Siderophilin. As the specific iron-binding protein in plasma, it has a role in the transportation and distribution of iron among the body organs. Transferrin also functions in iron metabolism and prevention of iron loss via the kidneys. Stored in bone marrow as Tf-bound iron, it also possesses bacteriostatic and fungistatic activity. Clinically, decreases in transferrin are observed in congenital disorders, newborns, inflammatory diseases, hypoproteinemias and nephrotic syndrome; increases are found in pregnancy, iron-deficiency anemias and inoculation hepatitis. Transferrin is required by all types of cells in cultures for maximal growth and is therefore an important transport factor used in defined culture media. Each human transferrin molecule has the ability to carry two iron ions in the ferric form ( $\text{Fe}^{3+}$ ). Dissolves in water at 10 mg per ml. Total protein determination by the Lowry method. >95% pure and shows only one major band corresponding to the molecular weight of transferrin by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage:  $-70^{\circ}\text{C}$  • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
100 mg	\$220
1000 mg	\$660





## XVII. PLASMINOGEN ACTIVATOR INHIBITOR 1 (PAI-1)

**MW:** 50 kDa (glycosylated); 43 kDa (non glycosylated)

**Synthesis:** Endothelial cells, smooth muscle cells

**Plasma concentration:** 20-100 ng/ml

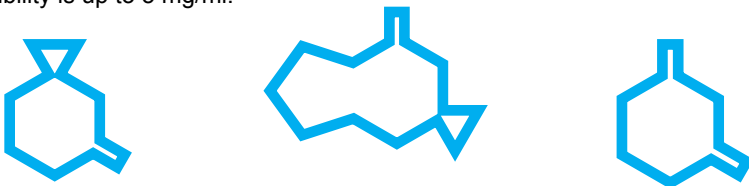
Human PAI-1 is a single-chain glycoprotein with a molecular weight of 50 kDa. Wild type PAI is an efficient inhibitor of tissue-type and urokinase-type plasminogen activators (1). These enzymes convert plasminogen to its active form, plasmin and are thought to influence many biological processes inducing fibrinolysis, ovulation, embryonic development, inflammation, tumor metastasis, wound healing and angiogenesis (2). PAI-1 belongs to the SERine Protease INhibitor superfamily (SERPINS) and will spontaneously decay into a latent (inactive) form with a half-life of approximately 1 hour at physiological pH and temperature. PAI-1 is slightly stabilized (half-life ~2 hours) by binding to the adhesive protein vitronectin with dissociation constants in the nanomolar range (3).

Molecular Innovations also offers a stable variant with a half-life greater than 145 hours. The mutant (Product code CPAI) was produced from a randomly mutated recombinant PAI-1 expression library (4). The increased stability is a result of the cooperative effect of four mutations. This mutant has shown great utility in experiments where a very long half-life is desired. This includes extended incubations in cell culture work and in vivo studies in animal models where it has recently been shown to be a potent inhibitor of angiogenesis (5). The crystal structure of this stable mutant has been solved and represents the closest approximation to the active form of the wild type inhibitor to date (6).

PAI-1 also interacts with a number of non-proteinase ligands, including the cell adhesion protein vitronectin and members of the low-density lipoprotein (LDL) receptor family, including the LDL receptor related protein (LRP), the very low-density lipoprotein (VLDL) receptor and gp330/megalin (7). There is increasing evidence of a relationship between elevated PAI-1 levels and the occurrence of coronary artery disease. A recent publication demonstrates that PAI-1 in the presence of vitronectin may be the most important physiological inhibitor of Activated Protein C (APC) (8).

### Technical Information

The PAI-1 products produced by Molecular Innovations are expressed recombinantly in *Escherichia coli* or as glycosylated forms produced in an insect cell expression system. The PAI-1 is purified under extremely gentle conditions and is never subjected to denaturants of any kind. The PAI-1 is provided as a frozen solution in a buffer where it is stable at -70°C indefinitely. The protein concentration is determined spectrophotometrically at 280 nm using an extinction coefficient of 1.0 (0.1%). The solubility is up to 5 mg/ml.





## Scientific References

1. Sherman, P.M. et al. (1992) J. Biol. Chem. 267:7588-7595.
2. Lawrence, D.A. et al. (1994) Biochemistry. 33:3643-3648.
3. Lawrence, D.A. et al. (1994) J. Biol. Chem. 269:15223-15228.
4. Berkenpas, M.B. et al. (1995) EMBO J. 14:2969-2977.
5. Stefansson, S. et al. (2001) J. Biol. Chem. 276: 8135-8141.
6. Sharp, A.M. et al. (1999) Structure. 7:111-118.
7. Stefansson, S. et al. (1998) J. Biol. Chem. 273:6358-6366.
8. Rezaie, R. (2001) J. Biol. Chem. 276:15567-15570.

## A. Human PAI-1

### PAI-A Human PAI-1 (Wild Type Active Fraction)

Human wild type PAI-1 is produced as an active and latent form in *E. coli*. The purification conditions are gentle and result in an active fraction >99% pure and >98% active as determined by titration with HMW tc-urokinase and SDS PAGE.

#### Selected Product Citations

1. Iafrafi, M.D. et al. (2005) Am. J. Physiol. Heart Circ. Physiol. 288:H1627-H1632.
2. Chai, J. et al. (2005) Cancer. Res. 65:10192-10198.
3. Jo, M. et al (2005) J. Biol. Chem. 280:17449-17457.
4. Chu, J.W. et al. (2005) Diabetes and Vascular Disease Research 2:37-41.
5. Moran, P. et al. (2006) J. Biol. Chem. 281:30439-30446.
6. O'Connor, J.C et al. (2007) Mol. Cancer Res. 5:585-603.
7. Inagi, R. et al. (2007) Nephrol. Dial. Transplant 22:3311-3317.
8. E.H. Norris and S. Strickland (2007) PNAS 104:13473-13478
9. D. Vial and P.J. McKeown-Longo. (2008) J. Cell Sci. 121:1661-1670.
10. Chen, S. et al. (2008) Mol. Cancer Ther. 7:1227-1236.
11. Li, S. et al. (2008) J. Biol. Chem. 283:18147-18157.
12. Schar, C.R. et al. (2008) J. Biol. Chem. 283:10297-10309.
13. Lund, I.K. et al. (2008) J. Biol. Chem. 283:32506-32515.
14. Adair, J.E. et al. (2009) J. Biol. Chem. 284:16922-16930.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140

### PAI-L Human PAI-1 (Wild Type Latent Fraction)

<0.4% active as determined by titration with HMW tc-urokinase and SDS PAGE. Latent PAI-1 is a useful control for experiments when used in conjunction with the active form.

#### Selected Product Citations

1. Minor, K.H. et al. (2005) J. Biol. Chem. 280:28711-28720.
2. Wu, J. et al. (2009) Arterioscler. Thromb. Vasc. Biol. 29:1565-1570.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140



## CPAI

## Human PAI-1 (Stable Mutant)

The human form of PAI-1 contains the following four mutations: K154T, Q319L, M354I and N150H. These mutations combine to confer great stability to the otherwise labile molecule essentially locking it into the active conformation. It is an ideal choice for *in vivo* studies.

### Selected Product Citations

1. Minor, K.H. et al. (2005) *J. Biol. Chem.* 280:28711-28720.
2. Crandall, D.L. et al. (2006) *Arterioscler. Thromb. Vasc. Biol.* 26:2209-2215.
3. Stefansson, S. et al. (2007) *J. Biol. Chem.* 282:15679-15689.
4. Zhang, Y. et al. (2007) *J. Immunol.* 179:3297-3304.
5. Schar, C.R. et al. (2008) *J. Biol. Chem.* 283:10297-10309.
6. Horowitz, J.C. et al. (2008) *Am. J. Respir. Cell Mol. Biol.* 38:78-87.
7. Yang, D. et al. (2009) *J. Neurosci.* 29:8669-8674.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140

## HPAI-I91L

## Human PAI-1 (Single Point Stable Mutant)

This human PAI-1 mutant has a single point mutation (Isoleucine 91 to Leucine) that provides increased stability for use in long term binding experiments or *in vivo* studies. The half life has not been quantified but is greater than wild type and less than CPAI. It is an excellent control for experiments involving the LRP non binding stable mutant human PAI-1.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140

## GLYHPAI-A

## Glycosylated Human PAI-1 (Wild Type Active)

Glycosylated wild type human PAI-1 produced in insect cells with molecular weight of approximately 46,000 Da. Active fraction.

### Selected Product Citations

1. Gorlatova, N.V. et al. (2007) *J. Biol. Chem.* 282:9288-9296.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.5 mg	\$950
1.0 mg	\$1,520



## GLYHPAI-L

## Glycosylated Human PAI-1 (Wild Type Latent)

Glycosylated wild type human PAI-1 produced in insect cells with molecular weight of 46,000 Da. Latent fraction.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$950
1.0 mg	\$1,520

## GLYCPAI

## Glycosylated Human PAI-1 (Stable Mutant)

Glycosylated human PAI-1 produced in insect cells with a molecular weight of 46,000 Da. The stable mutant contains the four mutations found in CPAI to confer additional stability to the otherwise labile molecule.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$950
1.0 mg	\$1,520

## 6X-HISPAI

## Human PAI-1 (N-terminal His Tag Stable Mutant)

A patent pending mutant of human PAI-1 containing four mutations that stabilize the activity of PAI-1 has been made available. The N-terminus has been additionally modified with the introduction of a 6x-Histidine tag. The tag allows for the immobilization of functionally active PAI-1 onto surfaces such as metal chelate microtiter plates or Ni<sup>2+</sup> resins. Many new applications for PAI-1 can be envisioned with this unique reagent.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140

## HPAI-Q123K

## Human PAI-1 (Vitronectin Reduced Binding Mutant)

A single mutation results in 10-fold loss of binding of the PAI-1 mutant to the important ligand vitronectin. All other aspects of PAI-1 biological activity such as anti-protease activity remain unaffected.

### Scientific References

1. Jensen, J.K. et al. (2004) FEBS Lett. 556: 175-179.

### Selected Product Citations

1. Arndt, P.G. et al (2005) J. Immunol. 175:4049-4059.

2. D. Vial and P.J. McKeown-Longo. (2008) J. Cell Sci. 121:1661-1670.

3. Adair, J.E. et al. (2009) J. Biol. Chem. 284:16922-16930.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140



## CPAI-Q123K

## Human PAI-1 (Vin Reduced Binding Stable Mutant)

The Q123K point mutation on the human PAI-1 stable mutant background (K154T, Q319L, M354I and N150H) results in PAI-1 with a greatly extended half life and reduced binding to the important ligand vitronectin.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140

## HPIA-R76E-I91L

## Human PAI-1 (LRP Non Binding Stable Mutant)

A substitution of Glutamic Acid for Arginine at position 76 greatly decreases the binding of this Human PAI-1 mutant to the low density lipoprotein receptor-related protein (LRP). The putative LRP binding exosite is thought to overlap with the heparin binding site on the PAI-1 molecule. Binding to LRP or similar receptors leads to the clearance of PAI-1 complexes. An additional mutation provides increased stability for use in long term binding experiments or in vivo studies.

Scientific References

1. Stefansson S. et al. (1998) J Biol Chem 273:6358-6366.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140

## HPIA-YSY

## Human PAI-1 (tPA Specific Mutant)

A triple mutation on the wild-type background makes this Human PAI-1 selectively inhibit tPA. Urokinase inhibition is limited to 1/25,000 of tPA inhibition by the P3Tyr-P2Ser-P1Tyr mutation.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140

## HPAI-RR

### Human PAI-1 (P12 Arginine P14 Arginine Substrate Double Mutant)

Two amino acid substitutions at positions P12 and P14 in the reactive center loop produces a PAI-1 that becomes a substrate for proteinases rather than an inhibitor. This molecule is useful for mechanistic studies.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140

## HPAI-T333R

### Human PAI-1 (P14 Arginine Substrate Mutant)

A single substitution at position P14 in the reactive center loop produces a PAI-1 that becomes a substrate for proteinases rather than an inhibitor. This molecule is useful for mechanistic studies.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140

## HPAI-A335E

### Human PAI-1 (P12 Glutamic Acid Substrate Mutant)

From the laboratory of Professor Paul Declerck at K.U. Leuven, Belgium. A single substitution at position P12 in the reactive center loop produces a PAI-1 that becomes a substrate for proteinases rather than an inhibitor. This molecule is useful for mechanistic studies.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140

## PAI-A-AN

### Human PAI-1 (Peptide Annealed Wild Type)

Active human wild-type PAI-1 is also available pre-annealed with the Octapeptide Ac-TVASSSTA and ready for immediate use. Please inquire regarding other species of annealed PAI-1.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

## PAI-C

### Human PAI-1 (Elastase Cleaved Wild Type)

Human PAI-1 is provided cleaved at P3-P4 residues via immobilized elastase: <1% active. Useful for various control experiments requiring a non-reactive, reactive loop inserted species of PAI-1.

#### Selected Product Citations

1. Wu, J. et al. (2009) *Arterioscler. Thromb. Vasc. Biol.* 29:1565-1570.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

## PEP-1

### Ac-TVASSSTA Octapeptide

Ac-TVASSSTA is an octapeptide mimic of the N-terminal residues of the reactive center loop of PAI-1 (cf. P14-P7 residues). The octapeptide inactivates PAI-1 by substituting for strand 4 in beta-sheet A in a manner that competes with formation of the latent species. Insertion of the peptide into beta-sheet A effectively forms a stable complex that converts PAI-1 into a substrate for tissue-type plasminogen activator (tPA) and other target proteinases. The resulting species of PAI-1 is thermodynamically stable and is useful for investigating the role of reactive center loop insertion. Supplied as a lyophilized powder.

#### Selected Product Citations

1. Li, S. et al. (2008) *J. Biol. Chem.* 283:18147-18157.

**Form:** Lyophilized powder • **Storage:** -70°C • **Shipping:** Cold pack • **Shelf life:** 3 years from delivery

Size	Price
5.0 mg	\$485
10 mg	\$830





## B. Anti-Inflammatory Mutants of PAI-1

### APAI Human PAI-1 (Elastase Specific Mutant)

A single mutation at the P1 position of PAI-1 alters the target specificity of PAI-1 from the plasminogen activators tPA and uPA to elastase. PAI-1 is normally a substrate for pancreatic and neutrophil elastase becoming cleaved at the P3 position. This mutant contains a P1 Alanine in place of the wild type Arginine residue resulting in an inhibitor of elastase as potent as alpha-1PI (antitrypsin).

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

### FPAI Human PAI -1 (Cathepsin G Specific Mutant)

A single mutation at the P1 position of PAI-1 alters the target specificity of PAI-1 from the plasminogen activators tPA and uPA to Cathepsin G. This mutant contains a P1 Phenylalanine in place of the wild type Arginine residue resulting in an inhibitor with the specificity of antichymotrypsin.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

### HPAI-AVI Human PAI-1 (Neutrophil Elastase Inhibitor Mutant)

This human PAI-1 variant contains a mutation at the active site to make it specific for inhibition of neutrophil elastase. Additional mutations provide resistance to cleavage and stability. This preparation has low endotoxin (<20 EU/mg) so is suitable for in vivo studies.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,195



## C. Human PAI-1 Reporter Mutants

### HPAI-P9NBD

### Human PAI-1 (NBD Labeled at the Reactive Center Loop)

P9-NBD PAI-1 was created by mutagenesis of the P9 serine residue (Ser338) on the reactive center loop to cysteine. This then provided a free thiol group for incorporation of N,N'-dimethyl-N-(acetyl)-N'-(7-nitrobenz-2-oxa-1,3-diazol-4-yl) (NBD), a fluorescent probe highly sensitive to changes in solvation and hydrophobic environment. The fluorescence emission of P9-NBD PAI-1 is enhanced 6-7 fold upon insertion of the reactive center loop into beta-sheet A following complex formation with proteinases, formation of the latent species or cleavage by elastase. The incorporated probe is excited at 480 nm and displays a broad emission spectrum with a peak centered 542 nm with a resultant blue-shift to 520 nm following reactive center loop insertion. The modified PAI-1 is nearly as active as wt PAI-1 and is more resistant to the spontaneous latency reaction making this an excellent tool for monitoring reaction rates of PAI-1 (1). P9-NBD PAI-1 has been utilized in a number of studies to determine the rates of loop insertion and SERPIN reaction mechanisms when reacted with various proteinases (1,2), inactivating antibodies (2) and conformational changes imposed by the binding of vitronectin (4).

#### Scientific References

1. Shore JD, et al. (1995) J Biol Chem 270:5395-5398.
2. Lawrence D, et al. (2000) J Biol Chem 275:5839-5844.
3. Verhamme IM, et al. (1999) J Biol Chem 274:17511-17517.
4. Gibson A, et al. (1997) J Biol Chem 272:5112-5121.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300





## HPAI-P1'NBD

## Human PAI-1 (NBD Labeled at the Scissile Bond of the Reactive Center Loop)

P1'-NBD PAI-1 was created by mutagenesis of the P1' serine residue (Ser347) at the P1-P1' scissile bond to cysteine. This then provides a free thiol group for NBD labeling, a fluorescent probe highly sensitive to changes in solvation and hydrophobic environment. The fluorescence emission of P1'-NBD PAI-1 is quenched upon cleavage of the reactive center loop by a target proteinase.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

## CPAI-P1'NBD

## Human PAI-1 (Stable Mutant NBD Labeled at the Scissile Bond of the Reactive Center Loop)

Mutagenesis of the P1' methionine residue (Met347) at the P1-P1' scissile bond of human PAI-1 stable mutant (K154T, Q319L, M354I and N150H) to cysteine followed by incorporation of NBD has produced a reporter PAI-1 with extended half life. The properties of this interesting new reagent have not been fully characterized.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

## S119C-NBD

## Human PAI-1 (NBD Labeled Vitronectin Reporter Mutant)

This mutant contains a Ser to Cys replacement around the vitronectin binding site. Incorporation of an NBD label allows for the reporting of binding to vitronectin.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300



## D. Amino Terminal Labeled Human PAI-1

### NTAF488CPAI Human PAI-1 (N-terminal Alexa Fluor® 488 Labeled Stable Mutant)

Stable mutant human PAI-1 labeled by iodoacetamide substitution at the N-terminal cysteine (patent pending) with Alexa Fluor® 488 (Abs: 490, Em: 520).

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$950
1.0 mg	\$1,520

### NTAF488PAI-A Human PAI-1 (N-terminal Alexa Fluor® 488 Labeled Wild Type Active Fraction)

Active human PAI-1 labeled by iodoacetamide substitution at the N-terminal cysteine (patent pending) with Alexa Fluor® 488 (Abs: 490, Em: 520).

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$950
1.0 mg	\$1,520

### NTAF488PAI-L Human PAI-1 (N-terminal Alexa Fluor® 488 Labeled Wild Type Latent Fraction)

Latent human PAI-1 labeled by iodoacetamide substitution at the N-terminal cysteine (patent pending) with Alexa Fluor® 488 (Abs: 490, Em: 520).

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$950
1.0 mg	\$1,520

### NTAF594CPAI Human PAI-1 (N-terminal Alexa Fluor® 594 Labeled Stable Mutant)

Stable mutant human PAI-1 labeled by iodoacetamide substitution at the N-terminal cysteine (patent pending) with Alexa Fluor® 594 (Abs: 590, Em: 615).

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$950
1.0 mg	\$1,520

Alexa Fluor is a registered trademark of Molecular Probes / Invitrogen.



## NTAF594PAI-A

### Human PAI-1 (N-terminal Alexa Fluor® 594 Labeled Wild Type Active Fraction)

Active human PAI-1 labeled by iodoacetamide substitution at the N-terminal cysteine (patent pending) with Alexa Fluor® 594 (Abs: 590, Em: 615).

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$950
1.0 mg	\$1,520

## NTAF594PAI-L

### Human PAI-1 (N-terminal Alexa Fluor® 594 Labeled, Wild Type Latent Fraction)

Latent human PAI-1 labeled by iodoacetamide substitution at the N-terminal cysteine (patent pending) with Alexa Fluor® 594 (Abs: 590, Em: 615).

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$950
1.0 mg	\$1,520

Alexa Fluor is a registered trademark of Molecular Probes / Invitrogen.

## NTBIOCPAI

### Human PAI-1 (N-terminal Biotin Labeled Stable Mutant)

Stable mutant human PAI-1 biotin labeled by iodoacetamide substitution at the N-terminal cysteine (patent pending).

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

## NTBIOPAI-A

### Human PAI-1 (N-terminal Biotin Labeled Wild Type Active Fraction)

Active human PAI-1 biotin labeled by iodoacetamide substitution at the N-terminal cysteine (patent pending).

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300



## NTBIOPAI-L

### Human PAI-1 (N-terminal Biotin Labeled Wild Type Latent Fraction)

Latent human PAI-1 biotin labeled by iodoacetamide substitution at the N-terminal cysteine (patent pending).

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

## NTFLCPAI

### Human PAI-1 (N-terminal Fluorescein Labeled Stable Mutant)

Stable mutant human PAI-1 fluorescein labeled by iodoacetamide substitution at the N-terminal cysteine (patent pending).

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

## NTFLPAI-A

### Human PAI-1 (N-terminal Fluorescein Labeled Wild Type Active Fraction)

Active human PAI-1 fluorescein labeled by iodoacetamide substitution at the N-terminal cysteine (patent pending).

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

## NTFLPAI-L

### Human PAI-1 (N-terminal Fluorescein Labeled Wild Type Latent Fraction)

Latent human PAI-1 fluorescein labeled by iodoacetamide substitution at the N-terminal cysteine (patent pending).

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300





## NTCYSCPAI

## Human PAI-1 (N-terminal Cysteine Stable Mutant)

This stable form of PAI-1 contains an N-terminal cysteine mutation in addition to the four stabilization mutations (patent pending). The protein is supplied in buffer with 1mM DTT to prevent dimerization. To label with thiol reactive dye, buffer exchange into degassed 0.05M Sodium Phosphate; 0.1M NaCl; 1mM EDTA; pH 6.6 by desalting column. Collect into 10 fold molar excess of maleimide or iodoacetamide dye and incubate for 1 hour at room temperature. To preserve PAI-1 activity minimize the percentage of DMSO/DMF in the reaction. Remove free dye by desalting, ammonium sulfate precipitation or dialysis.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140

## NTCYSPAIA

## Human PAI-1 (N-terminal Cysteine Wild Type Active Fraction)

Wild type PAI-1 cloned with a cysteine residue at the N-terminus (patent pending). The active fraction is >95% pure and >95% active as determined by titration with HWM tc-urokinase and SDS PAGE. The protein is supplied in buffer with 1 mM DTT to prevent dimerization. To label with thiol reactive dye, buffer exchange into degassed 0.05M Sodium Phosphate; 0.1M NaCl; 1mM EDTA; pH 6.6 by desalting column. Collect into 10 fold molar excess of maleimide or iodoacetamide dye and incubate for 1 hour at room temperature. To preserve PAI-1 activity minimize the percentage of DMSO/DMF in the reaction. Remove free dye by desalting, ammonium sulfate precipitation or dialysis.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140

## NTCYSPAII

## Human PAI-1 (N-terminal Cysteine Wild Type Latent Fraction)

Wild type PAI-1 cloned with a cysteine residue at the N-terminus (patent pending). The latent fraction is <0.4% active as determined by titration with HMW tc-urokinase and SDS PAGE. The protein is supplied in buffer with 1 mM DTT to prevent dimerization. To label with thiol reactive dye, buffer exchange into degassed conjugation buffer by desalting column. Collect into 10 fold molar excess of maleimide or iodoacetamide dye and incubate for 1 hour at room temperature. Remove free dye by desalting, ammonium sulfate precipitation or dialysis.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,140



## E. Mouse PAI-1

### MPAI Mouse PAI-1 (Wild Type Active Fraction)

Recombinant mouse PAI-1 is the ideal choice for studies involving this animal model of fibrinolysis and cancer studies. The active fraction typically contains 70% active PAI-1.

#### Selected Product Citations

1. Vayalil, P.K. et al. (2005) *Am. J. Physiol. Lung Cell Mol. Physiol.* 289:L937-L945.
2. E.H. Norris and S. Strickland (2007) *PNAS* 104:13473-13478.
3. Allen, G.B. et al. (2007) *Am. J. Physiol. Lung Cell Mol. Physiol.* 292:L1580-L1589.
4. Sisson, T.H. et al. (2009) *Blood* 114:5052-5061.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

### MPAI-I91L Mouse PAI-1 (Stable Mutant)

Using information obtained from the studies which produced stabilized human PAI-1 we have produced a stable form of mouse PAI-1 with a single conservative mutation (Isoleucine 91 to Leucine).

#### Selected Product Citations

1. Arndt, P.G. et al (2005) *J. Immunol.* 175:4049-4059
2. Arndt, P.G. et al. (2006) *J. Immunol.* 177:7233-7241.
3. Vayalil, P.K. et al. (2007) *Am. J. Physiol. Lung Cell. Mol. Physiol.* 293:L1281-L1292.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

### MPAI-L Mouse PAI-1 (Wild Type Latent Fraction)

Latent mouse PAI-1 is a useful control for experiments when used in conjunction with the active form.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

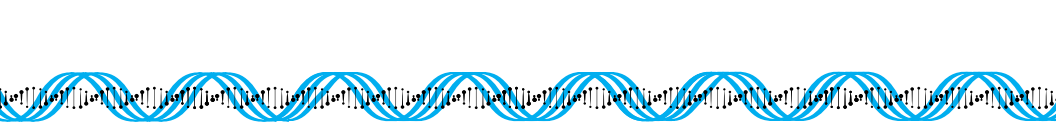
Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

### MPAI-L-BIO Mouse PAI-1 (Biotin Labeled Latent Fraction)

This latent fraction of recombinant mouse PAI-1 is biotin labeled on lysine residues.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300



## F. PAI-1 Knockout Mouse Plasma and Organs

### MPAI-KO-SC      Mouse PAI-1 Genetically Deficient Plasma, Citrate

This plasma is an ideal negative control for ELISA based assays and other experiments involving PAI-1. Collected from homozygous PAI-1 knockout mice of strain B6.129S2-*Serpine1*<sup>tm1Mlg/J</sup>. Anticoagulated with sodium citrate and flash frozen. The targeted PAI-1 knockout mutation was made on the C57BL/6J background strain. Mice homozygous for this mutation develop normally and are viable and fertile. Compared to wild type mice, pulmonary clot lysis is increased in the heterozygote and further increased in the homozygote. Endotoxin induced venous thrombosis is decreased compared to wild type mice. Thus, disruption of the *Serpine1* gene induces a mild hyperfibrinolytic state. Hemostasis is normal in homozygous mutants.

#### Scientific References

1. Carmeliet P; Kieckens L; Schoonjans L; Ream B; van Nuffelen A; Prendergast G; Cole M; Bronson R; Collen D; Mulligan RC. 1993. Plasminogen activator inhibitor-1 gene-deficient mice. I. Generation by homologous recombination and characterization. *J Clin Invest* 92(6):2746-55.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.05 ml	\$50
0.1 ml	\$95

### MPAI-KO-BR      Mouse PAI-1 Genetically Deficient Brain

This organ is an ideal negative control for western blotting, immunoprecipitation, immunohistochemistry and other experiments involving PAI-1. Collected and flash frozen from homozygous PAI-1 knockout mice of strain B6.129S2-*Serpine1*<sup>tm1Mlg/J</sup>.

Form: Frozen tissue • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1 Brain	\$95
2 Brains	\$185

### MPAI-KO-HT      Mouse PAI-1 Genetically Deficient Heart

This organ is an ideal negative control for western blotting, immunoprecipitation, immunohistochemistry and other experiments involving PAI-1. Collected and flash frozen from homozygous PAI-1 knockout mice of strain B6.129S2-*Serpine1*<sup>tm1Mlg/J</sup>.

Form: Frozen tissue • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1 Heart	\$95
2 Hearts	\$185

## MPAI-KO-KD

## Mouse PAI-1 Genetically Deficient Kidney

This organ is an ideal negative control for western blotting, immunoprecipitation, immunohistochemistry and other experiments involving PAI-1. Collected and flash frozen from homozygous PAI-1 knockout mice of strain B6.129S2-*Serpine1*<sup>tm1Mlg/J</sup>.

Form: Frozen tissue • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1 Kidney	\$50
2 Kidneys	\$95

## MPAI-KO-LG

## Mouse PAI-1 Genetically Deficient Lung

This organ is an ideal negative control for western blotting, immunoprecipitation, immunohistochemistry and other experiments involving PAI-1. Collected and flash frozen from homozygous PAI-1 knockout mice of strain B6.129S2-B6.129S2-*Serpine1*<sup>tm1Mlg/J</sup>. Each mouse lung consists of 5 lobes.

Form: Frozen tissue • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1 Lobe	\$95
1 Whole Lung	\$185

## MPAI-KO-LR

## Mouse PAI-1 Genetically Deficient Liver

This organ is an ideal negative control for western blotting, immunoprecipitation, immunohistochemistry and other experiments involving PAI-1. Collected and flash frozen from homozygous PAI-1 knockout mice of strain B6.129S2-*Serpine1*<sup>tm1Mlg/J</sup>.

Form: Frozen tissue • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1 Liver	\$95
2 Livers	\$185

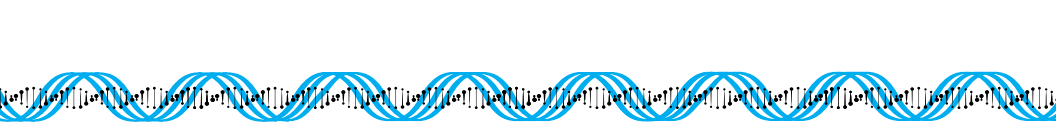
## MPAI-KO-SP

## Mouse PAI-1 Genetically Deficient Spleen

This organ is an ideal negative control for western blotting, immunoprecipitation, immunohistochemistry and other experiments involving PAI-1. Collected and flash frozen from homozygous PAI-1 knockout mice of strain B6.129S2-*Serpine1*<sup>tm1Mlg/J</sup>.

Form: Frozen tissue • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1 Spleen	\$95
2 Spleens	\$185



## G. Porcine PAI-1

### POPAl

### Porcine PAI-1 (Wild Type Active Fraction)

Porcine (pig) PAI-1 displays a close homology to bovine and human PAI-1 with 90% and 86% amino acid homology, respectively.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

## H. Rabbit PAI-1

### RbPAI

### Rabbit PAI-1 (Wild Type Active Fraction)

Rabbit PAI-1 is now available and is preferred for animal studies that utilize rabbit models. Wild type rabbit PAI-1 is less than 20% active and may not be suitable for most experiments.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

### RbPAI-I91L

### Rabbit PAI-1 (Stable Mutant)

This stable mutant of rabbit PAI-1 contains a single conservative mutation (Isoleucine 91 to Leucine) that yields PAI-1 with an enhanced half-life as compared to the wild type.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

### RbPAI-L

### Rabbit PAI-1 (Wild Type Latent Fraction)

Latent rabbit PAI-1 is a useful control for experiments when used in conjunction with the stable mutant or active fraction.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

### RbPAI-L-BIO

### Rabbit PAI-1 (Biotin Labeled Latent Fraction)

This latent fraction of recombinant rabbit PAI-1 is biotin labeled on lysine residues.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

## I. Rat PAI-1

### RPAI Rat PAI-1 (Wild Type Active Fraction)

Recombinant rat PAI-1 is the ideal choice for studies involving this animal model of fibrinolysis and cancer studies. The active fraction typically contains 95% active PAI-1.

#### Selected Product Citations

1. Guizzetti, M. et al. (2008) J. Biol. Chem. 283:31884-31897.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

### RPAI-I91L Rat PAI-1 (Stable Mutant)

Has a single conservative mutation (Isoleucine 91 to Leucine) that yields a rat PAI-1 with an enhanced half-life as compared to the wild type.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

### RPAI-I91L-BIO Rat PAI-1 (Biotin Labeled Stable Mutant)

This recombinant rat PAI-1 has a single conservative mutation for increased half-life and is biotin labeled on lysine residues.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

### RPAI-L Rat PAI-1 (Wild Type Latent Fraction)

Latent rat PAI-1 is a useful control for experiments when used in conjunction with the active fraction or stable mutant.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

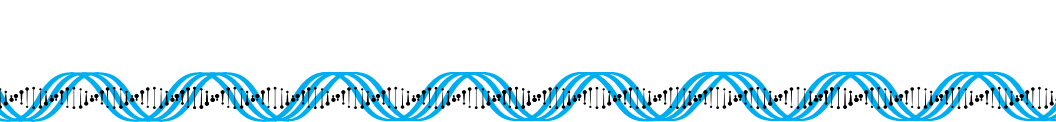
Size	Price
0.5 mg	\$695
1.0 mg	\$1,300

### RPAI-L-BIO Rat PAI-1 (Biotin Labeled Latent Fraction)

Biotin labeled latent rat PAI-1 is a useful control for experiments involving the biotinylated stable mutant.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,300



## J. Monoclonal Antibodies to Human PAI-1

### PAI3A120

### Mouse Anti Human PAI-1

Non-inhibitory monoclonal antibody to human PAI-1. Strongly reactive with human PAI-1 free and complexed with tPA. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone 631-3A1-2.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,665

### PAI3C311

### Mouse Anti Human PAI-1

Non-inhibitory monoclonal antibody to human PAI-1. Produces excellent western blots with both free and complexed forms of PAI-1. Strongly reactive with human, rat, rabbit and porcine PAI-1. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone 631-3C3-11.

Species reactivity: Human, Rat, Rabbit, Pig • Tested applications: ELISA, WB, IHC (Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,665

### PAI3E529

### Mouse Anti Human PAI-1

Non-inhibitory monoclonal antibody to human PAI-1. Recommended for detection of human PAI-1 in ELISA. Purified by immobilized Protein A. IgG1k class. Clone 671-3E5-29.

Species reactivity: Human, Rabbit, Pig • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,665



## MA-31C9

## Mouse Anti Human PAI-1

Non-inhibitory monoclonal antibody to human PAI-1 which does not affect binding with vitronectin. Can be used as a capture antibody in ELISA assays. Purified by immobilized Protein A. IgG1k class. Clone 31C9.

Species reactivity: Human • Tested applications: ELISA, Capture, WB

### Selected Product Citations

1. Li, S. et al. (2008) J. Biol. Chem. 283:18147-18157.
2. Liu, R.M. et al. (2010) J. Biol. Chem. 285:16239-16247.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$895
10 mg	\$7,950

## MA-33B8

## Inhibitory Mouse Anti Human PAI-1

Inhibitory monoclonal antibody to human and rabbit PAI-1. It binds to a conformational epitope on PAI-1 converting it into the latent form. Currently being studied as a potential therapeutic agent in animal studies. Purified by immobilized Protein A. IgG1k class. Clone 33B8.

Species reactivity: Human, Rabbit, Pig • Tested applications: ELISA, WB, Neutralizing

### Selected Product Citations

1. Li, S. et al. (2008) J. Biol. Chem. 283:18147-18157.
2. Boulaftali, Y. et al. (2010) Blood 115:97-106.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$895
10 mg	\$7,950

## MA-33H1F7

## Inhibitory Mouse Anti Human PAI-1

Inhibitory monoclonal antibody to human and mouse PAI-1. It binds to an epitope localized to the F-Helix of PAI-1. The PAI-1 antibody complex becomes a substrate rather than an inhibitor of its target proteinases tPA and urokinase. Currently being studied as a potential therapeutic agent in animal models. Purified by immobilized Protein A. IgG1 class. Clone 33H1F7.

Species reactivity: Human, Mouse, Rat • Tested applications: ELISA, WB, Neutralizing, IHC (Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$895
10 mg	\$7,950





## MA-14D5

## Mouse Anti Human PAI-1

Monoclonal antibody binds to an epitope (neoantigenic) that forms after PAI-1 has formed a complex with target proteinases. Purified by immobilized Protein A. IgG1k class. Clone 14D5.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$895
10 mg	\$7,950

## K. Monoclonal Antibodies to Mouse PAI-1

### H14H7

### Mouse Anti Mouse PAI-1

Capture monoclonal antibody produced in mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone H14H7.

Species reactivity: Mouse, Rat, Human, Rabbit, Pig • Tested applications: ELISA, Capture

Selected Product Citations

1. Cambier, S. et al. (2005) Am. J. Pathol. 166:1883-1894.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$595
10 mg	\$4,000

### H14H7-BIO

### Mouse Anti Mouse PAI-1, Biotin Labeled

Biotin labeled monoclonal antibody produced in mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone H14H7.

Species reactivity: Mouse, Rat, Human, Rabbit, Pig • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.15 mg	\$550
1.0 mg	\$4,000

### H34G6

### Mouse Anti Mouse PAI-1

Capture monoclonal antibody produced in mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone H34G6.

Species reactivity: Mouse, Rat, Rabbit, Pig • Tested applications: ELISA, Capture

Selected Product Citations

1. Vayalil, P.K. et al. (2007) Am. J. Physiol. Lung Cell. Mol. Physiol. 293:L1281-L1292.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$595
10 mg	\$4,000

## H4B3

## Inhibitory Mouse Anti Mouse PAI-1

Inhibitory monoclonal antibody produced in mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone H4B3.

Species reactivity: Mouse, Rat, Human, Pig • Tested applications: ELISA, WB, Neutralizing

### Selected Product Citations

1. Cambier, S. et al. (2005) Am. J. Pathol. 166:1883-1894.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$595
10 mg	\$4,000

## L. Monoclonal Antibodies to Rat PAI-1

### MA-124K1

### Inhibitory Mouse Anti Rat PAI-1

Inhibitory monoclonal antibody to rat PAI-1. It has recently been reported that binding of this antibody to rat PAI-1 inhibits rat PAI-1 activity and simultaneously increases the binding of inactive PAI-1 to vitronectin. Can be used as a capture antibody in ELISA assays. Purified by immobilized Protein A. IgG1k class. Clone 124K1.

Species reactivity: Rat, Mouse • Tested applications: ELISA, Capture, WB, Neutralizing

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$895
10 mg	\$7,950

### MA-32K3

### Mouse Anti Rat PAI-1

Non-inhibitory monoclonal antibody to rat PAI-1. Purified by immobilized Protein A. IgG1k class. Clone 32K3.

Species reactivity: Rat • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$895
10 mg	\$7,950



## M. Polyclonal Antibodies to Human PAI-1

### ASHPAI

### Rabbit Anti Human PAI-1 Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Human • Tested applications: ELISA, WB, IHC (Frozen, Paraffin, PFA fixed)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$360
10 ml	\$2,880

### ASHPAI-GF

### Rabbit Anti Human PAI-1 IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB, IHC (Frozen, Paraffin, PFA fixed)

Selected Product Citations

1. Stefansson, S. et al. (2007) J. Biol. Chem. 282:15679-15689.
2. Gorlatova, N.V. et al. (2007) J. Biol. Chem. 282:9288-9296.
3. Chen, S.C. et al. (2008) Mol. Cancer Ther. 7:1227-1236.
4. Liu, R.M. et al. (2010) J. Biol. Chem. 285:16239-16247.
5. Patel, N. et al. (2010) J. Biol. Chem. 285:16713-16722.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$360
10 mg	\$2,880

### ASHPAI-GF-BIO

### Rabbit Anti Human PAI-1 IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB, IHC (Paraffin)

Selected Product Citations

1. Devin, J.K. et al. (2007) J. Mol. Endocrinal. 39:9-16.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

### ASHPAI-GF-FITC

### Rabbit Anti Human PAI-1 IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040



## ASHPAI-GF-HRP Rabbit Anti Human PAI-1 IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## ASHPAI-GF-HT Rabbit Anti Human PAI-1, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized human PAI-1.

Species reactivity: Human • Tested applications: ELISA, WB, IHC (Frozen, Paraffin, PFA fixed), IF

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$455
1.0 mg	\$3,640

## SASHPAI Sheep Anti Human PAI-1 Antiserum

Polyclonal antiserum (host sheep).

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$215
10 ml	\$1,720

## SASHPAI-GF Sheep Anti Human PAI-1 IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Selected Product Citations

1. Stefansson, S. et al. (2007) J. Biol. Chem. 282:15679-15689.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$215
10 mg	\$1,720

## SASHPAI-GF-BIO Sheep Anti Human PAI-1 IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160





## SASHPAI-GF-FITC Sheep Anti Human PAI-1 IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## SASHPAI-GF-HRP Sheep Anti Human PAI-1 IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## SASHPAI-GF-HT Sheep Anti Human PAI-1, Affinity Purified

Polyclonal antibody (host sheep). Affinity purified by immobilized human PAI-1.

Species reactivity: Human • Tested applications: ELISA, WB, IHC (Frozen, Paraffin, PFA fixed)

Selected Product Citations

1. Cale, J.M. et al. (2010) J. Biol. Chem. 285:7892-7902.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$215
1.0 mg	\$1,720

## N. Polyclonal Antibodies to Mouse PAI-1

### ASMPAI

### Rabbit Anti Mouse PAI-1 Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Mouse • Tested applications: ELISA, WB, IHC (Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$375
10 ml	\$3,000

### ASMPAI-GF

### Rabbit Anti Mouse PAI-1 IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse • Tested applications: ELISA, WB, IHC (Paraffin)

Selected Product Citations

1. Patel, N. et al. (2005) J. Biol. Chem. 285:16713-16722.
2. Sejima, T. et al. (2005) J. Immunol. 174:8135-8143.
3. Vayalil, P.K. et al. (2005) Am. J. Physiol. Lung Cell. Mol. Physiol. 289:L937-L945.
4. Weisberg, A.D. et al. (2005) Arterioscler. Thromb. Vasc. Biol. 25:365-371.
5. Omasu, F. et al. (2007) Am. J. Physiol. Renal Physiol. 293:F1292-F1298.
6. Vayalil, P.K. et al. (2007) Am. J. Physiol. Lung Cell. Mol. Physiol. 293:L1281- L1292.
7. Kuramoto, E. et al. (2009) Am. J. Physiol. Lung Cell. Mol. Physiol. 296:L337-L346.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$375
10 mg	\$3,000

### ASMPAI-GF-BIO

### Rabbit Anti Mouse PAI-1 IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse • Tested applications: ELISA, WB, IHC (Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$395
10 mg	\$3,160

### ASMPAI-GF-FITC

### Rabbit Anti Mouse PAI-1 IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$395
10 mg	\$3,160

## ASMPAI-GF-HRP Rabbit Anti Mouse PAI-1 IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$395
10 mg	\$3,160

## ASMPAI-GF-HT Rabbit Anti Mouse PAI-1, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized mouse PAI-1.

Species reactivity: Mouse • Tested applications: ELISA, WB, IHC (Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$455
1.0 mg	\$3,640

## O. Polyclonal Antibodies to Rabbit PAI-1

### GASRbPAI Goat Anti Rabbit PAI-1 Antiserum

Polyclonal antiserum (host goat).

Species reactivity: Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$360
10 ml	\$2,880

### GASRbPAI-GF Goat Anti Rabbit PAI-1 IgG Fraction

Polyclonal antibody (host goat). IgG fraction purified by immobilized Protein G.

Species reactivity: Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$360
10 mg	\$2,880

### GASRbPAI-GF-BIO Goat Anti Rabbit PAI-1 IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host goat). IgG fraction purified by immobilized Protein G.

Species reactivity: Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$395
10 mg	\$3,160





## **GASRbPAI-GF-FITC Goat Anti Rabbit PAI-1 IgG, FITC Labeled**

FITC labeled polyclonal antibody (host goat). IgG fraction purified by immobilized Protein G.

Species reactivity: Rabbit • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$395
10 mg	\$3,160

## **GASRbPAI-GF-HRP Goat Anti Rabbit PAI-1 IgG, HRP Labeled**

Horseradish peroxidase labeled polyclonal antibody (host goat). IgG fraction purified by immobilized Protein G.

Species reactivity: Rabbit • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$395
10 mg	\$3,160

## **GASRbPAI-GF-HT Goat Anti Rabbit PAI-1, Affinity Purified**

Polyclonal antibody (host goat). Affinity purified by immobilized rabbit PAI-1.

Species reactivity: Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$455
1.0 mg	\$3,640

## **P. Polyclonal Antibodies to Rat PAI-1**

### **ASRPAI Rabbit Anti Rat PAI-1 Antiserum**

Polyclonal antiserum (host rabbit).

Species reactivity: Rat • Tested applications: ELISA, WB, IP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$375
10 ml	\$3,000

### **ASRPAI-GF Rabbit Anti Rat PAI-1 IgG Fraction**

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Rat • Tested applications: ELISA, WB, IP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$375
10 mg	\$3,000



## ASRPAI-GF-BIO Rabbit Anti Rat PAI-1 IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Rat • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$395
10 mg	\$3,160

## ASRPAI-GF-FITC Rabbit Anti Rat PAI-1 IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$395
10 mg	\$3,160

## ASRPAI-GF-HRP Rabbit Anti Rat PAI-1 IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$395
10 mg	\$3,160

## ASRPAI-GF-HT Rabbit Anti Rat PAI-1, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized rat PAI-1.

Species reactivity: Rat • Tested applications: ELISA, WB, IP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$415
1.0 mg	\$3,500



## Q. PAI-1 Complexes

### CPAI-TPA

### Human PAI-1 tPA Complex

Human PAI-1 stable mutant is reacted with an excess of human sc-tPA at physiological pH. The resulting 1:1 molar complex is purified from the remaining tPA by cobalt metal affinity chromatography resin.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$340
1.0 mg	\$2,860

### CPAI-UPA

### Human PAI-1 uPA Complex

Human PAI-1 stable mutant is reacted with an excess of human urokinase at physiological pH. Excess uPA is removed from the resulting 1:1 molar complex by immobilized benzamidine resin.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$340
1.0 mg	\$2,860

### MPAI-TPA

### Mouse PAI-1 tPA Complex

Mouse sc-tPA is reacted with an excess of mouse PAI-1 stable mutant at physiological pH. The resulting 1:1 molar complex is purified from the remaining PAI-1 by affinity chromatography with immobilized antibodies to mouse tPA.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$395
1.0 mg	\$3,160



## R. PAI-1 Depleted Plasma

### HPLA-SC-PAI Human PAI-1 Depleted Plasma, Sodium Citrate

Prepared from human plasma using immobilized antibodies to human PAI-1.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
10 ml	\$285
100 ml	\$2,280

### HPLA-SC-PAI-tPA Human PAI-1 & tPA Double Depleted Plasma

Prepared from human plasma using immobilized antibodies to human PAI-1 and human tPA.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
10 ml	\$595
100 ml	\$4,950

### MPLA-SC-PAI Mouse PAI-1 Depleted Plasma, Sodium Citrate

Prepared from mouse plasma using immobilized antibodies to mouse PAI-1.

Selected Product Citations

1. Cale, J.M. et al. (2010) J. Biol. Chem. 285:7892-7902.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
10 ml	\$510
100 ml	\$5,000

### RbPLA-SC-PAI Rabbit PAI-1 Depleted Plasma, Sodium Citrate

Prepared from rabbit plasma using immobilized antibodies to rabbit PAI-1.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
10 ml	\$345
100 ml	\$2,760

### RPLA-SC-PAI Rat PAI-1 Depleted Plasma, Sodium Citrate

Prepared from rat plasma using immobilized antibodies to rat PAI-1.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
10 ml	\$400
100 ml	\$3,200

## S. PAI-1 ELISA Kits

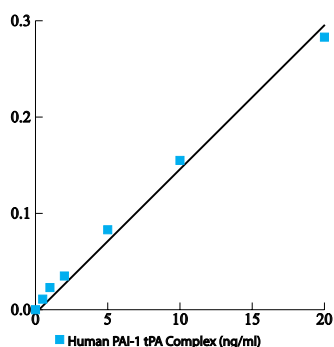
### HPAITPAKT-COM Human PAI-1 tPA Complex Antigen Assay

Human PAI-1 tPA complex assay is intended for the quantitative determination of the covalent complex of tPA and its inhibitor PAI-1 in biological fluids.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.5 - 200 ng/ml
Linear range	0.5 - 20 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 Kit	\$475
5 Kits	\$1,925

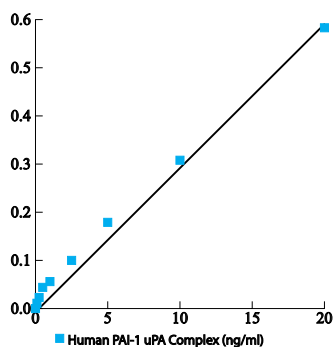
### HPAIUPAKT-COM Human PAI-1 uPA Complex Antigen Assay

Human PAI-1 uPA complex assay is intended for the quantitative determination of the covalent complex of uPA and its inhibitor PAI-1 in biological fluids.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.1 - 100 ng/ml
Linear range	0.1 - 20 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 Kit	\$475
5 Kits	\$1,925

## HPAIKT

## Active Human PAI-1 Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active human PAI-1 in plasma, serum or cell culture media. This assay is not recommended for heparinized plasma samples. Latent or complexed human PAI-1 will not be detected by this assay.

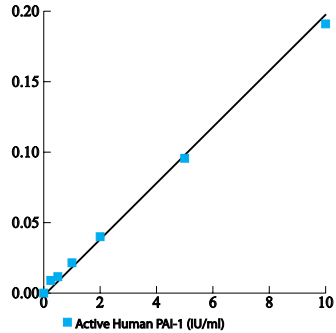
### Selected Product Citations

1. Richardson, M.A. et al (2008) J. Pharmacol. Exp. Ther. 325:17-26.

### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.125 - 100 IU/ml
Linear range	0.125 - 10 IU/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 Kit	\$475
5 Kits	\$1,925

## MPAIKT

## Active Mouse PAI-1 Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active mouse PAI-1 in plasma, serum or cell culture media. Latent or complexed mouse PAI-1 will not be detected by this assay.

Cross-reactivity: 29% Rat, 18% Rabbit, 0.6% Porcine, 76% Human

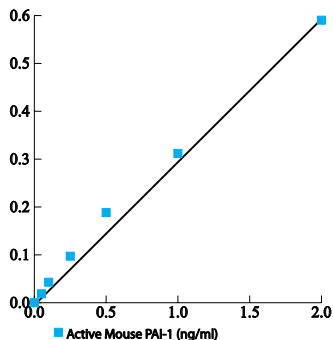
### Selected Product Citations

1. Arndt, P.G. et al (2005) J. Immunol. 175:4049-4059.
2. Iafrati, M.D. (2005) Am. J. Physiol. Heart Circ. Physiol. 288:H1627-H1632.
3. Weisberg, A.D. (2005) Arterioscler. Thromb. Vasc. Biol. 25:365-371.
4. Arndt, P.G. et al. (2006) J. Immunol. 177:7233-7241.
5. Crandall, D.L. et al. (2006) Arterioscler. Thromb. Vasc. Biol. 26:2209-2215.
6. Smith, L.H. et al. (2006) Blood 107:132-134.
7. E.H. Norris and S. Strickland (2007) PNAS 104:13473-13478.
8. Allen, G.B. et al. (2007) Am. J. Physiol. Lung Cell. Mol. Physiol. 292:L1580-L1589.
9. Chandrasekar, B. et al. (2008) J. Biol. Chem. 283:4200-4209.
10. Song, D. et al. (2009) Blood 114:2521-2529.
11. Zou, W. et al. (2009) Toxicol. Sci. 108:184-193.
12. Shaw, P.J. et al. (2009) J. Pharmacol. Exp. Ther. 328:62-68.
13. Kuramoto, E. et al. (2009) Am. J. Physiol. Lung Cell. Mol. Physiol. 296:L337-L346.

### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.05 - 50 ng/ml
Linear range	0.05 - 2 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 Kit	\$475
5 Kits	\$1,925



## MPAIKT-TOT

## Total Mouse PAI-1 Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total mouse PAI-1 antigen in plasma, serum, tissue extracts, cell culture media or lysates. Free, latent and complexed mouse PAI-1 will be detected by this assay. Cross-reactivity: 0.3% Rat, 0.5% Rabbit, 2% Porcine, 1.7% Human

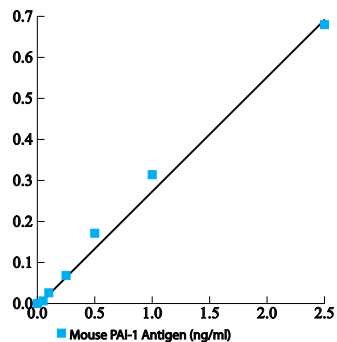
### Selected Product Citations

1. Sejima, T. et al. (2005) J. Immunol. 174:8135-8143.
2. Vayalil, P.K. et al. (2005) Am. J. Physiol. Lung Cell Mol. Physiol. 289:L937-L945.
3. Arndt, P.G. et al (2005) J. Immunol. 175:4049-4059.
4. Shushakova, N. et al. (2005) J. Immunol. 175:4060-4068.
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6. De Taeye, B.M. et al. (2006) J. Biol. Chem. 281:32796-32805.
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9. E.H. Norris and S. Strickland (2007) PNAS 104:13473-13478.
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11. Song, D. et al. (2009) Blood 114:2521-2529.
12. Allen, G.B. et al. (2009) Am. J. Physiol. Lung Cell Mol. Physiol. 296:L277-L285.
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15. Oishi, K. et al. (2009) Arterioscler. Thromb. Vasc. Biol. 29:1571-1577.
16. Kuramoto, E. et al. (2009) Am. J. Physiol. Lung Cell. Mol. Physiol. 296:L337-L346.

### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.05 - 50 ng/ml
Linear range	0.05 - 2.5 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 Kit	\$475
5 Kits	\$1,925



## POPAIKT

## Active Porcine PAI-1 Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active porcine PAI-1 in plasma, serum or cell culture media. Latent or complexed porcine PAI-1 will not be detected by this assay.

Cross-reactivity: 0% Mouse, 11.8% Rat, 63.6% Rabbit, 100% Human

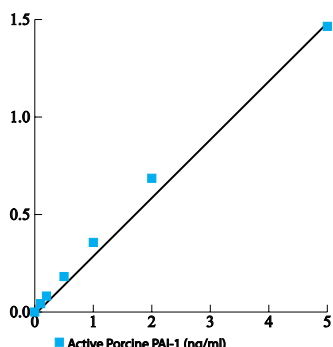
### Selected Product Citations

1. Thorgersen, E.B. et al. (2009) FASEB J. 24:712-722.

### Kit Information

Plate	8 x 12 well strips
Standard wells	18
Sample wells	78
Standard curve	0.1 - 20 ng/ml
Linear range	0.1 - 5 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 Kit	\$475
5 Kits	\$1,925

## RbPAIKT

## Active Rabbit PAI-1 Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active rabbit PAI-1 in plasma, serum or cell culture media. Latent or complexed rabbit PAI-1 will not be detected by this assay.

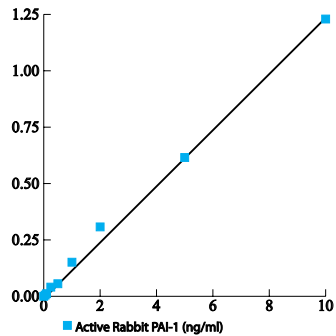
### Selected Product Citations

1. Aziz, K. et al. (2008) Circulation 117:2061-2070.

### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.05 - 50 ng/ml
Linear range	0.05 - 10 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 Kit	\$475
5 Kits	\$1,925

## RPAIKT

## Active Rat PAI-1 Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active rat PAI-1 in plasma, serum or cell culture media. Latent or complexed rat PAI-1 will not be detected by this assay.

Cross-reactivity: 100% Mouse, 12% Porcine

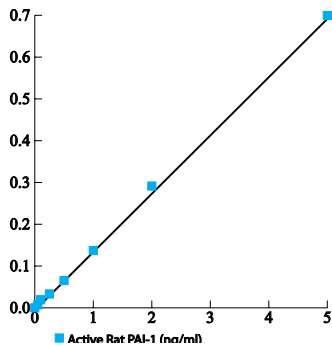
### Selected Product Citations

1. Bergheim, I. et al. (2006) J. Pharmacol. Exp. Ther. 316:1053-1061.
2. Deng, X. et al. (2007) J. Pharmacol. Exp. Ther. 322:852-861.
3. Deng, X. et al. (2008) J. Pharmacol. Exp. Ther. 326:144-152.
4. Huang, Y et al. (2009) Am. J. Physiol. Renal Physiol. 297:F1045-F1054.

### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.05 - 50 ng/ml
Linear range	0.05 - 5 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 Kit	\$475
5 Kits	\$1,925

## RPAIKT-TOT

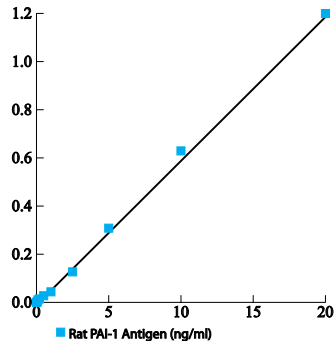
## Total Rat PAI-1 Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total rat PAI-1 antigen in plasma, serum, tissue extracts, cell culture media or lysates. Free, latent and complexed rat PAI-1 will be detected by this assay.

### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.05 - 50 ng/ml
Linear range	0.05 - 20 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$475
5 kits	\$1,925



## XVIII. PLASMINOGEN AND PLASMIN

**MW:** 92 kDa (plasminogen); 83 kDa (plasmin)

**Synthesis:** Liver

**Plasma concentration:** 200 µg/ml

Plasminogen is a single chain glycoprotein zymogen and is the precursor of the fibrinolytic enzyme plasmin. The native plasminogen molecule contains 791 amino acids with the Nterminal residue consisting of glutamic acid (Glu-plasminogen). The molecule has five homologous regions known as kringles. These kringles are homologous to the kringle domains in t-PA, u-PA and prothrombin. Plasminogen contains one high affinity ( $K_d = 9 \times 10^{-6}$  M) and four low affinity ( $K_d = 5 \times 10^{-3}$  M) lysine-binding sites. These lysine-binding sites mediate the interaction of plasminogen with fibrin and alpha-2-antiplasmin. Native Glu-plasminogen is readily converted to Lys-77-plasminogen by plasmin hydrolysis of the Lys76-Lys77 peptide bond. The conversion of plasminogen to plasmin occurs by a variety of mechanisms, but all result in hydrolysis of the Arg560-Val561 peptide bond of plasminogen, yielding two chains, which remain covalently associated by a disulfide bond.

### Technical Information

Molecular Innovations plasminogen is prepared from fresh plasma using immobilized lysine affinity chromatography. Plasmin activity is below the level of detection with chromogenic substrates. Plasmin is prepared by activation with urokinase followed by affinity purification on immobilized soybean trypsin inhibitor. The proteins are supplied in HEPES buffer without benzamidine and have a stability of greater than 1 year when stored at  $-70^\circ\text{C}$ . The purity is at least 98% as determined by SDS-PAGE gels.

## A. Human Plasminogen and Plasmin

### HGPG

### Human Glu Plasminogen

Prepared from fresh human plasma by immobilized lysine chromatography.

Selected Product Citations

1. N. Markosyan and D.M. Duffy (2009) *Endocrinology* 150:435:444

**Form:** Frozen liquid • **Storage:**  $-70^\circ\text{C}$  • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
1.0 mg	\$175
10 mg	\$1,400

### HGPG-FITC

### FITC Labeled Human Plasminogen

FITC labeled human Glu plasminogen prepared from human plasma.

**Form:** Frozen liquid • **Storage:**  $-70^\circ\text{C}$  in dark • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
1.0 mg	\$230
10 mg	\$1,840



## HPLM

## Human Lys Plasmin

Prepared from Glu plasminogen by activation with immobilized human uPA.

Selected Product Citations

1. Song, W. et al. (2010) J. Biol. Chem. 285:9716-9728.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$230
10 mg	\$1,840

## HPLM-IN

## Inactivated Human Plasmin

Prepared from Lys plasmin by active site-specific inactivation with Phe-Pro-Arg chloromethyl ketone.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

## B. Monoclonal Antibodies to Human Plasminogen

### PLG11B5B2

### Mouse Anti Human Plasminogen

Mouse monoclonal antibody to human plasminogen. IgG fraction purified by immobilized Protein G. Detects plasminogen and plasmin under non-reducing and reducing conditions. Epitope localized to the heavy chain. Isotype IgG1kappa. Clone 11B5-B2.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,950

### PLG13C3B10

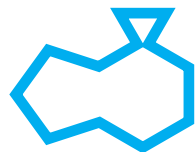
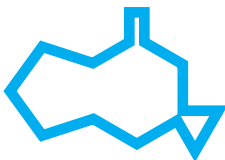
### Mouse Anti Human Plasminogen

Mouse monoclonal antibody to human plasminogen. IgG fraction purified by immobilized Protein G. Detects plasminogen and plasmin under non-reducing and reducing conditions. Epitope localized to the light chain. Isotype IgG1kappa. Clone 13C3-B10.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,950





## PLG1C10F2

## Mouse Anti Human Plasminogen

Mouse monoclonal antibody to human plasminogen. IgG fraction purified by immobilized Protein G. Detects plasminogen and plasmin under non-reducing and reducing conditions. Epitope localized to the light chain. Isotype IgG1kappa. Clone 1C10-F2.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,950

## PLG2F6C6

## Mouse Anti Human Plasminogen

Mouse monoclonal antibody to human plasminogen. IgG fraction purified by immobilized Protein A. Detects plasminogen and plasmin under non-reducing and reducing conditions. Epitope localized to the light chain. Isotype IgG2bkappa. Clone 2F6-C6.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,950

## PLG4G6B11

## Mouse Anti Human Plasminogen

Mouse monoclonal antibody to human plasminogen. IgG fraction purified by immobilized Protein G. Detects plasminogen and plasmin under non-reducing and reducing conditions. Epitope localized to the light chain. Isotype IgG1kappa. Clone 4G6-B11.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,950

## PLG9F9C4

## Mouse Anti Human Plasminogen

Mouse monoclonal antibody to human plasminogen. IgG fraction purified by immobilized Protein G. Detects plasminogen and plasmin under non-reducing conditions. Epitope localized to Kringle 1 on the heavy chain. Isotype IgG1kappa. Clone 9F9-C4.

Species reactivity: Human • Tested applications: ELISA, Capture, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,950



## PLG-MABPACK      Anti Human Plasminogen MAb Sample Pack

100 µg of each of PLG949C4, PLG11B5B2, PLG2F6C6, PLG1C10F2, PLG13C3B10 and PLG4G6B11.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1 pack	\$495
10 packs	\$3,950

## C. Polyclonal Antibodies to Human Plasminogen

### SASHPLG      Sheep Anti Human Plasminogen Antiserum

Polyclonal antiserum (host sheep).

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$195
10 ml	\$1,560

### SASHPLG-GF      Sheep Anti Human Plasminogen IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$195
10 mg	\$1,560

### SASHPLG-GF-BIO      Sheep Anti Human Plasminogen IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160





## SASHPLG-GF-FITC Sheep Anti Human Plasminogen IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## SASHPLG-GF-HRP Sheep Anti Human Plasminogen IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$270
10 mg	\$2,160

## SASHPLG-GF-HT Sheep Anti Human Plasminogen, Affinity Purified

Polyclonal antibody (host sheep). Affinity purified by immobilized human plasminogen.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$215
1.0 mg	\$1,720

## SASHPLM-GF-HT Sheep Anti Human Plasmin, Affinity Purified

Polyclonal antibody (host sheep). Affinity purified by immobilized human plasmin coupled by the active site.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$215
1.0 mg	\$1,720





## D. Mouse Plasminogen and Plasmin

### MPLG Mouse Plasminogen

Prepared from fresh mouse plasma by immobilized lysine chromatography.

Selected Product Citations

1. M.A. Bruno and A.C. Cuello (2006) PNAS 103:6735-6740.
2. D. Ilkovitch and D.M. Lopez (2009) Blood 113:4729-4739.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$390
10 mg	\$3,120

### MPLM Mouse Plasmin

Prepared from plasminogen by activation with immobilized human uPA.

Selected Product Citations

1. M.A. Bruno and A.C. Cuello (2006) PNAS 103:6735-6740.
2. Van Den Broeck, T. et al. (2008) Blood 112:5046-5051.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$460
10 mg	\$4,015

## E. Rat Plasminogen and Plasmin

### RPLG Rat Plasminogen

Prepared from fresh rat plasma by immobilized lysine chromatography.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,860

### RPLM Rat Plasmin

Prepared from plasminogen by activation with immobilized human uPA.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$430
10 mg	\$3,665



## F. Polyclonal Antibodies to Mouse and Rat Plasminogen

### AS MPLG

### Rabbit Anti Mouse Plasminogen Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB, IHC (Frozen)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$340
10 ml	\$2,720

### AS MPLG-GF

### Rabbit Anti Mouse Plasminogen IgG Fraction

Polyclonal antibody (host rabbit).

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB, IHC (Frozen)

Selected Product Citations

1. M.A. Bruno and A.C. Cuello (2006) PNAS 103:6735-6740.
2. Ventura, C.L. et al. (2008) Infect. Immun. 76:5862-5872.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$340
10 mg	\$2,720

### AS MPLG-GF-BIO

### Rabbit Anti Mouse Plasminogen IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$390
10 mg	\$3,500

### AS MPLG-GF-FITC

### Rabbit Anti Mouse Plasminogen IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse, Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$390
10 mg	\$3,500



## AS MPLG-GF-HRP Rabbit Anti Mouse Plasminogen IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse, Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$390
10 mg	\$3,500

## AS MPLG-GF-HT Rabbit Anti Mouse Plasminogen, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized mouse plasminogen. Species reactivity: Mouse, Rat • Tested applications: ELISA, WB, IHC (Frozen)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$390
1.0 mg	\$3,500

## AS RPLM-GF-HT Rabbit Anti Rat Plasmin, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized rat plasmin. Species reactivity: Rat • Tested applications: ELISA, WB, IHC (Frozen)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$390
1.0 mg	\$3,500

## G. Bovine Plasminogen and Plasmin

### BPLG Bovine Plasminogen

Prepared from fresh bovine plasma by immobilized lysine chromatography.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$175
10 mg	\$1,400

### BPLM Bovine Plasmin

Prepared from plasminogen by activation with immobilized human uPA.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$230
10 mg	\$1,840



## H. Chicken Plasminogen and Plasmin

### CKPG

### Chicken Plasminogen

Prepared from fresh chicken plasma by immobilized lysine chromatography.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$230
10 mg	\$2,065

### CKPLM

### Chicken Plasmin

Prepared from plasminogen by activation with immobilized human uPA.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,860

## I. Polyclonal Antibodies to Chicken Plasminogen

### ASCKPG-GF

### Rabbit Anti Chicken Plasminogen IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Chicken • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$340
10 mg	\$2,720

## J. Rabbit Plasminogen and Plasmin

### RbPLG

### Rabbit Plasminogen

Prepared from fresh rabbit plasma by immobilized lysine chromatography.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,860

### RbPLM

### Rabbit Plasmin

Prepared from plasminogen by activation with immobilized human uPA.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$430
10 mg	\$3,665





## K. Plasminogen Depleted Plasma & Serum

### HPLA-SC-PG      Human Plasminogen Depleted Plasma, Citrate

Prepared from human plasma by immobilized lysine affinity chromatography.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
25 ml	\$450
100 ml	\$1,500

### CKPLA-SER-PG      Chicken Plasminogen Depleted Serum

Prepared from chicken serum by immobilized lysine affinity chromatography.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
10 ml	\$250
50 ml	\$1,000

### MPLA-SER-PG      Mouse Plasminogen Depleted Serum

Prepared from mouse serum by immobilized lysine affinity chromatography.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
10 ml	\$250
50 ml	\$1,000

## L. Plasminogen and Plasmin ELISA Kits

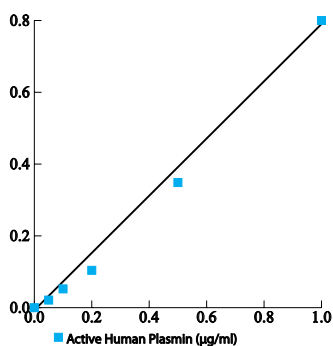
### HPLMKT Active Human Plasmin Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active human PAI-1 in plasma, serum or cell culture media. Plasminogen or complexed plasmin will not be detected by this assay.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	18
Sample wells	78
Standard curve	0.05 - 10 µg/ml
Linear range	0.05 - 1 µg/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$575
5 kits	\$2,325

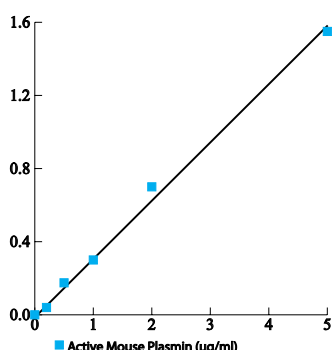
### MPLMKT Active Mouse Plasmin Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active mouse PAI-1 in plasma, serum or cell culture media. Plasminogen or complexed plasmin will not be detected by this assay.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	18
Sample wells	78
Standard curve	1 - 10 µg/ml
Linear range	1 - 5 µg/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$475
5 kits	\$1,925

## HPLGKT-TOT

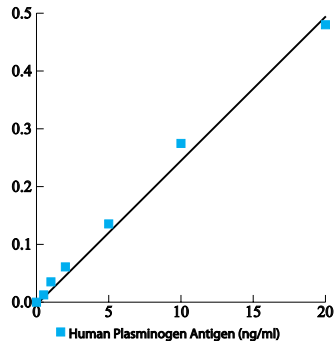
## Total Human Plasminogen Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total human plasminogen antigen in plasma, serum, tissue extracts, cell culture media or lysates. Plasminogen, plasmin and plasmin in complex with alpha-2-antiplasmin will be detected by this assay.

### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.5 - 500 ng/ml
Linear range	0.5 - 20 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950

## MPLGKT-TOT

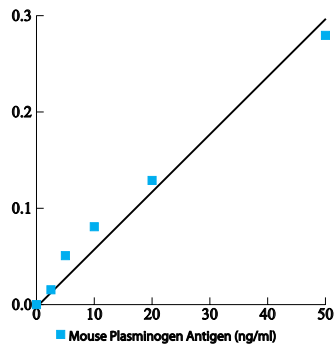
## Total Mouse Plasminogen Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total mouse plasminogen antigen in plasma, serum, tissue extracts, cell culture media or lysates. Plasminogen, plasmin and plasmin in complex with alpha-2-antiplasmin will be detected by this assay.

### Kit Information

Plate	8 x 12 well strips
Standard wells	18
Sample wells	78
Standard curve	2.5 - 500 ng/ml
Linear range	2.5 - 50 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950





## XIX. ANTIPLASMIN

The primary physiological inhibitor of plasmin is alpha-2-plasmin inhibitor (antiplasmin). Antiplasmin binds to both plasminogen and plasmin via an exosite and plays a critical role in fibrinolysis. The binding of circulating free plasmin(ogen) by antiplasmin prevents both zymogen and enzyme from binding to fibrin and ultimately initiating fibrinolysis. Antiplasmin already crosslinked to fibrin prevents plasmin catalytic action on local sites of fibrin deposition as well as impeding subsequent activation of plasminogen by plasminogen activator. Antiplasmin is found in plasma at about 70 µg/ml.

### A. Human Antiplasmin

#### HA2AP Human Alpha-2-Antiplasmin

Efficiently inhibits the plasminogen-activator-induced lysis of fibrin clots. Found in plasma at about 70 µg per ml. Alpha-antiplasmin-deficiency is a rare coagulation disorder which allows unrestrained fibrinolytic activity. Individuals with this condition may receive therapeutic A2AP prior to surgery to prevent postoperative hemorrhaging. >95% pure by SDS-PAGE. Add deionized water to original volume, aliquot and freeze unused portion.

Form: Lyophilized powder • Storage: -70°C • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$400
10 mg	\$3,495

### B. Monoclonal Antibodies to Human Antiplasmin

#### HAP1E94 Mouse Anti Human Antiplasmin

For ELISA and western blot of human antiplasmin. Detects purified antiplasmin and antiplasmin in plasma, under both native and reducing conditions. Isotype IgG. Clone 71-1E9-4.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,850

### C. Polyclonal Antibodies to Human Antiplasmin

#### ASHA2AP Rabbit Anti Human Antiplasmin Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$340
10 ml	\$2,720

## ASHA2AP-GF

## Rabbit Anti Human Antiplasmin IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$340
10 ml	\$2,720

## ASHA2AP-GF-BIO

## Rabbit Anti human Antiplasmin IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

## ASHA2AP-GF-FITC

## Rabbit Anti Human Antiplasmin IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

## ASHA2AP-GF-HRP

## Rabbit Anti human Antiplasmin IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640



## D. Mouse Antiplasmin

### MA2AP-FLAG      Mouse Alpha-2-Antiplasmin, N-terminal Flag Tag

Recombinantly produced in insect cells and purified by FLAG affinity.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$495
1.0 mg	\$4,400

### MA2AP-HIS      Mouse Alpha-2-Antiplasmin, N-terminal His Tag

Recombinantly produced in insect cells and purified by chelated metal affinity chromatography.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600

## E. Monoclonal Antibodies to Mouse Antiplasmin

### MAP25C3      Mouse Anti Mouse Antiplasmin

Non-inhibitory monoclonal antibody produced in mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone 25C3.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$595
10 mg	\$4,400

### MAP27C9      Inhibitory Mouse Anti Mouse Antiplasmin

Inhibitory monoclonal antibody produced in mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone 27C9.

Species reactivity: Mouse • Tested applications: ELISA, WB, Inhibitory

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$595
10 mg	\$4,400





## MAP4H9

## Inhibitory Mouse Anti Mouse Antiplasmin

Inhibitory monoclonal antibody produced in mouse. IgG fraction purified by immobilized Protein A. Isotype IgG1 kappa. Clone 4H9.

Species reactivity: Mouse • Tested applications: ELISA, WB, Inhibitory

### Scientific References

1. Nagai, N. et.al (2001) Blood 97:3086-3092.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$595
10 mg	\$4,400

## F. Polyclonal Antibodies to Mouse Antiplasmin

### ASMA2AP

### Rabbit Anti Mouse Antiplasmin Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$340
10 ml	\$2,720

### ASMA2AP-GF

### Rabbit Anti Mouse Antiplasmin IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$340
10 mg	\$2,720

### ASMA2AP-GF-BIO

### Rabbit Anti Mouse Antiplasmin IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$415
10 mg	\$3,640



## ASMA2AP-GF-FITC Rabbit Anti Mouse Antiplasmin IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$415
10 mg	\$3,640

## ASMA2AP-GF-HRP Rabbit Anti Mouse Antiplasmin IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$415
10 mg	\$3,640

## G. Antiplasmin ELISA Kits

### HA2APKT

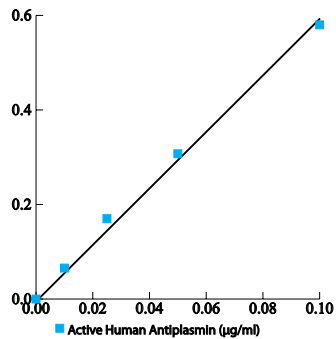
### Active Human Antiplasmin Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active human alpha-2-antiplasmin in plasma, serum or cell culture media. Complexed human antiplasmin will not be detected by this assay.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.01 - 10 µg/ml
Linear range	0.01 - 0.5 µg/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950

### MA2APKT

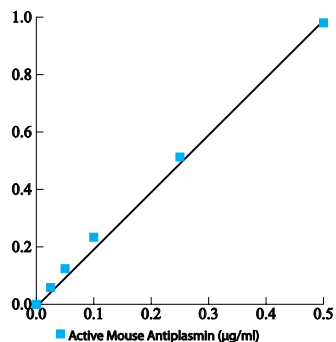
### Active Mouse Antiplasmin Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active mouse alpha-2-antiplasmin in plasma, serum or cell culture media. Complexed mouse antiplasmin will not be detected by this assay.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.01 - 10 µg/ml
Linear range	0.01 - 0.5 µg/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950



## XX. PROTEASE NEXIN 1

### A. Mouse Protease Nexin 1

#### MPN1 **Mouse Protease Nexin 1, Native Recombinant**

Mouse Protease Nexin 1 (PN-1), recombinantly produced in insect cells. Active and fully complexable with tissue-type plasminogen activator. This SERPIN inhibits serine proteases such as thrombin, tPA and uPA and is evolutionarily related to antithrombin and heparin cofactor II.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$565
1.0 mg	\$4,520

### B. Polyclonal Antibodies to Mouse Protease Nexin 1

#### SASMPN1 **Sheep Anti Mouse PN-1 Antiserum**

Polyclonal antiserum (host sheep).

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$325
10 ml	\$2,600

#### SASMPN1-GF **Sheep Anti Mouse PN-1 IgG Fraction**

Polyclonal antibody (host sheep) to mouse Protease Nexin 1. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$325
10 mg	\$2,600

#### SASMPN1-GF-BIO **Sheep Anti Mouse PN-1 IgG, Biotin Labeled**

Biotin labeled polyclonal antibody (host sheep) to mouse Protease Nexin 1. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760





## SASMPN1-GF-FITC Sheep Anti Mouse PN-1 IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to mouse Protease Nexin 1. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

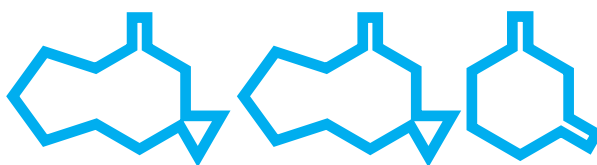
## SASMPN1-GF-HRP Sheep Anti Mouse PN-1 IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep) to mouse Protease Nexin 1. IgG fraction purified by immobilized Protein G.

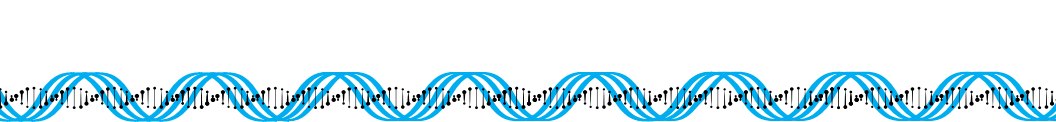
Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760







## XXI. PROTEIN Z-DEPENDENT PROTEASE INHIBITOR (ZPI)

### A. Mouse ZPI

#### MZPI Mouse ZPI, Native Recombinant

Mouse Protein Z-Dependent Protease Inhibitor (ZPI), recombinantly produced in insect cells. Active and complexable with Factor XIa. This SERPIN requires the cofactors Protein Z, phospholipids and calcium to inhibit endogenous Factor Xa.

#### Scientific References

1. Huang, X. et.al (2008) J. Biol. Chem. 283:29770-29783.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$565
1.0 mg	\$4,520

### B. Polyclonal Antibodies to Human ZPI

#### SASHZPI Sheep Anti Human ZPI Antiserum

Polyclonal antiserum (host sheep).

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$325
10 ml	\$2,600

#### SASHZPI-GF Sheep Anti Human ZPI IgG Fraction

Polyclonal antibody (host sheep) to human ZPI. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$325
10 mg	\$2,600

#### SASHZPI-GF-BIO Sheep Anti Human ZPI IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to human ZPI. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760





## SASHZPI-GF-FITC Sheep Anti Human ZPI IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to human ZPI. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASHZPI-GF-HRP Sheep Anti Human ZPI IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep) to human ZPI. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## C. Polyclonal Antibodies to Mouse ZPI

### SASMZPI Sheep Anti Mouse ZPI Antiserum

Polyclonal antiserum (host sheep).

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$325
10 ml	\$2,600

### SASMZPI-GF Sheep Anti Mouse ZPI IgG Fraction

Polyclonal antibody (host sheep) to mouse ZPI. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$325
10 mg	\$2,600



## SASMZPI-GF-BIO Sheep Anti Mouse ZPI IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to mouse ZPI. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASMZPI-GF-FITC Sheep Anti Mouse ZPI IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to mouse ZPI. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASMZPI-GF-HRP Sheep Anti Mouse ZPI IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep) to mouse ZPI. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760





## XXII. RECEPTOR ASSOCIATED PROTEIN (RAP)

**MW:** 38 kDa

**Synthesis:** Endoplasmic reticulum

RAP binds with high affinity to certain members of the low-density lipoprotein (LDL) receptor family such as LDL receptor-related protein (LRP), gp330/megalin and the very low-density lipoprotein (VLDL) receptor and, once bound to these receptors, antagonizes their ligand binding ability. Despite the presence of a putative signal sequence on RAP, this molecule is not secreted but remains cell-associated. RAP is contained primarily within the endoplasmic reticulum and Golgi compartments, with only a trace found at the cell surface and within the endosomal compartments. Genetic deletion of RAP in mice has no effect on LRP mRNA levels but does lead to incomplete processing of LRP in the brain and liver resulting in decreased LRP antigen levels in these organs.

### Technical Information

The human RAP provided by Molecular Innovations is expressed recombinantly in *Escherichia coli*. The protein concentration is determined spectrophotometrically with an extinction coefficient of 0.93 (0.1%). The solubility is at least 3 mg/ml. The purity is greater than 95% by SDS-PAGE.

### A. Human RAP

#### RAP

#### Human RAP

Produced recombinantly in *E. coli*. Suitable to block receptor function in uptake assays. Contains endotoxin which might trigger signaling events.

Selected Product Citations

1. J. Sottile and J. Chandler (2005) *Mol. Biol. Cell* 16:757-768.
2. Polavarapu, R. et al. (2007) *Blood* 109:3270-3278.
3. Dasgupta, S. et al. (2008) *Haematologica* 93:83-89.
4. Meng, H. et al. (2010) *J. Biol. Chem.* 285:23047-23055.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.5 mg	\$560
1.0 mg	\$975

#### RAP-LE

#### Low Endotoxin Human RAP

This preparation of Receptor Associated Protein is purified to lower levels of endotoxin. Low endotoxin RAP is suitable for experiments involving signaling events and phosphorylation studies, which may be triggered by endotoxin.

Selected Product Citations

1. Lambert, M.P. et al. (2009) *Blood* 114:2290-2298.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.5 mg	\$695
1.0 mg	\$1,260

## RAP-FITC

## FITC Labeled Human RAP

Produced recombinantly in *E. Coli* and labeled with FITC at primary amines.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$245
0.5 mg	\$980

## B. Monoclonal Antibodies to Human RAP

### MA-7F1

### Mouse Anti Human RAP

Monoclonal antibody to human RAP. No cross-reaction with rabbit or mouse RAP. IgG fraction purified by immobilized Protein A. Isotype IgG1. Clone 7F1.

Species reactivity: Human • Tested applications: ELISA, WB, IHC (Paraffin, PFA fixed)

#### Scientific References

1. Medh, J.D. et.al (1995) J. Biol. Chem. 270:536-540.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$490
10 mg	\$3,920

### MA-7F1-BIO

### Mouse Anti Human RAP, Biotin Labeled

Biotin labeled monoclonal antibody to human RAP. Purified by immobilized Protein A. IgG1 class. Clone 7F1.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$1,800

### MA-7F1-FITC

### Mouse Anti Human RAP, FITC Labeled

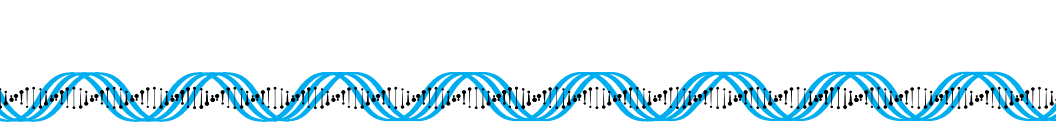
FITC labeled monoclonal antibody to human RAP. Purified by immobilized Protein A. IgG1 class. Clone 7F1.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$1,800





## C. Polyclonal Antibodies to Human RAP

### SASHRAP

### Sheep Anti Human RAP Antiserum

Polyclonal antiserum (host sheep).

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$215
10 ml	\$1,720

### SASHRAP-GF

### Sheep Anti Human RAP IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$215
10 mg	\$1,720

### SASHRAP-GF-BIO

### Sheep Anti human RAP IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

### SASHRAP-GF-FITC

### Sheep Anti Human RAP IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

### SASHRAP-GF-HRP

### Sheep Anti human RAP IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

## D. Monoclonal Antibodies to Human LRP

### MA-8G1

### Mouse Anti Human 515 kDa LRP

Monoclonal antibody to human 515 kDa heavy chain of LRP. Useful marker for the characterization of a subset of myelo-monocytic subtypes of chronic and acute leukemia (CD91). Blocks cellular-mediated uptake of alpha 2 macroglobulin trypsin complex by LRP1. Purified by immobilized Protein A. IgG1kappa class. Clone 8G1. Species reactivity: Human • Tested applications: ELISA, WB, IHC (Frozen, Paraffin), Blocking, IF, EM

#### Scientific References

1. Strickland, D.K. et al. (1990) J.Biol.Chem. 265:17401-17404.
2. Gafvels, M.E. et al. (1992) J. Biol. Chem. 267:21230-21234.
3. Rebeck, G.W. et al. (1993) Neuron 11:575-580.
4. Coukos, G. et al. (1994) American J. Pathology 144:383-392.
5. Quinn, K.A. et al. (1997) J. Biol. Chem. 272:23946-23951.
6. Mikhailenko, I. et al. (2001) J. Biol. Chem. 276:39484-39491.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$490
10 mg	\$3,920

### MA-5A6

### Mouse Anti Human 85 kDa LRP

Monoclonal antibody to human 85 kDa light chain of LRP. Cross-reacts with rabbit and mouse LRP. Stimulates cellular-mediated uptake of alpha 2 macroglobulin trypsin complex by LRP1. Purified by immobilized Protein A. IgG2b kappa class. Clone 5A6.

Species reactivity: Human, Mouse, Rabbit • Tested applications: ELISA, WB, IHC (Frozen, Paraffin), IP, ICC, IF, FC

#### Scientific References

1. Strickland, D.K. et al. (1990) J.Biol.Chem. 265:17401-17404.

#### Selected Product Citations

1. Fears, C.Y. et al. (2005) Cancer Res. 65:9338-9346.
2. Von Arnim, C.A.F. et al. (2005) J. Biol. Chem. 280:17777-17785.
3. Jehle, A.W. et al. (2006) J. Cell Biol. 174:547-556.
4. Lambert, M.P. et al. (2009) Blood 114:2290-2298.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$490
10 mg	\$3,920



## MA-8B8

## Mouse Anti Human 85 kDa LRP

Monoclonal antibody to human 85 kDa light chain of LRP. Cross-reacts with rabbit LRP. Purified by immobilized Protein A. IgG1 class. Clone 8B8.

Species reactivity: Human, Rabbit • Tested applications: ELISA, WB, IHC (Paraffin), IF, FC

### Scientific References

1. Strickland, D.K. et al. (1990) J.Biol.Chem. 265:17401-17404.

### Selected Product Citations

1. Jehle, A.W. et al. (2006) J. Cell Biol. 174:547-556.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$490
10 mg	\$3,920

## MA-5A6-BIO

## Mouse Anti Human 85 kDa LRP, Biotin Labeled

Biotin labeled monoclonal antibody to human 85 kDa light chain of LRP. Purified by immobilized Protein A. IgG2b kappa class. Clone 5A6.

Species reactivity: Human, Mouse, Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$1,800

## MA-5A6-FITC

## Mouse Anti Human 85 kDa LRP, FITC Labeled

FITC labeled monoclonal antibody to human 85 kDa light chain of LRP. Purified by immobilized Protein A. IgG2b kappa class. Clone 5A6.

Species reactivity: Human, Mouse, Rabbit • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$1,800

## MA-8B8-BIO

## Mouse Anti Human 85 kDa LRP, Biotin Labeled

Biotin labeled monoclonal antibody to human 85 kDa light chain of LRP. Purified by immobilized Protein A. IgG1 class. Clone 8B8.

Species reactivity: Human, Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$1,800



## MA-8B8-FITC

## Mouse Anti Human 85 kDa LRP, FITC Labeled

FITC labeled monoclonal antibody to human 85 kDa light chain of LRP. Purified by immobilized Protein A. IgG1 class. Clone 8B8.

Species reactivity: Human, Rabbit • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$1,800

## MA-8G1-BIO

## Mouse Anti Human 515 kDa LRP, Biotin Labeled

Biotin labeled monoclonal antibody to human 515 kDa heavy chain of LRP. Purified by immobilized Protein A. IgG1k class. Clone 8G1.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$1,800

## MA-8G1-FITC

## Mouse Anti Human 515 kDa LRP, FITC Labeled

FITC labeled monoclonal antibody to human 515 kDa heavy chain of LRP. Purified by immobilized Protein A. IgG1k class. Clone 8G1.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$1,800



## E. Human Lipoprotein

### HHDL Lipoprotein, High Density, Human Plasma

HDL is the vehicle for reversed cholesterol transport and esterification, serving as a scavenger for free cholesterol during intravascular catabolism of lipoproteins. HDL levels are inversely correlated with coronary heart disease. In a normal fasting individual, HDL concentrations range from 1.0-2.0 g/L. Purity: single arc by IEP against antisera to whole human serum. Essentially free of other plasma lipoproteins as determined by electrophoresis using Fat Red 7B stain for lipids and Coomassie Blue for proteins. >95% of total lipoprotein content by electrophoresis. Prepared from fresh, non-frozen human plasma. Do NOT freeze this product.

Form: Liquid, DONOTFREEZE • Storage: 4°C • Shipping: Coldpack • Shelflife: 12 months from delivery

Size	Price
5.0 mg	\$220
10 mg	\$330

### HLDL Lipoprotein, Low Density, Human Plasma

In a normal fasting individual, low density lipoprotein concentrations range from 2.0 - 3.5 g/L. LDL constitutes 50% of the total lipoprotein mass in plasma and is the major carrier of cholesterol and cholesteryl esters. LDL levels strongly correlate with coronary heart disease. Purity: single arc by IEP against antisera to whole human serum. Essentially free of other plasma lipoproteins as determined by electrophoresis using Fat Red 7B stain for lipids and Coomassie Blue for proteins. >95% of total lipoprotein content by electrophoresis. Prepared from fresh, non-frozen human plasma. Do NOT freeze this product.

Form: Liquid, DONOTFREEZE • Storage: 4°C • Shipping: Coldpack • Shelflife: 12 months from delivery

Size	Price
5.0 mg	\$220
10 mg	\$330

### HVLDL Lipoprotein, Very Low Density, Human Plasma

In a normal fasting individual, VLDL concentrations range from 0.5 - 2.0 g/L. VLDL transports triglycerides synthesized by the liver to sites of energy storage and utilization. Purity: single arc by IEP against antisera to whole human serum. Essentially free of other plasma lipoproteins as determined by electrophoresis using Fat Red 7B stain for lipids and Coomassie Blue for proteins. >95% of total lipoprotein content by electrophoresis. Prepared from fresh, non-frozen human plasma. Do NOT freeze this product.

Form: Liquid, DONOTFREEZE • Storage: 4°C • Shipping: Coldpack • Shelflife: 12 months from delivery

Size	Price
1.0 mg	\$220
5.0 mg	\$440

## F. Monoclonal Antibodies to Human VLDL Receptor

### MA-1H10

### Mouse Anti Human VLDL Receptor

Monoclonal antibody produced in mouse. Useful for ELISA and western blot under non-reducing conditions. Binds to an epitope on the C-terminus of VLDL receptor ligand binding domain (amino acids 191-355) and blocks apoE4 binding. Purified by immobilized Protein A. IgG1 class. Clone 1H10.

Species reactivity: Human • Tested applications: ELISA, WB, Blocking, IP

#### Scientific References

1. Ruiz, J. et al. (2005) J. Lipid Res. 46:1721-1731.
2. Oganessian, A. et al. (2008) Mol. Biol. Cell 19:563-571.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$490
10 mg	\$3,920

### MA-1H5

### Mouse Anti Human VLDL Receptor

Monoclonal antibody produced in mouse. Useful for ELISA. Binds to an epitope on the C-terminus of VLDL receptor ligand binding domain (amino acids 191-355) and blocks apoE4 binding. Purified by immobilized Protein A. IgG1 class. Clone 1H5.

Species reactivity: Human • Tested applications: ELISA, WB, Blocking, IP

#### Scientific References

1. Ruiz, J. et al. (2005) J. Lipid Res. 46:1721-1731.
2. Oganessian, A. et al. (2008) Mol. Biol. Cell 19:563-571.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$490
10 mg	\$3,920

### MA-5F3

### Mouse Anti Human VLDL Receptor

Monoclonal antibody produced in mouse. Useful for ELISA and western blot under reducing and non-reducing conditions. Binds to an epitope on the VLDL receptor ligand binding domain (amino acids 31-355). Purified by immobilized Protein A. IgG1 class. Clone 5F3.

Species reactivity: Human • Tested applications: ELISA, WB

#### Scientific References

1. Ruiz, J. et al. (2005) J. Lipid Res. 46:1721-1731.
2. Oganessian, A. et al. (2008) Mol. Biol. Cell 19:563-571.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$490
10 mg	\$3,920



## XXIII. RENIN AND PRORENIN

### A. Human Renin and Prorenin

#### HPREN

#### Human Prorenin, Native Recombinant

Recombinantly produced in HEK cell culture as untagged native form prorenin and purified by affinity chromatography. Fully activatable to renin by catalytic amounts of trypsin. Prorenin is a glycosylated aspartic protease that consists of 2 homologous lobes and is the precursor of renin. Prorenin exhibits a low level of enzymatic activity relative to renin which is generated from prorenin by proteolytic cleavage of the first ~43 amino acids at the N-terminus. This so called prosegment appears to block the full enzymatic potential of the active site (1). Renin activates the renin-angiotensin system by cleaving angiotensinogen, produced by the liver, to yield angiotensin I, which is further converted into angiotensin II by ACE, the angiotensin-converting enzyme primarily within the capillaries of the lungs. It has been reported that the levels of circulating prorenin (but not renin) are increased in diabetic subjects (2).

#### Scientific References

1. Danser AHJ et al. Renin, Prorenin and the Putative (Pro)renin Receptor. *Hypertension*. 2005;46:1069.
2. Luetscher JA et al. Increased plasma inactive renin in diabetes mellitus. A marker of microvascular complications. *N Engl J Med*. 1985;312:1412-1417.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$360
1.0 mg	\$2,880

#### HPREN-HIS

#### Human Prorenin, C-terminal His Tag

Recombinantly produced in HEK cell culture and purified by chelated metal affinity chromatography. Contains an 8x-Histidine tag at the C-terminus for purification. Fully activatable to renin by catalytic amounts of trypsin.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600

#### HREN

#### Human Renin, Native Recombinant

Renin is an aspartyl protease that is specific for only one substrate, angiotensinogen. Molecular Innovations human renin is produced from the proenzyme prorenin by proteolytic cleavage of a 43 amino acid N-terminal prosegment by limited enzymatic digestion. Conversion to active renin is >99.99%.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$360
1.0 mg	\$2,880

## B. Monoclonal Antibodies to Human Prorenin and Renin

### PREN4B5E3 Inhibitory Mouse Anti Human Prorenin

Inhibitory mouse monoclonal antibody directed to human prorenin (Patent Pending). This antibody recognizes and binds only to prorenin. It does not bind or otherwise interact with active renin. Blocks proteolytic conversion of prorenin to renin by catalytic amounts of trypsin (unpublished data). Binding epitope is within amino acid residues 30-43 (MARLGPEWSQPMKR) of prorenin. Strongly blots prorenin under non-reducing and reducing conditions. No cross reactivity with mouse or rat prorenin. Purified by immobilized Protein A. IgG2b class. Clone 4B5-E3.

Species reactivity: Human • Tested applications: ELISA, WB, Blocking

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$140
1.0 mg	\$1,120

### PREN4B5E3-BIO Mouse Anti Human Prorenin, Biotin Labeled

Biotin labeled mouse monoclonal antibody directed to human prorenin. Strongly blots prorenin under non-reducing and reducing conditions. No cross reactivity with mouse or rat prorenin. Purified by immobilized Protein A. IgG2b class. Clone 4B5-E3. Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$415
1.0 mg	\$3,320

### PREN4B5E3-FITC Mouse Anti Human Prorenin, FITC Labeled

FITC labeled mouse monoclonal antibody directed to human prorenin. No cross reactivity with mouse or rat prorenin. Purified by immobilized Protein A. IgG2b class. Clone 4B5-E3.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$415
1.0 mg	\$3,320



## PREN6E2B7

## Monoclonal Anti Human Prorenin

Mouse monoclonal antibody directed to human prorenin. This antibody recognizes and binds to prorenin only. Binding epitope is within amino acid residues 16-29 (MPSIRESLKERGVD) of prorenin. Strongly blots prorenin under non-reducing conditions only. Cross reacts with canine prorenin due to a common epitope. No cross reactivity with mouse or rat prorenin. IgG1 class. Clone 6E2-B7.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$140
1.0 mg	\$1,120

## PREN7D3E3

## Mouse Anti Human Renin and Prorenin

Mouse monoclonal antibody directed to human prorenin. This antibody recognizes and binds to prorenin and renin. Binding epitope has not yet been determined but resides within the renin sequence. IgG1 class. Clone 7D3-E3.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$140
1.0 mg	\$1,120

## C. Polyclonal Antibodies to Human Prorenin and Renin

### ASHPREN

### Rabbit Anti Human Prorenin Antiserum

Polyclonal antiserum (host rabbit) to human prorenin.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$325
10 ml	\$2,600

### ASHPREN-GF

### Rabbit Anti Human Prorenin IgG Fraction

Polyclonal antibody (host rabbit) to human prorenin. IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$325
10 mg	\$2,600



## ASHPREN-GF-BIO Rabbit Anti Human Prorenin IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit) to human renin. IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## ASHPREN-GF-FITC Rabbit Anti Human Prorenin IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit) to human prorenin. IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## ASHPREN-GF-HRP Rabbit Anti Human Prorenin IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit) to human prorenin. IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## SASHREN Sheep Anti Human Renin Antiserum

Polyclonal antiserum (host sheep) to human renin.

Species reactivity: Human • Tested applications: ELISA, WB, IHC (Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$295
10 ml	\$2,360

## SASHREN-GF Sheep Anti Human Renin IgG Fraction

Polyclonal antibody (host sheep) to human renin. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB, IHC (Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360



## SASHREN-GF-BIO Sheep Anti Human Renin IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to human renin. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASHREN-GF-FITC Sheep Anti Human Renin IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to human renin. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASHREN-GF-HRP Sheep Anti Human Renin IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep) to human renin. IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASHREN-GF-HT Sheep Anti Human Renin, Affinity Purified

Polyclonal antibody (host sheep) to human renin. Affinity purified by immobilized human prorenin.

Species reactivity: Human • Tested applications: ELISA, Capture, WB, IHC (Paraffin), AP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$395
1.0 mg	\$3,160



## SASHREN-GF-HT-BIO

## Sheep Anti Human Renin, Affinity Purified Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to human renin. Affinity purified by immobilized human prorenin.

Species reactivity: Human • Tested applications: ELISA, WB, IHC (Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$395
1.0 mg	\$3,160

## D. Renin Depleted Plasma

### HPLA-SC-PREN

### Human Renin & Prorenin Double Depleted Plasma

Prepared from frozen human plasma using immobilized anti-human renin IgG.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 ml	\$275
10 ml	\$2,200

### RPLA-SC-PREN

### Rat Renin & Prorenin Double Depleted Plasma

Prepared from frozen rat plasma using immobilized anti-rat renin IgG.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 ml	\$315
10 ml	\$2,520

## E. Mouse Prorenin

### MPREN-HIS

### Mouse Prorenin, C-terminal His Tag

Recombinantly produced in HEK cell culture and purified by chelated metal affinity chromatography. Contains a 8x-Histidine tag at the C-terminus for purification. Resistant to activation to renin by trypsin digestion.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$425
1.0 mg	\$3,400



## F. Rat Prorenin

### RPREN-HIS

### Rat Prorenin, C-terminal His Tag

Recombinantly produced in HEK cell culture and purified by chelated metal affinity chromatography. Contains an 8x-Histidine tag at the C-terminus for purification. Fully activatable to renin by catalytic amounts of trypsin.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$425
1.0 mg	\$3,400

## G. Polyclonal Antibodies to Rat and Mouse Prorenin

### SASRREN

### Sheep Anti Rat Prorenin Antiserum

Polyclonal antiserum (host sheep) to rat prorenin. Strongly cross reacts with rat renin, mouse prorenin and mouse renin.

Species reactivity: Rat, Mouse • Tested applications: ELISA, WB, IF

Selected Product Citations

1. Mercure, C. et al. (2010) Am. J. Physiol. Regulatory Integrative Comp. Physiol. 298:R1212-R1216.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$295
10 ml	\$2,360

### SASRREN-GF

### Sheep Anti Rat Prorenin IgG Fraction

Polyclonal antibody (host sheep) to rat prorenin. Strongly cross reacts with rat renin, mouse prorenin and mouse renin. IgG fraction purified by immobilized Protein G.

Species reactivity: Rat, Mouse • Tested applications: ELISA, WB, IF

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

### SASRREN-GF-BIO

### Sheep Anti Rat Prorenin IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to rat prorenin. Strongly cross reacts with rat renin, mouse prorenin and mouse renin. IgG fraction purified by immobilized Protein G.

Species reactivity: Rat, Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760



## SASRREN-GF-FITC      Sheep Anti Rat Prorenin IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to rat prorenin. Strongly cross reacts with rat renin, mouse prorenin and mouse renin. IgG fraction purified by immobilized Protein G.

Species reactivity: Rat, Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASRREN-GF-HRP      Sheep Anti Rat Prorenin IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep) to rat prorenin. Strongly cross reacts with rat renin, mouse prorenin and mouse renin. IgG fraction purified by immobilized Protein G.

Species reactivity: Rat, Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

## SASRRENPS-GF-HT      Sheep Anti Rat Prorenin Prosegment, Affinity Purified

Polyclonal antibody (host sheep) to prosegment of rat prorenin. Affinity purified by immobilized prosegment peptide.

Species reactivity: Rat • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$295
1.0 mg	\$2,360



## H. Dog Renin/Prorenin

### DPREN-HIS

### Dog Prorenin, C-terminal His tag

Recombinantly produced in HEK cell culture and purified by chelated metal affinity chromatography. Contains an 8x-Histidine tag at the C-terminus for purification.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$470
1.0 mg	\$3,760

### DREN-HIS

### Dog Renin, C-terminal His tag

Renin is an aspartyl protease that is specific for only one substrate, angiotensinogen. Molecular Innovations dog renin is produced from the proenzyme prorenin by proteolytic cleavage of a 43 amino acid N-terminal prosegment by limited enzymatic digestion. Conversion to active renin is >98%.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$470
1.0 mg	\$3,760

## I. Prorenin and Renin ELISA Kits

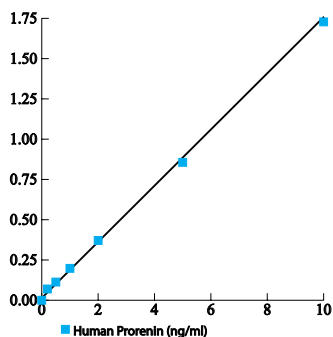
### HPRENKT Human Prorenin Assay

The first and only commercial assay that directly measures human prorenin (Patent Pending) with results in 2 hours! This 96 well strip format ELISA kit is intended for the quantitative determination of human prorenin in plasma or serum. Active human renin will not be detected by this assay. This kit does not cross react with mouse or rat prorenin. The standard curve for this kit is generated using prorenin depleted human plasma and is best suited for measurement of prorenin in plasma or serum. This kit is also available with a standard curve in BSA/TBS for researchers measuring prorenin in culture media (Catalog # HPRENKT-NP).

#### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.01 - 10 ng/ml
Linear range	0.01 - 10 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$475
5 kits	\$1,925

## HPRENKT-NP

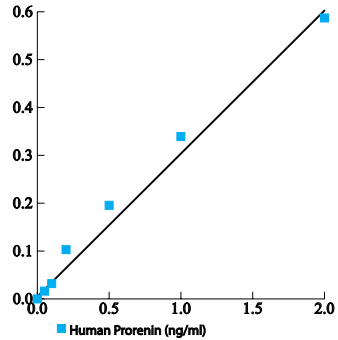
## Human Prorenin Assay, Non Plasma Samples

This 96 well strip format ELISA kit is intended for the quantitative determination of human prorenin in cell culture media or urine. Active human renin will not be detected by this assay. This kit does not cross react with mouse or rat prorenin. The standard curve for this kit is generated using TBS/BSA. This kit is also available with a standard curve in prorenin depleted human plasma for researchers measuring prorenin in plasma or serum (Catalog # HPRENKT).

### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.01 - 10 ng/ml
Linear range	0.01 - 5 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$475
5 kits	\$1,925

## RPRENKT-TOT

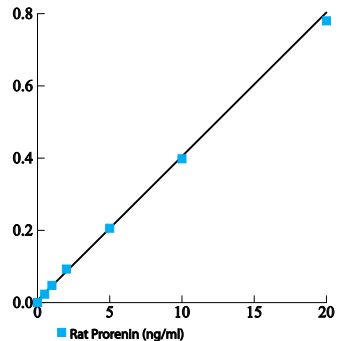
## Total Rat Prorenin/Renin Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total rat prorenin and renin antigen in plasma, serum, urine or cell culture media.

### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.1 - 100 ng/ml
Linear range	0.1 - 20 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$475
5 kits	\$1,925

## XIV. THIOESTER PEPTIDE CMK LABELING REAGENTS

### INFFRCK

### ATA-Phe-Phe-Arg-CMK

ATA-FFRCK (Na-[(acetylthio) acetyl]-D-Phe-Phe-Arg-CH<sub>2</sub>Cl) and ATA-FPRCK (Na-[(acetylthio)acetyl]-D-Phe-Pro-Arg-CHCl<sub>2</sub>) are active-site specific labeling reagents for serine proteases. They are derivatized from irreversible peptide chloromethyl ketones and facilitate incorporation of a thioester moiety via alkylation of the catalytic site Histidine residue. Liberation of the free thiol group is accomplished by gentle treatment with hydroxylamine (NH<sub>2</sub>OH) following irreversible incorporation into the enzyme catalytic site. The free thiol then becomes a site for specific modifications with thiol-reactive probes such as iodoacetamide fluorescent probes. Many serine proteases in which free thiols are lacking may be specifically labeled at the active site by these reagents. Both ATA-FPRCK and ATA-FFRCK have been used to label thrombin with 5-(iodoacetamido) fluorescein (5-IAF). The probe was then effectively utilized to follow conformational changes in the catalytic domain of alpha-thrombin upon binding to the fragment 2 domain of prothrombin. In addition, quantitative equilibrium binding studies and investigations into the kinetics underlying the non-proteolytic activation of the zymogen plasminogen by streptokinase were characterized with 2-((4'-iodoacetamido) anilino) naphthalene-6-sulfonic acid (IAANS) labeled plasminogen by using the ATA-FFRCK reagent.

#### Scientific References

1. Bock, P. (1993) Method Enzymol. 222:478-503.
2. Bock, P. et al. (1996) J Biol. Chem. 271:1072-1080.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$340
1.0 mg	\$2,720

### INFPRCK

### ATA-Phe-Pro-Arg-CMK

ATA-FFRCK (Na-[(acetylthio) acetyl]-D-Phe-Phe-Arg-CH<sub>2</sub>Cl) and ATA-FPRCK (Na-[(acetylthio)acetyl]-D-Phe-Pro-Arg-CHCl<sub>2</sub>) are active-site specific labeling reagents for serine proteases.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$340
1.0 mg	\$2,720

### FL-INFPR

### Fluorescein-Phe-Pro-Arg-CMK

Fluorescein labeled ATA-Phe-Pro-Arg-CMK.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$275
1.0 mg	\$2,200

## PPACK

## Phe-Pro-Arg-Chloromethylketone

Phe-Pro-Arg-CMK (FPRCK). Extremely potent and selective irreversible inhibitor of thrombin ( $K_{obs}/[I] = 10^7 M^{-1} S^{-1}$ ). Reacts with thrombin in a 1:1 stoichiometry. Can also be used to inhibit tissue plasminogen activator, Factor VIIa and Factor XIa.

Form: Lyophilized powder • Storage:  $-70^{\circ}C$  • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$145
25 mg	\$325

## PPACK-BIO

## Phe-Pro-Arg-Chloromethylketone, Biotinylated

Biotin labeled Phe-Pro-Arg-CMK (FPRCK). Supplied in 10 mM HCl. Fluorescein labeled PPACK is also available.

Form: Frozen liquid • Storage:  $-70^{\circ}C$  • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$495
5.0 mg	\$1995

## PPACK2

## Phe-Phe-Arg-Chloromethylketone

Phe-Phe-Arg-CMK (FFRCK). Potent and specific irreversible inhibitor of plasma and glandular kallikreins. Inhibits the cleavage of atrial natriuretic peptide (ANP 1-126) by kallikreins. Also inhibits adrenal kininogenase, a kallikrein-like enzyme.

Form: Lyophilized powder • Storage:  $-70^{\circ}C$  • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
10 mg	\$330
100 mg	\$2,750

## GGACK

## Glu-Gly-Arg-Chloromethylketone

Glu-Gly-Arg-CMK (EGRCK). Potent and specific irreversible inhibitor of Factor Xa.

Form: Lyophilized powder • Storage:  $-70^{\circ}C$  • Shipping: Cold pack • Shelf life: 3 years from delivery

Size	Price
5.0 mg	\$145
25 mg	\$380

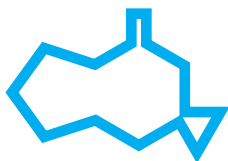
## GGACK-BIO

## Glu-Gly-Arg-Chloromethylketone, Biotinylated

Biotin labeled Glu-Gly-Arg-CMK (EGRCK). Supplied in 10 mM HCl. Fluorescein labeled GGACK is also available.

Form: Frozen liquid • Storage:  $-70^{\circ}C$  • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
1.0 mg	\$495
5.0 mg	\$1995







## XXV. THROMBOPOIETIN

### SASMTPO Sheep Anti Mouse Thrombopoietin Antiserum

Polyclonal antiserum (host sheep) to mouse thrombopoietin (TPO).

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$295
10 ml	\$2,360

### SASMTPO-GF Sheep Anti Mouse TPO IgG Fraction

Polyclonal antibody (host sheep) to mouse thrombopoietin. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

### SASMTPO-GF-BIO Sheep Anti Mouse TPO IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to mouse thrombopoietin. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

### SASMTPO-GF-FITC Sheep Anti Mouse TPO IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to mouse thrombopoietin. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

### SASMTPO-GF-HRP Sheep Anti Mouse TPO IgG, HRP Labeled

Peroxidase labeled polyclonal antibody (host sheep) to mouse thrombopoietin. IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760





## XXVI. TISSUE PLASMINOGEN ACTIVATOR (TPA)

**MW:** 70 kDa

**Synthesis:** Endothelial cells

**Plasma concentration:** 5-10 ng/ml

The plasminogen activator tPA is a fibrin specific activator of plasminogen. The fibrin specificity is a result of the interaction of the kringle-2 domain of tPA with specific lysine residues on fibrin. tPA is produced as an active single chain molecule with a molecular weight of about 70 kDa. It is cleaved to the more active two-chain form by the action of the plasmin product. Plasma levels of tPA are approximately 5-10 ng/ml. The majority of tPA in circulation is present as a complex with PAI-1.

### Technical Information

The tPA marketed by Molecular Innovations is a highly purified recombinant product. The protein concentration is determined spectrophotometrically at 280 nm using an extinction coefficient of 1.9 (0.1%). The solubility is greater than 2 mg/ml in the buffer supplied.

## A. Human tPA

### HTPA

### Human Tissue Plasminogen Activator, Single Chain

Human tissue-type plasminogen activator (tPA) is a 527 amino acid glycoprotein. Synthesized from cDNA from a human melanoma cell line. It is recombinantly produced in Chinese Hamster Ovary (CHO) cells. Fully active, >85% single chain, 100% complex formation with human PAI-1.

#### Selected Product Citations

1. Sha, J. et al. (2009) J. Bacteriol. 191:3095-3107.
2. Wiles, K.G. et al. (2010) J. Biol. Chem. 285:21153-21164.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.1 mg	\$215
1.0 mg	\$615

### HTPA-TC

### Human Tissue Plasminogen Activator, Two Chain

Activated from single-chain form with immobilized plasmin. Fully active, >95% two chain, 100% complex formation with human PAI-1.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600

## HTPA-ALA

## Non-enzymatic Human Tissue Plasminogen Activator

This human tPA has an active site serine to alanine mutation which renders it catalytically inactive. The mutation site is S478A on the mature protein and S513A on the complete mRNA sequence (UniProtKB: locus TPA\_HUMAN, accession P00750). It is >90% single chain and retains exosite binding as well as other properties of wild type tPA. Recombinantly produced in insect cells.

### Scientific References

1. Identification of a conformationally distinct form of plasminogen activator inhibitor-1, acting as a noninhibitory substrate for tissue-type plasminogen activator. PJ Declerck, M De Mol, DE Vaughan and D Collen. *J. Biol. Chem.*, Jun 1992; 267:11693 - 11696.

### Selected Product Citations

1. Hurtado, M. et al. (2007) *Gut* 56:1266-1274.
2. Sha, H. et al. (2010) *Am. J. Pathol.* 177:1164-1175.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600

## HTPA-NC

## Non-cleavable Human Tissue Plasminogen Activator

The addition of an arginine to glutamic acid mutation generates human tPA that is 100% single chain and resistant to cleavage by plasmin. The mutation site is R275E on the mature protein and R310E on the complete mRNA sequence (UniProtKB: locus TPA\_HUMAN, accession P00750). Recombinantly produced in insect cells.

### Scientific References

1. Functional role of proteolytic cleavage at arginine-275 of human tissue plasminogen activator as assessed by site-directed mutagenesis. KM Tate, DL Higgins, WE Holmes, ME Winkler, HL Heyneker and GA Vehar. *Biochemistry*, January 27, 1987; 26(2):338-43.
2. Plasmin-Mediated Fibrinolysis by Variant Recombinant Tissue Plasminogen Activators. Shoko Urano, Alan R. Metzger and Francis J. Castellino. *PNAS*, Apr 1989; 86:2568 - 2571.
3. Plasminogen activation with single-chain urokinase-type plasminogen activator (scu-PA). Studies with active site mutagenized plasminogen (Ser740Ala) and plasmin-resistant scu-PA (Lys158Glu). HR Lijnen, B Van Hoef, L Nelles and D Collen. *J. Biol. Chem.*, Mar 1990; 265:5232 - 5236.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600



## HTPA-ALANC

## Non-enzymatic & non-cleavable Human tPA

Human tPA with a double mutation that is permanently single chain and lacks catalytic activity. Recombinantly produced in insect cells.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600

## HTPA-FITC

## Human Tissue Plasminogen Activator, Single Chain FITC Labeled

Fluorescein labeled tPA, >85% single chain. 100% complex formation with PAI-1.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$435
1.0 mg	\$3,480

## HTPA-TR

## Human Tissue Plasminogen Activator, Single Chain Texas Red Labeled

Texas red labeled tPA, >85% single chain. 100% complex formation with PAI-1.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$395
1.0 mg	\$3,160

## FPRCK-TPA

## Human Tissue Plasminogen Activator, Single Chain ATA-FPR-CMK Inactivated

Prepared from human tPA by incubation with an excess of ATA-Phe-Pro-Arg-CMK. After labeling at the active site, remaining free peptide is removed by dialysis.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$395
1.0 mg	\$3,160

## B. Monoclonal Antibodies to Human tPA

### HTPA2A153

### Mouse Anti Human tPA

Produces excellent western blots with free and complexed forms of tPA. Epitope localized to the heavy chain of human tPA. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone 629-2A1-53.

Species reactivity: Human, Pig • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$430
10 mg	\$3,665

## C. Polyclonal Antibodies to Human tPA

### ASHTPA Rabbit Anti Human tPA Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Human, Pig • Tested applications: ELISA, WB, IHC (Frozen)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$360
10 ml	\$2,880

### ASHTPA-GF Rabbit Anti Human tPA IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human, Pig • Tested applications: ELISA, WB, IHC (Frozen)

Selected Product Citations

1. Pawlak, R. et al. (2005) PNAS 102:443-448.
2. Zaitsev, S. et al. (2006) Blood 108:1895-1902.
3. Sachs, B. et al. (2007) J. Cell Biol. 177:1119-1132.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$360
10 mg	\$2,880

### ASHTPA-GF-BIO Rabbit Anti Human tPA IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human, Pig • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,190

### ASHTPA-GF-FITC Rabbit Anti Human tPA IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human, Pig • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,190



## ASHTPA-GF-HRP Rabbit Anti Human tPA IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human, Pig • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,190

## ASHTPA-GF-HT Rabbit Anti Human tPA, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized human tPA.

Species reactivity: Human • Tested applications: ELISA, WB, IHC (Frozen), AP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$415
1.0 mg	\$3,320

## SASHTPA Sheep Anti Human tPA Antiserum

Polyclonal antiserum (host sheep).

Species reactivity: Human, Pig • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$215
10 ml	\$1,720

## SASHTPA-GF Sheep Anti Human tPA IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human, Pig • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$215
10 mg	\$1,720

## SASHTPA-GF-BIO Sheep Anti Human tPA IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human, Pig • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360



## SASHTPA-GF-FITC Sheep Anti Human tPA IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human, Pig • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

## SASHTPA-GF-HRP Sheep Anti Human tPA IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human, Pig • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

## D. Mouse tPA

### MTPA Active Mouse tPA, Single Chain Recombinant

Recombinantly produced in insect cells. >95% active.

Selected Product Citations

1. Merchan, J.R. et al. (2006) J. Natl. Cancer Inst. 98:756-764.
2. Hu, K. et al. (2006) J. Biol. Chem. 281:2120-2127.
3. Roelofs, J.J.T.H. et al. (2006) J. Am. Soc. Nephrol. 17:131-140.
4. Zhang, X. et al. (2007) Am. J. Pathol. 171:1281-1290.
5. Polavarapu, R. et al. (2007) Blood 109:3270-3278.
6. Lund, I.K. et al. (2008) J. Biol. Chem. 283:32506-32515.
7. An, J et al. (2008) Blood 112:2787-2794.
8. D.Ilkovitch and D.M. Lopez (2009) Blood 113:4729-4739.
9. Roussel, B.D et al. (2009) Brain 132:2219-2230.
10. Roelofs, J.J.T.H. et al. (2009) Nephrol. Dial. Transplant. 24:801-808.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600

### MTPA-TC Active Mouse tPA, Two Chain Recombinant

Recombinantly produced in insect cells. Activated from single-chain form with immobilized plasmin. >95% two chain, >95% active.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$425
1.0 mg	\$3,400



## MTPA-BIO

## Mouse tPA, Biotin Labeled

Recombinantly produced in insect cells and biotin labeled.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.05 mg	\$325
0.1 mg	\$545

## MTPA-FITC

## Mouse tPA, FITC Labeled

Recombinantly produced in insect cells and fluorescein labeled.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.05 mg	\$325
0.1 mg	\$545

## MTPA-S481A

## Non-enzymatic Mouse tPA

This single chain mouse tPA has the active site serine mutated to alanine rendering the enzyme catalytically inactive. The mutation site is S481A on the mature protein and S510A on the complete mRNA sequence (UniProtKB: locus TPA\_MOUSE, accession P11214). The tPA still retains exosite binding as well as other biological properties of tPA including but not limited to surface binding to fibrin. Recombinantly produced in insect cells.

### Selected Product Citations

1. Hu, K. et al. (2006) J. Biol. Chem. 281:2120-2127.
2. Parathath, S.R. et al. (2006) J. Cell Sci. 119:339-349.
3. Hu, K. et al. (2008) J. Am. Soc. Nephrol. 19:503-514.
4. Zhang, C. et al. (2009) Am. J. Pathol. 174:586-594.
5. Shi, Y. et al (2009) Sci. Signal 2:ra18.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600

## MTPA-NC

## Non-cleavable Mouse tPA

The addition of an arginine to glutamic acid mutation generates mouse tPA that is 100% single chain and resistant to cleavage by plasmin. The mutation site is R279E on the mature protein and R308E on the complete mRNA sequence (UniProtKB: locus TPA\_MOUSE, accession P11214). Recombinantly produced in insect cells.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600



## MTPA-ALANC

## Non-enzymatic & non-cleavable Mouse tPA

Mouse tPA with a double mutation that is permanently single chain and lacks catalytic activity. Recombinantly produced in insect cells.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600

## E. Rat tPA

### RTPA

### Active Rat tPA, Single Chain Recombinant

Recombinantly produced in insect cells. >85% single chain, >95% active.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600

### RTPA-TC

### Active Rat tPA, Two Chain Recombinant

Recombinantly produced in insect cells. Activated from single-chain form with immobilized plasmin. >95% two chain, >95% active.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$425
1.0 mg	\$3,400

## F. Monoclonal Antibodies to Mouse tPA

### H27B6

### Mouse Anti Mouse tPA

Capture monoclonal antibody produced in mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone H27B6.

Species reactivity: Mouse, Rat • Tested applications: ELISA, Capture, WB

Selected Product Citations

1. Zhang, Y. et al. (2005) J. Neurosci. 25:1797-1805.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$595
10 mg	\$4,000



## H6C5

## Mouse Anti Mouse tPA

Detection monoclonal antibody produced in mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone H6C5.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

### Selected Product Citations

1. Zhang, Y. et al. (2005) J. Neurosci. 25:1797-1805.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$595
10 mg	\$4,000

## G. Polyclonal Antibodies to Mouse and Rat tPA

### ASMTPA

### Rabbit Anti Mouse tPA Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB, IHC (Frozen), IP

### Selected Product Citations

1. Giacobini, P. et al. (2007) J. Neurosci. 27:431-445.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$455
10 ml	\$3,640

### ASMTPA-GF

### Rabbit Anti Mouse tPA IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB, IHC (Frozen), IP

### Selected Product Citations

1. Pawlak, R. et al. (2005) PNAS 102:443-448.

2. Zaitsev, S. et al. (2006) Blood 108:1895-1902.

3. Nagai, T. et al. (2006) J. Neurosci. 26:12374-12383.

4. E.H. Norris and S. Strickland (2007) PNAS 104:13473-13478.

5. Adhami, F. et al. (2008) Am. J. Pathol. 172:1704-1716.

6. Zaitsev, S. et al. (2010) J. Pharmacol. Exp. Ther. 332:1022-1031.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

## ASMTPA-GF-BIO Rabbit Anti Mouse tPA IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

Selected Product Citations

1. Dahlem, P. et al. (2006) Eur. Respir. J. 28:992-998.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,960

## ASMTPA-GF-FITC Rabbit Anti Mouse tPA IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse, Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,960

## ASMTPA-GF-HRP Rabbit Anti Mouse tPA IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse, Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,960

## ASMTPA-GF-HT Rabbit Anti Mouse tPA, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized mouse tPA.

Species reactivity: Mouse, Rat • Tested applications: ELISA, Capture, WB, IHC (Frozen), IP, AP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$340
1.0 mg	\$2,750



## SASMTPA

## Sheep Anti Mouse tPA Antiserum

Polyclonal antiserum (host sheep).

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$215
10 ml	\$1,720

## SASMTPA-GF

## Sheep Anti Mouse tPA IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

Selected Product Citations

1. Adhami, F. et al. (2008) Am. J. Pathol. 172:1704-1716.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$215
10 mg	\$1,720

## SASMTPA-GF-BIO

## Sheep Anti Mouse tPA IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

## SASMTPA-GF-FITC

## Sheep Anti Mouse tPA IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse, Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

## SASMTPA-GF-HRP

## Sheep Anti Mouse tPA IgG, HRP Labeled

Horseshradish peroxidase labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse, Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

## SASMPA-GF-HT Sheep Anti Mouse tPA, Affinity Purified

Polyclonal antibody (host sheep). Affinity purified by immobilized mouse tPA.  
Species reactivity: Mouse, Rat • Tested applications: ELISA, WB, AP

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$215
1.0 mg	\$1,720

## SASMPA-GF-HT-BIO Sheep Anti Mouse tPA, Affinity Purified Biotin Labeled

Biotin labeled polyclonal antibody (host sheep). Affinity purified by immobilized mouse tPA.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.5 mg	\$495
5.0 mg	\$3,950

## H. Porcine tPA

### PTPA Active Porcine tPA, Recombinant

Recombinantly produced in insect cells. >95% active. For ELISA and Western Blotting of pig tPA, please use our Rabbit Polyclonal Antibodies to Human tPA or our Mouse Monoclonal to Human tPA which cross react.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600

## I. Rabbit tPA

### RbTPA Active Rabbit tPA, Recombinant

Rabbit tPA recombinantly produced in insect cells which is >95% active.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$325
1.0 mg	\$2,600



## J. Polyclonal Antibodies to Rabbit tPA

### SASRbTPA

### Sheep Anti Rabbit tPA Antiserum

Polyclonal antiserum (host sheep).

Species reactivity: Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$295
10 ml	\$2,360

### SASRbTPA-GF

### Sheep Anti Rabbit tPA IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

### SASRbTPA-GF-BIO

### Sheep Anti Rabbit tPA IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep). IgG fraction purified by Immobilized Protein G.

Species reactivity: Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

### SASRbTPA-GF-FITC

### Sheep Anti Rabbit tPA IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep). IgG fraction purified by Immobilized Protein G.

Species reactivity: Rabbit • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760

### SASRbTPA-GF-HRP

### Sheep Anti Rabbit tPA IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep). IgG fraction purified by Immobilized Protein G.

Species reactivity: Rabbit • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$345
10 mg	\$2,760



## K. tPA Depleted Plasma

HPLA-SC-tPA

Human tPA Depleted Plasma, Sodium Citrate

Prepared from human plasma using immobilized antibodies to human tPA.

Selected Product Citations

1. Renckens, R. et al. (2006) J. Immunol. 177:1189-1196.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
10 ml	\$285
100 ml	\$2,280



## L. tPA ELISA Kits

### HTPAKT

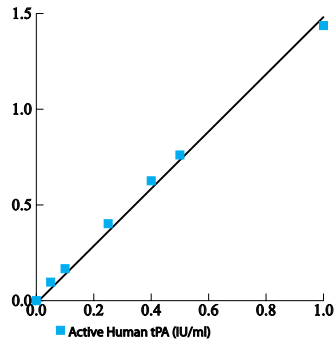
### Active Human tPA Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active human tPA in plasma, serum or cell culture media. Complexed tPA will not be detected by this assay. Cross-reactivity: 3% Mouse, 30% Rat

#### Kit Information

Plate	8 x 12 well strips
Standard wells	18
Sample wells	78
Standard curve	0.01 - 1 IU/ml
Linear range	0.01 - 1 IU/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	135 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$475
5 kits	\$1,925

### HTPAKT-TOT

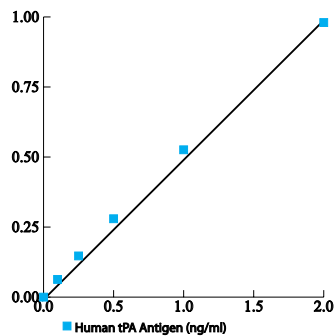
### Total Human tPA Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total human tPA antigen in plasma, serum, tissue extracts, cell culture media or lysates. Free and complexed human tPA will be detected by this assay.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	16
Sample wells	80
Standard curve	0.1 - 10 ng/ml
Linear range	0.1 - 2 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$475
5 kits	\$1,925



## MTPAKT

## Active Mouse tPA Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active mouse tPA in plasma, serum or cell culture media. Complexed tPA will not be detected by this assay. This assay has measured active tPA in normal plasma of mouse strains NSA/CF-1 (9.9 ng/ml), C57BL6 (1.4 ng/ml) and CD-1 (0.4 ng/ml).

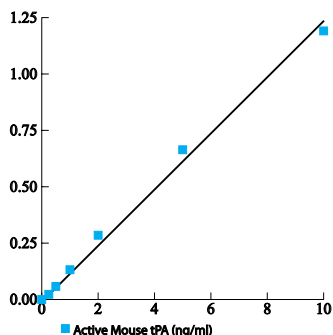
### Selected Product Citations

1. Roelofs, J.T.H. et al. (2006) J. Am. Soc. Nephrol. 17:131-140.
2. E.H. Norris and S. Strickland (2007) PNAS 104:13473-13478.

### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.1 - 50 ng/ml
Linear range	0.1 - 10 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	135 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950



## MTPAKT-TOT

## Total Mouse tPA Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total mouse tPA antigen in plasma, serum, tissue extracts, cell culture media or lysates. Free and complexed mouse tPA will be detected by this assay. This assay has measured total tPA in normal plasma of mouse strains NSA/CF-1 (9.4 ng/ml), C57BL6 (2.4 ng/ml) and CD-1 (0.4 ng/ml).

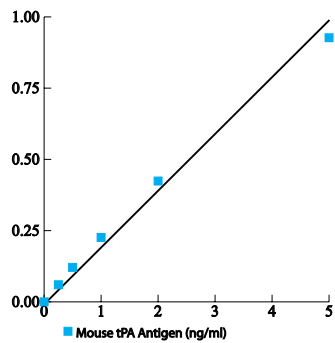
### Selected Product Citations

1. Merchan, J.R. et al. (2006) J. Natl. Cancer Inst. 98:756-764.
2. Roelofs, J.J.T.H. et al. (2006) J. Am. Soc. Nephrol. 17:131-140.
3. E.H. Norris and S. Strickland (2007) PNAS 104:13473-13478.
4. Roussel, B.D. et al. (2009) Brain 132:2219-2230.

### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.05 - 50 ng/ml
Linear range	0.05 - 5 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950

## RTPAKT

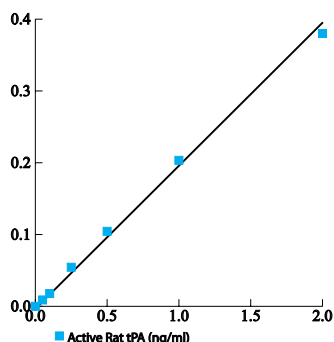
## Active Rat tPA Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active rat tPA in plasma, serum or cell culture media. Complexed tPA will not be detected by this assay. This assay has measured active tPA in normal rat plasma (1.6 ng/ml).

### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	0.05 - 50 ng/ml
Linear range	0.05 - 2 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	135 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950

## RTPAKT-TOT

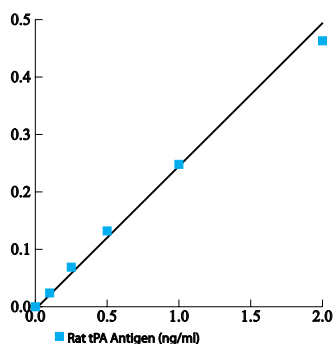
## Total Rat tPA Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total rat tPA antigen in plasma, serum, tissue extracts, cell culture media or lysates. Free and complexed rat tPA will be detected by this assay. This assay has measured total tPA in normal rat plasma (2.5 ng/ml).

### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.05 - 50 ng/ml
Linear range	0.05 - 2 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950

## PTPAKT

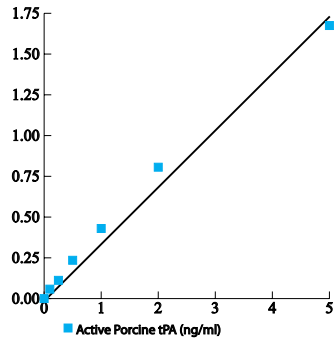
## Active Porcine tPA Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active porcine tPA in plasma, serum or cell culture media. Complexed tPA will not be detected by this assay.

### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.02 - 10 ng/ml
Linear range	0.02 - 5 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	135 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950

## RbTPAKT

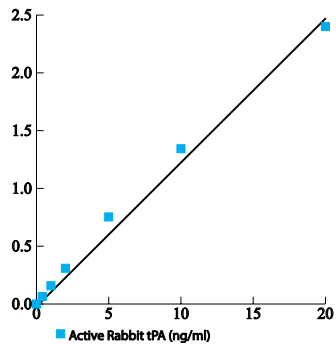
## Active Rabbit tPA Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active rabbit tPA in plasma, serum or cell culture media. Complexed tPA will not be detected by this assay.

### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.05 - 20 ng/ml
Linear range	0.05 - 20 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	135 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950



## XXVII. UROKINASE (UPA)

**MW:** 54 kDa (HMW form); 31 kDa (LMW form)

**Synthesis:** Endothelial cells, kidney epithelial cells

**Plasma concentration:** 2 ng/ml

Urinary-type plasminogen activator (uPA) is a glycosylated serine protease that is present in a low molecular weight (LMW) and a high molecular weight (HMW) form with a MW of 31 kDa and 54 kDa, respectively. Urokinase is highly selective in that it is reactive with a number of synthetic substrates yet the only known physiological substrate is plasminogen, which it rapidly converts into plasmin. Urokinase is inherently involved in the fibrinolytic cascade though its activation of plasminogen to plasmin and is inhibited rapidly by the major modulator of fibrinolysis, PAI-1. uPA has received much focus because of its association with the uPAR receptor. uPAR enhances the efficiency of plasminogen activation and promotes tumor metastasis and invasion. It is also involved in triggering the proteolytic cascade of matrix metalloproteinases (MMP) that degrade collagen.

### Technical Information

Molecular Innovations Inc. urokinase is provided in a sodium acetate buffer at pH 5.0 that limits autoproteolysis and provides stability for greater than 1 year when stored at  $-70^{\circ}\text{C}$ . The extinction coefficients of LMW and HMW uPA are  $1.32\text{ mg}^{-1}\text{ ml}^{-1}$  and  $1.36\text{ mg}^{-1}\text{ ml}^{-1}$ , respectively.

## A. Human Urokinase

### UPA-HTC

### Human HMW Urokinase, Native

Prepared from human urine as the two-chain form. Urokinase is activated from single-chain pro-urokinase by plasmin cleavage at the Lys158-Ile159 bond. For plasminogen activation and receptor binding studies.

#### Selected Product Citations

1. Gardell, S.J. et al. (2007) Mol. Pharmacol. 72:897-906.
2. Szabo, R. et al. (2008) J. Biol. Chem. 283:29495-29504.
3. Lund, I.K. et al. (2008) J. Biol. Chem. 283:32506-32515.
4. Cale, J.M. et al. (2010) J. Biol. Chem. 285:7892-7902.

**Form:** Frozen liquid • **Storage:**  $-70^{\circ}\text{C}$  • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.1 mg	\$270
1.0 mg	\$2,305

### UPA-HTC-FITC

### Human HMW Urokinase, Native FITC Labeled

Fluorescein labeled two-chain urokinase.

**Form:** Frozen liquid • **Storage:**  $-70^{\circ}\text{C}$  in dark • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.1 mg	\$455
1.0 mg	\$3,640





## UPA-HTC-HRP Human HMW Urokinase, Native HRP Labeled

Horseradish peroxidase conjugated two-chain urokinase.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$455
1.0 mg	\$3,640

## UPA-HTC-INS Human HMW Urokinase, Recombinant

Produced in insect cell culture as the two-chain form. For plasminogen activation and receptor binding studies.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$2,120

## UPA-LMW Human LMW Urokinase, Recombinant

The low molecular weight form of uPA is purified from auto-catalytic digestion of recombinant human urokinase produced in insect cells. LMW uPA contains the proteinase domain and is separated from the amino terminal fragment by cleavage at the Lys135-Lys136 bond. For plasminogen activation and receptor binding studies.

Selected Product Citations

1. Lund, I.K. et al. (2008) J. Biol. Chem. 283:32506-32515.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$345
1.0 mg	\$2,760

## UPA-LMW-FITC Human LMW Urokinase, Recombinant FITC Labeled

FITC labeled single-chain urokinase.

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$455
1.0 mg	\$3,640

## UPA-LMW-HRP Human LMW Urokinase, Recombinant HRP Labeled

Horseradish peroxidase conjugated single-chain urokinase.

Form: Liquid • Storage: -20°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.1 mg	\$455
1.0 mg	\$3,640

## B. Amino Terminal Fragment of Human uPA

### HATF Amino Terminal Fragment of Human uPA

The amino terminal fragment (ATF) of uPA is purified from auto-catalytic digestion of recombinant human urokinase produced in insect cells. ATF contains the Kringle and Epidermal Growth Factor domains and is separated from LMW uPA by cleavage at the Lys135-Lys136 bond.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$455
1.0 mg	\$3,640

### ASHATF-GF-HT Rabbit Anti Human ATF of uPA, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized human ATF. Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.02 ml	\$455
0.1 ml	\$2,750

## C. Monoclonal Antibodies to Human uPA

### HUPA3A108 Mouse Anti Human uPA

Monoclonal antibody directed to the Amino Terminal Fragment (ATF) region of human uPA. IgG fraction purified by immobilized Protein G. Isotype IgG. Clone 724-3A1-8. Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$430
10 mg	\$3,665

### HUPA3G65 Mouse Anti Human uPA

Capture monoclonal antibody directed to the C-terminal region of human uPA. IgG fraction purified by immobilized Protein G. Isotype IgG. Clone 724-3G6-5. Species reactivity: Human • Tested applications: ELISA, Capture, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$430
10 mg	\$3,665





## D. Polyclonal Antibodies to Human uPA

### ASHUPA

### Rabbit Anti Human uPA Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$360
10 ml	\$2,880

### ASHUPA-GF

### Rabbit Anti Human uPA IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$360
10 mg	\$2,880

### ASHUPA-GF-BIO

### Rabbit Anti Human uPA IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$375
10 mg	\$3,000

### ASHUPA-GF-FITC

### Rabbit Anti Human uPA IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$375
10 mg	\$3,000

### ASHUPA-GF-HRP

### Rabbit Anti Human uPA IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$375
10 mg	\$3,000



## ASHUPA-GF-HT Rabbit Anti Human uPA, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized human uPA.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$455
1.0 mg	\$3,640

## SASHUPA Sheep Anti Human uPA Antiserum

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$215
10 ml	\$1,720

## SASHUPA-GF Sheep Anti Human uPA IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.  
Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$215
10 ml	\$1,720

## SASHUPA-GF-BIO Sheep Anti Human uPA IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

## SASHUPA-GF-FITC Sheep Anti Human uPA IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360



## SASHUPA-GF-HRP Sheep Anti Human uPA IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

## E. Mouse Urokinase

### MUPA Mouse HMW Urokinase, Recombinant

Active two-chain HMW mouse urokinase, recombinantly produced in insect cells.

Selected Product Citations

1. Merchan, J.R. et al. (2006) J. Natl. Cancer Inst. 98:756-764.
2. Suelves, M. et al. (2007) J. Cell Biol. 178:1039-1051.
3. Van Den Broeck, T. et al. (2008) Blood 112:5046-5051.
4. Ilkovitch, D. et al. (2008) Cancer Res. 68:2427-2435.
5. Bryer, S.C. et al. (2008) J. Immunol. 180:1179-1188.
6. Sisson, T.H. et al. (2009) Blood 114:5052-5061.
7. Jo, M. et al. (2009) Am. J. Pathol. 175:190-200.
8. Yang, Y. et al. (2010) Am. J. Respir. Crit. Care Med. 10.1164/rccm.201003-0452OC.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.05 mg	\$285
0.1 mg	\$515

### MUPA-AF700 Mouse HMW Urokinase, Alexa Fluor® 700 Labeled

Active two-chain HMW recombinant mouse urokinase. Labeled with Alexa Fluor® 700 at primary amines (Abs: 702, Em: 723).

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.05 mg	\$495
0.1 mg	\$895

Alexa Fluor is a registered trademark of Molecular Probes / Invitrogen.

### MUPA-BIO Mouse HMW Urokinase, Biotin Labeled

Biotin labeled recombinant mouse urokinase.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.05 mg	\$495
0.1 mg	\$895

## MUPA-FITC

## Mouse HMW Urokinase, FITC Labeled

Fluorescein labeled recombinant mouse urokinase.

### Selected Product Citations

1. Bryer, S.C. et al. (2008) J. Immunol. 180:1179-1188.

**Form:** Frozen liquid • **Storage:** -70°C in dark • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.05 mg	\$495
0.1 mg	\$895

## MUPA-LMW

## Mouse LMW Urokinase, Recombinant

Active LMW recombinant mouse urokinase.

### Selected Product Citations

1. Van Den Broeck, T. et al. (2008) Blood 112:5046-5051.

2. Yang, Y. et al. (2010) Am. J. Respir. Crit. Care Med. 10.1164/rccm.201003-0452OC.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.05 mg	\$515
0.1 mg	\$910

## MATF

## Amino Terminal Fragment of Mouse uPA

Amino terminal fragment of recombinant mouse urokinase.

### Selected Product Citations

1. Zhang, G. et al. (2009) J. Biol. Chem. 284:29050-29064.

**Form:** Frozen liquid • **Storage:** -70°C • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.05 mg	\$325
0.1 mg	\$565

## MATF-AF750

## Amino Terminal Fragment of Mouse uPA, Alexa Fluor® 750 Labeled

Amino terminal fragment of recombinant mouse urokinase. Labeled with Alexa Fluor® 750 at primary amines (Abs: 753, Em: 782).

**Form:** Frozen liquid • **Storage:** -70°C in dark • **Shipping:** Dry ice • **Shelf life:** 3 years from delivery

Size	Price
0.05 mg	\$495
0.1 mg	\$895

Alexa Fluor is a registered trademark of Molecular Probes / Invitrogen.





## F. Rat Urokinase

### RUPA

### Rat HMW Urokinase, Recombinant

Active two-chain HMW rat urokinase, recombinantly produced in insect cells.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.05 mg	\$285
0.1 mg	\$515

## G. Monoclonal Antibodies to Mouse uPA

### H77A10

### Mouse Anti Mouse uPA

Capture monoclonal antibody produced in mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone H77A10.

Species reactivity: Mouse, Rat • Tested applications: ELISA, Capture, WB, IHC (Paraffin)

Selected Product Citations

1. Shushakova, N. et al. (2005) J. Immunol. 175:4060-4068.
2. Merchan, J.R. et al. (2006) J. Natl. Cancer Inst. 98:756-764.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$595
10 mg	\$4,000

### H77B6

### Mouse Anti Mouse uPA

Detection monoclonal antibody produced in mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone H77B6.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$595
10 mg	\$4,000

## H. Polyclonal Antibodies to Mouse and Rat uPA

### ASMUPA

### Rabbit Anti Mouse uPA Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB, IHC (Frozen, Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$295
10 ml	\$2,750

## ASMUPA-GF

## Rabbit Anti Mouse uPA IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB, IHC (Frozen, Paraffin)

### Selected Product Citations

1. Stutchbury, T.K. et al. (2007) Mol. Cancer Ther. 6:203-212.
2. Zhang, G. et al. (2009) J. Biol. Chem. 284:29050-29064.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,750

## ASMUPA-GF-BIO

## Rabbit Anti Mouse uPA IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,960

## ASMUPA-GF-FITC

## Rabbit Anti Mouse uPA IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse, Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,960

## ASMUPA-GF-HRP

## Rabbit Anti Mouse uPA IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse, Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,960





## ASMUPA-GF-HT Rabbit Anti Mouse uPA, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized mouse uPA.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB, IHC (Frozen, Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$495
1.0 mg	\$3,960

## ASRUPA-GF-HT Rabbit Anti Rat uPA, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized rat uPA.

Species reactivity: Rat • Tested applications: ELISA, WB, IHC (Frozen, Paraffin)

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$495
1.0 mg	\$3,960

## SASMUPA Sheep Anti Mouse uPA Antiserum

Polyclonal antiserum (host sheep).

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$215
10 ml	\$1,720

## SASMUPA-GF Sheep Anti Mouse uPA IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$215
10 mg	\$1,720

## SASMUPA-GF-BIO Sheep Anti Mouse uPA IgG, Biotin labeled

Biotin labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse, Rat • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360



## SASMUPA-GF-FITC Sheep Anti Mouse uPA IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse, Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

## SASMUPA-GF-HRP Sheep Anti Mouse uPA IgG, HRP labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Mouse, Rat • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$295
10 mg	\$2,360

## I. Mouse uPA Receptor

### SMUPAR-HIS Soluble Mouse uPA Receptor, N-terminal His Tag

Mouse Urokinase Receptor, soluble form. Recombinantly produced in insect cells. Contains a 6x-Histidine tag at the N-terminus for purification. Demonstrates preferential binding to mouse uPA over human uPA coated on an ELISA plate.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$565
1.0 mg	\$4,520





## J. Polyclonal Antibodies to Mouse uPAR

### SASMUPAR

### Sheep Anti Mouse uPAR Antiserum

Polyclonal antiserum (host sheep) to soluble mouse uPAR, His tagged. Licensed under United States Patent 5,519,120.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$325
10 ml	\$2,600

### SASMUPAR-GF

### Sheep Anti Mouse uPAR IgG Fraction

Polyclonal antibody (host sheep) to soluble mouse uPAR, His tagged. IgG fraction purified by immobilized Protein G. Licensed under United States Patent 5,519,120.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$325
10 mg	\$2,600

### SASMUPAR-GF-BIO

### Sheep Anti Mouse uPAR IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep) to soluble mouse uPAR, His tagged. IgG fraction purified by immobilized Protein G. Licensed under United States Patent 5,519,120.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

### SASMUPAR-GF-FITC

### Sheep Anti Mouse uPAR IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep) to soluble mouse uPAR, His tagged. IgG fraction purified by immobilized Protein G. Licensed under United States Patent 5,519,120.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040



## SASMUPAR-GF-HRP Sheep Anti Mouse uPAR IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep) to soluble mouse uPAR, His tagged. IgG fraction purified by immobilized Protein G. Licensed under United States Patent 5,519,120.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## K. Rabbit Urokinase

### RbUPA Rabbit HMW Urokinase, Recombinant

Active two-chain rabbit urokinase, recombinantly produced in insect cells.

Selected Product Citations

1. Lin, L. et al. (2010) J. Biol. Chem. 285:10982-10992.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.05 mg	\$285
0.1 mg	\$515

## L. Polyclonal Antibodies to Rabbit uPA

### SASRbUPA Sheep Anti Rabbit uPA Antiserum

Polyclonal antiserum (host sheep).

Species reactivity: Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$325
10 ml	\$2,600

### SASRbUPA-GF Sheep Anti Rabbit uPA IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by Immobilized Protein G.

Species reactivity: Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$325
10 mg	\$2,600





## SASRbUPA-GF-BIO Sheep Anti Rabbit uPA IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep). IgG fraction purified by Immobilized Protein G.

Species reactivity: Rabbit • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3.040

## SASRbUPA-GF-FITC Sheep Anti Rabbit uPA IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep). IgG fraction purified by Immobilized Protein G.

Species reactivity: Rabbit • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3.040

## SASRbUPA-GF-HRP Sheep Anti Rabbit uPA IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep). IgG fraction purified by Immobilized Protein G.

Species reactivity: Rabbit • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3.040

## M. Dog Urokinase

### DUPA Dog HMW Urokinase, Recombinant

Active two-chain canine urokinase, recombinantly produced in insect cells.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.05 mg	\$260
0.1 mg	\$470

## N. Polyclonal Antibodies to Dog uPA

### SASDUPA Sheep Anti Dog uPA Antiserum

Polyclonal antiserum (host sheep).

Species reactivity: Dog • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$325
10 ml	\$2,600

### SASDUPA-GF Sheep Anti Dog uPA IgG Fraction

Polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Dog • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$325
10 mg	\$2,600

### SASDUPA-GF-BIO Sheep Anti Dog uPA IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Dog • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

### SASDUPA-GF-FITC Sheep Anti Dog uPA IgG, FITC Labeled

FITC labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Dog • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

### SASDUPA-GF-HRP Sheep Anti Dog uPA IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host sheep). IgG fraction purified by immobilized Protein G.

Species reactivity: Dog • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$380
10 mg	\$3,040

## O. uPA ELISA Kits

### HUPAKT

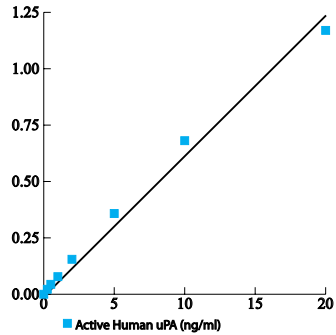
### Active Human uPA Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active human uPA in plasma, serum or cell culture media. Inactive or complexed uPA will not be detected by this assay. Cross-reactivity: 0% Mouse

#### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.1 - 50 ng/ml
Linear range	0.1 - 20 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	135 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$475
5 kits	\$1,925

### HUPAKT-TOT

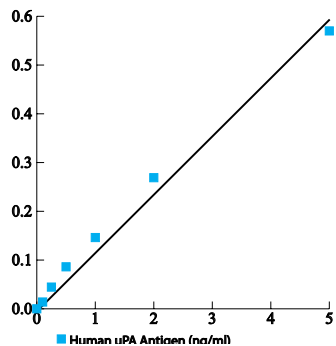
### Total Human uPA Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total human uPA antigen in plasma, serum, tissue extracts, cell culture media or lysates. Free and complexed human uPA will be detected by this assay.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.1 - 50 ng/ml
Linear range	0.1 - 5 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$475
5 kits	\$1,925

## MUPAKT

## Active Mouse uPA Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active mouse uPA in plasma, serum or cell culture media. Inactive or complexed uPA will not be detected by this assay. Cross-reactivity: 1% Human

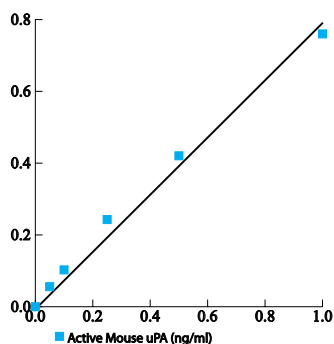
### Selected Product Citations

1. Yamaguchi, I. et al. (2007) Am. J. Physiol. Renal Physiol. 293:F12-F19.

### Kit Information

Plate	8 x 12 well strips
Standard wells	18
Sample wells	78
Standard curve	0.05 - 10 ng/ml
Linear range	0.05 - 1 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	135 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950



## MUPAKT-TOT

## Total Mouse uPA Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total mouse uPA antigen in plasma, serum, tissue extracts, cell culture media or lysates. Free and complexed mouse uPA will be detected by this assay. Cross-reactivity: 0% Human

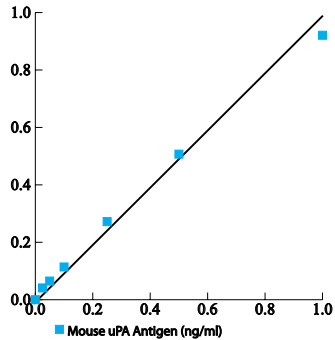
### Selected Product Citations

1. Merchan, J.R. et al. (2006) J. Natl. Cancer Inst. 98:756-764.
2. Ilkovitch, D. et al. (2008) Cancer Res. 68:2427-2435.
3. D. Ilkovitch and D.M. Lopez (2009) Blood 113:4729-4739.

### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.025 - 10 ng/ml
Linear range	0.025 - 1 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 kits	\$1,950

## RUPAKT

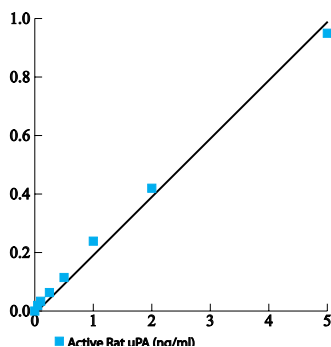
## Active Rat uPA Functional Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of functionally active rat uPA in plasma, serum or cell culture media. Inactive or complexed uPA will not be detected by this assay.

### Kit Information

Plate	8 x 12 well strips
Standard wells	18
Sample wells	78
Standard curve	0.05 - 10 ng/ml
Linear range	0.05 - 5 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	135 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 Kits	\$1,950

## RUPAKT-TOT

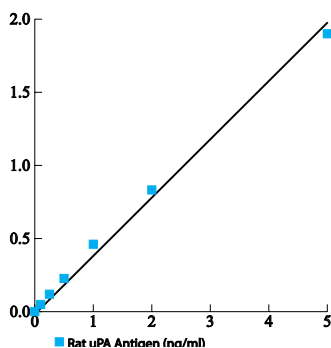
## Total Rat uPA Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total rat uPA antigen in plasma, serum, tissue extracts, cell culture media or lysates. Free and complexed rat uPA will be detected by this assay.

### Kit Information

Plate	8 x 12 well strips
Standard wells	18
Sample wells	78
Standard curve	0.05 - 10 ng/ml
Linear range	0.05 - 5 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 kit	\$495
5 Kits	\$1,950



## XXVIII. VITRONECTIN

**MW:** 75 kDa (monomeric form); >100 kDa (multimeric, urea prepared form)

**Synthesis:** Liver

**Plasma concentration:** 200-400 ng/ml

Native vitronectin is an adhesive glycoprotein with a molecular weight of 75 kDa found in human plasma, tissues and extracellular matrices (1). Vitronectin tends to multimerize and promotes the attachment and spreading of a wide variety of cell types including endothelial, osteosarcoma and melanoma cells, platelets fibroblasts, osteoclasts and macrophages when adsorbed onto tissue culture plates. It competes better than fibronectin with other serum proteins for nonspecific binding sites on polystyrene at serum concentrations in excess of 2%. Vitronectin has implications for thrombosis since it binds to heparin, protecting thrombin and Factor Xa from heparin-dependent inactivation by antithrombin. Vitronectin binding to active PAI-1 has been shown to delay its conversion to the latent form, which has important implications to the fibrinolytic process. Vitronectin is also involved in inflammation and has been identified as the carrier protein of beta-endorphin and has also been found to protect bystander cells from lysis by complement.

### Technical Information

Monomeric vitronectin is purified from human plasma. It is provided frozen in a buffer consisting of 0.05 M sodium phosphate, 0.15 M NaCl, pH 7.4 where it is stable at -70°C for over a year. Repeated freeze/thaw cycles should be avoided. Protein concentration is determined spectrophotometrically at 280 nm using an extinction coefficient of 1.0 (0.1%). The solubility is greater than 2 mg/ml. Molecular Innovations vitronectin is produced under gentle non-denaturing conditions resulting in the monomeric rather than multimeric (aggregated) form. The multimeric form of vitronectin prepared by denaturing chromatography (urea) is available for human and various animal species. Both the monomeric and multimeric forms are excellent reagents for cell adhesion studies. The purity is at least 95% as determined by SDS-PAGE.

### Scientific References

1. B.R. Tornasini and D.F. Mosher (1991) Prog. Haemostasis Thromb. 10, 269-304.







## A. Human Vitronectin

### HVN Human Monomeric Vitronectin

Prepared from fresh human plasma using non-denaturing chromatography.

#### Selected Product Citations

1. Degryse, B. et al. (2005) J. Biol. Chem. 280:24792-24803.
2. Gardell, S.J. et al. (2007) Mol. Pharmacol. 72:897-906.
3. Li, X. et al. (2007) J. Biol. Chem. 282:5318-5326.
4. Gorlatova, N.V. et al. (2007) J. Biol. Chem. 282:9288-9296.
5. Gardsvoll, H. et al. (2007) J. Biol. Chem. 282:13561-13572.
6. Stefansson, S. et al. (2007) J. Biol. Chem. 282:15679-15689.
7. Chen, S. et al. (2008) Mol. Cancer Ther. 7:1227-1236.
8. Zhu, S. et al. (2009) Am. J. Physiol. Lung Cell. Mol. Physiol. 297:L97-L108.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.5 mg	\$870
1.0 mg	\$1,605

### HVN-BIO Human Monomeric Vitronectin, Biotin Labeled

Prepared from fresh human plasma using non-denaturing chromatography, then biotin labeled at primary amines.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$565
1.0 mg	\$4,950

### HVN-U Human Multimeric Vitronectin

Prepared from fresh human plasma using urea as a denaturant.

#### Selected Product Citations

1. Li, X. et al. (2007) J. Biol. Chem. 282:5318-5326.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$1,800

### HVN-U-BIO Human Multimeric Vitronectin, Biotin Labeled

Prepared from fresh human plasma using urea as a denaturant, then biotin labeled at primary amines.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$340
1.0 mg	\$2,750



## B. Monoclonal Antibodies to Human Vitronectin

### HVN1D144      Inhibitory Mouse Anti Human Vitronectin

Inhibitory monoclonal antibody produced in mouse. This antibody blocks smooth muscle and endothelial cell adhesion to vitronectin. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone 615-1D1-44.

Species reactivity: Human • Tested applications: ELISA, WB, Blocking

Selected Product Citations

1. Stefansson, S. et al. (2007) J. Biol. Chem. 282:15679-15689.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$495
10 mg	\$3,960

### HVN1E934      Mouse Anti Human Vitronectin

ELISA: Monomeric and multimeric human vitronectin

WB: Non-reduced monomeric vitronectin

Monoclonal antibody produced in mouse. Does not cross-react with mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone 615-1E9-34.

Species reactivity: Human • Tested applications: ELISA, WB

Selected Product Citations

1. Stefansson, S. et al. (2007) J. Biol. Chem. 282:15679-15689.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

### HVN1H820      Mouse Anti Human Vitronectin

ELISA: Monomeric and multimeric human vitronectin

WB: Non-reduced monomeric vitronectin

Monoclonal antibody produced in mouse. Does not cross-react with mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone 615-1H8-20.

Species reactivity: Human • Tested applications: ELISA, WB

Selected Product Citations

1. Stefansson, S. et al. (2007) J. Biol. Chem. 282:15679-15689.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640



## HVN2C323

## Mouse Anti Human Vitronectin

WB: Reduced and non-reduced monomeric vitronectin

ELISA: Monomeric vitronectin only

Monoclonal antibody produced in mouse. Does not cross-react with mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone 615-2C3-23.

Species reactivity: Human • Tested applications: ELISA, WB

Selected Product Citations

1. Stefansson, S. et al. (2007) J. Biol. Chem. 282:15679-15689.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

## HVN4A132

## Mouse Anti Human Vitronectin

WB: Reduced and non-reduced monomeric vitronectin

ELISA: Not suitable

Monoclonal antibody produced in mouse. Does not cross-react with mouse. IgG fraction purified by immobilized Protein A. Isotype IgG. Clone 615-4A1-32.

Species reactivity: Human • Tested applications: WB

Selected Product Citations

1. Stefansson, S. et al. (2007) J. Biol. Chem. 282:15679-15689.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

## C. Polyclonal Antibodies to Human Vitronectin

### ASHVN

### Rabbit Anti Human Vitronectin Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$340
10 ml	\$2,720

### ASHVN-GF

### Rabbit Anti Human Vitronectin IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$340
10 mg	\$2,720



## ASHVN-GF-BIO

## Rabbit Anti Human Vitronectin IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

## ASHVN-GF-FITC

## Rabbit Anti Human Vitronectin IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

## ASHVN-GF-HRP

## Rabbit Anti Human Vitronectin IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Human • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

## ASHVN-GF-HT

## Rabbit Anti Human Vitronectin, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized human vitronectin.

Species reactivity: Human • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C in dark • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$455
1.0 mg	\$3,640

## D. Animal Vitronectin

### BVN Bovine Multimeric Vitronectin

Prepared from fresh bovine plasma using urea as a denaturant.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$1,800

### PVN Porcine Multimeric Vitronectin

Prepared from fresh porcine (pig) plasma using urea as a denaturant.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$1,800

### MVN Mouse Multimeric Vitronectin

Prepared from fresh mouse plasma using urea as a denaturant.

Selected Product Citations

1. Nandrot, E.F. et al. (2007) PNAS 104:12005-12010.
2. Wu, J. et al. (2009) Arterioscler. Thromb. Vasc. Biol. 29:1565-1570.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$260
1.0 mg	\$2,080

### RbVN Rabbit Multimeric Vitronectin

Prepared from fresh rabbit plasma using urea as a denaturant.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$225
1.0 mg	\$1,800

### RVN Rat Multimeric Vitronectin

Prepared from fresh rat plasma using urea as a denaturant.

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 3 years from delivery

Size	Price
0.1 mg	\$260
1.0 mg	\$2,080



## E. Polyclonal Antibodies to Mouse Vitronectin

### ASMVN

### Rabbit Anti Mouse Vitronectin Antiserum

Polyclonal antiserum (host rabbit).

Species reactivity: Mouse • Tested applications: ELISA, WB, IHC (Paraffin), IF

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 ml	\$340
10 ml	\$2,720

### ASMVN-GF

### Rabbit Anti Mouse Vitronectin IgG Fraction

Polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse • Tested applications: ELISA, WB, IHC (Paraffin), IF

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$340
10 mg	\$2,720

### ASMVN-GF-BIO

### Rabbit Anti Mouse Vitronectin IgG, Biotin Labeled

Biotin labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse • Tested applications: ELISA, WB

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

### ASMVN-GF-FITC

### Rabbit Anti Mouse Vitronectin IgG, FITC Labeled

FITC labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

## ASMVN-GF-HRP

## Rabbit Anti Mouse Vitronectin IgG, HRP Labeled

Horseradish peroxidase labeled polyclonal antibody (host rabbit). IgG fraction purified by immobilized Protein A.

Species reactivity: Mouse • Tested applications: ELISA

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
1.0 mg	\$455
10 mg	\$3,640

## ASMVN-GF-HT

## Rabbit Anti Mouse Vitronectin, Affinity Purified

Polyclonal antibody (host rabbit). Affinity purified by immobilized murine vitronectin.

Species reactivity: Mouse • Tested applications: ELISA, Capture, WB, IHC (Paraffin), IF

Form: Frozen liquid • Storage: -70°C • Shipping: Dry ice • Shelf life: 5 years from delivery

Size	Price
0.1 mg	\$455
1.0 mg	\$3,640

## F. Vitronectin ELISA Kits

### MVNKT-TOT

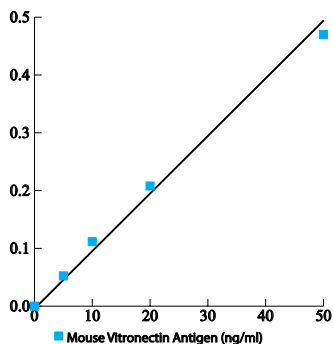
### Total Mouse Vitronectin Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total mouse vitronectin antigen in plasma, serum or cell culture media.

#### Kit Information

Plate	8 x 12 well strips
Standard wells	22
Sample wells	74
Standard curve	1 - 1000 ng/ml
Linear range	1 - 50 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

#### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 6 months from manufacture

Size	Price
1 Kit	\$475
5 Kits	\$1,925

## HVNKT-TOT

## Total Human Vitronectin Antigen Assay

This 96 well strip format ELISA kit is intended for the quantitative determination of total human vitronectin antigen in plasma, serum or cell culture media. Using this assay, values for plasma vitronectin in normal individuals were determined to be 127.5 +/- 13.1 µg/ml (1). Vascular samples from the saphenous vein, mammary artery and human adipose tissue were also assayed for vitronectin with values ranging from 5-40 µg/mg. Cross-reactivity: 0% Mouse

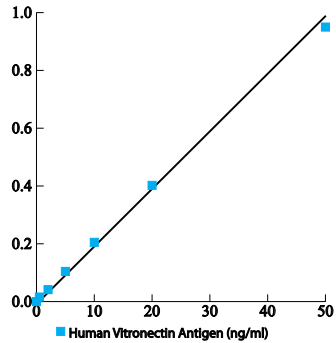
### Selected Product Citations

1. D.L. Crandall et. al. Autocrine regulation of human preadipocyte migration by plasminogen activator inhibitor-1. J Clin Endocrinol Metab. 2000 Jul;85(7):2609-14.

### Kit Information

Plate	8 x 12 well strips
Standard wells	20
Sample wells	76
Standard curve	0.2 - 100 ng/ml
Linear range	0.2 - 50 ng/ml
Development	TMB substrate
Measurement	450 nm endpoint
Assay length	105 minutes

### Example of Standard Curve



Form: Complete kit • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from manufacture

Size	Price
1 Kit	\$475
5 Kits	\$1,925



## XXIX. ELISA REAGENTS

### A. ELISA Plates

#### AVI-PLATE

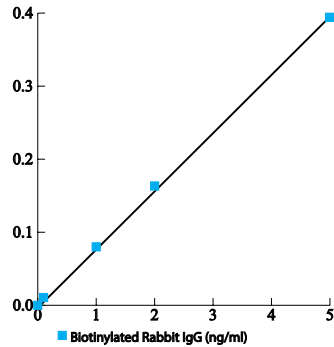
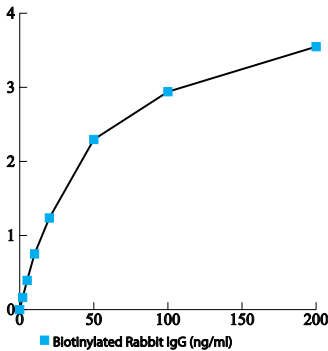
#### Avidin Coated Plate

96 well plate with 8 removable 12 well strips coated with avidin at 100 ul/well and blocked with 300 ul/well. Ideal for specific binding of biotin conjugated proteins and antibodies. Binding performance is characterized with biotinylated rabbit IgG followed by detection with HRP labeled secondary antibody.

#### Advantages of Avidin Plates from Molecular Innovations

Sensitive	Detection down to 0.1 ng/ml of biotinylated IgG
Specific	Low background with high signal to noise ratio
High Capacity	Binding greater than 100 ng/ml of biotinylated IgG
Robust	Broad dynamic range
Convenient	Ready to use plates are supplied pre-blocked to save time
Accurate	Inter-assay CV is less than or equal to 3.47% up to 100 ng/ml of biotinylated IgG

#### Examples of Biotin Conjugated Protein Binding



Form: Plate • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
5 plates	\$125
25 plates	\$550



## UPA-PLATE

## Urokinase Coated Plate

96 well plate with 8 removable strips coated with recombinant rabbit Urokinase (uPA) at 100 ul/well and blocked with 300 ul/well. Ideal for irreversible binding of active Plasminogen Activator Inhibitor (PAI-1) for functional ELISA experiments. Rabbit uPA forms a covalent complex with PAI-1 of all species including human, mouse, rat, porcine and rabbit.

Form: Plate • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
5 plates	\$125
25 plates	\$550

## HPAI-TOT-PLATE

## Human PAI-1 Antigen Capture Plate

96 well plate with 8 removable strips coated with mouse monoclonal antibody to human PAI-1 at 100 ul/well and blocked with 300 ul/well. Ideal for specific binding of human PAI-1 antigen for sandwich style ELISA experiments.

Form: Plate • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
1 plate	\$125
5 plates	\$550

## HTPA-TOT-PLATE

## Human tPA Antigen Capture Plate

96 well plate with 8 removable strips coated with mouse monoclonal antibody to human tPA at 100 ul/well and blocked with 300 ul/well. Ideal for specific binding of human tPA antigen for sandwich style ELISA experiments.

Form: Plate • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
1 plate	\$125
5 plates	\$550

## HVN-TOT-PLATE

## Human Vitronectin Antigen Capture Plate

96 well plate with 8 removable strips coated with mouse monoclonal antibody to human vitronectin at 100 ul/well and blocked with 300 ul/well. Ideal for specific binding of human vitronectin antigen for sandwich style ELISA experiments.

Form: Plate • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
1 plate	\$125
5 plates	\$550



## HFIB-TOT-PLATE    Human Fibronectin Antigen Capture Plate

96 well plate with 8 removable strips coated with affinity purified rabbit polyclonal antibody to human fibrinogen at 100 ul/well and blocked with 300 ul/well. Ideal for specific binding of human fibrinogen antigen for sandwich style ELISA experiments.

Form: Plate • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
1 plate	\$125
5 plates	\$550

## MPAI-TOT-PLATE    Mouse PAI-1 Antigen Capture Plate

96 well plate with 8 removable strips coated with mouse monoclonal antibody to mouse PAI-1 at 100 ul/well and blocked with 300 ul/well. Ideal for specific binding of mouse PAI-1 antigen for sandwich style ELISA experiments.

Form: Plate • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
1 plate	\$125
5 plates	\$550

## MTPA-TOT-PLATE    Mouse tPA Antigen Capture Plate

96 well plate with 8 removable strips coated with mouse monoclonal antibody to mouse tPA at 100 ul/well and blocked with 300 ul/well. Ideal for specific binding of mouse tPA antigen for sandwich style ELISA experiments.

Form: Plate • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
1 plate	\$125
5 plates	\$550

## MVN-TOT-PLATE    Mouse Vitronectin Antigen Capture Plate

96 well plate with 8 removable strips coated with affinity purified rabbit polyclonal antibody to mouse vitronectin at 100 ul/well and blocked with 300 ul/well. Ideal for specific binding of mouse vitronectin antigen for sandwich style ELISA experiments.

Form: Plate • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
1 plate	\$125
5 plates	\$550





## MFIB-TOT-PLATE    Mouse Fibronectin Antigen Capture Plate

96 well plate with 8 removable strips coated with affinity purified rabbit polyclonal antibody to mouse fibrinogen at 100 ul/well and blocked with 300 ul/well. Ideal for specific binding of mouse fibrinogen antigen for sandwich style ELISA experiments. Cross reacts with rat fibrinogen.

Form: Plate • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
1 plate	\$125
5 plates	\$550

## RPAI-TOT-PLATE    Rat PAI-1 Antigen Capture Plate

96 well plate with 8 removable strips coated with mouse monoclonal antibody to rat PAI-1 at 100 ul/well and blocked with 300 ul/well. Ideal for specific binding of rat PAI-1 antigen for sandwich style ELISA experiments.

Form: Plate • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
1 plate	\$125
5 plates	\$550

## B. ELISA Buffers and Substrates

### TMB    TMB Substrate for ELISA

This one-component water based tetramethylbenzidine (TMB) chromogenic substrate is ideal for color development of horseradish peroxidase (HRP) based ELISA systems. It is identical to the TMB substrate supplied in our ELISA kits. For best results, add 100 ul to each well and shake at 300 rpm at room temperature for 2-15 minutes. Quench reaction with 50 ul of 1N (0.5M) H<sub>2</sub>SO<sub>4</sub>, mix gently and read plate at 450 nm. Bring to room temperature before use.

Form: Liquid • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
50 ml	\$50
1000 ml	\$250

### WASH    Wash Buffer, 10X Concentrate

This wash buffer is ideal for washing ELISA plates between reagent addition steps. It is identical to the wash buffer concentrate supplied in our ELISA kits. Dilute concentrated wash buffer 1:10 with deionized water and mix well before use. May be applied with multichannel pipetter or by automatic plate washer. For best results, wash each well three times by adding 300 ul and aspirating completely. Bring to room temperature before use.

Form: Liquid • Storage: 4°C • Shipping: Cold pack • Shelf life: 2 years from delivery

Size	Price
50 ml	\$50
1000 ml	\$250

## C. ELISA Secondary Antibodies and Reagents

### GAR-HRP Goat Anti Rabbit IgG, HRP Labeled

Horseradish peroxidase conjugated goat anti-rabbit IgG, Heavy & Light chain specific. Affinity purified and adsorbed against bovine, horse, human, and mouse serum proteins. Monospecific for rabbit IgG, heavy and light chains, as determined by immunoelectrophoresis against normal rabbit serum. Cross-reactivity with normal bovine, horse, human, and mouse serum is <2% by direct solid phase immunoassay. Recommended starting dilution for ELISA is 1:10,000 but proper working dilution must be optimized by the end user.

Form: Liquid • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.01 ml	\$25
0.05 ml	\$100

### GAM-HRP Goat Anti Mouse IgG, HRP Labeled

Horseradish peroxidase conjugated goat anti-mouse IgG, Heavy & Light chain specific. Affinity purified and adsorbed against bovine, horse, and human serum proteins. Monospecific for mouse IgG, heavy and light chains, as determined by immunoelectrophoresis against normal mouse serum. Cross-reactivity with normal bovine, horse, and human serum is <2% by direct solid phase immunoassay. Recommended starting dilution for ELISA is 1:10,000 but proper working dilution must be optimized by the end user.

Form: Liquid • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.01 ml	\$25
0.05 ml	\$100

### AVI-HRP Avidin, HRP Labeled

Horseradish peroxidase conjugated purified avidin from chicken egg white. Specific for biotin, biotinylated proteins, or biotinylated antibodies. Recommended starting dilution for ELISA is 1:1,000 but proper working dilution must be optimized by the end user.

Form: Liquid • Storage: 4°C • Shipping: Cold pack • Shelf life: 12 months from delivery

Size	Price
0.01 ml	\$25
0.05 ml	\$100





## XXX. NEW PRODUCTS

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