

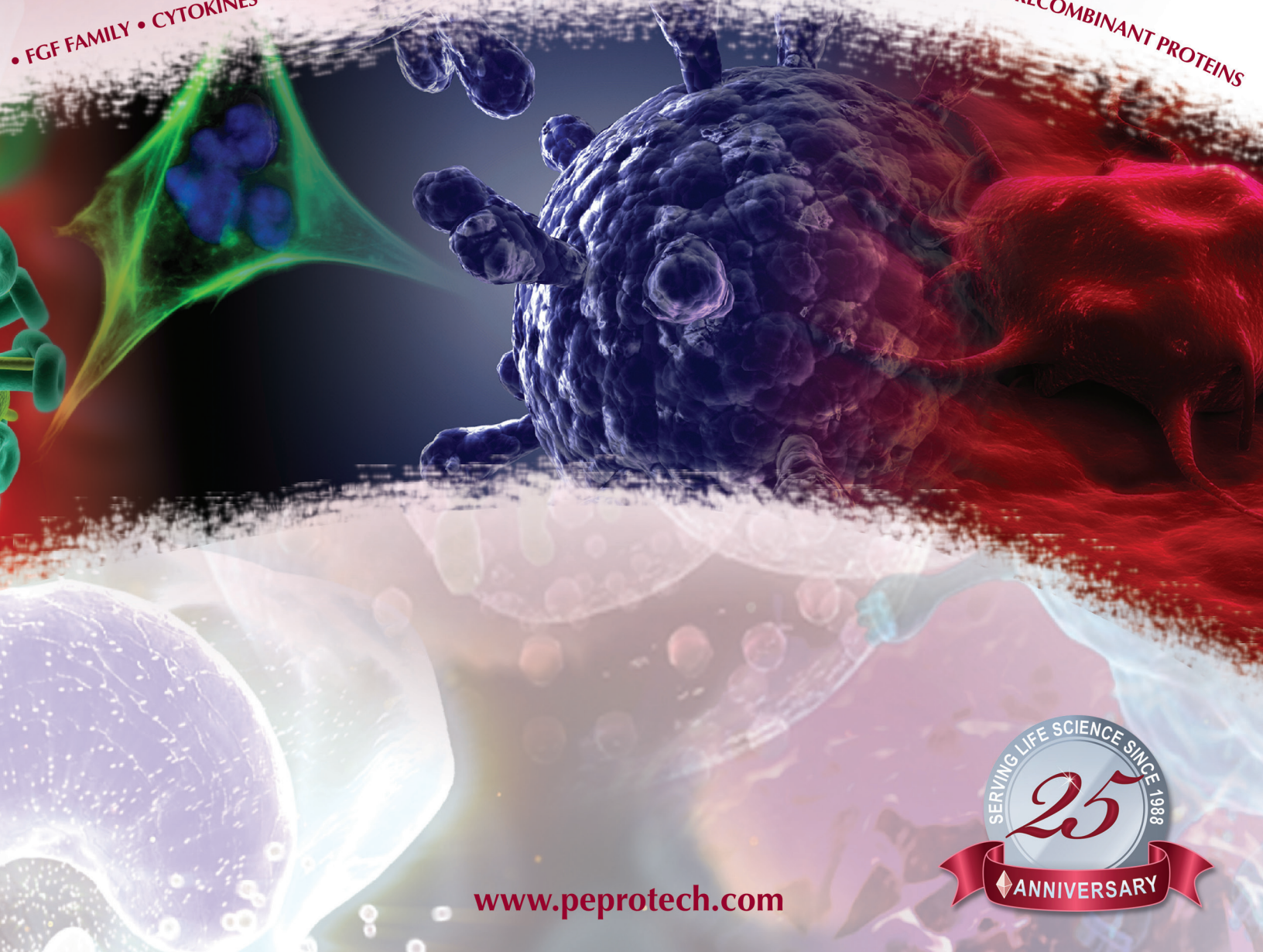


PEPROTECH[®]

Manufacturer of Quality Cytokine Products

2013 - 2014 Catalog

• FGF FAMILY • CYTOKINES • CHEMOKINES • GROWTH FACTORS • ANTIBODIES • ELISA KITS • ANIMAL-FREE RECOMBINANT PROTEINS



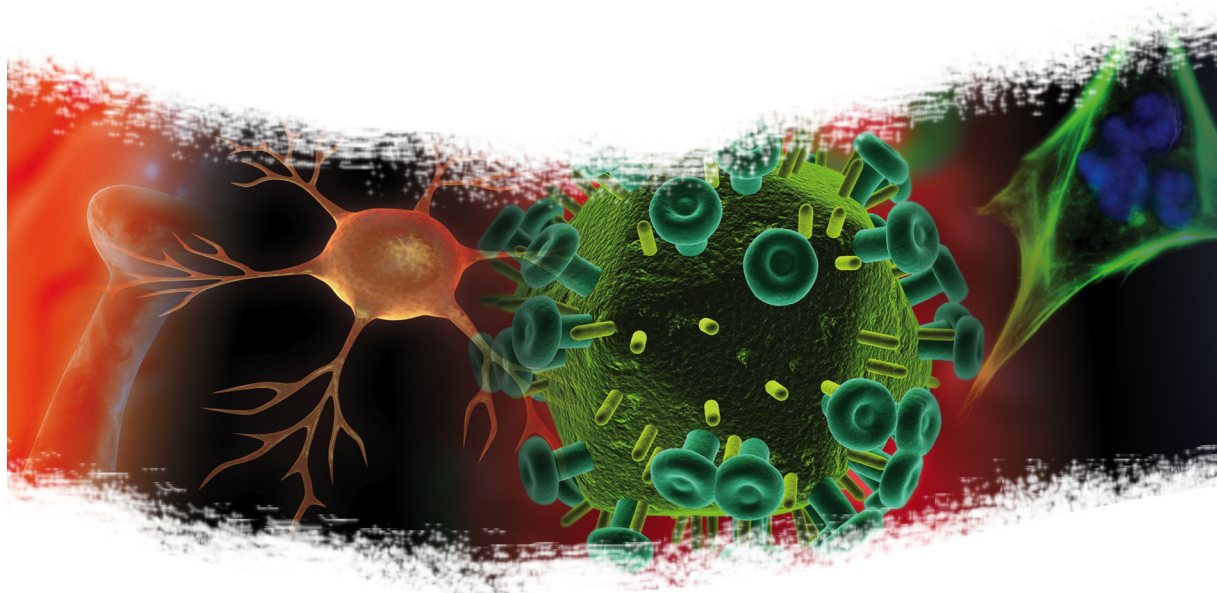
www.peprotech.com





2013-2014 Catalog

Manufacturer of Quality Cytokine Products



Published by:

PeproTech

Rocky Hill, New Jersey USA



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Look for PeproTech...

PeproTech representatives routinely attend scientific conferences throughout the year, AACR, ISSCR, Society for Neuroscience, Experimental Biology, e.g., and others. We welcome you to visit our booth to communicate your research needs, and to discuss our latest products and promotions. Please visit our website at www.peprotech.com for our conference schedule.

About PeproTech

We are pleased to announce that 2013 marks our 25th year in business. Supporting Life Science Research since 1988, PeproTech is the trusted source for the developing and manufacturing of high quality cytokine products for the life-science and cell therapy market. Over the past 25 years the company has grown into a global enterprise with state-of-the-art manufacturing facilities in the US, and offices around the world.

With over 2,000 products PeproTech has developed and refined innovated protocols to ensure quality, reliability and consistency.

Our mission is to provide the highest quality products and premium support that address the needs and demands of today's scientists and researchers.

We pride ourselves on being a trusted partner within the scientific community.

- *Comprehensive line of Cytokines and Antibodies*
- *GMP-Compliant products for Cell, Gene and Tissue Therapy*
- *Animal Free Cytokine Range*
- *ELISA kits*
- *Media Kits / Supplements*



Ordering Information

Our normal business hours are from 8:00 am to 9:00 pm (Eastern Standard Time) Monday-Friday. To place an order or request a catalog after business hours, or on weekends, you may send us a fax or visit our website.

Phone: (800) 436-9910 or (609) 497-0253




Fax: (609) 497-0321

Website: www.peprotech.com

Email: customerservice@peprotech.com, info@peprotech.com, and sales@peprotech.com

Method of Payment:

Payment terms are net thirty (30) days.

VISA  MasterCard  and  American Express accepted.

Prices and Payment Terms:

Prices will remain in effect until December 31, 2014.

All prices listed in this catalog are in U.S. Dollars. Prices are subject to change without notice. Prices in this catalog are not valid for distributors. Payment terms are net 30 days from receipt of invoice.

Shipping:

Most of PeproTech's products have been formulated to allow shipment at ambient temperature. If your purchase order is received before 8:00 pm (EST), all available items are shipped by Federal Express for next day delivery.

Return Policy:

Any claim for credit or return goods must be made within 7 days of receipt. PeproTech will not accept returned products without prior authorization. No credit or replacement will be issued without a return authorization number. All returns are subject to a 20% return fee unless the products are returned due to lack of conformity with the specifications in PeproTech's data sheets. Please call Customer Service for return instructions.

Warranty:

PeproTech warrants to the original purchaser that products sold substantially conform to specifications provided with shipped products and are free from material defects. This warranty does not extend to any product which has been altered in any way by personnel other than PeproTech's employees or to any product which has been handled in a manner contrary to instructions included in product documentation. PeproTech is not responsible for patent infringement or other violations which may occur with the use of these products. PeproTech makes no warranty of the product's suitability for any purchaser's particular use; suitability for use must be determined by the purchaser or user of the products. All other warranties, expressed or implied are disclaimed to the fullest extent allowed by law. Purchaser's sole remedy under the above warranty shall be replacement with a conforming product, a credit toward future purchases of PeproTech products or, at PeproTech's sole discretion, a refund of the price of the product. If there is a question or concern please contact our Technical Support Department immediately so we may assist you.

Resale:

In the absence of an expressed written agreement to the contrary, all products are sold by PeproTech Inc. for the exclusive use of the purchaser and are not to be resold.


Information Changes:

This catalog contains current information on PeproTech products. PeproTech reserves the right to discontinue sales of any product or to change product descriptions and/or formulations at any time without notice to purchasers.

Product Use Limitations:

PeproTech products are offered for research use only. Not for drug use or clinical diagnostic procedures.

PeptoTech - Worldwide



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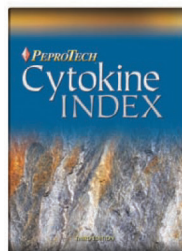
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PeproTech Publications

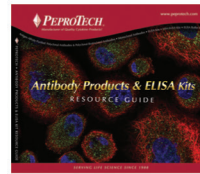
PeproTech's publications are intended to provide updated information about our products and to review current trends in life science research. To request any of these complimentary publications please contact us at: www.peprotech.com • marketing@peprotech.com • 1-800-436-9910 • FAX 609-497-0321.



Stem Cell Booklet
PeproTech's Stem Cell Booklet includes a comprehensive list of our Stem Cell Research related cytokine products.



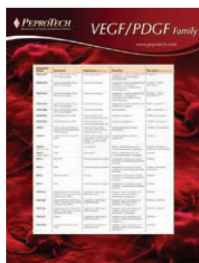
Cytokine INDEX
This 312 page INDEX contains encyclopedic coverage of more than 350 cytokines.



Antibody & ELISA Resource Guide
This publication describes the production, application and availability of PeproTech's Antibodies and ELISA Development Kits.



2013 Price List
PeproTech's Price List offers our customers a comprehensive resource for the pricing of our products, as well as some supplemental product information.



VEGF/PDGF Family
This 17" x 24" color poster includes relevant information about VEGF/PDGF members.



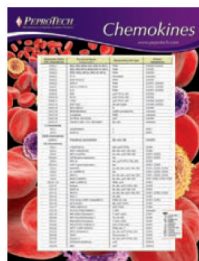
Neurotrophins/Neuroipoietic Poster
This 17"x24" color poster displays relevant information about Neurotrophins and Neuroipoietic Cytokines.



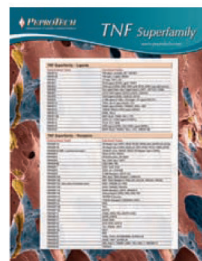
Product Update
PeproTech's Product Update is a quarterly newsletter featuring any new products that we have begun selling since the previous issue of our Product Catalog.



The Focus
The FOCUS is a collection of articles that have been published in previous UPDATE editions.



Chemokines
This 17" x 24" color poster displays the Systematic Nomenclature for Chemokines.



TNF Superfamily
This 17" x 24" color poster displays the TNF Superfamily nomenclature.



FGF Family
This 17" x 24" color poster displays the FGF cytokine family and includes target cells, receptors, and more.



TGFβ Superfamily
This 17" x 24" color poster includes relevant information about the TGFβ Superfamily.



2013 IHC Monthly Calendar
PeproTech's 2013 IHC Monthly Calendar features several antibody products with cellular immunofluorescent stained images.



USB Catalog
A USB version of PeproTech's Product Catalog, which includes a comprehensive list of our products, their prices, and other relevant product information.

PeproTech's ELISA Buffer Kit

PeproTech is pleased to announce the release of its ELISA Buffer Kit. The buffers in this supplemental kit have been specially formulated for optimal performance when used in conjunction with PeproTech's ELISA Development Kits. The buffer kit contains all of the necessary components to assay ten 96 well ELISA plates (included) and contains detailed handling instructions. All of the reagents have been sterile filtered to minimize assay interference and maximize shelf life. The ELISA Buffer Kit can be purchased along with PeproTech's ELISA Development Kit at a discounted price.

This easy-to-use ELISA buffer kit can also be purchased as a stand-alone product since the plates included are not pre-coated with capture antibody. This format allows the researcher to develop and optimize an assay for use with their own capture and detection antibodies. The actual antibody concentrations and detection ranges of the ELISA will vary.

Kit Contents:

- 20X Plate Coating Buffer (PBS)
- 1X Blocking Buffer
- 20X Sample Diluent
- 20X Wash Buffer
- Ready-to-use ABTS
- 10 Sterile, Uncoated 96 well ELISA Plates
- 50 Plate Sealing Films
- Buffer Handling Instructions



ELISA Buffer Kit

	CATALOG #	PRICE:
ELISA Buffer Kit	900-K00	\$195.00
ELISA Buffer Kit and EDK Combination		\$450.00

Cytokine Packages

Dendritic Cell Cytokine Packages

Human Dendritic Cell Cytokine Package

Contains the key components required for culturing of your human dendritic cells.

Catalog Number: HDC Price: \$950

The following 2 vials are included:

- 100µg Human IL-4
- 100µg Human GM-CSF

Animal-Free Human Dendritic Cell Cytokine Package

Catalog Number: AF-HDC Price: \$1,140

The following 2 vials are included:

- 100µg Animal-Free Human IL-4
- 100µg Animal-Free Human GM-CSF

Murine Dendritic Cell Cytokine Package

Contains the key components required for culturing of your mouse dendritic cells.

Catalog Number: MDC Price: \$950

The following 2 vials are included:

- 100µg Murine IL-4
- 100µg Murine GM-CSF

Animal-Free Murine Dendritic Cell Cytokine Package

Catalog Number: AF-MDC Price: \$1,140

The following 2 vials are included:

- 100µg Animal-Free Murine IL-4
- 100µg Animal-Free Murine GM-CSF

Hematopoietic Stem Cell Expansion Cytokine Packages

Human Hematopoietic Stem Cell Expansion Cytokine Package

Contains the key components required for ex vivo human hematopoietic stem cells.

Catalog Number: HHSC3 Price: \$1,950

The following 4 vials are included:

- 100µg Human Flt3 Ligand
- 100µg Human SCF
- 100µg Human TPO
- 10µg Human IL-3

Animal-Free Human Hematopoietic Stem Cell Expansion Cytokine Package

Catalog Number: AF-HHSC3 Price: \$2,340

The following 4 vials are included:

- 100µg Animal-Free Human Flt3 Ligand
- 100µg Animal-Free Human SCF
- 100µg Animal-Free Human TPO
- 10µg Animal-Free Human IL-3

Murine Hematopoietic Stem Cell Expansion Cytokine Package

Contains the key components required for ex vivo mouse hematopoietic stem cells.

Catalog Number: MHSC3 Price: \$1,950

The following 4 vials are included:

- 100µg Murine Flt3 Ligand
- 100µg Murine SCF
- 100µg Murine TPO
- 10µg Murine IL-3

Animal-Free Murine Hematopoietic Stem Cell Expansion Cytokine Package

Catalog Number: AF-MHSC3 Price: \$2,340

The following 4 vials are included:

- 100µg Animal-Free Murine Flt3 Ligand
- 100µg Animal-Free Murine SCF
- 100µg Animal-Free Murine TPO
- 10µg Animal-Free Murine IL-3

Human Hematopoietic Stem Cell Expansion Cytokine Package

Contains the key components required for ex vivo human hematopoietic stem cells.

Catalog Number: HHSC6 Price: \$1,950

The following 4 vials are included:

- 100µg Human Flt3 Ligand
- 100µg Human SCF
- 100µg Human TPO
- 20µg Human IL-6

Animal-Free Human Hematopoietic Stem Cell Expansion Cytokine Package

Catalog Number: AF-HHSC6 Price: \$2,340

The following 4 vials are included:

- 100µg Animal-Free Human Flt3 Ligand
- 100µg Animal-Free Human SCF
- 100µg Animal-Free Human TPO
- 20µg Animal-Free Human IL-6

Murine Hematopoietic Stem Cell Expansion Cytokine Package

Contains the key components required for ex vivo mouse hematopoietic stem cells.

Catalog Number: MHSC6 Price: \$1,950

The following 4 vials are included:

- 100µg Murine Flt3 Ligand
- 100µg Murine SCF
- 100µg Murine TPO
- 10µg Murine IL-6

Animal-Free Murine Hematopoietic Stem Cell Expansion Cytokine Package

Catalog Number: AF-MHSC6 Price: \$2,340

The following 4 vials are included:

- 100µg Animal-Free Murine Flt3 Ligand
- 100µg Animal-Free Murine SCF
- 100µg Animal-Free Murine TPO
- 10µg Animal-Free Murine IL-6

Coming Soon!

Coming Soon!



Animal-Free Recombinant Proteins

To keep up with current research and growing demand we have expanded our production capabilities to include a 5000 sq. ft., animal-free manufacturing facility. Our goal is to provide our customers with animal-free recombinant proteins and other reagents capable of equaling or enhancing the performance of animal-derived media formulations. Please contact us at info@peprotech.com for a list of animal-free products currently available as well as those in our pipeline.

Currently Available Animal-Free Recombinant Proteins

<i>Product Name</i>	<i>Catalog Number</i>	<i>Size B/Price</i>	<i>Price/mg</i>
Human/Murine/Rat Activin A	AF-120-14E	10 µg/\$215	\$5,700
Human BD-5	AF-300-68	20 µg/\$215	\$3,300
Human BDNF	AF-450-02	10 µg/\$215	\$5,700
Human BMP-4	AF-120-05ET	10 µg/\$215	\$5,700
Human EGF	AF-100-15	500 µg/\$195	\$250
Human FGF-4	AF-100-31	25 µg/\$215	\$3,300
Human FGF-10	AF-100-26	25 µg/\$215	\$3,300
Human FGF-acidic	AF-100-17A	50 µg/\$215	\$1,650
Human FGF-basic	AF-100-18B	50 µg/\$215	\$1,300
Human flt3-Ligand	AF-300-19	10 µg/\$215	\$4,300
Human G-CSF	AF-300-23	10 µg/\$215	\$5,700
Human GDF-3	AF-120-22	20 µg/\$215	\$4,300
Human GM-CSF	AF-300-03	20 µg/\$215	\$3,500
Human Heregulinβ-1	AF-100-03	50 µg/\$215	\$1,650
Human IFN-γ	AF-300-02	100 µg/\$215	\$1,200
Human IFN-λ1	AF-300-02L	20 µg/\$215	\$3,300
Human IGF-I	AF-100-11	100 µg/\$215	\$320
Human IGF-II	AF-100-12	50 µg/\$215	\$1,650
Human IL-1β	AF-200-01B	10 µg/\$215	\$4,300
Human IL-2	AF-200-02	50 µg/\$215	\$850
Human IL-3	AF-200-03	10 µg/\$215	\$3,300
Human IL-4	AF-200-04	20 µg/\$215	\$3,500
Human IL-6	AF-200-06	20 µg/\$215	\$3,300
Human IL-7	AF-200-07	10 µg/\$215	\$5,700
Human IL-13	AF-200-13	10 µg/\$215	\$5,700
Human IL-15	AF-200-15	10 µg/\$215	\$4,300
Human IL-16	AF-200-16A	10 µg/\$215	\$5,700
Human IL-17	AF-200-17	25 µg/\$215	\$3,300
Human IL-21	AF-200-21	10 µg/\$215	\$5,700
Human IL-33	AF-200-33	10 µg/\$215	\$5,700
Human KGF	AF-100-19	10 µg/\$215	\$5,700
Human LIF	AF-300-05	25 µg/\$215	\$3,100
Human M-CSF	AF-300-25	10 µg/\$215	\$5,700
Human MCP-1	AF-300-04	20 µg/\$215	\$3,300
Human β-NGF	AF-450-01	100 µg/\$215	\$3,300
Human NT-3	AF-450-03	10 µg/\$215	\$5,700
Human NT-4	AF-450-04	10 µg/\$215	\$5,700
Human PDGF-BB	AF-100-14B	10 µg/\$215	\$4,300
Human PIGF-1	AF-100-06	25 µg/\$215	\$3,300
Human PDGF-AA	AF-100-13A	10 µg/\$215	\$4,300
Human RANTES (CCL5)	AF-300-06	20 µg/\$215	\$3,300
Human SCF	AF-300-07	10 µg/\$215	\$3,300
Human SDF-1α (CXCL12)	AF-300-28A	10 µg/\$215	\$3,300
Human SDF-1β (CXCL12)	AF-300-28B	10 µg/\$215	\$3,300
Human TGF-α	AF-100-16A	100 µg/\$215	\$1,200
Human TGF-β ₃	AF-100-36E	10 µg/\$215	\$8,580
Human TNF-α	AF-300-01A	50 µg/\$215	\$1,650
Human TPO	AF-300-18	10 µg/\$215	\$4,700
Human TWEAK	AF-310-06	25 µg/\$215	\$3,300
Human VEGF ₁₂₁	AF-100-20A	10 µg/\$215	\$4,300
Human VEGF ₁₆₅	AF-100-20	10 µg/\$215	\$4,300
Murine FGF-Basic	AF-450-33	50 µg/\$215	\$1,650
Murine GM-CSF	AF-315-03	20 µg/\$215	\$3,500
Murine IL-3	AF-213-13	10 µg/\$215	\$4,700
Murine IL-4	AF-214-14	20 µg/\$215	\$3,500
Murine M-CSF	AF-315-02	10 µg/\$215	\$5,700
Murine SCF	AF-250-03	10 µg/\$215	\$3,300
Murine TPO	AF-315-14	10 µg/\$215	\$4,700
Rat GM-CSF	AF-400-23	20 µg/\$215	\$3,500
Rat TPO	AF-400-34	10 µg/\$215	\$4,700

Stem Cell Media Products

PeproGrow – ESC (Embryonic Stem Cell) Media

PeproGrow-ESC is a serum- and phenol red-free medium of a complete, chemically-defined formulation designed for feeder-free maintenance and expansion of both human embryonic stem cells (hESCs) and induced pluripotent stem cells (iPSCs) using BD Matrigel™ as a surface-coating matrix. This medium is intended for the culturing of hESCs and iPSCs in the undifferentiated, pluripotent state (SSEA4+/Oct4+), and demonstrates less than 15% spontaneous differentiation as indicated by Flow Cytometry. The proprietary formulation of the medium includes relevant growth factors, such as FGF2 (FGF-basic), but does not contain the insulin found in the majority of other hESC/iPSC media currently available on the market. PeproGrow-ESC, which was designed and developed by PeproTech in collaboration with the Stem Cell Training Course at Rutgers University, is supplied as a 100mL, or 500mL, bottle of basal medium and a separate, lyophilized growth factor component.

Advantages of PeproGrow-ESC:

- Phenol-red free
- Insulin-free
- High plating efficiency
- Affordable and competitive pricing
- High quality recombinant growth factors from leading manufacturer
- Developed in collaboration with and used in the Rutgers Stem Cell Training Course



Stem Cell Media

	CATALOG #	SIZE:	PRICE:
PeproGrow-ESC	BM-ESC	500mL	\$200.00
PeproGrow-ESC	BM-ESC	100mL	\$80.00

Cell Culture Media Products

PeproGrow-1

(Catalog #700-C100)

PeproGrow-1 is an Adherent Mammalian Cell Formula designed specifically to be used with DMEM/F12 basal media (not offered by PeproTech) and has been pre-tested with HeLa, HEK-293, and A549 cells. This kit could potentially improve the culturing conditions of other adherent cells, but suitability for cells other than those pre-tested is not guaranteed. Each PeproGrow-1 kit contains enough material to supplement 10L of media and includes:

- 100x Serum Replacement Solution (Catalog #SR100) containing a defined mixture of rare-metal salts.
- 200x Lipid Mixture Solution (Catalog #LM200) containing a mixture of animal-free fatty acids and lipids.

PeproGrow-1 Kit	CATALOG #	PRICE:
PeproGrow-1	700-C100	\$195
Serum Replacement Solution	SR100	\$135
Lipid Mixture Solution	LM200	\$75

PeproGrow CHO-S *coming soon*

PeproTech's PeproGrow CHO-S is a complete, chemically defined, animal free, serum free, and protein free medium for the in vitro cultivation of Chinese Hamster Ovary-S cells (Life Technologies™ catalog number 11619-012) and recombinant protein expression in suspension culture. This complete medium contains hypoxanthine and thymidine, amino acids, vitamins, and salts, which is recommended for a 4 to 5 day batch culture with an initial cell density of $0.3-0.5 \times 10^6$ cells/mL. Adaptation process is not required for Life Technologies™ CHO-S cells.

Catalog#: CM-CHO-S

PeproGrow-Endothelial Media *coming soon*

PeproGrow-EPC (Endothelial Progenitor Cells)

PeproTech's PeproGrow-EPC is a complete, chemically defined formulation medium for the in vitro cultivation of endothelial progenitor cells (EPCs) from either bone marrow or peripheral blood. This ready to use kit contains all the growth factors and supplements necessary for optimal growth of EPCs. Used for the following: Culture medium used in circulating EPCs and Bone Marrow EPCs from human, and also from rat, rabbit, mouse and pig species.

Catalog#: BM-EPC

PeproGrow-MicroV (Microvascular Endothelial Cells) *coming soon*

PeproTech's PeproGrow-MicroV is a complete, chemically defined formulation medium for the in vitro cultivation of Microvascular Endothelial Cells or endothelial cells from small vessels. Used for the following: Human Coronary Artery Endothelial cells (HCAEC), Human Pancreatic Microvascular Endothelial Cells (HPaMEC), Human Dermal Microvascular Endothelial Cells (HDMEC), Human Pulmonary Microvascular Endothelial Cells (HPMEC), Human Dermal Lymphatic Endothelial Cells (HDLEC), and Human Brain Microvascular Endothelial Cells (HBMEC).

Catalog# BM-MicroV

PeproGrow-MacroV *coming soon*

PeproTech's PeproGrow-MacroV is a complete, chemically defined formulation medium for the in vitro cultivation of MacroVascular Endothelial Cells or endothelial cells from large vessels. Used for the following: Human Umbilical Vein Endothelial cells (HUVEC), Human Umbilical Artery Endothelial Cells (HUAEC), Human Aortic Endothelial Cells (HAoEC), Human Pulmonary Artery Endothelial Cells (HPAEC), and Human Saphenous Vein Endothelial Cells (HSAVEC).

Catalog# BM-MacroV

Activin A

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human/Murine/Rat Activin A	120-14	<i>Insect cells</i>	26.0 kDa	2µg	10µg	\$7,000
Human/Murine/Rat Activin A	120-14E	<i>E. coli</i>	26.0 kDa	2µg	10µg	\$5,200

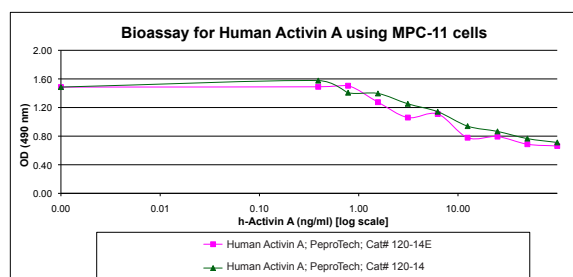
Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human/Murine/Rat Activin A	AF-120-14E	<i>E. coli</i>	26.0 kDa	N/A	10µg	\$5,700

Additional sizes available please inquire

Bioassay analysis of human Activin A. Determined by its ability to inhibit the proliferation of mouse MCP-11 cells.



Activin B

Synonyms: Activin beta-B, Inhibin beta-2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Activin B	120-15	<i>Insect cells</i>	25.6 kDa	1µg	5µg	\$9,800

Additional sizes available please inquire

Adipolean Variant

Polyclonal Antibodies

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Anti-human Adipolean Variant	500-P205	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. Anti-human Adipolean Variant	500-P205bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Additional sizes available please inquire

Adiponectin

Synonyms: Acrp-30, Apm-1, adipoQ, gelatin-binding protein, 28kD (GBP-28)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Adiponectin	450-24	<i>Insect cells</i>	25.0-36.0 kDa	5µg	25µg	\$5,200
Murine Adiponectin	315-26	<i>Insect cells</i>	35.0 kDa	5µg	25µg	\$5,200

Additional sizes available please inquire

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human Adiponectin	500-M126	<i>Mouse</i>	E, WB, NA	500µg	\$150.00

AITRL *Activation-induced TNFR member ligand*

Synonyms: TNFSF18, GITRL, TL-6

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human AITRL	310-22	<i>E.coli</i>	14.3 kDa	5µg	20µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human AITRL	500-P244	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human AITRL	500-P244bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Aminopeptidase

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Aeromonas Aminopeptidase	100-10	<i>E.coli</i>	31.4 kDa	100µg	500µg	\$250

Additional sizes available please inquire

Amphiregulin

Synonyms: AR

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Amphiregulin	100-55B	<i>E.coli</i>	11.3 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

ANG-1, ANG-2 *Angiopoietin-1, Angiopoietin-2*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Angiopoietin-1	130-06	<i>HeLa cells</i>	60.0-70.0 kDa	5µg	20µg	\$5,200
Human Angiopoietin-2	130-07	<i>CHO cells</i>	60.0-70.0 kDa	5µg	20µg	\$5,200

Additional sizes available please inquire

ApoA-1 *Apolipoprotein A-1*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human ApoA-1	350-11	<i>E.coli</i>	28.2 kDa	20µg	100µg	\$1,100

Additional sizes available please inquire

ApoE2 *Apolipoprotein E2*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human ApoE2	350-12	<i>E.coli</i>	34.3 kDa	100µg	500µg	\$350

Additional sizes available please inquire

ApoE3 *Apolipoprotein E3*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human ApoE3	350-02	<i>E.coli</i>	34.0 kDa	100µg	500µg	\$350

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human ApoE3	500-P238	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human ApoE3 Biot. = Biotinylated	500-P238bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ApoE4 *Apolipoprotein E4*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human ApoE4	350-04	<i>E.coli</i>	34.4 kDa	100µg	500µg	\$350

Additional sizes available please inquire

A

Apo-SAA

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Apo-SAA	300-13	<i>E.coli</i>	11.7 kDa	10µg	50µg	\$800
Human Apo-SAA1	300-53	<i>E.coli</i>	11.7 kDa	10µg	50µg	\$1,400

Additional sizes available please inquire

APRIL *A proliferating-inducing ligand*

Synonyms: TNFSF13, TRDL-1α

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human APRIL	310-10C	<i>Insect cells</i>	16.3 kDa	2µg	10µg	N/A
Murine APRIL	315-13	<i>E.coli</i>	21.9 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

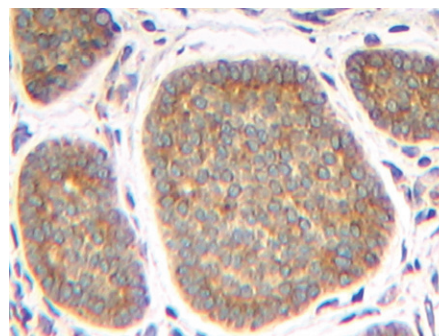
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human APRIL	500-P192	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human APRIL	500-P192bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Human carcinoid (FFPE) stained with rabbit anti-human APRIL at 0.25 µg/mL. Staining of tumor cells. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects. Photograph provided by Patsy Ruegg for PeproTech.



Lysobacter Enzymogenes Arg-C

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Lysobacter Enzymogenes Arg-C	450-54	<i>Insect cells</i>	26.8 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Artemin

Synonyms: ART

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Artemin	450-17	<i>E.coli</i>	24.2 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

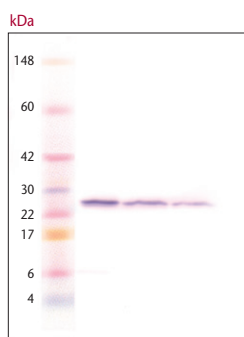
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human Artemin	500-P245	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Artemin	500-P245bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Representative Western Transfer (Blot) analysis of human Artemin using Rabbit anti-human Artemin at 0.20µg/ml.



4-1BB Ligand

Synonyms: TNFSF9, CD137L

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human 4-1BBL	310-11	<i>E.coli</i>	19.5 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human 4-1BBL	500-P169	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human 4-1BBL	500-P169bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

4-1BB (Receptor)

Synonyms: TNFRSF9, CD137 antigen

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human 4-1BB receptor	310-15	<i>E.coli</i>	17.7 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human 4-1BB receptor	500-P167G	<i>Goat</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human 4-1BB receptor	500-P167Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human 4-1BB receptor	CATALOG # 900-K208	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

B

B71

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-murine B71	500-P128	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine B71	500-P128bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

BAFF *B-cell activating factor belonging to the TNF family*

Synonyms: TNFSF13B, TALL-1, BlyS, THANK, TNFSF20

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BAFF	310-13	<i>E.coli</i>	17.0 kDa	5µg	20µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human BAFF	500-P163G	<i>Goat</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human BAFF	500-P163Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

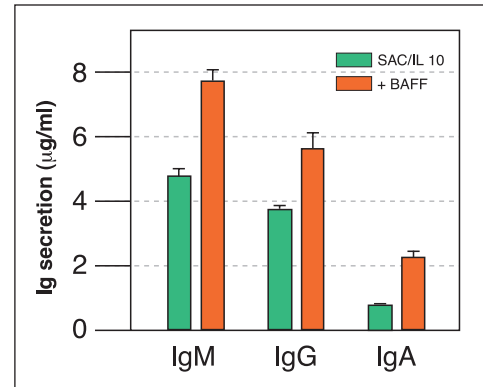
Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human BAFF	500-M64	<i>Mouse</i>	E, WB	500µg	\$150.00

B

BAFF enhances Ig secretion by human B cells co-stimulated through the BcR. Ig secretion was determined using heavy chain specific ELISAs after 12-14 days of culture.

S.G. Tangye et. al. *Seminars in Immunology* (2006) 18:305-317.



BAFF Receptor *B-cell activating factor belonging to the TNF receptor family*

Synonyms: BAFFR, TNFRSF13C

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BAFF Receptor	310-13R	<i>E.coli</i>	7.7 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

BCA-1/BLC (CXCL13) *B cell attracting chemokine-1*

Synonyms: CXCL13, BLC (murine), BLR1 Ligand

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BCA-1	300-47	<i>E.coli</i>	10.3 kDa	5µg	20µg	\$3,000
Murine BCA-1/BLC	250-24	<i>E.coli</i>	9.8 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human BCA-1	500-P141	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human BCA-1	500-P141bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

BCMA *B cell maturation antigen*

Synonyms: TNFRSF17, BCM

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BCMA	310-16	<i>E.coli</i>	5.3 kDa	5µg	20µg	\$5,200

Additional sizes available please inquire

BD-1,-2,-3,-4,-5 *β-Defensins 1-5*

Synonyms: BD-1: beta-Defensin-1, DEFB1, HBD1

BD-2: Skin-antimicrobial peptide 1, SAP1, DEFB2, DEFB4A

BD-3: beta-Defensin-3, DEFB3, DEFB103A

BD-4: Beta-defensin 104, BEFB4

BD-5: BD5, DEFB105, DEFB5

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BD-1 (36 a.a.)	300-51	<i>E.coli</i>	3.9 kDa	5µg	20µg	\$3,000
Human BD-1 (47 a.a.)	300-51A	<i>E.coli</i>	5.0 kDa	5µg	20µg	\$3,000
Human BD-2	300-49	<i>E.coli</i>	4.3 kDa	5µg	20µg	\$3,000
Human BD-3	300-52	<i>E.coli</i>	5.1 kDa	5µg	20µg	\$3,000
Human BD-4	300-65	<i>E.coli</i>	5.9 kDa	5µg	20µg	\$3,000
Human BD-5	300-68	<i>E.coli</i>	5.9 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

BD-1, -2, -3, -4, -5 continued on next page...

BD-1,-2,-3,-4,-5 *continued...*

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size B		
				Size A	\$215.00	1mg
Human BD-5	AF-300-68	<i>E.coli</i>	5.9 kDa	N/A	20µg	\$3,300

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size B		
				Size A	\$250.00	1mg
Anti-human BD-1	500-P253	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human BD-1	500-P253bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-human BD-2	500-P161G	<i>Goat</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human BD-2	500-P161Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-human BD-3	500-P241	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human BD-3	500-P241bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-human BD-4	500-P268	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human BD-4	500-P268bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human BD-1	CATALOG # 900-K202	PRICE: \$320.00
Human BD-2	CATALOG # 900-K172	PRICE: \$320.00
Human BD-4	CATALOG # 900-K435	PRICE: \$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human BD-1	CATALOG # 900-M202	PRICE: \$100.00
Human BD-2	CATALOG # 900-M172	PRICE: \$100.00
Human BD-4	CATALOG # 900-M435	PRICE: \$100.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

BDNF *Brain-derived neurotrophic factor*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size B		
				Size A	\$195.00	1mg
Human BDNF	450-02	<i>E.coli</i>	27.0 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size B		
				Size A	\$215.00	1mg
Human BDNF	AF-450-02	<i>E.coli</i>	27.0 kDa	N/A	10µg	\$5,700

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size B		
				Size A	\$250.00	1mg
Anti-human BDNF	500-P84	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human BDNF	500-P84bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Betacellulin

Synonyms: BTC

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Betacellulin	100-50	<i>E.coli</i>	9.0 kDa	5µg	20µg	\$3,000
Murine Betacellulin	315-21	<i>E.coli</i>	9.0 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Betacellulin	500-P254	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human Betacellulin	500-P254bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human Betacellulin	CATALOG # 900-K372	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

B

BMP-2 *Bone morphogenetic protein-2*

Synonyms: BMP-2A

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BMP-2	120-02	<i>E.coli</i>	26.0 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human BMP-2	500-P195	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human BMP-2	500-P195bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human BMP-2	CATALOG # 900-K255	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human BMP-2	CATALOG # 900-M255	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

BMP-3 *Bone morphogenetic protein-3*

Synonyms: Osteogenin, BMP-3A

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BMP-3	120-24B	<i>E.coli</i>	25.2 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

BMP-4 *Bone morphogenetic protein-4*

Synonyms: BMP-2B, DVR4

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BMP-4	120-05	<i>HeLa cells</i>	31.0-36.0 kDa	1µg	5µg	\$9,800
Human BMP-4	120-05ET	<i>E.coli</i>	23.8 kDa	2µg	10µg	\$3,900
Murine BMP-4	315-27	<i>E.coli</i>	23.8 kDa	2µg	10µg	\$3,900

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
					\$215.00	
Human BMP-4	AF-120-05ET	<i>E.coli</i>	23.8 kDa	N/A	10µg	\$4,300

Additional sizes available please inquire

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human BMP-4	500-M121	<i>Mouse</i>	I, E, WB, N	500µg	\$150.00

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

BMP-5 *Bone morphogenetic protein-5*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BMP-5	120-39	<i>CHO cells</i>	15.6 kDa	2µg	10µg	\$3,900

Additional sizes available please inquire

BMP-6 *Bone morphogenetic protein-6*

Synonyms: VGR

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BMP-6	120-06	<i>HEK 293 cells</i>	30.0-36.0 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

B

BMP-7 *Bone morphogenetic protein-7*

Synonyms: OP-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BMP-7	120-03	<i>CHO cells</i>	28.8 kDa	2µg	10µg	\$7,800

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human BMP-7	500-P198	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human BMP-7	500-P198bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human BMP-7	500-M123	<i>Mouse</i>	E	500µg	\$150.00

BMP-13/CDMP-2 *Bone morphogenetic protein-13/CDMP-2*

Synonyms: Cartilage-derived morphogenetic protein-2, GDF-6

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BMP-13/CDMP-2	120-04	<i>E.coli</i>	27.0 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

BRAK/CXCL14 *Breast and kidney-expressed chemokine*

Synonyms: CXCL14, bolekin

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human BRAK	300-50	<i>E.coli</i>	9.4 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

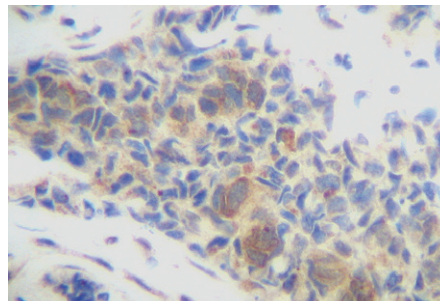
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human BRAK	500-P237	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human BRAK	500-P237bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Human breast invasive ductal carcinoma (FFPE) stained with rabbit anti-human BRAK at 0.25 µg/mL. Staining of tumor cells in ducts. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects. Photograph provided by Patsy Ruegg for PeproTech.



C10/CCL6

Synonyms: CCL6, MRP-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Murine C10	250-06	<i>E.coli</i>	10.7 kDa	2µg	10µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-murine C10	500-P112	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine C10	500-P112bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Carboxypeptidase-B

Synonyms: Cpb1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Rat Carboxypeptidase-B	400-00	<i>E.coli</i>	35.1 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Cardiotrophin-1

Synonyms: CT-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Cardiotrophin-1	300-32	<i>E.coli</i>	21.5 kDa	2µg	10µg	\$5,200
Murine Cardiotrophin-1	250-25	<i>E.coli</i>	21.3 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human Cardiotrophin-1	500-P101	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human Cardiotrophin-1	500-P101bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

sCD14 soluble CD14

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human sCD14	110-01	<i>HEK293 cells</i>	41.6 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

sCD22 *soluble CD22*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.000	
Human sCD22	100-01	CHO cells	75.0 kDa	5µg	20µg	\$4,800

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human sCD22	500-P227	Rabbit	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human sCD22	500-P227bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

sCD23 *soluble CD23*

Synonyms: CD23 antigen, Fc-epsilon-RII, Lymphocyte IgE receptor, BLAST-2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sCD23	310-26	E.coli	19.2 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

sCD27 Ligand *soluble CD27 ligand*

Synonyms: TNFSF27, CD70, CD27L

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sCD27 Ligand/TNFSF27	310-30	CHO cells	18.8 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

sCD30 Ligand *soluble CD30 ligand*

Synonyms: TNFSF8, CD153 antigen, CD30L

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sCD30 Ligand/TNFSF8	450-42	CHO cells	21.3 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

sCD34 *soluble CD34*

Synonyms: Hematopoietic progenitor cell antigen CD34

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sCD34	310-31	CHO cells	21.3 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

sCD40 Ligand *soluble CD40 Ligand*

Synonyms: TNFSF5, TRAP, CD154, gp39, T-BAM

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sCD40 Ligand	310-02	<i>E.coli</i>	16.3 kDa	10µg	50µg	\$1,500
Murine sCD40 Ligand	315-15	<i>E.coli</i>	16.4 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human sCD40 Ligand	500-P142	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human sCD40 Ligand	500-P142bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-human sCD40 Ligand	500-P142G	<i>Goat</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human sCD40 Ligand	500-P142Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human sCD40 Ligand	CATALOG # 900-K145	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

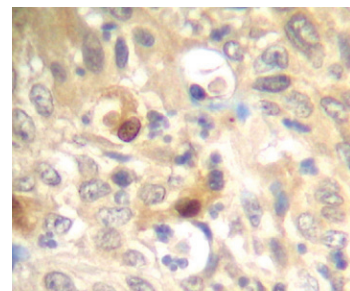
Human sCD40 Ligand	CATALOG # 900-M145	PRICE: \$100.00
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ELISA Buffer Kit.

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
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ELISA Buffer Kit and EDK Combination		PRICE: \$450.00
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Human cervical squamous cell carcinoma (FFPE) stained with goat anti-human sCD40L at 2.5 µg/ml. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subject. Photograph provided by Patsy Ruegg for Peprotech.



sCD100

Synonyms: Semaphorin-4D, BB18, A8, GR3

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sCD100	310-29	<i>CHO cells</i>	78.9 kDa	5µg	20µg	\$5,200

Additional sizes available please inquire

CDNF *Cerebral dopamine neurotrophic factor*

Synonyms: ARMETL1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human CDNF	450-05	<i>E.coli</i>	18.5 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Chemerin

Synonyms: Tazaroyene-induced gene 2 (TIG2), RARRES2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Chemerin	300-66	<i>E.coli</i>	15.6 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

CNTF *Ciliary neurotrophic factor*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human CNTF	450-13	<i>E.coli</i>	22.7 kDa	5µg	20µg	\$3,000
Rat CNTF	450-50	<i>E.coli</i>	22.7 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human CNTF	500-P140	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human CNTF	500-P140bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-rat CNTF	500-P79	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-rat CNTF	500-P79bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human CNTF	CATALOG # 900-K158	PRICE: \$320.00
Rat CNTF	CATALOG # 900-K65	PRICE: \$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Rat CNTF	CATALOG # 900-M65	PRICE: \$100.00
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ELISA Buffer Kit.

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

CTACK/CCL27 *Cutaneous T-cell attracting chemokine*

Synonyms: CCL27, ALP, Skinkine, Eskine

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human CTACK	300-54	<i>E.coli</i>	10.2 kDa	5µg	20µg	\$3,000
Murine CTACK	250-26	<i>E.coli</i>	10.9 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human CTACK	500-P294	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human CTACK	500-P294bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells..

Human CTACK	CATALOG # 900-K213	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human CTACK	CATALOG # 900-M213	PRICE: \$100.00
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CTGF *Connective tissue growth factor*

Synonyms: CCN2, Hypertrophic chondrocyte-specific protein 24 (HCS24)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human CTGF (98 a.a.)	120-19	<i>E.coli</i>	11.2 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human CTGF	500-P252	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human CTGF	500-P252bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human CTGF	CATALOG # 900-K317	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human CTGF	CATALOG # 900-M317	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

CTGFL/WISP-2 *Connective tissue growth factor-like protein*

Synonyms: CCN5, CT-58

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human CTGFL/WISP-2	120-16	<i>E.coli</i>	24.8 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human CTGFL/WISP-2	500-P212	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human CTGFL/WISP-2	500-P212bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

CTLA-4

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-murine CTLA-4	500-P147	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine CTLA-4	500-P147bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

CXCL16

Synonyms: SRPSOX

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human CXCL16	300-55	<i>E.coli</i>	10.1 kDa	5µg	25µg	\$3,000
Murine CXCL16	250-28	<i>E.coli</i>	9.9 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human CXCL16	500-P200	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human CXCL16	500-P200bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine CXCL16	500-P201G	<i>Goat</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine CXCL16	500-P201Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells..

Human CXCL16	CATALOG # 900-K230	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells..

Human CXCL16	CATALOG # 900-M230	PRICE: \$100.00
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ELISA Buffer Kit.

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

CYR61

Synonyms: CNN1, GIGI protein

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human CYR61	120-25	<i>E.coli</i>	39.5 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

DDAH

Synonyms: Dimethylarginine dimethylaminohydrolase-1, Dimethylargininase-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human DDAH-1	150-13	<i>E. coli</i>	31.4 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

DKK-1

Synonyms: Dickkopf-related protein-1, Dickkopf-1, SK

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human DKK-1	120-30	<i>HEK293 cells</i>	35.0-40.0 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

sDLL-1

Synonyms: Delta-like protein-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human sDLL-1	140-08	<i>HEK293 cells</i>	56.0-60.0 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

sDLL-4

Synonyms: Delta-like protein-4, Drosophila Delta homolog 4

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human sDLL-4	140-07	<i>HEK293 cells</i>	54.0 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human sDLL-4	500-P279	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human sDLL-4	500-P279bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

EGF *Epidermal growth factor*

Synonyms: Urogastrone, URG

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Murine EGF	315-09	<i>E.coli</i>	6.0 kDa	100µg	500µg	\$250
Rat EGF	400-25	<i>E.coli</i>	6.2 kDa	20µg	100µg	\$1,100

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$195.00	\$195.00	
Human EGF	AF-100-15	<i>E.coli</i>	6.2 kDa	100µg	500µg	\$250

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human EGF	500-P45	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human EGF	500-P45bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine EGF	500-P174G	<i>Goat</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine EGF	500-P174Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-rat EGF	500-P277	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-rat EGF	500-P277bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-Humann EGF Receptor	500-P306	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. Anti-Human EGF Receptor	500-P306Bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-murine EGF	500-M136	<i>Rat</i>	E, WB	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human EGF	CATALOG # 900-K05	PRICE: \$320.00
Murine EGF	CATALOG # 900-K179	PRICE: \$320.00
Rat EGF	CATALOG # 900-K390	PRICE: \$320.00

Mini ELISA Development Kit

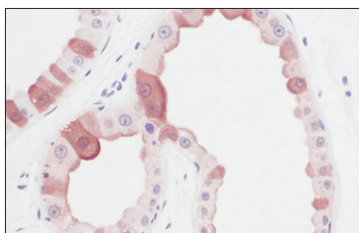
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human EGF	CATALOG # 900-M05	PRICE: \$100.00
Rat EGF	CATALOG # 900-M390	PRICE: \$100.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Normal human skin (FFPE) stained with rabbit anti-human EGF at 1.0 µg/ml. Staining of apocrine gland epithelial cells and secretory cells.
 Photographed by PeproTech



EGF Receptor

Synonyms: ErbB1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg \$3,900
Human EGF Receptor	100-15R	<i>CHO cells</i>	97.5 kDa	2µg	10µg	\$3,900

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A \$195.00	Size B \$250.00	1mg \$1,700
Anti-human EGF Receptor	500-P306	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human EGF Receptor	500-P306bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

EG-VEGF *Endocrine gland-derived vascular endothelial growth factor*

Synonyms: Prokineticin, PROK1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg \$3,000
Human EG-VEGF	100-44	<i>E.coli</i>	9.6 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A \$195.00	Size B \$250.00	1mg \$1,700
Anti-human EG-VEGF	500-P188G	<i>Goat</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human EG-VEGF	500-P188Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human EG-VEGF	CATALOG #	900-K244	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination			PRICE: \$450.00

E

ENA-78/LIX (CXCL5) *Epithelial neutrophil activating peptide-78*

Synonyms: CXCL5, LIX (murine)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg
Human ENA-78 (5-78 a.a.)	300-22	<i>E.coli</i>	8.0 kDa	5µg	20µg	\$3,000
Human ENA-78 (8-78 a.a.)	300-22B	<i>E.coli</i>	8.0 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A \$195.00	Size B \$250.00	1mg
Anti-human ENA-78	500-P91	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human ENA-78	500-P91bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Endostatin

Synonyms: PAF acetylhydrolase, PAF 2-acylhydrolase, LDL-associated phospholipase A2, LDL-PLA(2), 2-acetyl-1-alkylglycerophosphocholine esterase, 1-alkyl-2-acetyl-glycerophosphocholine esterase

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg
Human Endostatin	150-01	<i>E.coli</i>	20.2 kDa	20µg	100µg	\$1,100

Additional sizes available please inquire

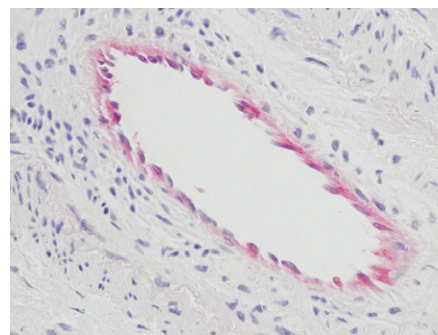
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A \$195.00	Size B \$250.00	1mg
Anti-human Endostatin	500-P262	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human Endostatin	500-P262bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Anti-Human Endostatin (Catalog #500-P262) Human breast invasive ductal carcinoma (FFPE) stained with Rabbit Anti-Human Endostatin at 0.25 µg/mL. Staining of endothelial cells. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects.



Enterokinase

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Enterokinase	450-48C	CHO cells	108.7 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

Eotaxin/CCL11

Synonyms: CCL11

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Eotaxin	300-21	E.coli	8.3 kDa	5µg	20µg	\$3,000
Murine Eotaxin	250-01	E.coli	8.4 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Eotaxin	500-P41	Rabbit	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human Eotaxin	500-P41bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-human Eotaxin	500-P41G	Goat	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Eotaxin	500-P41Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400
Anti-murine Eotaxin	500-P67	Rabbit	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine Eotaxin	500-P67bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human Eotaxin	500-M25	Mouse	E, WB	500µg	\$150.00

ELISA Development Kit

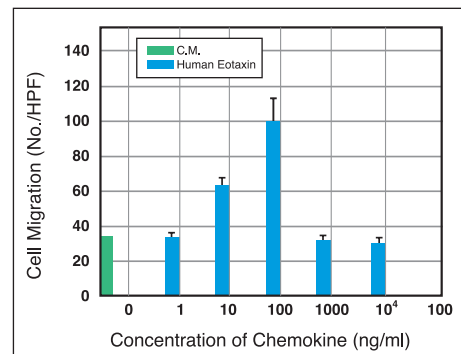
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human Eotaxin	CATALOG # 900-K69	PRICE: \$320.00
Murine Eotaxin	CATALOG # 900-K68	PRICE: \$320.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Chemotaxis analysis of human Eotaxin. Data shows the migration of purified human eosinophils in response to human Eotaxin.



Eotaxin-2/CCL24

Synonyms: CCL24, MPIF-2, CkB-6

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Eotaxin-2	300-33	<i>E.coli</i>	8.8 kDa	5µg	20µg	\$3,000
Murine Eotaxin-2	250-22	<i>E.coli</i>	10.3 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Eotaxin-2	500-P103G	<i>Goat</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Eotaxin-2	500-P103Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine Eotaxin-2	500-P175G	<i>Goat</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine Eotaxin-2	500-P175Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human Eotaxin-2	500-M31	<i>Mouse</i>	I, E, WB	500µg	\$150.00

Eotaxin-3/CCL26

Synonyms: CCL26

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Eotaxin-3	300-48	<i>E.coli</i>	8.4 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Eotaxin-3	500-P156G	<i>Goat</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human Eotaxin-3	500-P156Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human Eotaxin-3	500-M32	<i>Mouse</i>	E, WB, N	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human Eotaxin-3	CATALOG #	900-K167	PRICE:	\$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
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ELISA Buffer Kit and EDK Combination	PRICE:	\$450.00
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Epigen

Synonyms: EPG, Epithelial mitogen

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Epigen	100-51	<i>E.coli</i>	7.9 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Epiregulin

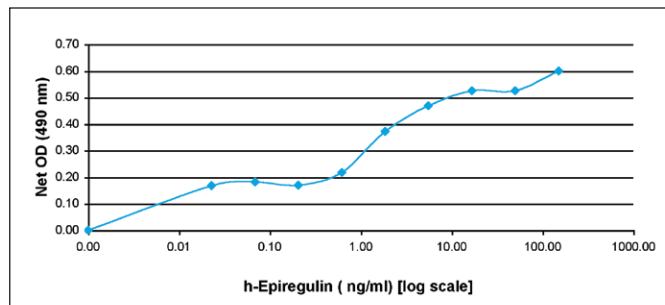
Synonyms: EREG

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Epiregulin	100-04	<i>E.coli</i>	5.6 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Bioassay analysis of human Epiregulin (proliferation) using mouse Balb/3T3 cells.



E-Selectin

Synonyms: Endothelial leukocyte adhesion molecule-1 (ELAM1), CD62E, SELE

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human E-Selectin	150-15	<i>CHO cells</i>	58.6 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

Exodus-2/CCL21

Synonyms: CCL21, 6Ckine, SLC

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Exodus-2	300-35	<i>E.coli</i>	12.2 kDa	5µg	20µg	\$3,000
Murine Exodus-2	250-13	<i>E.coli</i>	12.0 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Exodus-2	500-P109	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human Exodus-2	500-P109bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine Exodus-2	500-P114	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine Exodus-2	500-P114bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Murine Exodus-2	CATALOG # 900-K132	PRICE: \$320.00
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Mini ELISA Development Kit

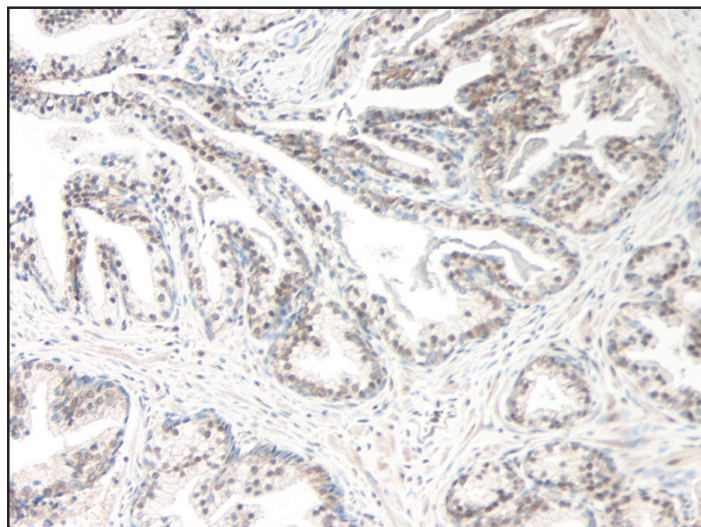
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Murine Exodus-2	CATALOG # 900-M132	PRICE: \$100.00
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Anti-Human Exodus-2 (Catalog #500-P109)

Human prostate malignant adenocarcinoma (FFPE) stained with Rabbit Anti-Human Exodus-2 at 0.75 µg/mL.

Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects.



sFas Ligand *soluble Fas Ligand*

Synonyms: TNFSF6, sFasL, CD95L, Apo I Ligand, APTL

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human sFas Ligand	310-03H	CHO cells	17.9 kDa	2µg	10µg	\$4,300

Additional sizes available please inquire

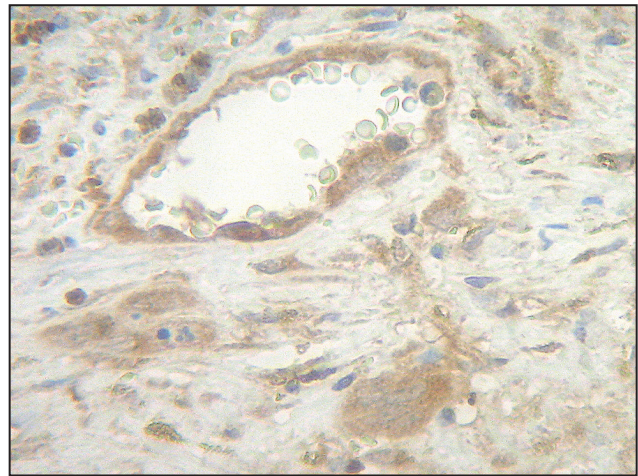
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human sFas Ligand	500-P184G	Goat	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human sFas Ligand	500-P184Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Human angiosarcoma (FFPE) stained with goat anti-human sFas Ligand at 2.5 µg/mL. Photograph provided by Patsy Ruegg for PeproTech.



sFas Receptor *soluble Fas receptor*

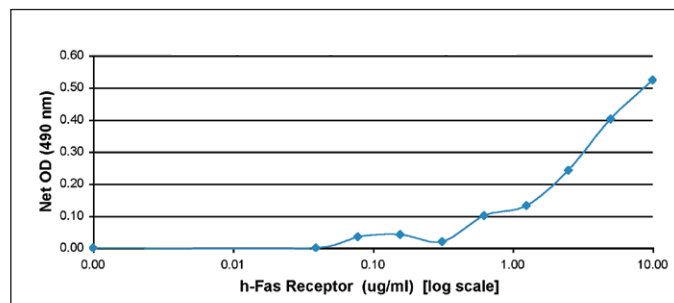
Synonyms: TNFRSF6, CD95, Fas antigen, Apo I

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human sFas receptor	310-20	E.coli	17.6 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

Bioassay analysis of human sFas Receptor. Determined by its ability to inhibit sFas Ligand induced cytotoxicity using Jurkat cells.



Fetuin *A/AHSG*

Synonyms: Alpha-2-HS-glycoprotein, Alpha-2-Z-globulin, Ba-alpha-2-glycoprotein

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Fetuin A/AHSG	140-13	HEK293 cells	45.0-55.0 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

FGF *Fibroblast growth factor*

Synonyms: See FGF chart on pages 147-148.

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human FGF-acidic	100-17A	<i>E.coli</i>	15.8 kDa	10µg	50µg	\$1,500
Murine FGF-acidic	450-33A	<i>E.coli</i>	15.9 kDa	10µg	50µg	\$1,500
Rat FGF-acidic	400-29A	<i>E.coli</i>	15.9 kDa	10µg	50µg	\$1,500
Human FGF-basic	100-18B	<i>E.coli</i>	17.2 kDa	10µg	50µg	\$1,200
Murine FGF-basic	450-33	<i>E.coli</i>	16.2 kDa	10µg	50µg	\$1,400
Rat FGF-basic	400-29	<i>E.coli</i>	16.3 kDa	10µg	50µg	\$1,400
Human FGF-4	100-31	<i>E.coli</i>	19.7 kDa	5µg	25µg	\$3,000
Human FGF-5	100-34	<i>E.coli</i>	27.6 kDa	10µg	50µg	\$1,500
Human FGF-6	100-30	<i>E.coli</i>	18.7 kDa	5µg	25µg	\$3,000
Human FGF-7/KGF	100-19	<i>E.coli</i>	18.9 kDa	2µg	10µg	\$5,200
Human FGF-8	100-25	<i>E.coli</i>	22.4 kDa	5µg	25µg	\$3,000
Human FGF-9	100-23	<i>E.coli</i>	23.4 kDa	5µg	20µg	\$3,900
Murine FGF-9	450-30	<i>E.coli</i>	23.3 kDa	2µg	10µg	\$3,900
Human FGF-10	100-26	<i>E.coli</i>	19.3 kDa	5µg	25µg	\$3,000
Human FGF-16	100-29	<i>E.coli</i>	23.7 kDa	5µg	25µg	\$3,000
Human FGF-17	100-27	<i>E.coli</i>	22.7 kDa	5µg	25µg	\$3,000
Human FGF-18	100-28	<i>E.coli</i>	20.1 kDa	5µg	25µg	\$3,000
Human FGF-19	100-32	<i>E.coli</i>	21.8 kDa	5µg	25µg	\$3,000
Human FGF-20	100-41	<i>E.coli</i>	23.2 kDa	3µg	15µg	\$3,900
Human FGF-21	100-42	<i>E.coli</i>	19.5 kDa	5µg	25µg	\$3,000
Human FGF-23	100-52	<i>E.coli</i>	25.4 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human FGF-acidic	AF-100-17A	<i>E.coli</i>	15.8 kDa	N/A	50µg	\$1,650
Human FGF-basic	AF-100-18B	<i>E.coli</i>	17.2 kDa	N/A	50µg	\$1,300
Human FGF-7/KGF	AF-100-19	<i>E.coli</i>	18.9 kDa	N/A	10µg	\$5,700
Human FGF-4	AF-100-31	<i>E.coli</i>	19.7 kDa	N/A	25µg	\$3,300
Human FGF-10	AF-100-26	<i>E.coli</i>	19.3 kDa	N/A	25µg	\$3,300
Murine FGF-basic	AF-450-33	<i>E.coli</i>	16.2 kDa	N/A	50µg	\$1,650

Additional sizes available please inquire

FGF continued on next page...

FGF *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human FGF-acidic	500-P17	Rabbit	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human FGF-acidic	500-P17bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-human FGF-basic	500-P18	Rabbit	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human FGF-basic	500-P18bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-human FGF-4	500-P158	Rabbit	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human FGF-4	500-P158bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-human FGF-7/KGF	500-P19	Rabbit	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human FGF-7/KGF	500-P19bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-murine FGF-9	500-P66	Rabbit	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine FGF-9	500-P66bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-human FGF-10	500-P151G	Goat	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human FGF-10	500-P151Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400
Anti-human FGF-16	500-P160G	Goat	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human FGF-16	500-P160Gbt	Goat	WB, N	25µg	50µg	\$3,400
Anti-human FGF-17	500-P152	Rabbit	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human FGF-17	500-P152bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-human FGF-17	500-P152G	Goat	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human FGF-17	500-P152Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated **Key:** I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human FGF-basic	500-M38	Mouse	I, E, WB, NA	500µg	\$150.00
Anti-human FGF-5	500-M40	Mouse	E, N	500µg	\$150.00

Biot. = Biotinylated **Key:** I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human FGF-basic	CATALOG # 900-K08	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

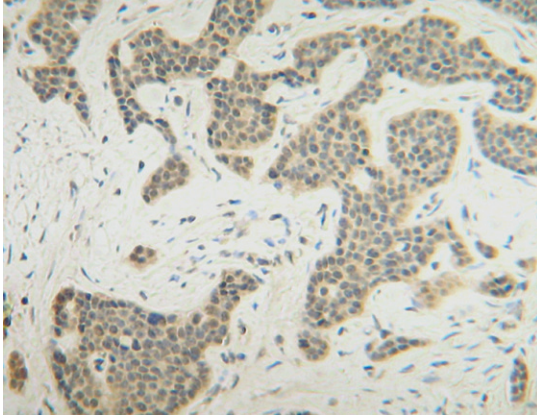
Human FGF-basic	CATALOG # 900-M08	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

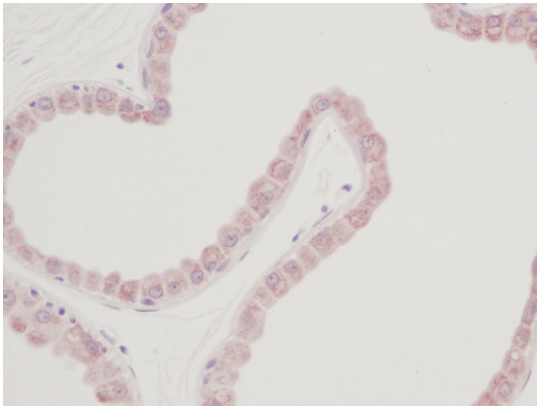
FGF continued on next page...

FGF *continued...*

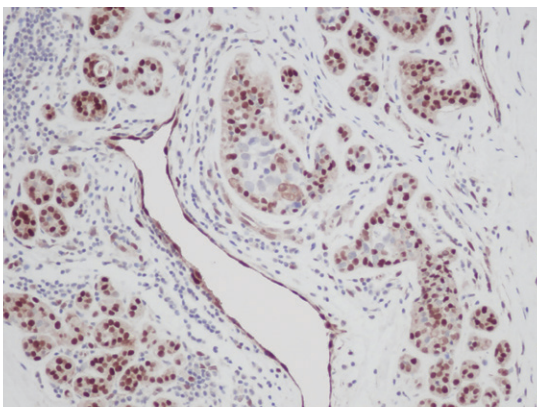


Human carcinoid tissue (FFPE) stained with goat anti-human FGF-10 at 1.0 µg/ml.

Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subject. Photograph provided by Patsy Ruegg for PeproTech.



Normal skin (FFPE) stained with Rabbit anti-human KGF/FGF-7 at 0.5 µg/ml. Staining of gland epithelial cells. Photograph by Peprotech.



Human breast invasive ductal carcinoma (FFPE) stained with rabbit anti-human

FGF-basic at 0.25 µg/ml. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subject. Photograph by PeproTech.

flt3-Ligand

Synonyms: flt3L, Fms-related tyrosine kinase 3 ligand

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human flt3-Ligand	300-19	<i>E.coli</i>	17.6 kDa	2µg	10µg	\$3,900
Murine flt3-Ligand	250-31L	<i>E.coli</i>	18.6 kDa	2µg	10µg	\$3,900

* See page 8 for available Cytokine Packages.

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human flt3-Ligand	AF-300-19	<i>E.coli</i>	17.6 kDa	N/A	10µg	\$4,300

* See page 8 for available Cytokine Packages.

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human flt3-Ligand	500-P42	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human flt3-Ligand	500-P42bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

F

Follistatin

Synonyms: FS, activin-binding protein

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Follistatin	120-13	<i>E.coli</i>	31.5 kDa	5µg	20µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Follistatin	500-P207	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human Follistatin	500-P207bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human Follistatin	CATALOG #	900-K299	PRICE:	\$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
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ELISA Buffer Kit and EDK Combination	PRICE:	\$450.00
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Fractalkine/CX3CL1

Synonyms: CX3CL1, Neurotactin

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Fractalkine	300-31	<i>E.coli</i>	8.5 kDa	5µg	20µg	\$3,000
Rat Fractalkine	400-26	<i>E.coli</i>	8.7 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Fractalkine	500-P98	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Fractalkine	500-P98bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

sFRP-1 soluble Frizzled Related Protein-1

Synonyms: Secreted Apoptosis Related Protein-2, SARP-2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sFRP-1	120-29	<i>HeLa cells</i>	31.0-36.0 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

Furin

Synonyms: FUR, PACE, PCSK3

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Furin	450-47	<i>Insect cells</i>	61.7 kDa	2µg	10µg	\$4,800

Additional sizes available please inquire

gAcrp30

Synonyms: Adipolean (human)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human gAcrp30/Adipolean	450-21	<i>E.coli</i>	16.6 kDa	5µg	25µg	\$3,000
Murine gAcrp30	450-27	<i>E.coli</i>	16.6 kDa	5µg	25µg	\$3,000
Human gAcrp30/Adipolean Variant	450-20	<i>E.coli</i>	18.1 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human gAcrp30/Adipolean	500-P193G	<i>Goat</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human gAcrp30/Adipolean	500-P193Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-human Adipolean Variant	500-P205	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Adipolean Variant	500-P205bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Galectin-1

Synonyms: Beta-galactoside-binding lectin L-14-I, Galaptin, 14 kDa lectin, S-LAC lectin 1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Galectin-1	450-39	<i>E.coli</i>	14.5 kDa	10µg	50µg	\$1,500

Additional sizes-available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Galectin-1	500-P210	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Galectin-1	500-P210bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Galectin-3

Synonyms: Galactose-specific lectin-3, IgE-binding protein, MAC2, L-29, CPB-35

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Galectin-3	450-38	<i>E.coli</i>	26.0 kDa	10µg	50µg	\$1,500

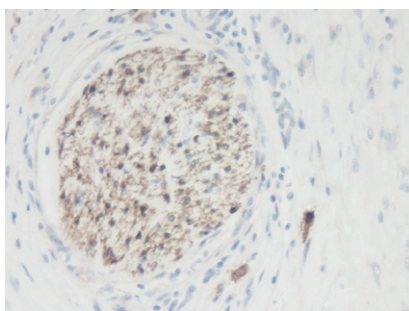
Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Galectin-3	500-P246	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Galectin-3	500-P246bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

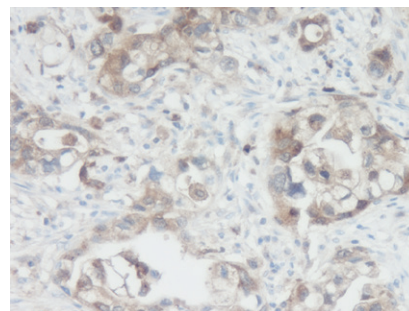
Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested



Human pancreas ductal adenocarcinoma (FFPE) stained with rabbit anti-human Galectin-3 at 31.25 ng/mL. Staining of nerve cells and tumor cells. (photo.1, left) Staining of tumor cells. (photo.2, right)

Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects. Photograph provided by Patsy Ruegg for PeproTech.



GASP-1 GDF Associated Serum Protein-1

Synonyms: KIAA0443, WFIKKNRP

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human GASP-1	120-41	<i>CHO cells</i>	55.0-66.0 kDa	5µg	25µg	\$3,900

Additional sizes available please inquire

GCP-2/CXCL6 *Granulocyte chemotactic protein-2*

Synonyms: CXCL6, LIX (Murine)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human GCP-2	300-41	<i>E.coli</i>	7.9 kDa	5µg	20µg	\$3,000
Murine LIX (93 a.a.)	250-17	<i>E.coli</i>	9.8 kDa	5µg	20µg	\$3,000
Murine LIX (70 a.a.)	250-36	<i>E.coli</i>	7.6 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

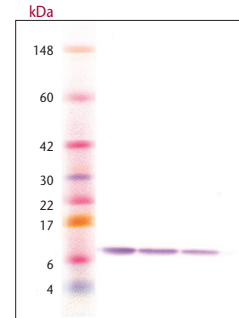
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human GCP-2	500-P120	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human GCP-2	500-P120bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine LIX	500-P146	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine LIX	500-P146bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

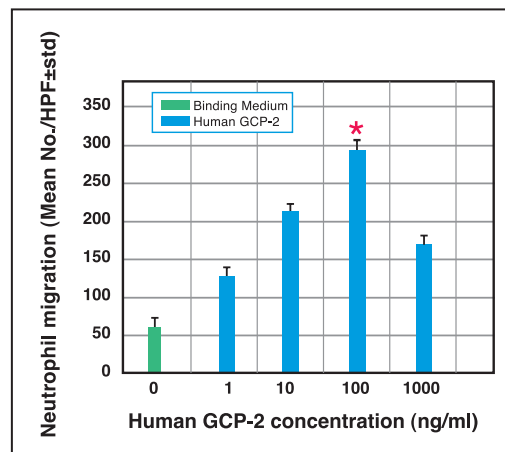
Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Representative Western Transfer (Blot) analysis of human GCP-2 using Rabbit anti-human GCP-2 at 0.20 µg/ml.



Human GCP-2 induces chemotaxis of human neutrophils.



G-CSF *Granulocyte colony-stimulating factor*

Synonyms: CSF-3, MGI-1G, GM-CSF β , pluripoietin

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human G-CSF	300-23	<i>E.coli</i>	18.7 kDa	2 μ g	10 μ g	\$5,200
Murine G-CSF	250-05	<i>E.coli</i>	19.0 kDa	2 μ g	10 μ g	\$5,200

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human G-CSF	AF-300-23	<i>E.coli</i>	18.7 kDa	N/A	10 μ g	\$5,700

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human G-CSF	500-P43	<i>Rabbit</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human G-CSF	500-P43bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine G-CSF	500-P69	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine G-CSF	500-P69bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

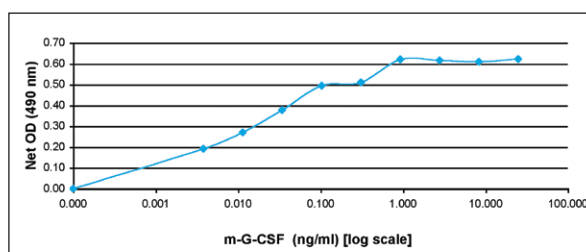
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human G-CSF	CATALOG #	900-K77	PRICE:	\$320.00
Murine G-CSF	CATALOG #	900-K103	PRICE:	\$320.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
ELISA Buffer Kit and EDK Combination			PRICE:	\$450.00

Bioassay analysis of murine G-CSF (proliferation) using mouse M-NFS-60 cells.



GDF-2 *Growth and differentiation factor-2*

Synonyms: Growth/Differentiation Factor-2, BMP-9

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human GDF-2	120-07	<i>CHO cells</i>	24.1 kDa	2 μ g	10 μ g	\$5,200

Additional sizes available please inquire

GDF-3 *Growth and differentiation factor-3*

Synonyms: Vgr-2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human GDF-3	120-22	<i>E.coli</i>	26.0 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human GDF-3	AF-120-22	<i>E.coli</i>	26.0 kDa	N/A	20µg	\$4,300

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human GDF-3	500-P235	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human GDF-3	500-P235bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

GDF-5/CDMP-1 *Growth and differentiation factor-5*

Synonyms: BMP-14, Cartilage-Derived Morphogenetic Protein-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human GDF-5/CDMP-1	120-01	<i>E.coli</i>	27.0 kDa	10µg	50µg	\$1,500
Murine GDF-5 (BMP-14/CDMP-1)	315-24	<i>E.coli</i>	27.0 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

GDF-7 *Growth and differentiation factor-7*

Synonyms: BMP-12

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human GDF-7	120-37	<i>E.coli</i>	28.0 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

GDF-11 *Growth and differentiation factor-11*

Synonyms: BMP-11

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human GDF-11	120-11	<i>E.coli</i>	25.0 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

GDF-15/MIC-1 *Growth and differentiation factor-15*

Synonyms: Placental TGF- β , Prostate differentiation factor

Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human GDF-15/MIC-1	120-28	cell culture	24.5 kDa	5 μ g	20 μ g	\$7,800

Additional sizes available please inquire

GDNF *Glial-derived neurotrophic factor*

Synonyms: ATF-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human GDNF	450-10	<i>E.coli</i>	30.4 kDa	2 μ g	10 μ g	\$5,200
Murine GDNF	450-44	<i>E.coli</i>	30.2 kDa	2 μ g	10 μ g	\$5,200
Rat GDNF	450-51	<i>E.coli</i>	30.0 kDa	2 μ g	10 μ g	\$5,200

Additional sizes available please inquire

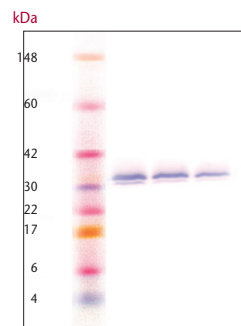
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human GDNF	500-P81	Rabbit	E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-human GDNF	500-P81bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Representative Western Transfer (Blot) analysis of human GDNF using Rabbit anti-human GDNF at 0.20 μ g/ml.



GLP-1 *Glucagon-like peptide-1*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	5mg
				\$80.00	\$195.00	
Human GLP-1 (7-36 a.a.)	130-08	<i>E.coli</i>	3.3 kDa	200 μ g	1000 μ g	\$700

Additional sizes available please inquire

Glu-C

Synonyms: V8 Protease

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Staphylococcus Glu-C	450-46	<i>E.coli</i>	29.1 kDa	50 μ g	250 μ g	\$600

Additional sizes available please inquire

GM-CSF *Granulocyte/macrophage colony stimulating factor*

Synonyms: CSF-2, Pluripoietin- α , MGI-1GM

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human GM-CSF	300-03	<i>E.coli</i>	14.6 kDa	5 μ g	20 μ g	\$3,250
Murine GM-CSF	315-03	<i>E.coli</i>	14.2 kDa	5 μ g	20 μ g	\$3,250
Rat GM-CSF	400-23	<i>E.coli</i>	14.5 kDa	5 μ g	20 μ g	\$3,250

* See page 8 for available Cytokine Packages.

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human GM-CSF	AF-300-03	<i>E.coli</i>	14.6 kDa	N/A	20 μ g	\$3,500
Murine GM-CSF	AF-315-03	<i>E.coli</i>	14.2 kDa	N/A	20 μ g	\$3,500
Rat GM-CSF	AF-400-23	<i>E.coli</i>	14.5 kDa	N/A	20 μ g	\$3,500

* See page 8 for available Cytokine Packages.

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human GM-CSF	500-P33	<i>Rabbit</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human GM-CSF	500-P33bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine GM-CSF	500-P65	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine GM-CSF	500-P65bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-Rat GM-CSF	500-P225	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. Anti-Rat GM-CSF	500-P225bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human GM-CSF	CATALOG # 900-K30	PRICE: \$320.00
Murine GM-CSF	CATALOG # 900-K55	PRICE: \$320.00

Mini ELISA Development Kit

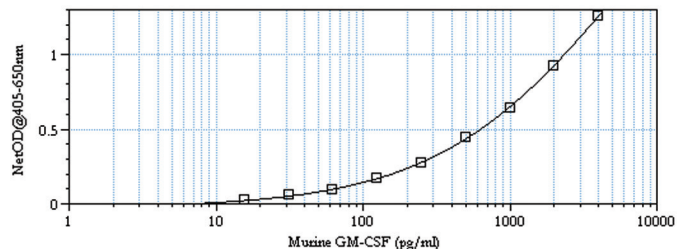
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human GM-CSF	CATALOG # 900-M30	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Standard curve using Murine GM-CSF ELISA development kit.



GMF- β *Glial Maturation Factor-beta*

Synonyms: GMF β

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human GMF- β	450-37	<i>E.coli</i>	16.5 kDa	2 μ g	10 μ g	\$5,200

Additional sizes available please inquire

Granzyme B

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Murine Granzyme B	140-03	<i>Baculovirus</i>	28.9 kDa	2 μ g	10 μ g	\$7,800

Additional sizes available please inquire

Gremlin-1

Synonyms: CKTSF1B1, DAND2, DRM, IHG-2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Gremlin-1	120-42	<i>CHO cells</i>	13.7 kDa	10 μ g	50 μ g	\$1,500

Additional sizes available please inquire

G

GRO α /MGSA, GRO β , GRO γ Growth regulated protein

Synonyms: GRO α : CXCL1, GRO1, MGSA α , KC, NAP-3, CINC
 GRO β : CXCL2, GRO2, MGSA β , MIP-2 α
 GRO γ : CXCL3, GRO3, MIP-2 β

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human GRO/MGSA (CXCL1)	300-11	<i>E.coli</i>	7.8 kDa	5 μ g	25 μ g	\$3,000
Murine KC (CXCL1)	250-11	<i>E.coli</i>	7.8 kDa	5 μ g	20 μ g	\$3,000
Rat GRO/KC (CXCL1)	400-10	<i>E.coli</i>	7.8 kDa	5 μ g	25 μ g	\$3,000
Human GRO β (CXCL2)	300-39	<i>E.coli</i>	7.9 kDa	2 μ g	10 μ g	\$3,000
Murine MIP-2 (CXCL2)	250-15	<i>E.coli</i>	7.8 kDa	5 μ g	20 μ g	\$3,000
Rat GRO β /MIP-2 (CXCL2)	400-11	<i>E.coli</i>	7.9 kDa	5 μ g	25 μ g	\$3,000
Human GRO γ (CXCL3)	300-40	<i>E.coli</i>	7.9 kDa	2 μ g	10 μ g	\$3,000

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human GRO/MGSA	500-P92	Rabbit	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human GRO/MGSA	500-P92bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine KC	500-P115	Rabbit	E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-murine KC	500-P115bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-rat GRO/KC	500-P74	Rabbit	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-rat GRO/KC	500-P74bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-human GRO β	500-P104	Rabbit	I, E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-human GRO β	500-P104bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine MIP-2	500-P130	Rabbit	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine MIP-2	500-P130bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-rat GRO β /MIP-2	500-P75	Rabbit	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-rat GRO β /MIP-2	500-P75bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-human GRO γ	500-P105	Rabbit	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human GRO γ	500-P105bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human GRO/MGSA	CATALOG # 900-K38	PRICE: \$320.00
Human GRO β	CATALOG # 900-K120	PRICE: \$320.00
Rat GRO/KC	CATALOG # 900-K57	PRICE: \$320.00
Murine MIP-2	CATALOG # 900-K152	PRICE: \$320.00
Murine KC	CATALOG # 900-K127	PRICE: \$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human GRO- β	CATALOG # 900-M120	PRICE: \$100.00
Murine KC	CATALOG # 900-M127	PRICE: \$100.00
Murine MIP-2	CATALOG # 900-M152	PRICE: \$100.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

HB-EGF *Heparin-binding EGF-like growth factor*

Synonyms: HBEGF, Diphtheria toxin receptor, DT-R

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human HB-EGF	100-47	<i>E.coli</i>	9.8 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

HCC-1/CCL14 *Hemofiltrate CC chemokine-1*

Synonyms: CCL14, HCC-3, NCC-2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human HCC-1 (72 a.a.)	300-38	<i>E.coli</i>	8.4 kDa	2µg	10µg	\$3,000
Human HCC-1 (66 a.a.)	300-38B	<i>E.coli</i>	7.7 kDa	2µg	10µg	\$3,000

Additional sizes available please inquire

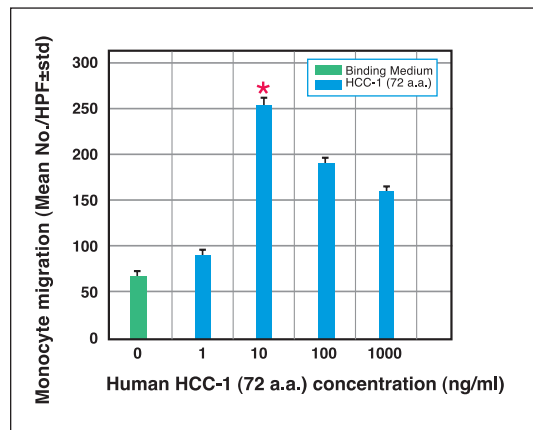
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human HCC-1	500-P106	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human HCC-1	500-P106bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Human HCC-1 induces chemotaxis of human monocytes.



Heregulin β -1

Synonyms: HRG, Neuregulin1 (NRG), Breast cancer cell differentiation factor p45, ARIA (Acetylcholine receptor inducing activity), glial factor, Neu differentiation factor (rat)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Heregulin β -1	100-03	<i>E.coli</i>	7.5 kDa	10 μ g	50 μ g	\$1,500

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human Heregulin β -1	AF-100-03	<i>E.coli</i>	7.5 kDa	N/A	50 μ g	\$1,650

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Heregulin β -1	500-P288	<i>Rabbit</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human Heregulin β -1	500-P288bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

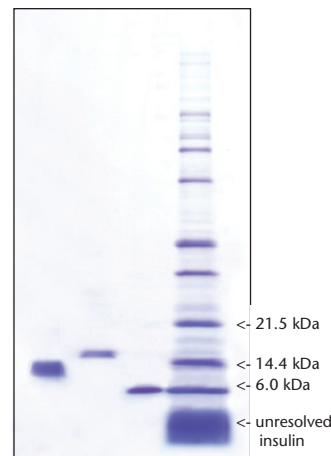
Human Heregulin β -1	CATALOG # 900-K316	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human Heregulin β -1	CATALOG # 900-M316	PRICE: \$100.00
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SDS-PAGE gel analysis under non-reducing conditions for human HCC-1 (Lane 1), HB-EGF (Lane 2), and Heregulin β -1 (Lane 3), markers (Lane 4).



HGF *Hepatocyte growth factor*

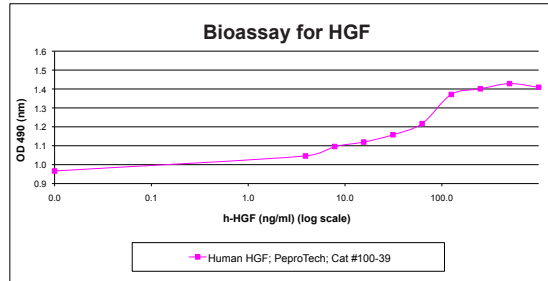
Synonyms: Scatter factor (SF), Hepatopoietin (HPTA)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human HGF	100-39	<i>Insect cells</i>	80.0 kDa	2µg	10µg	\$4,800
Murine HGF	315-23	<i>Insect cells</i>	80.0 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

Bioassay analysis of human HGF (proliferation) using monkey 4MBr-5 cells.



HVEM-Fc

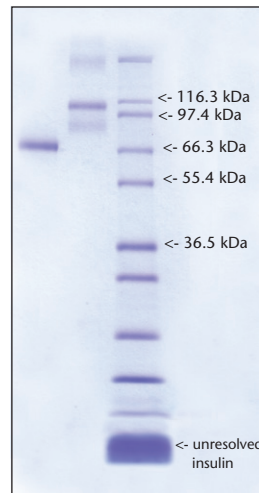
Synonyms: TNFSFR14, HVEM, ATAR, TR2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human HVEM-Fc	310-27	<i>Insect cells</i>	88.5 kDa	20µg	100µg	\$1,100

Additional sizes available please inquire

SDS-PAGE gel analysis under non-reducing conditions for human HGF(Lane 1), HVEM-Fc (Lane 2), and markers (Lane 3). Due to glycosylation HVEM-Fc migrates higher.



I-309/CCL1

Synonyms: CCL1, TCA-3

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human I-309/CCL1	300-37	<i>E.coli</i>	8.5 kDa	2µg	10µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human I-309	500-P110	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human I-309	500-P110bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ICAM-1 *Intercellular adhesion molecule-1*

Synonyms: Major group rhinovirus receptor, CD54 antigen

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human ICAM-1	150-05	<i>CHO cells</i>	49.5 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human ICAM-1	500-P287	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human ICAM-1	500-P287bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human ICAM-1	CATALOG # 900-K464	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human ICAM-1	CATALOG # 900-M464	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

IFN-β *Interferon-β*

Synonyms: Leukocyte interferon, B cell interferon, Type I interferon

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IFN-β	300-02BC	<i>CHO cells</i>	20.0-22.4 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IFN-β	500-P32B	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IFN-β	500-P32Bbt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

IFN- γ Interferon-gamma

Synonyms: Immune Interferon, type II interferon, T cell interferon, MAF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IFN- γ	300-02	<i>E.coli</i>	16.7 kDa	20 μ g	100 μ g	\$1,100
Murine IFN- γ	315-05	<i>E.coli</i>	15.6 kDa	20 μ g	100 μ g	\$1,100
Rat IFN- γ	400-20	<i>E.coli</i>	15.6 kDa	20 μ g	100 μ g	\$1,100

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IFN- γ	AF-300-02	<i>E.coli</i>	16.7 kDa	N/A	100 μ g	\$1,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IFN- γ	500-P32	<i>Rabbit</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human IFN- γ	500-P32bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine IFN- γ	500-P119	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine IFN- γ	500-P119bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-rat IFN- γ	500-P122	<i>Rabbit</i>	E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-rat IFN- γ	500-P122bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-rat IFN- γ	500-P122G	<i>Goat</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-rat IFN- γ	500-P122Gbt	<i>Goat</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human IFN- γ	500-M90	<i>Mouse</i>	E, WB, N	500 μ g	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IFN- γ	CATALOG #	900-K27	PRICE:	\$320.00
Murine IFN- γ	CATALOG #	900-K98	PRICE:	\$320.00
Rat IFN- γ	CATALOG #	900-K109	PRICE:	\$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

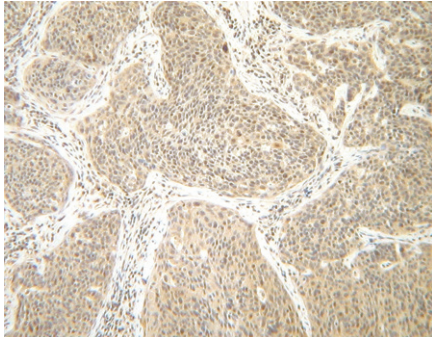
Human IFN- γ	CATALOG #	900-M27	PRICE:	\$100.00
Murine IFN- γ	CATALOG #	900-M98	PRICE:	\$100.00

ELISA Buffer Kit

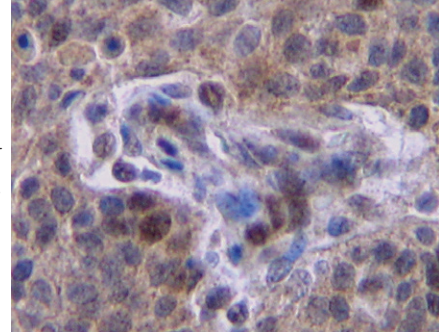
ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
ELISA Buffer Kit and EDK Combination			PRICE:	\$450.00

continued on next page...

IFN- γ continued...



Human cervical squamous cell carcinoma (FFPE) stained with rabbit anti-human IFN γ at 0.25 μ g/mL. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects. Photograph provided by Patsy Ruegg for PeproTech.



IFN- λ -1,-2 Interferon lambda-1,-2

Synonyms: IFN- λ 1: IL-29; IFN- λ 2: IL-28A

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IFN- λ 1	300-02L	<i>E.coli</i>	19.8 kDa	5 μ g	20 μ g	\$3,000
Human IFN- λ 2	300-02K	<i>E.coli</i>	19.6 kDa	5 μ g	20 μ g	\$3,000
Murine IFN- λ 2	250-33	<i>E.coli</i>	19.8 kDa	5 μ g	20 μ g	\$3,000

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IFN- λ 1	AF-300-02L	<i>E.coli</i>	19.8 kDa	N/A	20 μ g	\$3,300

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IFN- λ 2	500-P247	Rabbit	I, E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-human IFN- λ 2	500-P247bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

IFN- ω Interferon-omega

Synonyms: IFN alpha II-1, IFNW1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	5mg
				\$80.00	\$195.00	
Human IFN- ω	300-02J	<i>E.coli</i>	19.9 kDa	20 μ g	100 μ g	\$1,100

Additional sizes available please inquire

IGF-I and IGF-II *Insulin-like growth factor I and II*

Synonyms: IGF-I: Somatamedin C, IGF-IA; IGF-II: Somatamedin A

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IGF-I	100-11	<i>E.coli</i>	7.6 kDa	20µg	100µg	\$300
Murine IGF-I	250-19	<i>E.coli</i>	7.6 kDa	10µg	50µg	\$1,400
Human IGF-II	100-12	<i>E.coli</i>	7.5 kDa	10µg	50µg	\$1,400

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IGF-I	AF-100-11	<i>E.coli</i>	7.6 kDa	N/A	100µg	\$320
Human IGF-II	AF-100-12	<i>E.coli</i>	7.5 kDa	N/A	50µg	\$1,650

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IGF-I	500-P11	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IGF-I	500-P11bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine IGF-I	500-P157G	<i>Goat</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine IGF-I	500-P157Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-human IGF-II	500-P12	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IGF-II	500-P12bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

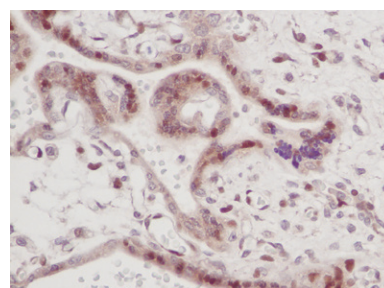
Murine IGF-I **CATALOG #** 900-K170 **PRICE:** \$320.00

ELISA Buffer Kit

ELISA Buffer Kit **CATALOG #** 900-K00 **PRICE:** \$195.00

ELISA Buffer Kit and EDK Combination **PRICE:** \$450.00

Normal human placenta (FFPE) stained with rabbit anti-human IGF-II at 5.0 µg/ml. Staining of epithelial cells and vessel lining cells. Photographed by PeproTech.



IGF-BP *Insulin-like growth factor binding proteins*

Synonyms: IGF-BP1: IBP-1, Placenta Protein 12 (PP12)
 IGF-BP2: IBP-2
 IGF-BP3: Growth-hormone-dependant binding protein
 IGF-BP4: IBP-4, HT29-IGF-BP, colon cancer cell growth inhibitor
 IGF-BP5: none
 IGF-BP6: IBP-6
 IGF-BP7: Mac25, IGFBPrP1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size		1mg
				A	B	
Human IGF-BP1	350-10	<i>E.coli</i>	25.4 kDa	\$80.00	\$195.00	
Human IGF-BP2	350-06B	<i>Insect cells</i>	31.5 kDa	5µg	25µg	\$3,000
Human IGF-BP3	100-08	<i>E.coli</i>	28.8 kDa	5µg	20µg	\$5,200
Human IGF-BP4	350-05B	<i>Insect cells</i>	26.0 kDa	5µg	25µg	\$3,000
Human IGF-BP5	100-05	<i>E.coli</i>	28.6 kDa	5µg	20µg	\$5,200
Human IGF-BP6	350-07B	<i>Insect cells</i>	23.0-30.0 kDa	5µg	25µg	\$3,000
Human IGF-BP7	350-09	<i>E.coli</i>	26.4 kDa	5µg	20µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size		1mg
				A	B	
Anti-human IGF-BP1	500-P228	<i>Rabbit</i>	E, WB, NA	\$195.00	\$250.00	
Biot. anti-human IGF-BP1	500-P228bt	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Anti-human IGF-BP3	500-P230	<i>Rabbit</i>	I, E, WB, NA	25µg	50µg	\$3,400
Biot. anti-human IGF-BP3	500-P230bt	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Anti-human IGF-BP5	500-P232	<i>Rabbit</i>	I, E, WB, NA	25µg	50µg	\$3,400
Biot. anti-human IGF-BP5	500-P232bt	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Anti-human IGF-BP7	500-P234	<i>Rabbit</i>	I, E, WB, NA	25µg	50µg	\$3,400
Biot. anti-human IGF-BP7	500-P234bt	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

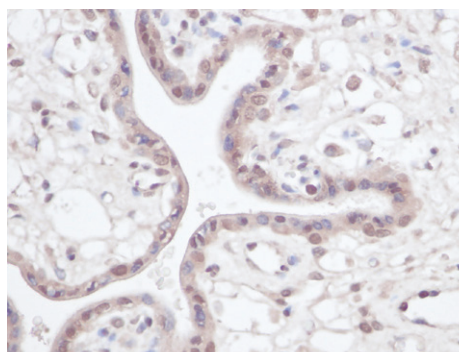
Human IGF-BP1	CATALOG # 900-K315	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells

Human IGF-BP1	CATALOG # 900-M315	PRICE: \$100.00
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Normal human placenta (FFPE) stained with rabbit anti-human IGF-BP3 at 2.5 µg/ml. Photograph by PeproTech.



IL-1 α Interleukin-1 alpha

Synonyms: Hematopoietin-1, Lymphocyte-activating factor (LAF), Endogenous pyrogen (EP), Leukocyte endogenous mediator (LEM), Mononuclear cell factor (MCF)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-1 α	200-01A	<i>E.coli</i>	18.0 kDa	2 μ g	10 μ g	\$5,200
Murine IL-1 α	211-11A	<i>E.coli</i>	17.9 kDa	2 μ g	10 μ g	\$5,200
Rat IL-1 α	400-01A	<i>E.coli</i>	17.7 kDa	2 μ g	10 μ g	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-1 α	500-P21A	<i>Rabbit</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human IL-1 α	500-P21Abt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine IL-1 α	500-P51A	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine IL-1 α	500-P51Abt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-rat IL-1 α	500-P180G	<i>Goat</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-rat IL-1 α	500-P180Gbt	<i>Goat</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

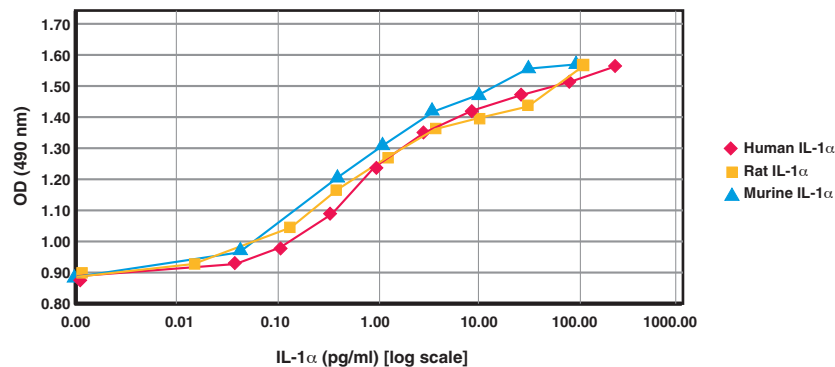
ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-1 α	CATALOG # 900-K11	PRICE: \$320.00
Murine IL-1 α	CATALOG # 900-K82	PRICE: \$320.00
Rat IL-1 α	CATALOG # 900-K204	PRICE: \$320.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00



Bioassay analysis of human, murine, and rat IL-1 α (proliferation) using mouse D10S cells.

IL-1 β Interleukin-1 beta

Synonyms: Catabolin, Lymphocyte-activating factor (LAF), Endogenous pyrogen (EP), Leukocyte endogenous mediator (LEM), Mononuclear cell factor (MCF)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-1 β	200-01B	<i>E.coli</i>	17.3 kDa	2 μ g	10 μ g	\$3,900
Murine IL-1 β	211-11B	<i>E.coli</i>	17.5 kDa	2 μ g	10 μ g	\$5,200
Rat IL-1 β	400-01B	<i>E.coli</i>	17.3 kDa	2 μ g	10 μ g	\$5,200

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IL-1 β	AF-200-01B	<i>E.coli</i>	17.3 kDa	N/A	10 μ g	\$4,300

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-murine IL-1 β	500-P51	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine IL-1 β	500-P51bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-rat IL-1 β	500-P80	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-rat IL-1 β	500-P80bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Murine IL-1 β	CATALOG # 900-K47	PRICE: \$320.00
Rat IL-1 β	CATALOG # 900-K91	PRICE: \$320.00

Mini ELISA Development Kit

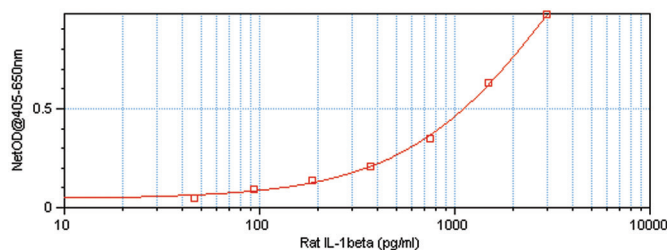
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells

Murine IL-1 β	CATALOG # 900-M47	PRICE: \$100.00
Rat IL-1 β	CATALOG # 900-M91	PRICE: \$100.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Standard curve using Rat IL-1 β ELISA development kit.



IL-1RA *Interleukin-1 receptor antagonist*

Synonyms: ICIL-1RA, IRAP, IL-1RN

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-1RA	200-01RA	<i>E.coli</i>	17.2 kDa	20µg	100µg	\$1,100

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-1RA	500-P209	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-1RA	500-P209bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-1RA	CATALOG # 900-K474	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

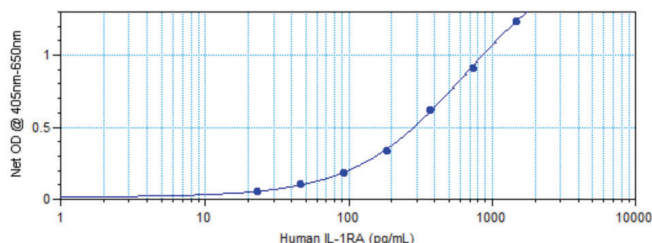
Human IL-1RA	CATALOG # 900-M474	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
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ELISA Buffer Kit and EDK Combination		PRICE: \$450.00
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Standard curve using
Human IL-1RA ELISA
development Kit.



IL-2 Interleukin-2

Synonyms: T-cell growth factor (TCGF), Aldesleukin

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-2	200-02	<i>E.coli</i>	15.4 kDa	10µg	50µg	\$800
Murine IL-2	212-12	<i>E.coli</i>	17.2 kDa	5µg	20µg	\$2,800
Rat IL-2	400-02	<i>E.coli</i>	15.3 kDa	5µg	20µg	\$2,800

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IL-2	AF-200-02	<i>E.coli</i>	15.4 kDa	N/A	50µg	\$850

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-2	500-P22	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-2	500-P22bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-human IL-2	500-P22G	<i>Goat</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-2	500-P22Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine IL-2	500-P111	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine IL-2	500-P111bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-rat IL-2	500-P274	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-rat IL-2	500-P274bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human IL-2	500-M02	<i>Mouse</i>	I, E, WB, NA	500µg	\$150.00
Anti-murine IL-2	500-M127	<i>Rat</i>	E, WB, NA	500µg	\$150.00
Anti-rat IL-2	500-M129	<i>Mouse</i>	E, WB, NA	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-2	CATALOG # 900-K12	PRICE: \$320.00
Murine IL-2	CATALOG # 900-K108	PRICE: \$320.00
Rat IL-2	CATALOG # 900-K205	PRICE: \$320.00

Mini ELISA Development Kit

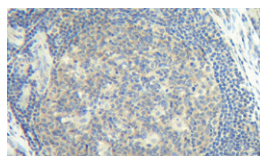
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human IL-2	CATALOG # 900-M12	PRICE: \$100.00
Rat IL-2	CATALOG # 900-M205	PRICE: \$100.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Human breast invasive ductal carcinoma (FFPE) stained with goat anti-human IL-2 at 0.5 µg/mL. Staining of lymphocytes within tumor cells in the center. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects. Photograph provided by Patsy Ruegg for PeproTech.



sIL-2R α soluble Interleukin-2 receptor alpha

Synonyms: TAC-antigen, CD25 antigen

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sIL-2R α	200-02R	<i>Insect cells</i>	31.0 kDa	5 μ g	25 μ g	\$2,800

Additional sizes available please inquire

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human sIL2 α	500-M02R	<i>Mouse</i>	I, E, WB	500 μ g	\$150.00

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

IL-3 Interleukin-3

Synonyms: Mast cell growth factor (MCGF), multipotential colony-stimulating factor (Multi-CSF), hematopoietic cell growth factor (HCGF), P-cell stimulation factor

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-3	200-03	<i>E.coli</i>	15.0 kDa	2 μ g	10 μ g	\$3,000
Murine IL-3	213-13	<i>E.coli</i>	15.1 kDa	2 μ g	10 μ g	\$4,300
Rat IL-3 β	400-03	<i>E.coli</i>	16.3 kDa	5 μ g	20 μ g	\$3,000

** See page 8 for available Cytokine Packages.*

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IL-3	AF-200-03	<i>E.coli</i>	15.0 kDa	N/A	10 μ g	\$3,300
Murine IL-3	AF-213-13	<i>E.coli</i>	15.1 kDa	N/A	10 μ g	\$4,700

** See page 8 for available Cytokine Packages.*

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-3	500-P23	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human IL-3	500-P23bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine IL-3	500-P53	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine IL-3	500-P53bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-rat IL-3 β	500-P177G	<i>Goat</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-rat IL-3 β	500-P177Gbt	<i>Goat</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-3	CATALOG # 900-K13	PRICE: \$320.00
Murine IL-3	CATALOG # 900-K48	PRICE: \$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Murine IL-3	CATALOG # 900-M48	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

IL-4 Interleukin-4

Synonyms: BCGF, BCDF, B cell stimulating factor (BSF-1)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-4	200-04	<i>E.coli</i>	14.9 kDa	5µg	20µg	\$3,250
Murine IL-4	214-14	<i>E.coli</i>	13.5 kDa	5µg	20µg	\$3,250
Rat IL-4	400-04	<i>E.coli</i>	14.0 kDa	5µg	20µg	\$3,250

* See page 8 for available Cytokine Packages.

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IL-4	AF-200-04	<i>E.coli</i>	14.9 kDa	N/A	20µg	\$3,500
Murine IL-4	AF-214-14	<i>E.coli</i>	13.5 kDa	N/A	20µg	\$3,500

* See page 8 for available Cytokine Packages.

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-4	500-P24	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-4	500-P24bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine IL-4	500-P54	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine IL-4	500-P54bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-rat IL-4	500-P94	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-rat IL-4	500-P94bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human IL-4	500-M04	<i>Mouse</i>	E, WB, N	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-4	CATALOG # 900-K14	PRICE: \$320.00
Murine IL-4	CATALOG # 900-K49	PRICE: \$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human IL-4	CATALOG # 900-M14	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

sIL-4R α soluble Interleukin-4 receptor alpha

Synonyms: CD124

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sIL-4R α	200-04R	HEK293 cells	23.7 kDa	3 μ g	15 μ g	\$4,000

Additional sizes available please inquire

IL-5 Interleukin-5

Synonyms: EDF, BCDFII, TRF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-5	200-05	<i>E.coli</i>	26.0 kDa	2 μ g	10 μ g	\$4,300
Murine IL-5	215-15	<i>E.coli</i>	26.2 kDa	5 μ g	25 μ g	\$3,000
Rat IL-5	400-05	<i>E.coli</i>	26.0 kDa	2 μ g	10 μ g	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-5	500-P25	Rabbit	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human IL-5	500-P25bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-Murine IL-5	500-P55	Rabbit	E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. Anti-Murine IL-5	500-P55Bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-5	CATALOG #	900-K15	PRICE:	\$320.00
Murine IL-5	CATALOG #	900-K406	PRICE:	\$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human IL-5	CATALOG #	900-M15	PRICE:	\$100.00
Murine IL-5	CATALOG #	900-M406	PRICE:	\$100.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
ELISA Buffer Kit and EDK Combination			PRICE:	\$450.00

IL-6 Interleukin-6

Synonyms: 26 kDa protein, IFN- β 2, B cell differentiation factor (BCDF), BSF-2, HPGF, HSF, MGI-2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-6	200-06	<i>E.coli</i>	20.9 kDa	5 μ g	20 μ g	\$3,000
Murine IL-6	216-16	<i>E.coli</i>	21.7 kDa	2 μ g	10 μ g	\$4,300
Rat IL-6	400-06	<i>E.coli</i>	21.7 kDa	2 μ g	10 μ g	\$5,200

* See page 8 for available Cytokine Packages.

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IL-6	AF-200-06	<i>E.coli</i>	20.9 kDa	N/A	20 μ g	\$3,300

* See page 8 for available Cytokine Packages.

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-6	500-P26	<i>Rabbit</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human IL-6	500-P26bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-human IL-6	500-P26G	<i>Goat</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human IL-6	500-P26Gbt	<i>Goat</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine IL-6	500-P56	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine IL-6	500-P56bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-rat IL-6	500-P73	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-rat IL-6	500-P73bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-rat IL-6	500-P73G	<i>Goat</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-rat IL-6	500-P73Gbt	<i>Goat</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human IL-6	500-M06	<i>Mouse</i>	I, E, WB, N	500 μ g	\$150.00

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

IL-6 continued on next page...

IL-6 *continued...*

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-6	CATALOG # 900-K16	PRICE: \$320.00
Murine IL-6	CATALOG # 900-K50	PRICE: \$320.00
Rat IL-6	CATALOG # 900-K86	PRICE: \$320.00

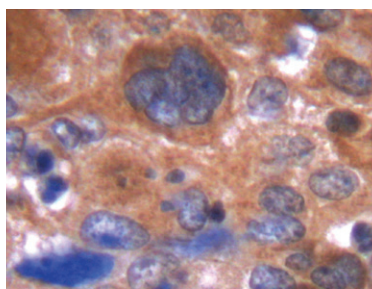
Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

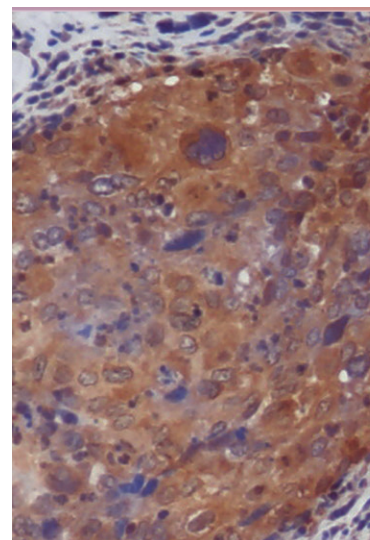
Human IL-6	CATALOG # 900-M16	PRICE: \$100.00
Murine IL-6	CATALOG # 900-M50	PRICE: \$100.00
Rat IL-6	CATALOG # 900-M86	PRICE: \$320.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00



Human cervical squamous cell carcinoma (FFPE) stained with rabbit anti-human IL-6 at 0.5 µg/ml. Staining of tumor cells and extracellular expression. Tissues samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subjects. Photographs provided by Patsy Ruegg for PeproTech.



sIL-6R α soluble Interleukin-6 receptor alpha

Synonyms: B-cell stimulatory factor-2 receptor, CD126

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human sIL-6R α	200-06R	HEK293 cells	37.6 kDa	\$80.00 5µg	\$195.00 20µg	\$3,600

Additional sizes available please inquire

IL-7 Interleukin-7

Synonyms: Lymphopoietin 1 (LP-1), pre-B cell factor

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-7	200-07	<i>E.coli</i>	17.4 kDa	2µg	10µg	\$5,200
Murine IL-7	217-17	<i>E.coli</i>	15.0 kDa	2µg	10µg	\$5,200
Rat IL-7	400-07	<i>E.coli</i>	15.0 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IL-7	AF-200-07	<i>E.coli</i>	17.4 kDa	N/A	10µg	\$5,700

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-7	500-P27	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-7	500-P27bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine IL-7	500-P57	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine IL-7	500-P57bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human IL-7	500-M07	<i>Mouse</i>	E, WB, NA	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-7	CATALOG # 900-K17	PRICE: \$320.00
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ELISA Buffer Kit.

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

IL-8/CXCL8 Interleukin-8

Synonyms: CXCL8, MDNCF, Neutrophil activating factor (NAF), NAP-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-8 (72 a.a.)	200-08M	<i>E.coli</i>	8.4 kDa	5µg	25µg	\$3,000
Human IL-8 (77 a.a.)	200-08	<i>E.coli</i>	8.9 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-8	500-P28	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-8	500-P28bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

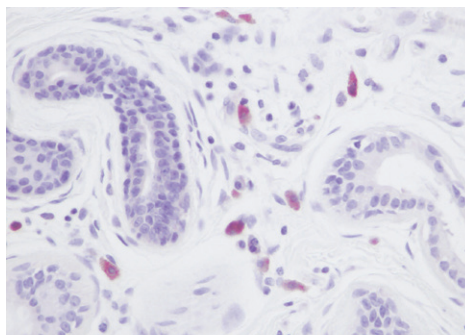
Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

IL-8 continued on next page...

IL-8 *continued...*

Normal human skin (FFPE) stained with rabbit anti-human IL-8 at 0.25 µg/ml. Photographed by PeproTech.



Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human IL-8	500-M08	Mouse	E, WB, NA	500µg	\$150.00

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-8	CATALOG # 900-K18	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human IL-8	CATALOG # 900-M18	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

IL-9 *Interleukin-9*

Synonyms: p40 cytokine, T-cell growth factor p40

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-9	200-09	<i>E.coli</i>	14.0 kDa	2µg	10µg	\$5,200
Murine IL-9	219-19	<i>E.coli</i>	14.3 kDa	2µg	10µg	\$5,200
Rat IL-9	400-18	<i>E.coli</i>	14.3 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-9	500-P29	Rabbit	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-9	500-P29bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-murine IL-9	500-P59	Rabbit	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine IL-9	500-P59bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-9	CATALOG # 900-K20	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

IL-10 *Interleukin-10*

Synonyms: B-TCGF, CSIF, TGIF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-10	200-10	<i>E.coli</i>	18.6 kDa	2µg	10µg	\$5,200
Murine IL-10	210-10	<i>E.coli</i>	18.7 kDa	2µg	10µg	\$5,200
Rat IL-10	400-19	<i>E.coli</i>	18.7 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-10	500-P20	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-10	500-P20bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine IL-10	500-P60	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine IL-10	500-P60bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-rat IL-10	500-P139	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-rat IL-10	500-P139bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human IL-10	500-M86	<i>Mouse</i>	I, E, WB, NA	500µg	\$150.00
Anti-murine IL-10	500-M128	<i>Rat</i>	E, WB, N	500µg	\$150.00
Anti-rat IL-10	500-M130	<i>Mouse</i>	E, WB, NA	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-10	CATALOG # 900-K21	PRICE: \$320.00
Murine IL-10	CATALOG # 900-K53	PRICE: \$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human IL-10	CATALOG # 900-M21	PRICE: \$100.00
Murine IL-10	CATALOG # 900-M53	PRICE: \$100.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

IL-11 *Interleukin-11*

Synonyms: AGIF (Adipogenesis inhibitory factor)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-11	200-11	<i>E.coli</i>	19.1 kDa	2µg	10µg	\$5,200
Murine IL-11	220-11	<i>E.coli</i>	19.2 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-11	500-P01	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-11	500-P01bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human IL-11	500-M11	<i>Mouse</i>	E, WB, NA	500µg	\$150.00

ELISA Development Kit

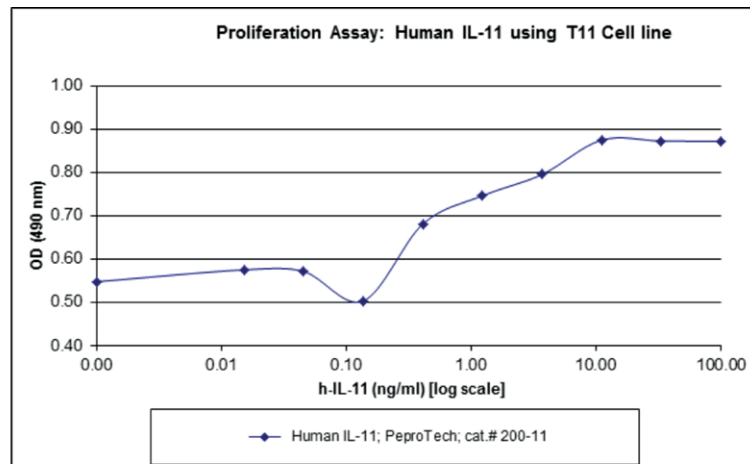
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-11	CATALOG # 900-K22	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human IL-11	CATALOG # 900-M22	PRICE: \$100.00
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Bioassay analysis of murine IL-11 (proliferation) using T11 cells.

IL-12 *Interleukin-12*

Synonyms: NKSF, CTL maturation factor, Cytotoxic lymphocyte maturation factor (CLMF), TSF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-12	200-12	<i>CHO cells</i>	75.0 kDa	2µg	10µg	\$7,800
Human IL-12 p40	200-12p40	<i>CHO cells</i>	40.0 kDa	2µg	10µg	\$7,800
Human IL-12 p80	200-12p80H	<i>Insect cells</i>	80.0 kDa	2µg	10µg	\$7,800
Murine IL-12	210-12	<i>CHO cells</i>	75.0 kDa	2µg	10µg	\$7,800

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-12	500-P154G	<i>Goat</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-12	500-P154Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine IL-12	500-P155G	<i>Goat</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine IL-12	500-P155Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human IL-12	500-M12	<i>Mouse</i>	I, E, WB, NA	500µg	\$150.00
Anti-murine IL-12	500-M59	<i>Rat</i>	E, WB, NA	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-12	CATALOG # 900-K96	PRICE: \$320.00
Murine IL-12	CATALOG # 900-K97	PRICE: \$320.00

Mini ELISA Development Kit

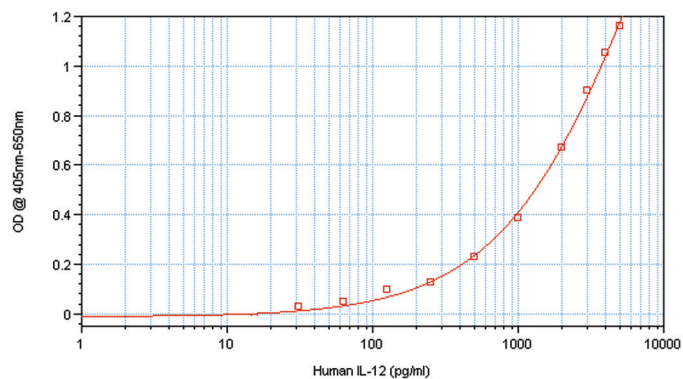
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human IL-12	CATALOG # 900-M96	PRICE: \$100.00
Murine IL-12	CATALOG # 900-M97	PRICE: \$100.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Standard curve using Human IL-12 ELISA development kit.



IL-13 *Interleukin-13*

Synonyms: P600 (murine), NC30 (human)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size		1mg
				A	B	
Human IL-13	200-13	<i>E.coli</i>	12.6 kDa	2µg	10µg	\$5,200
Murine IL-13	210-13	<i>E.coli</i>	12.3 kDa	2µg	10µg	\$5,200
Rat IL-13	400-16	<i>E.coli</i>	11.9 kDa	2µg	10µg	\$5,200
Rat IL-13 (113 a.a.)	400-16L	<i>E.coli</i>	12.3 kDa	2µg	10µg	\$5,200
Human IL-13 Variant	200-13A	<i>E.coli</i>	12.6 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size		1mg
				A	B	
Human IL-13	AF-200-13	<i>E.coli</i>	12.6 kDa	N/A	10µg	\$5,700

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size		1mg
				A	B	
Anti-human IL-13	500-P13	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-13	500-P13bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine IL-13	500-P178	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine IL-13	500-P178bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-13	CATALOG # 900-K23	PRICE: \$320.00
Murine IL-13	CATALOG # 900-K207	PRICE: \$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Murine IL-13	CATALOG # 900-M207	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

IL-15 *Interleukin-15*

Synonyms: IL-T

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-15	200-15	<i>E.coli</i>	12.9 kDa	2µg	10µg	\$3,900
Murine IL-15	210-15	<i>E.coli</i>	13.3 kDa	2µg	10µg	\$3,900
Rat IL-15	400-24	<i>E.coli</i>	13.5 kDa	2µg	10µg	\$3,900

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IL-15	AF-200-15	<i>E.coli</i>	12.9 kDa	N/A	10µg	\$4,300

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-15	500-P15	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-15	500-P15bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine IL-15	500-P173	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine IL-15	500-P173bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human IL-15	500-M15	<i>Mouse</i>	E, WB	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Murine IL-15	CATALOG # 900-K188	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Murine IL-15	CATALOG # 900-M188	PRICE: \$100.00
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IL-16 Interleukin-16

Synonyms: LCF (Lymphocyte Chemoattractant Factor)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-16 (121 a.a.)	200-16A	<i>E.coli</i>	12.4 kDa	2µg	10µg	\$5,200
Human IL-16 (130 a.a.)	200-16	<i>E.coli</i>	13.5 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IL-16	AF-200-16A	<i>E.coli</i>	12.4 kDa	N/A	10µg	\$5,700

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-16	500-P06	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-16	500-P06bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

IL-17A/IL-17 Interleukin-17A

Synonyms: CTLA-8

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-17A/IL-17	200-17	<i>E.coli</i>	31.0 kDa	5µg	25µg	\$3,000
Murine IL-17	210-17	<i>E.coli</i>	30.0 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IL-17	AF-200-17	<i>E.coli</i>	31.0 kDa	N/A	25µg	\$3,300

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-17A	500-P07	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-17A	500-P07bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-human IL-17A	500-P07G	<i>Goat</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-17A	500-P07Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine IL-17A	500-P265	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine IL-17A	500-P265bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

IL-17A/IL-17 continued on next page...

IL-17A/IL-17 *continued...*

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-17A/IL-17	CATALOG # 900-K84	PRICE: \$320.00
Murine IL-17	CATALOG # 900-K392	PRICE: \$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human IL-17A	CATALOG # 900-M84	PRICE: \$100.00
Murine IL-17A	CATALOG # 900-M392	PRICE: \$100.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

IL-17B *Interleukin-17B*

Synonyms: IL-20, NIRF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human IL-17B	200-28	<i>E.coli</i>	36.6 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human IL-17B	500-P248	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human IL-17B	500-P248bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

IL-17D *Interleukin-17D*

Synonyms: IL-27

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human IL-17D	200-27	<i>E.coli</i>	40.5 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human IL-17D	500-P88	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human IL-17D	500-P88bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

IL-17E *Interleukin-17E*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-17E	200-24	<i>E.coli</i>	33.8 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-17E	500-P89	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human IL-17E	500-P89bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-17E	CATALOG #	900-K234	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human IL-17E	CATALOG #	900-M234	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination			PRICE: \$450.00

IL-17F *Interleukin-17F*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-17F	200-25	<i>E.coli</i>	30.1 kDa	5µg	25µg	\$3,000
Murine IL-17F	210-17F	<i>E.coli</i>	30.0 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-17F	500-P90	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-17F	500-P90bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-17F	CATALOG #	900-K277	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination			PRICE: \$450.00

IL-18BP *Interleukin-18 Binding Protein*

Synonyms: none

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-murine IL-18BP	500-P153G	Goat	E, WB, NA	50µg	100µg	\$2,100
Biot. anti-murine IL-18BP	500-P153Gbt	Goat	E, WB, NA	25µg	50µg	\$4,000

Biot. = Biotinylated **Key:** I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

IL-19 *Interleukin-19*

Synonyms: Melanoma differentiation associated like protein

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-19	200-19	<i>E.coli</i>	17.9 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-19	500-P189	Rabbit	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human IL-19	500-P189bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated **Key:** I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

IL-20 *Interleukin-20*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-20	200-20	<i>E.coli</i>	35.2 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-20	500-P190G	Goat	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human IL-20	500-P190Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated **Key:** I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

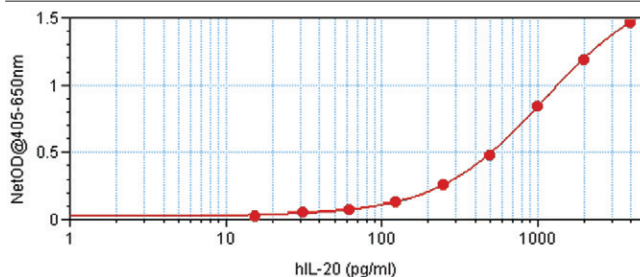
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-20	CATALOG # 900-K224	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
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ELISA Buffer Kit and EDK Combination	PRICE: \$450.00
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Standard curve using Human IL-20 ELISA development kit.

IL-21 *Interleukin-21*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-21	200-21	<i>E.coli</i>	15.4 kDa	2µg	10µg	\$5,200
Murine IL-21	210-21	<i>E.coli</i>	15.0 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IL-21	AF-200-21	<i>E.coli</i>	15.4 kDa	N/A	10µg	\$5,700

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-21	500-P191	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-21	500-P191bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine IL-21	500-P278	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine IL-21	500-P278bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-21	CATALOG # 900-K226	PRICE: \$320.00
Murine IL-21	CATALOG # 900-K368	PRICE: \$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Murine IL-21	CATALOG # 900-M368	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

IL-22 *Interleukin-22*

Synonyms: IL-TIF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-22	200-22	<i>E.coli</i>	33.6 kDa	2µg	10µg	\$5,200
Murine IL-22	210-22	<i>E.coli</i>	33.4 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-22	500-P211	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-22	500-P211bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine IL-22	500-P223	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine IL-22	500-P223bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-22	CATALOG # 900-K246	PRICE: \$320.00
Murine IL-22	CATALOG # 900-K257	PRICE: \$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Murine IL-22	CATALOG # 900-M257	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

IL-23 *Interleukin-23*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-23	200-23	<i>Insect cells</i>	53.5 kDa	2µg	10µg	\$9,800

Additional sizes available please inquire

IL-24 *Interleukin-24*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human IL-24	200-35	<i>CHO cells</i>	18.9 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

IL-31 *Interleukin-31*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human IL-31	200-31	<i>E.coli</i>	15.8 kDa	2µg	10µg	\$5,200
Murine IL-31	210-31	<i>E.coli</i>	15.9 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human IL-31	500-P249	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human IL-31	500-P249bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-31	CATALOG # 900-K347	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human IL-31	CATALOG # 900-M347	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
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ELISA Buffer Kit and EDK Combination		PRICE: \$450.00
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IL-33 Interleukin-33

Synonyms: NF-HEV

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-33	200-33	<i>E.coli</i>	17.9 kDa	2µg	10µg	\$5,200
Murine IL-33	210-33	<i>E.coli</i>	17.5 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human IL-33	AF-200-33	<i>E.coli</i>	17.9 kDa	N/A	10µg	\$5,700

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IL-33	500-P261	Rabbit	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human IL-33	500-P261bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IL-33	CATALOG #	900-K398	PRICE:	\$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human IL-33	CATALOG #	900-M398	PRICE:	\$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
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ELISA Buffer Kit and EDK Combination	PRICE:	\$450.00
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IL-34 Interleukin-34

Synonyms: C16orf77

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-34	200-34	HEK293 cells	52.5 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

IL-36β (IL-1F8) Interleukin-36β

Synonyms: IL-1H2, IL-1 eta

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-36β (IL-1F8)	200-36B	<i>E.coli</i>	17.3 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

IL-36 γ (IL-1F9) Interleukin-36 γ

Synonyms: IL-le (epsilon), IL-1H1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IL-36 γ (IL-1F9)	200-36G	<i>E.coli</i>	17.0 kDa	2 μ g	10 μ g	\$5,200

Additional sizes available please inquire

INSL5/INSL7 Hybrid

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human INSL5/INSL7 Hybrid	130-05	<i>E.coli</i>	5.7 kDa	5 μ g	25 μ g	\$3,000

Additional sizes available please inquire

IP-10/CXCL10 γ -Interferon inducible protein-10

Synonyms: CXCL10, crg-2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human IP-10	300-12	<i>E.coli</i>	8.5 kDa	5 μ g	25 μ g	\$3,000
Murine IP-10	250-16	<i>E.coli</i>	8.7 kDa	5 μ g	25 μ g	\$3,000
Rat IP-10	400-33	<i>E.coli</i>	8.6 kDa	5 μ g	25 μ g	\$3,000

Additional sizes available please inquire

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-Human IP-10	500-M60	Mouse	E, WB, NA	500 μ g	\$150

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human IP-10	500-P93	Rabbit	I, E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-human IP-10	500-P93bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine IP-10	500-P129	Rabbit	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine IP-10	500-P129bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-rat IP-10	500-P290	Rabbit	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-rat IP-10	500-P290bt	Rabbit	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human IP-10	CATALOG # 900-K39	PRICE: \$320.00
Murine IP-10	CATALOG # 900-K153	PRICE: \$320.00
Rat IP-10	CATALOG # 900-K449	PRICE: \$320.00

IP-10/CXCL10 continued on next page...

IP-10/CXCL10 *continued...*

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human IP-10	CATALOG # 900-M39	PRICE: \$100.00
Murine IP-10	CATALOG # 900-M153	PRICE: \$100.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

I-TAC/CXCL11 *Interferon inducible-T cell α chemokine*

Synonyms: CXCL11, B-R1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human I-TAC	300-46	<i>E.coli</i>	8.3 kDa	5 μ g	20 μ g	\$3,000
Murine I-TAC	250-29	<i>E.coli</i>	9.0 kDa	5 μ g	20 μ g	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human I-TAC	500-P132	<i>Rabbit</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human I-TAC	500-P132bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

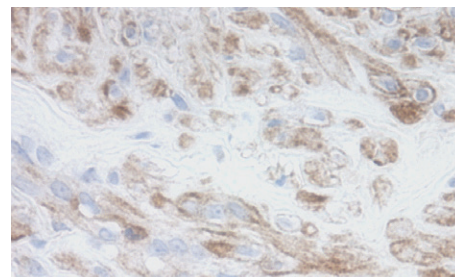
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human I-TAC	CATALOG # 900-K151	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Human renal tumor with parenchyma (FFPE) stained with rabbit anti-human I-TAC at 0.25 μ g/mL. Staining of vessel lining cells and tumor cells. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects. Photograph provided by Patsy Ruegg for PeproTech.



JE/MCP-1/CCL2 *(See MCP-1)*

Synonyms: CCL2, MCP-1

KC/CXCL1 *(See GRO α)*

Synonyms: CXCL1, GRO α

Yeast Kex-2

Synonyms: Endoproteinase Lys/Arg-Arg

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Yeast Kex-2	450-45	<i>Insect cells</i>	59.9 kDa	50µg	250µg	\$600

Additional sizes available please inquire

KGF/FGF-7 (See FGF-7)

Synonyms: FGF-7, HBGF-7

KLF4-TAT

Synonyms: Kruppel-like factor-4, EZF, GKLF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human KLF4-TAT	110-08	<i>HEK293 cells</i>	51.7 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Klotho

Synonyms: αKlotho, KLA

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Klotho	100-53	<i>CHO cells</i>	65.0-70.0 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

LAG-1/CCL4L1 *Lymphocyte activation gene-1*

Synonyms: CCL4L1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human LAG-1	300-58	<i>E.coli</i>	7.7 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

LD78β/CCL3L1

Synonyms: CCL3L1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human LD78β	300-56	<i>E.coli</i>	7.7 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human LD78β	500-P187G	<i>Goat</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human LD78β	500-P187Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

LEC/CCL16 *Liver-expressed chemokine*

Synonyms: CCL16, NCC-4, HCC-4, LMC, LCC-1, MTN-1, IL-10-inducible chemokine

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human LEC	300-44	<i>E.coli</i>	11.2 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human LEC	500-P125G	<i>Goat</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human LEC	500-P125Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human LEC	500-M43	<i>Mouse</i>	E, WB, N	500µg	\$150.00

Leptin

Synonyms: Obesity protein (OB)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	5mg
				\$80.00	\$195.00	
Human Leptin	300-27	<i>E.coli</i>	16.0 kDa	200µg	1000µg	\$500
Murine Leptin	450-31	<i>E.coli</i>	16.2 kDa	200µg	1000µg	\$500
Rat Leptin	400-21	<i>E.coli</i>	16.2 kDa	200µg	1000µg	\$500

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Leptin	500-P86	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Leptin	500-P86bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine Leptin	500-P68	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine Leptin	500-P68bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-rat Leptin	500-P185G	<i>Goat</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-rat Leptin	500-P185Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human Leptin	500-M27	<i>Mouse</i>	E, WB	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

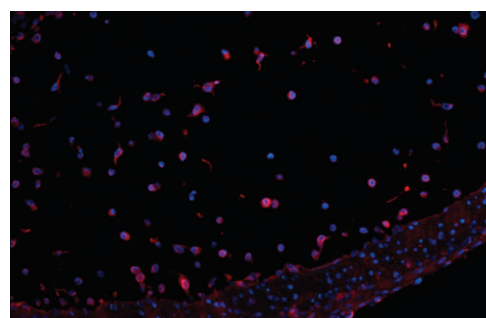
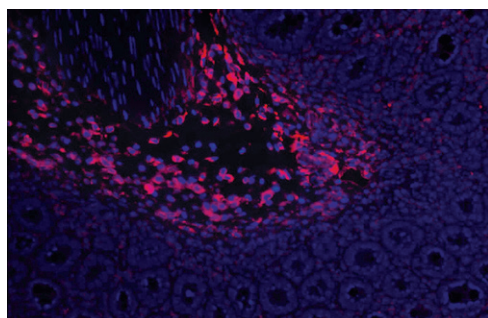
Human Leptin	CATALOG #	900-K90	PRICE:	\$320.00
Murine Leptin	CATALOG #	900-K76	PRICE:	\$320.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
ELISA Buffer Kit and EDK Combination			PRICE:	\$450.00

See next page for IHC images of anti-murine Leptin...

Leptin *continued...*



Murine tissue 4% PFA, paraffin-embedded sections of a *Trichuris muris* infected mouse stained with rabbit anti-murine Leptin at 0.20 µg/ml. Information and photographs are courtesy of Katherine Guild and David Artis, University of Pennsylvania.

LIF *Leukemia inhibitory factor*

Synonyms: Differentiation-stimulating factor, D factor, Melanoma-derived LPL inhibitor (MLPLI)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human LIF	300-05	<i>E.coli</i>	19.6 kDa	5µg	25µg	\$2,800
Murine LIF	250-02	<i>E.coli</i>	20.0 kDa	5µg	25µg	\$2,800

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human LIF	AF-300-05	<i>E.coli</i>	19.6 kDa	N/A	25µg	\$3,100

Additional sizes available please inquire

LIGHT

Synonyms: TNFSF14, HVEM-L

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human LIGHT	310-09B	<i>Insect cells</i>	21.4 kDa	3µg	15µg	N/A
Murine LIGHT	315-12	<i>E.coli</i>	20.1 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human LIGHT	500-P179	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human LIGHT	500-P179bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Lin28-TAT

Synonyms: CSDD1, LIN28A, ZCCHC1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Lin28-TAT	110-06	<i>E.coli</i>	24.4 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

LIX/CXCL6 *(See GCP-2)*

Synonyms: CXCL6, ENA-78 (human)

Lungkine

Synonyms: CXCL15

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Murine Lungkine	250-37	<i>E.coli</i>	16.3 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Lymphotactin/XCL1

Synonyms: XCL1, SCM-1a, ATAC

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Lymphotactin	300-20	<i>E.coli</i>	10.0 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human Lymphotactin	500-P40	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human Lymphotactin	500-P40bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

MANF *Mesencephalic astrocyte-derived neurotrophic factor*

Synonyms: ARMET, Arginine-rich protein (ARP)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human MANF	450-06	<i>E.coli</i>	18.1 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Maspin

Synonyms: SerpinB5, Protease inhibitor 5

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Maspin	130-12	<i>E.coli</i>	42.2 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

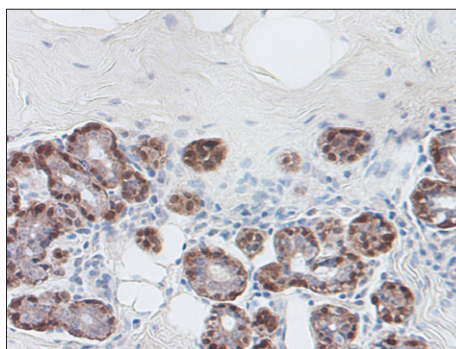
PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Maspin	500-P270	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Maspin	500-P270bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Anti-Human Maspin (Catalog #500-P270)

Human breast lobular carcinoma in situ (FFPE) stained with Rabbit Anti-Human Maspin at 7.8 ng/mL. Staining of myoepithelial cells. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects.



M-CSF Macrophage colony stimulating factor

Synonyms: CSF-1, MGI-IM

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human M-CSF	300-25	<i>E.coli</i>	36.8 kDa	2µg	10µg	\$5,200
Murine M-CSF	315-02	<i>E.coli</i>	36.4 kDa	2µg	10µg	\$5,200
Rat M-CSF	400-28	<i>E.coli</i>	36.2 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human M-CSF	AF-300-25	<i>E.coli</i>	36.8 kDa	N/A	10µg	\$5,700
Murine M-CSF	AF-315-02	<i>E.coli</i>	36.4 kDa	N/A	10µg	\$5,700

Additional sizes available please inquire

M-CSF continued on next page...

M-CSF *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human M-CSF	500-P44	Rabbit	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human M-CSF	500-P44bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-murine M-CSF	500-P62G	Goat	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine M-CSF	500-P62Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Murine M-CSF	CATALOG #	900-K245	PRICE:	\$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
ELISA Buffer Kit and EDK Combination			PRICE:	\$450.00

MCPs *Monocyte chemotactic proteins*

Synonyms: MCP-1: CCL2, JE (murine); MCP-2: CCL8, HC14; MCP-3: CCL7, MARC; MCP-4: CCL13, NCC-1; MCP-5: CCL12

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human MCP-1	300-04	<i>E.coli</i>	8.6 kDa	5µg	20µg	\$3,000
Murine JE/MCP-1	250-10	<i>E.coli</i>	13.8 kDa	2µg	10µg	\$3,000
Rat MCP-1	400-12	<i>E.coli</i>	14.0 kDa	2µg	10µg	\$3,000
Human MCP-2	300-15	<i>E.coli</i>	8.9 kDa	2µg	10µg	\$3,000
Murine MCP-2	250-14	<i>E.coli</i>	8.5 kDa	5µg	20µg	\$3,000
Human MCP-3	300-17	<i>E.coli</i>	9.0 kDa	2µg	10µg	\$3,000
Murine MCP-3	250-08	<i>E.coli</i>	8.5 kDa	2µg	10µg	\$3,000
Human MCP-4	300-24	<i>E.coli</i>	8.6 kDa	5µg	20µg	\$3,000
Murine MCP-5	250-04	<i>E.coli</i>	9.3 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human MCP-1	AF-300-04	<i>E.coli</i>	8.6 kDa	N/A	20µg	\$3,300

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human MCP-1	500-P34	Rabbit	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human MCP-1	500-P34bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-murine JE/MCP-1	500-P113	Rabbit	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine JE/MCP-1	500-P113bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400

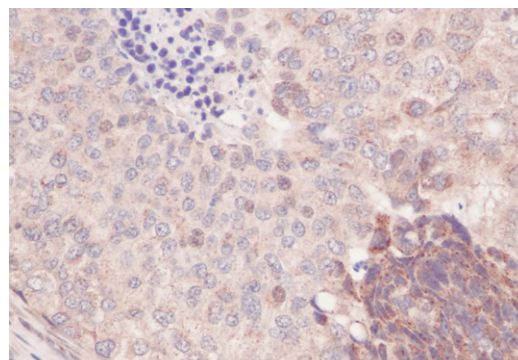
Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

MCP continued on next page...

MCP *continued...*

Human breast invasive ductal carcinoma (FFPE) stained with rabbit anti-human MCP-1 at 2.5 µg/ml. Tear shaped mammary duct with tumor cells and normal cells. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subjects. Photographs by PeproTech.



Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-rat MCP-1	500-P76	Rabbit	E, WB, N	50µg	100µg	\$1,700
Biot. anti-rat MCP-1	500-P76bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-human MCP-2	500-P35	Rabbit	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human MCP-2	500-P35bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-murine MCP-2	500-P127	Rabbit	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine MCP-2	500-P127bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-human MCP-3	500-P37	Rabbit	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human MCP-3	500-P37bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-human MCP-3	500-P37G	Goat	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human MCP-3	500-P37Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400
Anti-murine MCP-3	500-P116G	Goat	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine MCP-3	500-P116Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400
Anti-human MCP-4	500-P04	Rabbit	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human MCP-4	500-P04bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-human MCP-4	500-P04G	Goat	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human MCP-4	500-P04Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400
Anti-murine MCP-5	500-P61	Rabbit	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine MCP-5	500-P61bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human MCP-1	500-M71	Mouse	I, E, WB, NA	500µg	\$150.00
Anti-human MCP-2	500-M69	Mouse	E, WB, NA	500µg	\$150.00
Anti-human MCP-3	500-M73	Mouse	E, WB, N	500µg	\$150.00
Anti-human MCP-4	500-M70	Mouse	E, WB, N	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human MCP-1	CATALOG # 900-K31	PRICE: \$320.00
Murine JE/MCP-1	CATALOG # 900-K126	PRICE: \$320.00
Rat MCP-1	CATALOG # 900-K59	PRICE: \$320.00
Human MCP-2	CATALOG # 900-K41	PRICE: \$320.00
Murine MCP-3	CATALOG # 900-K123	PRICE: \$320.00

MCP continued on next page...

MCP *continued...*

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human MCP-1	CATALOG # 900-M31	PRICE: \$100.00
Murine JE/MCP-1	CATALOG # 900-M126	PRICE: \$100.00
Human MCP-2	CATALOG # 900-M41	PRICE: \$100.00

ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

MDC/CCL22 *Macrophage-derived chemokine*

Synonyms: CCL22, STCP-1, ABCD-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human MDC (67 a.a.)	300-36	<i>E.coli</i>	8.0 kDa	5µg	20µg	\$3,000
Human MDC (69 a.a.)	300-36A	<i>E.coli</i>	8.1 kDa	5µg	20µg	\$3,000
Murine MDC	250-23	<i>E.coli</i>	7.8 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human MDC	500-P107	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human MDC	500-P107bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine MDC	500-P176	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine MDC	500-P176bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human MDC	500-M41	<i>Mouse</i>	E, WB	500µg	\$150.00

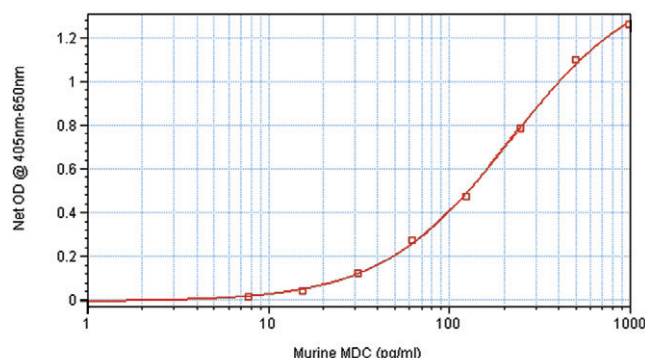
ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Murine MDC	CATALOG # 900-K197	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00



Standard curve using Murine MDC ELISA development kit.

MEC/CCL28 *Mucosae-associated epithelial chemokine*

Synonyms: CCL28, CCK-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human MEC	300-57	<i>E.coli</i>	12.3 kDa	5µg	20µg	\$3,000
Murine MEC	250-30	<i>E.coli</i>	12.6 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human MEC	500-P297	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human MEC	500-P297bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

MIA *Melanoma inhibitory activity*

Synonyms: CD-RAP

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human MIA	130-01	<i>E.coli</i>	12.2 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

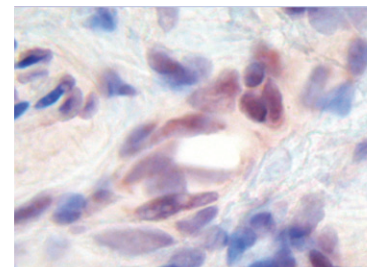
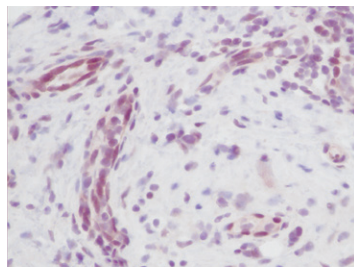
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human MIA	500-P243	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human MIA	500-P243bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Human pancreas adenocarcinoma (FFPE) stained with rabbit anti-human MIA at 1.0 µg/ml. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subjects. Photographs provided by PeproTech and Patsy Ruegg.



MIA-2 *Melanoma inhibitory activity-2*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human MIA-2	130-02	<i>E.coli</i>	11.5 kDa	\$80.00 5µg	\$195.00 20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human MIA-2	500-P255	<i>Rabbit</i>	I, E, WB, NA	\$195.00 50µg	\$250.00 100µg	\$1,700
Biot. anti-human MIA-2	500-P255bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

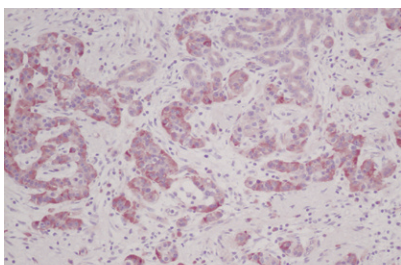
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human MIA-2	CATALOG # 900-K357	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
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ELISA Buffer Kit and EDK Combination		PRICE: \$450.00
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Human pancreas infiltrating ductal adenocarcinoma tissue (FFPE) stained with rabbit anti-human MIA-2 at 5.0 µg/ml. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subjects. Photograph by PeproTech.

Midkine

Synonyms: MK, NEGF-2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Midkine	450-16	<i>E.coli</i>	13.4 kDa	5µg	20µg	\$3,000
Murine Midkine	315-25	<i>E.coli</i>	13.4 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Midkine	500-P171	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Midkine	500-P171bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human Midkine	CATALOG # 900-K190	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

MIF *Macrophage migration inhibitory factor*

Synonyms: GLIF, MMIF, GIF, Glycosylation-inhibiting factor

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human MIF	300-69	<i>Insect cells</i>	15.0 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

MIG/CXCL9 *Monokine induced by interferon- γ*

Synonyms: CXCL9

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human MIG	300-26	<i>E.coli</i>	11.7 kDa	5 μ g	20 μ g	\$3,000
Murine MIG	250-18	<i>E.coli</i>	12.2 kDa	5 μ g	20 μ g	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human MIG	500-P50	<i>Rabbit</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human MIG	500-P50bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human MIG	500-M42	<i>Mouse</i>	E, WB, N	500 μ g	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human MIG	CATALOG # 900-K87	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human MIG	CATALOG # 900-M87	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

MIP-1 α and β *Macrophage inflammatory proteins alpha and beta*

Synonyms: MIP-1 α : CCL3, LD78 α

MIP-1 β : CCL4, ACT-2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human MIP-1 α	300-08	<i>E.coli</i>	7.8 kDa	5 μ g	20 μ g	\$3,000
Murine MIP-1 α	250-09	<i>E.coli</i>	7.8 kDa	2 μ g	10 μ g	\$3,000
Rat MIP-1 α	400-15	<i>E.coli</i>	7.8 kDa	5 μ g	20 μ g	\$3,000
Human MIP-1 β	300-09	<i>E.coli</i>	7.6 kDa	2 μ g	10 μ g	\$3,000
Murine MIP-1 β	250-32	<i>E.coli</i>	7.8 kDa	2 μ g	10 μ g	\$3,000
Rat MIP-1 β	400-09	<i>E.coli</i>	7.8 kDa	5 μ g	20 μ g	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human MIP-1 α	500-P38	<i>Rabbit</i>	E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-human MIP-1 α	500-P38bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-human MIP-1 α	500-P38G	<i>Goat</i>	E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-human MIP-1 α	500-P38Gbt	<i>Goat</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine MIP-1 α	500-P121	<i>Rabbit</i>	E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-murine MIP-1 α	500-P121bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-rat MIP-1 α	500-P77	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-rat MIP-1 α	500-P77bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-human MIP-1 β	500-P38B	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human MIP-1 β	500-P38Bbt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine MIP-1 β	500-P213	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine MIP-1 β	500-P213bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human MIP-1 α	500-M74	<i>Mouse</i>	E, WB, N	500 μ g	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human MIP-1 α	CATALOG #	900-K35	PRICE:	\$320.00
Murine MIP-1 α	CATALOG #	900-K125	PRICE:	\$320.00
Rat MIP-1 α	CATALOG #	900-K75	PRICE:	\$320.00
Murine MIP-1 β	CATALOG #	900-K278	PRICE:	\$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human MIP-1 α	CATALOG #	900-M35	PRICE:	\$100.00
Murine MIP-1 α	CATALOG #	900-M125	PRICE:	\$100.00
Murine MIP-1 β	CATALOG #	900-M278	PRICE:	\$100.00

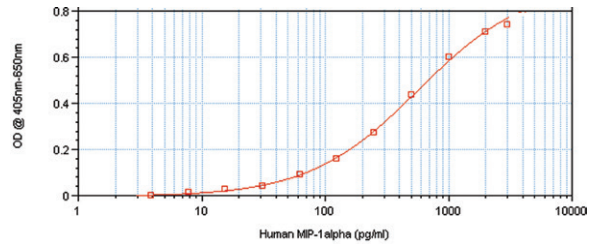
See next page for standard curve for Human MIP-1 alpha ELISA development kit...

MIP-1 α and β *continued...*

ELISA Buffer Kit.

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Standard curve using the Human MIP-1 α ELISA development kit.



MIP-1 γ /CCL9/10 *Macrophage inflammatory protein gamma*

Synonyms: CCL9/10, MRP-2, CCF18

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	
Murine MIP-1 γ	250-12	<i>E.coli</i>	11.6 kDa	\$80.00	\$195.00	1mg
				5 μ g	20 μ g	\$3,000

Additional sizes available please inquire

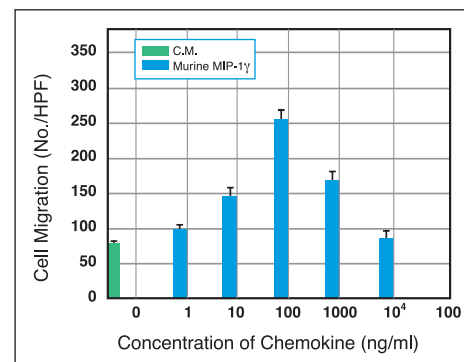
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	
Anti-murine MIP-1 γ	500-P117	<i>Rabbit</i>	E, WB, NA	\$195.00	\$250.00	1mg
Biot. anti-murine MIP-1 γ	500-P117bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Murine MIP-1 γ induces chemotaxis of purified human monocytes.



MIP-2/CXCL2 (See GRO β)

Synonyms: CXCL2, GRO β

vMIP-2 *viral Macrophage inflammatory protein-2*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
vMIP-2	350-03	<i>E.coli</i>	7.9 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

MIP-3/CCL23 *Macrophage inflammatory protein-3*

Synonyms: CCL23, MPIF-1, Ck-β8

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human MIP-3	300-29	<i>E.coli</i>	11.3 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human MIP-3	500-P124	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human MIP-3	500-P124bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

MIP-3α/CCL20 *Macrophage inflammatory protein-3 alpha*

Synonyms: CCL20, LARC, Exodus-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human MIP-3α	300-29A	<i>E.coli</i>	8.0 kDa	5µg	20µg	\$3,000
Murine MIP-3α	250-27	<i>E.coli</i>	7.9 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

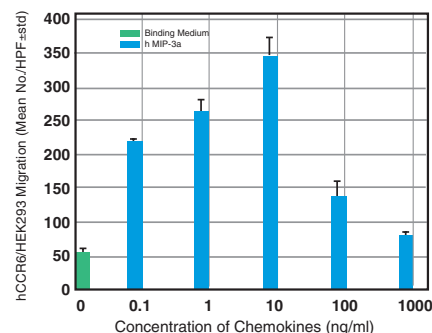
PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human MIP-3α	500-P95A	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human MIP-3α	500-P95Abt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human MIP-3α	500-M28	<i>Mouse</i>	E, WB	500µg	\$150.00



Human MIP-3α induces chemotaxis of HEK293 cells transfected with human CCR6.

MIP-3 β /CCL19 *Macrophage inflammatory protein-3 beta*

Synonyms: CCL19, ELC, Exodus-3

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human MIP-3 β	300-29B	<i>E.coli</i>	8.8 kDa	5 μ g	20 μ g	\$3,000
Murine MIP-3 β	250-27B	<i>E.coli</i>	9.2 kDa	5 μ g	20 μ g	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human MIP-3 β	500-P95B	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$2,100
Biot. anti-human MIP-3 β	500-P95Bbt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$4,000

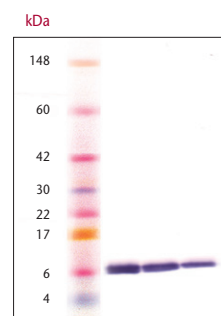
Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human MIP-3 β	500-M29	<i>Mouse</i>	I, E, WB, NA	500 μ g	\$150.00

Representative Western Transfer (blot) analysis of human MIP-3 β using anti-human MIP-3 β at 0.20 μ g/ml.



MIP-4/CCL18 *Macrophage inflammatory protein-4*

Synonyms: CCL18, PARC, DC-CK1, AMAC-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human MIP-4	300-34	<i>E.coli</i>	7.8 kDa	2 μ g	10 μ g	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human MIP-4	500-P108	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$2,100
Biot. anti-human MIP-4	500-P108bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$4,000

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

MIP-5/CCL15 *Macrophage inflammatory protein-5*

Synonyms: CCL15, HCC-2, Lkn-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human MIP-5	300-43	<i>E.coli</i>	10.1 kDa	\$80.00	\$195.00	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human MIP-5	500-P123G	Goat	I, E, WB, N	\$195.00	\$250.00	\$1,700
Biot. anti-human MIP-5	500-P123Gbt	Goat	E, WB, NA	\$195.00	\$250.00	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

MMP-1 *Matrix metalloproteinase-1*

Synonyms: Fibroblast collagenase, Interstitial collagenase

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human MMP-1	420-01	<i>E.coli</i>	42.7 kDa	\$80.00	\$195.00	\$5,200

Additional sizes available please inquire

MMP-2 *Matrix metalloproteinase-2*

Synonyms: Gelatinase A, TBE-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human MMP-2	420-02	<i>E.coli</i>	62.1 kDa	\$80.00	\$195.00	\$5,200

Additional sizes available please inquire

MMP-3 *Matrix metalloproteinase-3*

Synonyms: Stromelysin-1, SL-1, Transin-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human MMP-3	420-03	<i>E.coli</i>	42.8 kDa	\$80.00	\$195.00	\$5,200

Additional sizes available please inquire

Mycoplasma Arginine Deiminase

Synonyms: ADI

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Mycoplasma Arginine Deiminase	150-12	<i>E.coli</i>	46.4 kDa	\$80.00	\$195.00	\$3,000

Additional sizes available please inquire

M

Myostatin

Synonyms: GDF-8

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human/Murine/Rat Myostatin	120-00	<i>E.coli</i>	25.0 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Myostatin Propeptide

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Myostatin Propeptide	120-12	<i>E.coli</i>	27.8 kDa	5µg	25µg	\$5,200

Additional sizes available please inquire

Nanog

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.000	
Human Nanog	120-21	<i>E.coli</i>	34.7 kDa	5µg	20µg	\$3,900
Human Nanog-TAT	120-21B	<i>E.coli</i>	36.2 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

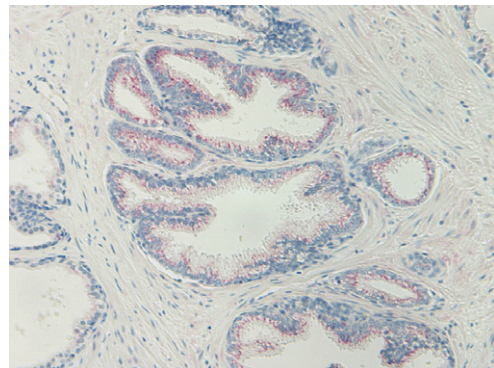
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Nanog	500-P236	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Nanog	500-P236bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Human prostate malignant adenocarcinoma (FFPE) stained with Rabbit Anti-Human Nanog at 0.5 µg/mL. Staining of tumor cells. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects.



NAP-2/CXCL7 *Neutrophil activating protein-2*

Synonyms: CXCL7, PBP (parent molecule), CTAP-III (precursor)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human NAP-2	300-14	<i>E.coli</i>	7.6 kDa	2µg	10µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human NAP-2	500-P03	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human NAP-2	500-P03bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-human NAP-2	500-P03G	<i>Goat</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human NAP-2	500-P03Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human NAP-2	500-M33	<i>Mouse</i>	E, WB, NA	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human NAP-2	CATALOG # 900-K40	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Nesfatin

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Nesfatin-1	300-67	<i>E.coli</i>	9.7 kDa	20µg	100µg	\$1,100

Additional sizes available please inquire

Neuritin

Synonyms: CPG15, NRN1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Neuritin	450-36D	<i>E.coli</i>	19.4 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Neuropoietin

Synonyms: NPO, NP

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Murine Neuropoietin	250-25B	<i>E.coli</i>	19.8 kDa	5µg	25µg	\$3,900

Additional sizes available please inquire

Neuroserpin

Synonyms: Serpin I1, Protease inhibitor 12

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Neuroserpin	130-14	<i>E.coli</i>	44.6 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human Neuroserpin	500-P271	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Neuroserpin	500-P271bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human Neuroserpin	CATALOG # 900-K412	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human Neuroserpin	CATALOG # 900-M412	PRICE: \$100.00
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Neurturin

Synonyms: NTN, NRTN

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Neurturin	450-11	<i>E.coli</i>	23.6 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human Neurturin	500-P102	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Neurturin	500-P102bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

β -NGF *beta-Nerve growth factor*

Synonyms: NGF-beta

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human β -NGF	450-01	<i>E.coli</i>	27.0 kDa	20 μ g	100 μ g	\$1,100
Murine β -NGF	450-34	<i>E.coli</i>	27.0 kDa	5 μ g	20 μ g	\$3,000

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human β -NGF	AF-450-01	<i>E.coli</i>	27.0 kDa	N/A	100 μ g	\$1,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human β -NGF	500-P85	<i>Rabbit</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human β -NGF	500-P85bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human β -NGF	500-M85	<i>Mouse</i>	E, WB, N	500 μ g	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human β -NGF	CATALOG # 900-K60	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human β -NGF	CATALOG # 900-M60	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

NNT-1/BCSF-3 *Novel neurotrophin-1/B-cell stimulating factor-3*

Synonyms: Cardiotrophin-like cytokine

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human NNT-1/BCSF-3	450-18	<i>E.coli</i>	22.4 kDa	2 μ g	10 μ g	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human NNT-1/BCSF-3	500-P186	<i>Rabbit</i>	E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-human NNT-1/BCSF-3	500-P186bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

NOGGIN

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human NOGGIN	120-10C	HEK293 cells	28.0-33.0 kDa	5µg	20µg	\$3,900
Murine NOGGIN	250-38	E.coli	46.4 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

NOV *Nephroblastoma overexpressed gene*

Synonyms: CCN3

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human NOV	120-26	E.coli	36.2 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human NOV	500-P257	Rabbit	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human NOV	500-P257bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human NOV	CATALOG #	900-K338	PRICE:	\$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
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ELISA Buffer Kit and EDK Combination	PRICE:	\$450.00
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NP-1 *Neutrophil Peptide-1*

Synonyms: alpha-defensin-1, HNP-1, Cryptdin

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human NP-1	300-42	E.coli	3.4 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human NP-1	500-P126G	Goat	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human NP-1	500-P126Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

NT-3 *Neurotrophin-3*

Synonyms: Neurotrophic Factor, Nerve growth factor-2 (NGF-2), HGNF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human NT-3	450-03	<i>E.coli</i>	27.2 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human NT-3	AF-450-03	<i>E.coli</i>	27.2 kDa	N/A	10µg	\$5,700

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human NT-3	500-P82G	<i>Goat</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human NT-3	500-P82Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

NT-4 *Neurotrophin-4*

Synonyms: Neurotrophic 4/5 (NT-4/NT-5)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human NT-4	450-04	<i>E.coli</i>	28.1 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human NT-4	AF-450-04	<i>E.coli</i>	28.1 kDa	N/A	10µg	\$5,700

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human NT-4	500-P83G	<i>Goat</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human NT-4	500-P83Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human NT-4	500-M24	<i>Mouse</i>	E, NA	500µg	\$150.00

N

Oncostatin M

Synonyms: OSM

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Oncostatin M (227 a.a.)	300-10	<i>E.coli</i>	26.0 kDa	2µg	10µg	\$5,200
Human Oncostatin M (209 a.a.)	300-10T	<i>E.coli</i>	23.9 kDa	2µg	10µg	\$5,200
Rat Oncostatin M	400-36	<i>E.coli</i>	24.4 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Oncostatin M	500-P30	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human Oncostatin M	500-P30bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Osteopontin

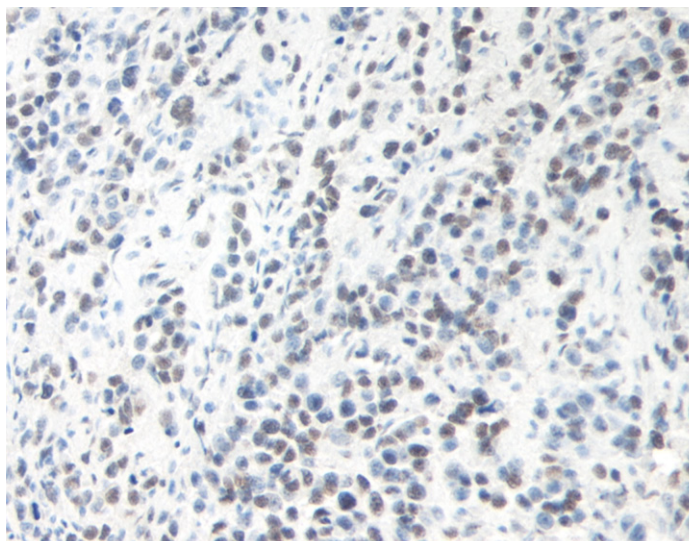
Synonyms: Bone sialoprotein 1, Secreted phosphoprotein 1, SPP-1, Nephropontin, Uropontin

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Osteopontin	120-35	<i>HEK293 cells</i>	60.0-65.0 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

Human breast malignant ductal adenocarcinoma (FFPE) stained with Rabbit Anti-Human Oncostatin M at 0.5µg/ml. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects. Photograph provided by Patsy Ruegg for PeproTech.



Osteoprotegerin

Synonyms: TNFRSF11B, OPG, OCIF (Osteoclastogenesis inhibitory factor), TR1 (TNF receptor like protein-1)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Osteoprotegerin (OPG)	450-14	<i>E.coli</i>	20.0 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

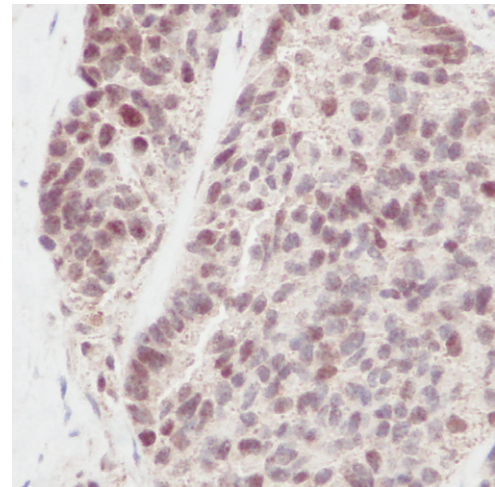
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human OPG	500-P149	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human OPG	500-P149bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Human breast invasive ductal carcinoma (FFPE) stained with rabbit anti-human OPG at 5.0 µg/ml. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subjects.



OTOR

Synonyms: Otoraplin, MIAL

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human OTOR	130-03	<i>E.coli</i>	12.7 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

sOX40 Ligand

Synonyms: sOX40L, Glycoprotein Gp34, CD252 antigen, TXGP1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human sOX40L	310-28	<i>Insect cells</i>	15.5-25.0 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

p16-INK4a

Synonyms: Cyclin-dependent kinase inhibitor 2A, Cyclin-dependent kinase 4 inhibitor A, CDK4I, p16INK4A, Multiple tumor suppressor 1, MTS-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human p16-INK4a	110-02	<i>E.coli</i>	16.5 kDa	5µg	20µg	\$3,900
Human p16-INK4a-TAT	110-02T	<i>E.coli</i>	18.0 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

PAF-AH

Synonyms: PAF acetylhydrolase, PAF 2-acylhydrolase, LDL-associated phospholipase A2, LDL-PLA (2), 2-acetyl-alkylglycerophosphocholine esterase, 1-alkyl-2-acetyl-glycerophosphocholine esterase

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human PAF-AH	140-10	HEK293 cells	47.0-55.0 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

PAI-1 Plasminogen Activator Inhibitor-1

Synonyms: Serpin E1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human PAI-1	140-04	<i>E.coli</i>	42.7 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human PAI-1	500-P260	Rabbit	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human PAI-1	500-P260bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human PAI-1	CATALOG # 900-K383	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
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ELISA Buffer Kit and EDK Combination		PRICE: \$450.00
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PAI-2 Plasminogen Activator Inhibitor-2

Synonyms: Serpin B2, Urokinase inhibitor, Monocyte Arg-serpin

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human PAI-2	140-06	<i>E.coli</i>	46.5 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

PDGF AA, AB, BB, CC *Platelet-derived growth factor*

Synonyms: Glioma-derived growth factor (GDGF), Osteosarcoma-derived growth factor (ODGF)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human PDGF-AA	100-13A	<i>E.coli</i>	28.5 kDa	2µg	10µg	\$3,900
Murine PDGF-AA	315-17	<i>E.coli</i>	28.7 kDa	2µg	10µg	\$3,900
Human PDGF-AB	100-00AB	<i>E.coli</i>	25.5 kDa	2µg	10µg	\$3,900
Human PDGF-BB	100-14B	<i>E.coli</i>	24.3 kDa	2µg	10µg	\$3,900
Murine PDGF-BB	315-18	<i>E.coli</i>	24.4 kDa	2µg	10µg	\$3,900
Human PDGF-CC	100-00CC	<i>E.coli</i>	25.0 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human PDGF-AA	AF-100-13A	<i>E.coli</i>	28.5 kDa	N/A	10µg	\$4,300
Human PDGF-BB	AF-100-14B	<i>E.coli</i>	24.3 kDa	N/A	10µg	\$4,300

Additional sizes available please inquire

P Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human PDGF-AA	500-P46	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human PDGF-AA	500-P46bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-human PDGF-BB	500-P47	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human PDGF-BB	500-P47bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

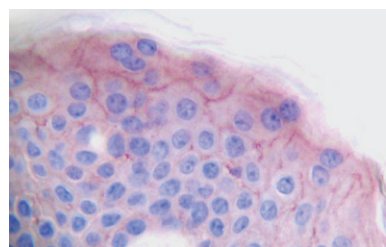
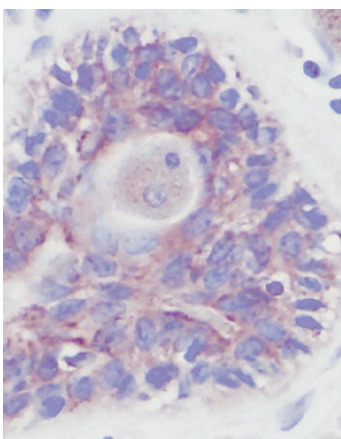
ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

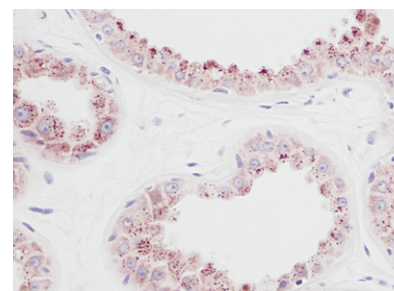
Human PDGF-BB	CATALOG # 900-K04	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00



Normal human skin (FFPE) stained with rabbit anti-human PDGF-AA at 1.0 µg/ml.
Photographs provided by Patsy Ruegg for PeproTech.



Normal human skin (FFPE) stained with rabbit anti-human PDGF-BB at 1.0 µg/ml.
Granular staining of the sweat gland epithelial cells in the dermis.
Photograph by PeproTech.

PECAM-1

Synonyms: Platelet endothelial cell adhesion molecule, CD31 antigen, EndoCam

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human PECAM-1	150-06	HEK293 cells	80.0-95.0 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

PEDF *Pigment Epithelium-Derived Factor*

Synonyms: Serpin F1, EPC-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human PEDF	130-13	<i>E.coli</i>	44.5 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

Persephin

Synonyms: PSP, PSPN

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Persephin	450-12	<i>E.coli</i>	20.6 kDa	5µg	20µg	\$3,000
Murine Persephin	450-35	<i>E.coli</i>	20.6 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Persephin	500-P138	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Persephin	500-P138bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

PF-4/CXCL4 *Platelet factor-4*

Synonyms: CXCL4, Oncostatin A, Iroplact

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human PF-4	300-16	<i>E.coli</i>	7.8 kDa	5µg	20µg	\$3,000
Murine PF-4	250-39	<i>E.coli</i>	8.2 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human PF-4	500-P05	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human PF-4	500-P05bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Pleiotrophin

Synonyms: PTN, Heparin Affin Regulatory Protein (HARP), Heparin-binding growth factor-8 (HBGF-8), Osteoblast-Specific Factor (OSF-1)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Pleiotrophin	450-15	<i>E.coli</i>	15.4 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

PlGF-1 *Placenta growth factor-1*

Synonyms: PGF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human PlGF-1	100-06	<i>E.coli</i>	29.7 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human PlGF-1	AF-100-06	<i>E.coli</i>	29.7 kDa	N/A	25µg	\$3,300

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human PlGF-1	500-P226	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human PlGF-1	500-P226bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

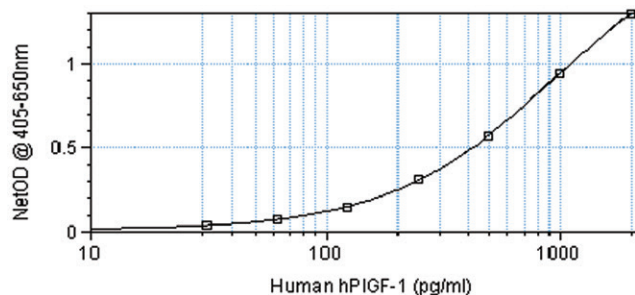
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human PlGF-1	CATALOG # 900-K307	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Standard curve using Human PlGF-1 ELISA development kit.



PIGF-2 *Placenta growth factor-2*

Synonyms: PGFL

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human PIGF-2	100-56	<i>E.coli</i>	34.0 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

PIGF-3 *Placenta growth factor-3*

Synonyms: PGFL

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human PIGF-3	100-57	<i>E.coli</i>	45.7 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Prokineticin-2

Synonyms: PROK2, PK2, Protein Bv8 homolog

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Prokineticin-2	100-46	<i>E.coli</i>	8.8 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Prolactin

Synonyms: Mamotropin, luterotropic hormone, lutetropin

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Prolactin	100-07	<i>E.coli</i>	23.0 kDa	10µg	50µg	\$1,500
Murine Prolactin	315-16	<i>E.coli</i>	22.5 kDa	10µg	50µg	\$1,500
Rat Prolactin	400-27	<i>E.coli</i>	22.6 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

PTHrP *Parathyroid hormone-related protein*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human PTHrP	100-09	<i>E.coli</i>	9.8 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human PTHrP	500-P276	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human PTHrP	500-P276bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

sRANKL *soluble Receptor activator of NFkB ligand*

Synonyms: TNFSF11, TRANCE (TNF-related activation-induced cytokine), OPGL (Osteoprotegerin ligand), ODF (Osteoclast differentiation factor)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sRANKL	310-01	<i>E.coli</i>	20.0 kDa	2µg	10µg	\$5,200
Murine sRANKL	315-11	<i>E.coli</i>	19.4 kDa	2µg	10µg	\$5,200
Rat sRANKL	400-30	<i>E.coli</i>	19.4 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human sRANKL	500-P133	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human sRANKL	500-P133bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-human sRANKL	500-P133G	<i>Goat</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human sRANKL	500-P133Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine sRANKL	500-P63	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine sRANKL	500-P63bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human sRANKL	500-M46	<i>Mouse</i>	E, NA	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human sRANKL	CATALOG # 900-K142	PRICE: \$320.00
Murine sRANKL	CATALOG # 900-K233	PRICE: \$320.00

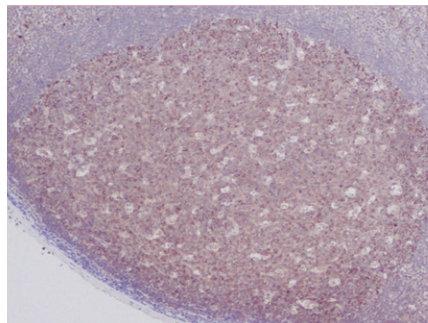
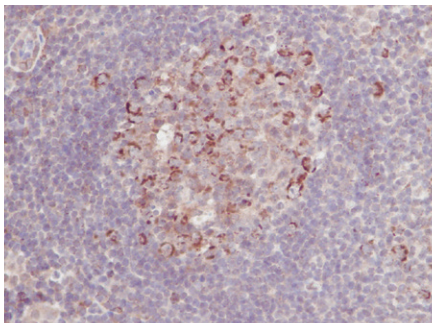
Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human sRANKL	CATALOG # 900-M142	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00



Human metastatic carcinoma of lymph node (FFPE) from breast tissue stained with rabbit anti-human sRANKL at 0.25 µg/ml. Staining of membranous cells located in the germinal center. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subjects.

sRANK Receptor *soluble RANK Receptor*

Synonyms: TNFRSF11A, TRANCE Receptor (TNF-related activation-induced cytokine receptor), ODAR (Osteoclast differentiation and activation receptor), ODFR (Osteoclast differentiation factor receptor)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sRANK Receptor	310-08	<i>E.coli</i>	19.3 kDa	20µg	100µg	\$1,100

Additional sizes available please inquire

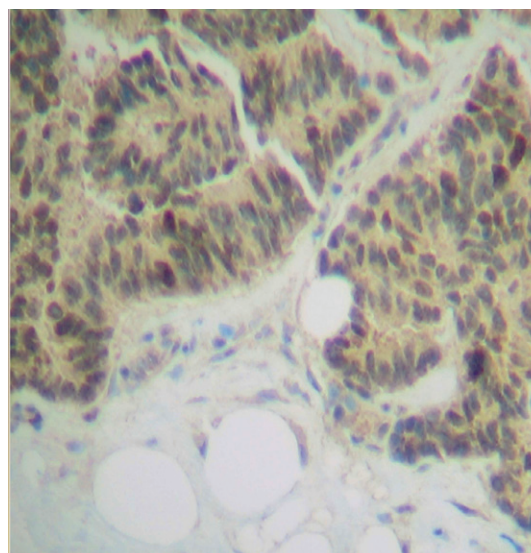
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human sRANK Receptor	500-P144	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human sRANK Receptor	500-P144bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Human breast invasive ductal carcinoma (FFPE) stained with rabbit anti-human sRANK receptor at 1.0 µg/ml. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subjects.



RANTES *Regulated upon activation normal T cell expressed sequence*

Synonyms: CCL5, SIS-delta

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human RANTES	300-06	<i>E.coli</i>	7.8 kDa	5µg	20µg	\$3,000
Murine RANTES	250-07	<i>E.coli</i>	7.8 kDa	5µg	20µg	\$3,000
Rat RANTES	400-13	<i>E.coli</i>	7.9 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Continued on next page ...

RANTES *continued...*

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size B		
				Size A	\$215.00	1mg
Human RANTES	AF-300-06	<i>E.coli</i>	7.8 kDa	N/A	20µg	\$3,300

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A Size B		
				\$195.00	\$250.00	1mg
Anti-human RANTES	500-P36	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human RANTES	500-P36bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine RANTES	500-P118	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine RANTES	500-P118bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-rat RANTES	500-P78	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-rat RANTES	500-P78bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human RANTES	500-M75	<i>Mouse</i>	I, E, WB, N	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human RANTES	CATALOG # 900-K33	PRICE: \$320.00
Murine RANTES	CATALOG # 900-K124	PRICE: \$320.00
Rat RANTES	CATALOG # 900-K72	PRICE: \$320.00

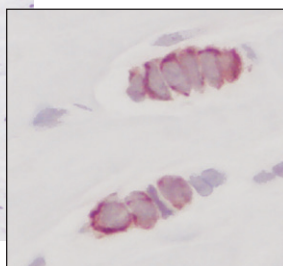
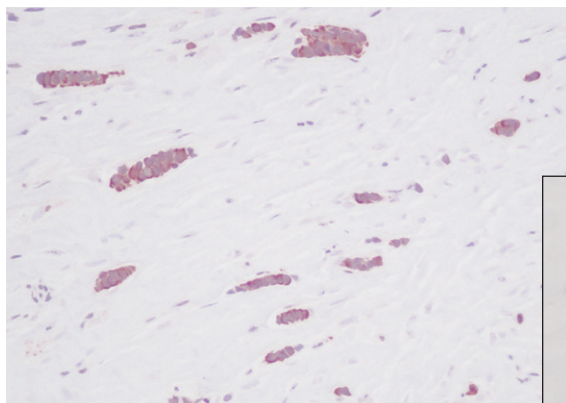
Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human RANTES	CATALOG # 900-M33	PRICE: \$100.00
Murine RANTES	CATALOG # 900-M124	PRICE: \$100.00
Rat RANTES	CATALOG # 900-M72	PRICE: \$100.00

ELISA Buffer Kit.

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00



Human breast invasive ductal carcinoma (FFPE) stained with rabbit anti-human RANTES at 2.0 µg/ml. Membrane staining on infiltrating tumor cells.

Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subjects.

Relaxin-2

Synonyms: H2 relaxin, RLN2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Relaxin-2	130-15	<i>E.coli</i>	6.0 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Relaxin-3

Synonyms: H3 relaxin, Insulin-like peptide-7, INSL7

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Relaxin-3	130-10	<i>E.coli</i>	5.5 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

RELM α Resistin-like alpha

Synonyms: Cysteine-rich secreted protein FIZZ1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Murine RELM α	450-26	<i>E.coli</i>	10.0 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

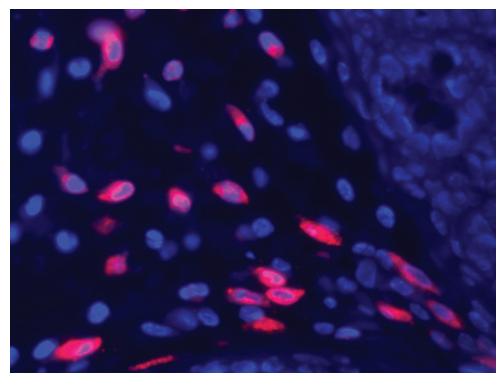
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-murine RELM α	500-P214	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine RELM α	500-P214bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

*Murine cecum tissue (4% PFA, paraffin-embedded sections with positive cells infiltrating the Lamina Propria of a *Trichuris muris* infected mouse) stained with rabbit anti-murine RELM α at 4.0 ng/ml. Information and photograph are courtesy of Katherine Guild and David Artis, University of Pennsylvania.*



RELM β *Resistin-like beta*

Synonyms: Cysteine-rich secreted protein FIZZ2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human RELM β	450-22	<i>E.coli</i>	19.0 kDa	5 μ g	25 μ g	\$3,000
Murine RELM β	450-26B	<i>E.coli</i>	18.0 kDa	5 μ g	25 μ g	\$3,000

Additional sizes available please inquire

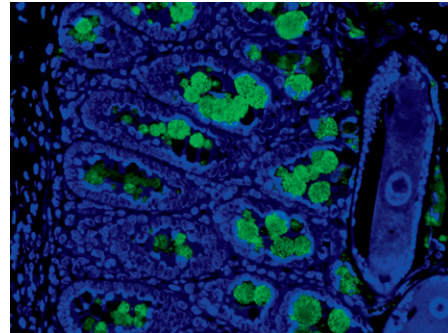
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human RELM β	500-P217	<i>Rabbit</i>	I, E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-human RELM β	500-P217bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine RELM β	500-P215	<i>Rabbit</i>	I, E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-murine RELM β	500-P215bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Murine cecum tissue (4% PFA, paraffin-embedded sections with positive goblet cells of a Trichuris muris infected mouse) stained with rabbit anti-murine RELM β at 0.33 ng/ml. Information and photograph are courtesy of Katherine Guild and David Artis, University of Pennsylvania.



R

RELM γ *Resistin-like gamma*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Murine RELM γ	450-26G	<i>E.coli</i>	9.2 kDa	5 μ g	25 μ g	\$3,000

Additional sizes available please inquire

Resistin

Synonyms: FIZZ3, Adipose tissue-specific secretory factor, ADSF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Resistin	450-19	<i>E.coli</i>	19.5 kDa	5µg	25µg	\$5,200
Murine Resistin	450-28	<i>E.coli</i>	20.2 kDa	5µg	25µg	\$5,200
Rat Resistin	400-35	<i>E.coli</i>	20.0 kDa	5µg	25µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human Resistin	500-P183G	Goat	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Resistin	500-P183Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400
Anti-murine Resistin	500-P182G	Goat	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine Resistin	500-P182Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human Resistin	500-M91	Mouse	I, E, WB, NA	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human Resistin	CATALOG #	900-K235	PRICE:	\$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

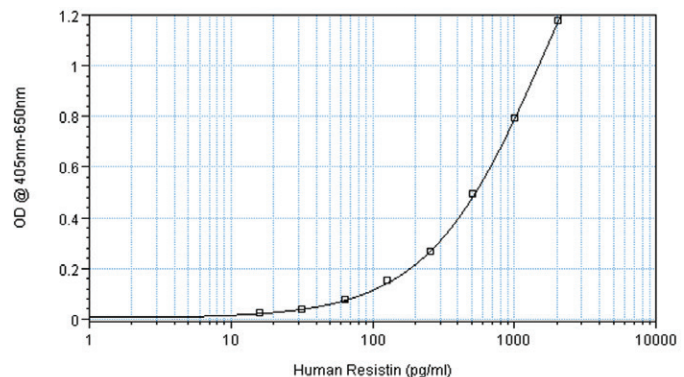
Human Resistin	CATALOG #	900-M235	PRICE:	\$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
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ELISA Buffer Kit and EDK Combination	PRICE:	\$450.00
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*Standard curve using human Resistin
ELISA development kit.*



R-Spondin-1

Synonyms: Roof plate-specific spondin, Rspo 1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human R-Spondin-1	120-38	CHO cells	40.0 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

SCF *Stem cell factor*

Synonyms: c-Kit Ligand, Mast cell growth factor (MGF), Steel factor (SF)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human SCF	300-07	E.coli	18.4 kDa	2µg	10µg	\$3,000
Murine SCF	250-03	E.coli	18.3 kDa	2µg	10µg	\$3,000
Rat SCF	400-22	E.coli	18.4 kDa	2µg	10µg	\$3,000

* See page 8 for available Cytokine Packages.

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human SCF	AF-300-07	E.coli	18.4 kDa	N/A	10µg	\$3,300
Murine SCF	AF-250-03	E.coli	18.3 kDa	N/A	10µg	\$3,300

* See page 8 for available Cytokine Packages.

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human SCF	500-P48	Rabbit	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human SCF	500-P48bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-human SCF	500-P48G	Goat	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human SCF	500-P48Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400
Anti-murine SCF	500-P71	Rabbit	E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine SCF	500-P71bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400
Anti-rat SCF	500-P202	Rabbit	E, WB, N	50µg	100µg	\$1,700
Biot. anti-rat SCF	500-P202bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human SCF	500-M44	Mouse	I, E, WB, NA	500µg	\$150.00

Continued on next page ...

SCF *continued...*

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human SCF	CATALOG # 900-K34	PRICE: \$320.00
Murine SCF	CATALOG # 900-K78	PRICE: \$320.00
Rat SCF	CATALOG # 900-K258	PRICE: \$320.00

Mini ELISA Development Kit

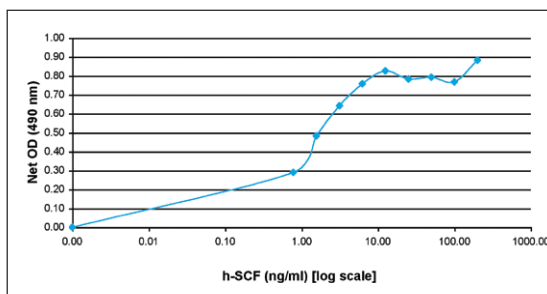
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Rat SCF	CATALOG # 900-M258	PRICE: \$100.00
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ELISA Buffer Kit.

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Bioassay analysis of human SCF (proliferation) using human TF-1 cells.



SCGF- α and β *Stem cell growth factor alpha and beta*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human SCGF- α	100-22A	<i>E.coli</i>	33.9 kDa	2 μ g	10 μ g	\$5,200
Human SCGF- β	100-22B	<i>E.coli</i>	25.0 kDa	2 μ g	10 μ g	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human SCGF- β	500-P99G	Goat	E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-human SCGF- β	500-P99Gbt	Goat	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

SDF-1 α and β /CXCL12 *Stromal-cell derived factor-1 alpha and beta*

Synonyms: CXCL12, PBSF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human SDF-1 α	300-28A	<i>E.coli</i>	8.0 kDa	2 μ g	10 μ g	\$3,000
Murine SDF-1 α	250-20A	<i>E.coli</i>	7.9 kDa	2 μ g	10 μ g	\$3,000
Rat SDF-1 α	400-32A	<i>E.coli</i>	7.9 kDa	2 μ g	10 μ g	\$3,000
Human SDF-1 β	300-28B	<i>E.coli</i>	8.5 kDa	2 μ g	10 μ g	\$3,000
Murine SDF-1 β	250-20B	<i>E.coli</i>	8.5 kDa	2 μ g	10 μ g	\$3,000
Rat SDF-1 β	400-32B	<i>E.coli</i>	8.4 kDa	2 μ g	10 μ g	\$3,000

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human SDF-1 α	AF-300-28A	<i>E.coli</i>	8.0 kDa	N/A	10 μ g	\$3,300
Human SDF-1 β	AF-300-28B	<i>E.coli</i>	8.5 kDa	N/A	10 μ g	\$3,300

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human SDF-1 α	500-P87A	<i>Rabbit</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human SDF-1 α	500-P87Abt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine SDF-1 α	500-P164G	<i>Goat</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine SDF-1 α	500-P164Gbt	<i>Goat</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-human SDF-1 β	500-P87BG	<i>Goat</i>	E, WB, NA	50 μ g	100 μ g	\$1,700
Biot. anti-human SDF-1 β	500-P87BGbt	<i>Goat</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

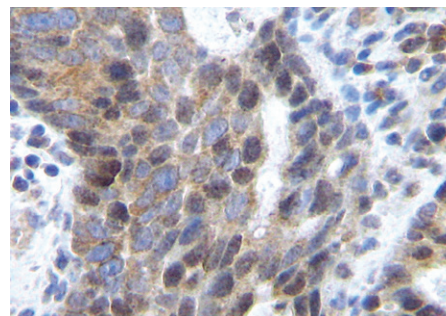
Human SDF-1 α	CATALOG # 900-K92	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human SDF-1 α	CATALOG # 900-M92	PRICE: \$100.00
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Human colorectal adenocarcinoma (FFPE) stained with rabbit anti-human SDF-1 α at 0.5 μ g/mL. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects. Photograph provided by Patsy Ruegg for PeptoTech.



Semaphorin 3A

Synonyms: SEMA3A, SEMAD

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg \$3,000
Human Semaphorin 3A	150-17	<i>CHO cells</i>	86.6 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

SF20

Synonyms: IL-25

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg \$5,200
Murine SF20	210-25	<i>E.coli</i>	15.8 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A \$195.00	Size B \$250.00	1mg \$1,700
Anti-murine SF20	500-P259	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine SF20	500-P259bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Slit2-N

Synonyms: Slit homolog 2 protein, SLIL3

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg \$3,900
Human Slit2-N	150-11	<i>HEK293 cells</i>	120.0-140.0 kDa	5µg	25µg	\$3,900

Additional sizes available please inquire

Sonic Hedgehog

Synonyms: Shh, HHG-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg \$2,800
Human Sonic Hedgehog (Shh)	100-45	<i>E.coli</i>	20.0 kDa	5µg	25µg	\$2,800
Murine Sonic Hedgehog (Shh)	315-22	<i>E.coli</i>	20.0 kDa	5µg	25µg	\$2,800

Additional sizes available please inquire

Sox2

Synonyms: Sex determining region Y (SRY)-box 2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg \$3,000
Human Sox2	110-03	<i>E.coli</i>	34.3 kDa	5µg	25µg	\$3,000
Human Sox2-TAT	110-03T	<i>E.coli</i>	36.0 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

SPARC/Osteonectin

Synonyms: Secreted protein acidic and rich in cysteine, BM-40, ON

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human SPARC/Osteonectin	120-36	CHO cells	43.7 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

TACI *Transmembrane activator and CAML interactor*

Synonyms: TNFRSF13B

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TACI	310-17	E.coli	17.8 kDa	5µg	20µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human TACI	500-P166G	Goat	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human TACI	500-P166Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human TACI	CATALOG # 900-K216	PRICE: \$320.00
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ELISA Buffer Kit.

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

TAFA-2

Synonyms: Chemokine-like protein TAFA-2, FAM19A2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TAFA-2	300-63	E.coli	11.2 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

TARC/CCL17 *Thymus activation regulation chemokine*

Synonyms: CCL17, ABCD-2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TARC	300-30	E.coli	8.0 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human TARC	500-P97	Rabbit	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human TARC	500-P97bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

TECK/CCL25 *Thymus-expressed chemokine*

Synonyms: CCL25

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TECK	300-45	<i>E.coli</i>	14.2 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human TECK	500-P134	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human TECK	500-P134bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human TECK	500-M48	<i>Mouse</i>	E, WB, NA	500µg	\$150.00

TFF *Trefoil Factors*

Synonyms: TFF-1: pS2 protein, HP1.A, Breast cancer estrogen-inducible protein, PNR2
 TFF-2: Spasmolytic polypeptide (SP), Spasmolysin
 TFF-3: Intestinal trefoil, ITF, TFI

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TFF1	300-60	<i>E.coli</i>	6.7 kDa	5µg	20µg	\$3,000
Human TFF2	300-59	<i>E.coli</i>	12.0 kDa	5µg	20µg	\$3,000
Human TFF3	300-61	<i>E.coli</i>	13.2 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human TFF2	500-P312	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human TFF2	500-P312bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

TGF- α *Transforming growth factor alpha*

Synonyms: Sarcoma growth factor, TGF-type I, ETGF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TGF- α	100-16A	<i>E.coli</i>	5.5 kDa	20 μ g	100 μ g	\$1,100

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human TGF- α	AF-100-16A	<i>E.coli</i>	5.5 kDa	N/A	100 μ g	\$1,200

Additional sizes available please inquire

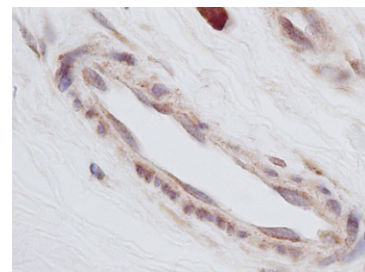
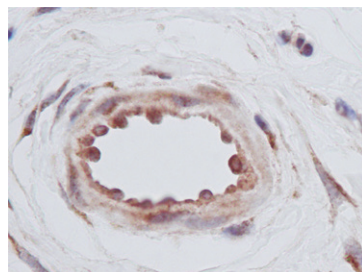
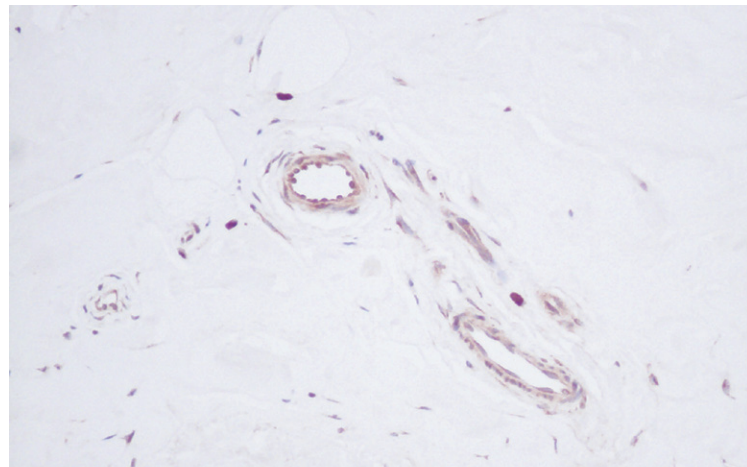
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human TGF- α	500-P16	<i>Rabbit</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human TGF- α	500-P16bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Human breast invasive ductal carcinoma (FFPE) stained with rabbit anti-human TGF- α at 0.5 μ g/ml. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subjects.



TGF- β_1 , - β_2 and - β_3 Transforming growth factor beta1, 2 and 3

Synonyms: TGF- β_1 : Differentiation inhibiting factor, cartilage-inducing factor

TGF- β_2 : Glioblastoma-derived T-cell suppressor factor, BSC-1, Cetermin, Polyergin

TGF- β_3 : none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TGF- β_1	100-21	HEK293 cells	25.0 kDa	2 μ g	10 μ g	\$7,000
Human TGF- β_1	100-21C	CHO cells	25.0 kDa	2 μ g	10 μ g	\$7,000
Human TGF- β_2	100-35	Insect cells	25.0 kDa	1 μ g	5 μ g	\$9,800
Human TGF- β_2	100-35B	HEK293 cells	25.0 kDa	1 μ g	5 μ g	\$9,800
Human TGF- β_3	100-36E	E.coli	25.0 kDa	2 μ g	10 μ g	\$7,800

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human TGF- β_3	AF-100-36E	E.coli	25.0 kDa	N/A	10 μ g	\$8,580

Additional sizes available please inquire

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human TGF- β_1	500-M66	Mouse	I, E, WB, NA	500 μ g	\$150.00

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Thrombomodulin

Synonyms: CD141, BDCA-3, THBD, TM

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human Thrombomodulin	100-58	HEK293 cells	51.4 kDa	2 μ g	10 μ g	\$3,900

Additional sizes available please inquire

TIGAR

Synonyms: TP53-induced glycolysis and apoptosis regulator

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TIGAR	150-14	E.coli	29.9 kDa	5 μ g	10 μ g	\$3,000
Human TIGAR-TAT	150-14T	E.coli	36.0 kDa	5 μ g	25 μ g	\$3,000

Additional sizes available please inquire

TIMP-1 *Tissue inhibitor of metalloproteinases 1*

Synonyms: Fibroblast collagenase inhibitor, Erythroid-potentiating activity

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TIMP-1	410-01	<i>E.coli</i>	20.6 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human TIMP-1	500-P280	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human TIMP-1	500-P280bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human TIMP-1	CATALOG # 900-K438	PRICE: \$320.00
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Mini ELISA Development Kit

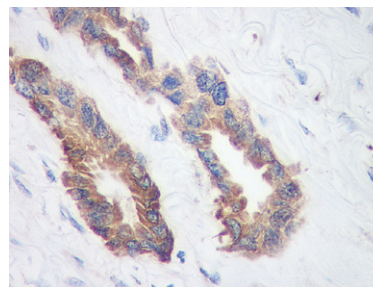
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human TIMP-1	CATALOG # 900-M438	PRICE: \$100.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Human breast invasive ductal carcinoma (FFPE) stained with Rabbit Anti-Human TIMP-1 at 0.100 µg/mL. Staining of tumor cells. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects.



TIMP-2 *Tissue inhibitor of metalloproteinases 2*

Synonyms: CSC-21K

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TIMP-2	410-02	<i>E.coli</i>	21.8 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

TL-1A

Synonyms: TNFSF15, VEGI

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TL-1A	310-23	<i>E.coli</i>	22.0 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human TL-1A	500-P240	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human TL-1A	500-P240bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human TL-1A	CATALOG # 900-K290	PRICE: \$320.00
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Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human TL-1A	CATALOG # 900-M290	PRICE: \$100.00
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ELISA Buffer Kit.

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
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ELISA Buffer Kit and EDK Combination		PRICE: \$450.00
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TLR-3 *Toll-like receptor 3*

Synonyms: CD283 antigen

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TLR-3	160-01	<i>HEK293 cells</i>	77.0 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

T

TNF- α Tumor necrosis factor alpha

Synonyms: TNFSF1A, TNFSF2, cachectin, differentiation-inducing factor (DIF), necrosin, cytotoxin

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TNF- α	300-01A	<i>E.coli</i>	17.4 kDa	10 μ g	50 μ g	\$1,500
Murine TNF- α	315-01A	<i>E.coli</i>	17.3 kDa	5 μ g	20 μ g	\$3,000
Rat TNF- α	400-14	<i>E.coli</i>	17.3 kDa	5 μ g	20 μ g	\$3,000

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human TNF- α	AF-300-01A	<i>E.coli</i>	17.4 kDa	N/A	50 μ g	\$1,650

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human TNF- α	500-P31A	<i>Rabbit</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human TNF- α	500-P31Abt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-human TNF- α	500-P31AG	<i>Goat</i>	I, E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-human TNF- α	500-P31AGbt	<i>Goat</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine TNF- α	500-P64	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine TNF- α	500-P64bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-murine TNF- α	500-P64G	<i>Goat</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-murine TNF- α	500-P64Gbt	<i>Goat</i>	E, WB, NA	25 μ g	50 μ g	\$3,400
Anti-rat TNF- α	500-P72	<i>Rabbit</i>	E, WB, N	50 μ g	100 μ g	\$1,700
Biot. anti-rat TNF- α	500-P72bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human TNF- α	500-M26	<i>Mouse</i>	I, E, WB, N	500 μ g	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human TNF- α	CATALOG #	900-K25	PRICE:	\$320.00
Murine TNF- α	CATALOG #	900-K54	PRICE:	\$320.00
Rat TNF- α	CATALOG #	900-K73	PRICE:	\$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human TNF- α	CATALOG #	900-M25	PRICE:	\$100.00
Murine TNF- α	CATALOG #	900-M54	PRICE:	\$100.00

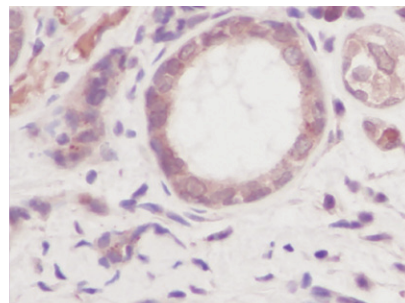
ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
ELISA Buffer Kit and EDK Combination			PRICE:	\$450.00

See next page for IHC images of anti-human TNF- α .

TNF- α continued...

Human breast invasive ductal carcinoma (FFPE) stained with rabbit anti-human TNF- α at 0.5 μ g/ml. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subjects.



TNF- β Tumor necrosis factor beta

Synonyms: TNFSF1, TNFSF1B, Lymphotoxin alpha (LT- α)

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	
Human TNF- β	300-01B	<i>E.coli</i>	18.6 kDa	\$80.00	\$195.00	1mg
				5 μ g	20 μ g	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	
Anti-human TNF- β	500-P31B	<i>Rabbit</i>	E, WB, N	\$195.00	\$250.00	1mg
				50 μ g	100 μ g	\$1,700
Biot. anti-human TNF- β	500-P31Bbt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

sTNF Receptor Type I soluble TNF Receptor Type I

Synonyms: TNFRSF1A, TNFAR, TNF-R55, TNFR60, p55, CD120a

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	
Human sTNF Receptor Type I	310-07	<i>E.coli</i>	18.3 kDa	\$80.00	\$195.00	1mg
				5 μ g	20 μ g	\$3,000

Additional sizes available please inquire

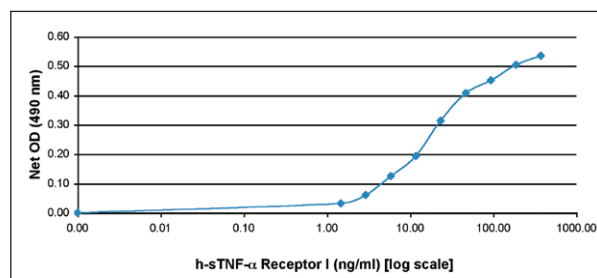
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	
Anti-human sTNF Receptor Type I	500-P143	<i>Rabbit</i>	E, WB, N	\$195.00	\$250.00	1mg
				50 μ g	100 μ g	\$1,700
Biot. anti-human sTNF Receptor Type I	500-P143bt	<i>Rabbit</i>	E, WB, NA	25 μ g	50 μ g	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Bioassay analysis of human sTNF Receptor Type I. Determined by its inhibitory effect for the TNF- α mediated cytotoxicity in murine L929 cells.



sTNF Receptor Type II *soluble TNF Receptor Type II*

Synonyms: TNFRSF1B, p75, TNFR75, CD120b, TNFR80, p80, TNFR2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sTNF Receptor Type II	310-12	<i>E.coli</i>	18.9 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human sTNF Receptor Type II	500-P168	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human sTNF Receptor Type II	500-P168bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

TPO *Thrombopoietin*

Synonyms: Megakaryocyte colony-stimulating factor, c-MPL ligand, MGDF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TPO	300-18	<i>E.coli</i>	18.6 kDa	2µg	10µg	\$4,300
Murine TPO	315-14	<i>E.coli</i>	18.7 kDa	2µg	10µg	\$4,300
Rat TPO	400-34	<i>E.coli</i>	18.7 kDa	2µg	10µg	\$4,300

* See page 8 for available Cytokine Packages.

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human TPO	AF-300-18	<i>E.coli</i>	18.6 kDa	N/A	10µg	\$4,700
Murine TPO	AF-315-14	<i>E.coli</i>	18.7 kDa	N/A	10µg	\$4,700
Rat TPO	AF-400-34	<i>E.coli</i>	18.7 kDa	N/A	10µg	\$4,700

* See page 8 for available Cytokine Packages.

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human TPO	500-P49G	<i>Goat</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-human TPO	500-P49Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

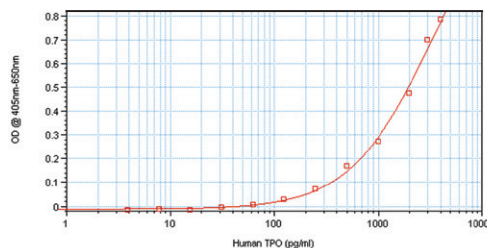
Human TPO CATALOG # 900-K44 PRICE: \$320.00

ELISA Buffer Kit

ELISA Buffer Kit CATALOG # 900-K00 PRICE: \$195.00

ELISA Buffer Kit and EDK Combination PRICE: \$450.00

Standard curve using human TPO ELISA development kit.



sTRAIL/Apo2L *TNF-related apoptosis inducing ligand*

Synonyms: TNFSF10, Apo2 ligand, TL2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg
Human sTRAIL/Apo2L	310-04	<i>E.coli</i>	19.6 kDa	10µg	50µg	\$1,500
Murine sTRAIL	315-19	<i>E.coli</i>	20.0 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A \$195.00	Size B \$250.00	1mg
Anti-human sTRAIL/Apo2L	500-P135	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human sTRAIL/Apo2L	500-P135bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine TRAIL	500-P303	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-murine TRAIL	500-P303bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human sTRAIL/Apo2L	500-M49	<i>Mouse</i>	E, WB, N	500µg	\$150.00

ELISA Development Kit

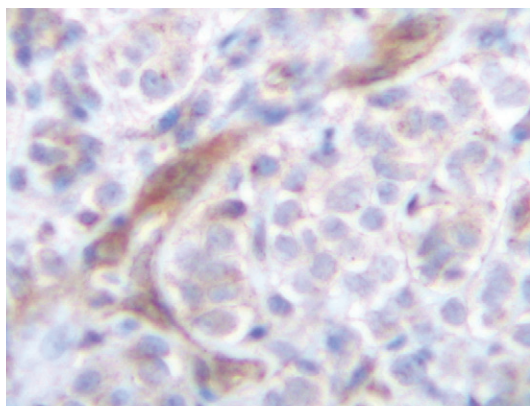
Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human sTRAIL/Apo2L	CATALOG # 900-K141	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG # 900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination		PRICE: \$450.00

Human metastatic carcinoma of lymph node from breast tissue (FFPE) stained with rabbit anti-human sTRAIL/Apo2L at 0.25 µg/ml. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subjects.



sTRAIL Receptor-1/DR4 *soluble TRAIL Receptor-1*

Synonyms: TNFRSF10A, DR4, Apo2

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg
Human sTRAIL Receptor-1/DR4	310-18	<i>E.coli</i>	22.7 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

sTRAIL Receptor-2/DR5 *soluble TRAIL Receptor-2*

Synonyms: TNFRSF10B, DR5, KILLER, TRICK2A, TRICK2B

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human sTRAIL Receptor-2/DR5	310-19	<i>E.coli</i>	14.9 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human sTRAIL Receptor-2	500-P299	<i>Rabbit</i>	E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human sTRAIL Receptor-2	500-P299bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

TSG *Twisted Gastrulation Protein*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TSG	120-09	<i>E.coli</i>	22.2 kDa	10µg	50µg	\$1,500

Additional sizes available please inquire

TSLP *Thymic stromal lymphopoietin protein*

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human TSLP	300-62	<i>E.coli</i>	15.0 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human TSLP	500-P258	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human TSLP	500-P258bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human TSLP	CATALOG #	900-K334	PRICE:	\$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
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ELISA Buffer Kit and EDK Combination	PRICE:	\$450.00
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TWEAK *TNF-related weak inducer of apoptosis*

Synonyms: TNFSF12, DR3LG, Apo3-Ligand

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human TWEAK	310-06	<i>E.coli</i>	17.0 kDa	\$80.00 5µg	\$195.00 25µg	\$3,000

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human TWEAK	AF-310-06	<i>E.coli</i>	17.0 kDa	N/A	\$215.00 25µg	\$3,300

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human TWEAK	500-P137G	Goat	E, WB, N	\$195.00 50µg	\$250.00 100µg	\$1,700
Biot. anti-human TWEAK	500-P137Gbt	Goat	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human TWEAK	CATALOG #	900-K149	PRICE: \$320.00
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ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE: \$195.00
ELISA Buffer Kit and EDK Combination			PRICE: \$450.00

TWEAK Receptor *TNF-related weak inducer of apoptosis receptor*

Synonyms: TNFRSF12A, FGF-inducible 14

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human TWEAK Receptor	310-21	<i>E.coli</i>	5.6 kDa	\$80.00 5µg	\$195.00 25µg	\$3,000

Additional sizes available please inquire

T

VAP-1

Synonyms: Vascular adhesion protein-1, AOC3, SSAO, HPAO, Copper amine oxidase, membrane primary amineoxidase

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg \$5,200
Human VAP-1	150-16	<i>CHO cells</i>	81.8 kDa	2µg	10µg	

Additional sizes available please inquire

Vaspin

Synonyms: Visceral adipose tissue-derived serpin

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg \$3,000
Human Vaspin	130-11	<i>E.coli</i>	45.2 kDa	5µg	25µg	

Additional sizes available please inquire

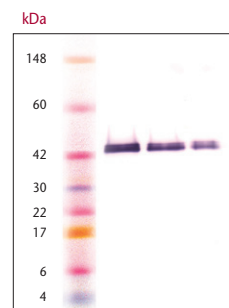
Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A \$195.00	Size B \$250.00	1mg \$1,700
Anti-human Vaspin	500-P256	<i>Rabbit</i>	E, WB, NA	50µg	100µg	
Biot. anti-human Vaspin	500-P256bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Representative Western Transfer (blot) analysis of human Vaspin using anti-human Vaspin at 0.20 µg/ml.



VCAM-1

Synonyms: CD106, INCAM-100, MGC108734, MGC99561, VCAM, VCAM1, VCAM1B, VECAM1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A \$80.00	Size B \$195.00	1mg \$1,500
Human VCAM-1	150-04	<i>HEK293 cells</i>	74.1 kDa	10µg	50µg	

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A \$195.00	Size B \$250.00	1mg \$1,700
Anti-human VCAM-1	500-P300	<i>Rabbit</i>	E, WB, NA	50µg	100µg	
Biot. anti-human VCAM-1	500-P300bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

VEGF *Vascular endothelial growth factor*

Synonyms: VEGF-A, VPF, VAS, folliculostellate cell-derived growth factor, glioma-derived endothelial cell mitogen

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				\$80.00	\$195.00	
Human VEGF ₁₂₁	100-20A	<i>E.coli</i>	28.4 kDa	2µg	10µg	\$3,900
Human VEGF ₁₆₅	100-20	<i>E.coli</i>	38.2 kDa	2µg	10µg	\$3,900
Murine VEGF ₁₆₅	450-32	<i>E.coli</i>	39.0 kDa	2µg	10µg	\$3,900
Rat VEGF ₁₆₅	400-31	<i>E.coli</i>	38.5 kDa	2µg	10µg	\$3,900

Additional sizes available please inquire

Animal-Free Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
				N/A	\$215.00	
Human VEGF ₁₆₅	AF-100-20	<i>E.coli</i>	38.2 kDa	N/A	10µg	\$4,300
Human VEGF ₁₂₁	AF-100-20A	<i>E.coli</i>	28.4 kDa	N/A	10µg	\$4,300

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
				\$195.00	\$250.00	
Anti-human VEGF	500-P10	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human VEGF	500-P10bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-human VEGF	500-P10G	<i>Goat</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-human VEGF	500-P10Gbt	<i>Goat</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-murine VEGF	500-P131	<i>Rabbit</i>	I, E, WB, N	50µg	100µg	\$1,700
Biot. anti-murine VEGF	500-P131bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400
Anti-rat VEGF	500-P275	<i>Rabbit</i>	E, WB, N	50µg	100µg	\$1,700
Biot. anti-rat VEGF	500-P275bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Monoclonal Antibodies

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size	PRICE
Anti-human VEGF	500-M88	<i>Mouse</i>	E, WB, N	500µg	\$150.00

ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 1000 ELISA plate wells.

Human VEGF	CATALOG #	900-K10	PRICE:	\$320.00
Murine VEGF	CATALOG #	900-K99	PRICE:	\$320.00
Rat VEGF	CATALOG #	900-K436	PRICE:	\$320.00

Mini ELISA Development Kit

Each kit contains: capture antibody, detection antibody, calibrated standard, and Avidin-HRP Conjugate, sufficient to assay the target cytokine in at least 200 ELISA plate wells.

Human VEGF	CATALOG #	900-M10	PRICE:	\$100.00
Murine VEGF	CATALOG #	900-M99	PRICE:	\$100.00
Rat VEGF	CATALOG #	900-M436	PRICE:	\$100.00

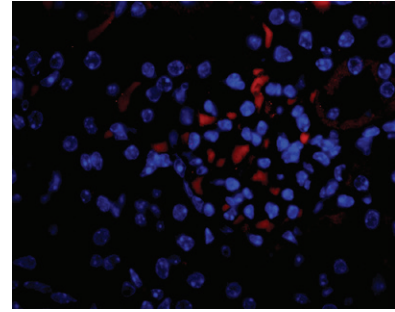
ELISA Buffer Kit

ELISA Buffer Kit	CATALOG #	900-K00	PRICE:	\$195.00
ELISA Buffer Kit and EDK Combination			PRICE:	\$450.00

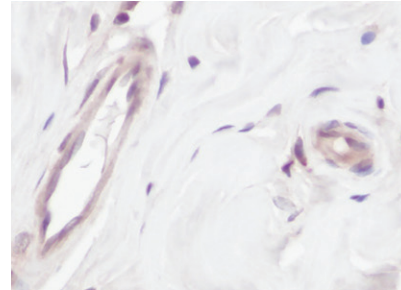
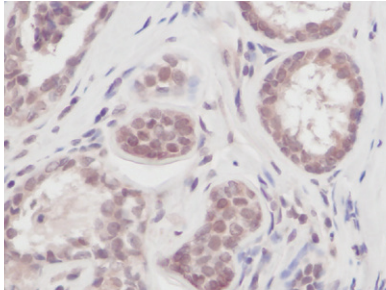
See next page for IHC images of anti-human VEGF

VEGF *continued...*

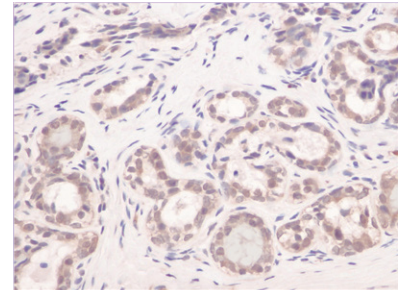
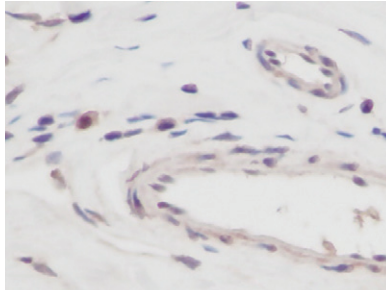
Mouse kidney (FFPE) stained with Rabbit Anti-Murine VEGF at 2.5 µg/mL.



Human breast invasive ductal carcinoma (FFPE) stained with rabbit anti-human VEGF at 4.0 µg/ml and goat anti-human VEGF at 10 µg/ml. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the NCI. Other investigators may have received specimens from the same subjects.



Rabbit anti-human VEGF



Goat anti-human VEGF



VEGF-B *Vascular endothelial growth factor-B*

Synonyms: VEGF-related factor, VRF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human VEGF-B	100-20B	<i>E.coli</i>	38.0 kDa	5µg	20µg	\$3,900

Additional sizes available please inquire

VEGF-C *Vascular endothelial growth factor-C*

Synonyms: Vascular endothelial growth factor-related protein, VRP,flt4 ligand

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human VEGF-C	100-20C	<i>HEK293 cells</i>	20.0-22.0 kDa	5µg	20µg	\$3,000

Additional sizes available please inquire

VEGF-D *Vascular endothelial growth factor-D*

Synonyms: FIGF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human VEGF-D	100-20D	<i>HEK293 cells</i>	20.0-22.0 kDa	2µg	10µg	\$5,200

Additional sizes available please inquire

Visfatin

Synonyms: PBEF

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Visfatin	130-09	<i>E.coli</i>	52.5 kDa	5µg	25µg	\$3,000

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human Visfatin	500-P222	<i>Rabbit</i>	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Visfatin	500-P222bt	<i>Rabbit</i>	E, WB, NA	25µg	50µg	\$3,400

Vitronectin

Synonyms: VTN, Serum-spreading factor, V75

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Vitronectin	140-09	<i>HEK293 cells</i>	75.0 kDa	50µg	250µg	\$600

Additional sizes available please inquire

WISP-1 *Wnt-1 inducible signaling pathway protein-1*

Synonyms: CCN4, Wnt-1-induced secreted protein

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human WISP-1	120-18	<i>E.coli</i>	38.1 kDa	\$80.00 5µg	\$195.00 20µg	\$3,900

Additional sizes available please inquire

WISP-3 *Wnt-1 inducible signaling pathway protein-3*

Synonyms: CCN6

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human WISP-3	120-20	<i>E.coli</i>	36.8 kDa	\$80.00 5µg	\$195.00 20µg	\$3,900

Additional sizes available please inquire

Wnt-1

Synonyms: INT-1

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Wnt-1	120-17	<i>E.coli</i>	38.4 kDa	\$80.00 2µg	\$195.00 10µg	\$5,200

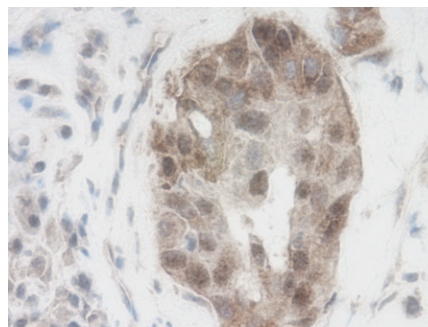
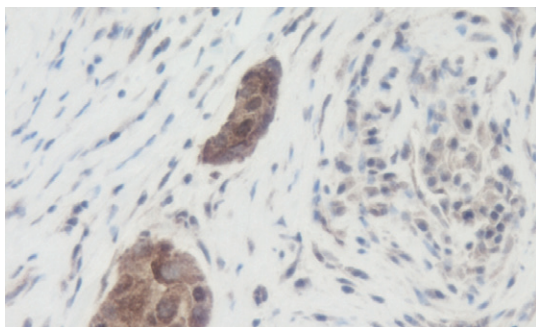
Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human Wnt-1	500-P250	<i>Rabbit</i>	I, E, WB, NA	\$195.00 50µg	\$250.00 100µg	\$1,700
Biot. anti-human Wnt-1	500-P250bt	<i>Rabbit</i>	E, WB, NA	\$195.00 25µg	\$250.00 50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested



Human breast invasive ductal carcinoma (FFPE) stained with rabbit anti-human Wnt-1 at 62.5ng/mL. Staining of ductal carcinoma cells. Tissue samples were provided by the Cooperative Human Tissue Network, which is funded by the National Cancer Institute. Other investigators may have received specimens from the same subjects. Photograph provided by Patsy Ruegg for PeproTech.

Wnt-3a

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Murine Wnt-3a	315-20	cell culture	38.0-41.0 kDa	2µg	10µg	\$N/A

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

PRODUCT	CATALOG #	SOURCE	APPLICATIONS	Size A	Size B	1mg
Anti-human Wnt-3a	500-P251	Rabbit	I, E, WB, NA	50µg	100µg	\$1,700
Biot. anti-human Wnt-3a	500-P251bt	Rabbit	E, WB, NA	25µg	50µg	\$3,400

Biot. = Biotinylated

Key: I = IHC, E = ELISA, WB = Western blot, N = Neutralization, NA = Neutralization not tested

Wnt-7a

Synonyms: none

Recombinant Proteins

PRODUCT	CATALOG #	SOURCE	MW	Size A	Size B	1mg
Human Wnt-7a	120-31	HEK293 cells	35.5 kDa	3µg	15µg	N/A

Additional sizes available please inquire

Control Antibodies

PRODUCT	CATALOG #	Size	PRICE
Control Goat Immunoglobulin	500-G00	1mg	\$65.00
Control Mouse Immunoglobulin	500-M00	250µg	\$65.00
Control Rabbit Immunoglobulin	500-P00	500µg	\$50.00

Notes:

Chemokine Nomenclature

Systematic Name CXC Chemokines	Functional Name (mouse protein)	Responding Cell Type	Known Receptor(s)
CXCL1	GRO1, GRO α , MGS α , NAP-3 (GRO, KC, MIP-2)	PMN	CXCR2>CXCR1
CXCL2	GRO2, GRO β , MIP-2 α , MGS β (GRO, KC, MIP-2)	PMN	CXCR2
CXCL3	GRO3, GRO γ , MIP-2 β , (GRO, KC, MIP-2)	PMN	CXCR2
CXCL4	PF-4	Fibroblast	unknown
CXCL5	ENA-78	PMN	CXCR2
CXCL6	GCP-2, (LIX)	PMN	CXCR1, CXCR2
CXCL7	NAP-2, CTAP-III	PMN	CXCR1, CXCR2
CXCL8	IL-8	PMN	CXCR1, CXCR2
CXCL9	MIG	actT (TH1), NK	CXCR3
CXCL10	IP-10	actT (TH1), NK	CXCR3
CXCL11	I-TAC	actT (TH1), NK	CXCR3, CXCR7
CXCL12	SDF-1 α/β	All cell Types	CXCR4, CXCR7
CXCL13	BCA-1(BLC)	B	CXCR5
CXCL14	BRAK/Bolekine	cAMP activated Mo	unknown
CXCL15	(Lungkine)	PMN	unknown
CXCL16	SCYB16, SR-PSOX	actT	CXCR6
CXCL17	UNQ473, DMC, Vcc1, BC024561	Mo, iDC	unknown
C Chemokines			
XCL1	Lymphotactin	T	XCR1
XCL2	SCM-1b	T	XCR1
CX3C Chemokines			
CX3CL1	Fractalkine (neurotactine)	Mo, actT, NK	CX3CR1
CC Chemokines			
CCL1	I-309(TCA-3)	iDC, actT (TH2)	CCR8
CCL2	MCP-1/MCAF(JE)	Bs, Mo, actT, NK, iDC	CCR2
CCL3	MIP-1 α /LD78 α	Eo, Mo, actT, NK, iDC	CCR1, CCR5
CCL3L1	LD78 β gene duplication	Mo	CCR1, CCR5
CCL4	MIP-1 β	Mo, actT (TH1), NK, iDC	CCR5
CCL4L1	LAG-1 gene duplication	Mo	CCR1, CCR5
CCL5	RANTES	Eo, Bs, Mo, actT, NK, iDC	CCR1, CCR3, CCR5
CCL6	(C-10/MRP-2)	Mo	CCR1, CCR2, CCR3
CCL7	MCP-3	Eo, Bs, Mo, actT, NK, iDC	CCR1, CCR2, CCR3
CCL8	MCP-2 (MARC)	Bs, Mo, actT, NK, iDC	CCR1, CCR2, CCR3, CCR5
CCL9 / 10	(MIP-1 γ /MRP-2)	PMN, actT	CCR1
CCL11	Eotaxin	Eo, Bs, actT (TH2), iDC	CCR3
CCL12	(MCP-5)	Bs, Mo, actT, NK, iDC	CCR2
CCL13	MCP-4	Eo, Bs, Mo, actT, NK, iDC	CCR1, CCR2, CCR3
CCL14	HCC-1	Eo, Mo	CCR1
CCL15	HCC-2/Lkn-1/MIP-1delta/MIP-5	PMN, Eo, Mo	CCR1, CCR3
CCL16	HCC-4/LEC	Mo, actT (TH1)	CCR1
CCL17	TARC (ABCD-2)	actT (TH2)	CCR4
CCL18	DC-CK1/PARC/AMAC-1	T, iDC	unknown
CCL19	MIP-3 β /ELC/Exodus-3	T, actT, mDC	CCR7
CCL20	MIP-3 α /LARC/Exodus-1	Tm, B, iDC	CCR6
CCL21	6Ckine/SLC/Exodus-2	T, actT, mDC	CCR7
CCL22	MDC/STCP-1(ABCD-1)	actT (TH2), iDC	CCR4
CCL23	MPIF-1/ MIP-3/CK β -8	PMN, Mo, T	CCR1
CCL24	MPIF-2/Eotaxin-2	Eo, Bs, actT (TH2), iDC	CCR3
CCL25	TECK	Thymocytes, T	CCR9
CCL26	Eotaxin-3	Eo, Bs, actT (TH2), iDC	CCR3
CCL27	CTACK/ILC(ESKine)	actT	CCR10
CCL28	MEC	actT	CCR10

KEY

Tm = memory T cells
B = B-cells
actT = activated T cell
Bs = Basophil
T = resting T cell
Eo = Eosinophil
NK = Natural Killer cells
Mo = monocyte
PMN = neutrophils
mDC = mature dendritic cells
iDC = immature DC

FGF Family

Fibroblast Growth Factor Family

<i>Fibroblast Growth Factors</i>	<i>MW-Secreted form (murine)</i>	<i>Estimated pI</i>	<i>Target Cells (Partial List)</i>	<i>Receptors</i>	<i>Functions (Partial list)</i>
FGF1 (Acidic FGF) Heparin-binding growth factor-1 (HBGF-1) Beta-endothelial cell growth factor ECGF-beta (endothelial cell growth factor-beta)	15.8 (15.7kDa)	7.99 (7.88)	mesenchymal, neuroectodermal endothelial cells	all FGF receptors	Angiogenic in vivo, Mitogenic in vitro, wound healing
FGF2 (Basic FGF) Heparin-binding growth factor-2 (HBGF-2) Prostatropin	17.2 (17.1kDa)	10.03 (9.59)	mesenchymal, neuroectodermal endothelial cells	1b,1c, 2c, 3c,4	Vasculogenesis, wound healing, angiogenesis, hematopoiesis, neuron survival
FGF3 int-2	24.9 (25.2kDa)	10.98 (10.84)	epithelial cells that express FGF receptor 2b	2b	Mesoderm induction, angiogenesis, inner ear development
FGF4 Heparin secretory transforming protein (HST-1) Transforming protein KS3 Heparin-binding growth factor-4 (HBGF-4)	19.7 (18.9kDa)	10.22 (10.24)	cells that express FGF receptors	1c, 2c, 3c,4	Angiogenesis, vertebrate limb development and development of stomach cancer
FGF5 Heparin-binding growth factor-5 (HBGF-5) Smag-82	27.5 (27.1kDa)	11.1 (10.50)	cells that express FGF receptors	1c,2c	Hair growth and development
FGF6 Heparin-binding growth factor-6 (HBGF-6) HST-2	18.7 (18.9kDa)	10.09 (9.80)	cells that express FGF receptors	1c,2c,4	Skeletal muscle development
FGF7/KGF (Keratinocyte Growth Factor) Heparin-binding growth factor-7 (HBGF-7)	18.9 (18.8kDa)	9.55 (9.22)	keratinocytes and epithelial cells that express FGF receptor 2b	2b	Keratinocyte growth factor, kidney and lung development, angiogenesis and wound healing
FGF8 Androgen-induced growth factor (AIGF) Heparin-binding growth factor-8 (HBGF-8)	22.4 (28.0kDa)	10.95 (10.46)	mammary carcinoma cells and other cells that express FGF receptors	2c,3c,4 (possibly 1c)	Limb, central nervous system, cardiac outflow tract development
FGF9 Glia activating factor (GAF) Heparin-binding growth factor-9 (HBGF-9)	23.4 (23.3kDa)	7.44 (7.44)	glial cells, astrocytes cells and other cells that express FGF receptors	1c,2c, 3b,3c,4	Glia-activating factor, motoneuron survival, lung and testes development
FGF10 FGFA Keratinocyte growth factor 2	19.3 (19.5kDa)	10.49 (9.76)	epithelial cells that express FGF receptor 2b	2b	Wound healing, multi-organ development including limb and lung
FGF11 FGFB Fibroblast Growth factor homologous factor-3 (FHF-3)	25.0 (25.1kDa)	9.92 (10.06)	nuclear processes unrelated to the secreted FGFs.	none	Appears to be involved in nervous system development and function
FGF12 FGFC Fibroblast Growth factor homologous factor-1 (FHF-1)	27.4kDa	9.98	nuclear processes unrelated to the secreted FGFs.	none	Appears to be involved in nervous system development and function

Continued...

FGF Family *continued...*

<i>Fibroblast Growth Factors</i>	<i>MW-Secreted form (murine)</i>	<i>Estimated pI</i>	<i>Target Cells (Partial List)</i>	<i>Receptors</i>	<i>Functions (Partial list)</i>
FGF13 FGFD Fibroblast Growth factor homologous factor-2 (FHF-2)	27.5 (27.6 kDa)	9.92 (9.92)	nuclear processes unrelated to the secreted FGfs.	none	Appears to be involved in nervous system development and function
FGF14 FGFE Fibroblast Growth factor homologous factor-4 (FHF-4)	27.7 (27.7 kDa)	10.11 (10.11)	nuclear processes unrelated to the secreted FGfs.	none	Regulates central nervous system development and function
FGF15 FGFF, identified in mouse not human	(22.5 kDa)	(5.76)	cells that express FGF Receptor 4	4	Regulator of cell division and patterning in specific regions of embryonic brain, spinal cord and sensory organs
FGF16 FGFG	23.7 kDa	9.52	cells that express FGF receptors	2c, 3c	Central Nervous System development
FGF17 FGFH	22.7 (22.5kDa)	11.22 (10.71)	cells that express FGF receptors	1c, 2c, 3c, 4	Signals induction and patterning of embryonic brain
FGF18 zFGF5 FGFI	21.2 (20.9kDa)	10.67 (10.09)	cells that express FGF receptors	1c, 2c, 3c, 4	An essential regulator of long bone and calvarial development
FGF19 FGFJ, identified in human not mouse	21.8 kDa	6.32	cells that express FGF Receptor 4	4	Expressed during brain development and during embryogenesis, regulates multiple metabolic processes in adulthood
FGF20 FGFK	23.2 kDa	9.22	epithelial and mesenchymal cells	1c, 2c, 3c	Expressed during limb and brain development
FGF21 FGFL	19.4 (19.9 kDa)	5.29 (4.59)	unknown at time of printing	unknown at time of printing	Expressed in liver and thymus, may play a role in Type 2 Diabetes
FGF22 FGFM	17.1 (16.5 kDa)	11.71 (11.58)	hair follicle-keratinocytes	unknown at time of printing	May be involved in cutaneous development & repair, and hair development
FGF23 FGFN	25.3 (25.3 kDa)	8.95 (9.64)	renal proximal epithelial cells	3c	Expressed in brain and thymus, regulates phosphate homeostasis, mutant in hypophosphatemic rickets, regulates multiple metabolic processes in adulthood

TNF Superfamily Nomenclature

TNF Superfamily – Ligands

<i>Nomenclature Name</i>	<i>Functional Names</i>
TNFSF1A	TNF-alpha, Cachectin, DIF, TNFSF2
TNFSF1B	TNF-beta, LT alpha, TNFSF1
TNFSF3	LT beta, TNFC, p33
TNFSF4	OX40 Ligand (OX40L), gp34, TXGP1
TNFSF5	CD40 Ligand (CD40L), IMD3, TRAP, gp39, CD154, HIGM1, hyper-IgM syndrome
TNFSF6	Fas Ligand (FasL), Apo I Ligand (Apo I), APTL, APT1LG1, CD95L
TNFSF7	CD70, CD27 Ligand, CD27LG (CD27L, CD27LG)
TNFSF8	CD30 Ligand (CD30L, CD30LG), CD153
TNFSF9	4-1BB Ligand (4-1BBL), CD Antigen 137 Ligand (CD137L)
TNFSF10	TRAIL, Apo-2 Ligand (Apo2L), TL2
TNFSF11	RANK Ligand (RANKL), TRANCE, OPGL, ODF
TNFSF12	TWEAK, DR3LG, APO3-Ligand (APO3L)
TNFSF13	APRIL, TALL2
TNFSF13B	BAFF, BlyS, THANK, TALL1, DTL
TNFSF14	LIGHT, LT γ , HVEM-Ligand (HVEM-L)
TNFSF15	TL1A, TL1, VEGI
TNFSF18	AITR Ligand (AITRL), TL6, GITRL Ligand (GITRL)
TNFSF20	BAFF, BlyS, THANK, TALL1, DTL, TNFSF13B

TNF Superfamily – Receptors

<i>Nomenclature Name</i>	<i>Functional Names</i>
TNFRSF1A	TNF Receptor Type I (TNFR1), TNFAR, TNF-R55, TNFR60, p55-R, p55TNFR, p55, CD120a
TNFRSF1B	TNF Receptor Type II (TNFR2), CD120b, p75, TNF-R, TNFR80, TNF-R75, TNFR, p75TNFR
TNFRSF3/LTBR: (lymphotoxin beta receptor)	TNFR2-RP, CD18, TNFR-RP, TNFCR, TNF-Receptor Type III (TNFR3)
TNFRSF4	OX40, ACT35, TXGP1L
TNFRSF5	CD40 (Receptor), p50, Bp50
TNFRSF6	Fas, CD95, Apo-1, APT1
TNFRSF6B	DcR3, M68, TR6
TNFRSF7	CD27, Tp55, S152
TNFRSF8	CD30, Ki-1, D1S166E
TNFRSF9	4-1BB (Receptor), CD137, ILA
TNFRSF10A	DR4, Apo2, TRAIL Receptor 1 (TRAILR1)
TNFRSF10B	DR5, TRAIL Receptor 2 (TRAIL-R2), KILLER, TRICK2A, TRICKB
TNFRSF10C: (decoy without an intracellular domain)	DcR1, TRAILR3, LIT, TRID
TNFRSF10D	DcR2, TRUNDD, TRAILR4
TNFRSF11A	RANK (Receptor), ODFR, TRANCE R
TNFRSF11B	Osteoprotegerin (OPG), PRG, OCIF, TR1
(TNFRSF12)	TNFRSF12 (bovine)
TNFRSF12A	TWEAK Receptor (TWEAKR), FN14
TNFRSF12L	DR3L
TNFRSF13B	TACI
TNFRSF13C	BAFFR
TNFRSF14	HVEM, ATAR, TR2, LIGHTR, HVEA
TNFRSF16	NGFR, p75NTR
TNFRSF17	BCMA, BCM
TNFRSF18	AITR, GITR, GITR-D
TNFRSF19	TROY, TRADE, TAJ
TNFRSF19L	RELT
TNFRSF21	DR6
TNFRSF22	SOBa, Tnfrh2, 2810028K06Rik, DcTRAIL R2
TNFRSF23	mSOB, Tnfrh1, DcTRAIL R1
TNFRSF25	DR3, Apo-3, TRAMP, LARD, TR3, WSL-1, TNFRSF12
TNFRSF26	TNFRH3

Note: This table is reflective of the current knowledge.

TGF- β Superfamily

<i>Name</i>	<i>Synonyms</i>	<i>Main Function</i>	<i>Natural Antagonists/ Binding Proteins</i>
TGF- β_1	Differentiation inhibiting factor, cartilage-inducing factor	Regulates cell proliferation, growth, differentiation and motility. Involved in adipogenesis, chondrogenesis, embryogenesis, tissue remodeling, wound healing and tumor formation.	Follistatin, Follistatin-like related gene (FLRG), Decorin, alpha-2 macroglobulin
TGF- β_2	Glioblastoma-derived T-cell suppressor factor, BSC-1, Cetermin, Polyergin	Regulates cell proliferation, growth, differentiation and motility. Involved in adipogenesis, chondrogenesis, embryogenesis, tissue remodeling, wound healing and tumor formation.	Decorin, alpha-2 macroglobulin
TGF- β_3	None	Regulates cell proliferation, growth, differentiation and motility. Involved in adipogenesis, chondrogenesis, embryogenesis, tissue remodeling, wound healing and tumor formation.	
TGF- β_4	Endometrial bleeding associated factor beta-4, (EBAF) Lefty preproprotein, LEFTA	Essential for left-right (L-R) asymmetry determination of organ systems. Possible role in endometrial bleeding.	
Inhibin A	Inhibin alpha & beta A	Inhibits secretion of follitropin by the pituitary gland, regulates embryogenesis, osteogenesis, hematopoiesis, reproductive physiology and hormone secretion from the hypothalamic, pituitary and gonadal glands.	
Inhibin B	Inhibin alpha & beta B	Inhibits secretion of follitropin by the pituitary gland, regulates embryogenesis, osteogenesis, hematopoiesis, reproductive physiology and hormone secretion from the hypothalamic, pituitary and gonadal glands.	
Activin A	Activin beta-A, Inhibin beta-1, FRP, (Follicle-stimulating hormone-releasing protein),FSH-releasing protein, FSH-releasing factor, EDF (Erythroid differentiation factor)	Regulates embryogenesis, osteogenesis, hematopoiesis, reproductive physiology and hormone secretion from the hypothalamic, pituitary and gonadal glands.	Follistatin, Follistatin-like related gene (FLRG), GASP-1, Cerberus, DAN, alpha2 macroglobulin.
Activin AB	Activin beta A & beta B	Regulates embryogenesis, osteogenesis, hematopoiesis, reproductive physiology and hormone secretion from the hypothalamic, pituitary and gonadal glands.	
Activin B	Activin beta-B, Inhibin beta-2	Regulates embryogenesis, osteogenesis, hematopoiesis, reproductive physiology and hormone secretion from the hypothalamic, pituitary and gonadal glands.	
Activin C	Activin beta-C, Inhibin beta-C, blastocyst B1	Regulates embryogenesis, osteogenesis, hematopoiesis, reproductive physiology and hormone secretion from the hypothalamic, pituitary and gonadal glands.	
Activin E	Activin beta-E, inhibin-beta E	Regulates embryogenesis, osteogenesis, hematopoiesis, reproductive physiology and hormone secretion from the hypothalamic, pituitary and gonadal glands.	
BMP-2	BMP-2A	Induces cartilage and bone formation, plays a role in cardiac morphogenesis.	Noggin, Chordin, Follistatin, Follistatin-like related gene (FLRG), DAN, Cerberus, Gremlin
BMP-3	Osteogenin	Induces cartilage and bone formation.	

TGF- β Superfamily *continued...*

<i>Name</i>	<i>Synonyms</i>	<i>Main Function</i>	<i>Natural Antagonists/ Binding Proteins</i>
BMP-3B	GDF-10	Biological function unknown, but may play a role in differentiation of osteoblasts, augmenting BMP-2 activity.	
BMP-4	BMP2B (BMP2B1, BMP2B2, Bmp2-rs1)	Induces cartilage and bone formation, involved in mesoderm induction, tooth development, limb formation and fracture repair.	Noggin, Chordin, Chordin-like/Neuralin/DAN, Cerberus, Gremlin
BMP-5	None	Induces cartilage and bone formation.	Noggin, Chordin-like/Neuralin/Ventropin, Sclerostin/SOST
BMP-6	Vgr-1, Vg-1-related protein	Induces cartilage and bone formation.	Noggin, Chordin-like/Neuralin/Ventropin, Follistatin, Follistatin-like related gene (FLRG), Sclerostin/SOST
BMP-7	OP-1 (Osteogenic protein-1)	Induces cartilage and bone formation, involved in calcium regulation and bone homeostasis. May act as an osteoinductive factor responsible for epithelial osteogenesis.	Noggin, Chordin, Follistatin-like related gene (FLRG), DAN, Cerberus, Sclerostin/SOST
BMP-8	BMP-8a, OP-2 (Osteogenic protein-2)	Induces cartilage and bone formation, involved in calcium regulation and bone homeostasis. May act as an osteoinductive factor responsible for epithelial osteogenesis.	
BMP-8b	None	Stimulates cartilage and bone formation, implicated in calcium regulation and bone homeostasis.	
BMP-9	GDF-2	May be involved in bone formation, regulates blood glucose homeostasis, potential autocrine/paracrine mediator in the hepatic reticuloendothelial system, involved in chondrogenesis.	
BMP-10	None	Plays a crucial role in trabeculation of the embryonic heart.	
BMP-11	GDF-11	Involved in the patterning of both mesodermal and neural tissues and in establishing the skeletal muscle. Acts globally to specific positional identity along the anterior/posterior axis.	Follistatin, Follistatin-like related gene (FLRG), GASP-1
BMP-12	GDF-7, CDMP-3	Induces the formation of tendon and ligament tissues.	
BMP-13	GDF-6, CDMP-2	Plays a role in cartilage homeostasis, involved in the embryonic skeletal development, and formation of a tendon-like tissue.	Noggin
BMP-14	GDF-5, CDMP-1	Essential for limb cartilage and limb-joint formation in developing mice. Involved in the embryonic skeletal development.	Noggin, DAN
BMP-15	GDF-9B	An oocyte-specific factor that regulates granulosa cell proliferation and differentiation, and is essential for normal follicular growth.	
GDF-1	Embryonic growth/differentiation factor	May be involved in mediating cell differentiation events during embryonic development.	

continued...

TGF- β Superfamily *continued...*

<i>Name</i>	<i>Synonyms</i>	<i>Main Function</i>	<i>Natural Antagonists/ Binding Proteins</i>
GDF-2	BMP-9	Implicated in bone formation.	
GDF-3	Vgr-2	Embryonal carcinoma stem cell-associated marker in vitro and in vivo.	
GDF-5	CDMP-1, BMP-14	Essential for limb cartilage and limb-joint formation in developing mice, involved in the embryonic skeletal development.	Noggin, DAN
GDF-6	BMP-13, CDMP-2, dynamo (zebrafish)	Formation of a tendon-like tissue. Plays a role in cartilage homeostasis, and embryonic skeletal development.	Noggin
GDF-7	BMP-12, CDMP-3, prostate differentiation factor, MIC-1, PLAB	Induces the formation of tendon and ligament tissues.	
GDF-8	Myostatin (MSTN)	Regulates skeletal muscle mass.	Follistatin, Follistatin-like related gene (FLRG), GASP-1
GDF-9	None	Essential for normal follicular growth.	
GDF-10	BMP-3B, BIP (Bone-Inducing Protein)	Biological function unknown, but may play a role in differentiation of osteoblasts, augmenting BMP-2 activity.	
GDF-11	BMP-11	Involved in the patterning of both mesodermal and neural tissues and in establishing the skeletal muscle. Acts globally to specific positional identity along the anterior/posterior axis.	Follistatin, Follistatin-like related gene (FLRG), GASP-1
GDF-15	PLAB, placental bone protein, prostate differentiation factor, NRG1, MIC-1 (Macrophage Inhibiting Cytokine-1)	Possible mediator of placental control of embryonic development, may act as an autocrine regulatory molecule.	
GDNF	ATF (Astrocyte derived neurotrophic factor)	Promotes dopamine uptake and survival and morphological differentiation of midbrain neurons.	
Artemin	ARTN	Supports the survival of all peripheral ganglia such as sympathetic, neural crest and placodally-derived sensory neurons, and dopaminergic midbrain neurons.	
Neurturin	NTN, NRTN	Promotes the development and survival of sympathetic and sensory neurons.	
Persephin	PSP, PSPN	Promotes the survival of ventral midbrain dopaminergic neurons and motor neurons, and promotes ureteric bud branching.	
LEFTY-1	LEFTYB, Protein Lefty B	Essential for left-right asymmetry of organ systems.	
LEFTY-2	LEFTYA, TGF- β ₄ , Protein Lefty A	Essential for left-right asymmetry of organ systems.	
AMH <i>(anti-Muellerian hormone)</i>	MIS, Muellierian inhibiting substance	Causes regression of the Muellierian duct, inhibits the growth of tumors derived from tissues of Muellierian duct origin.	
Dorsalin <i>(chick)</i>	Dorsalin-1, DSL-1	Regulates cell differentiation within neural tube.	
NODAL	None	Essential for mesoderm formation and subsequent organization of axial structures.	Cerberus

Note: This table is reflective of the current knowledge.

Antagonists of TGF- β Ligands

<i>Natural TGF-β Antagonists</i>	<i>Structural Features Contained in the Antagonist Polypeptide (M.W.)</i>	<i>Known TGF-β Binding Partners</i>
Noggin	unique Noggin cysteine knot (26 kDa)	BMP-2,-4,-5,-6,-7,-13/GDF-5, -6
Chordin	4 CR/VWCC (Chordin) domains, 3 SOG repeats (102 kDa)	BMP-2,-4,-7
Chordin-like/Neuralin/Ventroptin	3 Chordin domains (51 kDa)	BMP-4,-5,-6
Follistatin	3 cysteine-rich Follistatin (FS) and 3 kazal domains (38 kDa)	Activin, BMP-2,-4,-6,-7, myostatin/GDF-8, GDF-11, TGF- β ₁
Follistatin-like related gene (FLRG)	2 FS and 2 kazal domains (28 kDa)	Activin, BMP-6, -7, -11, myostatin/GDF-8, GDF-11, TGF- β ₁
GASP-1	1 Wap, 1 FS, 1 kazal, 1 IG-like, 2 kunitz, 1 netrin domains (63 kDa)	Myostatin/GDF-8, GDF-11, Activin, BMP-11
Follistatin-related protein (FSRP)	1 FS, 1 CR/VWRC, 2 EF-hand domains (35 kDa)	Activin, BMP-2,-6,-7
DAN	unique DAN cysteine knot (19 kDa)	BMP-2,-4,-7, -14/GDF-5
Cerberus	DAN-like cysteine knot (30 kDa)	BMP-2,-4,-7, Activin, Nodal
Gremlin	DAN-like cysteine knot (21 kDa)	BMP-2,-4,-7
Sclerostin/SOST	unique Sclerostin cysteine knot (24 kDa)	BMP-5, -6, -7
Decorin	multiple leucine-rich repeats (40 kDa)	TGF β -1, -2
alpha-2 macroglobulin	multiple proteinase inhibitor domains (163 kDa)	TGF β -1, -2, Activin, Inhibin

Note: This table is reflective of the current knowledge.

VEGF/PDGF Family

<i>Functional Name</i>	<i>Synonyms</i>	<i>Expression (Partial List)</i>	<i>Function</i>	<i>Receptors (Selected List)</i>
VEGF-A ₁₂₁	Vascular Permeability Factor (VPF), Vascularotropin	All vascularized tissues	Angiogenesis, induces endothelial cell proliferation, and cell migration, osteoclastogenesis	VEGFR-1,-2
VEGF-A ₁₄₅	Vascular Permeability Factor (VPF), Vascularotropin	All vascularized tissues	Angiogenesis, induces endothelial cell proliferation, vasculogenesis, permeabilization of blood vessels, osteoclastogenesis	VEGFR-1,-2, HSPG, Neuropilin-1
VEGF-A ₁₆₅	Vascular Permeability Factor (VPF), Vascularotropin	All vascularized tissues	Angiogenesis, induces endothelial cell proliferation, vasculogenesis, permeabilization of blood vessels, osteoclastogenesis	VEGFR-1,-2, HSPG, Neuropilin-1,-2
VEGF-A ₁₈₉	Vascular Permeability Factor (VPF), Vascularotropin	All vascularized tissues	Angiogenesis, induces endothelial cell proliferation, migration	HSPG, Neuropilin-1,-2
VEGF-A ₂₀₆	Vascular Permeability Factor (VPF), Vascularotropin	All vascularized tissues	Not determined at time of printing	HSPG, Neuropilin-1,-2
VEGF-B ₁₆₇	VEGF-Related Factor (VRF)	Heart, skeletal muscle, vascular smooth muscle cells	Embryonic angiogenesis	VEGFR-1, Neuropilin-1
VEGF-B ₁₈₆	VEGF-Related Factor (VRF)	Heart, skeletal muscle, vascular smooth muscle cells	Embryonic angiogenesis	VEGFR-1, Neuropilin-2
VEGF-C	VEGF-2, Vascular Endothelial Growth Factor Related protein (VRP), flt4 ligand	Neuroendocrine organs, lung, heart, kidney, vascular smooth muscle cells	Lymphangiogenesis and tumor angiogenesis	VEGFR-2,-3, Neuropilin-2
VEGF-D	c-Fos Induced Growth Factor (FIGF)	Neuroendocrine organs, lung, heart, skeletal muscle, small intestine, vascular smooth muscle cells	Lymphangiogenesis and angiogenesis	VEGFR-2,-3
VEGF-E (Orf Virus)	None	Virus-derived	Induces endothelial proliferation, vascular permeability, angiogenesis	VEGFR-2, Neuropilin-1 (binds NZ2-VEGF-E variant)
VEGF-F (Snake venom)	None	Snake venom	Induces endothelial proliferation vascular permeability, angiogenesis	VEGFR-2
PIGF-1	PGF, PlGF	Placenta, thyroid, lung, goiter	Angiogenesis, chemotactic towards monocytes, wound healing and tumor formation	VEGFR-1
PIGF-2	PGFL	Placenta, thyroid, lung, goiter	Angiogenesis, chemotactic towards monocytes, wound healing and tumor formation	VEGFR-1, Neuropilin-1, Neuropilin-2
PIGF-3	Placenta Factor-3	Placenta	Angiogenesis, chemotactic towards monocytes, wound healing and tumor formation	VEGFR-1
PIGF-4	None	Placenta, thyroid, lung, goiter	Angiogenesis, chemotactic towards monocytes, wound healing and tumor formation	VEGFR-1
PDGF-AA	Glioma-Derived Growth Factor (GDGF), Osteosarcoma-Derived Growth Factor (ODGF)	α -granules, released upon platelet activation	Mitogenic factor, hyperplasia, cell migration, embryonic neuron development, angiogenesis	PDGFR- α
PDGF-BB	Glioma-Derived Growth Factor (GDGF), Osteosarcoma-Derived Growth Factor (ODGF)	Heart, brain (substantia nigra), placenta, fetal kidney	Mitogenic factor, hyperplasia, cell migration, embryonic neuron development, angiogenesis	PDGFR- α , PDGFR- β
PDGF-AB	Glioma-Derived Growth Factor (GDGF), Osteosarcoma-Derived Growth Factor (ODGF)	α -granules, released upon platelet activation	Mitogenic factor, hyperplasia, cell migration, embryonic neuron development, angiogenesis	PDGFR- α , PDGFR- β
PDGF-CC	Fallotein, Spinal Cord-Derived Growth Factor (SCDGF)	Retinal pigment epithelia, fallopian tube, vascular smooth muscle cells in kidney, platelets, prostate, testis, uterus	Mitogenic factor, hyperplasia, cell migration, embryonic development, angiogenesis	PDGFR- α
PDGF-DD	Iris-Expressed Growth Factor (IEGF), Spinal Cord-Derived Growth Factor-B (SCDGF-B)	Heart, pancreas, adrenal gland, ovary, placenta, liver, kidney, prostate, testis, small intestine	Mitogenic factor, hyperplasia, cell migration, embryonic development, angiogenesis	PDGFR- β

Neurotrophin/Neuropoietic

Functional Name	Synonyms	Main Neurotrophic Functions (Partial List)	Disease/Disorder Relation (Partial List)	Receptors
β-NGF (beta-Nerve Growth Factor)	None	Supports survival and maintenance of neurons in the sensory and sympathetic nervous systems	Alzheimer's, Parkinson's, diabetic peripheral neuropathy, cardiovascular diseases	LNGFR, gp140/trk, p75NTR
BDNF (Brain Derived Neurotrophic Factor)	None	Supports survival and maintenance of neurons in the central nervous system and peripheral nervous systems	Parkinson's, diabetic peripheral neuropathy, ALS, Huntington's	LNGFR, gp145/trkB, p75NTR
NNT-1/BCSF-3 (Novel Neurotrophin-1/ B-Cell Stimulating Factor 3)	Cardiotrophin-like cytokine (CLCF1)	Supports survival of motor and sympathetic neurons in chick embryos	Multifocal neuronal hypoplasia, neurodegenerative eye diseases (glaucoma), CISS (cold-induced sweating syndrome)	LIFR-β, gp130
NT-3 (Nerotrophin-3)	NGF-2, HGNF	Promotes growth and survival of new and existing neurons	Diabetic peripheral neuropathy, periodontal diseases	Trk, TrkB, TrkC, p75NTR
NT-4 (Neurotrophin-4)	NT-4/NT-5	Promotes survival of peripheral sensory sympathetic neurons	Huntington's, glaucoma	TrkB, p75NTR
GDNF (Glial Cell Line-Derived Growth Factor)	ATF-1	Promotes dopamine uptake, survival and morphological differentiation of midbrain neurons	Parkinson's, ALS, Huntington's	RET/GFR1α-4α
MANF (Mesencephalic Astrocyte-Derived Neurotrophic Factor)	ARMET, Arginine-rich protein (ARP)	Promotes survival, growth and function of dopamine specific neurons	Parkinson's, cancer	Unknown at time of printing
CDNF (Cerebral Dopamine Neurotrophic Factor)	ARMETL1	Promotes survival, growth and function of dopamine specific neurons	Parkinson's	Unknown at time of printing
CNTF (Ciliary Neurotrophic Factor)	None	Promotes survival of ciliary neurons, primary sensory neurons, motor neurons, basal forebrain neurons, and type 2 astrocytes	ALS, Huntington's	CNTFR-α
IL-6 (Interleukin-6)	26 kDa protein, IFN-β2, B-cell Differentiation Factor (BCDF), BSF-2, HPGF, HSF, MGI-2	Involved in inflammation associated with Alzheimer's disease	Diabetes, atherosclerosis, Alzheimer's, depression, rheumatoid arthritis, systematic lupus, cancer, MS	IL-6Rα, gp130
Oncostatin M	OSM	Involved in the regulation of neurogenesis	Rheumatoid arthritis, atherosclerosis, cancer, TEL/JAK2 disease	LIFR-high affinity, gp130-low affinity
Cardiotrophin-1	CT-1	Enhances the survival of different neuronal populations	Motor Neuron Diseases (MND), cardiovascular diseases	gp130, LIF R
IL-11 (Interleukin-11)	AGIF (Adipogenesis inhibitory factor)	Survival of oligodendrocytes, involved in inflammation associated with MS	Atherosclerosis, MS	IL-11Rα, gp130
LIF (Leukemia Inhibitory Factor)	Differentiation-stimulating factor, D-factor, Melanoma-Derived LPL inhibitor (MLPLI)	Promotes the stimulation of differentiation of cholinergic nerves	Systemic lupus, cancer, epidermal hyperplasia in ALS	LIFR
Pleiotrophin	PTN, Heparin Affin Regulatory Protein (HARP), Heparin-Binding Growth Factor-8 (HBGF-8), Osteoblast-Specific Factor-1 (OSF-1)	Promotes neurite outgrowth	Angiogenesis, Parkinson's, cancer	ALK
Midkine	MK, NEGF-2	Promotes neurite outgrowth	Alzheimer's, cancer	ALK
Neurturin	NTN, NRTN	Promotes survival of sympathetic and sensory neurons	Parkinson's	Prefers RET/GFR2α
Artemin	ART	Promotes the survival of sympathetic, neural crest, placodally derived sensory neurons, and dopaminergic midbrain neurons	Chronic Pain	Prefers RET/GFR3α
Persephin	PSP, PSPN	Promotes the survival of ventral midbrain dopaminergic neurons and motor neurons after sciatic nerve oxotomy	Alzheimer's	Prefers RET/GFR4α

General Characteristics of Plasma Lipoproteins

LP Particle	Size	Density (g/ml)*	TG/CE Ratio*	L/P Ratio*	Associated Apoproteins
CM	1000nm	<0.95	28.83	65.66	apoB-48 , apoA, apoC, apoE, apoH
VLDL	70nm	0.98	3.89	10.76	apoE , apoB-100, apoC
IDL	40nm	1.01	0.82	8.09	apoE , apoB-100, apoC
LDL	20nm	1.04	0.18	3.76	apoB-100 , apoC, apoE, apo(a)
HDL	10nm	1.13	0.16	1.22	apoA-1 , apoC, apoD, apoE

LEGEND: * Average values, TG-triglycerides, CE-cholesteryl esters, L/P- lipid/protein, **Bold** represents the major apoprotein

Classification of Apoproteins

Apoprotein	(MW)	Function and Comments
ApoA-I	(29kDa)	Major protein of HDL, activates LCAT, high levels of ApoAI are associated with a reduced risk of CHD.
ApoA-II	(17.4kDa)	Primarily in HDL, enhanced hepatic lipase activity.
ApoA-IV	(46kDa)	Present in fat rich LPs.
ApoB-48	(246kDa)	Derived from ApoB-100 gene by RNA editing, found exclusively in CMs, lack the LDLR binding domain of ApoB-100.
ApoB-100	(513kDa)	Major protein of LDL, binds to LDLR, high levels of ApoB- 100 are associated with an increased risk of CAD.
ApoC-I	(7.6kDa)	Appears to be involved in activation of LCAT.
ApoC-II	(8.9kDa)	Activates LPL, deficiency of ApoC-II results in accumulation of CMs and high TG levels.
ApoC-III	(8.75kDa)	Inhibits LPL.
ApoD	(33kDa)	Found only in HDL, closely associated with LCAT.
ApoE	(34kDa)	Three known ApoE alleles (E2, E3, E4). Binds to LDLR, inhibits development of atherosclerosis, ApoE4 is associated with late-onset Alzheimer's disease.

General Abbreviations

AA (aa)	Amino Acid	HUVEC	Human Umbilical Venous Endothelial Cells
AAP	Antigen-Affinity Purified	ICC	Immunocytochemistry
ABTS	azino-diethylbenzothiazoline-sulfonate	IgG	Immunoglobulin G
AEC	3-amino-9-ethylcarbazole	IgE	Immunoglobulin E
AP	Alkaline Phosphatase	IHC	Immunohistochemistry
AR	Antigen Retrieval	IU	International Unit
bME	beta-Mercatoethanol	kDa	kilodaltons
BSA	Bovine Serum Albumin	LAL	Limulus Amoebocyte Lysate assay
Bt	Biotinylated	LPS	Lipopolysaccharide
CHO	Chinese Hamster Ovary (cells)	MAb	Monoclonal Antibody
ConA	Concanavalin A	MSDS	Material Safety Data Sheet
Da	Daltons	MW	Molecular Weight
DAB	3,3' Diaminobenzidine	MSC	Mesenchymal Stem Cells
DI	Deionized	NaP (NaPO ₄)	Sodium Phosphate
DMEM	Dulbecco's Modified Eagle Medium	NFDM	Nonfat Dry Milk
DMSO	Dimethyl Sulfoxide	NK	Natural Killer Cells
DTT	Dithiothreitol	NM	Nitrocellulose Membrane
ED50	50% Effective Dose	NSC	Neural Stem Cells
EDK	ELISA Development Kit	O.D.	Optical Density
ECM	Extra Cellular Matrix	PAb	Polyclonal Antibody
EIA	Enzyme Immunoassay	PAGE	Polyacrylamide gel electrophoresis
EIER	Enzyme-Induced Epitope Retrieval	PCR	Polymerase Chain Reaction
ELISA	Enzyme-Linked Immunosorbent Assay	PBL	Peripheral Blood Lymphocytes
EU	Endotoxin Unit	PBS	Phosphate Buffered Saline
ES	Embryonic Stem Cells	PBST	PBS with 0.1% TWEEN-20
FACS	Fluorescence-Activated Cell Sorter	PBMC	Peripheral Blood Mononuclear Cells
FBS	Fetal Bovine Serum	PHA	Phytohemagglutinin
FCS	Fetal Calf Serum	pI	Isoelectric Point
FFPE	Formalin-Fixed Paraffin-Embedded	PIER	Protease-Induced Epitope Retrieval
FLISA	Fluorescence-linked immunosorbent assay	Rb	Rabbit
Gt	Goat	RIA	Radioimmunoassay
HCl	Hydrochloric acid	RT	Room Temperature
HEK293	Human Embryonic Kidney Cells	SDS	Sodium Dodecyl Sulfate
HIER	Heat-Induced Epitope Retrieval	TBS	Tris Buffered Saline
HoAc	Acetic Acid	TFA	Trifluoroacetic Acid
HPLC	High-Performance Liquid Chromatography	TMB	3,3',5,5'-tetramethylbenzidine
HRP	Horseradish Peroxidase	WB	Western Blot
HSA	Human Serum Albumin	WFI	Water Force Injection
HSC	Hematopoietic Stem Cells	WHO	World Health Organization

Cytokines - Technical FAQ

Before releasing our cytokines and cytokine products for sale they are thoroughly analyzed to ensure the following qualities:

1. *Authenticity*: by N-terminal sequence analysis and, when possible, by SDS-PAGE, RP-HPLC, and Mass Spectrometry analyses versus standards.
2. *Purity*: by SDS-PAGE and RP-HPLC analysis
3. *Biological Activity*: by the relevant *in vitro* or *in vivo* bioassay.
4. *Protein content*: by UV spectroscopy, SDS-PAGE analysis and, when possible, by HPLC analysis versus the calibrated standard solution.
5. *Endotoxin contamination*: by kinetic LAL method.
6. *Microbiological contamination*: by membrane filtration method; protein solutions are sterile-filtered prior to vialing.

The relevant information relating to each product appears on the Certificate of Analysis that is shipped with the product. Please read this information carefully to obtain useful instructions for reconstitution and storage. If, after reading the data sheet, you need additional information, please review the following set of questions and answers, or call our technical service department at 800-436-9910.

1. What should I know about the stability of your protein products?

Unless otherwise mentioned on the product information sheet, all of our products are formulated in such a manner that the lyophilized proteins are very stable at room temperature. However, we recommend storing lyophilized products at -20° C.

For reconstituted solutions of most products, we recommend short-term storage at 4° C. For longer term storage the protein solution should be stored with a carrier protein (eg. 0.1%BSA) in working aliquots and stored frozen at -20° C. Please keep in mind that every freeze/thaw cycle may cause some denaturation of the protein.

2. Why can't I see the protein pellet in the vial?

Unlike many protein products available on the market, PeproTech products are not formulated with carrier protein or other additives (e.g., BSA, HSA, sucrose, etc.) and are often lyophilized with a minimum amount of salt. As a result, the small amounts of protein can be deposited on the vial during lyophilization as a thin and sometimes invisible film. Before opening, we recommend centrifuging each vial in a microcentrifuge for 20-30 seconds to drive any protein that may be lodged in the cap or on the side to the bottom of the vial. Our quality control procedures assure that each vial contains the correct amount of product.

3. What is the relationship between the specific activity expressed as an ED₅₀ and as units/mg?

The ED₅₀ is defined as the cytokine concentration at which the activity is 50% of the maximum response. This method of expressing potency should only be used for cytokines whose dose-response curves are sigmoidal in shape. The formula for converting the activity as an ED₅₀ in ng/ml to specific activity in units/mg is:

$$\frac{1 \times 10^6}{ED_{50} \text{ (ng/ml)}} = \text{specific activity (units/mg)}$$

4. Which cytokines show cross-species activity?

With a few exceptions, most human cytokines are active on mouse cells. Many mouse cytokines are active on human cells, but may show lower specific activity than the corresponding human cytokine. A few human cytokines, such as IL-7, even exhibit higher specific activities on mouse cells than do the corresponding mouse cytokines. The interferons, GM-CSF, IL-3, and IL-4 are known to be species-specific with very little, if any, activity on non-homologous cells. In contrast, the FGF's and neurotrophins are very highly conserved and show excellent activity on cells of other animal species.

Animal-Free Media Supplement Kit - Technical FAQ

- 1. What is chemically defined serum free media?**
Chemically defined media include only components of known molecular structures and concentrations.
- 2. Are PeproTech's Serum-Free Cell Culture media supplement kits protein-free?**
Yes, PeproTech's Serum-Free Cell Culture media kits are protein-free, as well as animal-free.
- 3. What are the advantages of using chemically-defined Serum-Free media?**
The advantages include: lot-to-lot consistency and reproducible cell growth; greater protein yield (for protein production applications) vs. using serum, consistent media performance, lowered risk of contamination with viral and other adventitious infectious agents, reduced downstream purification challenges (for protein production applications), elimination for the need to prescreen serum lots, and simplification of any regulatory or other documentation requirements.
- 4. Can you provide the certifications for these animal-free components?**
Yes, please contact QC/Technical services.
- 5. Where can I find formulations for these kits?**
Formulations for these kits are proprietary to PeproTech, Inc.
- 6. Can I use DMEM instead of DMEM/F12?**
DMEM/F12 medium is the mixture of half DMEM and half F12 medium, therefore DMEM/F12 has much more nutrition than DMEM alone. PeproTech has not tested DMEM at this time. Therefore, it is recommended that DMEM/F12 is used with PeproTech supplements.

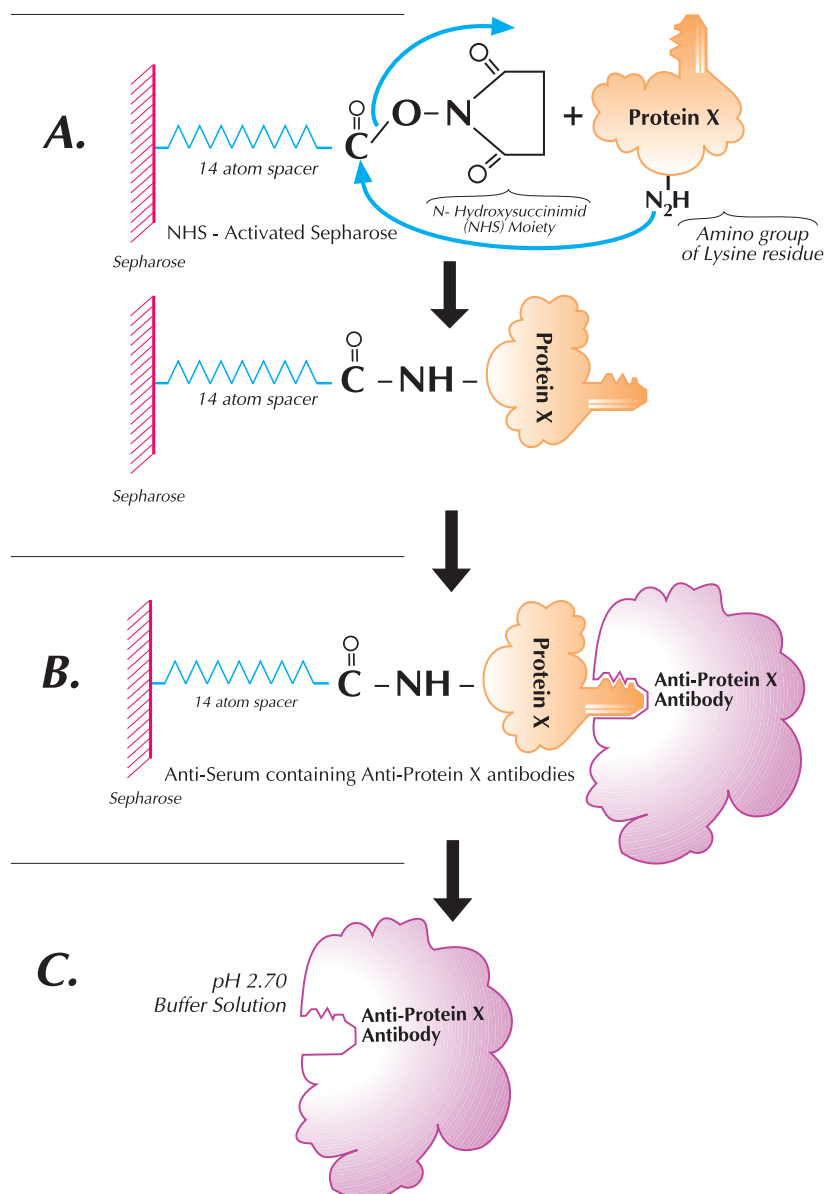
Antigen Affinity Purification of Antibodies

Cytokines are signaling proteins necessary for cell-to-cell communication throughout the body. In accordance with their role in preserving vital biological functions, the amino acid sequence of homologous cytokines from different mammalian species is generally highly conserved, rendering them poor immunogens for anti-

body production. Consequently, the sera obtained from host animals after immunization with cytokines (Figure I-4) typically contain minute amounts of cytokine-specific antibodies. Isolation of these antibodies by standard purification procedures (e.g. ion-exchange chromatography) is tedious and ineffective.

Figure I-1 - Antigen Affinity Purification of Antibodies

(A.) Preparation of separation resin. (B.) Specific binding of Antibody to the resin. (C.) pH elution of the antibody from the affinity column.

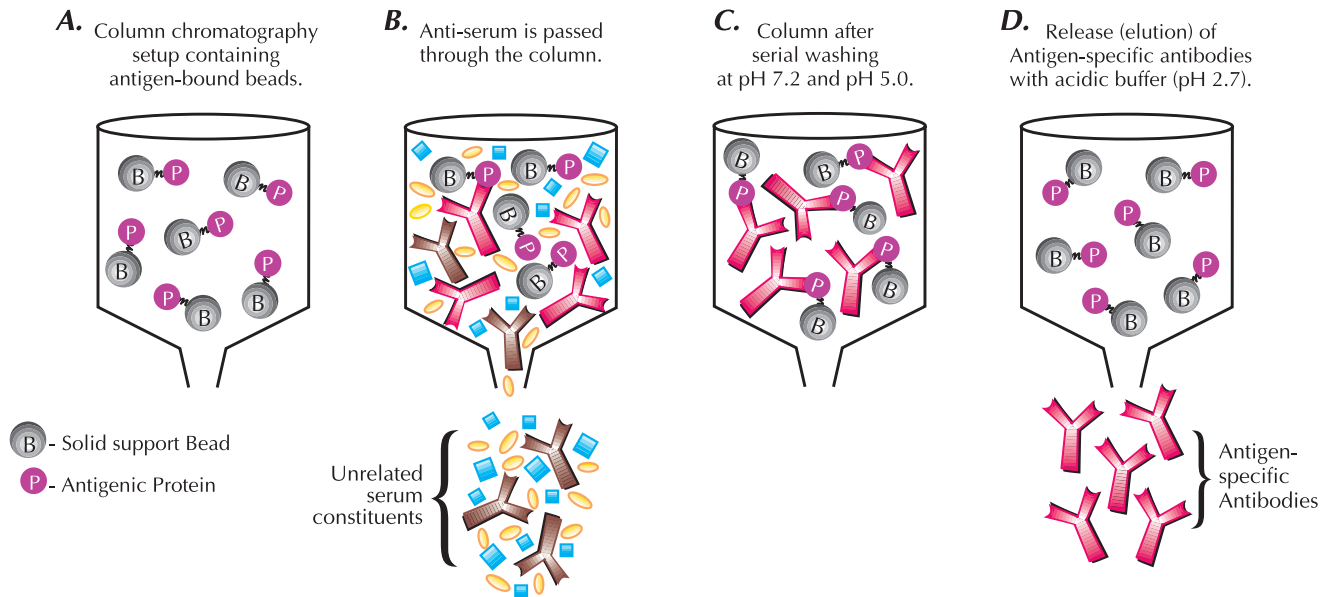


On the other hand, purification protocols which exploit the binding affinity of antibodies to certain bio-molecules have yielded much better results. For example, Protein A and Protein G are bacterial (Staphylococcus) derived proteins that possess high binding affinity toward the F_c (Fragment crystallizable) region of immunoglobulins (IgGs), and when attached to a solid-support matrix, enable efficient separation of IgGs from other serum constituents. Protein A/G affinity purification of serum IgGs typically enriches the desired antibody by more than 100-fold. Yet, in the case of anti-cytokine antibodies, the total IgG fraction often

contains less than 0.2% of the desired antibody. The large quantity of unrelated IgGs found in these preparations not only interferes with quantification of the relative amount of the cytokine-specific antibody, but also considerably increases the background noise when the antibody is used in analytical procedures such as ELISA, neutralization, immunohistochemistry, and Western blotting. A superior method for isolating specific polyclonal antibodies from antiserum is by affinity chromatography, which exploits the specificity of antibody-antigen interactions (Figure I-1). Here, the separation medium consists of a solid-support resin to which the antigen is

Figure I-2

Schematic illustration of column chromatography setup for antigen-affinity purification of antibodies.



NOTE: Elution is titrated with 1M NaOH to pH 7.2.

Antigen Affinity Purification of Antibodies *continued...*

attached through stable covalent bonds. The immobilized antigen is then used in a column chromatography setup to selectively capture antigen-specific antibodies, while other serum proteins and unrelated immunoglobulins are washed away (Figure I-2). The antigen-bound antibodies

can be eluted from the column by an acidic solution (Figure I-3), which is promptly brought back to physiological pH to prevent acid-catalyzed antibody denaturation. This method typically yields >95% pure specific antibodies (Figure I-5).

Figure I-3 - A typical Antigen Affinity Purification Chromatogram

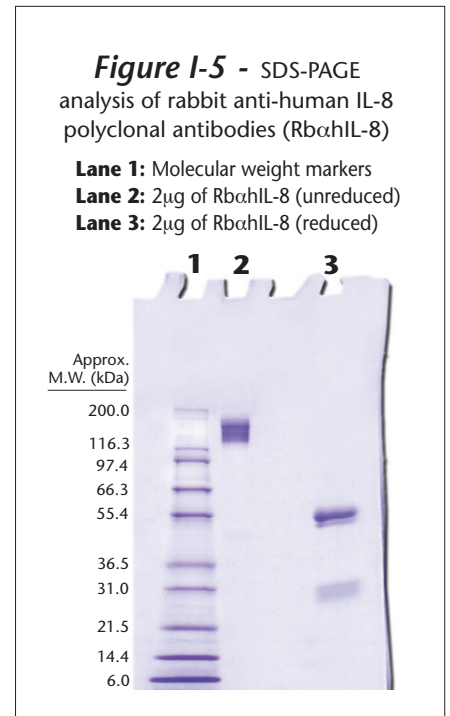
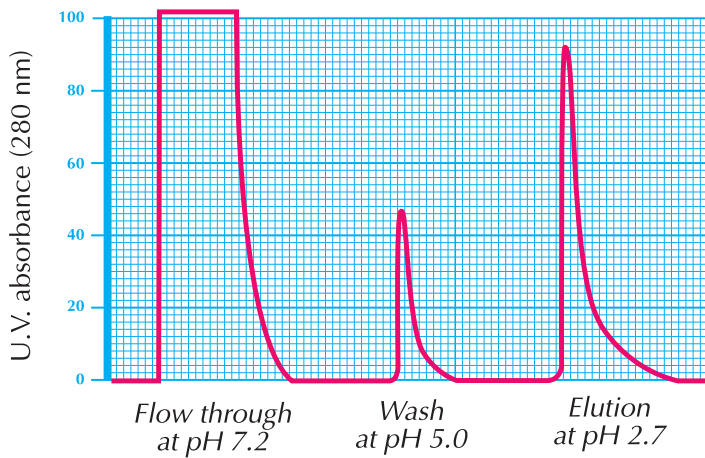


Figure I-4 - General Immunization Schedule for Polyclonal Antibody Production in Rabbits

Day	Procedure	Antiserum Collected
1	Prebleed	3mL
1	Initial Immunization (250ug)	-
21	Immunization (125ug)	-
31	Titer Test Bleed	3mL
42	Immunization (125ug)	-
49	Production Bleed	10-25mL
56	Production Bleed	10-25mL
63	Immunization (125ug)	-
70	Production Bleed	10-25mL
77	Production Bleed	10-25mL
84	Immunization (125ug)	-
91	Production Bleed	10-25mL
98	Production Bleed	10-25mL

Antibody FAQ

- 1. Does PeproTech test for endotoxin in their antibodies?**

PeproTech does test their antibodies for endotoxin using the kinetic LAL method. Please contact Technical Support for more information.
- 2. Which isotype are PeproTech's polyclonal antibodies?**

The polyclonal antibodies that PeproTech manufactures are IgG antibodies.
- 3. How are your antibodies purified?**

All polyclonal and biotinylated polyclonal antibodies are antigen-affinity purified. Monoclonal antibody purification varies by product; please contact Technical Support for more information.
- 4. Can you tell me what epitope PeproTech's antibody binds to?**

PeproTech does not perform epitope mapping at this time. As a general guideline, a polyclonal mixture of antibodies will bind to multiple epitopes on the protein of interest while each monoclonal antibody will bind to a specific epitope.
- 5. Have PeproTech's antibodies been tested in neutralization assays?**

Neutralization testing is performed on a lot-to-lot basis for each antibody. The results of this testing can be found on the product's corresponding data sheet.
- 6. Are PeproTech's antibodies suitable for use in ELISA and Western Blot applications?**

PeproTech's antibodies are suitable for use in ELISA and Western Blot assays; please see our individual ELISA and Western Blot F.A.Q. sections for more information regarding these applications.
- 7. What information should be known about the stability of your antibody products?**

PeproTech's antibodies are lyophilized from PBS. As such, they are stable at room temperature for at least 1 month. For longer periods, we recommend storing the lyophilized products at -20°C.

For reconstituted solutions of the antibodies, we recommend short-term storage at 4°C. For long-term storage the antibody solution should first be aliquoted (to avoid more than one freeze/thaw cycle) and stored frozen at -20°C. Frozen aliquots of this antibody solution are stable for at least 1 year when kept at -20°C.
- 8. Do PeproTech's antibody products contain any carrier proteins or other additives?**

No, PeproTech does not formulate its polyclonal, biotinylated polyclonal, or monoclonal antibodies with additives or carrier proteins.
- 9. Will PeproTech's antibodies work in immunohistochemistry and immunocytochemistry applications?**

All antibodies that have been tested so far have been found to be suitable for these applications. However, we are still gathering data for more of our antibodies. Please contact Technical Support for more information.
- 10. Will PeproTech antibodies recognize target proteins sold by other vendors?**

PeproTech's antibody products have high binding affinity towards the natural and/or recombinant versions of the corresponding proteins. However, due to lack of authenticity sometimes found in other vendors' proteins, we cannot guarantee that our antibodies will perform as well with these proteins.
- 11. Will PeproTech's antibodies recognize target protein in complex biological fluids such as blood or serum?**

Yes. However, for samples that have a high content of interfering agents the recognition will be less efficient and a higher background, or reduced signal to noise ratio, may be seen.

ELISA

Enzyme-linked immunosorbent assay (ELISA) is a laboratory technique for quantifying the concentration of specific antigens or antibodies in cell lysates, sera, or other complex solutions. In its simplest format, called direct ELISA, a solid-phase binding support such as a polystyrene plate is used to capture the tested antigen, which is then detected with the aid of a specific enzyme-linked antibody (E-Ab). The detection protocol involves conversion of a colorless substrate solution into an intense, colored product that can be measured directly in the reaction plate. The increase in optical density during the reaction is recorded at different time points for several sample dilutions, and the collected data is then used in conjunction with a standard curve to calculate the concentration of the antigen in the original sample (Figure II-1). Although the sensitivity and specificity of ELISA are comparable to those of radioimmunoassay

(RIA), ELISA has the advantage of not requiring radioactive isotopes and expensive counting devices. In recent years, ELISA has gained popularity in both research and clinical laboratories, and has become an important diagnostic test for many infectious diseases, including the human immunodeficiency virus (HIV).

A number of different enzymes are suitable for the preparation of E-Abs, including alkaline phosphatase, horseradish peroxidase, and carbonic anhydrase. Although E-Abs can be obtained by covalently binding enzymes to antibodies through a coupling agent such as glutaraldehyde, this method is not commonly used, because it often yields products with impaired immunological and/or enzymatic activity. A superior method to prepare fully active E-Abs is by exploiting the high binding affinity of avidin for biotin, as depicted in Figure II-2.

Figure II - 1 - Sample Standard Curve - Human EGF ELISA

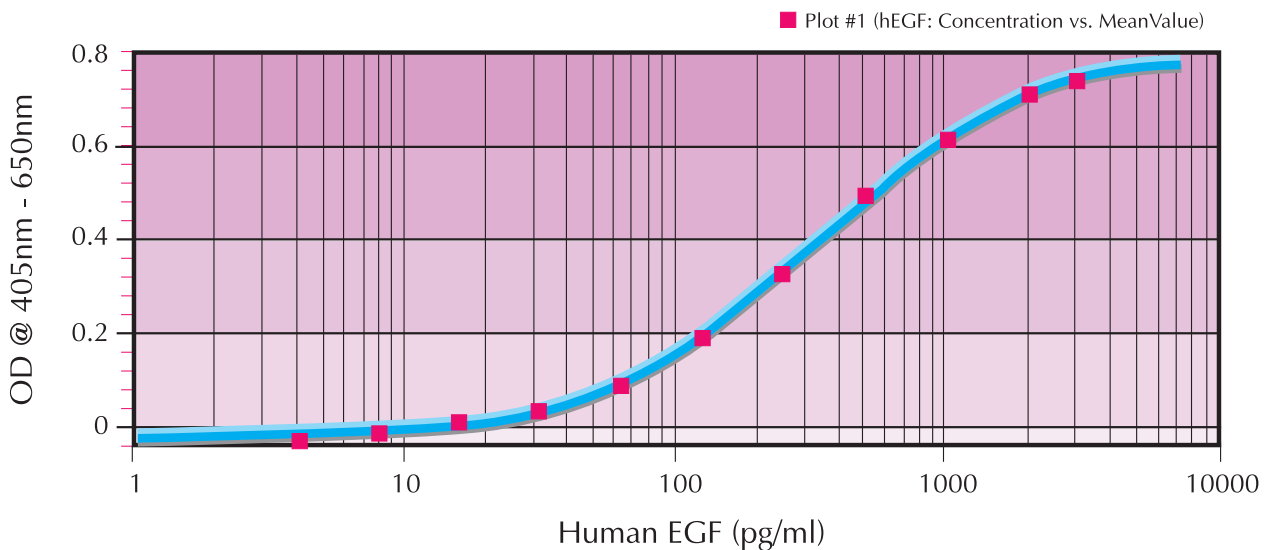
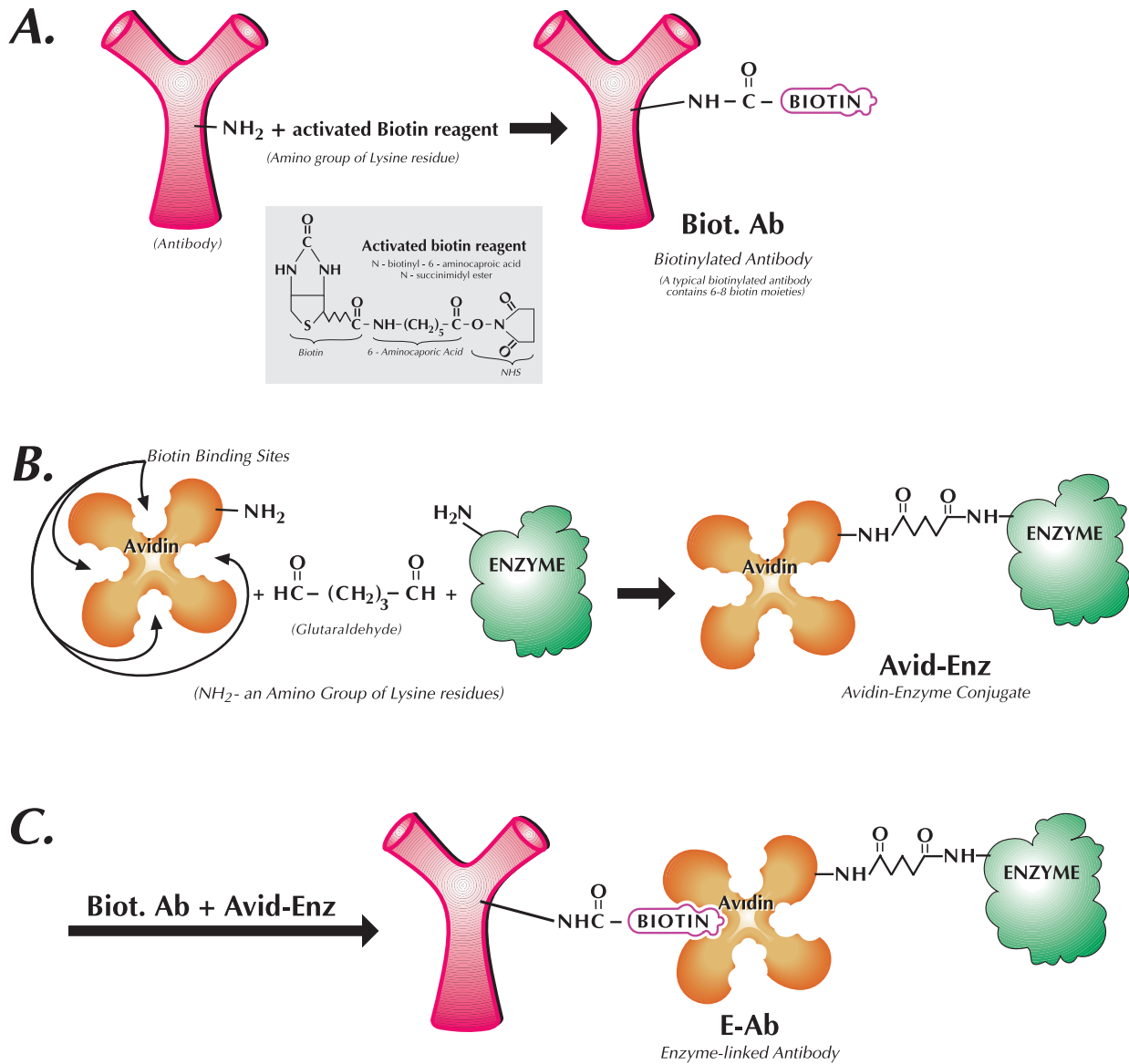


Figure II - 2 - Steps in the production of enzyme-linked antibody, through Avidin-Biotin interaction.

(A.) Biotinylation of an Antibody. **(B.)** Avidin-Enzyme Conjugation.
(C.) *In Situ* formation of enzyme-linked Antibody via noncovalent interaction between Avidin and Biotin.



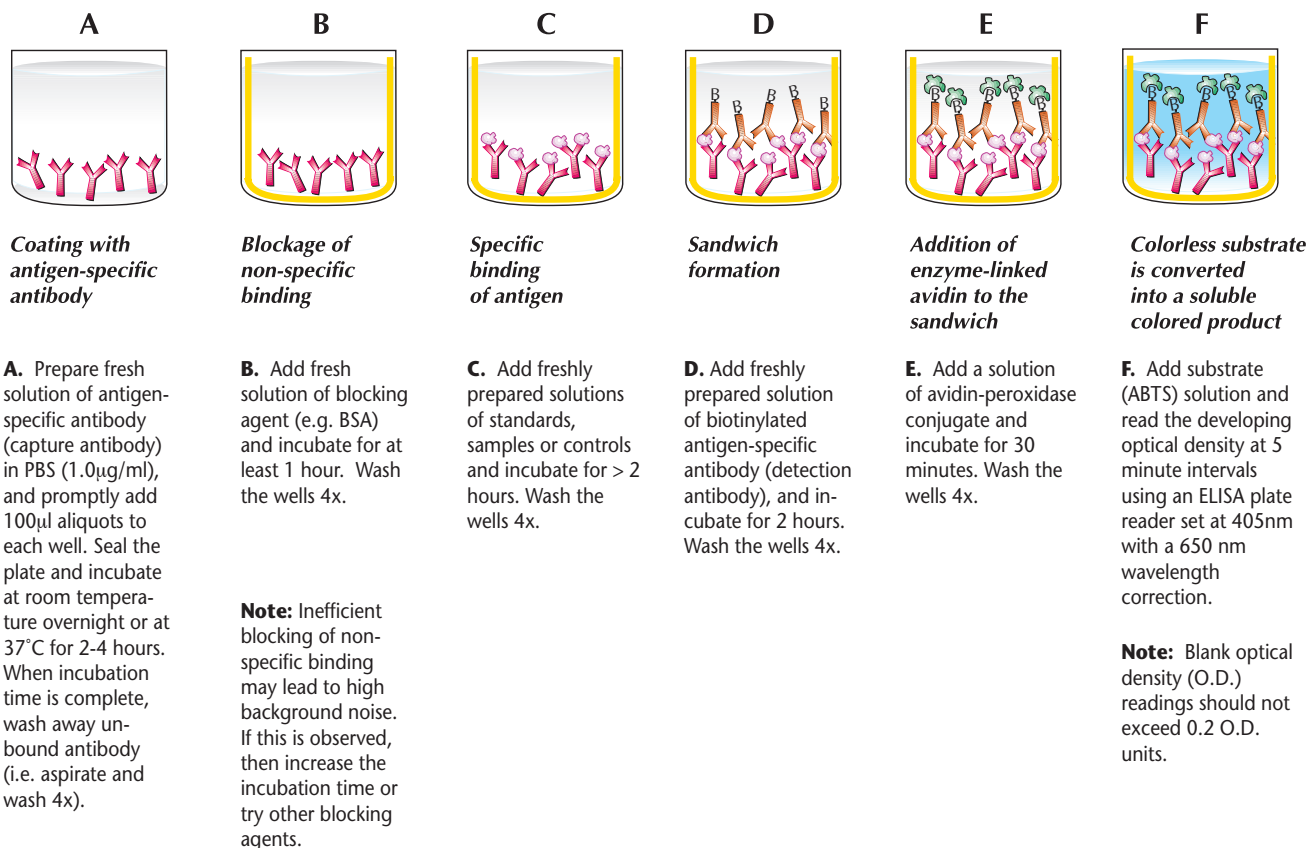
INFORMATION & TECHNICAL SUPPORT

ELISA *continued...*

The biotinylated antibody used in this method contains on average 6-8 biotin moieties, which due to their small size do not interfere with the interaction between the antibody and the captured antigen. Once unbound antibody has been rinsed from the plate, the biotin moieties are used *in-situ* to form stable complexes with avidin-enzyme conjugates. A major limitation of the direct ELISA format is that certain antigens (e.g. low molecular weight cytokines) bind poorly to polystyrene plates, and therefore, cannot be measured accurately by the

assay. To by-pass this limitation, the plate can be pre-coated with a specific antibody that recognizes the tested antigen through epitopes that are not used by the E-Ab. Using a matched pair of antigen-specific antibodies, one for capturing and one for detection, significantly improves both the sensitivity and specificity of the assay. This format, called Sandwich ELISA, enables detection of picogram quantities of antigens and is the preferred method for measuring cytokines and hormones in biological samples (Figure II-3).

Figure II - 3 - Schematic presentation of Sandwich ELISA protocol.



Note: Unless otherwise specified, the ELISA protocol is conducted at ambient temperature.

ELISA FAQ

1. How many plates can I run with one of PeproTech's ELISA Development Kits (EDKs)?

One EDK contains enough material to run 10 standard plates at 100 wells each. This corresponds to 1,000 ELISA plate wells.

2. What is the stability of the avidin-HRP included in PeproTech's ELISA Development Kit?

The avidin-HRP included in the kit is stable for up to 1 month at 2-8°C, and for up to 2 years at -20°C.

3. How can I find cross reactivity information for a kit?

PeproTech performs in-house cross reactivity testing on its ELISA Development Kits. The results that have been collected from this testing are located on the kit's data sheet.

4. Is there any step of the ELISA protocol that can be left over the weekend?

The plate may be coated with the capture antibody on Friday, left at 4°C over the weekend, and resumed on Monday. *Please note: changing incubation times may cause results to vary between plates.*

5. Are PeproTech's EDKs suitable to use with all sample types?

Although PeproTech has not tested all of its kits in every matrix available, they should be suitable for use in, but not limited to: serum, plasma, cell culture supernatant, urine and saliva.

6. Is a stop solution necessary to stop the reaction?

A stop solution is not needed when using avidin-HRP + ABTS. In general, reliable standard curves are obtained when either O.D. readings do not exceed 0.2 units for the zero standard concentrations, or 1.2 units for the highest standard concentration.

If a stop solution is desired, 1% sodium dodecyl sulfate (SDS) may be used to end the reaction. Stop solutions are not used in PeproTech's laboratory, though literature has shown that SDS is the optimal stop solution for ABTS.

7. Can I use TMB with PeproTech's EDKs?

PeproTech's EDKs are optimized using ABTS and are, therefore, best used in conjunction with this substrate. The kit can still be used in combination with TMB, but only after some adjustments have been made:

- The avidin-HRP provided in the kit cannot be used with TMB; streptavidin must be purchased separately.
- Dilutions of streptavidin will need to be optimized.
- A stop solution is generally needed when using streptavidin + TMB. Refer to manufacturer's data sheet.
- The TMB reaction time, prior to the addition of stop solution, will need to be optimized.
- The plate is to be read at 450nm with a correction at 650nm when using recommended plates.

8. Why is D-mannitol added to the EDK components?

D-mannitol is added to the EDK components in order to aid in protein/antibody visualization. It does not alter ELISA results.

9. Can I use the curve on the EDK data sheet as my standard curve?

A separate standard curve must be run on each ELISA plate. In other words, the curve from one plate cannot be used for a different plate. The curve that PeproTech provides on the EDK data sheet is for demonstration purposes only, as achieved in PeproTech's laboratory.

10. How does PeproTech generate their standard curve?

When an ELISA is run in PeproTech's lab, a Molecular Devices® plate reader and the SOFTmax® PRO software are used. This program uses the values that are received and generates a 4-parameter curve. Here is the equation that the program uses:

4-P Fit:

$$y = \frac{A - D}{1 + \left(\frac{x}{C}\right)^B} + D$$

x = concentration (pg/ml)

y = O.D. (405nm - 650nm)

A, B, C, & D correspond to the 4 parameters.

*For more detailed information regarding the parameters, please contact the Technical Support Department.

ELISA Troubleshooting Guide

When trouble shooting, prepare all fresh buffers. Sterile filter buffers containing BSA and allow all reagents to reach room temperature prior to use.

<i>Problem</i>	<i>Possible Source</i>	<i>Suggestion</i>
High Background/ Non-specific Color Development	Non-specific binding of antibody	<ul style="list-style-type: none"> • Modify blocking buffer used (e.g. substitute casein for BSA). Do not wash after blocking step; dump, blot & go directly to the next step.
	Plate not washed sufficiently	<ul style="list-style-type: none"> • Be sure all wells are filled with buffer during every wash step. Be sure washing apparatus is working properly. Wash 3-5x between steps. Do not add additional washes. After final wash, blot plate forcefully on paper towel to remove residual buffer. Be sure the correct amount of Tween was added to the wash solution (0.01-0.1% recommended).
	Contaminated Buffers	<ul style="list-style-type: none"> • Prepare all buffers fresh (within 7 days of use) and sterile filter.
	Incubation temperature too high	<ul style="list-style-type: none"> • Incubate at room temperature (25°C) throughout whole procedure.
	Incubation time too long	<ul style="list-style-type: none"> • Reduce incubation time.
	Contamination of the substrate with the conjugate or contamination of blank wells with positive control	<ul style="list-style-type: none"> • Change pipette tips between reagents and use separate reservoirs. Ideally, wash buffer should be aspirated (pouring/dumping may lead to cross contamination).
	Concentration of detection antibody or avidin-HRP is too high	<ul style="list-style-type: none"> • Check calculations or try further dilutions.
	Substrate exposed to light prior to use	<ul style="list-style-type: none"> • Keep substrate in the dark until ready to dispense into wells.
	Wrong filter used when taking readings	<ul style="list-style-type: none"> • Wavelength should be 405nm for ABTS (450 for TMB) with a 650nm wavelength correction when using recommended plates.
Read beyond time needed for development	<ul style="list-style-type: none"> • Read at 5 minute intervals in order to monitor blank O.D. readings. 	
Weak/No Color Development	A reagent or a step of the procedure omitted by mistake	<ul style="list-style-type: none"> • Check protocol and follow steps carefully.
	Detergent concentration in wash buffer too high	<ul style="list-style-type: none"> • Remove or decrease detergent (0.01-0.1% recommended).
	Plate washed inadequately	<ul style="list-style-type: none"> • Decrease number of washes between steps, especially if not using automated or semi-automated washer. 1-2 washes may suffice.
	Enzyme inhibitor present in samples	<ul style="list-style-type: none"> • Sodium azide inhibits peroxidase activity.
	Wrong incubation time or temperature	<ul style="list-style-type: none"> • Check and follow protocol recommendations. Place plates in an incubator during incubation periods to avoid temperature fluctuations (set to 25°C).

<i>Problem</i>	<i>Possible Source</i>	<i>Suggestion</i>
Weak/No Color Development <i>(continued)</i>	Wrong substrate volume added to wells	<ul style="list-style-type: none"> • Check pipette; use calibrated pipettes.
	Wrong enzyme-substrate system used	<ul style="list-style-type: none"> • Check manufacturer specifications: avidin-HRP + ABTS/ streptavidin + TMB.
	Conjugate or substrate inactive	<ul style="list-style-type: none"> • Test activity in another system and check expiration dates.
	Incorrect storage of components	<ul style="list-style-type: none"> • Store all components as recommended on data sheet.
	Wrong filter used when taking readings	<ul style="list-style-type: none"> • Wavelength should be 405nm for ABTS (450 for TMB) with a 650nm wavelength correction when using recommended plates.
Poor Standard Curve	Incorrect preparation of standard	<ul style="list-style-type: none"> • Reconstitute standard as suggested on data sheet. Dilute only with recommended diluent buffer unless alternative buffer has been optimized.
	Dilutions made too early	<ul style="list-style-type: none"> • Prepare reagents immediately prior to use and add to wells promptly.
	Capture Antibody did not bind	<ul style="list-style-type: none"> • Use ELISA-suitable plates (i.e. Nunc MaxiSorp Prod. # 439454); not tissue culture plates.
	Inefficient washing	<ul style="list-style-type: none"> • Be sure wash apparatus is working properly (i.e. distributing even volumes into each well). Be sure wells are empty after aspiration, yet be sure to fill wells in a timely manner.
	Pipetting error	<ul style="list-style-type: none"> • Dispense quickly and identically into the side of each well. Use calibrated pipettes.
	Read beyond time needed for development	<ul style="list-style-type: none"> • In general, reliable standard curves are obtained when O.D. readings do not exceed 0.2 for blanks or 1.2 for the highest standard concentration.
	Incorrect storage of components	<ul style="list-style-type: none"> • Store all components as recommended on data sheet. Do not allow reconstituted reagents to stay at room temperature for excess time.
Poor Precision	Insufficient mixing of reagents	<ul style="list-style-type: none"> • Ensure adequate mixing of reagents before pipetting.
	Inefficient washing	<ul style="list-style-type: none"> • Be sure wash apparatus is working properly (i.e. distributing even volumes into each well). Be sure wells are empty after aspiration, yet be sure to fill wells in a timely manner.
	Pipetting error	<ul style="list-style-type: none"> • Dispense quickly and identically into the side of each well. Use calibrated pipettes.
	Reused materials	<ul style="list-style-type: none"> • Change pipette tips between samples, reservoirs between reagents, and plate sealers between incubation periods.
	Wells have been scratched by pipette tips or washing apparatus	<ul style="list-style-type: none"> • Use caution when dispensing and aspirating.
	Precipitate in samples	<ul style="list-style-type: none"> • Centrifuge vials prior to use.
	Unclean wells or debris	<ul style="list-style-type: none"> • Inspect wells and remove debris prior to use. Wipe bottom of plate to remove any debris or fingerprints prior to reading.
Edge Effects	Evaporation	<ul style="list-style-type: none"> • Use plate sealers between each step.
	Uneven temperature	<ul style="list-style-type: none"> • Place plates in an incubator during incubation periods to avoid temperature fluctuations (set to 25°C). Do not stack plates.

Western Transfer (Western Blot)

Western Transfer, also known as Western Blotting, is a rapid immunoblotting technique for identifying the presence of a particular protein in a complex mixture of proteins such as cell lysates or sera. The technique exploits both the efficiency of SDS-PAGE to separate a mixture of proteins into distinct protein bands, and the ability of immunochemical reagents to interact specifically with a given protein antigen.

A typical Western-transfer protocol (e.g. for the detection of protein X) includes the following steps: (1) The proteins in the tested solution are separated into distinct bands by SDS-PAGE, (2) The size-separated proteins are transferred from the polyacrylamide gel to a nitrocellulose membrane (or another suitable matrix). (3) The membrane containing the protein bands is serially incubated with: (a) a suitable blocking reagent to prevent non-specific protein binding, (b) a wash solution to rinse any unbound blocking reagent, (c) a probing antibody (anti-protein-X antibody) that forms a specific immune complex with Protein-X, (d) additional wash solution to remove any unbound antibody, (e) an enzyme-linked antibody that binds specifically to the F_c region of the anti-Protein-X antibody, (f) additional wash solution to remove any unbound enzyme-linked antibody, and finally, (g) a substrate solution, which in the presence of the enzyme, yields an insoluble, colored product that precipitates at the site of the immune complex, thereby rendering the Protein X band visible (Figure III-1).

Typical Western Transfer and Development Protocol

Materials Needed

- SDS-PAGE apparatus and accessories
- Submerged Western Transfer Cassette and accessories
- A nitrocellulose membrane, approximately the size of the gel, presoaked in Western Transfer Buffer* for five minutes. (Note: The membrane should be handled with gloves and clean forceps to avoid contamination with extraneous proteins.)

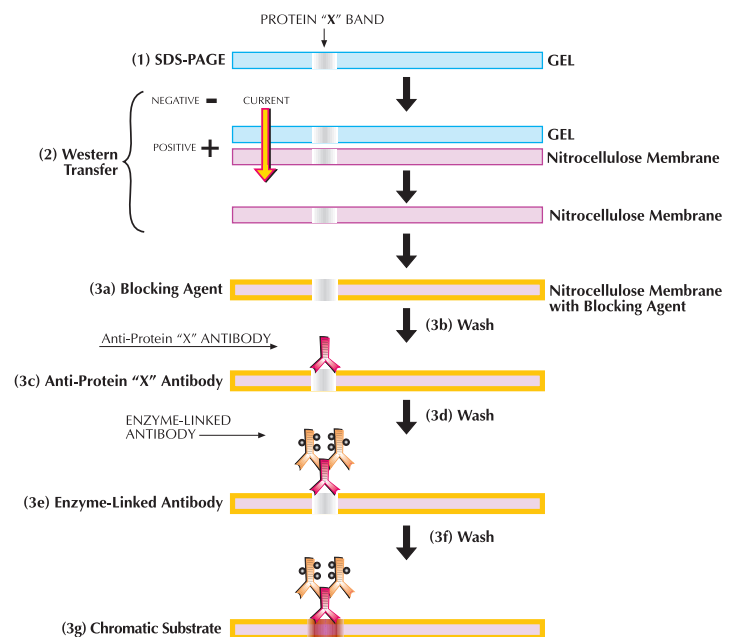
- *Western Transfer Buffer (1/2 x TOWBIN)
 - Tris Base..... 1.45g (12mM final concentration)
 - Glycine 7.2g (96mM final concentration)
 - Methanol..... 200mL (20% final volume)
 - diH₂O add to 1.0L final volume
- Antigen specific probing antibody (Primary Antibody)
- Secondary antibody (Donkey-anti-probing antibody species conjugated to Alkaline Phosphatase)
- Commercially available alkaline phosphatase conjugate substrate kit

Transfer Protocol

1. Load the protein sample onto a 4-20% Tris-Glycine polyacrylamide gel and run until desired resolution is achieved. (The electrophoresis can be followed by using pre-stained molecular weight markers).

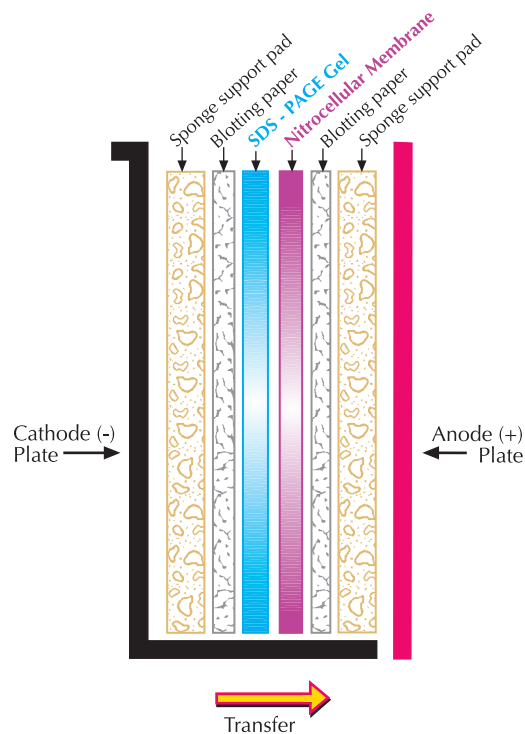
continued...

Figure III-1 - Schematic presentation of Western Transfer Protocol



2. Set up the Submerged Western Transfer Cassette as described below and in Figure III-2:
 - a. Submerge the open Transfer Cassette cathode plate onto the tray pre-filled with Western Transfer Buffer.
 - b. Place a sponge support pad onto the cassette and remove the air bubbles by gently rolling a Pasteur pipette over the pad.
 - c. Place a piece of blotting paper onto the sponge support pad.
 - d. Remove the gel from the electrophoresis plates, cut off approximately the bottom 3mm of the gel so that the membrane can be laid flat against the gel, and place the gel over the blotting paper. Expel air bubbles as before.
 - e. Carefully place the pre-soaked nitrocellulose membrane onto the gel and expel air bubbles. Ensure that the membrane remains directly over the gel before proceeding.
 - f. Place a second piece of blotting paper onto the nitrocellulose membrane and remove air bubbles.
 - g. Place a sponge support pad onto the second piece of blotting paper and remove air bubbles.
 - h. Gently close the cassette by placing the anode plate over the exposed pad.
3. Dilute the probing (primary) antibody in TBST to a volume of 50ml (approximate final concentration of 0.20 μ g/ml) and incubate the membrane in the antibody solution for one to four hours at room temperature. (The optimum incubation time depends on the antibody/antigen binding affinity and must be pre-determined for each antibody.)
4. Wash the membrane three times as in step #2.
5. Dilute the secondary antibody in TBST according to the manufacturer's specification. Incubate the membrane in a clean tray containing 50ml of diluted secondary antibody for one hour at room temperature on an orbital shaker.
6. Wash the membrane three times as in step #2.
7. Color development requires the use of a commercially available (e.g. Bio-Rad or Sigma) alkaline phosphatase conjugate substrate kit. Follow the manufacturer's instructions.
8. After the bands become clearly visible, stop the color development by placing the membrane in a tray containing diH₂O for at least ten minutes.

Figure III-2 - Submerged Western Transfer Cassette



Development (Immunostaining) Protocol

1. After the transfer is complete, incubate the membrane in blocking solution for 30 minutes with gentle agitation on an orbital shaker. Note: Various types of blocking solution may be used depending on numerous assay variables; e.g. 3% Nonfat Dry Milk in diH₂O or a fish-derived blocking buffer diluted in diH₂O.
2. Wash the membrane three times with TBST (TBS, pH 7.2 with 0.1% TWEEN-20) in a clean tray on an orbital shaker; each wash lasting 5-10 minutes.

Western Transfer FAQ

1. How long will the immunostaining take when PeproTech's Western Transfer protocol is followed?

The Western Transfer process will take approximately 6 hours from transfer of proteins to visualization of bands.

2. What type of molecular weight marker should be used?

PeproTech uses Novex® Sharp protein standard pre-stained molecular weight marker for use in all Western Transfers performed in-house, although this molecular weight marker does not have to be utilized. However, it is necessary that a pre-stained molecular weight marker is used when not utilizing the ECL detection method.

3. Is the addition of a positive control necessary in a Western Transfer?

Yes, in order to know exactly how the protein of interest will visualize on the Western Transfer you must add a positive control to your gel. When using PeproTech's antibodies in a Western Transfer, we recommend using the corresponding PeproTech recombinant protein, which was the immunizing antigen for the antibody of choice.

4. Does the color development system recommended in PeproTech's Western Transfer protocol have to be used?

No. There are many different color development systems that can be used for the visualization of your Western Transfer. However, the system that is chosen must be compatible with the enzyme conjugate being used. PeproTech uses an alkaline phosphatase linked secondary antibody. NBT/BCIP is suitable for use with this enzyme, and is therefore used for the visualization of our Western Transfers.

5. Is agitation of the membrane essential during the incubation periods?

Yes, it is essential that the membrane be agitated during the incubation periods. If the membrane is not agitated the antibodies, blocking buffer, and washing buffer may not affect the membrane evenly and can create splotchy, or patchy, background. It can also limit the detection of the proteins by the antibodies.

6. Why are some Western Transfer results stronger than others when using different lots of the same antibody?

Due to the nature of polyclonal antibodies, variability may be seen from lot to lot.

7. Is it necessary to include the filter paper during the protein transfer step?

Yes, it is necessary to include the filter paper as a barrier in the protein transfer step. This filter paper helps protect the gel and membrane from any possible damage resulting from direct contact with the sponges, yet does not interfere with the electric current.

8. Can an enzyme-conjugated primary antibody be used in a Western Transfer rather than using a primary/secondary antibody system?

Yes, an enzyme-conjugated primary antibody can be used instead of utilizing a primary/secondary antibody system in your Western Transfer. However, by using a labeled secondary antibody that recognizes the antigen specific primary antibody, there will be an amplification of the signal seen in a Western Transfer when compared to using the enzyme-conjugated primary antibody alone.

Western Transfer Troubleshooting Guide

<i>Problem</i>	<i>Possible source</i>	<i>Suggestion</i>
Weak/No Signal	Insufficient amount of protein present	<ul style="list-style-type: none"> • Increase amount of protein in sample. • Confirm protein is present through an alternate method.
	Gel ran too long	<ul style="list-style-type: none"> • Decrease running time and monitor the gel by watching dye front and ensuring the current is turned off when dye front is near bottom of gel.
	Old or degraded protein samples	<ul style="list-style-type: none"> • Test a fresh sample of target protein.
	Protein over-transferred/ did not transfer correctly	<ul style="list-style-type: none"> • Use a membrane with a smaller pore size. • Decrease voltage for lower MW proteins (less than 10kDa). • Make sure membrane is pre-soaked according to manufacturer's instructions. • Check and optimize transfer time, as appropriate transfer time will vary with MW of the target protein. • Make sure transfer "sandwich" is set up correctly and there is sufficient contact between gel and membrane. (Please see our Western Transfer protocol for correct transfer "sandwich" set up.) • Ensure the correct transfer buffer is being used. • The presence of SDS during transfer can reduce the binding of the protein when using a nitrocellulose membrane. • Add 20% methanol to transfer buffer to increase binding. • Check protein transfer by staining the membrane with a reversible stain, such as Ponceau S, to visualize major bands.
	Protein has a pI greater than 9	<ul style="list-style-type: none"> • Substitute buffer with a higher pH buffer (i.e. CAPS buffer, pH 10.5).
	Protein masked by blocking buffer	<ul style="list-style-type: none"> • Test using a different blocking buffer. • Optimize concentration of protein in blocking buffer. We recommend 3% Non-Fat Dry Milk in diH₂O.
	Enzyme inhibitor present (i.e. azide)	<ul style="list-style-type: none"> • Make sure buffers do not contain sodium azide, as this will interfere with the HRP signal.
	Old or degraded primary antibody	<ul style="list-style-type: none"> • Check manufacturer's recommendations for storage and/or expiration date. If expired or past storage time, purchase new antibody. • If antibody was subjected to repeated freeze/thaw cycles purchase new antibody, as this can affect the structure and protein:antibody binding. • Perform a Dot Blot to ensure antibody is still active.
	Insufficient amount of primary and/or secondary antibody	<ul style="list-style-type: none"> • Check manufacturer's recommendation for antibody concentration. • Test a range of concentrations to find the optimal condition for individual assay.
Incorrect primary antibody	<ul style="list-style-type: none"> • Ensure primary antibody reacts with the target protein from the species being studied (i.e. Rabbit anti-human VEGF → Human VEGF). 	

Western Transfer Troubleshooting Guide *continued...*

Problem	Possible source	Suggestion
Weak/No Signal <i>continued</i>	Incorrect secondary antibody	<ul style="list-style-type: none"> Ensure the secondary antibody being used is against the species of the primary antibody (i.e. Donkey anti-rabbit IgG → Rabbit anti-human VEGF).
	Insufficient incubation of primary antibody	<ul style="list-style-type: none"> Increase incubation period of primary antibody. Antibody can be incubated for at least one hour at room temperature or overnight at 4°C.
	Insufficient incubation of secondary antibody	<ul style="list-style-type: none"> Increase incubation period of secondary antibody (please see manufacturer's recommendations for incubation time and temperature).
	Membrane over-washed	<ul style="list-style-type: none"> Shorten wash times and/or reduce number of washes. Use a washing buffer that does not contain a detergent, or that has a lower concentration of detergent present.
	Incompatible developing reagent	<ul style="list-style-type: none"> Make sure the developing reagent being used is compatible with the enzyme conjugate. Ensure substrate is made correctly by following the manufacturer's instructions.
	Excess salt present	<ul style="list-style-type: none"> Decrease amount of salt present in wash buffer. Decrease amount of salt present in antibody dilution buffer.
	Degraded/Incorrect developing reagent	<ul style="list-style-type: none"> Ensure the developing reagent was prepared correctly. Check that the reagent is still active. If not, purchase new reagent.
	For ECL method, film is bad/expired	<ul style="list-style-type: none"> Ensure film is not expired or exposed. If so, purchase new film.
	For ECL method, ECL developing solutions are old/expired	<ul style="list-style-type: none"> Use fresh ECL developing solutions.
	For ECL method, film exposure time is too short	<ul style="list-style-type: none"> Increase exposure time of the film.
	For ECL method, cling film interfering with reaction	<ul style="list-style-type: none"> Use different brand of cling film.
High Background	Antibody concentration too high	<ul style="list-style-type: none"> Check manufacturer's recommendations for primary and/or secondary antibody concentrations. Test a range of concentrations to find optimal condition for individual assay.
	Over-incubation of antibodies	<ul style="list-style-type: none"> Check manufacturer's protocol to ensure the correct incubation time and temperature is used. If this information is not supplied by the manufacturer, optimize incubation time through testing.
	Non-specific binding of antibodies	<ul style="list-style-type: none"> Ensure the primary antibody is specific only for the protein that is being targeted. Run a control, omitting the primary antibody incubation. If bands develop, choose a different secondary antibody. Choose a different host species for secondary antibody.

Problem	Possible source	Suggestion
High Background <i>continued</i> and/or sample	Cross reaction of antibodies with proteins in blocking buffer	<ul style="list-style-type: none"> • Use a different blocking buffer formulation. • Goat antibodies will react with BSA due to a slight recognition of the bovine protein by the goat antibody. This will lead to a purple sheen on your membrane. If this occurs, use a different species antibody or a different blocking buffer. • If secondary antibody is suspected, dilute antibody in buffer containing 1-5% normal serum from the same species as target protein.
	Ineffective blocking buffer	<ul style="list-style-type: none"> • Use a different blocking buffer formulation. • Add detergent to blocking buffer, such as TWEEN-20.
	Insufficient blocking	<ul style="list-style-type: none"> • Use a different blocking buffer formulation. • Batch of blocking buffer may be inactive. Use fresh blocking buffer. • If blocking overnight at 4°C, this may decrease blocking efficiency since lower temperatures may lessen the effectiveness. Try incubation for one hour at room temperature. • Add TWEEN-20 to blocking buffer. • Optimize incubation time and/or temperature of blocking step.
	Insufficient washing	<ul style="list-style-type: none"> • After each step, wash membrane 3 times for 10 minutes each. Increase the duration of the washing step if this is not sufficient. • Try a different detergent in washing buffer or add TWEEN-20 if not already present. • Increase volume of washing buffer used.
	Over-incubation in color development substrate	<ul style="list-style-type: none"> • Shorten incubation time in color development solution. Monitor development until bands are present and stop reaction by washing membrane in diH₂O.
	Excess enzyme present	<ul style="list-style-type: none"> • Reduce concentration of selected enzyme conjugate.
	Interference by endogenous enzyme	<ul style="list-style-type: none"> • Non Fat Dry Milk contains endogenous biotin and may interfere with avidin/biotin detection system. Use different blocking buffer, such as 3% BSA.
	Contaminated reagents	<ul style="list-style-type: none"> • Filter buffers before use to remove contaminant. • Make fresh buffers and re-run Western Transfer.
	Membrane problems	<ul style="list-style-type: none"> • Test new membranes. • During the entire procedure the membrane can only be dried between transfer and immunostaining. Once immunostaining has begun, the membrane cannot be dried until completion of immunostaining procedure. Re-run Western Transfer if membrane was dried at any other point during immunostaining procedure.
	For ECL method, ECL film overexposed	<ul style="list-style-type: none"> • Shorten film exposure time. • If signal from target protein is too strong, wait 5-10 minutes and re-expose to film.

Western Transfer Troubleshooting Guide *continued...*

Problem	Possible source	Suggestion
Spotchy background	Uneven agitation during incubations	<ul style="list-style-type: none"> • Ensure the membrane is agitated evenly by placing on a rocker or shaker during incubation.
	Insufficient amount of incubation buffer	<ul style="list-style-type: none"> • Ensure enough solution is present during each incubation period to fully submerge the membrane and allow it to float freely in the solution.
	Air bubbles present during transfer	<ul style="list-style-type: none"> • Gently remove all air bubbles from transfer "sandwich" before transfer is started. This can be done by using a roller or clean glass rod/Pasteur pipette.
	Membrane problems	<ul style="list-style-type: none"> • Ensure membrane is wetted thoroughly according to the manufacturer's protocol. • Handle membranes with extreme care. Mishandled membranes can cause non-specific binding. • Handling membranes with bare hands can lead to contamination of membrane. Use forceps or wear gloves when handling membrane.
	Aggregation of HRP conjugate	<ul style="list-style-type: none"> • If using HRP, filter conjugate to remove HRP aggregates. • Use a fresh sample of HRP conjugate.
	Contamination of reagents	<ul style="list-style-type: none"> • Filter buffers before use to remove contaminant. • Make fresh buffers and re-run Western Transfer.
Non-specific bands	Antibody concentration too high	<ul style="list-style-type: none"> • Check manufacturer's recommendations for primary and/or secondary antibody concentrations. • Test a range of concentrations to find optimal condition for individual assay.
	Old or degraded antibody	<ul style="list-style-type: none"> • Check manufacturer's recommendations for storage and/or expiration date. If expired or past storage time, purchase new antibody. • If antibody was subjected to repeated freeze/thaw cycles purchase new antibody, as this can affect the structure and protein:antibody binding.
	Non-specific binding of primary antibody	<ul style="list-style-type: none"> • Decrease concentration of primary antibody. • Check concentration of protein being added to gel. • Use a more specific antibody, such as a monoclonal antibody or Antigen Affinity Purified polyclonal antibody. • Add a small amount of detergent, such as TWEEN-20 (0.1-0.5%) to the primary antibody solution and/or blotting buffer. • Increase number/duration of washes.
	Non-specific binding of secondary antibody	<ul style="list-style-type: none"> • Decrease concentration of secondary antibody. • Run a control, omitting the primary antibody incubation. If bands develop, choose a different secondary antibody. • Add a small amount of detergent, such as TWEEN-20 (0.1-0.5%) to the secondary antibody solution. • Increase number/duration of washes.

Problem	Possible source	Suggestion
Non-Specific Bands <i>continued</i>	Aggregation of target protein	<ul style="list-style-type: none"> • Add or increase a reducing agent, such as DTT or BME, to ensure all disulfide bonds are reduced. • Heat protein sample in a hot water bath for 5-10 minutes before loading onto gel. • Check concentration of protein being added to gel. A concentration that is too high can cause protein aggregation. Re-run Western Transfer with a lower concentration of protein.
	Degradation of protein sample	<ul style="list-style-type: none"> • Make fresh samples and minimize freeze/thaw cycles of samples. • Add protease inhibitor to samples prior to storage. • Keep samples stored between -20°C and -80°C.
	Insufficient blocking	<ul style="list-style-type: none"> • Test a different blocking buffer formulation. • Batch of blocking buffer may be inactive. Use a fresh blocking buffer. • If blocking overnight at 4°C, this may decrease blocking efficiency since lower temperatures may lessen the effectiveness. Try incubation for one hour at room temperature. • Add TWEEN-20 to blocking buffer. • Optimize incubation time and/or temperature of blocking step.
	SDS facilitates binding to immobilized protein bands	<ul style="list-style-type: none"> • Ensure membrane is sufficiently washed after transfer of proteins. • Do not use SDS during immunostaining when using a nitrocellulose membrane.
	Excess enzyme present	<ul style="list-style-type: none"> • Reduce concentration of the selected enzyme conjugate.
	Contamination of reagents	<ul style="list-style-type: none"> • Filter buffers before use to remove contaminant. • Make fresh buffers and re-run Western Transfer.
Diffused/Fuzzy bands	Antibody concentration too high	<ul style="list-style-type: none"> • Check manufacturer's recommendations for primary and/or secondary antibody concentrations. • Test a range of concentrations to find optimal condition for individual assay.
	Excess protein on gel	<ul style="list-style-type: none"> • Further dilute protein samples before loading onto gel.
	Gel over-heated/high voltage	<ul style="list-style-type: none"> • Heat causes the gel to lose its structure and resolving power. Be sure the transfer reservoir is run in an ice bath. • Reduce voltage or current used during transfer.
	Incorrect preparation of membrane	<ul style="list-style-type: none"> • Pre-soak membrane in correct transfer solution (see membrane manufacturer's protocol). Ensure it is soaked for the correct amount of time.
White Bands (ECL visualization method)	Antibody or protein concentration too high/Excessive signal generated	<ul style="list-style-type: none"> • White bands are the result of rapid consumption of the substrate caused by the presence of too much conjugate. This is the result of high concentrations of the antibodies and/or proteins. Check manufacturer's recommendations for antibody and/or protein concentrations.

Immunohistochemistry

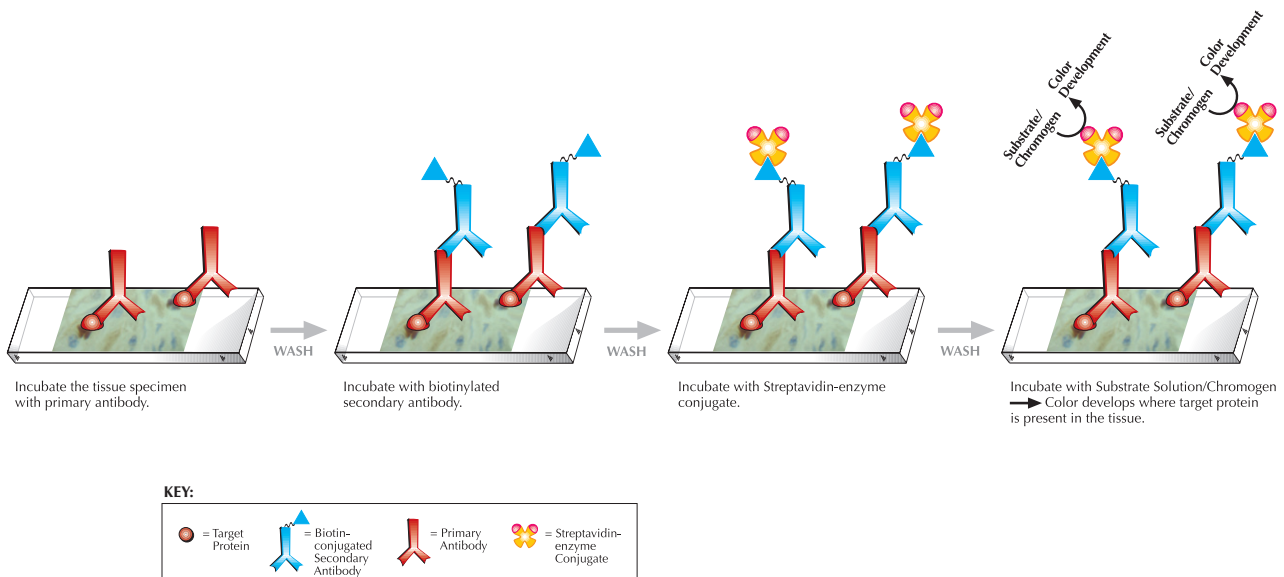
The analysis of tissues and cells for the presence of specific proteins is an important component of numerous clinical diagnostic and research programs. Immunohistochemistry (histo=tissue) and immunocytochemistry (cyto=cell) are powerful techniques that utilize the specific interaction between a target protein and its corresponding antibody to visualize a protein of interest in a complex biological sample. The terms immunohistochemistry (IHC) and immunocytochemistry are often used interchangeably due to the intimate relationship between cells and tissues.

Two common detection methods used in IHC are immunofluorescence (IF) and immunoenzymatic staining. In IF, the direct or indirect detecting antibody is labeled with a fluorophore, such as fluorescein or rhodamine. In immunoenzymatic staining, the direct or indirect detecting antibody is conjugated to a chromogen activating enzyme such as horseradish-peroxidase (HRP) or alkaline phosphatase (AP). Thus, there are both direct and indirect IHC protocols, where the researcher selects the best method of detection for the tissue source and antigen of interest. This flexibility creates a variety of IHC protocols, including an indirect

polymer labeling method for non-biotin based systems which enhances the signal. Please note that an indirect immunoenzymatic detection method is illustrated on the next page (Figure IV-1).

Working with cells and tissue can pose difficult problems due to the elaborate and complex nature of these structures. In order to accurately examine these complex samples it is vital to preserve, to the extent possible, the native state of the tissue being analyzed. This is accomplished through a technique known as fixation. The fixation process is a cornerstone in immunohistochemistry and helps maintain the integrity and authenticity of the proteins and structures present in the samples. This is usually achieved by inhibiting the innate degradative processes present in the sample tissue by some combination of cryostasis, treatment with chemical fixatives, and embedding tissue samples in paraffin. One of the most commonly used fixative combinations is the formalin-fixed paraffin-embedded (FFPE) fixation method. To achieve maximum recognition of the target protein, it is necessary to optimize the fixation process for each sample type analyzed. Factors which influence the optimization of the fixation

Figure V-1 - Indirect Immunoenzymatic Detection Method



process include the purity, affinity and specificity of the detecting antibody, the structure and stability of the target protein, and the structural and biochemical characteristics of the tissue sample.

The fixation process, while critical for maintaining the integrity of the tissue, often masks the antibody recognition epitope on the target protein by inducing chemical modification, conformational alterations, or protein aggregation. Therefore, most IHC procedures contain an unmasking step, which is frequently called “antigen retrieval”, or “epitope recovery”. This unmasking process can be accomplished by several procedures, including HIER (Heat-Induced Epitope Retrieval) and PIER (Protease-Induced Epitope Retrieval), which, depending on the sample and the target protein, can be used alone or in tandem.

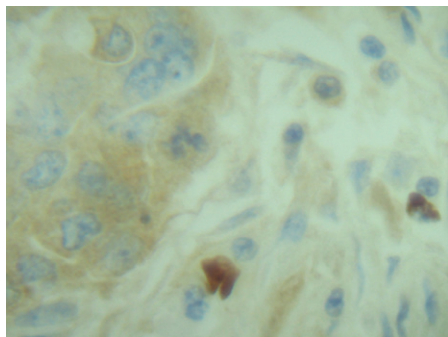
The detection strategies commonly applied in IHC procedures can be classified into two general categories, designated as direct and indirect detection methods. The direct detection methods utilize a labeled antibody, capable of fluorescing or activating a chemical chromogen, which binds directly to the target

protein. This method has the advantages of simplicity, low non-specific binding in most cases, and short assay run times. Indirect methods use an unlabeled primary antibody to initially bind the target protein, which is then recognized by a labeled secondary antibody. Some indirect IHC detection procedures use a three stage procedure, in which an unlabeled secondary antibody is used and subsequently recognized by a labeled tertiary antibody. Most indirect methods produce some degree of signal amplification during the multiple stages of the detection procedure, which consequently results in increased assay sensitivity.

Figure V-1 is a sample IHC detection protocol representing the use of an indirect immunoenzymatic method.

References

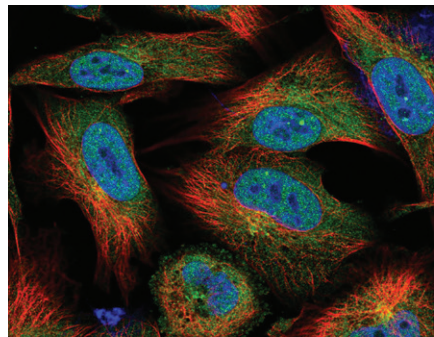
- (1) Boenisch, Thomas ed. *Immunochemical staining procedures handbook*. 3rd ed. Carpinteria, CA; 2001.
- (2) Janeway, et al. *Immunobiology: the immune system in health and disease*. 6th ed. New York: Garland Science, 2005.



Goat anti-human VEGF

Human Breast Ductal Carcinoma immunochemically stained with Goat anti-human VEGF (catalog #500-P10G) using a Horseradish Peroxidase-DAB (brown) detection system with hematoxylin (blue) counterstain.

Dark brown areas indicate stained carcinoma tumor cells. Light brown areas indicate stained duct and vessel lining.



Rabbit anti-human IL-6

Human Cervical Squamous Cell carcinoma immunochemically stained with Rabbit anti-human IL-6 (catalog #500-P26) using an Alkaline Phosphatase polymer enhanced detection system with Permanent Red and hematoxylin (blue) counterstain.

The cytoplasm of the carcinoma cells is stained red.

Immunohistochemistry Troubleshooting Guide

Problem	Possible Source	Suggestion
Weak/No Staining	Tissue Processing	<ul style="list-style-type: none"> • The antigen may have been destroyed during the tissue processing. • Ensure tissue is prepared properly prior to immunostaining procedure. Use proper fixative, fixation time, embedding reagents and embedding techniques. Use proper sectioning techniques and equipment. The recommended tissue thickness for IHC is 4µm sections. For formalin-fixed paraffin-embedded tissue, ensure slides are completely deparaffinized and rehydrated. Replace xylenes and alcohols as needed.
	Antigen Retrieval (Epitope Retrieval)	<ul style="list-style-type: none"> • Determine optimal antigen retrieval conditions. Consider staining a tissue section without antigen retrieval. • Use HIER (Heat Induced Epitope Retrieval). Adjust and maintain the temperature. Adjust the pH (choose appropriate buffer). Adjust the amount of time. • Use EIER (Enzyme Induced Epitope Retrieval). Choose an appropriate enzyme (e.g. proteinase K). Adjust the incubation time. Perform antigen retrieval at room temperature or with heat. • Do not reuse antigen retrieval solution. Perform adequate wash steps.
	Primary Antibody	<ul style="list-style-type: none"> • Ensure antibodies are prepared as per data sheet: • Centrifuge vial prior to opening. • Once the antibody is reconstituted, centrifuge vial to remove any possible aggregates. • Aliquot and freeze antibody at -20°C. Avoid repeat freeze/thaw cycles. • Use antibody before expiration date. • Increase antibody concentration. • Increase incubation time (e.g. stain antibody overnight at 4°C).
	Secondary Antibody	<ul style="list-style-type: none"> • Match primary antibody with appropriate secondary reagent or detection system. • Increase secondary antibody concentration or incubation time.
	Detection System	<ul style="list-style-type: none"> • Use appropriate detection system. • Ensure enzyme and chromogen are compatible (e.g. DAB chromogen requires the HRP enzyme). • Use reagents in proper order. • Perform appropriate wash steps. • Use components at room temperature. • Use components prior to expiration dates. • Use an amplified detection system, such as a polymer detection system or tyramide amplification. A direct labeling system may have less amplification and may produce a weaker signal. • Sodium azide is an inhibitor of horseradish peroxidase and may interfere with staining results if present in certain reagents, such as an HRP-conjugated secondary antibody. Limited amounts of sodium azide in other reagents should not interfere with the immunostaining procedure.

Problem	Possible Source	Suggestion
	Antigen	<ul style="list-style-type: none"> This antigen may not be present in the particular tissue or at a significant level for detection. The epitopes of the antigen may have been destroyed during tissue processing or antigen retrieval. Also, if using a monoclonal antibody and that particular epitope is masked or destroyed, then the antibody will not stain. Consider re-staining or reprocessing a new tissue sample. Use an alternative assay to detect for the presence of the antigen (e.g. <i>in situ</i> hybridization).
	Chromogen	<ul style="list-style-type: none"> Adjust incubation time. Check for chromogen precipitate and do not use past expiration date. Use appropriate mounting media for each chromogen (e.g. DAB can be coverslipped with a permanent mounting media, while a non-alcohol soluble AEC will require an aqueous mounting media).
Over-staining	Tissue Processing	<ul style="list-style-type: none"> Ensure tissue is prepared properly prior to immunostaining procedure. Use proper fixative, fixation time, embedding reagents and embedding techniques. Use proper sectioning techniques and equipment. The recommended tissue thickness for IHC is 4µm sections. For formalin-fixed, paraffin-embedded tissue, ensure slides are completely deparaffinized and rehydrated. Replace xylenes and alcohols as needed.
	Antigen Retrieval	<ul style="list-style-type: none"> The tissue may be over-retrieved. Adjust the incubation time. Adjust the temperature. If necessary, use alternate antigen retrieval methods. Stain a tissue section without antigen retrieval.
	Primary Antibody	<ul style="list-style-type: none"> Ensure antibodies are prepared as per data sheet: Centrifuge vial prior to opening. Once the antibody is reconstituted, centrifuge vial to remove any possible aggregates. Aliquot and freeze antibody at -20°C. Avoid repeat freeze/thaw cycles. Use antibody before expiration date. Decrease antibody concentration. Adjust antibody incubation time. Incubate tissue specimen with a protein block just prior to the primary antibody incubation (see protein block below).
	Secondary Antibody	<ul style="list-style-type: none"> Adjust concentration of secondary antibody. Use a secondary antibody that is less likely to exhibit non-specific binding (e.g. cross-adsorbed antibody or F(ab')₂ fragment).
	Detection System	<ul style="list-style-type: none"> Use a detection system that will exhibit less non-specific binding. Adjust incubation time(s).
	Non-specific Binding	<ul style="list-style-type: none"> Block endogenous molecules and highly charged molecules.
	Endogenous Molecules	<ul style="list-style-type: none"> Depending on the tissue type and staining procedure, endogenous molecules may be present and interfere with staining. Determine the necessary blocking steps for each tissue, such as blocking for endogenous molecules such as endogenous biotin, endogenous peroxidase, endogenous phosphatase, or Fc Receptors. Choose an alternative staining method when an endogenous molecule may be difficult to completely block (such as a nonbiotin detection method on liver, which is rich in biotin).

Immunohistochemistry Troubleshooting Guide *continued...*

Problem	Possible Source	Suggestion
	Protein Block	<ul style="list-style-type: none"> • Use a protein block or serum block from the host animal of the secondary antibody to prevent non-specific binding (antibodies are highly charged proteins and the molecules' hydrophobicity may cause non-specific staining). • Incubate the tissue specimen with the protein block prior to the primary antibody incubation.
	Inadequate washing	<ul style="list-style-type: none"> • Increase the amount of time and/or the number of washes. Use the appropriate buffer pH for different staining systems (e.g. PBS or Tris wash buffers). Add a detergent, such as Tween-20 to reduce hydrophobic interactions.
	Chromogen	<ul style="list-style-type: none"> • Adjust incubation time. If possible, adjust the chromogen concentration. Check for precipitate and do not use past the expiration date.
	Tissue sections dried out	<ul style="list-style-type: none"> • Do not allow tissue sections to dry out during the immunostaining procedure. Use a humidity chamber and sufficient reagent volume during tissue incubations. Use a PAP pen to create a hydrophobic barrier around the tissue section to ensure the tissue remains covered with a reagent.
Other Conditions	Reagent Expiration Dates	<ul style="list-style-type: none"> • Check the expiration dates of all reagents used during the immunostaining procedure.
	Controls	<ul style="list-style-type: none"> • Ensure positive and negative controls are valid.
	Surfactant wash	<ul style="list-style-type: none"> • Add a surfactant wash step to enhance reagent penetration (e.g. PBS/0.2% Triton X 100).
	Mounting Medium	<ul style="list-style-type: none"> • Use appropriate media with each chromogen (different chromogens require aqueous or non-aqueous mounting medias).
	Counterstain	<ul style="list-style-type: none"> • Counterstain for the optimal amount of time.
	Automated Staining	<ul style="list-style-type: none"> • Check machine to ensure proper specifications.

Microarray

Microarray technology enables the simultaneous detection and quantification of a large number of proteins or nucleic acids in a variety of biological samples, including cells, tissues, and bodily fluids. The term microarray refers to a miniaturized solid support or chip, such as a nylon membrane or glass microscope slide, which is spotted with a capture element (antibody, protein, oligonucleotide, cDNA, etc.) in a grid-like configuration. There are many applications of microarrays including assessing protein families, probing serum for diagnostic information, profiling expression in response to drugs, and profiling cells treated with certain stimulants or transfected with a given gene. Although there are many procedural variations, the five essential steps in the preparation of a microarray are: 1) capture element synthesis, 2) preparation of the solid support surface, 3) immobilization of the capture elements onto the solid support (using a robotic arrayer), 4) binding of the target molecule to the immobilized capture elements, and 5) detection and quantification of the target/capture element complex.

Antibody microarrays use antibodies, raised against known protein antigens, as the capture elements and proteins capable of specifically binding to the immobilized antibodies as the detected target molecules. Fluorescent dyes such as Cy3, Cy5, FITC, and Texas Red, or enzyme systems such as biotin-horseradish peroxidase, are a sensitive means of detection and visualization. Antibody microarrays exploit many of the same principles applied to well established immunoassay procedures such as ELISA or Western blot; however, microarrays offer many advantages including an increased number of data points (which has a direct effect on accuracy), the ability to detect many proteins simultaneously, and reduced antibody and sample volume requirements. In addition, once an array has been designed and the components validated, a robotic arrayer can rapidly spot limitless copies for use with large sample groups.

In this article, two antibody microarray formats will be highlighted: direct labeling and fluorescence-linked immunosorbent assay (FLISA). Both assays use specific antibodies as the capture element. In direct labeling, all proteins in the sample mixture are labeled prior to capture in contrast to FLISA, where target proteins from an untreated sample mixture are captured and subsequently detected through the use of a biotinylated antibody and a fluorophore-labeled secondary antibody.

Antibodies used in microarray assays work best when they are highly purified, exhibit minimal cross-reactivity, and have been shown to work well in traditional ELISA formats. Initially, antibody solutions are prepared at a pre-determined optimal concentration (usually 300-500µg/ml), and then they are assembled into a print plate or microtiter plate, which is used by a robotic arrayer to prepare a spotted solid support. Six to ten replicates per antibody are usually sufficient and, depending on the researcher's needs, up to 500 different antibodies per array can be spotted and immobilized for comparison. The spotted support is blocked by treatment with a BSA solution for at least one hour, and then, the support is ready to be exposed to the samples of interest (serum, urine, cell lysate, etc).

Figure 1 depicts direct labeling detection. All proteins in a complex mixture are conjugated to either a fluorophore (Fig. 1A) or biotin prior to incubation with the capture element. The arrays are then washed and scanned for data analysis. The comparison of signal intensities between samples can be used to measure the relative amounts or expression levels of detected proteins. Alternatively, the comparison of signal intensities to calibrated protein standards, labeled with distinct fluorophores, allows exact expression levels to be quantitatively measured (Fig. 1B). Advantages of this method are its simplicity and the requirement of only one specific antibody per target. The

Microarray *continued...*

primary disadvantage is increased background signal resulting from the labeling of all proteins in the sample mixture (e.g. albumin in serum). Detection sensitivity is limited by the concentration of the background protein relative to the target protein and is typically around 100ng/ml in serum.

In FLISA detection (Figure 2), antibodies spotted on the microarray capture unlabeled protein targets. This is followed by incubation with a cocktail of biotin-labeled antibodies, each antibody corresponding to one of the spotted capture antibodies. Finally, the array is incubated with a suitable detection antibody such as a fluorophore labeled anti-biotin secondary antibody. The FLISA detection format results in increased sensitivity, relative to the direct labeling method, because background is significantly reduced. Sensitivity in this format can be enhanced even further using tyramide signal amplification or rolling-circle amplification (3). However, optimization of assays measuring many targets

can be difficult using this format; therefore, FLISA detection is usually used for a limited number of targets that are present at concentrations below the detection limit of the direct labeling method. Although the detection limits for the assay depends on a number of parameters, including the affinity and specificity of the antibodies used, the protein background in the sample, and the detection conditions chosen, the FLISA method can provide detection limits in the low pg/ml range.

References:

- (1) Fung, Eric ed. Protein arrays: methods and protocols. Fremont, CA: Humana Press Inc.; 2004.
- (2) Ye, S. and Day, I. eds. et al. Microarrays and Microplates: applications in biomedical sciences. Oxford, UK: BIOS Scientific Publishers Ltd.; 2003.
- (3) Zhou, Heping, et al. *Genome Biology*, Vol. 5, issue 4, R28; 2004.

Figure 1A - Direct Fluorophore Labeling

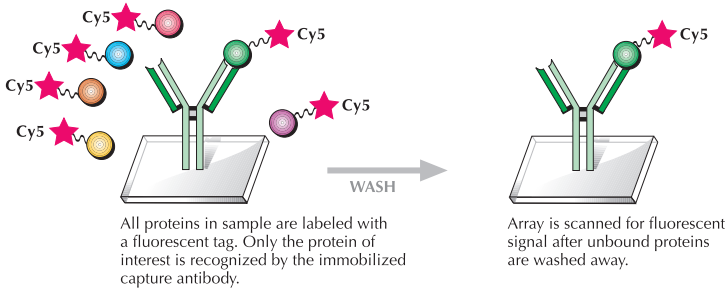


Figure 1B - Multi-Color Detection

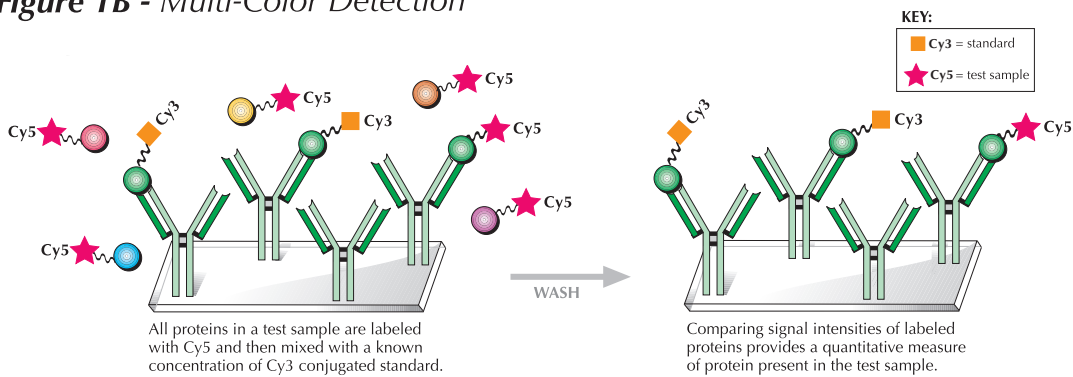
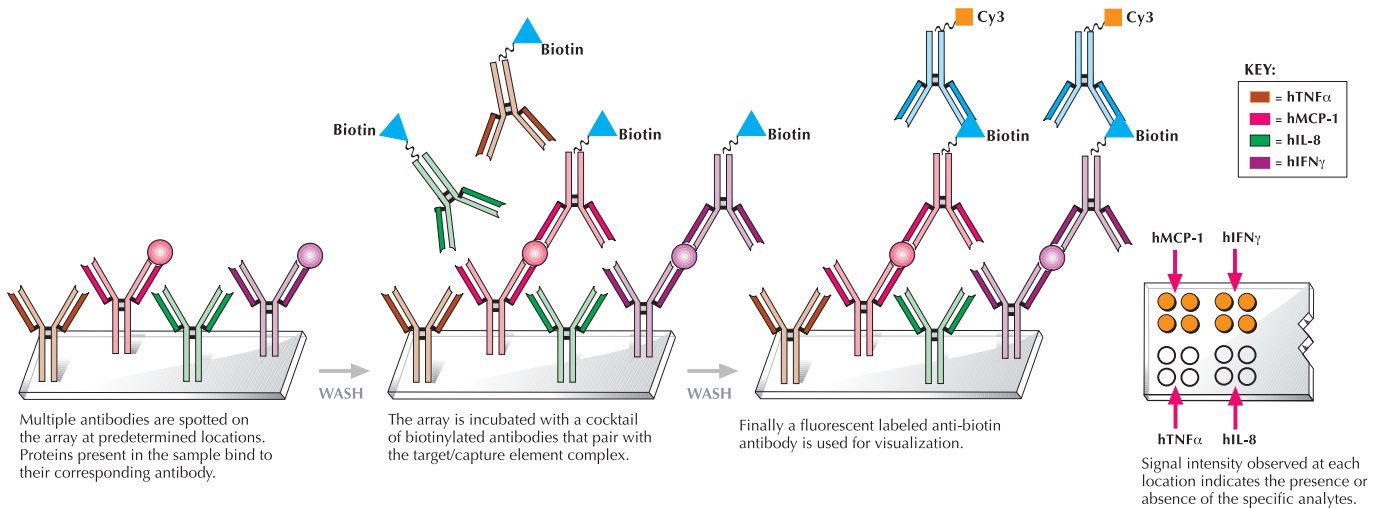


Figure 2 - FLISA



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