



2021-2022
製品カタログ

ペプロテックについて

ペプロテックは、科学的発見とヒューマンヘルスを促進する高品質製品を製造することにより、ライフサイエンス研究の土台を築いています。当社は組換えサイトカインの開発と製造に焦点をあて、1988年にアメリカ・ニュージャージー州に設立されました。過去33年間にわたり、当社はアメリカでのGMP製造施設を含む最新の製造施設と、メキシコ、ブラジル、イギリス、フランス、ドイツ、オーストリア、スウェーデン、イスラエル、韓国、中国に現地オフィスを持つグローバル企業に成長しました。

ペプロテックはこれまで2,000以上の製品において、品質、信頼、一貫性を確実にするためのプロトコルを開発 / 最適化してきました。今日の科学者 / 研究者のお客様のニーズと需要に応えられるよう、最高品質の製品とサービスをお届けすることが当社の務めと考えています。

ペプロテックは、サイエンスコミュニティにおいて信頼されるパートナーであることを誇りとしています。

ペプロテックの製品

- サイトカインと抗体の豊富な製品ラインナップ
- 細胞治療、遺伝子治療、組織治療製品製造用のGMPサイトカイン
- 動物由来成分不含（アニマルフリー）サイトカイン
- ELISA構築用キット
- 細胞培養培地 / 培地添加剤

ペプロテックの製品に関して

本カタログの掲載製品は研究用です。医療用・臨床診断用としては使用しないよう、十分ご注意ください。

また、製品名に **CARTAGENA** の表記のある製品は「遺伝子組換え生物等の使用等の規制による生物の多様性の確保に関する法律（通称：カルタヘナ法）」の使用規制対象製品です。ご使用に際しては、法規制に則し適切にお取り扱いください。

サイズに関して

組換えタンパク質では動物由来成分不含組換えタンパク質を含め、一部製品を除き、本カタログに掲載した Size A、Size B、1mg のサイズ以外に、100 μ g、250 μ g、500 μ g もご利用いただけます（ただし GMP サイトカインは除く）。詳細に関しては、輸入代理店 / 販売取扱店までお問い合わせください。

価格に関して

本カタログには価格が掲載されておられません。価格、納期等に関しては、輸入代理店 / 販売取扱店までお問い合わせください。

学会・展示会出展情報

ペプロテックは年間を通じて世界各地の学会・展示会に定期的に出展しています。最新の出展スケジュールについては、当社ウェブサイト www.peprotech.com をご覧ください。

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GMP サイトカイン



細胞治療・再生医療の明るい未来を切り開くために

急速に発展している再生医療の分野は、数々の疾病・負傷・遺伝性疾患に対する新たな解決法を生み出す絶好の機会を提供しています。ペプロテックは施設の新たな拡張に伴い、この進展する細胞治療・再生医療市場での需要にお応えします。PeperoGMP® サイトカインは、USP（米国薬局方）Ancillary Materials for Cell, Gene, and Tissue-Engineered Products（細胞、遺伝子および組織工学製品の製造関連物質）に記載されているとおり、*ex vivo* 製造工程での安全性、純度、簡便な使用を実現しています。

PeperoGMP® サイトカインは、臨床応用に向けた細胞治療製品、遺伝子治療製品、組織工学製品に関するアメリカ連邦政府の要件および実施基準に沿った US FDA の関連する GMP（Good Manufacturing Practices）規則と ISO 9001 の品質マネジメントシステム規格に準拠した製造および試験が行われており、動物由来成分を使用していません。

- ISO7/ISO8 認証の管理されたクリーンルーム
- 適格性評価およびバリデーションプログラム
- サプライヤーオリフィケーションを含む原材料管理
- 100% のトレーサビリティ
- 要員研修プログラム
- 環境モニタリング
- 機器モニタリング
- 機器の較正とメンテナンス
- 厳しい品質管理プログラム
- 文書管理と記録
- 安定性監視プログラム
- 管理された工程
- 品質保証評価と支援
- 品質および供給契約の締結



| 製品名 | カタログ番号 | サイズ |
|---|------------------------|-------|
| PeproGMP® Human Activin A | GMP120-14E-50µg | 50µg |
| PeproGMP® Human Activin A | GMP120-14E-100µg | 100µg |
| PeproGMP® Human IL-2 | GMP200-02-50µg | 50µg |
| PeproGMP® Human IL-2 | GMP200-02-100µg | 100µg |
| PeproGMP® Human IL-2 | GMP200-02-1mg | 1mg |
| PeproGMP® Human IL-3 | GMP200-03-50µg | 50µg |
| PeproGMP® Human IL-3 | GMP200-03-100µg | 100µg |
| PeproGMP® Human IL-3 | GMP200-03-1mg | 1mg |
| PeproGMP® Human IL-6 | GMP200-06-10µg | 10µg |
| PeproGMP® Human IL-6 | GMP200-06-100µg | 100µg |
| PeproGMP® Human IL-7 | GMP200-07-50µg | 50µg |
| PeproGMP® Human IL-15 | GMP200-15-50µg | 50µg |
| PeproGMP® Human IL-15 | GMP200-15-100µg | 100µg |
| PeproGMP® Human IL-21 | GMP200-21-50µg | 50µg |
| PeproGMP® Human IL-21 | GMP200-21-100µg | 100µg |
| PeproGMP® Human EGF | GMP100-15-100µg | 100µg |
| PeproGMP® Human EGF | GMP100-15-500µg | 500µg |
| PeproGMP® Human EGF | GMP100-15-1mg | 1mg |
| PeproGMP® Human FGF-basic | GMP100-18B-25µg | 25µg |
| PeproGMP® Human FGF-basic | GMP100-18B-100µg | 100µg |
| PeproGMP® Human FGF-basic | GMP100-18B-1mg | 1mg |
| PeproGMP® Human Flt3-Ligand | GMP300-19-50µg | 50µg |
| PeproGMP® Human Flt3-Ligand | GMP300-19-100µg | 100µg |
| PeproGMP® Human Heregulinβ-1 | GMP100-03-50µg | 50µg |
| PeproGMP® Human Heregulinβ-1 | GMP100-03-100µg | 100µg |
| PeproGMP® Human Heregulinβ-1 | GMP100-03-1mg | 1mg |
| PeproGMP® Human KGF | GMP100-19-50µg | 50µg |
| PeproGMP® Human KGF | GMP100-19-100µg | 100µg |
| PeproGMP® Human LIF | GMP300-05-50µg | 50µg |
| PeproGMP® Human LIF | GMP300-05-100µg | 100µg |
| PeproGMP® Human PDGF-AA | GMP100-13A-50µg | 50µg |
| PeproGMP® Human PDGF-AA | GMP100-13A-100µg | 100µg |
| PeproGMP® Human SCF | GMP300-07-50µg | 50µg |
| PeproGMP® Human SCF | GMP300-07-100µg | 100µg |
| PeproGMP® Human SCF | GMP300-07-1mg | 1mg |
| PeproGMP® Human TPO | GMP300-18-50µg | 50µg |
| PeproGMP® Human TPO | GMP300-18-100µg | 100µg |
| PeproGMP® Human VEGF ₁₆₅ | GMP100-20-50µg | 50µg |
| PeproGMP® Human VEGF ₁₆₅ | GMP100-20-100µg | 100µg |
| PeproGMP® Human VEGF ₁₆₅ | GMP100-20-1mg | 1mg |

当社では継続的に PeproGMP® サイトカインのラインナップを広げていきます。最新の製品リストについては、ウェブサイト www.peprotech.com をご覧ください。

品質保証 / 品質管理

ペプロテックでは、原材料や機器の管理から、施設のメンテナンス（環境モニタリング）、製造工程、内部監査、査察工程に至るまで、品質マネジメントシステムのあらゆる面が、確実に US FDA の GMP および適用されるすべての規制および基準要件に適合するようにしています。

当社は、PeproGMP® サイトカインが純度、同一性、安全性、活性、一貫性に関する厳しい基準に適合していることを検証するために、広範な品質管理試験を実施しています。

細胞培養培地製品

ヒト間葉系幹細胞用維持培地

PeperoGrow™ hMSC

PeperoGrow™ hMSC は、異種由来成分やフェノールレッドを含まないヒト血清含有完全培地で、完全な多分化能を維持しながら脂肪由来ヒト間葉系幹細胞の *in vitro* 増殖培養を行うことを本来の目的として設計されました。開発の段階で、この培地は、接着培養法、浮遊培養法のいずれにおいても、脂肪組織由来、骨髄由来、臍帯由来、胎盤由来、尿由来の間葉系幹細胞の持続的増殖に適していることが明らかになりました。最適な結果を得るには、当社の動物由来成分不含ヒトビトロネクチンマトリックスを表面コーティング試薬として使用した表面上で培養を行う必要がありますが、他社製フィブロネクチンやビトロネクチンなど、他の適した細胞外マトリックスを使用することも可能です。

American CryoStem 社（アメリカ・ニュージャージー州）と共同で設計開発した PeperoGrow™ hMSC は、ヒト血清成分含有の基礎培地 500 mL ボトルと、凍結乾燥された動物由来成分不含の成長因子成分のバイアル（1 本）がセットになっています。凍結乾燥された成長因子成分を基礎培地に加えることで、ヒト間葉系幹細胞の最適な増殖培養に必要なすべての成長因子と添加剤を含んだ完全培地となります。

別売関連製品として Animal-Free Human Vitronectin Matrix and Buffer Kit をご用意しています。



製品名

カタログ番号

PeperoGrow™ hMSC Medium 500mL KitXF-hMSC-500
 Basal Medium
 Growth Factor Component

別売関連製品

製品名

カタログ番号

Animal-Free Human Vitronectin Matrix and Buffer KitAF-VMB-220
 Animal-Free Human Vitronectin Matrix (500µg)
 PBS + Kolliphor P 188 (220mL)

ヒトES細胞およびヒトiPS細胞用維持培地

PeproGrow™ hESC

PeproGrow™ hESC は化学的組成が完全に明らかなフィーダーフリーのヒトES細胞およびヒトiPS細胞用維持・増殖培地です。本培地は、未分化多能性 (Nanog+/Lin28+/Tra-1-60+/SSEA1-/SSEA4+/Oct4+) のヒトES細胞およびヒトiPS細胞の培養への使用を目的としており、蛍光免疫染色およびフローサイトメトリーにより自発的分化率が15%未満と示されています。ラトガース大学 (アメリカ・ニュージャージー州) Stem Cell Training Course とペプロテックが共同で開発した PeproGrow™ hESC は、基礎培地 500mL または 100mL ボトルと凍結乾燥された成長因子成分のバイアル (1本) がセットになっています。二つの別売関連製品として、Animal-Free Human Vitronectin Matrix and Buffer Kit、Cell Passaging/Non-Enzymatic Detachment Buffer をご用意しています。Animal-Free Human Vitronectin Matrix and Buffer Kit は表面コーティング法もしくは培地添加法のいずれかにご使用いただけます (ただし最適化が必要な場合があります)。



PeproGrow™ hESC は分化後細胞のインスリン産生の測定における干渉の可能性を排除するためにインスリンを組成に含有しておらず、それに代わる同様の特異な経路活性化因子を使用しています。

| 製品名 | キット/単品カタログ番号 |
|---|-----------------|
| PeproGrow™ hESC Medium 500mL Kit | hESC-500 |
| Basal Medium..... | BM-hESC-500 |
| Growth Factor Component | GF-hESC-500 |
| PeproGrow™ hESC Medium 100mL Kit | hESC-100 |
| Basal Medium..... | BM-hESC-100 |
| Growth Factor Component | GF-hESC-100 |

別売関連製品

| 製品名 | カタログ番号 |
|--|-------------------|
| Animal-Free Human Vitronectin Matrix and Buffer Kit | AF-VMB-220 |
| Animal-Free Human Vitronectin Matrix (500µg) | |
| PBS + Kolliphor P 188 (220mL) | |
| Cell Passaging/Non-Enzymatic Detachment Buffer | CPD-125 |
| PBS+HEPES+EDTA (125mL) | |

細胞培養培地製品 (続き)

内皮細胞用維持培地

PeproGrow™ EPC/PeproGrow™ MacroV/PeproGrow™ MicroV

PeproGrow™ EPC、PeproGrow™ MacroV、PeproGrow™ MicroV は、それぞれ骨髄または末梢血由来内皮前駆細胞用、大血管由来内皮細胞用、小血管由来内皮細胞用に開発した *in vitro* 培養用の内皮細胞用培地です。

これら3種類の培地の組成は、内皮細胞の特徴的な形態と機能を維持し、内皮細胞に特異的かつ重要なマーカーとなる内皮型一酸化窒素合成酵素 (eNOS) の活性を高めます。このため、これら培地は内皮前駆細胞だけでなく、大血管や微小血管内皮細胞に対しても最適な細胞培養環境を整え、他社製培地を上回る細胞増殖速度を実現しています。

ペプロテックの内皮細胞用培地キットは、基礎培地の 500mL ボトルと、内皮細胞の増殖に欠かせない各種の成長因子成分の入った成長添加剤の小ボトルのセットになっており、成長添加剤を基礎培地に添加するだけで完全培養培地となります。ペプロテックの内皮細胞用培地には、完全培地としての使用期限を短くしたり、実験結果に影響を及ぼす細胞へのストレスやマスキング効果を引き起こす可能性のある抗生物質、抗真菌剤、フェノールレッドを含みません。

| 製品名 | カタログ番号 |
|---|-------------------|
| PeproGrow™ EPC Medium Kit | 700-EPC |
| Basal Medium | |
| Growth Supplement EPC* | |
| PeproGrow™ MacroV Medium Kit | 700-MacroV |
| Basal Medium | |
| Growth Supplement MacroV* | |
| PeproGrow™ MicroV Medium Kit | 700-MicroV |
| Basal Medium | |
| Growth Supplement MicroV* | |

* FBS含有



CHO-S細胞用維持培地

PeproGrow™ AF-CHO

PeproGrow™ AF-CHO は、CHO-S 細胞 (Thermo Fisher Scientific 社 カタログ番号 11619-012、R800-07 または A11557-01) の *in vitro* 培養用として、浮遊培養法による組換えタンパク質の発現を使用目的とした動物由来成分やタンパク質を含まない無血清完全培地です。本製品は L-アラニン、L-グルタミン、アミノ酸、ビタミン、塩類、非動物由来の加水分解物を含有する調製済み培地で、播種密度 0.5×10^6 cells/mL での 5 日間回分培養への使用を推奨しています。Thermo Fisher Scientific 社の CHO-S 細胞には馴化プロセスは必要ありません。



| 製品名 | カタログ番号 | 容量 |
|--------------------------|--------|----|
| PeproGrow™ AF-CHO Medium | AF-CHO | 1L |

HEK293細胞用維持培地

PeproGrow™ HEK293

PeproGrow™ HEK293 は、動物由来成分やタンパク質を含まない、化学的組成が明らかな無血清完全培地で、HEK293 細胞 (Thermo Fisher Scientific 社 FreeStyle™ 293-F 細胞、カタログ番号 R790-07) の *in vitro* 培養に用います。本培地は、浮遊培養法による組換えタンパク質の発現を使用目的としており、播種密度 0.6×10^6 cells/mL での 5 日間回分培養への使用を推奨しています。培地は調整済みで、L-アラニン、L-グルタミン、アミノ酸、ビタミン、塩類を含有しています。Thermo Fisher Scientific 社の FreeStyle™ 293-F 細胞には馴化プロセスは必要ありません。



| 製品名 | カタログ番号 | 容量 |
|--------------------------|--------------|----|
| PeproGrow™ HEK293 Medium | AF-CD-HEK293 | 1L |

細胞培養培地製品 (続き)

無血清細胞培養培地用添加剤キット

PeperoGrow-1

PeperoGrow-1 は、哺乳類接着細胞株の増殖維持を目的とした、動物由来成分やタンパク質を含まない、化学的組成が明らかな無血清細胞培養培地用添加剤です。HEK293 細胞、HeLa 細胞、A549 細胞で試験済みで、他の接着細胞の培養条件の改善も図ることができると期待されています（ただし、試験済み以外の細胞に対する適切性を保証するものではありません）。

本キット製品は、DMEM/F12 基礎培地（Thermo Fisher Scientific 社 カタログ番号 31331）に添加して使用することを目的としており、本キットで 10L の培地が調製可能です。キットは化学的組成が明らかな塩類を含有する血清代替液（100 ×）と、無血清培地での細胞増殖向上を目的とした脂肪酸および脂質を含有する脂質混合液（200 ×）で構成されています。

注：使用する DMEM/F12 基礎培地はフェノールレッドを含むことができます（フェノールレッド不含の場合は、お客様の判断により添加することも可能です）。DMEM/F12 基礎培地は HEPES 不含のものを使用して下さい。PeperoGrow-1 は Thermo Fisher Scientific 社の DMEM/F12 基礎培地のみを使用して試験しており、他社の DMEM/F12 基礎培地では試験していません。

| 製品名 | キット/単品カタログ番号 |
|---------------------------------|-----------------|
| PeperoGrow-1 Kit | 700-C100 |
| Serum Replacement Solution..... | SR-100 |
| Lipid Mixture Solution..... | LM-200 |



ELISA バッファークット

ABTS ELISA Buffer Kit/TMB ELISA Buffer Kit

ペプロテックの ABTS ELISA Buffer Kit および TMB ELISA Buffer Kit は、それぞれ当社の ABTS ELISA Development Kit、TMB ELISA Development Kit と併せてご使用いただいたときに最適なパフォーマンスが得られるよう特別に調製されています。本製品には付属の 10 枚の 96 ウェル ELISA プレートの測定に必要な構成成分がすべて揃っており、詳細な取扱説明書も含まれています。測定への干渉を最小限に抑え、保存期間を最大限に保つために、すべての試薬に滅菌ろ過処理を施しています。当社の ELISA Development Kit と一緒のご購入をお勧めいたします。

使用が簡単なこの ELISA Buffer Kit では、付属のプレートに捕捉抗体があらかじめコーティングされておりません（本製品には抗体は含まれておりません）。本キットをひとつの独立した製品としてご購入することも可能ですので、すでに所有されている捕捉抗体や検出抗体を用いて測定法を構築し、最適化することもできます。ELISA における実際の抗体濃度および検出範囲は測定法により異なります。

ABTS ELISA Buffer Kit 内容

- 20 × プレートコーティングバッファ（PBS）
- 1 × ブロッキングバッファ
- 20 × 検体希釈液
- 20 × 洗浄バッファ
- 調製済み ABTS 溶液
- 未コーティング滅菌済み 96 ウェル ELISA プレート 10 枚
- プレートシーリングフィルム 50 枚
- バッファ取扱説明書

製品名

カタログ番号

ABTS ELISA Buffer Kit 900-K00

TMB ELISA Buffer Kit 内容

- 20 × プレートコーティングバッファ（PBS）
- 1 × ブロッキングバッファ
- 20 × 検体希釈液
- 20 × 洗浄バッファ
- 調製済み TMB 溶液
- 調製済み反応停止液
- 未コーティング滅菌済み 96 ウェル ELISA プレート 10 枚
- プレートシーリングフィルム 50 枚
- バッファ取扱説明書

製品名

カタログ番号

TMB ELISA Buffer Kit 900-T00

サイトカインパッケージ

ペプロテックのサイトカインパッケージは、共用の使用目的で購入されることの多いサイトカインが組み合わされたパッケージ製品です。それぞれ個々のサイトカインを購入される必要がなく、パッケージとしてのお得な製品となっています。

樹状細胞用サイトカインパッケージ

Human Dendritic Cell Cytokine Package

ヒト樹状細胞の培養に必要な主要サイトカインのパッケージセット。

カタログ番号:HDC

以下のバイアル2本の組換えサイトカインが含まれます。

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

Animal-Free Human Dendritic Cell Cytokine Package

上記パッケージに動物由来成分不含製品を使用したセット。

カタログ番号:AF-HDC

以下のバイアル2本の組換えサイトカインが含まれます。

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

Murine Dendritic Cell Cytokine Package

マウス樹状細胞の培養に必要な主要サイトカインのパッケージセット。

カタログ番号:MDC

以下のバイアル2本の組換えサイトカインが含まれます。

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

Animal-Free Murine Dendritic Cell Cytokine Package

上記パッケージに動物由来成分不含製品を使用したセット。

カタログ番号:AF-MDC

以下のバイアル2本の組換えサイトカインが含まれます。

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

造血幹細胞増殖用サイトカインパッケージ

Human Hematopoietic Stem Cell Expansion Cytokine Package

ヒト造血幹細胞の培養に必要な主要サイトカインのパッケージセット (IL-3包装品)。

カタログ番号:HHSC3

以下のバイアル4本の組換えサイトカインが含まれます。

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

Animal-Free Human Hematopoietic Stem Cell Expansion Cytokine Package

上記パッケージに動物由来成分不含製品を使用したセット。

カタログ番号:AF-HHSC3

以下のバイアル4本の組換えサイトカインが含まれます。

- 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

マウス造血幹細胞の培養に必要な主要サイトカインのパッケージセット (IL-3包装品)。

カタログ番号:MHSC3

以下のバイアル4本の組換えサイトカインが含まれます。

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

Human Hematopoietic Stem Cell Expansion Cytokine Package

ヒト造血幹細胞の培養に必要な主要サイトカインのパッケージセット (IL-6包装品)。

カタログ番号:HHSC6

以下のバイアル4本の組換えサイトカインが含まれます。

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

Animal-Free Human Hematopoietic Stem Cell Expansion Cytokine Package

上記パッケージに動物由来成分不含製品を使用したセット。

カタログ番号:AF-HHSC6

以下のバイアル4本の組換えサイトカインが含まれます。

- 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

マウス造血幹細胞の培養に必要な主要サイトカインのパッケージセット (IL-6包装品)。

カタログ番号:MHSC6

以下のバイアル4本の組換えサイトカインが含まれます。

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

※ サイトカインパッケージに含まれる組換えサイトカインは大腸菌発現製品です。

Activin A

Synonyms: Inhibin beta-1, FRP, FSH (Follicle-Stimulating Hormone)-releasing protein, Erythroid Differentiation Factor (EDF)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------------------|------------------|---------------------|----------|--------|----------|
| Human/Murine/Rat Activin A | CARTAGENA 120-14 | <i>Insect cells</i> | 26.0 kDa | 2µg | 10µg 1mg |
| Human/Murine/Rat Activin A | 120-14E | <i>E. coli</i> | 26.0 kDa | 2µg | 10µg 1mg |
| Human/Murine/Rat Activin A | 120-14P | <i>CHO cells</i> | 26.0 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------------------|------------|----------------|----------|--------|----------|
| Human/Murine/Rat Activin A | AF-120-14E | <i>E. coli</i> | 26.0 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

PeptoGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|---------------------------|------------------|----------------|----------|-------|
| PeptoGMP® Human Activin A | GMP120-14E-50µg | <i>E. coli</i> | 26.0 kDa | 50µg |
| PeptoGMP® Human Activin A | GMP120-14E-100µg | <i>E. coli</i> | 26.0 kDa | 100µg |

Adiponectin

Synonyms: Acrp-30, APM-1, AdipoQ, Gelatin-binding protein, GBP-28

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------------|------------------|---------------------|----------|--------|----------|
| Human Adiponectin | CARTAGENA 450-24 | <i>Insect cells</i> | 25.9 kDa | 5µg | 25µg 1mg |
| Murine Adiponectin | CARTAGENA 315-26 | <i>Insect cells</i> | 25.8 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human Adiponectin | 500-P239 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human Adiponectin | 500-P239BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|------------------------|-----------|--------------|--------------|-------|
| Anti-Human Adiponectin | 500-M126 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

AITRL *Activation-Induced TNFR member Ligand*

Synonyms: TNFSF18, GITRL, TL-6

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|----------------|----------|--------|----------|
| Human AITRL | 310-22 | <i>E. coli</i> | 14.3 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human AITRL | 500-P244 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human AITRL | 500-P244BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Aminopeptidase

Synonyms: None

RUO Cytokines

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

Additional sizes available please inquire

Amphiregulin

Synonyms: AR, AREG, Colorectum cell-Derived Growth Factor (CRDGF)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|----------|--------|--------|-----|
| Human Amphiregulin | 100-55B | <i>E.coli</i> | 11.3 kDa | 10µg | 50µg | 1mg |
| Murine Amphiregulin | 315-36 | <i>E.coli</i> | 11.5 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Amphiregulin | 500-P322 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Amphiregulin | 500-P322BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

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

Synonyms: ANG-1: ANGPT1, KIAA0003; ANG-2: ANGPT2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|-------------------|----------|--------|--------|-----|
| Human ANG-1 | 130-06 | <i>HeLa cells</i> | 56.3 kDa | 5µg | 20µg | 1mg |
| Human ANG-2 | 130-07 | <i>CHO cells</i> | 50.1 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

ANGPTL-3 *Angiopoietin-like protein 3*

Synonyms: ANG-5, ANGPT5

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|------------------|----------|--------|--------|-----|
| Human ANGPTL-3 | 130-18 | <i>CHO cells</i> | 52.9 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

ANGPTL-7 *Angiopoietin-like protein 7*

Synonyms: Angiopoietin-related protein 7, Cornea-derived transcript 6 protein, CDT6

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------------------------|-----------|---------------------|----------|--------|----------|
| Human ANGPTL-7 CARTAGENA | 130-22 | <i>Insect cells</i> | 38.2 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

ApoA-1 *Apolipoprotein A-1*

Synonyms: None

RUO Cytokines

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

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human ApoA-1 | 500-P331 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human ApoA-1 | 500-P331BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

ApoE2 *Apolipoprotein E2*

Synonyms: None

RUO Cytokines

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

Additional sizes available please inquire

ApoE3 *Apolipoprotein E3*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|---------------|----------|--------|-----------|
| Human ApoE3 | 350-02 | <i>E.coli</i> | 34.4 kDa | 100µg | 500µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human ApoE3 | 500-P238 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human ApoE3 | 500-P238BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

ApoE4 *Apolipoprotein E4*

Synonyms: None

RUO Cytokines

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

Additional sizes available please inquire

Apo-SAA, Apo-SAA1

Synonyms: Apo-SAA: Serum amyloid A protein (SAA), Serum amyloid A apolipoprotein, Amyloid fibril protein AA, TP53I4, PIG4; APO-SAA1: Serum amyloid A-1 protein

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|---------------|----------|--------|--------|-----|
| Human Apo-SAA | 300-13 | <i>E.coli</i> | 11.7 kDa | 10µg | 50µg | 1mg |
| Human Apo-SAA1 | 300-53 | <i>E.coli</i> | 11.7 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|---------------|----------|--------|--------|-----|
| Human Apo-SAA1 | AF-300-53 | <i>E.coli</i> | 11.7 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

APRIL *A Proliferation-Inducing Ligand*

Synonyms: TNFSF13, TRDL-1, TALL-2, CD256

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-------------------|---------------|----------|--------|--------|-----|
| Human APRIL | CARTAGENA 310-10C | Insect cells | 16.3 kDa | 2µg | 10µg | 1mg |
| Murine APRIL | 315-13 | <i>E.coli</i> | 21.9 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human APRIL | 500-P192 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human APRIL | 500-P192BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Arg-C

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------------------|------------------|--------------|----------|--------|--------|-----|
| Lysobacter Enzymogenes Arg-C | CARTAGENA 450-54 | Insect cells | 26.8 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Arginine Deiminase

Synonyms: ADI

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------------|-----------|---------------|----------|--------|--------|-----|
| Mycoplasma Arginine Deiminase | 150-12 | <i>E.coli</i> | 46.3 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

A

Artemin

Synonyms: ART, ARTN, Enovin, Neublartin

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|---------------|----------|--------|--------|-----|
| Human Artemin | 450-17 | <i>E.coli</i> | 24.2 kDa | 5µg | 20µg | 1mg |
| Murine Artemin | 450-58 | <i>E.coli</i> | 24.2 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|---------------|----------|--------|--------|-----|
| Human Artemin | AF-450-17 | <i>E.coli</i> | 24.2 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Artemin | 500-P245 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Artemin | 500-P245BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

4-1BB Ligand

Synonyms: TNFSF9, CD137L

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|---------------|----------|--------|--------|-----|
| Human 4-1BB Ligand | 310-11 | <i>E.coli</i> | 19.5 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|---------------|----------|--------|--------|-----|
| Human 4-1BB Ligand | AF-310-11 | <i>E.coli</i> | 19.5 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human 4-1BB Ligand | 500-P169 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human 4-1BB Ligand | 500-P169BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

4-1BB Receptor

Synonyms: TNFRSF9, CD137, T-cell antigen ILA, CDw137

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|----------|--------|--------|-----|
| Human 4-1BB Receptor | 310-15 | <i>E.coli</i> | 17.7 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|-------------|-------------|--------------|--------|--------|-----|
| Anti-Human 4-1BB Receptor | 500-P167G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human 4-1BB Receptor | 500-P167GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Human 4-1BB Receptor **ABTS CATALOG # 900-K208**

B7-1 Fc

Synonyms: B7, BB1, CD80

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|-----------|----------|--------|--------|-----|
| Human B7-1 Fc | 310-32 | CHO cells | 50.0 kDa | 20µg | 100µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Murine B7-1 | 500-P128 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine B7-1 | 500-P128BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

B7-2 Fc

Synonyms: B70, CD86, ETC1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|-----------|----------|--------|--------|-----|
| Human B7-2 Fc | 310-33 | CHO cells | 51.2 kDa | 20µg | 100µg | 1mg |

Additional sizes available please inquire

B7-H2 Fc

Synonyms: Inducible Costimulator-Ligand (ICOSL), B7 homolog 2, B7-like protein G150, B7-related protein 1 (B7RP-1), CD275

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|-----------|-----------|--------|--------|-----|
| Human B7-H2 Fc | 310-37 | CHO cells | 104.9 kDa | 20µg | 100µg | 1mg |

Additional sizes available please inquire

BAFF *B-cell Activating Factor belonging to the TNF Family*

Synonyms: TNFSF13B, TNFSF20, TALL-1, BlyS, THANK, ZTNF4, CD257

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human BAFF | 310-13 | <i>E.coli</i> | 17.0 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human BAFF | AF-310-13 | <i>E.coli</i> | 17.0 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

BAFF continued on next page...

BAFF *continued...***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------|-------------|--------|--------------|--------|--------|-----|
| Anti-Human BAFF | 500-P163 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human BAFF | 500-P163BT | Rabbit | E, WB | 25µg | 50µg | 1mg |
| Anti-Human BAFF | 500-P163G | Goat | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human BAFF | 500-P163GBT | Goat | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-----------------|-----------|--------|--------------|-------|
| Anti-Human BAFF | 500-M64 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

BAFF Receptor *B-cell Activating Factor belonging to the TNF Receptor Family***Synonyms:** BAFFR, TNFRSF13C, BLyS Receptor 3, CD268**RUO Cytokines**

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

Additional sizes available please inquire

BCA-1/BLC (CXCL13) *B-cell Attracting Chemokine-1***Synonyms:** BLR1 Ligand**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------------|-----------|---------------|----------|--------|--------|-----|
| Human BCA-1 (CXCL13) | 300-47 | <i>E.coli</i> | 10.3 kDa | 5µg | 20µg | 1mg |
| Murine BCA-1/BLC (CXCL13) | 250-24 | <i>E.coli</i> | 9.8 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human BCA-1 (CXCL13) | 500-P141 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human BCA-1 (CXCL13) | 500-P141BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

BCMA *B-Cell Maturation Antigen***Synonyms:** TNFRSF17, BCM, CD269**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|---------|--------|--------|-----|
| Human BCMA | 310-16 | <i>E.coli</i> | 5.3 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

BD-1, -2, -3, -4, -5 β -Defensins -1, -2, -3, -4, -5

Synonyms: **BD-1:** DEFB1, HBD1; **BD-2:** DEFB2, DEFB4A, Skin-Antimicrobial Peptide 1, SAP1; **BD-3:** DEFB3, DEFB103A; **BD-4:** Beta-Defensin 104, DEFB4; **BD-5:** BD5, DEFB105a, DEFB5

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|---------|--------|--------|-----|
| Human BD-1 (36 a.a.) | 300-51 | <i>E.coli</i> | 3.9 kDa | 5µg | 20µg | 1mg |
| Human BD-1 (47 a.a.) | 300-51A | <i>E.coli</i> | 5.0 kDa | 5µg | 20µg | 1mg |
| Human BD-2 | 300-49 | <i>E.coli</i> | 4.3 kDa | 5µg | 20µg | 1mg |
| Murine BD-2 | 250-40 | <i>E.coli</i> | 5.5 kDa | 5µg | 20µg | 1mg |
| Human BD-3 | 300-52 | <i>E.coli</i> | 5.1 kDa | 5µg | 20µg | 1mg |
| Murine BD-3 | 250-41 | <i>E.coli</i> | 4.6 kDa | 5µg | 20µg | 1mg |
| Human BD-4 | 300-65 | <i>E.coli</i> | 6.0 kDa | 5µg | 20µg | 1mg |
| Human BD-5 | 300-68 | <i>E.coli</i> | 5.8 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|---------|--------|--------|-----|
| Murine BD-3 | AF-250-41 | <i>E.coli</i> | 4.6 kDa | 5µg | 20µg | 1mg |
| Human BD-5 | AF-300-68 | <i>E.coli</i> | 5.8 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------|-------------|---------------|--------------|--------|--------|-----|
| Anti-Human BD-1 | 500-P253 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human BD-1 | 500-P253BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human BD-2 | 500-P161G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human BD-2 | 500-P161GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human BD-3 | 500-P241 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human BD-3 | 500-P241BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human BD-4 | 500-P268 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human BD-4 | 500-P268BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human BD-5 | 500-P323 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human BD-5 | 500-P323BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|------------|--------------------------------|
| Human BD-1 | ABTS CATALOG # 900-K202 |
| Human BD-2 | ABTS CATALOG # 900-K172 |
| Human BD-2 | TMB CATALOG # 900-T172 |
| Human BD-3 | ABTS CATALOG # 900-K210 |
| Human BD-4 | ABTS CATALOG # 900-K435 |

Mini ELISA Development Kits

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

| | |
|------------|--------------------------------|
| Human BD-1 | ABTS CATALOG # 900-M202 |
| Human BD-2 | ABTS CATALOG # 900-M172 |
| Human BD-2 | TMB CATALOG # 900-TM172 |
| Human BD-3 | ABTS CATALOG # 900-M210 |
| Human BD-4 | ABTS CATALOG # 900-M435 |

B

BDNF *Brain-Derived Neurotrophic Factor***Synonyms:** Abrineurin**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-----------------------|-----------|---------------|----------|--------|----------|
| Human/Murine/Rat BDNF | 450-02 | <i>E.coli</i> | 27.0 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-----------------------|-----------|---------------|----------|--------|----------|
| Human/Murine/Rat BDNF | AF-450-02 | <i>E.coli</i> | 27.0 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|----------------------------|-----------|---------------|--------------|--------|-----------|
| Anti-Human/Murine/Rat BDNF | 500-P84 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-H/M/R BDNF | 500-P84BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Betacellulin**Synonyms:** BTC**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------------|-----------|---------------|---------|--------|----------|
| Human Betacellulin | 100-50 | <i>E.coli</i> | 9.0 kDa | 5µg | 20µg 1mg |
| Murine Betacellulin | 315-21 | <i>E.coli</i> | 9.0 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human Betacellulin | 500-P254 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human Betacellulin | 500-P254BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Human Betacellulin **ABTS CATALOG # 900-K372****BMP-2** *Bone Morphogenetic Protein-2***Synonyms:** BMP-2A**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------------------|-----------|---------------|----------|--------|----------|
| Human/Murine/Rat BMP-2 | 120-02 | <i>E.coli</i> | 26.0 kDa | 2µg | 10µg 1mg |
| Human/Murine/Rat BMP-2 | 120-02C | CHO cells | 25.8 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------------------|-----------|---------------|----------|--------|----------|
| Human/Murine/Rat BMP-2 | AF-120-02 | <i>E.coli</i> | 26.0 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

BMP-2 continued on next page...

BMP-2 *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human/Murine/Rat BMP-2 | 500-P195 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-H/M/R BMP-2 | 500-P195BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|------------------------|--------------------------------|
| Human/Murine/Rat BMP-2 | ABTS CATALOG # 900-K255 |
| Human/Murine/Rat BMP-2 | TMB CATALOG # 900-T255 |

Mini ELISA Development Kits

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

| | |
|------------------------|--------------------------------|
| Human/Murine/Rat BMP-2 | ABTS CATALOG # 900-M255 |
| Human/Murine/Rat BMP-2 | TMB CATALOG # 900-TM255 |

BMP-3 *Bone Morphogenetic Protein-3*

Synonyms: Osteogenin, BMP-3A

RUO Cytokines

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

Additional sizes available please inquire

BMP-4 *Bone Morphogenetic Protein-4*

Synonyms: BMP-2B, DVR4

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human BMP-4 | 120-05 | HeLa cells | 25.6 kDa | 1µg | 5µg | 1mg |
| Human BMP-4 | 120-05ET | <i>E.coli</i> | 23.9 kDa | 2µg | 10µg | 1mg |
| Murine BMP-4 | 315-27 | <i>E.coli</i> | 23.9 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-------------|---------------|----------|--------|--------|-----|
| Human BMP-4 | AF-120-05ET | <i>E.coli</i> | 23.9 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|------------------|-----------|--------|--------------|-------|
| Anti-Human BMP-4 | 500-M121 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

BMP-5 *Bone Morphogenetic Protein-5***Synonyms:** None**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|-----------|----------|--------|--------|-----|
| Human BMP-5 | 120-39 | CHO cells | 31.2 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

BMP-6 *Bone Morphogenetic Protein-6***Synonyms:** VGR, VG-1-related protein**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|--------------|----------|--------|--------|-----|
| Human BMP-6 | 120-06 | HEK293 cells | 26.2 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

BMP-7 *Bone Morphogenetic Protein-7***Synonyms:** Osteogenic Protein-1 (OP-1)**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|-----------|----------|--------|--------|-----|
| Human BMP-7 | 120-03P | CHO cells | 26.4 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human BMP-7 | 500-P198 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human BMP-7 | 500-P198BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size | |
|------------------|-----------|--------|--------------|-------|--|
| Anti-Human BMP-7 | 500-M123 | Mouse | E | 500µg | |

Key: E = ELISA, WB = Western blot

BMP-10 *Bone Morphogenetic Protein-10***Synonyms:** None**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|--------------|----------|--------|--------|-----|
| Human BMP-10 | 120-40 | HEK293 cells | 24.4 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

B

BMP-13/CDMP-2 *Bone Morphogenetic Protein-13*

Synonyms: Cartilage-Derived Morphogenetic Protein-2, GDF-6

RUO Cytokines

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

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|----------|--------|--------|-----|
| Human BMP-13/CDMP-2 | AF-120-04 | <i>E.coli</i> | 27.0 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

BRAK (CXCL14) *Breast and Kidney-expressed chemokine*

Synonyms: bolekin, NJAC

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|---------|--------|--------|-----|
| Human BRAK (CXCL14) | 300-50 | <i>E.coli</i> | 9.4 kDa | 5µg | 20µg | 1mg |
| Murine BRAK (CXCL14) | 250-45 | <i>E.coli</i> | 9.4 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human BRAK (CXCL14) | 500-P237 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human BRAK (CXCL14) | 500-P237BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

BTLA Fc

Synonyms: B- and T-lymphocyte attenuator, B- and T-lymphocyte-associated protein, CD272

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|-----------|----------|--------|--------|-----|
| Human BTLA Fc | 310-43 | CHO cells | 39.8 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

C1 Inhibitor

Synonyms: Plasma protease C1 inhibitor, C1inh, C1 Esterase Protein, C1-inhibiting factor, Serpin G1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|-----------|----------|--------|--------|-----|
| Human C1 Inhibitor | 130-20 | CHO cells | 52.8 kDa | 50µg | 200µg | 1mg |

Additional sizes available please inquire

C5a

Synonyms: Complement Component 5a, Complement 5a, CPAMD4, C3 and PZP-like alpha-2-macroglobulin domain-containing protein 4

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|---------|--------|--------|-----|
| Human C5a | 300-70 | <i>E.coli</i> | 8.3 kDa | 5µg | 20µg | 1mg |
| Murine C5a | 315-40 | <i>E.coli</i> | 8.9 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------|-----------|---------------|---------|--------|--------|-----|
| Human C5a | AF-300-70 | <i>E.coli</i> | 8.3 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

C10 (CCL6)

Synonyms: MRP-1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------|-----------|---------------|----------|--------|--------|-----|
| Murine C10 (CCL6) | 250-06 | <i>E.coli</i> | 10.7 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Murine C10 (CCL6) | 500-P112 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine C10 (CCL6) | 500-P112BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Carboxypeptidase-B

Synonyms: Cpb1

RUO Cytokines

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

Additional sizes available please inquire

Cardiotrophin-1

Synonyms: CT-1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------------|-----------|---------------|----------|--------|--------|-----|
| Human Cardiotrophin-1 | 300-32 | <i>E.coli</i> | 21.1 kDa | 2µg | 10µg | 1mg |
| Murine Cardiotrophin-1 | 250-25 | <i>E.coli</i> | 21.3 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|----------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Cardiotrophin-1 | 500-P101 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Cardiotrophin-1 | 500-P101BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

sCD4 *soluble CD4*

Synonyms: Cluster determinant 4, T-cell surface glycoprotein CD4, Interleukin IL-16 receptor, T-cell surface antigen T4/Leu-3, Leu-3(a,b), OKT4(a-f), L3T4 (mouse)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------|-----------|-----------|----------|--------|----------|
| Human sCD4 | 110-11 | CHO cells | 41.3 kDa | 10µg | 50µg 1mg |

Additional sizes available please inquire

sCD8α *soluble CD8 alpha*

Synonyms: CD8A, T-cell surface glycoprotein CD8 alpha chain, T-lymphocyte differentiation antigen T8/Leu-2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|-----------|----------|--------|----------|
| Human sCD8α | 310-41 | CHO cells | 17.6 kDa | 10µg | 50µg 1mg |

Additional sizes available please inquire

sCD14 *soluble CD14*

Synonyms: Monocyte differentiation antigen CD14

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|--------------|----------|--------|----------|
| Human sCD14 | 110-01 | HEK293 cells | 35.6 kDa | 10µg | 50µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------|------------|--------|--------------|--------|-----------|
| Anti-Human sCD14 | 500-P320 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human sCD14 | 500-P320BT | Rabbit | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

sCD22 *soluble CD22*

Synonyms: Leu-14, B-Lymphocyte cell adhesion molecule, BL-CAM, Siglec-2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|-----------|----------|--------|----------|
| Human sCD22 | 100-01 | CHO cells | 75.0 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------|------------|--------|--------------|--------|-----------|
| Anti-Human sCD22 | 500-P227 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human sCD22 | 500-P227BT | Rabbit | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

sCD23 *soluble CD23***Synonyms:** CD23 antigen, Fc-epsilon-RII, Lymphocyte IgE receptor, BLAST-2**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human sCD23 | 310-26 | <i>E.coli</i> | 19.2 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

sCD27 Ligand *soluble CD27 Ligand***Synonyms:** TNFSF7, CD70, CD27L**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|-----------|----------|--------|--------|-----|
| Human sCD27 Ligand | 310-30 | CHO cells | 18.8 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

sCD28 Fc *soluble CD28 Fc***Synonyms:** T-cell-specific surface glycoprotein CD28, TP44**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|-----------|----------|--------|--------|-----|
| Human sCD28 Fc | 310-34 | CHO cells | 82.4 kDa | 20µg | 100µg | 1mg |

Additional sizes available please inquire

sCD30 Ligand *soluble CD30 Ligand***Synonyms:** TNFSF8, CD153, CD30L**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|-----------|----------|--------|--------|-----|
| Human sCD30 Ligand | 450-42 | CHO cells | 21.3 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

sCD34 *soluble CD34***Synonyms:** Hematopoietic progenitor cell antigen CD34**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|-----------|----------|--------|--------|-----|
| Human sCD34 | 310-31 | CHO cells | 27.4 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human sCD34 | 500-P327 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human sCD34 | 500-P327BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

sCD40 Ligand *soluble CD40 Ligand*

Synonyms: TNFSF5, TRAP, CD154, Gp39, T-BAM

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------------|-----------|---------------|----------|--------|----------|
| Human sCD40 Ligand | 310-02 | <i>E.coli</i> | 16.3 kDa | 10µg | 50µg 1mg |
| Murine sCD40 Ligand | 315-15 | <i>E.coli</i> | 16.4 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------------|-----------|---------------|----------|--------|----------|
| Human sCD40 Ligand | AF-310-02 | <i>E.coli</i> | 16.3 kDa | 10µg | 50µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------------|-------------|-------------|--------------|--------|-----------|
| Anti-Human sCD40 Ligand | 500-P142G | <i>Goat</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human sCD40 Ligand | 500-P142GBT | <i>Goat</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Human sCD40 Ligand **ABTS CATALOG #** 900-K145

Mini ELISA Development Kits

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

Human sCD40 Ligand **ABTS CATALOG #** 900-M145

sCD100 *soluble CD100*

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

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|-----------|----------|--------|----------|
| Human sCD100 | 310-29 | CHO cells | 78.9 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

CDNF *Cerebral Dopamine Neurotrophic Factor*

Synonyms: ARMETL1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------|-----------|---------------|----------|--------|----------|
| Human CDNF | 450-05 | <i>E.coli</i> | 18.5 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

Chemerin

Synonyms: Tazarotene-Induced Gene 2 (TIG2), RARRES2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|---------------|----------|--------|--------|-----|
| Human Chemerin | 300-66 | <i>E.coli</i> | 15.6 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

CNTF *Ciliary Neurotrophic Factor*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human CNTF | 450-13 | <i>E.coli</i> | 22.8 kDa | 5µg | 20µg | 1mg |
| Rat CNTF | 450-50 | <i>E.coli</i> | 22.7 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human CNTF | AF-450-13 | <i>E.coli</i> | 22.8 kDa | 5µg | 20µg | 1mg |
| Rat CNTF | AF-450-50 | <i>E.coli</i> | 22.7 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human CNTF | 500-P140 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human CNTF | 500-P140BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Rat CNTF | 500-P79 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Rat CNTF | 500-P79BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|------------|--------------------------------|
| Human CNTF | ABTS CATALOG # 900-K158 |
| Rat CNTF | ABTS CATALOG # 900-K65 |

Mini ELISA Development Kits

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

| | |
|----------|-------------------------------|
| Rat CNTF | ABTS CATALOG # 900-M65 |
|----------|-------------------------------|

CRP *C-reactive protein***Synonyms:** PTX1, pentraxin 1**Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|----------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human CRP | 500-P242 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human CRP | 500-P242BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|----------------|-----------|--------|--------------|-------|
| Anti-Human CRP | 500-M50 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

CTACK (CCL27) *Cutaneous T-cell Attracting Chemokine***Synonyms:** ALP, Skinkine, Eskine**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|----------|--------|--------|-----|
| Human CTACK (CCL27) | 300-54 | <i>E.coli</i> | 10.2 kDa | 5µg | 20µg | 1mg |
| Murine CTACK (CCL27) | 250-26 | <i>E.coli</i> | 10.9 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human CTACK (CCL27) | 500-P294 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human CTACK (CCL27) | 500-P294BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|---------------------|--------------------------------|
| Human CTACK (CCL27) | ABTS CATALOG # 900-K213 |
|---------------------|--------------------------------|

Mini ELISA Development Kits

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

| | |
|---------------------|--------------------------------|
| Human CTACK (CCL27) | ABTS CATALOG # 900-M213 |
|---------------------|--------------------------------|

CTGF *Connective Tissue Growth Factor***Synonyms:** CCN2, Hypertrophic Chondrocyte-specific protein 24 (HCS24)**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human CTGF | 120-19 | <i>E.coli</i> | 11.0 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human CTGF | 500-P252 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human CTGF | 500-P252BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

CTGF continued on next page...

CTGF *continued...*

Standard ELISA Development Kits

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

Human CTGF ABTS CATALOG # 900-K317

Mini ELISA Development Kits

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

Human CTGF ABTS CATALOG # 900-M317

CTGFL/WISP-2 *Connective Tissue Growth Factor-Like protein*

Synonyms: CGN5, CT-58

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|---------------|----------|--------|--------|-----|
| Human CTGFL/WISP-2 | 120-16 | <i>E.coli</i> | 24.3 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human CTGFL/WISP-2 | 500-P212 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human CTGFL/WISP-2 | 500-P212BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

CTLA-4 Fc

Synonyms: Cytotoxic T-lymphocyte-associated antigen 4, CD152

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------|-----------|-----------|----------|--------|--------|-----|
| Human CTLA-4 Fc | 310-05 | CHO cells | 78.7 kDa | 50µg | 200µg | 1mg |

Additional sizes available please inquire

CXCL16

Synonyms: SRPSOX

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|---------------|----------|--------|--------|-----|
| Human CXCL16 | 300-55 | <i>E.coli</i> | 10.1 kDa | 5µg | 25µg | 1mg |
| Murine CXCL16 | 250-28 | <i>E.coli</i> | 9.9 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------|-------------|---------------|--------------|--------|--------|-----|
| Anti-Human CXCL16 | 500-P200 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human CXCL16 | 500-P200BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine CXCL16 | 500-P201G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine CXCL16 | 500-P201GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

CXCL16 continued on next page...

CXCL16 *continued...*

Standard ELISA Development Kits

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

Human CXCL16 **ABTS CATALOG # 900-K230**

Mini ELISA Development Kits

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

Human CXCL16 **ABTS CATALOG # 900-M230**

CYR61

Synonyms: Cellular Communication Network Factor 1 (CCN1), GIG1 protein, Cysteine-rich angiogenic inducer 61, IGF-BP10

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human CYR61 | 120-25 | <i>E.coli</i> | 39.4 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

C-D

DKK-1, -2, -3 *Dickkopf-related proteins -1, -2, -3*

Synonyms: DKK-1: Dickkopf-1, SK; DKK-2: Dickkopf-2; DKK-3: Dickkopf-3, REIC

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|--------------|----------|--------|--------|-----|
| Human DKK-1 | 120-30 | HEK293 cells | 25.8 kDa | 2µg | 10µg | 1mg |
| Human DKK-2 | 120-45 | CHO cells | 25.8 kDa | 2µg | 10µg | 1mg |
| Human DKK-3 | 120-46 | CHO cells | 36.3 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

sDLL-1 *soluble DLL-1*

Synonyms: Delta-like protein-1, Delta-1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|--------------|----------|--------|--------|-----|
| Human sDLL-1 | 140-08 | HEK293 cells | 56.3 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

sDLL-4 *soluble DLL-4*

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

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|--------------|----------|--------|--------|-----|
| Human sDLL-4 | 140-07 | HEK293 cells | 54.3 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

sDLL-4 continued on next page...

sDLL-4 *continued...***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human sDLL-4 | 500-P279 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human sDLL-4 | 500-P279BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

EGF *Epidermal Growth Factor***Synonyms:** Urogastrone, URG**RUO Cytokines**

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

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|---------|--------|--------|-----|
| Human EGF | AF-100-15 | <i>E.coli</i> | 6.2 kDa | 100µg | 500µg | 1mg |
| Murine EGF | AF-315-09 | <i>E.coli</i> | 6.0 kDa | 100µg | 500µg | 1mg |
| Rat EGF | AF-400-25 | <i>E.coli</i> | 6.2 kDa | 20µg | 100µg | 1mg |

Additional sizes available please inquire

PeperoGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|----------------------|-----------------|---------------|---------|-------|
| PeperoGMP® Human EGF | GMP100-15-100µg | <i>E.coli</i> | 6.2 kDa | 100µg |
| PeperoGMP® Human EGF | GMP100-15-500µg | <i>E.coli</i> | 6.2 kDa | 500µg |
| PeperoGMP® Human EGF | GMP100-15-1mg | <i>E.coli</i> | 6.2 kDa | 1mg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------|-------------|--------|--------------|--------|--------|-----|
| Anti-Human EGF | 500-P45 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human EGF | 500-P45BT | Rabbit | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine EGF | 500-P174G | Goat | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine EGF | 500-P174GBT | Goat | E, WB | 25µg | 50µg | 1mg |
| Anti-Rat EGF | 500-P277 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Rat EGF | 500-P277BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|------------|--------------------------------|
| Human EGF | ABTS CATALOG # 900-K05 |
| Murine EGF | ABTS CATALOG # 900-K179 |
| Rat EGF | ABTS CATALOG # 900-K390 |

Mini ELISA Development Kits

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

| | |
|-----------|--------------------------------|
| Human EGF | ABTS CATALOG # 900-M05 |
| Rat EGF | ABTS CATALOG # 900-M390 |

EGF Receptor (EGFR) *Epidermal Growth Factor Receptor*

Synonyms: ErbB1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------------------|-----------|-----------|----------|--------|----------|
| Human EGF Receptor (EGFR) | 100-15R | CHO cells | 68.6 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|--------------------------------------|------------|--------|--------------|--------|-----------|
| Anti-Human EGF Receptor (EGFR) | 500-P306 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human EGF Receptor (EGFR) | 500-P306BT | Rabbit | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

EGF-L7 *Epidermal Growth Factor-Like protein 7*

Synonyms: MEGF7, Multiple EGF-like domains protein 7, NOTCH4-like protein, VE-statin, Zneu1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|----------|
| Human EGF-L7 | 100-61 | <i>E.coli</i> | 27.4 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

EG-VEGF *Endocrine Gland-derived Vascular Endothelial Growth Factor*

Synonyms: Prokineticin 1, PROK1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------|-----------|---------------|---------|--------|----------|
| Human EG-VEGF | 100-44 | <i>E.coli</i> | 9.6 kDa | 5µg | 20µg 1mg |
| Murine EG-VEGF | 315-29 | <i>E.coli</i> | 9.6 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|--------------------------|-------------|--------|--------------|--------|-----------|
| Anti-Human EG-VEGF | 500-P188G | Goat | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human EG-VEGF | 500-P188GBT | Goat | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|---------------|--------------------------------|
| Human EG-VEGF | ABTS CATALOG # 900-K244 |
|---------------|--------------------------------|

EMAP-II *Endothelial monocyte-activating polypeptide II*

Synonyms: EMAP-2, AIMP1 (aminoacyl tRNA synthetase complex interacting multifunctional protein 1), Small inducible cytokine subfamily E member 1, Multisynthase complex auxiliary component p43, HLD3, SCYE1

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------|-------------|--------|--------------|--------|--------|-----|
| Anti-Human EMAP-II | 500-P172G | Goat | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human EMAP-II | 500-P172GBT | Goat | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

ENA-78 (CXCL5) *Epithelial Neutrophil Activating Peptide-78*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------------------|-----------|---------------|---------|--------|--------|-----|
| Human ENA-78 (CXCL5) (5-78 a.a.) | 300-22 | <i>E.coli</i> | 8.0 kDa | 5µg | 20µg | 1mg |
| Human ENA-78 (CXCL5) (8-78 a.a.) | 300-22B | <i>E.coli</i> | 7.8 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|-----------|--------|--------------|--------|--------|-----|
| Anti-Human ENA-78 (CXCL5) | 500-P91 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human ENA-78 (CXCL5) | 500-P91BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Endostatin

Synonyms: COL18A1

RUO Cytokines

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

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human Endostatin | 500-P262 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Endostatin | 500-P262BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Enterokinase

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|-----------|-----------|--------|--------|-----|
| Human Enterokinase | 450-48C | CHO cells | 108.7 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|------------|-----------|-----------|--------|--------|-----|
| Human Enterokinase | AF-450-48C | CHO cells | 108.7 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Eotaxin (CCL11)

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------------------|-----------|---------------|---------|--------|----------|
| Human Eotaxin (CCL11) | 300-21 | <i>E.coli</i> | 8.3 kDa | 5µg | 20µg 1mg |
| Murine Eotaxin (CCL11) | 250-01 | <i>E.coli</i> | 8.4 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-----------------------|-----------|---------------|---------|--------|----------|
| Human Eotaxin (CCL11) | AF-300-21 | <i>E.coli</i> | 8.3 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-----------------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human Eotaxin (CCL11) | 500-P41 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human Eotaxin (CCL11) | 500-P41BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Human Eotaxin (CCL11) | 500-P41G | <i>Goat</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human Eotaxin (CCL11) | 500-P41GBT | <i>Goat</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Murine Eotaxin (CCL11) | 500-P67 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Murine Eotaxin (CCL11) | 500-P67BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|----------------------------|-----------|--------------|--------------|-------|
| Anti-Human Eotaxin (CCL11) | 500-M25 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|------------------------|-------------------------------|
| Human Eotaxin (CCL11) | ABTS CATALOG # 900-K69 |
| Murine Eotaxin (CCL11) | ABTS CATALOG # 900-K68 |

Eotaxin-2 (CCL24)

Synonyms: MPIF-2, CkB-6

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------------------|-----------|---------------|----------|--------|----------|
| Human Eotaxin-2 (CCL24) | 300-33 | <i>E.coli</i> | 8.8 kDa | 5µg | 20µg 1mg |
| Murine Eotaxin-2 (CCL24) | 250-22 | <i>E.coli</i> | 10.3 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Eotaxin-2 continued on next page...

Eotaxin-2 (CCL24) *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------------------|-------------|--------|--------------|--------|--------|-----|
| Anti-Human Eotaxin-2 (CCL24) | 500-P103G | Goat | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Eotaxin-2 (CCL24) | 500-P103GBT | Goat | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine Eotaxin-2 (CCL24) | 500-P175G | Goat | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine Eotaxin-2 (CCL24) | 500-P175GBT | Goat | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|------------------------------|-----------|--------|--------------|-------|
| Anti-Human Eotaxin-2 (CCL24) | 500-M31 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Eotaxin-3 (CCL26)

Synonyms: Small-inducible cytokine A26, Thymic stroma chemokine-1 (TSC-1)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------|-----------|---------------|---------|--------|--------|-----|
| Human Eotaxin-3 (CCL26) | 300-48 | <i>E.coli</i> | 8.4 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------------------|-------------|--------|--------------|--------|--------|-----|
| Anti-Human Eotaxin-3 (CCL26) | 500-P156G | Goat | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Eotaxin-3 (CCL26) | 500-P156GBT | Goat | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|------------------------------|-----------|--------|--------------|-------|
| Anti-Human Eotaxin-3 (CCL26) | 500-M32 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-------------------------|--------------------------------|
| Human Eotaxin-3 (CCL26) | ABTS CATALOG # 900-K167 |
|-------------------------|--------------------------------|

Mini ELISA Development Kits

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

| | |
|-------------------------|--------------------------------|
| Human Eotaxin-3 (CCL26) | ABTS CATALOG # 900-M167 |
|-------------------------|--------------------------------|

Epigen

Synonyms: EPG, Epithelial mitogen

RUO Cytokines

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

Additional sizes available please inquire

Epiregulin

Synonyms: EREG

RUO Cytokines

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

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------|-----------|---------------|---------|--------|--------|-----|
| Human Epiregulin | AF-100-04 | <i>E.coli</i> | 5.6 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

EPO

Synonyms: Erythropoietin, Epoetin

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------|-----------|-----------|----------|--------|--------|-----|
| Human EPO | 100-64 | CHO cells | 18.4 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|----------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human EPO | 500-P318 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human EPO | 500-P318BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

E-Selectin

Synonyms: Endothelial Leukocyte Adhesion Molecule 1 (ELAM1), CD62E, SELE

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------|-----------|-----------|----------|--------|--------|-----|
| Human E-Selectin | 150-15 | CHO cells | 58.6 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Exodus-2 (CCL21)

Synonyms: 6Ckine, SLC

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------|-----------|---------------|----------|--------|--------|-----|
| Human Exodus-2 (CCL21) | 300-35A | <i>E.coli</i> | 12.2 kDa | 5µg | 20µg | 1mg |
| Murine Exodus-2 (CCL21) | 250-13 | <i>E.coli</i> | 12.0 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Exodus-2 (CCL21) | 500-P109 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Exodus-2 (CCL21) | 500-P109BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine Exodus-2 (CCL21) | 500-P114 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine Exodus-2 (CCL21) | 500-P114BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Exodus-2 continued on next page...

Exodus-2 (CCL21) *continued...*

Standard ELISA Development Kits

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

Murine Exodus-2

ABTS CATALOG # 900-K132

Mini ELISA Development Kits

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

Murine Exodus-2

ABTS CATALOG # 900-M132

sFas Ligand *soluble Fas Ligand*

Synonyms: sFasL, TNFSF6, CD95L, Apo I Ligand, APTL, APT1LG1, CD178

RUO Cytokines

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

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------------|-------------|--------|--------------|--------|--------|-----|
| Anti-Human sFas Ligand | 500-P184G | Goat | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human sFas Ligand | 500-P184GBT | Goat | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

E-F

sFas Receptor *soluble Fas Receptor*

Synonyms: sFasR, TNFRSF6, CD95, Fas Antigen, Apo I

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|----------|--------|--------|-----|
| Human sFas Receptor | 310-20 | <i>E.coli</i> | 17.6 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human sFas Receptor | 500-P295 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human sFas Receptor | 500-P295BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Fetuin A/AHSG

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

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|--------------|----------|--------|--------|-----|
| Human Fetuin A/AHSG | 140-13 | HEK293 cells | 32.9 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

FGF *Fibroblast Growth Factors*

Synonyms: **FGF-acidic:** Fibroblast Growth Factor-acidic, FGF-1, HBGF-1, ECGF-beta; **FGF-basic:** Fibroblast Growth Factor-basic, FGF-2, HBGF-2, Prostatropin; **FGF-4** Fibroblast Growth Factor-4, HST-1, Transforming protein KS3, HBGF-4; **FGF-5:** Fibroblast Growth Factor-5, HBGF-5, Smag-82; **FGF-6:** Fibroblast Growth Factor-6, HBGF-6, HST-2; **FGF-7:** (See **KGF Page**); **FGF-8a:** Fibroblast Growth Factor-8, FGF-8a, AIGF, HBGF-8; **FGF-8b:** Fibroblast Growth Factor-8, AIGF, HBGF-8; **FGF-9:** Fibroblast Growth Factor-9, GAF (Glia-Activating Factor), HBGF-9; **FGF-10:** Fibroblast Growth Factor-10, FGFA, Keratinocyte Growth Factor-2; **FGF-16:** Fibroblast Growth Factor-16, FGFG; **FGF-17:** Fibroblast Growth Factor-17, FGFH; **FGF-18:** Fibroblast Growth Factor-18, FGFI, zFGF5; **FGF-19:** Fibroblast Growth Factor-19, FGFJ; **FGF-20:** Fibroblast Growth Factor-20, FGFK; **FGF-21:** Fibroblast Growth Factor-21, FGFL; **FGF-23:** Fibroblast Growth Factor-23, FGFN; **FGF-BP-1:** Fibroblast growth factor binding protein 1, FGF-BP, FGF-binding protein 1, HBp17; **FGFR1a:** Fibroblast Growth Factor Receptor 1 alpha, BFGFR; **FGFR2a:** Fibroblast Growth Factor Receptor 2 alpha, BEK, KGFR; **FGFR3:** Fibroblast Growth Factor Receptor 3 alpha, ACH, CD333, CEK2, JTK4

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------------|-----------|---------------|-----------|--------|--------|-----|
| Human FGF-acidic | 100-17A | <i>E.coli</i> | 16.8 kDa | 10µg | 50µg | 1mg |
| Murine FGF-acidic | 450-33A | <i>E.coli</i> | 15.9 kDa | 10µg | 50µg | 1mg |
| Rat FGF-acidic | 400-29A | <i>E.coli</i> | 15.9 kDa | 10µg | 50µg | 1mg |
| Human FGF-basic (154 a.a.) | 100-18B | <i>E.coli</i> | 17.2 kDa | 10µg | 50µg | 1mg |
| Human FGF-basic (146 a.a.) | 100-18C | <i>E.coli</i> | 16.4 kDa | 10µg | 50µg | 1mg |
| Murine FGF-basic | 450-33 | <i>E.coli</i> | 16.3 kDa | 10µg | 50µg | 1mg |
| Rat FGF-basic | 400-29 | <i>E.coli</i> | 16.3 kDa | 10µg | 50µg | 1mg |
| Human FGF-4 | 100-31 | <i>E.coli</i> | 19.7 kDa | 5µg | 25µg | 1mg |
| Murine FGF-4 | 450-57 | <i>E.coli</i> | 19.0 kDa | 5µg | 25µg | 1mg |
| Human FGF-5 | 100-34 | <i>E.coli</i> | 27.6 kDa | 10µg | 50µg | 1mg |
| Human FGF-6 | 100-30 | <i>E.coli</i> | 18.7 kDa | 5µg | 25µg | 1mg |
| Human FGF-8a | 100-25A | CHO cells | 21.2 kDa | 5µg | 25µg | 1mg |
| Human/Murine FGF-8b | 100-25 | <i>E.coli</i> | 22.5 kDa | 5µg | 25µg | 1mg |
| Human FGF-9 | 100-23 | <i>E.coli</i> | 23.2 kDa | 5µg | 20µg | 1mg |
| Murine FGF-9 | 450-30 | <i>E.coli</i> | 23.3 kDa | 2µg | 10µg | 1mg |
| Human FGF-10 | 100-26 | <i>E.coli</i> | 19.3 kDa | 5µg | 25µg | 1mg |
| Murine FGF-10 | 450-61 | <i>E.coli</i> | 17.0 kDa | 5µg | 25µg | 1mg |
| Rat FGF-10 | 400-42 | <i>E.coli</i> | 20.2 kDa | 5µg | 25µg | 1mg |
| Human FGF-16 | 100-29 | <i>E.coli</i> | 23.6 kDa | 5µg | 25µg | 1mg |
| Human FGF-17 | 100-27 | <i>E.coli</i> | 22.7 kDa | 5µg | 25µg | 1mg |
| Human FGF-18 | 100-28 | <i>E.coli</i> | 20.1 kDa | 5µg | 25µg | 1mg |
| Human FGF-19 | 100-32 | <i>E.coli</i> | 21.8 kDa | 5µg | 25µg | 1mg |
| Human FGF-20 | 100-41 | <i>E.coli</i> | 23.2 kDa | 3µg | 15µg | 1mg |
| Human FGF-21 | 100-42 | <i>E.coli</i> | 19.5 kDa | 5µg | 25µg | 1mg |
| Murine FGF-21 | 450-56 | <i>E.coli</i> | 20.1 kDa | 5µg | 25µg | 1mg |
| Human FGF-23 | 100-52 | <i>E.coli</i> | 25.5 kDa | 5µg | 20µg | 1mg |
| Murine FGF-23 | 450-55 | <i>E.coli</i> | 25.5 kDa | 5µg | 20µg | 1mg |
| Human FGF-BP-1 | 100-66 | <i>E.coli</i> | 23.9 kDa | 5µg | 25µg | 1mg |
| Human FGFR1a (IIIc) Fc | 160-02 | CHO cells | 65.2 kDa | 10µg | 50µg | 1mg |
| Human FGFR2a (IIIc) Fc | 160-03 | CHO cells | 65.6 kDa | 10µg | 50µg | 1mg |
| Human FGFR3 (IIIc) Fc | 160-05 | CHO cells | 128.3 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------------|------------|---------------|----------|--------|--------|-----|
| Human FGF-acidic | AF-100-17A | <i>E.coli</i> | 16.8 kDa | 10µg | 50µg | 1mg |
| Bovine FGF-basic | AF-450-62 | <i>E.coli</i> | 17.1 kDa | 10µg | 50µg | 1mg |
| Human FGF-basic (154 a.a.) | AF-100-18B | <i>E.coli</i> | 17.2 kDa | 10µg | 50µg | 1mg |

FGF continued on next page...

FGF *continued...***Animal-Free Cytokines *continued...***

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------------|------------|---------------|----------|--------|--------|-----|
| Human FGF-basic (146 a.a) | AF-100-18C | <i>E.coli</i> | 16.4 kDa | 10µg | 50µg | 1mg |
| Murine FGF-basic | AF-450-33 | <i>E.coli</i> | 16.3 kDa | 10µg | 50µg | 1mg |
| Human FGF-4 | AF-100-31 | <i>E.coli</i> | 19.7 kDa | 5µg | 25µg | 1mg |
| Human FGF-6 | AF-100-30 | <i>E.coli</i> | 18.7 kDa | 5µg | 25µg | 1mg |
| Human/Murine FGF-8b | AF-100-25 | <i>E.coli</i> | 22.5 kDa | 5µg | 25µg | 1mg |
| Human FGF-9 | AF-100-23 | <i>E.coli</i> | 23.2 kDa | 5µg | 20µg | 1mg |
| Human FGF-10 | AF-100-26 | <i>E.coli</i> | 19.3 kDa | 5µg | 25µg | 1mg |
| Human FGF-18 | AF-100-28 | <i>E.coli</i> | 20.1 kDa | 5µg | 25µg | 1mg |
| Human FGF-19 | AF-100-32 | <i>E.coli</i> | 21.8 kDa | 5µg | 25µg | 1mg |
| Human FGF-21 | AF-100-42 | <i>E.coli</i> | 19.5 kDa | 5µg | 25µg | 1mg |

*Additional sizes available please inquire***PeperoGMP® Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|----------------------------|------------------|---------------|----------|-------|
| PeperoGMP® Human FGF-basic | GMP100-18B-25µg | <i>E.coli</i> | 17.2 kDa | 25µg |
| PeperoGMP® Human FGF-basic | GMP100-18B-100µg | <i>E.coli</i> | 17.2 kDa | 100µg |
| PeperoGMP® Human FGF-basic | GMP100-18B-1mg | <i>E.coli</i> | 17.2 kDa | 1mg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------------|-------------|---------------|--------------|--------|--------|-----|
| Anti-Human FGF-acidic | 500-P17 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human FGF-acidic | 500-P17BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human FGF-basic | 500-P18 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human FGF-basic | 500-P18BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human FGF-4 | 500-P158 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human FGF-4 | 500-P158BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine FGF-9 | 500-P66 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine FGF-9 | 500-P66BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human FGF-10 | 500-P151G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human FGF-10 | 500-P151GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human FGF-16 | 500-P160G | <i>Goat</i> | WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human FGF-16 | 500-P160GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human FGF-17 | 500-P152 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human FGF-17 | 500-P152BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human FGF-17 | 500-P152G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human FGF-17 | 500-P152GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|----------------------|-----------|--------------|--------------|-------|
| Anti-Human FGF-basic | 500-M38 | <i>Mouse</i> | E, WB | 500µg |
| Anti-Human FGF-5 | 500-M40 | <i>Mouse</i> | E | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Human FGF-basic **ABTS CATALOG # 900-K08****Mini ELISA Development Kits**

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

Human FGF-basic **ABTS CATALOG # 900-M08**

Flt3-Ligand

Synonyms: Flt3L, Fms-related tyrosine kinase 3 Ligand

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------------|-----------|---------------|----------|--------|----------|
| Human Flt3-Ligand | 300-19 | <i>E.coli</i> | 17.6 kDa | 2µg | 10µg 1mg |
| Murine Flt3-Ligand | 250-31L | <i>E.coli</i> | 18.6 kDa | 2µg | 10µg 1mg |

*See page 12 for Cytokine Packages

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------------|-----------|---------------|----------|--------|----------|
| Human Flt3-Ligand | AF-300-19 | <i>E.coli</i> | 17.6 kDa | 2µg | 10µg 1mg |

*See page 12 for Cytokine Packages

Additional sizes available please inquire

PeperoGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|------------------------------|-----------------|---------------|----------|-------|
| PeperoGMP® Human Flt3-Ligand | GMP300-19-50µg | <i>E.coli</i> | 17.6 kDa | 50µg |
| PeperoGMP® Human Flt3-Ligand | GMP300-19-100µg | <i>E.coli</i> | 17.6 kDa | 100µg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------------|-----------|---------------|--------------|--------|-----------|
| Anti-Human Flt3-Ligand | 500-P42 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human Flt3-Ligand | 500-P42BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Follistatin

Synonyms: FS, Activin-binding protein

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------------|-----------|---------------|----------|--------|----------|
| Human Follistatin | 120-13 | <i>E.coli</i> | 31.5 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human Follistatin | 500-P207 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human Follistatin | 500-P207BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-------------------|--------------------------------|
| Human Follistatin | ABTS CATALOG # 900-K299 |
|-------------------|--------------------------------|

Fractalkine (CX3CL1)

Synonyms: Neurotactin, FKN

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------------|-----------|---------------|---------|--------|--------|-----|
| Human Fractalkine (CX3CL1) | 300-31 | <i>E.coli</i> | 8.5 kDa | 5µg | 20µg | 1mg |
| Rat Fractalkine (CX3CL1) | 400-26 | <i>E.coli</i> | 8.7 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------------|-----------|---------------|--------------|--------|--------|-----|
| Anti-Human Fractalkine (CX3CL1) | 500-P98 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Fractalkine (CX3CL1) | 500-P98BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

sFRP-1 Secreted Frizzled Related Protein-1

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

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|------------|----------|--------|--------|-----|
| Human sFRP-1 | 120-29 | HeLa cells | 32.5 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

sFRP-4 Secreted Frizzled Related Protein-4

Synonyms: DDC-4 (rat homologue)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|-----------|----------|--------|--------|-----|
| Human sFRP-4 | 120-50 | CHO cells | 37.8 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

FSTL1

Synonyms: Follistatin-like protein 1, FSL1, Follistatin-related protein 1, FRP, OCC1, OCC-1, TGF-β1-simulated clone 36, TSC-36

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|-----------|----------|--------|--------|-----|
| Human FSTL1 | 120-51 | CHO cells | 32.7 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Furin

Synonyms: FUR, PACE, PCSK3

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|------------------|--------------|----------|--------|--------|-----|
| Human Furin | CARTAGENA 450-47 | Insect cells | 63.9 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

gAcrp30

Synonyms: Adipolean (human), APM-1, APM-1 variant, gad, globular domaine of Acrp30

RUO Cytokines

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

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--|-------------|---------------|--------------|--------|--------|-----|
| Anti-Human gAcrp30/Adipolean | 500-P193G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human gAcrp30/Adipolean | 500-P193GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human gAcrp30/Adipolean Variant | 500-P205 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human gAcrp30/Adipolean Variant | 500-P205BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Galectin-1

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

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------|-----------|---------------|----------|--------|--------|-----|
| Human Galectin-1 | 450-39 | <i>E.coli</i> | 14.5 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Galectin-1 | 500-P210 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Galectin-1 | 500-P210BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Galectin-3

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

RUO Cytokines

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

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Galectin-3 | 500-P246 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Galectin-3 | 500-P246BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

GASP-1

Synonyms: GDF-Associated Serum Protein-1, GASP, KIAA0443, WFIKKNRP

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|-----------|----------|--------|--------|-----|
| Human GASP-1 | 120-41 | CHO cells | 59.9 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

GCP-2 (CXCL6)/LIX (CXCL6) *Granulocyte Chemotactic Protein-2*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------------------|-----------|---------------|---------|--------|--------|-----|
| Human GCP-2 (CXCL6) | 300-41 | <i>E.coli</i> | 7.9 kDa | 5µg | 20µg | 1mg |
| Murine LIX (CXCL6) (92 a.a.) | 250-17 | <i>E.coli</i> | 9.8 kDa | 5µg | 20µg | 1mg |
| Murine LIX (CXCL6) (70 a.a.) | 250-36 | <i>E.coli</i> | 7.6 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human GCP-2 (CXCL6) | 500-P120 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human GCP-2 (CXCL6) | 500-P120BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine LIX (CXCL6) | 500-P146 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine LIX (CXCL6) | 500-P146BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

G-CSF *Granulocyte Colony-Stimulating Factor*

Synonyms: CSF-3, MGI-1G, GM-CSFβ, pluripoiectin

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human G-CSF | 300-23 | <i>E.coli</i> | 18.7 kDa | 2µg | 10µg | 1mg |
| Murine G-CSF | 250-05 | <i>E.coli</i> | 19.0 kDa | 2µg | 10µg | 1mg |
| Rat G-CSF | 400-37 | <i>E.coli</i> | 21.6 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human G-CSF | AF-300-23 | <i>E.coli</i> | 18.7 kDa | 2µg | 10µg | 1mg |
| Murine G-CSF | AF-250-05 | <i>E.coli</i> | 19.0 kDa | 2µg | 10µg | 1mg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|-----------|---------------|--------------|--------|--------|-----|
| Anti-Human G-CSF | 500-P43 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human G-CSF | 500-P43BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine G-CSF | 500-P69 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine G-CSF | 500-P69BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

G-CSF continued on next page...

G-CSF *continued...*

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|------------------|-----------|--------|--------------|-------|
| Anti-Human G-CSF | 500-M37 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human G-CSF | ABTS CATALOG # 900-K77 |
| Murine G-CSF | ABTS CATALOG # 900-K103 |

Mini ELISA Development Kits

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

| | |
|-------------|-------------------------------|
| Human G-CSF | ABTS CATALOG # 900-M77 |
|-------------|-------------------------------|

GDF-2 *Growth/Differentiation Factor-2*

Synonyms: BMP-9

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|-----------|----------|--------|--------|-----|
| Human GDF-2 | 120-07 | CHO cells | 24.1 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

GDF-3 *Growth/Differentiation Factor-3*

Synonyms: Vgr-2, UNQ2222/PRO248

RUO Cytokines

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

Additional sizes available please inquire

Animal-Free Cytokines

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

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human GDF-3 | 500-P235 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human GDF-3 | 500-P235BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

GDF-5 (BMP-14/CDMP-1) *Growth/Differentiation Factor-5*

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

RUO Cytokines

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

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------------|-----------|---------------|----------|--------|--------|-----|
| Human GDF-5 (BMP-14/CDMP-1) | AF-120-01 | <i>E.coli</i> | 27.0 kDa | 10µg | 50µg | 1mg |

GDF-7 *Growth/Differentiation Factor-7***Synonyms:** BMP-12**RUO Cytokines**

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

Additional sizes available please inquire

GDF-11 *Growth/Differentiation Factor-11***Synonyms:** BMP-11**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------|-----------|---------------|----------|--------|--------|-----|
| Human/Murine/Rat GDF-11 | 120-11 | <i>E.coli</i> | 25.0 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

GDF-15/MIC-1 *Growth/Differentiation Factor-15***Synonyms:** Placental TGF-β, Prostate Differentiation Factor (PDF), Macrophage Inhibitory Cytokine 1, MIC-1, PLAB, NRG-1**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|--------------|----------|--------|--------|-----|
| Human GDF-15/MIC-1 | 120-28 | cell culture | 24.6 kDa | 5µg | 20µg | 1mg |
| Human GDF-15/MIC-1 | 120-28C | CHO cells | 24.6 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

GDNF *Glial-Derived Neurotrophic Factor***Synonyms:** ATF-1**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human GDNF | 450-10 | <i>E.coli</i> | 30.4 kDa | 2µg | 10µg | 1mg |
| Murine GDNF | 450-44 | <i>E.coli</i> | 30.2 kDa | 2µg | 10µg | 1mg |
| Rat GDNF | 450-51 | <i>E.coli</i> | 30.0 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human GDNF | AF-450-10 | <i>E.coli</i> | 30.4 kDa | 2µg | 10µg | 1mg |
| Murine GDNF | AF-450-44 | <i>E.coli</i> | 30.2 kDa | 2µg | 10µg | 1mg |
| Rat GDNF | AF-450-51 | <i>E.coli</i> | 30.0 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------|-----------|---------------|--------------|--------|--------|-----|
| Anti-Human GDNF | 500-P81 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human GDNF | 500-P81BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

GLP-1 *Glucagon-Like Peptide 1*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|---------------|---------|--------|---------|
| Human GLP-1 | 130-08 | <i>E.coli</i> | 3.3 kDa | 200µg | 1mg 5mg |

Additional sizes available please inquire

GITR/TNFRSF18 Fc

Synonyms: Tumor necrosis factor receptor superfamily member 18, Activation-inducible TNFR family receptor, Glucocorticoidinduced TNFR-related protein

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------------------|-----------|-----------|----------|--------|-----------|
| Human GITR/TNFRSF18 Fc | 310-22R | CHO cells | 40.6 kDa | 20µg | 100µg 1mg |

Additional sizes available please inquire

Glu-C

Synonyms: V8 Protease

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------------|-----------|---------------|----------|--------|-----------|
| Staphylococcus Glu-C | 450-46 | <i>E.coli</i> | 28.8 kDa | 50µg | 250µg 1mg |

Additional sizes available please inquire

GM-CSF *Granulocyte-Macrophage Colony-Stimulating Factor*

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

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------|-----------|---------------|----------|--------|----------|
| Human GM-CSF | 300-03 | <i>E.coli</i> | 14.6 kDa | 5µg | 20µg 1mg |
| Murine GM-CSF | 315-03 | <i>E.coli</i> | 14.2 kDa | 5µg | 20µg 1mg |
| Rat GM-CSF | 400-23 | <i>E.coli</i> | 14.5 kDa | 5µg | 20µg 1mg |

** See page 12 for available Cytokine Packages.*

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------|-----------|---------------|----------|--------|----------|
| Human GM-CSF | AF-300-03 | <i>E.coli</i> | 14.6 kDa | 5µg | 20µg 1mg |
| Murine GM-CSF | AF-315-03 | <i>E.coli</i> | 14.2 kDa | 5µg | 20µg 1mg |
| Rat GM-CSF | AF-400-23 | <i>E.coli</i> | 14.5 kDa | 5µg | 20µg 1mg |

** See page 12 for available Cytokine Packages.*

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|--------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human GM-CSF | 500-P33 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human GM-CSF | 500-P33BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Murine GM-CSF | 500-P65 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Murine GM-CSF | 500-P65BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Rat GM-CSF | 500-P225 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Rat GM-CSF | 500-P225BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

GM-CSF continued on next page...

GM-CSF *continued...***Standard ELISA Development Kits**

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

| | |
|---------------|-------------------------------|
| Human GM-CSF | ABTS CATALOG # 900-K30 |
| Murine GM-CSF | ABTS CATALOG # 900-K55 |

Mini ELISA Development Kits

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

| | |
|---------------|-------------------------------|
| Human GM-CSF | ABTS CATALOG # 900-M30 |
| Murine GM-CSF | ABTS CATALOG # 900-M55 |

GMF- β *Glial Maturation Factor beta***Synonyms:** GMFB**RUO Cytokines**

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

Additional sizes available please inquire

GPR15L

Synonyms: Antimicrobial peptide-57, AP-57, Colon-derived SUSD2 binding factor, CSBF, UNQ1833/PRO3446**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|---------------|---------|-----------|------------|-----|
| Human GPR15L | 300-71 | <i>E.coli</i> | 6.5 kDa | 5 μ g | 25 μ g | 1mg |
| Murine GPR15L | 300-72 | <i>E.coli</i> | 6.3 kDa | 5 μ g | 25 μ g | 1mg |

Additional sizes available please inquire

Granzyme B

Synonyms: Cytotoxic Cell Protease 1 (CCP1)**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------|-------------------------|-------------|----------|-----------|------------|-----|
| Murine Granzyme B | CARTAGENA 140-03 | Baculovirus | 28.9 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

Gremlin-1

Synonyms: CKTSF1B1, DAND2, DRM, IHG-2**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------|-----------|-----------|----------|------------|------------|-----|
| Human Gremlin-1 | 120-42 | CHO cells | 18.3 kDa | 10 μ g | 50 μ g | 1mg |

Additional sizes available please inquire

GRO- α , - β , - γ (CXCL1-3) Growth Regulated Proteins

Synonyms: **GRO- α /MGSA/KC:** GRO1, Melanoma Growth Stimulatory Activity α , MGSA α , NAP-3, CINC (rat)
GRO- β /MIP-2: GRO2, Melanoma Growth Stimulatory Activity β , MGSA β , MIP-2 α
GRO- γ : GRO3, Melanoma Growth Stimulatory Activity γ , MGSA γ , MIP-2 β
MIP-2: Macrophage Inflammatory Protein-2

Ruo Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------------------|-----------|---------------|---------|------------|------------|-----|
| Human GRO- α /MGSA (CXCL1) | 300-11 | <i>E.coli</i> | 7.8 kDa | 5 μ g | 25 μ g | 1mg |
| Murine KC (CXCL1) | 250-11 | <i>E.coli</i> | 7.8 kDa | 5 μ g | 20 μ g | 1mg |
| Rat GRO/KC (CXCL1) | 400-10 | <i>E.coli</i> | 7.8 kDa | 5 μ g | 25 μ g | 1mg |
| Human GRO- β (CXCL2) | 300-39 | <i>E.coli</i> | 7.9 kDa | 2 μ g | 10 μ g | 1mg |
| Murine MIP-2 (CXCL2) | 250-15 | <i>E.coli</i> | 7.8 kDa | 5 μ g | 20 μ g | 1mg |
| Rat GRO- β /MIP-2 (CXCL2) | 400-11 | <i>E.coli</i> | 7.9 kDa | 5 μ g | 25 μ g | 1mg |
| Viral MIP-2 | 350-03 | <i>E.coli</i> | 7.9 kDa | 10 μ g | 50 μ g | 1mg |
| Human GRO- γ (CXCL3) | 300-40 | <i>E.coli</i> | 7.9 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------------------|-----------|---------------|---------|-----------|------------|-----|
| Human GRO- α /MGSA (CXCL1) | AF-300-11 | <i>E.coli</i> | 7.8 kDa | 5 μ g | 25 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--|------------|---------------|--------------|------------|-------------|-----|
| Anti-Human GRO- α /MGSA (CXCL1) | 500-P92 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human GRO- α /MGSA (CXCL1) | 500-P92BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine KC (CXCL1) | 500-P115 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine KC (CXCL1) | 500-P115BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Rat GRO/KC (CXCL1) | 500-P74 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Rat GRO/KC (CXCL1) | 500-P74BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Human GRO- β (CXCL2) | 500-P104 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human GRO- β (CXCL2) | 500-P104BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine MIP-2 (CXCL2) | 500-P130 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine MIP-2 (CXCL2) | 500-P130BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Rat GRO- β /MIP-2 (CXCL2) | 500-P75 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Rat GRO- β /MIP-2 (CXCL2) | 500-P75BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Human GRO- γ (CXCL3) | 500-P105 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human GRO- γ (CXCL3) | 500-P105BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-----------------------------------|--------------------------------|
| Human GRO- α /MGSA (CXCL1) | ABTS CATALOG # 900-K38 |
| Human GRO- β (CXCL2) | ABTS CATALOG # 900-K120 |
| Rat GRO/KC (CXCL1) | ABTS CATALOG # 900-K57 |
| Murine KC (CXCL1) | ABTS CATALOG # 900-K127 |
| Murine MIP-2 (CXCL2) | ABTS CATALOG # 900-K152 |

GRO- α , - β , - γ continued on next page...

GRO- α , - β , - γ (CXCL1-3) *continued...*

Mini ELISA Development Kits

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

| | |
|-----------------------------------|-------------------------|
| Human GRO- α /MGSA (CXCL1) | ABTS CATALOG # 900-M38 |
| Human GRO- β (CXCL2) | ABTS CATALOG # 900-M120 |
| Human GRO/KC | ABTS CATALOG # 900-M57 |
| Murine KC (CXCL1) | ABTS CATALOG # 900-M127 |
| Murine MIP-2 (CXCL2) | ABTS CATALOG # 900-M152 |

Growth Hormone

Synonyms: Somatotropin, GH, GH-N, Growth Hormone 1, Pituitary growth hormone

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|----------|------------|------------|-----|
| Human Growth Hormone | 100-40 | <i>E.coli</i> | 22.3 kDa | 10 μ g | 50 μ g | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|----------|------------|------------|-----|
| Human Growth Hormone | AF-100-40 | <i>E.coli</i> | 22.3 kDa | 10 μ g | 50 μ g | 1mg |

Additional sizes available please inquire

G-H

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

Synonyms: HBEGF, Diphtheria Toxin Receptor (DTR)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|---------|------------|------------|-----|
| Human HB-EGF | 100-47 | <i>E.coli</i> | 9.7 kDa | 10 μ g | 50 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|---------------|--------------|------------|-------------|-----|
| Anti-Human HB-EGF | 500-P329 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human HB-EGF | 500-P329BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

HCC-1(CCL14) *Hemofiltrate CC Chemokine-1*

Synonyms: HCC-1/HCC-3, NCC-2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------------|-----------|---------------|---------|-----------|------------|-----|
| Human HCC-1 (CCL14) (66 a.a.) | 300-38B | <i>E.coli</i> | 7.8 kDa | 2 μ g | 10 μ g | 1mg |
| Human HCC-1 (CCL14) (72 a.a.) | 300-38 | <i>E.coli</i> | 8.4 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|------------|---------------|--------------|------------|-------------|-----|
| Anti-Human HCC-1 (CCL14) | 500-P106 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human HCC-1 (CCL14) | 500-P106BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Heregulin β -1

Synonyms: HRG, Neuregulin1 (NRG1- β 1), HRG1- β 1, Breast cancer cell differentiation factor p45, ARIA (Acetylcholine Receptor Inducing Activity), glial growth factor, Neu differentiation factor (rat)

RUO Cytokines

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

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------------------|-----------|---------------|---------|------------|----------------|
| Human Heregulin β -1 | AF-100-03 | <i>E.coli</i> | 7.5 kDa | 10 μ g | 50 μ g 1mg |

Additional sizes available please inquire

PeperoGMP[®] Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|---|-----------------------|---------------|---------|-------------|
| PeperoGMP [®] Heregulin β -1 | GMP100-03-50 μ g | <i>E.coli</i> | 7.5 kDa | 50 μ g |
| PeperoGMP [®] Heregulin β -1 | GMP100-03-100 μ g | <i>E.coli</i> | 7.5 kDa | 100 μ g |
| PeperoGMP [®] Heregulin β -1 | GMP100-03-1mg | <i>E.coli</i> | 7.5 kDa | 1mg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|---------------------------------------|------------|---------------|--------------|------------|-----------------|
| Anti-Human Heregulin β -1 | 500-P288 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g 1mg |
| Biot. Anti-Human Heregulin β -1 | 500-P288BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|----------------------------|--------------------------------|
| Human Heregulin β -1 | ABTS CATALOG # 900-K316 |
|----------------------------|--------------------------------|

Mini ELISA Development Kits

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

| | |
|----------------------------|--------------------------------|
| Human Heregulin β -1 | ABTS CATALOG # 900-M316 |
|----------------------------|--------------------------------|

HGF *Hepatocyte Growth Factor*

Synonyms: Scatter Factor (SF), Hepatopietin (HPTA)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--|-----------|--------------|----------|-----------|----------------|
| Human HGF CARTAGENA | 100-39 | Insect cells | 80.0 kDa | 2 μ g | 10 μ g 1mg |
| Human HGF | 100-39H | HEK293 cells | 79.4 kDa | 5 μ g | 25 μ g 1mg |
| Murine HGF CARTAGENA | 315-23 | Insect cells | 79.3 kDa | 5 μ g | 20 μ g 1mg |

Additional sizes available please inquire

HPRG *Histidine-Proline-Rich Glycoprotein*

Synonyms: Histidine-rich glycoprotein (HRG), HRGP, THPH11

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------|-----------|-----------|----------|-----------|----------------|
| Human HPRG | 100-60 | CHO cells | 57.7 kDa | 5 μ g | 25 μ g 1mg |

Additional sizes available please inquire

HVEM-Fc

Synonyms: TNFSFR14, HVEM, ATAR, TR2, HveA, CD270

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------|------------------|--------------|----------|--------|-----------|
| Human HVEM-Fc | CARTAGENA 310-27 | Insect cells | 41.4 kDa | 20µg | 100µg 1mg |

Additional sizes available please inquire

I-309 (CCL1)

Synonyms: TCA-3

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------------|-----------|---------------|---------|--------|----------|
| Human I-309 (CCL1) | 300-37 | <i>E.coli</i> | 8.5 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human I-309 (CCL1) | 500-P110 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human I-309 (CCL1) | 500-P110BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

ICAM-1 *Intercellular Adhesion Molecule 1*

Synonyms: Major group rhinovirus receptor, CD54 antigen

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|-----------|----------|--------|----------|
| Human ICAM-1 | 150-05 | CHO cells | 49.5 kDa | 10µg | 50µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human ICAM-1 | 500-P287 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human ICAM-1 | 500-P287BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human ICAM-1 | ABTS CATALOG # 900-K464 |
|--------------|--------------------------------|

Mini ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human ICAM-1 | ABTS CATALOG # 900-M464 |
|--------------|--------------------------------|

ICOS Fc

Synonyms: Inducible T-cell costimulator, CD278, Activation-inducible lymphocyte immunomediatory molecule (AILIM), CRP-1, CVID1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------|-----------|-----------|----------|--------|----------|
| Human ICOS Fc | 310-39 | CHO cells | 79.4 kDa | 10µg | 50µg 1mg |

Additional sizes available please inquire

IFN-β Interferon-beta

Synonyms: Fibroblast Interferon, IFNB1, Type I interferon

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|-----------|----------|--------|----------|
| Human IFN-β | 300-02BC | CHO cells | 20.0 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|------------|---------------|----------|--------|----------|
| Human IFN-β | AF-300-02B | <i>E.coli</i> | 20.0 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human IFN-β | 500-P32B | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human IFN-β | 500-P32BBT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

IFN-γ Interferon-gamma

Synonyms: Immune Interferon, Type II interferon, T-cell interferon, MAF

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|-----------|
| Human IFN-γ | 300-02 | <i>E.coli</i> | 16.8 kDa | 20µg | 100µg 1mg |
| Murine IFN-γ | 315-05 | <i>E.coli</i> | 15.6 kDa | 20µg | 100µg 1mg |
| Rat IFN-γ | 400-20 | <i>E.coli</i> | 15.6 kDa | 20µg | 100µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|-----------|
| Human IFN-γ | AF-300-02 | <i>E.coli</i> | 16.8 kDa | 20µg | 100µg 1mg |
| Murine IFN-γ | AF-315-05 | <i>E.coli</i> | 15.6 kDa | 20µg | 100µg 1mg |

Additional sizes available please inquire

IFN-γ continued on next page...

IFN- γ *continued...***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|-------------|--------|--------------|------------|-------------|-----|
| Anti-Human IFN- γ | 500-P32 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human IFN- γ | 500-P32BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine IFN- γ | 500-P119 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine IFN- γ | 500-P119BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Rat IFN- γ | 500-P122 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Rat IFN- γ | 500-P122BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Rat IFN- γ | 500-P122G | Goat | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Rat IFN- γ | 500-P122GBT | Goat | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|--------------------------|-----------|--------|--------------|-------------|
| Anti-human IFN- γ | 500-M90 | Mouse | E, WB | 500 μ g |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|----------------------|--------------------------------|
| Human IFN- γ | ABTS CATALOG # 900-K27 |
| Human IFN- γ | TMB CATALOG # 900-T27 |
| Murine IFN- γ | ABTS CATALOG # 900-K98 |
| Murine IFN- γ | TMB CATALOG # 900-T98 |
| Rat IFN- γ | ABTS CATALOG # 900-K109 |

Mini ELISA Development Kits

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

| | |
|----------------------|--------------------------------|
| Human IFN- γ | ABTS CATALOG # 900-M27 |
| Human IFN- γ | TMB CATALOG # 900-TM27 |
| Murine IFN- γ | ABTS CATALOG # 900-M98 |
| Murine IFN- γ | TMB CATALOG # 900-TM98 |
| Rat IFN- γ | ABTS CATALOG # 900-M109 |

IFN- λ 1, - λ 2 *Interferon-lambda 1, 2*

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

RUO Cytokines

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

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------------|------------|---------------|----------|-----------|------------|-----|
| Human IFN- λ 1 | AF-300-02L | <i>E.coli</i> | 19.8 kDa | 5 μ g | 20 μ g | 1mg |

Additional sizes available please inquire

IFN- λ 1, - λ 2 continued on next page...

IFN- λ 1, - λ 2 *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------------------|------------|--------|--------------|------------|-------------|-----|
| Anti-Human IFN- λ 2 | 500-P247 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human IFN- λ 2 | 500-P247BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

IFN- ω *Interferon-omega*

Synonyms: IFN alpha II-1, IFNW1

RUO Cytokines

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

Additional sizes available please inquire

IGF-I, IGF-I LR3, IGF-II *Insulin-like Growth Factors I, II*

Synonyms: IGF-I: Somatamedin C, IGF-IA; IGF-I LR3: Long R3 IGF-I, Somatamedin C, IGF-IA IGF-II: Somatamedin A

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------|-----------|---------------|---------|-------------|-------------|-----|
| Human IGF-I | 100-11 | <i>E.coli</i> | 7.6 kDa | 100 μ g | 500 μ g | 1mg |
| Murine IGF-I | 250-19 | <i>E.coli</i> | 7.6 kDa | 10 μ g | 50 μ g | 1mg |
| Human IGF-I LR3 | 100-11R3 | <i>E.coli</i> | 9.1 kDa | 200 μ g | 1mg | 1mg |
| Human IGF-II | 100-12 | <i>E.coli</i> | 7.5 kDa | 10 μ g | 50 μ g | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------|-------------|---------------|---------|-------------|-------------|-----|
| Human IGF-I | AF-100-11 | <i>E.coli</i> | 7.6 kDa | 100 μ g | 500 μ g | 1mg |
| Human IGF-I LR3 | AF-100-11R3 | <i>E.coli</i> | 9.1 kDa | 200 μ g | 1mg | 1mg |
| Human IGF-II | AF-100-12 | <i>E.coli</i> | 7.5 kDa | 10 μ g | 50 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|-------------|--------|--------------|------------|-------------|-----|
| Anti-Human IGF-I | 500-P11 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human IGF-I | 500-P11BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine IGF-I | 500-P157G | Goat | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine IGF-I | 500-P157GBT | Goat | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Human IGF-II | 500-P12 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human IGF-II | 500-P12BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Murine IGF-I **ABTS CATALOG # 900-K170**

Mini ELISA Development Kits

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

Murine IGF-I **ABTS CATALOG # 900-M170**

IGF-BP *Insulin-like Growth Factor-Binding Proteins*

Synonyms: **IGF-BP1:** IBP-1, Placenta Protein 12 (PP12); **IGF-BP2:** IBP-2; **IGF-BP3:** IBP-3, Growth-hormone-dependent binding protein; **IGF-BP4:** IBP-4, HT29-IGF-BP, colon cancer cell growth inhibitor; **IGF-BP5:** IBP-5; **IGF-BP6:** IBP-6; **IGF-BP7:** IBP-7, Mac25, IGF binding protein-related protein-1 (IGFBP-rP1)

RUO Cytokines

| PRODUCT | | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|-----------|---------------|----------|--------|--------|-----|
| Human IGF-BP1 | | 350-10 | <i>E.coli</i> | 25.4 kDa | 5µg | 25µg | 1mg |
| Human IGF-BP2 | CARTAGENA | 350-06B | Insect cells | 31.5 kDa | 5µg | 20µg | 1mg |
| Human IGF-BP3 | | 100-08 | <i>E.coli</i> | 28.8 kDa | 5µg | 25µg | 1mg |
| Human IGF-BP4 | CARTAGENA | 350-05B | Insect cells | 25.7kDa | 5µg | 20µg | 1mg |
| Human IGF-BP5 | | 100-05 | <i>E.coli</i> | 28.6 kDa | 5µg | 25µg | 1mg |
| Human IGF-BP6 | CARTAGENA | 350-07B | Insect cells | 22.3 kDa | 5µg | 20µg | 1mg |
| Human IGF-BP7 | | 350-09 | <i>E.coli</i> | 26.4 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|--|-----------|---------------|----------|--------|--------|-----|
| Human IGF-BP3 | | AF-100-08 | <i>E.coli</i> | 28.8 kDa | 5µg | 25µg | 1mg |
| Human IGF-BP7 | | AF-350-09 | <i>E.coli</i> | 26.4 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------|--|------------|---------------|--------------|--------|--------|-----|
| Anti-Human IGF-BP1 | | 500-P228 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IGF-BP1 | | 500-P228BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human IGF-BP3 | | 500-P230 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IGF-BP3 | | 500-P230BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human IGF-BP5 | | 500-P232 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IGF-BP5 | | 500-P232BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human IGF-BP7 | | 500-P234 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IGF-BP7 | | 500-P234BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Human IGF-BP1 **ABTS CATALOG # 900-K315**

Mini ELISA Development Kits

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

Human IGF-BP1 **ABTS CATALOG # 900-M315**

IL-1 α Interleukin-1 alpha

Synonyms: Hematopoietin-1, Lymphocyte-Activating Factor (LAF), Endogenous Pyrogen (EP), Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF)

RUO Cytokines

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

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B5 | |
|---------------------|------------|---------------|----------|-----------|------------|-----|
| Human IL-1 α | AF-200-01A | <i>E.coli</i> | 18.0 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|-------------|---------------|--------------|------------|-------------|-----|
| Anti-Human IL-1 α | 500-P21A | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human IL-1 α | 500-P21ABT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine IL-1 α | 500-P51A | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine IL-1 α | 500-P51ABT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Rat IL-1 α | 500-P180G | <i>Goat</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Rat IL-1 α | 500-P180GBT | <i>Goat</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|----------------------|--------------------------------|
| Human IL-1 α | ABTS CATALOG # 900-K11 |
| Human IL-1 α | TMB CATALOG # 900-T11 |
| Murine IL-1 α | ABTS CATALOG # 900-K82 |
| Rat IL-1 α | ABTS CATALOG # 900-K204 |

Mini ELISA Development Kits

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

| | |
|----------------------|-------------------------------|
| Human IL-1 α | ABTS CATALOG # 900-M11 |
| Human IL-1 α | TMB CATALOG # 900-TM11 |
| Murine IL-1 α | ABTS CATALOG # 900-M82 |

IL-1 β *Interleukin-1 beta*

Synonyms: Catabolin, Lymphocyte-Activating Factor (LAF), Endogenous Pyrogen (EP), Leukocyte Endogenous Mediator (LEM), Mononuclear Cell Factor (MCF)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------------|-----------|---------------|----------|-----------|----------------|
| Human IL-1 β | 200-01B | <i>E.coli</i> | 17.3 kDa | 2 μ g | 10 μ g 1mg |
| Murine IL-1 β | 211-11B | <i>E.coli</i> | 17.5 kDa | 2 μ g | 10 μ g 1mg |
| Rat IL-1 β | 400-01B | <i>E.coli</i> | 17.4 kDa | 2 μ g | 10 μ g 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------------|------------|---------------|----------|-----------|----------------|
| Human IL-1 β | AF-200-01B | <i>E.coli</i> | 17.3 kDa | 2 μ g | 10 μ g 1mg |
| Murine IL-1 β | AF-211-11B | <i>E.coli</i> | 17.5 kDa | 2 μ g | 10 μ g 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|--------------------------------|-------------|---------------|--------------|------------|-----------------|
| Anti-Human IL-1 β | 500-P21BG | <i>Goat</i> | E, WB | 50 μ g | 100 μ g 1mg |
| Biot. Anti-Human IL-1 β | 500-P21BGBT | <i>Goat</i> | E, WB | 25 μ g | 50 μ g 1mg |
| Anti-Murine IL-1 β | 500-P51 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g 1mg |
| Biot. Anti-Murine IL-1 β | 500-P51BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g 1mg |
| Anti-Rat IL-1 β | 500-P80 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g 1mg |
| Biot. Anti-Rat IL-1 β | 500-P80BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-------------------------|-----------|--------------|--------------|-------------|
| Anti-Human IL-1 β | 500-M01B | <i>Mouse</i> | E, WB | 500 μ g |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|---------------------|-------------------------------|
| Human IL-1 β | ABTS CATALOG # 900-K95 |
| Human IL-1 β | TMB CATALOG # 900-T95 |
| Murine IL-1 β | ABTS CATALOG # 900-K47 |
| Rat IL-1 β | ABTS CATALOG # 900-K91 |

Mini ELISA Development Kits

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

| | |
|---------------------|-------------------------------|
| Human IL-1 β | ABTS CATALOG # 900-M95 |
| Human IL-1 β | TMB CATALOG # 900-TM95 |
| Murine IL-1 β | ABTS CATALOG # 900-M47 |
| Rat IL-1 β | ABTS CATALOG # 900-M91 |

IL-1RA *Interleukin-1 Receptor Antagonist*

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

RUO Cytokines

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

Additional sizes available please inquire

Animal-Free Cytokines

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

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human IL-1RA | 500-P209 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human IL-1RA | 500-P209BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human IL-1RA | ABTS CATALOG # 900-K474 |
|--------------|--------------------------------|

Mini ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human IL-1RA | ABTS CATALOG # 900-M474 |
|--------------|--------------------------------|

IL-2 *Interleukin-2*

Synonyms: T-cell Growth Factor (TCGF), Aldesleukin

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|---------------|----------|--------|----------|
| Human IL-2 | 200-02 | <i>E.coli</i> | 15.5 kDa | 10µg | 50µg 1mg |
| Murine IL-2 | 212-12 | <i>E.coli</i> | 17.2 kDa | 5µg | 20µg 1mg |
| Rat IL-2 | 400-02 | <i>E.coli</i> | 15.3 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|---------------|----------|--------|----------|
| Human IL-2 | AF-200-02 | <i>E.coli</i> | 15.5 kDa | 10µg | 50µg 1mg |
| Murine IL-2 | AF-212-12 | <i>E.coli</i> | 17.2 kDa | 5µg | 20µg 1mg |
| Rat IL-2 | AF-400-02 | <i>E.coli</i> | 15.3 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

PeproGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|----------------------|-----------------|---------------|----------|-------|
| PeproGMP® Human IL-2 | GMP200-02-50µg | <i>E.coli</i> | 15.5 kDa | 50µg |
| PeproGMP® Human IL-2 | GMP200-02-100µg | <i>E.coli</i> | 15.5 kDa | 100µg |
| PeproGMP® Human IL-2 | GMP200-02-1mg | <i>E.coli</i> | 15.5 kDa | 1mg |

IL-2 continued on next page...

IL-2 *continued...***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human IL-2 | 500-P22 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-2 | 500-P22BT | Rabbit | E, WB | 25µg | 50µg | 1mg |
| Anti-Human IL-2 | 500-P22G | Goat | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-2 | 500-P22GBT | Goat | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine IL-2 | 500-P111 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine IL-2 | 500-P111BT | Rabbit | E, WB | 25µg | 50µg | 1mg |
| Anti-Rat IL-2 | 500-P274 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Rat IL-2 | 500-P274BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|------------------|-----------|--------|--------------|-------|
| Anti-Human IL-2 | 500-M02 | Mouse | E, WB | 500µg |
| Anti-Murine IL-2 | 500-M127 | Rat | E, WB | 500µg |
| Anti-Rat IL-2 | 500-M129 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-------------|--------------------------------|
| Human IL-2 | ABTS CATALOG # 900-K12 |
| Human IL-2 | TMB CATALOG # 900-T12 |
| Murine IL-2 | ABTS CATALOG # 900-K108 |
| Murine IL-2 | TMB CATALOG # 900-T108 |
| Rat IL-2 | ABTS CATALOG # 900-K205 |

Mini ELISA Development Kits

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

| | |
|-------------|--------------------------------|
| Human IL-2 | ABTS CATALOG # 900-M12 |
| Human IL-2 | TMB CATALOG # 900-TM12 |
| Murine IL-2 | ABTS CATALOG # 900-M108 |
| Murine IL-2 | TMB CATALOG # 900-TM108 |
| Rat IL-2 | ABTS CATALOG # 900-M205 |

sIL-2 Receptor α *soluble Interleukin-2 Receptor alpha***Synonyms:** soluble Interleukin-2R α , TAC-antigen, CD25 antigen**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------------|-----------|-----------|----------|--------|--------|-----|
| Human sIL-2 Receptor α | 200-02RC | CHO cells | 24.8 kDa | 5µg | 25µg | 1mg |

*Additional sizes available please inquire**sIL-2 Receptor α continued on next page...*

sIL-2 Receptor α *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--|------------|--------|--------------|------------|-------------|---------|
| Anti-Human sIL-2 Receptor α | 500-P22R | Rabbit | E, WB | 50 μ g | 100 μ g | \$1,700 |
| Biot. Anti-Human sIL-2 Receptor α | 500-P22RBT | Rabbit | E, WB | 25 μ g | 50 μ g | \$3,400 |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|------------------------------------|-----------|--------|--------------|-------------|
| Anti-Human sIL-2 Receptor α | 500-M02R | Mouse | E, WB | 500 μ g |

Key: E = ELISA, WB = Western blot

IL-3/IL-3 β *Interleukin-3/Interleukin-3 beta*

Synonyms: Mast Cell Growth Factor (MCGF), Multi-CSF, HCGF, P-cell stimulation factor

RUO Cytokines

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

* See page 12 for available Cytokine Packages. Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|-----------|------------|-----|
| Human IL-3 | AF-200-03 | <i>E.coli</i> | 15.0 kDa | 2 μ g | 10 μ g | 1mg |
| Murine IL-3 | AF-213-13 | <i>E.coli</i> | 15.1 kDa | 2 μ g | 10 μ g | 1mg |

* See page 12 for available Cytokine Packages. Additional sizes available please inquire

PeproGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|----------------------|-----------------------|---------------|----------|-------------|
| PeproGMP® Human IL-3 | GMP200-03-50 μ g | <i>E.coli</i> | 15.0 kDa | 50 μ g |
| PeproGMP® Human IL-3 | GMP200-03-100 μ g | <i>E.coli</i> | 15.0 kDa | 100 μ g |
| PeproGMP® Human IL-3 | GMP200-03-1mg | <i>E.coli</i> | 15.0 kDa | 1mg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B0 | |
|-----------------------------|-------------|--------|--------------|------------|-------------|-----|
| Anti-Human IL-3 | 500-P23 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human IL-3 | 500-P23BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine IL-3 | 500-P53 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine IL-3 | 500-P53BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Rat IL-3 β | 500-P177G | Goat | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Rat IL-3 β | 500-P177GBT | Goat | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-----------------|-----------|--------|--------------|-------------|
| Anti-Human IL-3 | 500-M03 | Mouse | E, WB | 500 μ g |

Key: E = ELISA, WB = Western blot

IL-3/IL-3 β continued on next page...

IL-3/IL-3 β *continued...*

Standard ELISA Development Kits

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

| | |
|-------------|-------------------------------|
| Human IL-3 | ABTS CATALOG # 900-K13 |
| Murine IL-3 | ABTS CATALOG # 900-K48 |

Mini ELISA Development Kits

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

| | |
|-------------|-------------------------------|
| Murine IL-3 | ABTS CATALOG # 900-M48 |
|-------------|-------------------------------|

IL-4 *Interleukin-4*

Synonyms: BCGF, BCDF, B-cell Stimulating Factor (BSF-1)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|-----------|------------|-----|
| Human IL-4 | 200-04 | <i>E.coli</i> | 15.1 kDa | 5 μ g | 20 μ g | 1mg |
| Murine IL-4 | 214-14 | <i>E.coli</i> | 13.5 kDa | 5 μ g | 20 μ g | 1mg |
| Rat IL-4 | 400-04 | <i>E.coli</i> | 14.0 kDa | 5 μ g | 20 μ g | 1mg |

* See page 12 for available Cytokine Packages.

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|-----------|------------|-----|
| Human IL-4 | AF-200-04 | <i>E.coli</i> | 15.1 kDa | 5 μ g | 20 μ g | 1mg |
| Murine IL-4 | AF-214-14 | <i>E.coli</i> | 13.5 kDa | 5 μ g | 20 μ g | 1mg |

* See page 12 for available Cytokine Packages.

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|-----------|---------------|--------------|------------|-------------|-----|
| Anti-Human IL-4 | 500-P24 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human IL-4 | 500-P24BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine IL-4 | 500-P54 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine IL-4 | 500-P54BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Rat IL-4 | 500-P94 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Rat IL-4 | 500-P94BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-----------------|-----------|--------------|--------------|-------------|
| Anti-Human IL-4 | 500-M04 | <i>Mouse</i> | E, WB | 500 μ g |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-------------|-------------------------------|
| Human IL-4 | ABTS CATALOG # 900-K14 |
| Human IL-4 | TMB CATALOG # 900-T14 |
| Murine IL-4 | ABTS CATALOG # 900-K49 |
| Murine IL-4 | TMB CATALOG # 900-T49 |

IL-4 continued on next page...

IL-4 *continued...***Mini ELISA Development Kits**

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

| | |
|-------------|-------------------------------|
| Human IL-4 | ABTS CATALOG # 900-M14 |
| Human IL-4 | TMB CATALOG # 900-TM14 |
| Murine IL-4 | ABTS CATALOG # 900-M49 |
| Murine IL-4 | TMB CATALOG # 900-TM49 |

sIL-4 Receptor α *soluble Interleukin-4 Receptor alpha*

Synonyms: soluble Interleukin-4R α , CD124

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------------|-----------|--------------|----------|-----------|------------|-----|
| Human sIL-4 Receptor α | 200-04R | HEK293 cells | 23.9 kDa | 3 μ g | 15 μ g | 1mg |
| Human sIL-4 Receptor α | 200-04RC | CHO cells | 23.9 kDa | 5 μ g | 20 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--|------------|--------|--------------|------------|-------------|-----|
| Anti-Human sIL-4 Receptor α | 500-P325 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human sIL-4 Receptor α | 500-P325BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

IL-5 *Interleukin-5*

Synonyms: EDF, BCDFII, TRF

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|-----------|------------|-----|
| Human IL-5 | 200-05 | <i>E.coli</i> | 26.5 kDa | 2 μ g | 10 μ g | 1mg |
| Murine IL-5 | 215-15 | <i>E.coli</i> | 26.2 kDa | 5 μ g | 25 μ g | 1mg |
| Rat IL-5 | 400-05 | <i>E.coli</i> | 26.0 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|-----------|------------|-----|
| Human IL-5 | AF-200-05 | <i>E.coli</i> | 26.5 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|-----------|--------|--------------|------------|-------------|-----|
| Anti-Human IL-5 | 500-P25 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human IL-5 | 500-P25BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine IL-5 | 500-P55 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine IL-5 | 500-P55BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

IL-5 continued on next page...

IL-5 *continued...***Standard ELISA Development Kits**

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

| | |
|-------------|--------------------------------|
| Human IL-5 | ABTS CATALOG # 900-K15 |
| Murine IL-5 | ABTS CATALOG # 900-K406 |

Mini ELISA Development Kits

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

| | |
|-------------|--------------------------------|
| Human IL-5 | ABTS CATALOG # 900-M15 |
| Murine IL-5 | ABTS CATALOG # 900-M406 |

IL-6 *Interleukin-6*

Synonyms: 26 kDa protein, IFN- β 2, B-Cell Differentiation Factor (BCDF), B-cell Stimulatory Factor-2, BSF-2, HPGF, HSF, MGI-2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|-----------|------------|-----|
| Human IL-6 | 200-06 | <i>E.coli</i> | 20.9 kDa | 5 μ g | 20 μ g | 1mg |
| Murine IL-6 | 216-16 | <i>E.coli</i> | 21.7 kDa | 2 μ g | 10 μ g | 1mg |
| Rat IL-6 | 400-06 | <i>E.coli</i> | 21.7 kDa | 2 μ g | 10 μ g | 1mg |

* See page 12 for available Cytokine Packages.

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|-----------|------------|-----|
| Human IL-6 | AF-200-06 | <i>E.coli</i> | 20.9 kDa | 5 μ g | 20 μ g | 1mg |
| Murine IL-6 | AF-216-16 | <i>E.coli</i> | 21.7 kDa | 2 μ g | 10 μ g | 1mg |

* See page 12 for available Cytokine Packages.

Additional sizes available please inquire

PeperoGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|-----------------------|-----------------------|---------------|----------|-------------|
| PeperoGMP® Human IL-6 | GMP200-06-10 μ g | <i>E.coli</i> | 20.9 kDa | 10 μ g |
| PeperoGMP® Human IL-6 | GMP200-06-100 μ g | <i>E.coli</i> | 20.9 kDa | 100 μ g |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|---------------|--------------|------------|-------------|-----|
| Anti-Human IL-6 | 500-P26 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human IL-6 | 500-P26BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Human IL-6 | 500-P26G | <i>Goat</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human IL-6 | 500-P26GBT | <i>Goat</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine IL-6 | 500-P56 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine IL-6 | 500-P56BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Rat IL-6 | 500-P73 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Rat IL-6 | 500-P73BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Rat IL-6 | 500-P73G | <i>Goat</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Rat IL-6 | 500-P73GBT | <i>Goat</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

IL-6 continued on next page...

IL-6 *continued...*

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-----------------|-----------|--------|--------------|-------|
| Anti-Human IL-6 | 500-M06 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | | |
|-------------|-----------------------|---------|
| Human IL-6 | ABTS CATALOG # | 900-K16 |
| Human IL-6 | TMB CATALOG # | 900-T16 |
| Murine IL-6 | ABTS CATALOG # | 900-K50 |
| Murine IL-6 | TMB CATALOG # | 900-T50 |
| Rat IL-6 | ABTS CATALOG # | 900-K86 |

Mini ELISA Development Kits

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

| | | |
|-------------|-----------------------|----------|
| Human IL-6 | ABTS CATALOG # | 900-M16 |
| Human IL-6 | TMB CATALOG # | 900-TM16 |
| Murine IL-6 | ABTS CATALOG # | 900-M50 |
| Murine IL-6 | TMB CATALOG # | 900-TM50 |
| Rat IL-6 | ABTS CATALOG # | 900-M86 |

sIL-6 Receptor α *soluble Interleukin-6 Receptor alpha*

Synonyms: soluble Interleukin-6R α , CD126

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------------|-----------|-----------|----------|--------|--------|-----|
| Human sIL-6 Receptor α | 200-06RC | CHO cells | 37.9 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

IL-7 *Interleukin-7*

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

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-7 | 200-07 | <i>E.coli</i> | 17.5 kDa | 2µg | 10µg | 1mg |
| Murine IL-7 | 217-17 | <i>E.coli</i> | 15.0 kDa | 2µg | 10µg | 1mg |
| Rat IL-7 | 400-07 | <i>E.coli</i> | 15.0 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-7 | AF-200-07 | <i>E.coli</i> | 17.5 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

IL-7 continued on next page...

IL-7 *continued...***PeptoGMP® Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|----------------------|----------------|---------------|----------|------|
| PeptoGMP® Human IL-7 | GMP200-07-50µg | <i>E.coli</i> | 17.4 kDa | 50µg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human IL-7 | 500-P27 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human IL-7 | 500-P27BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Murine IL-7 | 500-P57 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Murine IL-7 | 500-P57BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Rat IL-7 | 500-P310 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Rat IL-7 | 500-P310BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-----------------|-----------|--------------|--------------|-------|
| Anti-Human IL-7 | 500-M07 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|------------|-------------------------------|
| Human IL-7 | ABTS CATALOG # 900-K17 |
|------------|-------------------------------|

Mini ELISA Development Kits

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

| | |
|------------|-------------------------------|
| Human IL-7 | ABTS CATALOG # 900-M17 |
|------------|-------------------------------|

IL-8 (CXCL8) *Interleukin-8*

Synonyms: Monocyte-Derived Neutrophil Chemotactic Factor (MDNCF), Neutrophil Activating Factor (NAF), NAP-1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------------------------|-----------|---------------|---------|--------|----------|
| Human IL-8 (CXCL8) (72 a.a.) | 200-08M | <i>E.coli</i> | 8.4 kDa | 5µg | 25µg 1mg |
| Human IL-8 (CXCL8) (77 a.a.) | 200-08 | <i>E.coli</i> | 8.9 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------------------------|------------|---------------|---------|--------|----------|
| Human IL-8 (CXCL8) (72 a.a.) | AF-200-08M | <i>E.coli</i> | 8.4 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------------|-----------|---------------|--------------|--------|-----------|
| Anti-Human IL-8 (CXCL8) | 500-P28 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human IL-8 (CXCL8) | 500-P28BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

IL-8 continued on next page...

IL-8 (CXCL8) *continued...*

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-------------------------|-----------|--------|--------------|-------|
| Anti-Human IL-8 (CXCL8) | 500-M08 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------------|-------------------------------|
| Human IL-8 (CXCL8) | ABTS CATALOG # 900-K18 |
| Human IL-8 (CXCL8) | TMB CATALOG # 900-T18 |

Mini ELISA Development Kits

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

| | |
|--------------------|-------------------------------|
| Human IL-8 (CXCL8) | ABTS CATALOG # 900-M18 |
| Human IL-8 (CXCL8) | TMB CATALOG # 900-TM18 |

IL-9 *Interleukin-9*

Synonyms: p40 cytokine, T-cell growth factor p40

RUO Cytokines

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

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------|-----------|---------------|----------|--------|----------|
| Human IL-9 | AF-200-09 | <i>E.coli</i> | 14.0 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------|-----------|--------|--------------|--------|-----------|
| Anti-Human IL-9 | 500-P29 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human IL-9 | 500-P29BT | Rabbit | E, WB | 25µg | 50µg 1mg |
| Anti-Murine IL-9 | 500-P59 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Murine IL-9 | 500-P59BT | Rabbit | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|------------|-------------------------------|
| Human IL-9 | ABTS CATALOG # 900-K20 |
|------------|-------------------------------|

IL-10 *Interleukin-10***Synonyms:** B-TCGF, CSIF, TGIF**RUO Cytokines**

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

*Additional sizes available please inquire***Animal-Free Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|----------|
| Human IL-10 | AF-200-10 | <i>E.coli</i> | 18.6 kDa | 2µg | 10µg 1mg |
| Murine IL-10 | AF-210-10 | <i>E.coli</i> | 18.7 kDa | 2µg | 10µg 1mg |

*Additional sizes available please inquire***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human IL-10 | 500-P20 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human IL-10 | 500-P20BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Murine IL-10 | 500-P60 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Murine IL-10 | 500-P60BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Rat IL-10 | 500-P139 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Rat IL-10 | 500-P139BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-------------------|-----------|--------------|--------------|-------|
| Anti-Human IL-10 | 500-M86 | <i>Mouse</i> | E, WB | 500µg |
| Anti-Murine IL-10 | 500-M128 | <i>Rat</i> | E, WB | 500µg |
| Anti-Rat IL-10 | 500-M130 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------|-------------------------------|
| Human IL-10 | ABTS CATALOG # 900-K21 |
| Murine IL-10 | ABTS CATALOG # 900-K53 |
| Murine IL-10 | TMB CATALOG # 900-T53 |

Mini ELISA Development Kits

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

| | |
|--------------|-------------------------------|
| Human IL-10 | ABTS CATALOG # 900-M21 |
| Murine IL-10 | ABTS CATALOG # 900-M53 |
| Murine IL-10 | TMB CATALOG # 900-TM53 |

IL-11 *Interleukin-11*

Synonyms: Adipogenesis Inhibitory Factor (AGIF)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|----------|
| Human IL-11 | 200-11 | <i>E.coli</i> | 19.3 kDa | 2µg | 10µg 1mg |
| Murine IL-11 | 220-11 | <i>E.coli</i> | 19.1 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|---------------|----------|--------|----------|
| Human IL-11 | AF-200-11 | <i>E.coli</i> | 19.3 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------|-----------|---------------|--------------|--------|-----------|
| Anti-Human IL-11 | 500-P01 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human IL-11 | 500-P01BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|------------------|-----------|--------------|--------------|-------|
| Anti-Human IL-11 | 500-M11 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Human IL-11 **ABTS CATALOG # 900-K22**

Mini ELISA Development Kits

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

Human IL-11 **ABTS CATALOG # 900-M22**

IL-12 *Interleukin-12*

Synonyms: NKSF, CTL Maturation Factor (TCMF), Cytotoxic Lymphocyte Maturation Factor (CLMF), TSF;

p35: Interleukin-12 subunit alpha, IL-12 subunit p35, IL-12A, Cytotoxic Lymphocyte Maturation Factor 35 kDa subunit (CLMF p35), NK cell stimulating Factor Chain 1; **p40:** Interleukin-12 subunit beta, IL-12 subunit p40, IL-12B, Cytotoxic Lymphocyte Maturation Factor 40 kDa subunit (CLMF p40), NK cell Stimulating Factor Chain 2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------------|----------------------|--------------|----------|--------|----------|
| Murine IL-12 p40 | 210-12P40H | HEK293 cells | 40.0 kDa | 2µg | 10µg 1mg |
| Human IL-12 p70 | 200-12 | CHO cells | 75.0 kDa | 2µg | 10µg 1mg |
| Human IL-12 p70 | 200-12H | HEK293 cells | 75.0 kDa | 2µg | 10µg 1mg |
| Murine IL-12 p70 | 210-12 | CHO cells | 75.0 kDa | 2µg | 10µg 1mg |
| Human IL-12 p80 | CARTAGENA 200-12P80H | Insect cells | 80.0 kDa | 2µg | 10µg 1mg |
| Murine IL-12 p80 | 210-12P80H | HEK293cells | 80.0 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

IL-12 continued on next page...

IL-12 *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|-------------|-------------|--------------|--------|--------|-----|
| Anti-Human IL-12 | 500-P154G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-12 | 500-P154GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine IL-12 | 500-P155G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine IL-12 | 500-P155GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-------------------|-----------|--------------|--------------|-------|
| Anti-Human IL-12 | 500-M12 | <i>Mouse</i> | E, WB | 500µg |
| Anti-Murine IL-12 | 500-M59 | <i>Rat</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------|-------------------------------|
| Human IL-12 | ABTS CATALOG # 900-K96 |
| Human IL-12 | TMB CATALOG # 900-T96 |
| Murine IL-12 | ABTS CATALOG # 900-K97 |
| Murine IL-12 | TMB CATALOG # 900-T97 |

Mini ELISA Development Kits

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

| | |
|--------------|-------------------------------|
| Human IL-12 | ABTS CATALOG # 900-M96 |
| Human IL-12 | TMB CATALOG # 900-TM96 |
| Murine IL-12 | ABTS CATALOG # 900-M97 |
| Murine IL-12 | TMB CATALOG # 900-TM97 |

IL-13 *Interleukin-13*

Synonyms: NC30 (Human), P600 (Murine)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-13 | 200-13 | <i>E.coli</i> | 12.6 kDa | 2µg | 10µg | 1mg |
| Human IL-13 Variant | 200-13A | <i>E.coli</i> | 12.6 kDa | 2µg | 10µg | 1mg |
| Murine IL-13 | 210-13 | <i>E.coli</i> | 12.3 kDa | 2µg | 10µg | 1mg |
| Rat IL-13 (109 a.a.) | 400-16 | <i>E.coli</i> | 11.9 kDa | 2µg | 10µg | 1mg |
| Rat IL-13 (113 a.a.) | 400-16L | <i>E.coli</i> | 12.3 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-13 | AF-200-13 | <i>E.coli</i> | 12.6 kDa | 2µg | 10µg | 1mg |

*Additional sizes available please inquire**IL-13 continued on next page...*

IL-13 *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human IL-13 | 500-P13 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-13 | 500-P13BT | Rabbit | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine IL-13 | 500-P178 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine IL-13 | 500-P178BT | Rabbit | E, WB | 25µg | 50µg | 1mg |
| Anti-Rat IL-13 | 500-P224 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Rat IL-13 | 500-P224BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human IL-13 | ABTS CATALOG # 900-K23 |
| Murine IL-13 | ABTS CATALOG # 900-K207 |

Mini ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human IL-13 | ABTS CATALOG # 900-M23 |
| Murine IL-13 | ABTS CATALOG # 900-M207 |

IL-15 *Interleukin-15*

Synonyms: IL-T

RUO Cytokines

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

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-15 | AF-200-15 | <i>E.coli</i> | 12.9 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

PeproGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|-----------------------|-----------------|---------------|----------|-------|
| PeproGMP® Human IL-15 | GMP200-15-50µg | <i>E.coli</i> | 12.9 kDa | 50µg |
| PeproGMP® Human IL-15 | GMP200-15-100µg | <i>E.coli</i> | 12.9 kDa | 100µg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human IL-15 | 500-P15 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-15 | 500-P15BT | Rabbit | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine IL-15 | 500-P173 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine IL-15 | 500-P173BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

IL-15 continued on next page...

IL-15 *continued...*

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|------------------|-----------|--------|--------------|-------|
| Anti-Human IL-15 | 500-M15 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Murine IL-15 | ABTS CATALOG # 900-K188 |
|--------------|--------------------------------|

Mini ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Murine IL-15 | ABTS CATALOG # 900-M188 |
|--------------|--------------------------------|

IL-16 *Interleukin-16*

Synonyms: LCF (Lymphocyte Chemoattractant Factor)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------------------|-----------|---------------|----------|--------|----------|
| Human IL-16 (121 a.a.) | 200-16A | <i>E.coli</i> | 12.4 kDa | 2µg | 10µg 1mg |
| Human IL-16 (129 a.a.) | 200-16 | <i>E.coli</i> | 13.3 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------------------|------------|---------------|----------|--------|----------|
| Human IL-16 (121 a.a.) | AF-200-16A | <i>E.coli</i> | 12.4 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------|-----------|--------|--------------|--------|-----------|
| Anti-Human IL-16 | 500-P06 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human IL-16 | 500-P06BT | Rabbit | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated
Key: E = ELISA, WB = Western blot

IL-17A *Interleukin-17A*

Synonyms: IL-17, CTLA-8

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------|-----------|---------------|----------|--------|----------|
| Human IL-17A | 200-17 | <i>E.coli</i> | 31.3 kDa | 5µg | 25µg 1mg |
| Murine IL-17A | 210-17 | <i>E.coli</i> | 30.0 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|----------|
| Human IL-17A | AF-200-17 | <i>E.coli</i> | 31.3 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

IL-17A continued on next page...

IL-17A *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human IL-17A | 500-P07 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-17A | 500-P07BT | Rabbit | E, WB | 25µg | 50µg | 1mg |
| Anti-Human IL-17A | 500-P07G | Goat | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-17A | 500-P07GBT | Goat | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine IL-17A | 500-P265 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine IL-17A | 500-P265BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|---------------|--------------------------------|
| Human IL-17A | ABTS CATALOG # 900-K84 |
| Murine IL-17A | ABTS CATALOG # 900-K392 |

Mini ELISA Development Kits

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

| | |
|---------------|--------------------------------|
| Human IL-17A | ABTS CATALOG # 900-M84 |
| Murine IL-17A | ABTS CATALOG # 900-M392 |

IL-17B *Interleukin-17B*

Synonyms: IL-20, NIRF, Cytokine ZCYTO7

RUO Cytokines

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

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human IL-17B | 500-P248 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-17B | 500-P248BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

IL-17D *Interleukin-17D*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-17D | 200-27 | <i>E.coli</i> | 40.5 kDa | 5µg | 25µg | 1mg |
| Murine IL-17D | 210-17D | <i>E.coli</i> | 40.6 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

IL-17D continued on next page...

IL-17D *continued...*

Animal-Free Cytokines

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

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------|-----------|---------------|--------------|--------|-----------|
| Anti-Human IL-17D | 500-P88 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human IL-17D | 500-P88BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

IL-17E *Interleukin-17E*

Synonyms: IL-25

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------|-----------|---------------|----------|--------|----------|
| Human IL-17E | 200-24 | <i>E.coli</i> | 33.8 kDa | 5µg | 25µg 1mg |
| Murine IL-17E | 210-17E | <i>E.coli</i> | 35.0 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|----------|
| Human IL-17E | AF-200-24 | <i>E.coli</i> | 33.8 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------|-----------|---------------|--------------|--------|-----------|
| Anti-Human IL-17E | 500-P89 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human IL-17E | 500-P89BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human IL-17E | ABTS CATALOG # 900-K234 |
| Human IL-17E | TMB CATALOG # 900-T234 |

Mini ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human IL-17E | ABTS CATALOG # 900-M234 |
| Human IL-17E | TMB CATALOG # 900-TM234 |

IL-17F *Interleukin-17F***Synonyms:** None**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-17F | 200-25 | <i>E.coli</i> | 30.1 kDa | 5µg | 25µg | 1mg |
| Murine IL-17F | 210-17F | <i>E.coli</i> | 30.0 kDa | 5µg | 25µg | 1mg |

*Additional sizes available please inquire***Animal-Free Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-17F | AF-200-25 | <i>E.coli</i> | 30.1 kDa | 5µg | 25µg | 1mg |

*Additional sizes available please inquire***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|-----------|---------------|--------------|--------|--------|-----|
| Anti-Human IL-17F | 500-P90 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-17F | 500-P90BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human IL-17F | ABTS CATALOG # 900-K277 |
|--------------|--------------------------------|

IL-18BP *Interleukin-18 Binding Protein***Synonyms:** IL-18BP_a, Tadekinig-alfa**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------|-----------|-----------|----------|--------|--------|-----|
| Human IL-18BP Fc | 200-18BP | CHO cells | 87.2 kDa | 20µg | 100µg | 1mg |

*Additional sizes available please inquire***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------|-------------|-------------|--------------|--------|--------|-----|
| Anti-Murine IL-18BP | 500-P153G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine IL-18BP | 500-P153GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

IL-19 *Interleukin-19***Synonyms:** Melanoma differentiation-associated protein-like protein**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-19 | 200-19 | <i>E.coli</i> | 35.8 kDa | 2µg | 10µg | 1mg |

*Additional sizes available please inquire***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human IL-19 | 500-P189 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-19 | 500-P189BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

IL-20 *Interleukin-20***Synonyms:** Cytokine ZCYTO10**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-20 | 200-20 | <i>E.coli</i> | 35.2 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|-------------|-------------|--------------|--------|--------|-----|
| Anti-Human IL-20 | 500-P190G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-20 | 500-P190GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-------------|--------------------------------|
| Human IL-20 | ABTS CATALOG # 900-K224 |
|-------------|--------------------------------|

IL-21 *Interleukin-21***Synonyms:** Za11**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-21 | 200-21 | <i>E.coli</i> | 15.4 kDa | 2µg | 10µg | 1mg |
| Murine IL-21 | 210-21 | <i>E.coli</i> | 15.0 kDa | 2µg | 10µg | 1mg |
| Rat IL-21 | 400-41 | <i>E.coli</i> | 15.3 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-21 | AF-200-21 | <i>E.coli</i> | 15.4 kDa | 2µg | 10µg | 1mg |
| Murine IL-21 | AF-210-21 | <i>E.coli</i> | 15.0 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

PeperoGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|------------------------|-----------------|---------------|----------|-------|
| PeperoGMP® Human IL-21 | GMP200-21-50µg | <i>E.coli</i> | 15.4 kDa | 50µg |
| PeperoGMP® Human IL-21 | GMP200-21-100µg | <i>E.coli</i> | 15.4 kDa | 100µg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human IL-21 | 500-P191 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-21 | 500-P191BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine IL-21 | 500-P278 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine IL-21 | 500-P278BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human IL-21 | ABTS CATALOG # 900-K226 |
| Murine IL-21 | ABTS CATALOG # 900-K368 |

IL-21 continued on next page...

IL-21 *continued...***Mini ELISA Development Kits**

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

| | |
|--------------|--------------------------------|
| Murine IL-21 | ABTS CATALOG # 900-M368 |
|--------------|--------------------------------|

IL-22 *Interleukin-22*

Synonyms: IL-T1F, Cytokine ZCYTO18

RUO Cytokines

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

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-22 | AF-200-22 | <i>E.coli</i> | 33.6 kDa | 2µg | 10µg | 1mg |
| Murine IL-22 | AF-210-22 | <i>E.coli</i> | 33.4 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human IL-22 | 500-P211 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-22 | 500-P211BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine IL-22 | 500-P223 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine IL-22 | 500-P223BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human IL-22 | ABTS CATALOG # 900-K246 |
| Murine IL-22 | ABTS CATALOG # 900-K257 |

Mini ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human IL-22 | ABTS CATALOG # 900-M246 |
| Murine IL-22 | ABTS CATALOG # 900-M257 |

IL-23 *Interleukin-23*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---|-----------|--------------|----------|--------|--------|-----|
| Human IL-23 CARTAGENA | 200-23 | Insect cells | 53.5 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

IL-24 *Interleukin-24***Synonyms:** MDA-7 (Melanoma Differentiation-Associated gene 7 protein)**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|-----------|----------|--------|----------|
| Human IL-24 | 200-35 | CHO cells | 18.9 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

IL-27 *Interleukin-27***Synonyms:** Interleukin-27 subunit alpha, IL-27-A, Interleukin-27 subunit beta, IL-27B, Epstein-Barr virus-induced gene 3 protein, EBV-induced gene 3 protein, EB13, p28, Interleukin-30, IL-30**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|--------------|----------|--------|----------|
| Human IL-27 | 200-38 | HEK293 cells | 47.8 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

IL-31 *Interleukin-31***Synonyms:** None**RUO Cytokines**

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

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human IL-31 | 500-P249 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human IL-31 | 500-P249BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-------------|--------------------------------|
| Human IL-31 | ABTS CATALOG # 900-K347 |
|-------------|--------------------------------|

Mini ELISA Development Kits

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

| | |
|-------------|--------------------------------|
| Human IL-31 | ABTS CATALOG # 900-M347 |
|-------------|--------------------------------|

IL-33 *Interleukin-33***Synonyms:** IL-1 F11, NF-HEV**RUO Cytokines**

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

Additional sizes available please inquire

IL-33 continued on next page...

IL-33 *continued...*

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-33 | AF-200-33 | <i>E.coli</i> | 17.9 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human IL-33 | 500-P261 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IL-33 | 500-P261BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-------------|--------------------------------|
| Human IL-33 | ABTS CATALOG # 900-K398 |
|-------------|--------------------------------|

Mini ELISA Development Kits

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

| | |
|-------------|--------------------------------|
| Human IL-33 | ABTS CATALOG # 900-M398 |
|-------------|--------------------------------|

IL-34 *Interleukin-34*

Synonyms: C16orf77

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|--------------|----------|--------|--------|-----|
| Human IL-34 | 200-34 | HEK293 cells | 52.5 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

IL-35 *Interleukin-35*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|--------------|----------|--------|--------|-----|
| Human IL-35 | 200-37 | HEK293 cells | 45.8 kDa | 2µg | 10µg | 1mg |

IL-36 α (IL-1F6) *Interleukin-36 alpha*

Synonyms: IL36A, Interleukin-1 family member 6 (IL-1F6), FIL1 ϵ (FIL1E), Interleukin-1 ϵ (IL1E)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------------|-----------|---------------|----------|--------|--------|-----|
| Human IL-36 α (IL-1F6) | 200-36A | <i>E.coli</i> | 17.2 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

IL-36 β (IL-1F8) *Interleukin-36 beta***Synonyms:** IL-1H2, IL-1 eta**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------------------|-----------|---------------|----------|-----------|------------|-----|
| Human IL-36 β (IL-1F8) | 200-36B | <i>E.coli</i> | 17.3 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

IL-36 γ (IL-1F9) *Interleukin-36 gamma***Synonyms:** IL-1 ϵ (epsilon), IL-1H1**RUO Cytokines**

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

Additional sizes available please inquire

Animal-Free Cytokines

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

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--|------------|---------------|--------------|------------|-------------|-----|
| Anti-Human IL-36 γ (IL-1F9) | 500-P316 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human IL-36 γ (IL-1F9) | 500-P316BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

IL-36RA *Interleukin-36 Receptor Antagonist***Synonyms:** Interleukin-36RA, FIL1 delta, IL-1F5, IL-1HY1, IL-1L1, IL-1RP3, IL-1ra Homolog 1, IL-1 delta**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|---------------|----------|-----------|------------|-----|
| Human IL-36RA | 200-36RA | <i>E.coli</i> | 17.0 kDa | 5 μ g | 25 μ g | 1mg |
| Murine IL-36RA | 210-36RA | <i>E.coli</i> | 16.9 kDa | 5 μ g | 25 μ g | 1mg |

Additional sizes available please inquire

IL-37 *Interleukin-37***Synonyms:** IL-1F7, IL-1 ζ (zeta), IL-1H4**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|----------|-----------|------------|-----|
| Human IL-37 (IL-1F7) | 200-39 | <i>E.coli</i> | 19.4 kDa | 5 μ g | 25 μ g | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|----------|-----------|------------|-----|
| Human IL-37 (IL-1F7) | AF-200-39 | <i>E.coli</i> | 19.4 kDa | 5 μ g | 25 μ g | 1mg |

Additional sizes available please inquire

INSL5/INSL7 Hybrid

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------------|-----------|---------------|---------|--------|--------|-----|
| Human INSL5/INSL7 Hybrid | 130-05 | <i>E.coli</i> | 5.2 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

IP-10 (CXCL10) *Gamma-Interferon Inducible Protein 10*

Synonyms: Crg-2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------|-----------|---------------|---------|--------|--------|-----|
| Human IP-10 (CXCL10) | 300-12 | <i>E.coli</i> | 8.6 kDa | 5µg | 25µg | 1mg |
| Murine IP-10 (CXCL10) | 250-16 | <i>E.coli</i> | 8.7 kDa | 5µg | 25µg | 1mg |
| Rat IP-10 (CXCL10) | 400-33 | <i>E.coli</i> | 8.6 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|----------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human IP-10 (CXCL10) | 500-P93 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human IP-10 (CXCL10) | 500-P93BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine IP-10 (CXCL10) | 500-P129 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine IP-10 (CXCL10) | 500-P129BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Rat IP-10 (CXCL10) | 500-P290 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Rat IP-10 (CXCL10) | 500-P290BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|---------------------------|-----------|--------------|--------------|-------|
| Anti-Human IP-10 (CXCL10) | 500-M60 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-----------------------|--------------------------------|
| Human IP-10 (CXCL10) | ABTS CATALOG # 900-K39 |
| Human IP-10 (CXCL10) | TMB CATALOG # 900-T39 |
| Murine IP-10 (CXCL10) | ABTS CATALOG # 900-K153 |
| Rat IP-10 (CXCL10) | ABTS CATALOG # 900-K449 |

Mini ELISA Development Kits

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

| | |
|-----------------------|--------------------------------|
| Human IP-10 (CXCL10) | ABTS CATALOG # 900-M39 |
| Human IP-10 (CXCL10) | TMB CATALOG # 900-TM39 |
| Murine IP-10 (CXCL10) | ABTS CATALOG # 900-M153 |
| Rat IP-10 (CXCL10) | ABTS CATALOG # 900-M449 |

Irisin

Synonyms: Fibronectin type III domain-containing protein 5 (FNDC5), Fibronectin type III repeat-containing protein 2 (FRCP2)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------|-----------|-----------|----------|--------|--------|-----|
| Human/Murine/Rat Irisin | 100-65 | CHO cells | 25.2 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

I-TAC (CXCL11) *Interferon Inducible T-cell α Chemokine*

Synonyms: B-R1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------|-----------|---------------|---------|--------|--------|-----|
| Human I-TAC (CXCL11) | 300-46 | <i>E.coli</i> | 8.3 kDa | 5µg | 20µg | 1mg |
| Murine I-TAC (CXCL11) | 250-29 | <i>E.coli</i> | 9.0 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|---------|--------|--------|-----|
| Human I-TAC (CXCL11) | AF-300-46 | <i>E.coli</i> | 8.3 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human I-TAC (CXCL11) | 500-P132 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human I-TAC (CXCL11) | 500-P132BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|----------------------|--------------------------------|
| Human I-TAC (CXCL11) | ABTS CATALOG # 900-K151 |
|----------------------|--------------------------------|

Kex-2

Synonyms: Endoproteinase Lys/Arg-Arg

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---|-----------|--------------|----------|--------|--------|-----|
| Yeast Kex-2 CARTAGENA | 450-45 | Insect cells | 60.4 kDa | 50µg | 250µg | 1mg |

Additional sizes available please inquire

KGF (FGF-7) *Keratinocyte Growth Factor*

Synonyms: Fibroblast Growth Factor-7 (FGF-7), HBGf-7

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|---------------|----------|--------|--------|-----|
| Human KGF (FGF-7) | 100-19 | <i>E.coli</i> | 18.9 kDa | 2µg | 10µg | 1mg |
| Murine KGF (FGF-7) | 450-60 | <i>E.coli</i> | 18.8 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------|-----------|---------------|----------|--------|--------|-----|
| Human KGF (FGF-7) | AF-100-19 | <i>E.coli</i> | 18.9 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

PeperoGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size | |
|----------------|-----------------|---------------|----------|-------|--|
| PeperoGMP® KGF | GMP100-19-50µg | <i>E.coli</i> | 18.9 kDa | 50µg | |
| PeperoGMP® KGF | GMP100-19-100µg | <i>E.coli</i> | 18.9 kDa | 100µg | |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------------|-----------|---------------|--------------|--------|--------|-----|
| Anti-Human KGF (FGF-7) | 500-P19 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human KGF (FGF-7) | 500-P19BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

K

KLF4-TAT *Kruppel-Like Factor-4*

Synonyms: EZF, GKLf

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|--------------|----------|--------|--------|-----|
| Human KLF4-TAT | 110-08 | HEK293 cells | 51.7 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Klotho

Synonyms: αKlotho, KLA

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|-----------|----------|--------|--------|-----|
| Human Klotho | 100-53 | CHO cells | 58.6 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Klotho | 500-P296 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Klotho | 500-P296BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

LAG-1 (CCL4L1) *Lymphocyte Activation Gene-1***Synonyms:** ACT-2, T-cell Activation-2, HC21**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------------|-----------|---------------|---------|--------|----------|
| Human LAG-1 (CCL4L1) | 300-58 | <i>E.coli</i> | 7.7 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

LD78β (CCL3L1)**Synonyms:** None**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------------|-----------|---------------|---------|--------|----------|
| Human LD78β (CCL3L1) | 300-56 | <i>E.coli</i> | 7.7 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|---------------------------------|-------------|-------------|--------------|--------|-----------|
| Anti-Human LD78β (CCL3L1) | 500-P187G | <i>Goat</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human LD78β (CCL3L1) | 500-P187GBT | <i>Goat</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

LEC (CCL16) *Liver-Expressed Chemokine***Synonyms:** NCC-4, HCC-4, LMC, LCC-1, MTN-1, IL-10-inducible chemokine**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------------|-----------|---------------|----------|--------|----------|
| Human LEC (CCL16) | 300-44 | <i>E.coli</i> | 11.2 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------------|-------------|-------------|--------------|--------|-----------|
| Anti-Human LEC (CCL16) | 500-P125G | <i>Goat</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human LEC (CCL16) | 500-P125GBT | <i>Goat</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|------------------------|-----------|--------------|--------------|-------|
| Anti-Human LEC (CCL16) | 500-M43 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Leptin

Synonyms: Obesity protein (OB)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------|-----------|---------------|----------|--------|---------|
| Human Leptin | 300-27 | <i>E.coli</i> | 16.0 kDa | 200µg | 1mg 5mg |
| Murine Leptin | 450-31 | <i>E.coli</i> | 16.2 kDa | 200µg | 1mg 5mg |
| Rat Leptin | 400-21 | <i>E.coli</i> | 16.2 kDa | 200µg | 1mg 5mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------|-----------|---------------|----------|--------|---------|
| Human Leptin | AF-300-27 | <i>E.coli</i> | 16.0 kDa | 200µg | 1mg 5mg |
| Murine Leptin | AF-450-31 | <i>E.coli</i> | 16.2 kDa | 200µg | 1mg 5mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|--------------------------|-------------|---------------|--------------|--------|-----------|
| Anti-Human Leptin | 500-P86 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human Leptin | 500-P86BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Murine Leptin | 500-P68 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Murine Leptin | 500-P68BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Rat Leptin | 500-P185G | <i>Goat</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Rat Leptin | 500-P185GBT | <i>Goat</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-------------------|-----------|--------------|--------------|-------|
| Anti-Human Leptin | 500-M27 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

ELISA Development Kits

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

| | |
|---------------|-------------------------------|
| Human Leptin | ABTS CATALOG # 900-K90 |
| Murine Leptin | ABTS CATALOG # 900-K76 |

Leptin Receptor

Synonyms: LEP-R, HuB219, Obesity protein (OB) Receptor, OB-R

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-----------------------|-----------|-----------|----------|--------|-----------|
| Human Leptin Receptor | 300-27R | CHO cells | 93.5 kDa | 20µg | 100µg 1mg |

Additional sizes available please inquire

LIF *Leukemia Inhibitory Factor*

Synonyms: Differentiation-stimulating factor, D factor, Melanoma-derived LPL inhibitor (MLPLI), Interleukin 6 family cytokine

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------|-----------|---------------|----------|--------|----------|
| Human LIF | 300-05 | <i>E.coli</i> | 19.7 kDa | 5µg | 25µg 1mg |
| Murine LIF | 250-02 | <i>E.coli</i> | 19.9 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------|-----------|---------------|----------|--------|----------|
| Human LIF | AF-300-05 | <i>E.coli</i> | 19.6 kDa | 5µg | 25µg 1mg |
| Murine LIF | AF-250-02 | <i>E.coli</i> | 19.9 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

PeperoGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|----------------------|-----------------|---------------|----------|-------|
| PeperoGMP® Human LIF | GMP300-05-50µg | <i>E.coli</i> | 19.7 kDa | 50µg |
| PeperoGMP® Human LIF | GMP300-05-100µg | <i>E.coli</i> | 19.7 kDa | 100µg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|----------------------|-----------|---------------|--------------|--------|-----------|
| Anti-Human LIF | 500-P39 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human LIF | 500-P39BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

LIGHT

Synonyms: TNFSF14, HVEM-L, CD258

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------------------------|-----------|---------------|----------|--------|----------|
| Human LIGHT CARTAGENA | 310-09B | Insect cells | 19.3 kDa | 3µg | 15µg 1mg |
| Murine LIGHT | 315-12 | <i>E.coli</i> | 20.1 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|----------|
| Murine LIGHT | AF-315-12 | <i>E.coli</i> | 20.1 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human LIGHT | 500-P179 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human LIGHT | 500-P179BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Murine LIGHT | 500-P308 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Murine LIGHT | 500-P308BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Lin28-TAT

Synonyms: GSDD1, LIN28A, ZCCHC1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------|-----------|---------------|----------|--------|--------|-----|
| Human Lin28-TAT | 110-06 | <i>E.coli</i> | 24.4 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Lymphotactin (XCL1)

Synonyms: XCL-1, SCM-1a, ATAC

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------------|-----------|---------------|----------|--------|--------|-----|
| Human Lymphotactin (XCL1) | 300-20 | <i>E.coli</i> | 10.0 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------------|-----------|---------------|--------------|--------|--------|-----|
| Anti-Human Lymphotactin | 500-P40 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Lymphotactin | 500-P40BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

MANF *Mesencephalic Astrocyte-derived Neurotrophic Factor*

Synonyms: ARMET, Arginine-Rich Protein (ARP)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human MANF | 450-06 | <i>E.coli</i> | 18.1 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Maspin

Synonyms: SerpinB5, Protease inhibitor 5

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human Maspin | 130-12 | <i>E.coli</i> | 42.1 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Maspin | 500-P270 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Maspin | 500-P270BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

MCP *Monocyte Chemotactic Proteins*

Synonyms: MCP-1: MCAF, JE (murine); MCP-2: HC14; MCP-3: MARC; MCP-4: NCC-1; MCP-5: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------------|-----------|---------------|----------|--------|--------|-----|
| Human MCP-1 (CCL2) | 300-04 | <i>E.coli</i> | 8.6 kDa | 5µg | 20µg | 1mg |
| Murine JE/MCP-1 (CCL2) | 250-10 | <i>E.coli</i> | 13.8 kDa | 2µg | 10µg | 1mg |
| Rat MCP-1 (CCL2) | 400-12 | <i>E.coli</i> | 14.0 kDa | 2µg | 10µg | 1mg |
| Human MCP-2 (CCL8) | 300-15 | <i>E.coli</i> | 8.9 kDa | 2µg | 10µg | 1mg |
| Murine MCP-2 (CCL8) | 250-14 | <i>E.coli</i> | 8.5 kDa | 5µg | 20µg | 1mg |
| Human MCP-3 (CCL7) | 300-17 | <i>E.coli</i> | 9.0 kDa | 2µg | 10µg | 1mg |
| Murine MCP-3 (CCL7) | 250-08 | <i>E.coli</i> | 8.5 kDa | 2µg | 10µg | 1mg |
| Human MCP-4 (CCL13) | 300-24 | <i>E.coli</i> | 8.6 kDa | 5µg | 20µg | 1mg |
| Murine MCP-5 (CCL12) | 250-04 | <i>E.coli</i> | 9.3 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|---------|--------|--------|-----|
| Human MCP-1 (CCL2) | AF-300-04 | <i>E.coli</i> | 8.6 kDa | 5µg | 20µg | 1mg |
| Murine MCP-2 (CCL8) | AF-300-15 | <i>E.coli</i> | 8.9 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------------------|-------------|---------------|--------------|--------|--------|-----|
| Anti-Human MCP-1 (CCL2) | 500-P34 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human MCP-1 (CCL2) | 500-P34BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine JE/MCP-1 (CCL2) | 500-P113 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine JE/MCP-1 (CCL2) | 500-P113BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Rat MCP-1 (CCL2) | 500-P76 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Rat MCP-1 (CCL2) | 500-P76BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human MCP-2 (CCL8) | 500-P35 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human MCP-2 (CCL8) | 500-P35BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine MCP-2 (CCL8) | 500-P127 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine MCP-2 (CCL8) | 500-P127BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human MCP-3 (CCL7) | 500-P37G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human MCP-3 (CCL7) | 500-P37GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine MCP-3 (CCL7) | 500-P116G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine MCP-3 (CCL7) | 500-P116GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human MCP-4 (CCL13) | 500-P04 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human MCP-4 (CCL13) | 500-P04BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human MCP-4 (CCL13) | 500-P04G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human MCP-4 (CCL13) | 500-P04GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine MCP-5 (CCL12) | 500-P61 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine MCP-5 (CCL12) | 500-P61BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

MCP continued on next page...

MCP *continued...*

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|--------------------------|-----------|--------|--------------|-------|
| Anti-Human MCP-1 (CCL2) | 500-M71 | Mouse | E, WB | 500µg |
| Anti-Human MCP-2 (CCL8) | 500-M69 | Mouse | E, WB | 500µg |
| Anti-Human MCP-3 (CCL7) | 500-M73 | Mouse | E, WB | 500µg |
| Anti-Human MCP-4 (CCL13) | 500-M70 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|------------------------|--------------------------------|
| Human MCP-1 (CCL2) | ABTS CATALOG # 900-K31 |
| Human MCP-1 (CCL2) | TMB CATALOG # 900-T31 |
| Murine JE/MCP-1 (CCL2) | ABTS CATALOG # 900-K126 |
| Rat MCP-1 (CCL2) | ABTS CATALOG # 900-K59 |
| Human MCP-2 (CCL8) | ABTS CATALOG # 900-K41 |
| Murine MCP-3 (CCL7) | ABTS CATALOG # 900-K123 |

Mini ELISA Development Kits

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

| | |
|------------------------|--------------------------------|
| Human MCP-1 (CCL2) | ABTS CATALOG # 900-M31 |
| Human MCP-1 (CCL2) | TMB CATALOG # 900-TM31 |
| Murine JE/MCP-1 (CCL2) | ABTS CATALOG # 900-M126 |
| Rat MCP-1 (CCL2) | ABTS CATALOG # 900-M59 |
| Human MCP-2 (CCL8) | ABTS CATALOG # 900-M41 |

M-CSF *Macrophage Colony Stimulating Factor*

Synonyms: CSF-1, MGI-IM

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|----------|
| Human M-CSF | 300-25 | <i>E.coli</i> | 36.8 kDa | 2µg | 10µg 1mg |
| Murine M-CSF | 315-02 | <i>E.coli</i> | 36.4 kDa | 2µg | 10µg 1mg |
| Rat M-CSF | 400-28 | <i>E.coli</i> | 36.2 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|----------|
| Human M-CSF | AF-300-25 | <i>E.coli</i> | 36.8 kDa | 2µg | 10µg 1mg |
| Murine M-CSF | AF-315-02 | <i>E.coli</i> | 36.4 kDa | 2µg | 10µg 1mg |
| Rat M-CSF | AF-400-28 | <i>E.coli</i> | 36.2 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------|------------|--------|--------------|--------|-----------|
| Anti-Human M-CSF | 500-P44 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human M-CSF | 500-P44BT | Rabbit | E, WB | 25µg | 50µg 1mg |
| Anti-Murine M-CSF | 500-P62G | Goat | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Murine M-CSF | 500-P62GBT | Goat | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

M-CSF continued on next page...

M-CSF *continued...***Standard ELISA Development Kits**

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

Murine M-CSF

ABTS CATALOG # 900-K245**Mini ELISA Development Kits**

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

Murine M-CSF

ABTS CATALOG # 900-M245**MD-2/LY96** *Myeloid differentiation protein-2, Lymphocyte antigen 96***Synonyms:** ESPO-1**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------|-----------|--------------|----------|--------|--------|-----|
| Human MD-2/LY96 | 160-07 | HEK293 Cells | 17.2 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

MDC (CCL22) *Macrophage-Derived Chemokine***Synonyms:** STCP-1, ABCD-1**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------------|-----------|---------------|---------|--------|--------|-----|
| Human MDC (CCL22) (67 a.a.) | 300-36 | <i>E.coli</i> | 8.0 kDa | 5µg | 20µg | 1mg |
| Human MDC (CCL22) (69 a.a.) | 300-36A | <i>E.coli</i> | 8.1 kDa | 5µg | 20µg | 1mg |
| Murine MDC (CCL22) | 250-23 | <i>E.coli</i> | 7.8 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human MDC (CCL22) | 500-P107 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human MDC (CCL22) | 500-P107BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine MDC (CCL22) | 500-P176 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine MDC (CCL22) | 500-P176BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|------------------------|-----------|--------------|--------------|-------|
| Anti-Human MDC (CCL22) | 500-M41 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Murine MDC (CCL22)

ABTS CATALOG # 900-K197

MEC (CCL28) *Mucosae-associated Epithelial Chemokine*

Synonyms: CCK-1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|---------------|----------|--------|--------|-----|
| Human MEC (CCL28) | 300-57 | <i>E.coli</i> | 12.3 kDa | 5µg | 20µg | 1mg |
| Murine MEC (CCL28) | 250-30 | <i>E.coli</i> | 12.6 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human MEC (CCL28) | 500-P297 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human MEC (CCL28) | 500-P297BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Mesothelin

Synonyms: MPP, MSLN, SMRP, CAK1 antigen, ERC, Pre-pro-megakaryocyte-potentiating factor

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------|-----------|-----------|----------|--------|--------|-----|
| Human Mesothelin | 100-63 | CHO cells | 36.4 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

MIA *Melanoma Inhibitory Activity*

Synonyms: Cartilage-Derived Retinoic Acid-sensitive Protein (CD-RAP)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------|-----------|---------------|----------|--------|--------|-----|
| Human MIA | 130-01 | <i>E.coli</i> | 12.2 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|----------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human MIA | 500-P243 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human MIA | 500-P243BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

MIA-2 *Melanoma Inhibitory Activity-2*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human MIA-2 | 130-02 | <i>E.coli</i> | 11.5 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human MIA-2 | 500-P255 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human MIA-2 | 500-P255BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-------------|--------------------------------|
| Human MIA-2 | ABTS CATALOG # 900-K357 |
|-------------|--------------------------------|

Midkine

Synonyms: MK, NEGF-2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|---------------|----------|--------|--------|-----|
| Human Midkine | 450-16 | <i>E.coli</i> | 13.4 kDa | 5µg | 20µg | 1mg |
| Murine Midkine | 315-25 | <i>E.coli</i> | 13.3 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Midkine | 500-P171 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Midkine | 500-P171BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|---------------|--------------------------------|
| Human Midkine | ABTS CATALOG # 900-K190 |
|---------------|--------------------------------|

Mini ELISA Development Kits

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

| | |
|---------------|--------------------------------|
| Human Midkine | ABTS CATALOG # 900-M190 |
|---------------|--------------------------------|

MIF *Macrophage Migration Inhibitory Factor*

Synonyms: GLIF, MMIF, GIF, Glycosylation-Inhibiting Factor

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---|-----------|--------------|----------|--------|--------|-----|
| Human MIF CARTAGENA | 300-69 | Insect cells | 15.0 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

MIG (CXCL9) *Monokine Induced by Interferon- γ*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|---------------|----------|-----------|------------|-----|
| Human MIG (CXCL9) | 300-26 | <i>E.coli</i> | 11.7 kDa | 5 μ g | 20 μ g | 1mg |
| Murine MIG (CXCL9) | 250-18 | <i>E.coli</i> | 12.2 kDa | 5 μ g | 20 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------------|-----------|---------------|--------------|------------|-------------|-----|
| Anti-Human MIG (CXCL9) | 500-P50 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human MIG (CXCL9) | 500-P50BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|------------------------|-----------|--------------|--------------|-------------|
| Anti-Human MIG (CXCL9) | 500-M42 | <i>Mouse</i> | E, WB | 500 μ g |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-------------------|-------------------------------|
| Human MIG (CXCL9) | ABTS CATALOG # 900-K87 |
|-------------------|-------------------------------|

Mini ELISA Development Kits

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

| | |
|-------------------|-------------------------------|
| Human MIG (CXCL9) | ABTS CATALOG # 900-M87 |
|-------------------|-------------------------------|

MIP-1 α (CCL3), β (CCL4), γ (CCL9/10) *Macrophage Inflammatory Protein-1 alpha, beta, gamma*

Synonyms: MIP-1 α : LD78 α ; MIP-1 β : ACT-2; MIP-1 γ : MRP2, CCF18

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------------------|-----------|---------------|----------|-----------|------------|-----|
| Human MIP-1 α (CCL3) | 300-08 | <i>E.coli</i> | 7.8 kDa | 5 μ g | 20 μ g | 1mg |
| Murine MIP-1 α (CCL3) | 250-09 | <i>E.coli</i> | 7.8 kDa | 2 μ g | 10 μ g | 1mg |
| Rat MIP-1 α (CCL3) | 400-15 | <i>E.coli</i> | 7.8 kDa | 5 μ g | 20 μ g | 1mg |
| Human MIP-1 β (CCL4) | 300-09 | <i>E.coli</i> | 7.6 kDa | 2 μ g | 10 μ g | 1mg |
| Murine MIP-1 β (CCL4) | 250-32 | <i>E.coli</i> | 7.8 kDa | 2 μ g | 10 μ g | 1mg |
| Rat MIP-1 β (CCL4) | 400-09 | <i>E.coli</i> | 7.8 kDa | 5 μ g | 20 μ g | 1mg |
| Murine MIP-1 γ (CCL9/10) | 250-12 | <i>E.coli</i> | 11.6 kDa | 5 μ g | 20 μ g | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------------|-----------|---------------|---------|-----------|------------|-----|
| Human MIP-1 α (CCL3) | AF-300-08 | <i>E.coli</i> | 7.8 kDa | 5 μ g | 20 μ g | 1mg |

Additional sizes available please inquire

MIP-1 α , β , γ continued on next page...

MIP-1 α (CCL3), β (CCL4), γ (CCL9/10) *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--|------------|--------|--------------|------------|-------------|-----|
| Anti-Human MIP-1 α (CCL3) | 500-P38 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human MIP-1 α (CCL3) | 500-P38BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine MIP-1 α (CCL3) | 500-P121 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine MIP-1 α (CCL3) | 500-P121BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Rat MIP-1 α (CCL3) | 500-P77 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Rat MIP-1 α (CCL3) | 500-P77BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Human MIP-1 β (CCL4) | 500-P38B | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human MIP-1 β (CCL4) | 500-P38BBT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine MIP-1 β (CCL4) | 500-P213 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine MIP-1 β (CCL4) | 500-P213BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine MIP-1 γ (CCL9/10) | 500-P117 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine MIP-1 γ (CCL9/10) | 500-P117BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|----------------------------------|-----------|--------|--------------|-------------|
| Anti-Human MIP-1 α (CCL3) | 500-M74 | Mouse | E, WB | 500 μ g |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|------------------------------|--------------------------------|
| Human MIP-1 α (CCL3) | ABTS CATALOG # 900-K35 |
| Murine MIP-1 α (CCL3) | ABTS CATALOG # 900-K125 |
| Rat MIP-1 α (CCL3) | ABTS CATALOG # 900-K75 |
| Human MIP-1 β (CCL4) | TMB CATALOG # 900-T36 |
| Murine MIP-1 β (CCL4) | ABTS CATALOG # 900-K278 |

Mini ELISA Development Kits

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

| | |
|------------------------------|--------------------------------|
| Human MIP-1 α (CCL3) | ABTS CATALOG # 900-M35 |
| Murine MIP-1 α (CCL3) | ABTS CATALOG # 900-M125 |
| Human MIP-1 β (CCL4) | TMB CATALOG # 900-TM36 |
| Murine MIP-1 β (CCL4) | ABTS CATALOG # 900-M278 |

MIP-3 (CCL23) *Macrophage Inflammatory Protein-3*

Synonyms: MPIF-1, Ck-β8

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|----------|--------|--------|-----|
| Human MIP-3 (CCL23) | 300-29 | <i>E.coli</i> | 11.3 kDa | 5μg | 20μg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human MIP-3 (CCL23) | 500-P124 | <i>Rabbit</i> | E, WB | 50μg | 100μg | 1mg |
| Biot. Anti-Human MIP-3 (CCL23) | 500-P124BT | <i>Rabbit</i> | E, WB | 25μg | 50μg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

MIP-3α (CCL20) *Macrophage Inflammatory Protein-3 alpha*

Synonyms: LARC, Exodus-1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------|-----------|---------------|---------|--------|--------|-----|
| Human MIP-3α (CCL20) | 300-29A | <i>E.coli</i> | 8.0 kDa | 5μg | 20μg | 1mg |
| Murine MIP-3α (CCL20) | 250-27 | <i>E.coli</i> | 7.9 kDa | 5μg | 20μg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human MIP-3α (CCL20) | 500-P95A | <i>Rabbit</i> | E, WB | 50μg | 100μg | 1mg |
| Biot. Anti-Human MIP-3α (CCL20) | 500-P95ABT | <i>Rabbit</i> | E, WB | 25μg | 50μg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size | |
|---------------------------|-----------|--------------|--------------|-------|--|
| Anti-Human MIP-3α (CCL20) | 500-M28 | <i>Mouse</i> | E, WB | 500μg | |

Key: E = ELISA, WB = Western blot

MIP-3β (CCL19) *Macrophage Inflammatory Protein-3 beta*

Synonyms: ELC, Exodus-3, SCYA19

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------|-----------|---------------|---------|--------|--------|-----|
| Human MIP-3β (CCL19) | 300-29B | <i>E.coli</i> | 8.8 kDa | 5μg | 20μg | 1mg |
| Murine MIP-3β (CCL19) | 250-27B | <i>E.coli</i> | 9.2 kDa | 5μg | 20μg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human MIP-3β (CCL19) | 500-P95B | <i>Rabbit</i> | E, WB | 50μg | 100μg | 1mg |
| Biot. Anti-Human MIP-3β (CCL19) | 500-P95BBT | <i>Rabbit</i> | E, WB | 25μg | 50μg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size | |
|---------------------------|-----------|--------------|--------------|-------|--|
| Anti-Human MIP-3β (CCL19) | 500-M29 | <i>Mouse</i> | E, WB | 500μg | |

Key: E = ELISA, WB = Western blot

MIP-4 (CCL18) *Macrophage Inflammatory Protein-4*

Synonyms: PARC, DC-CK1, AMAC-1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|---------|--------|--------|-----|
| Human MIP-4 (CCL18) | 300-34 | <i>E.coli</i> | 7.8 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human MIP-4 (CCL18) | 500-P108 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human MIP-4 (CCL18) | 500-P108BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

MIP-5 (CCL15) *Macrophage Inflammatory Protein-5*

Synonyms: HCC-2, Lkn-1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|----------|--------|--------|-----|
| Human MIP-5 (CCL15) | 300-43 | <i>E.coli</i> | 10.1 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|-------------|-------------|--------------|--------|--------|-----|
| Anti-Human MIP-5 (CCL15) | 500-P123G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human MIP-5 (CCL15) | 500-P123GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

MMP-1 *Matrix Metalloproteinase-1*

Synonyms: Fibroblast Collagenase, Interstitial Collagenase

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human MMP-1 | 420-01 | <i>E.coli</i> | 42.7 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

MMP-2 *Matrix Metalloproteinase-2*

Synonyms: Gelatinase A, TBE-1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human MMP-2 | 420-02 | <i>E.coli</i> | 62.0 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

MMP-3 *Matrix Metalloproteinase-3*

Synonyms: Stromelysin-1, SL-1, Transin-1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human MMP-3 | 420-03 | <i>E.coli</i> | 42.8 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human MMP-3 | 500-P324 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human MMP-3 | 500-P324BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

MPF

Synonyms: Mesothelin, MSLN, SMRP, CAK1 antigen, Pre-pro-megakaryocyte-potentiating factor

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------|-----------|-----------|----------|--------|--------|-----|
| Human MPF | 100-62 | CHO cells | 26.7 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Myostatin

Synonyms: GDF-8

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------------|-----------|---------------|----------|--------|--------|-----|
| Human/Murine/Rat Myostatin | 120-00 | <i>E.coli</i> | 25.0 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Myostatin-Propeptide

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------------|-----------|---------------|----------|--------|--------|-----|
| Human Myostatin-Propeptide | 120-12 | <i>E.coli</i> | 27.8 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Nanog

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------|-----------|---------------|----------|--------|--------|-----|
| Human Nanog | 120-21 | <i>E.coli</i> | 34.7 kDa | 5µg | 20µg | 1mg |
| Human Nanog-TAT | 120-21B | <i>E.coli</i> | 36.1 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Nanog continued on next page...

Nanog *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human Nanog | 500-P236 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Nanog | 500-P236BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

NAP-2 (CXCL7) *Neutrophil Activating Protein-2*

Synonyms: PBP (parent molecule), CTAP-III (precursor)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|---------|--------|--------|-----|
| Human NAP-2 (CXCL7) | 300-14 | <i>E.coli</i> | 7.6 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human NAP-2 (CXCL7) | 500-P03 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human NAP-2 (CXCL7) | 500-P03BT | Rabbit | E, WB | 25µg | 50µg | 1mg |
| Anti-Human NAP-2 (CXCL7) | 500-P03G | Goat | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human NAP-2 (CXCL7) | 500-P03GBT | Goat | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size | |
|--------------------------|-----------|--------|--------------|-------|--|
| Anti-Human NAP-2 (CXCL7) | 500-M33 | Mouse | E, WB | 500µg | |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Human NAP-2 (CXCL7) **ABTS CATALOG # 900-K40**

Nesfatin-1

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------|-----------|---------------|---------|--------|--------|-----|
| Human Nesfatin-1 | 300-67 | <i>E.coli</i> | 9.7 kDa | 20µg | 100µg | 1mg |

Additional sizes available please inquire

Neuritin

Synonyms: CPG15, NRN1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|---------------|----------|--------|--------|-----|
| Human/Rat Neuritin | 450-36D | <i>E.coli</i> | 19.4 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Neuropoietin

Synonyms: NPO, NP

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|----------|--------|--------|-----|
| Murine Neuropoietin | 250-25B | <i>E.coli</i> | 19.8 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Neuroserpin

Synonyms: Serpin I1, Protease inhibitor 12

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------|-----------|---------------|----------|--------|--------|-----|
| Human Neuroserpin | 130-14 | <i>E.coli</i> | 44.8 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Neuroserpin | 500-P271 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Neuroserpin | 500-P271BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Human Neuroserpin **ABTS CATALOG # 900-K412**

Mini ELISA Development Kits

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

Human Neuroserpin **ABTS CATALOG # 900-M412**

Neurturin

Synonyms: NTN, NRTN

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------|-----------|---------------|----------|--------|--------|-----|
| Human Neurturin | 450-11 | <i>E.coli</i> | 23.6 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|----------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Neurturin | 500-P102 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Neurturin | 500-P102BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

β -NGF *beta-Nerve Growth Factor***Synonyms:** NGF- β **RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------------|-----------|---------------|----------|------------|-----------------|
| Human β -NGF | 450-01 | <i>E.coli</i> | 27.0 kDa | 20 μ g | 100 μ g 1mg |
| Murine β -NGF | 450-34 | <i>E.coli</i> | 26.8 kDa | 5 μ g | 20 μ g 1mg |

*Additional sizes available please inquire***Animal-Free Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------------|-----------|---------------|----------|------------|-----------------|
| Human β -NGF | AF-450-01 | <i>E.coli</i> | 27.0 kDa | 20 μ g | 100 μ g 1mg |

*Additional sizes available please inquire***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------------|-----------|---------------|--------------|------------|-----------------|
| Anti-Human β -NGF | 500-P85 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g 1mg |
| Biot. Anti-Human β -NGF | 500-P85BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-------------------------|-----------|--------------|--------------|-------------|
| Anti-Human β -NGF | 500-M85 | <i>Mouse</i> | E, WB | 500 μ g |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------------|-------------------------------|
| Human β -NGF | ABTS CATALOG # 900-K60 |
|--------------------|-------------------------------|

Mini ELISA Development Kits

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

| | |
|--------------------|-------------------------------|
| Human β -NGF | ABTS CATALOG # 900-M60 |
|--------------------|-------------------------------|

NNT-1/BCSF-3 *Novel Neurotrophin-1/B-Cell-Stimulating Factor-3***Synonyms:** Cardiotrophin-like cytokine, Cardiotrophin-like cytokine factor 1 (CLCF1)**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------------|-----------|---------------|----------|-----------|----------------|
| Human NNT-1/BCSF-3 | 450-18 | <i>E.coli</i> | 22.4 kDa | 2 μ g | 10 μ g 1mg |

*Additional sizes available please inquire***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------------|------------|---------------|--------------|------------|-----------------|
| Anti-human NNT-1/BCSF-3 | 500-P186 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g 1mg |
| Biot. Anti-human NNT-1/BCSF-3 | 500-P186BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Noggin

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|---------------|----------|--------|--------|-----|
| Human Noggin | 120-10C | HEK293 cells | 46.0 kDa | 5µg | 20µg | 1mg |
| Murine Noggin | 250-38 | <i>E.coli</i> | 46.4 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|---------------|----------|--------|--------|-----|
| Murine Noggin | AF-250-38 | <i>E.coli</i> | 46.4 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

NOV *Nephroblastoma Overexpressed gene*

Synonyms: CCN3, IGFBP9, NovH

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------|-----------|---------------|----------|--------|--------|-----|
| Human NOV | 120-26 | <i>E.coli</i> | 36.2 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|----------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human NOV | 500-P257 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human NOV | 500-P257BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-----------|--------------------------------|
| Human NOV | ABTS CATALOG # 900-K338 |
|-----------|--------------------------------|

NP-1 *Neutrophil Peptide-1*

Synonyms: alpha Defensin-1, HNP-1, Cryptdin

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|---------|--------|--------|-----|
| Human NP-1 | 300-42 | <i>E.coli</i> | 3.4 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------|-------------|-------------|--------------|--------|--------|-----|
| Anti-Human NP-1 | 500-P126G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human NP-1 | 500-P126GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

NT-3 *Neurotrophin-3***Synonyms:** Neurotrophic Factor, Nerve Growth Factor-2 (NGF-2), HGNF**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human NT-3 | 450-03 | <i>E.coli</i> | 27.2 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human NT-3 | AF-450-03 | <i>E.coli</i> | 27.2 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human NT-3 | 500-P82 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human NT-3 | 500-P82BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human NT-3 | 500-P82G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human NT-3 | 500-P82GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

NT-4 *Neurotrophin-4***Synonyms:** Neurotrophin 4/5 (NT-4/NT-5)**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human NT-4 | 450-04 | <i>E.coli</i> | 28.1 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human NT-4 | AF-450-04 | <i>E.coli</i> | 28.1 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------|------------|-------------|--------------|--------|--------|-----|
| Anti-Human NT-4 | 500-P83G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human NT-4 | 500-P83GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size | |
|-----------------|-----------|--------------|--------------|-------|--|
| Anti-Human NT-4 | 500-M24 | <i>Mouse</i> | E | 500µg | |

Key: E = ELISA, WB = Western blot

Oncostatin M

Synonyms: OSM

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------------|-----------|---------------|----------|--------|--------|-----|
| Human Oncostatin M (196 a.a.) | 300-10H | HEK293 cells | 22.2 kDa | 2µg | 10µg | 1mg |
| Human Oncostatin M (227 a.a.) | 300-10 | <i>E.coli</i> | 25.7 kDa | 2µg | 10µg | 1mg |
| Human Oncostatin M (209 a.a.) | 300-10T | <i>E.coli</i> | 23.6 kDa | 2µg | 10µg | 1mg |
| Rat Oncostatin M | 400-36 | <i>E.coli</i> | 24.4 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------------|------------|---------------|----------|--------|--------|-----|
| Human Oncostatin M (209 a.a.) | AF-300-10T | <i>E.coli</i> | 23.6 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------------|-----------|---------------|--------------|--------|--------|-----|
| Anti-Human Oncostatin M | 500-P30 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Oncostatin M | 500-P30BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

OPG *Osteoprotegerin*

Synonyms: TNFRSF11B, OCIF (Osteoclastogenesis Inhibitory Factor), TR1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------|-----------|---------------|----------|--------|--------|-----|
| Human OPG | 450-14 | <i>E.coli</i> | 20.0 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies- Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|----------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human OPG | 500-P149 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human OPG | 500-P149BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Osteopontin

Synonyms: Bone sialoprotein 1, Secreted phosphoprotein 1, SPP-1, Nephropontin, Uropontin

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------|-----------|--------------|----------|--------|--------|-----|
| Human Osteopontin | 120-35 | HEK293 cells | 33.7 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Osteopontin | 500-P314 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Osteopontin | 500-P314BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

OTOR

Synonyms: Otoraplin, MIAL (Melanoma Inhibitory Activity-like Protein)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human OTOR | 130-03 | <i>E.coli</i> | 12.7 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

sOX40 Ligand

Synonyms: OX40L, Glycoprotein Gp34, CD252, TXGP1, TNFSF4

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|------------------|--------------|----------|--------|--------|-----|
| Human sOX40 Ligand | CARTAGENA 310-28 | Insect cells | 15.4 kDa | 2µg | 10µg | 1mg |

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, p16-INK4

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|----------|--------|--------|-----|
| Human p16-INK4a | 110-02 | <i>E.coli</i> | 16.5 kDa | 5µg | 20µg | 1mg |
| Human p16-INK4a-TAT | 110-02T | <i>E.coli</i> | 18.0 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|-------------|---------------|--------------|--------|--------|-----|
| Anti-Human p16-INK4a-TAT | 500-P284T | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human p16-INK4a-TAT | 500-P284TBT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

PAF-AH

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

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|--------------|----------|--------|--------|-----|
| Human PAF-AH | 140-10 | HEK293 cells | 47.8 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

O-P

PAI-1 *Plasminogen Activator Inhibitor-1*

Synonyms: Serpin E1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human PAI-1 | 140-04 | <i>E.coli</i> | 42.7 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human PAI-1 | 500-P260 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human PAI-1 | 500-P260BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-------------|--------------------------------|
| Human PAI-1 | ABTS CATALOG # 900-K383 |
|-------------|--------------------------------|

PAI-2 *Plasminogen Activator Inhibitor-2*

Synonyms: Serpin B2, Urokinase Inhibitor, Monocyte Arg-serpin

Recombinant Proteins

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human PAI-2 | 140-06 | <i>E.coli</i> | 46.5 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

PD-1 Fc

Synonyms: Programmed cell death protein 1 (PDCD1), CD279, SLEB2, hSLE1

Recombinant Proteins

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|-----------|----------|--------|--------|-----|
| Human PD-1 Fc | 310-40 | CHO cells | 55.3 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

PDGF-AA, -AB, -BB, -CC *Platelet-Derived Growth Factors*

Synonyms: **PDGF-AA:** Platelet-Derived Growth Factor-AA, Glioma-Derived Growth Factor (GDGF), Osteosarcoma-Derived Growth Factor (ODGF); **PDGF-AB:** Platelet-Derived Growth Factor-AB, Glioma-Derived Growth Factor (GDGF), Osteosarcoma-Derived Growth Factor (ODGF), PCGF; **PDGF-BB:** Platelet-Derived Growth Factor-BB, Glioma-Derived Growth Factor (GDGF), Osteosarcoma-Derived Growth Factor (ODGF); **PDGF-CC:** Platelet-Derived Growth Factor-CC, Spinal Cord-Derived Growth Factor (SCDGF), Fallotein

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|---------------|----------|--------|--------|-----|
| Human PDGF-AA | 100-13A | <i>E.coli</i> | 28.5 kDa | 2µg | 10µg | 1mg |
| Murine PDGF-AA | 315-17 | <i>E.coli</i> | 28.7 kDa | 2µg | 10µg | 1mg |
| Human PDGF-AB | 100-00AB | <i>E.coli</i> | 26.4 kDa | 2µg | 10µg | 1mg |
| Human PDGF-BB | 100-14B | <i>E.coli</i> | 24.3 kDa | 2µg | 10µg | 1mg |
| Murine PDGF-BB | 315-18 | <i>E.coli</i> | 24.4 kDa | 2µg | 10µg | 1mg |
| Human PDGF-CC | 100-00CC | <i>E.coli</i> | 25.0 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|------------|---------------|----------|--------|--------|-----|
| Human PDGF-AA | AF-100-13A | <i>E.coli</i> | 28.5 kDa | 2µg | 10µg | 1mg |
| Human PDGF-BB | AF-100-14B | <i>E.coli</i> | 24.3 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

PeperoGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|--------------------|------------------|---------------|----------|-------|
| PeperoGMP® PDGF-AA | GMP100-13A-50µg | <i>E.coli</i> | 28.5 kDa | 50µg |
| PeperoGMP® PDGF-AA | GMP100-13A-100µg | <i>E.coli</i> | 28.5 kDa | 100µg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------|-----------|---------------|--------------|--------|--------|-----|
| Anti-Human PDGF-AA | 500-P46 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human PDGF-AA | 500-P46BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human PDGF-BB | 500-P47 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human PDGF-BB | 500-P47BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Human PDGF-BB **ABTS CATALOG # 900-K04**

Mini ELISA Development Kits

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

Human PDGF-BB **ABTS CATALOG # 900-M04**

PD-L1 Fc *Programmed Death Ligand 1*

Synonyms: Programmed cell death 1 Ligand 1 (PDCD1L1), PD-1, B7-H1 (B7 homolog 1), CD274, SLEB2, SLE1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------|-----------|-----------|-----------|--------|-----------|
| Human PD-L1 Fc | 310-35 | CHO cells | 102.6 kDa | 20µg | 100µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|---------------------------|------------|--------|--------------|--------|-----------|
| Anti-Human PD-L1 Fc | 500-P321 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human PD-L1 Fc | 500-P321BT | Rabbit | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

PD-L2 Fc *Programmed Death Ligand 2*

Synonyms: Programmed cell death 1 ligand 2 (PDCD1 ligand 2), PD-1 ligand 2, Butyrophilin B7-DC, CD273, PDCD1LG2, PDCD1L2, PDLB7DC

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------|-----------|-----------|----------|--------|-----------|
| Human PD-L2 Fc | 310-38 | CHO cells | 97.2 kDa | 20µg | 100µg 1mg |

Additional sizes available please inquire

PECAM-1 *Platelet Endothelial Cell Adhesion Molecule*

Synonyms: CD31 antigen, EndoCAM

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------|-----------|--------------|----------|--------|----------|
| Human PECAM-1 | 150-06 | HEK293 cells | 64.3 kDa | 10µg | 50µg 1mg |

Additional sizes available please inquire

PEDF *Pigment Epithelium-Derived Factor*

Synonyms: SerpinF1, EPC-1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------|-----------|---------------|----------|--------|----------|
| Human PEDF | 130-13 | <i>E.coli</i> | 44.5 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Persephin

Synonyms: PSP, PSPN

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------------|-----------|---------------|----------|--------|----------|
| Human Persephin | 450-12 | <i>E.coli</i> | 20.8 kDa | 5µg | 20µg 1mg |
| Murine Persephin | 450-35 | <i>E.coli</i> | 20.6 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Persephin continued on next page...

Persephin *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|----------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human Persephin | 500-P138 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Persephin | 500-P138BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

PF-4 (CXCL4) *Platelet Factor-4*

Synonyms: Oncostatin A, Ironplact

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|---------|--------|--------|-----|
| Human PF-4 (CXCL4) | 300-16 | <i>E.coli</i> | 7.8 kDa | 5µg | 20µg | 1mg |
| Murine PF-4 (CXCL4) | 250-39 | <i>E.coli</i> | 8.2 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------------|-----------|--------|--------------|--------|--------|-----|
| Anti-Human PF-4 (CXCL4) | 500-P05 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human PF-4 (CXCL4) | 500-P05BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Pleiotrophin

Synonyms: PTN, Heparin Affin Regulatory Protein (HARP), Heparin-Binding Growth Factor-8 (HBGF-8), Osteoblast-Specific Factor 1 (OSF-1)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|---------------|----------|--------|--------|-----|
| Human Pleiotrophin | 450-15 | <i>E.coli</i> | 15.4 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

PlGF-1 *Placenta Growth Factor-1*

Synonyms: PGF, PlGF, PGFL

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human PlGF-1 | 100-06 | <i>E.coli</i> | 29.7 kDa | 5µg | 25µg | 1mg |
| Rat PlGF-1 | 400-39 | <i>E.coli</i> | 30.3 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human PlGF-1 | AF-100-06 | <i>E.coli</i> | 29.7 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

PlGF-1 continued on next page...

PIGF-1 *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human PlGF-1 | 500-P226 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human PlGF-1 | 500-P226BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------|--------------------------------|
| Human PlGF-1 | ABTS CATALOG # 900-K307 |
|--------------|--------------------------------|

PIGF-2 *Placenta Growth Factor-2*

Synonyms: PGFL

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human PlGF-2 | 100-56A | <i>E.coli</i> | 34.6 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

PIGF-3 *Placenta Growth Factor-3*

Synonyms: PGFL

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human PlGF-3 | 100-57 | <i>E.coli</i> | 45.7 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Prokineticin-2

Synonyms: PROK2, PK2, Protein Bv8 homolog

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------|-----------|---------------|----------|--------|--------|-----|
| Human Prokineticin-2 | 100-46 | <i>E.coli</i> | 8.8 kDa | 5µg | 20µg | 1mg |
| Murine Prokineticin-2 | 315-38 | <i>E.coli</i> | 11.6 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Prolactin

Synonyms: Mamotropin, Luterotropic hormone, Lutetropin

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------|-----------|---------------|----------|--------|--------|-----|
| Human Prolactin | 100-07 | <i>E.coli</i> | 23.0 kDa | 10µg | 50µg | 1mg |
| Murine Prolactin | 315-16 | <i>E.coli</i> | 22.5 kDa | 10µg | 50µg | 1mg |
| Rat Prolactin | 400-27 | <i>E.coli</i> | 22.6 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

PTHrP *Parathyroid Hormone-related Protein***Synonyms:** None**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|---------|--------|--------|-----|
| Human PTHrP | 100-09 | <i>E.coli</i> | 9.8 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human PTHrP | 500-P276 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human PTHrP | 500-P276BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

R-Spondin-1, -2, -3 *Roof plate-specific Spondin-1, -2, -3***Synonyms:** R-Spondin-1: RSPO1; R-Spondin-2: RSPO2; R-Spondin-3: RSPO3, PWTSR, THSD2**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|-----------|----------|--------|--------|-----|
| Human R-Spondin-1 | 120-38 | CHO cells | 26.7 kDa | 5µg | 20µg | 1mg |
| Murine R-Spondin-1 | 315-32 | CHO cells | 27.1 kDa | 5µg | 20µg | 1mg |
| Human R-Spondin-2 | 120-43 | CHO cells | 24.4 kDa | 5µg | 20µg | 1mg |
| Human R-Spondin-3 | 120-44 | CHO cells | 26.9 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

P-R**sRANK Ligand** *soluble Receptor Activator of NF-κB Ligand***Synonyms:** TNFSF11, TRANCE (TNF-Related Activation-induced Cytokine), OPGL (Osteoprotegerin Ligand), ODF (Osteoclast Differentiation Factor), CD254**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|----------|--------|--------|-----|
| Human sRANK Ligand | 310-01 | <i>E.coli</i> | 20.0 kDa | 2µg | 10µg | 1mg |
| Human sRANK Ligand | 310-01C | CHO cells | 22.1 kDa | 2µg | 10µg | 1mg |
| Murine sRANK Ligand | 315-11 | <i>E.coli</i> | 19.4 kDa | 2µg | 10µg | 1mg |
| Murine sRANK Ligand | 315-11C | CHO cells | 19.8 kDa | 2µg | 10µg | 1mg |
| Rat sRANK Ligand | 400-30 | <i>E.coli</i> | 19.4 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|---------------|----------|--------|--------|-----|
| Human sRANK Ligand | AF-310-01 | <i>E.coli</i> | 20.0 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|-------------|---------------|--------------|--------|--------|-----|
| Anti-Human sRANK Ligand | 500-P133 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human sRANK Ligand | 500-P133BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human sRANK Ligand | 500-P133G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human sRANK Ligand | 500-P133GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine sRANK Ligand | 500-P63 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine sRANK Ligand | 500-P63BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

sRANK Ligand continued on next page...

sRANK Ligand *continued...*

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-------------------------|-----------|--------|--------------|-------|
| Anti-Human sRANK Ligand | 500-M46 | Mouse | E | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|---------------------|--------------------------------|
| Human sRANK Ligand | ABTS CATALOG # 900-K142 |
| Murine sRANK Ligand | ABTS CATALOG # 900-K233 |

Mini ELISA Development Kits

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

| | |
|---------------------|--------------------------------|
| Human sRANK Ligand | ABTS CATALOG # 900-M142 |
| Murine sRANK Ligand | ABTS CATALOG # 900-M233 |

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), CD265

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------------|-----------|---------------|----------|--------|-----------|
| Human sRANK Receptor | 310-08 | <i>E.coli</i> | 19.3 kDa | 20µg | 100µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|---------------------------------|------------|--------|--------------|--------|-----------|
| Anti-Human sRANK Receptor | 500-P144 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human sRANK Receptor | 500-P144BT | Rabbit | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

RANTES (CCL5) *Regulation upon Activation Normal T-cell Expressed Sequence*

Synonyms: SIS-delta

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------------|-----------|---------------|---------|--------|----------|
| Human RANTES (CCL5) | 300-06 | <i>E.coli</i> | 7.8 kDa | 5µg | 20µg 1mg |
| Murine RANTES (CCL5) | 250-07 | <i>E.coli</i> | 7.8 kDa | 5µg | 20µg 1mg |
| Rat RANTES (CCL5) | 400-13 | <i>E.coli</i> | 7.9 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------------|-----------|---------------|---------|--------|----------|
| Human RANTES (CCL5) | AF-300-06 | <i>E.coli</i> | 7.8 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

RANTES continued on next page...

RANTES *continued...*

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human RANTES (CCL5) | 500-P36 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human RANTES (CCL5) | 500-P36BT | Rabbit | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine RANTES (CCL5) | 500-P118 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine RANTES (CCL5) | 500-P118BT | Rabbit | E, WB | 25µg | 50µg | 1mg |
| Anti-Rat RANTES (CCL5) | 500-P78 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Rat RANTES (CCL5) | 500-P78BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|--------------------------|-----------|--------|--------------|-------|
| Anti-Human RANTES (CCL5) | 500-M75 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|----------------------|--------------------------------|
| Human RANTES (CCL5) | ABTS CATALOG # 900-K33 |
| Murine RANTES (CCL5) | ABTS CATALOG # 900-K124 |
| Rat RANTES (CCL5) | ABTS CATALOG # 900-K72 |

Mini ELISA Development Kits

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

| | |
|----------------------|--------------------------------|
| Human RANTES (CCL5) | ABTS CATALOG # 900-M33 |
| Murine RANTES (CCL5) | ABTS CATALOG # 900-M124 |
| Rat RANTES (CCL5) | ABTS CATALOG # 900-M72 |

R

Relaxin-2

Synonyms: H2 relaxin, RLN2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------|-----------|---------------|---------|--------|--------|-----|
| Human Relaxin-2 | 130-15 | <i>E.coli</i> | 6.0 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Relaxin-3

Synonyms: H3 relaxin, Insulin-like peptide-7, INSL7

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------|-----------|---------------|---------|--------|--------|-----|
| Human Relaxin-3 | 130-10 | <i>E.coli</i> | 5.5 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

RELM α *Resistin-like alpha*

Synonyms: Cysteine-rich secreted protein FIZZ1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|----------|-----------|------------|-----|
| Murine RELM α | 450-26 | <i>E.coli</i> | 10.0 kDa | 5 μ g | 25 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|------------|---------------|--------------|------------|-------------|-----|
| Anti-Murine RELM α | 500-P214 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine RELM α | 500-P214BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

RELM β *Resistin-like beta*

Synonyms: Cysteine-rich secreted protein FIZZ2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|----------|-----------|------------|-----|
| Human RELM β | 450-22 | <i>E.coli</i> | 19.0 kDa | 5 μ g | 25 μ g | 1mg |
| Murine RELM β | 450-26B | <i>E.coli</i> | 18.0 kDa | 5 μ g | 25 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|------------|---------------|--------------|------------|-------------|-----|
| Anti-Human RELM β | 500-P217 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human RELM β | 500-P217BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine RELM β | 500-P215 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine RELM β | 500-P215BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

RELM γ *Resistin-like gamma*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|---------|-----------|------------|-----|
| Murine RELM γ | 450-26G | <i>E.coli</i> | 9.2 kDa | 5 μ g | 25 μ g | 1mg |

Additional sizes available please inquire

Resistin

Synonyms: FIZZ3, Adipose tissue-specific secretory factor, ADSF

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------|-----------|---------------|----------|--------|--------|-----|
| Human Resistin | 450-19 | <i>E.coli</i> | 19.5 kDa | 5µg | 25µg | 1mg |
| Murine Resistin | 450-28 | <i>E.coli</i> | 20.2 kDa | 5µg | 25µg | 1mg |
| Rat Resistin | 400-35 | <i>E.coli</i> | 20.0 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|----------------------------|-------------|---------------|--------------|--------|--------|-----|
| Anti-Human Resistin | 500-P183 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Resistin | 500-P183BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human Resistin | 500-P183G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Resistin | 500-P183GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine Resistin | 500-P182G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine Resistin | 500-P182GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|---------------------|-----------|--------------|--------------|-------|
| Anti-Human Resistin | 500-M91 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|----------------|--------------------------------|
| Human Resistin | ABTS CATALOG # 900-K235 |
|----------------|--------------------------------|

Mini ELISA Development Kits

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

| | |
|----------------|--------------------------------|
| Human Resistin | ABTS CATALOG # 900-M235 |
|----------------|--------------------------------|

ROR1

Synonyms: NTRKR1, Neurotrophic tyrosine kinase, receptor-related 1, Tyrosine-protein kinase, transmembrane receptor ROR1, Receptor-tyrosine-kinase-like orphan receptor 1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|-----------|----------|--------|--------|-----|
| Human ROR1 | 160-04 | CHO cells | 42.4 kDa | 20µg | 100µg | 1mg |

Additional sizes available please inquire

SCF *Stem Cell Factor*

Synonyms: c-Kit Ligand, Mast Cell Growth Factor (MGF), Steel Factor (SF)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human SCF | 300-07 | <i>E.coli</i> | 18.4 kDa | 2µg | 10µg | 1mg |
| Murine SCF | 250-03 | <i>E.coli</i> | 18.3 kDa | 2µg | 10µg | 1mg |
| Rat SCF | 400-22 | <i>E.coli</i> | 18.4 kDa | 2µg | 10µg | 1mg |

* See page 12 for available Cytokine Packages.

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human SCF | AF-300-07 | <i>E.coli</i> | 18.4 kDa | 2µg | 10µg | 1mg |
| Murine SCF | AF-250-03 | <i>E.coli</i> | 18.3 kDa | 2µg | 10µg | 1mg |
| Rat SCF | AF-400-22 | <i>E.coli</i> | 18.4 kDa | 2µg | 10µg | 1mg |

* See page 12 for available Cytokine Packages.

Additional sizes available please inquire

PeperoGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|----------------------|-----------------|---------------|----------|-------|
| PeperoGMP® Human SCF | GMP300-07-50µg | <i>E.coli</i> | 18.4 kDa | 50µg |
| PeperoGMP® Human SCF | GMP300-07-100µg | <i>E.coli</i> | 18.4 kDa | 100µg |
| PeperoGMP® Human SCF | GMP300-07-1mg | <i>E.coli</i> | 18.4 kDa | 1mg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human SCF | 500-P48 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human SCF | 500-P48BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Human SCF | 500-P48G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human SCF | 500-P48GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Murine SCF | 500-P71 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Murine SCF | 500-P71BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |
| Anti-Rat SCF | 500-P202 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Rat SCF | 500-P202BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|----------------|-----------|--------------|--------------|-------|
| Anti-Human SCF | 500-M44 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|------------|--------------------------------|
| Human SCF | ABTS CATALOG # 900-K34 |
| Human SCF | TMB CATALOG # 900-T34 |
| Murine SCF | ABTS CATALOG # 900-K78 |
| Rat SCF | ABTS CATALOG # 900-K258 |

Mini ELISA Development Kits

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

| | |
|-----------|--------------------------------|
| Human SCF | ABTS CATALOG # 900-M34 |
| Human SCF | TMB CATALOG # 900-TM34 |
| Rat SCF | ABTS CATALOG # 900-M258 |

SCGF- α , - β *Stem Cell Growth Factor -alpha, -beta*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|----------|-----------|------------|-----|
| Human SCGF- α | 100-22A | <i>E.coli</i> | 33.9 kDa | 2 μ g | 10 μ g | 1mg |
| Human SCGF- β | 100-22B | <i>E.coli</i> | 25.0 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|------------|---------------|--------------|------------|-------------|-----|
| Anti-Human SCGF- α | 500-P162 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human SCGF- α | 500-P162BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Human SCGF- β | 500-P99G | <i>Goat</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human SCGF- β | 500-P99GBT | <i>Goat</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Sclerostin

Synonyms: SOST, SOST1, CDD, VBCH, DAND6

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------|-----------|-----------|----------|-----------|------------|-----|
| Human Sclerostin | 100-49 | CHO cells | 21.5 kDa | 5 μ g | 20 μ g | 1mg |

SDF-1 α , β (CXCL12) *Stromal-Cell Derived Factor-1 alpha, beta*

Synonyms: PBSF

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------------------|-----------|---------------|---------|-----------|------------|-----|
| Human SDF-1 α (CXCL12) | 300-28A | <i>E.coli</i> | 8.0 kDa | 2 μ g | 10 μ g | 1mg |
| Murine SDF-1 α (CXCL12) | 250-20A | <i>E.coli</i> | 7.9 kDa | 2 μ g | 10 μ g | 1mg |
| Rat SDF-1 α (CXCL12) | 400-32A | <i>E.coli</i> | 7.9 kDa | 2 μ g | 10 μ g | 1mg |
| Human SDF-1 β (CXCL12) | 300-28B | <i>E.coli</i> | 8.5 kDa | 2 μ g | 10 μ g | 1mg |
| Murine SDF-1 β (CXCL12) | 250-20B | <i>E.coli</i> | 8.5 kDa | 2 μ g | 10 μ g | 1mg |
| Rat SDF-1 β (CXCL12) | 400-32B | <i>E.coli</i> | 8.4 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------------|------------|---------------|---------|-----------|------------|-----|
| Human SDF-1 α (CXCL12) | AF-300-28A | <i>E.coli</i> | 8.0 kDa | 2 μ g | 10 μ g | 1mg |
| Human SDF-1 β (CXCL12) | AF-300-28B | <i>E.coli</i> | 8.5 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---|-------------|---------------|--------------|------------|-------------|-----|
| Anti-Human SDF-1 α (CXCL12) | 500-P87A | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human SDF-1 α (CXCL12) | 500-P87ABT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine SDF-1 α (CXCL12) | 500-P164G | <i>Goat</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine SDF-1 α (CXCL12) | 500-P164GBT | <i>Goat</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Rat SDF-1 α (CXCL12) | 500-P315 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Rat SDF-1 α (CXCL12) | 500-P315BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Human SDF-1 β (CXCL12) | 500-P87BG | <i>Goat</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human SDF-1 β (CXCL12) | 500-P87BGBT | <i>Goat</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

SDF-1 α , β continued on next page...

SDF-1 α , β (CXCL12) *continued...*

Standard ELISA Development Kits

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

Human SDF-1 α (CXCL12) **ABTS CATALOG # 900-K92**

Mini ELISA Development Kits

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

Human SDF-1 α (CXCL12) **ABTS CATALOG # 900-M92**

Semaphorin 3A Fc

Synonyms: SEMA3A, SEMAD

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------------------|-----------|-----------|-----------|-----------|------------|-----|
| Human Semaphorin 3A Fc | 150-17H | CHO cells | 226.2 kDa | 5 μ g | 25 μ g | 1mg |

Additional sizes available please inquire

SF-20

Synonyms: Myeloid-derived growth factor (MYDGF)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|-----------|------------|-----|
| Murine SF-20 | 210-25 | <i>E.coli</i> | 15.8 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|---------------|--------------|------------|-------------|-----|
| Anti-Murine SF-20 | 500-P259 | <i>Rabbit</i> | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine SF-20 | 500-P259BT | <i>Rabbit</i> | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated **Key:** E = ELISA, WB = Western blot

Slit2-N

Synonyms: Slit homolog 2 protein, SLIL3

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------|-----------|--------------|------------|-----------|------------|-----|
| Human Slit2-N | 150-11 | HEK293 cells | 122.35 kDa | 5 μ g | 25 μ g | 1mg |

Additional sizes available please inquire

Sonic Hedgehog (Shh)

Synonyms: Hhg-1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------------|-----------|---------------|----------|-----------|------------|-----|
| Human Sonic Hedgehog (Shh) | 100-45 | <i>E.coli</i> | 20.0 kDa | 5 μ g | 25 μ g | 1mg |
| Murine Sonic Hedgehog (Shh) | 315-22 | <i>E.coli</i> | 20.0 kDa | 5 μ g | 25 μ g | 1mg |

Additional sizes available please inquire

Sox2

Synonyms: Sex determining region Y (SRY)-box 2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|---------------|----------|--------|--------|-----|
| Human Sox2 | 110-03 | <i>E.coli</i> | 34.3 kDa | 5µg | 25µg | 1mg |
| Human Sox2-TAT | 110-03T | <i>E.coli</i> | 36.0 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

SPARC (Osteonectin) *Secreted Protein Acidic and Rich in Cysteine*

Synonyms: BM-40, ON

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------------|-----------|-----------|----------|--------|--------|-----|
| Human SPARC/Osteonectin | 120-36 | CHO cells | 32.7 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

TACI *Transmembrane Activator and CAML Interactor*

Synonyms: TNFRSF13B, CD267

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human TACI | 310-17 | <i>E.coli</i> | 17.8 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-----------------------|-------------|-------------|--------------|--------|--------|-----|
| Anti-Human TACI | 500-P166G | <i>Goat</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human TACI | 500-P166GBT | <i>Goat</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Human TACI **ABTS CATALOG # 900-K216**

TAFA-2

Synonyms: Chemokine-like protein TAFA-2, FAM19A2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human TAFA-2 | 300-63 | <i>E.coli</i> | 11.2 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

TARC (CCL17) *Thymus and Activation-Regulated Chemokine*

Synonyms: ABCD-2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B5 |
|---------------------|-----------|---------------|---------|--------|----------|
| Human TARC (CCL17) | 300-30 | <i>E.coli</i> | 8.0 kDa | 5µg | 20µg 1mg |
| Murine TARC (CCL17) | 250-43 | <i>E.coli</i> | 7.9 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B0 |
|-------------------------------|-----------|---------------|--------------|--------|-----------|
| Anti-Human TARC (CCL17) | 500-P97 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human TARC (CCL17) | 500-P97BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

TECK (CCL25) *Thymus Expressed Chemokine*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------------|-----------|---------------|----------|--------|----------|
| Human TECK (CCL25) | 300-45 | <i>E.coli</i> | 14.2 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------------|-----------|---------------|----------|--------|----------|
| Human TECK (CCL25) | AF-300-45 | <i>E.coli</i> | 14.2 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human TECK (CCL25) | 500-P134 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human TECK (CCL25) | 500-P134BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-------------------------|-----------|--------------|--------------|-------|
| Anti-Human TECK (CCL25) | 500-M48 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

TFF-1, -2, -3 *Trefoil factor-1, -2, -3*

Synonyms: **TFF-1:** pS2 protein, HP1.A, Breast Cancer Estrogen-Inducible protein (BCEI), PNR2; **TFF-2:** Spasmolytic Polypeptide (SP), Spasmolysin; **TFF-3:** Intestinal Trefoil Factor (ITF), TFI

Recombinant Proteins

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|----------|
| Human TFF-1 | 300-60 | <i>E.coli</i> | 6.7 kDa | 5µg | 20µg 1mg |
| Murine TFF-1 | 315-31 | <i>E.coli</i> | 7.4 kDa | 5µg | 20µg 1mg |
| Human TFF-2 | 300-59 | <i>E.coli</i> | 12.0 kDa | 5µg | 20µg 1mg |
| Murine TFF-2 | 315-30 | <i>E.coli</i> | 11.9 kDa | 5µg | 20µg 1mg |
| Human TFF-3 | 300-61 | <i>E.coli</i> | 13.2 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

TFF-1, -2, -3 continued on next page...

TFF-1, -2, -3 *continued...***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human TFF-2 | 500-P312 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human TFF-2 | 500-P312BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

TGF- α *Transforming Growth Factor alpha*

Synonyms: Sarcoma growth factor, TGF-type I, ETGF

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|---------------|---------|--------|--------|-----|
| Human TGF- α | 100-16A | <i>E.coli</i> | 5.5 kDa | 20µg | 100µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|------------|---------------|---------|--------|--------|-----|
| Human TGF- α | AF-100-16A | <i>E.coli</i> | 5.5 kDa | 20µg | 100µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--------------------------------|-----------|--------|--------------|--------|--------|-----|
| Anti-Human TGF- α | 500-P16 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human TGF- α | 500-P16BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

TGF- β_1 , - β_2 , - β_3 *Transforming Growth Factor -beta 1, -beta 2, -beta 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

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|------------------|---------------|----------|--------|--------|-----|
| Human TGF- β_1 | 100-21 | HEK293 cells | 25.0 kDa | 2µg | 10µg | 1mg |
| Human TGF- β_1 | 100-21C | CHO cells | 25.0 kDa | 2µg | 10µg | 1mg |
| Human TGF- β_2 | CARTAGENA 100-35 | Insect cells | 25.0 kDa | 2µg | 10µg | 1mg |
| Human TGF- β_2 | 100-35B | HEK293 cells | 25.0 kDa | 2µg | 10µg | 1mg |
| Human TGF- β_3 | 100-36E | <i>E.coli</i> | 25.0 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|------------|---------------|----------|--------|--------|-----|
| Human TGF- β_1 | AF-100-21C | CHO cells | 25.0 kDa | 2µg | 10µg | 1mg |
| Human TGF- β_3 | AF-100-36E | <i>E.coli</i> | 25.0 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|------------|--------|--------------|--------|--------|-----|
| Anti-Human TGF- β_3 | 500-P317 | Rabbit | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human TGF- β_3 | 500-P317BT | Rabbit | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

TGF- β_1 , - β_2 , - β_3 continued on next page...

TGF- β_1 , - β_2 , - β_3 *continued...*

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|---------------------------|-----------|--------|--------------|-------------|
| Anti-Human TGF- β_1 | 500-M66 | Mouse | WB | 500 μ g |

Key: E = ELISA, WB = Western blot

Thrombomodulin

Synonyms: CD141, BDCA-3, THBD, TM

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|--------------|----------|-----------|------------|-----|
| Human Thrombomodulin | 100-58 | HEK293 cells | 51.4 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

Thymosin- β_4

Synonyms: T β -4, Hematopoietic system regulatory peptide, Seraspenide, TMSB4X, TB4X, TMSB4

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------------------------|-----------|---------------|---------|------------|-------------|-----|
| Human/Murine/Rat Thymosin- β_4 | 140-14 | <i>E.coli</i> | 5.2 kDa | 20 μ g | 100 μ g | 1mg |

Additional sizes available please inquire

TIGAR *TP53-Induced Glycolysis and Apoptosis Regulator*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------|-----------|---------------|----------|-----------|------------|-----|
| Human TIGAR | 150-14 | <i>E.coli</i> | 29.9 kDa | 5 μ g | 25 μ g | 1mg |
| Human TIGAR-TAT | 150-14T | <i>E.coli</i> | 31.6 kDa | 5 μ g | 25 μ g | 1mg |

Additional sizes available please inquire

TIMP-1 *Tissue Inhibitor of Metalloproteinases 1*

Synonyms: Fibroblast collagenase inhibitor, Erythroid-potentiating activity

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|-----------|------------|-----|
| Human TIMP-1 | 410-01 | <i>E.coli</i> | 20.6 kDa | 2 μ g | 10 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|--------|--------------|------------|-------------|-----|
| Anti-Human TIMP-1 | 500-P280 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human TIMP-1 | 500-P280BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

TIMP-1 continued on next page...

TIMP-1 *continued...***Standard ELISA Development Kits**

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

Human TIMP-1 **ABTS CATALOG # 900-K438**

Mini ELISA Development Kits

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

Human TIMP-1 **ABTS CATALOG # 900-M438**

TIMP-2 *Tissue Inhibitor of Metalloproteinases 2*

Synonyms: CSC-21K

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human TIMP-2 | 410-02 | <i>E.coli</i> | 21.8 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Tissue Factor

Synonyms: TF, TF1, Coagulation factor III, factor III, F3, Thromboplastin, CD142

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|---------------------|-----------|-----------|----------|--------|--------|-----|
| Human Tissue Factor | 150-19T | CHO cells | 51.6 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

TL-1A

Synonyms: TNFSF15, VEGI

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|---------------|----------|--------|--------|-----|
| Human TL-1A | 310-23 | <i>E.coli</i> | 22.0 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human TL-1A | 500-P240 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human TL-1A | 500-P240BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

Human TL-1A **ABTS CATALOG # 900-K290**

Mini ELISA Development Kits

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

Human TL-1A **ABTS CATALOG # 900-M290**

TLR-3 *Toll-Like Receptor 3*

Synonyms: CD283 antigen

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|--------------|----------|--------|--------|-----|
| Human TLR-3 | 160-01 | HEK293 cells | 77.4 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

TLR-4 *Toll-Like Receptor 4*

Synonyms: TOLL, CD284, ARMD10

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|--------------|----------|--------|--------|-----|
| Human TLR-4 | 160-06 | HEK293 cells | 69.3 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

TMIGD2/CD28H Fc

Synonyms: Transmembrane and immunoglobulin domain-containing protein 2, CD28 homolog, Immunoglobulin and proline-rich receptor 1 (IGPR-1)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------|-----------|-----------|----------|--------|--------|-----|
| Human TMIGD2/CD28H Fc | 310-42 | CHO cells | 40.1 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

TNF- α *Tumor Necrosis Factor-alpha*

Synonyms: TNFSF2, Cachectin, Differentiation-Inducing Factor (DIF), Necrosin, Cytotoxin, TNSF1A

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|-----------|---------------|----------|--------|--------|-----|
| Human TNF- α | 300-01A | <i>E.coli</i> | 17.4 kDa | 10µg | 50µg | 1mg |
| Murine TNF- α | 315-01A | <i>E.coli</i> | 17.3 kDa | 5µg | 20µg | 1mg |
| Rat TNF- α | 400-14 | <i>E.coli</i> | 17.3 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------|------------|---------------|----------|--------|--------|-----|
| Human TNF- α | AF-300-01A | <i>E.coli</i> | 17.4 kDa | 10µg | 50µg | 1mg |
| Murine TNF- α | AF-315-01A | <i>E.coli</i> | 17.3 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

TNF- α continued on next page...

TNF- α *continued...***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------------|-------------|--------|--------------|------------|-------------|-----|
| Anti-Human TNF- α | 500-P31A | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human TNF- α | 500-P31ABT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Human TNF- α | 500-P31AG | Goat | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human TNF- α | 500-P31AGBT | Goat | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine TNF- α | 500-P64 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine TNF- α | 500-P64BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Murine TNF- α | 500-P64G | Goat | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Murine TNF- α | 500-P64GBT | Goat | E, WB | 25 μ g | 50 μ g | 1mg |
| Anti-Rat TNF- α | 500-P72 | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Rat TNF- α | 500-P72BT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|--------------------------|-----------|--------|--------------|-------------|
| Anti-Human TNF- α | 500-M26 | Mouse | E, WB | 500 μ g |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|----------------------|-------------------------------|
| Human TNF- α | ABTS CATALOG # 900-K25 |
| Human TNF- α | TMB CATALOG # 900-T25 |
| Murine TNF- α | ABTS CATALOG # 900-K54 |
| Murine TNF- α | TMB CATALOG # 900-T54 |
| Rat TNF- α | ABTS CATALOG # 900-K73 |
| Rat TNF- α | TMB CATALOG # 900-T73 |

Mini ELISA Development Kits

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

| | |
|----------------------|-------------------------------|
| Human TNF- α | ABTS CATALOG # 900-M25 |
| Human TNF- α | TMB CATALOG # 900-TM25 |
| Murine TNF- α | ABTS CATALOG # 900-M54 |
| Murine TNF- α | TMB CATALOG # 900-TM54 |
| Rat TNF- α | ABTS CATALOG # 900-M73 |
| Rat TNF- α | TMB CATALOG # 900-TM73 |

TNF- β *Tumor Necrosis Factor-beta*

Synonyms: TNFSF1B, Lymphotoxin-alpha (LT- α)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------------|-----------|---------------|----------|-----------|------------|-----|
| Human TNF- β | 300-01B | <i>E.coli</i> | 18.6 kDa | 5 μ g | 20 μ g | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------------|------------|--------|--------------|------------|-------------|-----|
| Anti-Human TNF- β | 500-P31B | Rabbit | E, WB | 50 μ g | 100 μ g | 1mg |
| Biot. Anti-Human TNF- β | 500-P31BBT | Rabbit | E, WB | 25 μ g | 50 μ g | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

sTNF Receptor Type I *soluble Tumor Necrosis Factor Receptor Type I*

Synonyms: TNFRSF1A, TNFAR, TNFR60, p60, p55, CD120a, TNFR1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------------|-----------|---------------|----------|--------|--------|-----|
| Human sTNF Receptor Type I | 310-07 | <i>E.coli</i> | 18.3 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------------------|-----------|---------------|----------|--------|--------|-----|
| Human sTNF Receptor Type I | AF-310-07 | <i>E.coli</i> | 18.3 kDa | 5µg | 20µg | 1mg |

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 | 50µg | 100µg | 1mg |
| Biot. Anti-Human sTNF Receptor Type I | 500-P143BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

sTNF Receptor Type II *soluble Tumor Necrosis Factor Receptor Type II*

Synonyms: TNFRSF1B, p75, TNFR75, CD120b, TNFR80, p80, TNFR2

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-----------------------------|-----------|---------------|----------|--------|--------|-----|
| Human sTNF Receptor Type II | 310-12 | <i>E.coli</i> | 18.9 kDa | 5µg | 20µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|--|------------|---------------|--------------|--------|--------|-----|
| Anti-Human sTNF Receptor Type II | 500-P168 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human sTNF Receptor Type II | 500-P168BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

TPO *Thrombopoietin*

Synonyms: Megakaryocyte colony-stimulating factor, c-MPL Ligand, MGDF

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human TPO | 300-18 | <i>E.coli</i> | 18.6 kDa | 2µg | 10µg | 1mg |
| Murine TPO | 315-14 | <i>E.coli</i> | 18.7 kDa | 2µg | 10µg | 1mg |
| Rat TPO | 400-34 | <i>E.coli</i> | 18.7 kDa | 2µg | 10µg | 1mg |

* See page 12 for available Cytokine Packages.

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|------------|-----------|---------------|----------|--------|--------|-----|
| Human TPO | AF-300-18 | <i>E.coli</i> | 18.6 kDa | 2µg | 10µg | 1mg |
| Murine TPO | AF-315-14 | <i>E.coli</i> | 18.7 kDa | 2µg | 10µg | 1mg |
| Rat TPO | AF-400-34 | <i>E.coli</i> | 18.7 kDa | 2µg | 10µg | 1mg |

* See page 12 for available Cytokine Packages.

Additional sizes available please inquire

TPO continued on next page...

TPO *continued...***PeperoGMP® Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size |
|----------------------|-----------------|---------------|----------|-------|
| PeperoGMP® Human TPO | GMP300-18-50µg | <i>E.coli</i> | 18.6 kDa | 50µg |
| PeperoGMP® Human TPO | GMP300-18-100µg | <i>E.coli</i> | 18.6 kDa | 100µg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|----------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human TPO | 500-P49 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human TPO | 500-P49BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Human TPO | 500-P49G | <i>Goat</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human TPO | 500-P49GBT | <i>Goat</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-----------|-------------------------------|
| Human TPO | ABTS CATALOG # 900-K44 |
|-----------|-------------------------------|

Mini ELISA Development Kits

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

| | |
|-----------|-------------------------------|
| Human TPO | ABTS CATALOG # 900-M44 |
|-----------|-------------------------------|

sTRAIL/Apo2L *TNF-Related Apoptosis-Inducing Ligand***Synonyms:** TNFSF10, Apo2 ligand, TL2, CD253**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------------|-----------|---------------|----------|--------|----------|
| Human sTRAIL/Apo2L | 310-04 | <i>E.coli</i> | 19.6 kDa | 10µg | 50µg 1mg |
| Murine TRAIL | 315-19 | <i>E.coli</i> | 20.0 kDa | 10µg | 50µg 1mg |

*Additional sizes available please inquire***Polyclonal Antibodies** - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human sTRAIL/Apo2L | 500-P135 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human sTRAIL/Apo2L | 500-P135BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |
| Anti-Murine TRAIL | 500-P303 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Murine TRAIL | 500-P303BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|-------------------------|-----------|--------------|--------------|-------|
| Anti-Human sTRAIL/Apo2L | 500-M49 | <i>Mouse</i> | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|--------------------|--------------------------------|
| Human sTRAIL/Apo2L | ABTS CATALOG # 900-K141 |
|--------------------|--------------------------------|

Mini ELISA Development Kits

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

| | |
|--------------------|--------------------------------|
| Human sTRAIL/Apo2L | ABTS CATALOG # 900-M141 |
|--------------------|--------------------------------|

sTRAIL Receptor-1 *soluble TRAIL Receptor-1*

Synonyms: TNFRSF10A, DR4, Apo2, CD261

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------------------|-----------|---------------|----------|--------|----------|
| Human sTRAIL Receptor-1 | 310-18 | <i>E.coli</i> | 22.7 kDa | 10µg | 50µg 1mg |

Additional sizes available please inquire

sTRAIL Receptor-2 *soluble TRAIL Receptor-2*

Synonyms: TNFRSF10B, DR5, KILLER, TRICK2A, TRICKB, CD262

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------------------|-----------|---------------|----------|--------|----------|
| Human sTRAIL Receptor-2 | 310-19 | <i>E.coli</i> | 14.9 kDa | 10µg | 50µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human sTRAIL Receptor-2 | 500-P299 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human sTRAIL Receptor-2 | 500-P299BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

T

TREM-1 Fc *Triggering receptor expressed on monocytes 1*

Synonyms: CD354

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-----------------|-----------|-----------|----------|--------|----------|
| Human TREM-1 Fc | 310-36 | CHO cells | 92.6 kDa | 10µg | 50µg 1mg |

Additional sizes available please inquire

TSG *Twisted Gastrulation Protein*

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-----------|-----------|---------------|----------|--------|----------|
| Human TSG | 120-09 | <i>E.coli</i> | 22.2 kDa | 10µg | 50µg 1mg |

Additional sizes available please inquire

TSLP *Thymic Stromal Lymphopoietin***Synonyms:** None**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|------------|-----------|---------------|----------|--------|----------|
| Human TSLP | 300-62 | <i>E.coli</i> | 15.0 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-----------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human TSLP | 500-P258 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human TSLP | 500-P258BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|------------|--------------------------------|
| Human TSLP | ABTS CATALOG # 900-K334 |
|------------|--------------------------------|

TWEAK *TNF-related Weak Inducer of Apoptosis***Synonyms:** TNFSF12, DR3LG, Apo3 Ligand**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|---------------|----------|--------|----------|
| Human TWEAK | 310-06 | <i>E.coli</i> | 17.0 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|---------------|----------|--------|----------|
| Human TWEAK | AF-310-06 | <i>E.coli</i> | 17.0 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------|-------------|-------------|--------------|--------|-----------|
| Anti-Human TWEAK | 500-P137G | <i>Goat</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human TWEAK | 500-P137GBT | <i>Goat</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|-------------|--------------------------------|
| Human TWEAK | ABTS CATALOG # 900-K149 |
|-------------|--------------------------------|

TWEAK Receptor *TNF-related Weak Inducer of Apoptosis Receptor***Synonyms:** TNFRSF12A, FGF-inducible 14, FN14**RUO Cytokines**

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------------|-----------|---------------|---------|--------|----------|
| Human TWEAK Receptor | 310-21 | <i>E.coli</i> | 5.6 kDa | 5µg | 25µg 1mg |

Additional sizes available please inquire

Uteroglobin

Synonyms: Clara Cell Phospholipid-Binding Protein, CCPBP, Clara Cells 10 kDa secretory protein, CC10, Secretoglobin family 1A member 1, Urinary protein 1, UP-1, UP, Urine protein 1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------|-----------|---------------|----------|--------|--------|-----|
| Human Uteroglobin | 150-18 | <i>E.coli</i> | 16.1 kDa | 10µg | 50µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Uteroglobin | 500-P330 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Uteroglobin | 500-P330BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

VAP-1 *Vascular Adhesion Protein-1*

Synonyms: AOC3, SSAO, HPAO, Copper Amine Oxidase, Membrane Primary Amine Oxidase

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------|-----------|-----------|----------|--------|--------|-----|
| Human VAP-1 | 150-16 | CHO cells | 81.8 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human VAP-1 | 500-P326 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human VAP-1 | 500-P326BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Vaspin

Synonyms: Visceral adipose tissue-derived serpin

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|---------------|----------|--------|--------|-----|
| Human Vaspin | 130-11 | <i>E.coli</i> | 45.2 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|-------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Vaspin | 500-P256 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Vaspin | 500-P256BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

VCAM-1 *Vascular Cell Adhesion Molecule 1*

Synonyms: CD106, INCAM-100, MGC108734, MGC99561, VCAM, VCAM1, VCAM1B, VECAM1

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------|-----------|--------------|----------|--------|----------|
| Human VCAM-1 | 150-04 | HEK293 cells | 74.1 kDa | 10µg | 50µg 1mg |
| Murine VCAM-1 | 315-37 | CHO cells | 74.4 kDa | 10µg | 50µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------|------------|--------|--------------|--------|-----------|
| Anti-Human VCAM-1 | 500-P300 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human VCAM-1 | 500-P300BT | Rabbit | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

VEGF *Vascular Endothelial Growth Factor*

Synonyms: VEGF₁₂₁: Vascular Endothelial Growth Factor 121, VPF, VEGF-A; VEGF₁₆₅: Vascular Endothelial Growth Factor 165, VPF, Folliculostellate cell-derived growth factor, Glioma-derived endothelial cell mitogen, VEGF-A

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------------------|-----------|---------------|----------|--------|----------|
| Human VEGF ₁₂₁ | 100-20A | <i>E.coli</i> | 28.4 kDa | 2µg | 10µg 1mg |
| Human VEGF ₁₆₅ | 100-20 | <i>E.coli</i> | 38.2 kDa | 2µg | 10µg 1mg |
| Murine VEGF ₁₆₅ | 450-32 | <i>E.coli</i> | 39.0 kDa | 2µg | 10µg 1mg |
| Rat VEGF ₁₆₅ | 400-31 | <i>E.coli</i> | 38.5 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|----------------------------|------------|---------------|----------|--------|----------|
| Human VEGF ₁₂₁ | AF-100-20A | <i>E.coli</i> | 28.4 kDa | 2µg | 10µg 1mg |
| Human VEGF ₁₆₅ | AF-100-20 | <i>E.coli</i> | 38.2 kDa | 2µg | 10µg 1mg |
| Murine VEGF ₁₆₅ | AF-450-32 | <i>E.coli</i> | 39.0 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

PeperoGMP® Cytokines

| PRODUCT | CATALOG # | SOURCE | MW |
|--------------------------------------|-----------------|---------------|----------|
| PeperoGMP® Human VEGF ₁₆₅ | GMP100-20-50µg | <i>E.coli</i> | 38.2 kDa |
| PeperoGMP® Human VEGF ₁₆₅ | GMP100-20-100µg | <i>E.coli</i> | 38.2 kDa |
| PeperoGMP® Human VEGF ₁₆₅ | GMP100-20-1mg | <i>E.coli</i> | 38.2 kDa |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|---------------------------------------|------------|--------|--------------|--------|-----------|
| Anti-Human VEGF ₁₆₅ | 500-P10 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human VEGF ₁₆₅ | 500-P10BT | Rabbit | E, WB | 25µg | 50µg 1mg |
| Anti-Human VEGF ₁₆₅ | 500-P10G | Goat | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human VEGF ₁₆₅ | 500-P10GBT | Goat | E, WB | 25µg | 50µg 1mg |
| Anti-Murine VEGF ₁₆₅ | 500-P131 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Murine VEGF ₁₆₅ | 500-P131BT | Rabbit | E, WB | 25µg | 50µg 1mg |
| Anti-Rat VEGF ₁₆₅ | 500-P275 | Rabbit | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Rat VEGF ₁₆₅ | 500-P275BT | Rabbit | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

VEGF *continued...*

Monoclonal Antibodies

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size |
|--------------------------------|-----------|--------|--------------|-------|
| Anti-Human VEGF ₁₆₅ | 500-M88 | Mouse | E, WB | 500µg |

Key: E = ELISA, WB = Western blot

Standard ELISA Development Kits

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

| | |
|----------------------------|--------------------------------|
| Human VEGF ₁₆₅ | ABTS CATALOG # 900-K10 |
| Human VEGF ₁₆₅ | TMB CATALOG # 900-T10 |
| Murine VEGF ₁₆₅ | ABTS CATALOG # 900-K99 |
| Rat VEGF ₁₆₅ | ABTS CATALOG # 900-K436 |

Mini ELISA Development Kits

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

| | |
|----------------------------|--------------------------------|
| Human VEGF ₁₆₅ | ABTS CATALOG # 900-M10 |
| Human VEGF ₁₆₅ | TMB CATALOG # 900-TM10 |
| Murine VEGF ₁₆₅ | ABTS CATALOG # 900-M99 |
| Rat VEGF ₁₆₅ | ABTS CATALOG # 900-M436 |

V

VEGF-B *Vascular Endothelial Growth Factor-B*

Synonyms: VEGF-related factor, VRF

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|--------|
| Human VEGF-B | 100-20B | <i>E.coli</i> | 38.0 kDa | 5µg | 20µg |

1mg
Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------|------------|--------|--------------|--------|--------|
| Anti-Human VEGF-B | 500-P267 | Rabbit | E, WB | 50µg | 100µg |
| Biot. Anti-Human VEGF-B | 500-P267BT | Rabbit | E, WB | 25µg | 50µg |

Biot. = Biotinylated

Key: E = ELISA, WB = Western blot

VEGF-C *Vascular Endothelial Growth Factor-C*

Synonyms: VRF, Flt4-Ligand

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|--------------|----------|--------|--------|
| Human VEGF-C | 100-20CD | HEK293 cells | 26.2 kDa | 5µg | 20µg |

1mg
Additional sizes available please inquire

VEGF-D *Vascular Endothelial Growth Factor-D*

Synonyms: FIGF

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|--------------|-----------|--------------|----------|--------|--------|-----|
| Human VEGF-D | 100-20D | HEK293 cells | 26.2 kDa | 2µg | 10µg | 1mg |

Additional sizes available please inquire

Vimentin

Synonyms: Vim

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|---------------|----------|--------|--------|-----|
| Human Vimentin | 110-10 | <i>E.coli</i> | 54.3 kDa | 20µg | 100µg | 1mg |

Additional sizes available please inquire

Visfatin

Synonyms: PBEF (Pre-B-cell colony-enhancing factor), NAmPRTase (nicotinamide phosphoribosyltransferase), Nampt, VF

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|----------------|-----------|---------------|----------|--------|--------|-----|
| Human Visfatin | 130-09 | <i>E.coli</i> | 52.6 kDa | 5µg | 25µg | 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B | |
|---------------------------|------------|---------------|--------------|--------|--------|-----|
| Anti-Human Visfatin | 500-P222 | <i>Rabbit</i> | E, WB | 50µg | 100µg | 1mg |
| Biot. Anti-Human Visfatin | 500-P222BT | <i>Rabbit</i> | E, WB | 25µg | 50µg | 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Vitronectin

Synonyms: VTN, Serum-spreading factor, V75

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------|-----------|--------------|----------|--------|--------|-----|
| Human Vitronectin | 140-09 | HEK293 cells | 52.2 kDa | 100µg | 500µg | 1mg |

Additional sizes available please inquire

Animal-Free Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B | |
|-------------------|-----------|--------------|----------|--------|--------|-----|
| Human Vitronectin | AF-140-09 | HEK293 cells | 52.2 kDa | 100µg | 500µg | 1mg |

Additional sizes available please inquire

WISP-1 *WNT-1 Inducible Signaling Pathway protein-1*

Synonyms: CCN4, Wnt-1-induced secreted protein

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|----------|
| Human WISP-1 | 120-18 | <i>E.coli</i> | 38.1 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

WISP-3 *WNT-1 Inducible Signaling Pathway protein-3*

Synonyms: CCN6

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|---------------|----------|--------|----------|
| Human WISP-3 | 120-20 | <i>E.coli</i> | 36.8 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Wnt-1

Synonyms: INT-1, Wnt-1 proto-oncogene protein (precursor)

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|-------------|-----------|---------------|----------|--------|----------|
| Human Wnt-1 | 120-17 | <i>E.coli</i> | 38.4 kDa | 2µg | 10µg 1mg |

Additional sizes available please inquire

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human Wnt-1 | 500-P250 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human Wnt-1 | 500-P250BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Wnt-3a

Synonyms: Wingless-type MMTV (Mouse Mammary Tumor Virus) integration site family member 3a

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|---------------|-----------|---------------------|----------|--------|--------|
| Murine Wnt-3a | 315-20 | <i>cell culture</i> | 37.4 kDa | 2µg | 10µg |

Polyclonal Antibodies - Antigen Affinity Purified

| PRODUCT | CATALOG # | SOURCE | APPLICATIONS | Size A | Size B |
|-------------------------|------------|---------------|--------------|--------|-----------|
| Anti-Human Wnt-3a | 500-P251 | <i>Rabbit</i> | E, WB | 50µg | 100µg 1mg |
| Biot. Anti-Human Wnt-3a | 500-P251BT | <i>Rabbit</i> | E, WB | 25µg | 50µg 1mg |

Biot. = Biotinylated Key: E = ELISA, WB = Western blot

Wnt-7a

Synonyms: None

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|--------------|----------|--------|----------|
| Human Wnt-7a | 120-31 | HEK293 cells | 35.5 kDa | 3µg | 15µg 1mg |

Additional sizes available please inquire

Wnt-9b

Synonyms: Wnt15, Wnt14B, UNQ6973/PRO21956

RUO Cytokines

| PRODUCT | CATALOG # | SOURCE | MW | Size A | Size B |
|--------------|-----------|-----------|----------|--------|----------|
| Human Wnt-9b | 120-49 | CHO cells | 36.9 kDa | 5µg | 20µg 1mg |

Additional sizes available please inquire

Control Antibodies

| PRODUCT | CATALOG # | Size |
|-------------------|-----------|-------|
| Normal Goat IgG | 500-G00 | 1mg |
| Normal Mouse IgG | 500-M00 | 1mg |
| Normal Rabbit IgG | 500-P00 | 500µg |

W

ケモカイン命名法

| Systematic Name CXC Chemokines | Functional Name(s) (mouse protein) | Responding Cell Type(s) (mouse protein) | Known Receptor(s) |
|-----------------------------------|---|--|-------------------------|
| CXC Chemokines | | | |
| CXCL1 | GRO1, GRO- α , MGSA, NAP-3 (KC) | PMN | CXCR1, CXCR2 |
| CXCL2 | GRO2, GRO- β , MIP2- α (MIP-2) | PMN | CXCR1, CXCR2 |
| CXCL3 | GRO3, GRO- γ , MIP2- β (DCIP-1) | PMN | CXCR2 |
| CXCL4 | PF-4, Oncostatin-A | PMN, Mo | CXCR3B |
| CXCL5 | ENA-78 | PMN | CXCR2 |
| CXCL6 | GCP-2, CKA-3 (LIX) | PMN | CXCR1, CXCR2 |
| CXCL7 | NAP-2, PBP, LDGF, MDGF | PMN | CXCR1, CXCR2 |
| CXCL8 | IL-8, GCP-1, NAP-1 | PMN, Bs | CXCR1, CXCR2 |
| CXCL9 | MIG | actT [Th1], NK | CXCR3 |
| CXCL10 | IP-10 (CRG-2) | Mo, actT [Th1], NK | CXCR3 |
| CXCL11 | I-TAC, IP-9 | actT [Th1], NK | CXCR3, CXCR7 |
| CXCL12 | SDF-1, SDF-1 α/β , PBSF | All cell types | CXCR4, CXCR7 |
| CXCL13 | BCA-1, BLC | B, (Mo) | CXCR5 |
| CXCL14 | BRAK, MIP-2G | PMN, mDC (B, Mo) | unknown |
| CXCL15 | (Lungkine) | (PMN) | unknown |
| CXCL16 | SR-PSOX | actT | CXCR6 |
| CXCL17 | VEGF co-regulated chemokine 1, DMC | Mo, iDC | unknown |
| C Chemokines | | | |
| XCL1 | Lymphotactin, ATAC, SCM-1 | Tr | XCR1 |
| XCL2 | SCM-1 β | Tr | XCR1 |
| CX3C Chemokines | | | |
| CX3CL1 | Fractalkine, Neurotactin, CX3C | Mo, actT, NK | CX3CR1 |
| CC Chemokines | | | |
| CCL1 | I-309 (TCA-3) | iDC, actT [Th2], Mo (PMN) | CCR8 |
| CCL2 | MCP-1, MCAF, JE | Bs, Mo, actT, NK, iDC | CCR2, CCR4 |
| CCL3 | MIP-1 α , LD78 α | Eo, Mo, actT, NK, iDC (PMN) | CCR1, CCR4, CCR5 |
| CCL3L1 | LD78 β | Mo, actT, B | CCR1, CCR3, CCR5 |
| CCL4 | MIP-1 β , LAG-1 | Mo, actT [Th1], NK, iDC | CCR5 |
| CCL4L1 | LAG-1 gene duplication | Mo | CCR1, CCR5 |
| CCL5 | RANTES | Eo, Bs, Mo, actT, NK, iDC, Tm | CCR1, CCR3, CCR4, CCR5 |
| CCL6 | (C-10) | (Mo) | CCR1 |
| CCL7 | MCP-3 (FIC) | Eo, Bs, Mo, actT, NK, iDC | CCR1, CCR2, CCR3 |
| CCL8 | MCP-2 | Eo, Bs, Mo, actT, NK, iDC | CCR1, CCR2B, CCR3, CCR5 |
| CCL9/10 | (MIP-1 γ , MRP-2) | (PMN, actT) | CCR1 |
| CCL11 | Eotaxin | Eo, Bs, actT [Th2], iDC | CCR3 |
| CCL12 | (MCP-5) | (Eo, Bs, Mo, actT, NK, iDC) | CCR2 |
| CCL13 | MCP-4, CK β -10 | Eo, Bs, Mo, actT, NK, iDC | CCR1, CCR2, CCR3 |
| CCL14 | HCC-1 | Eo, Mo, T | CCR1, CCR3, CCR5 |
| CCL15 | MIP-5, MIP-1 δ , HCC-2, LKN-1 | Mo, T | CCR1, CCR3 |
| CCL16 | LEC, HCC-4 | Mo, actT [Th1] | CCR1 |
| CCL17 | TARC (ABCD-2) | actT [Th2] | CCR4 |
| CCL18 | MIP-4, DC-CK1, PARC, AMAC-1 | Tr, iDC | unknown |
| CCL19 | MIP-3 β , ELC, Exodus-3, CK β -11 | Tr, actT, mDC | CCR7 |
| CCL20 | MIP-3 α , LARC, Exodus-1 | Tm, B, iDC, PMN | CCR6 |
| CCL21 | Exodus-2, 6Ckine, SLC | Tr, actT, mDC | CCR7 |
| CCL22 | MDC, STCP-1 (ABCD-1) | Mo, actT [Th2], NK, iDC | CCR4 |
| CCL23 | MIP-3, MPIF-1, CK β -8 | PMN, Mo, Tr | CCR1 |
| CCL24 | Eotaxin-2, MPIF-2, CK β -6 | Eo, Bs, actT [Th2], iDC, PMN, Tr | CCR3 |
| CCL25 | TECK | Thymocytes, Tr, iDC | CCR9 |
| CCL26 | MIP-4 α , Eotaxin-3 | Eo, Bs, actT [Th2], iDC | CCR3 |
| CCL27 | CTACK, ILC, Eskine | actT | CCR10 |
| CCL28 | MEC | actT, Tr, Eo | CCR3, CCR10 |

| KEY |
|--------------------------------|
| Tm = memory T cells |
| B = B-cells |
| actT = activated T cell |
| Bs = Basophil |
| Tr = resting T cell |
| T = T cells |
| Eo = Eosinophil |
| NK = Natural Killer cells |
| Mo = monocyte |
| PMN = neutrophils |
| mDC = mature dendritic cells |
| iDC = immature dendritic cells |

FGF ファミリー

| Fibroblast Growth Factors | Target Cells (Partial list) | Receptors | Function (Partial list) |
|---|---|---------------------------------------|--|
| FGF1 (Acidic FGF) Heparin-Binding Growth Factor-1 (HBGF-1) ECGF-beta (Endothelial Cell Growth Factor-beta) | mesenchymal, neuroectodermal endothelial cells | all FGF receptors | Angiogenic <i>in vivo</i> , mitogenic <i>in vitro</i> , wound healing |
| FGF2 (Basic FGF) Heparin-Binding Growth Factor-2 (HBGF-2) Prostatropin | mesenchymal, neuroectodermal endothelial cells | 1b, 1c, 2c, 3c, 4 | Vasculogenesis, wound healing, angiogenesis, hematopoiesis, neuron survival |
| FGF3 int-2 | 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) | 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 | cells that express FGF receptors | 1c, 2c | Hair growth and development |
| FGF6 Heparin-Binding Growth Factor-6 (HBGF-6) HST-2 | cells that express FGF receptors | 1c, 2c, 4 | Skeletal muscle development |
| FGF7/KGF (Keratinocyte Growth Factor) Heparin-Binding Growth Factor-7 (HBGF-7) | 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) | 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) | glial cells, astrocyte cells and other cells that express FGF receptors | 1c, 2c, 3b, 3c, 4 | Glia-activating factor, motor neuron survival, lung and testes development |
| FGF10 FGFA Keratinocyte growth factor-2 | epithelial cells that express FGF receptor 2b | 2b | Wound healing, multi-organ including limb and lung development |
| FGF11 FGFB Fibroblast growth factor Homologous Factor-3 (FHF-3) | 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) | nuclear processes unrelated to the secreted FGFs | none | Appears to be involved in nervous system development and function |
| FGF13 FGFD Fibroblast growth factor Homologous Factor-2 (FHF-2) | 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) | nuclear processes unrelated to the secreted FGFs | none | Regulates central nervous system development and function |
| FGF15 FGFF, identified in mouse not human | 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 | cells that express FGF receptors | 2c, 3c | Central nervous system development |
| FGF17 FGFH | cells that express FGF receptors | 1c, 2c, 3c, 4 | Signals induction and patterning of embryonic brain |
| FGF18 zFGF5 FGFI | 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 | cells that express FGF receptor 4 | 4 | Expressed during brain development and during embryogenesis, regulates multiple metabolic processes in adulthood |
| FGF20 FGFK | epithelial and mesenchymal cells | 1c, 2c, 3c | Expressed during limb and brain development |
| FGF21 FGFL | unknown at the time of printing | unknown at the time of printing | Expressed in liver and thymus, may play a role in Type 2 Diabetes |
| FGF22 FGFM | hair follicle keratinocytes | unknown at the time of printing | May be involved in cutaneous develop- ment and repair, and hair development |
| FGF23 FGFN | renal proxima epithelial cells | 3c | Expressed in brain and thymus, regulates phosphate homeostasis, mutant in hypo- phosphatemic rickets, regulates multiple metabolic processes in adulthood |

TGF- β スーパーファミリー

| Name | Synonyms | Main Function | Natural Antagonists/ Binding Proteins |
|----------------|---|--|---|
| 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, Polyvergin | 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 extra 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, alpha2 macroglobulin, DAN |
| 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), GASP-1, DAN, Cerberus, Gremlin |
| BMP-3 | Osteogenin, BMP-3A | Induces cartilage and bone formation. | |
| 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), DVR4 | Induces cartilage and bone formation, involved in mesoderm induction, tooth development, limb formation and fracture repair. | Noggin, Chordin, Chordin-like/Neuralin/Ventropin, Follistatin, DAN, Cerberus, Gremlin |
| BMP-5 | None | Induces cartilage and bone formation. | Noggin, Chordin-like/Neuralin/Ventropin, Sclerostin/SOST |
| BMP-6 | VGR, 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 | OP-2 (Osteogenic Protein-2) | 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. | |

Continued...

| Name | Synonyms | Main Function | Natural Antagonists/ Binding Proteins |
|---|--|--|---|
| 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 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 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. | |
| GDF-2 | BMP-9 | Implicated in bone formation. | |
| GDF-3 | Vgr-2 | Embryonal carcinoma stem cell-associated marker <i>in vitro</i> and <i>in vivo</i> . | |
| GDF-5 | CDMP-1, BMP-14 | Essential for limb cartilage and limb-joint formation in developing mice. Involved in embryonic skeletal development. | Noggin, DAN |
| GDF-6 | BMP-13, CDMP-2 | Plays a role in cartilage homeostasis involved in embryonic skeletal development and formation of a tendon-like tissue. | Noggin |
| GDF-7 | BMP-12, CDMP-3 | Induces the formation of tendon and ligament tissues. | |
| GDF-8 | Myostatin | 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 TGF β , Prostate Differentiation Factor (PDF), NRG-1, 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 Trophic Factor) | Promotes dopamine uptake and survival and morphological differentiation of midbrain neurons. | |
| Artemin | ART, ARTN, Enovin, Neublartin | 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 (L-R) asymmetry of organ systems. | |
| LEFTY-2 | LEFTYA, TGF- β ₄ , Protein Lefty A | Essential for left-right (L-R) 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 |

ニューロトロフィン/神経新生サイトカイン

| Functional Name | Synonyms | Main Neurotrophic Functions (Partial List) | Disease/Disorder Relation (Partial List) | Receptors |
|--|--|--|--|--|
| β-NGF (beta-Nerve Growth Factor) | NGF-β | Supports survival and maintenance of neurons in the sensory and sympathetic nervous systems | Alzheimer's, Parkinson's, diabetic peripheral neuropathy, cardiovascular diseases | LNGFR, gp140/trkB, p75NTR |
| BDNF (Brain Derived Neurotrophic Factor) | Abrineurin | 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 (Neurotrophin-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-Derived Neurotrophic 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 | CNTRF-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 survival of different neuronal populations | Motor Neuron Diseases (MND), cardiovascular diseases | gp130, LIFR |
| 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 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, ARTN, Enovin, Neublastin | 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 |

TNF 命名法

TNF スーパーファミリー - リガンド

| Nomenclature Name | Functional Names |
|-------------------|---|
| TNFSF1 | TNF- β , Lymphotoxin- α (LT- α), TNFSF1B |
| TNFSF2 | TNF- α , Cachectin, DIF, Necrosin, Cytotoxin, TNFSF1A |
| TNFSF3 | Lymphotoxin- β (LT- β), TNF-C |
| TNFSF4 | OX40 Ligand (OX40L), Gp34, TXGP1, CD252 |
| TNFSF5 | CD40 Ligand (CD40L), TRAP, Gp39, CD154, T-BAM |
| TNFSF6 | Fas Ligand (FasL), APTL, APT1LG1, CD95L, CD178 |
| TNFSF7 | CD70, CD27 Ligand (CD27L, CD27LG) |
| TNFSF8 | CD30 Ligand (CD30L, CD30LG), CD153 |
| TNFSF9 | 4-1BB Ligand (4-1BBL), CD137L |
| TNFSF10 | TRAIL, Apo2 Ligand (Apo2L), CD253 |
| TNFSF11 | RANK Ligand (RANKL), TRANCE, OPGL, ODF, CD254 |
| TNFSF12 | TWEAK, Apo3 Ligand (Apo3L), DR3LG |
| TNFSF13 | APRIL, TALL-2, TRDL-1, CD256 |
| TNFSF13B | BAFF, BLyS, TALL-1, CD257, TNFSF20, THANK, ZTNF4 |
| TNFSF14 | LIGHT, HVEM-Ligand (HVEM-L), CD258 |
| TNFSF15 | TL1A, TL1, VEGI |
| TNFSF18 | AITR Ligand (AITRL), TL-6, GITR Ligand (GITRL) |

TNF スーパーファミリー - 受容体

| Nomenclature Name | Functional Names |
|-------------------|---|
| TNFRSF1A | TNF Receptor Type I (TNFR1), CD120a, p55, p60, TNFAR |
| TNFRSF1B | TNF Receptor Type II (TNFR2), CD120b, p75, p80 |
| TNFRSF3 | TNF Receptor Type III (TNFR3), Lymphotoxin- β Receptor, TNFR2-RP, TNFCR |
| TNFRSF4 | OX40L Receptor, ACT35, TXGP1R, CD134 |
| TNFRSF5 | Bp50, CD40L Receptor, CDw40, CD40 |
| TNFRSF6 | FASLG Receptor, CD95, Apo-1 |
| TNFRSF6B | DcR3, M68 |
| TNFRSF7 | CD27, CD27L Receptor, T14 |
| TNFRSF8 | CD30, CD30L Receptor, Ki-1 |
| TNFRSF9 | 4-1BBL Receptor, CDw137, CD137, T-cell antigen ILA |
| TNFRSF10A | DR4, Apo2, TRAIL Receptor 1 (TRAILR1), CD261 |
| TNFRSF10B | DR5, TRAIL Receptor 2 (TRAILR2), CD262, KILLER, TRICK2A, TRICKB |
| TNFRSF10C | DcR1, TRAIL Receptor 3 (TRAILR3), CD263 |
| TNFRSF10D | DcR2, TRAIL Receptor 4 (TRAILR4), CD264 |
| TNFRSF11A | RANK Receptor (RANKR), ODFR, CD265, ODAR, TRANCE Receptor |
| TNFRSF11B | Osteoprotegerin (OPG), OCIF, TR1 |
| TNFRSF12 | DR3, TNFRSF25, Apo3, AIR, TRAMP, LARD, WSL, WSL-1 |
| TNFRSF13B | TACI, CD267 |
| TNFRSF13C | BAFF Receptor (BAFFR), CD268, BLyS Receptor 3 |
| TNFRSF14 | HVEM, TR2, HveA, CD270, ATAR |
| TNFRSF16 | NGF Receptor (NGFR), Gp80-LNGFR, p75NTR, p75 ICD, CD271 |
| TNFRSF17 | BCMA, CD269 |
| TNFRSF18 | AITR, GITR, CD357 |
| TNFRSF19 | TRADE |
| TNFRSF19L | RELT |
| TNFRSF21 | DR6, CD358 |
| TNFRSF22 | SOBa, TNFRH2 |
| TNFRSF23 | SO, TNFRH1 |

VEGF/PDGF ファミリー

| Functional Name | Synonyms | Expression (Partial List) | Function | Receptors (Selected List) |
|-----------------------|--|--|---|--|
| VEGF-A ₁₂₁ | Vascular Permeability Factor (VPF) | All vascularized tissues | Angiogenesis, induces endothelial cell proliferation, and cell migration, osteoclastogenesis | VEGFR-1,-2 |
| VEGF-A ₁₄₅ | Vascular Permeability Factor (VPF) | 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) | 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) | All vascularized tissues | Angiogenesis, induces endothelial cell proliferation, migration | HSPG, Neuropilin-1,-2 |
| VEGF-A ₂₀₆ | Vascular Permeability Factor (VPF) | 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 tumor 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 | Placenta Growth Factor-1, PGFL, PGF, PIGF | Placenta, thyroid, lung, goiter | Angiogenesis, chemotactic towards monocytes, wound healing and tumor formation | VEGFR-1 |
| PIGF-2 | Placenta Growth Factor-2, PGFL | Placenta, thyroid, lung, goiter | Angiogenesis, chemotactic towards monocytes, wound healing and tumor formation | VEGFR-1, Neuropilin-1, Neuropilin-2 |
| PIGF-3 | Placenta Growth Factor-3, PGFL | Placenta | Angiogenesis, chemotactic towards monocytes, wound healing and tumor formation | VEGFR-1 |
| PIGF-4 | Placenta Growth Factor-4, PGFL | 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 | Fallotin, 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 |

TGF- β リガンドのアンタゴニスト

| Natural TGF- β Antagonists | Structural Features Contained in the Antagonist Polypeptide (M.W.) | Known TGF- β Binding Partners |
|--------------------------------------|--|---|
| Noggin | unique Noggin cysteine knot (26 kDa) | BMP-2, -4, -5, -6, -7, -13/GDF-6, -14/GDF-5 |
| Chordin | 4 CR/VWCC (Chordin) domains, 3 SOG repeats (102 kDa) | BMP-2, -4, -7 |
| Chordin-like/Neuralin/Ventropin | 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, - β 2 |
| alpha-2 macroglobulin | multiple proteinase inhibitor domains (163 kDa) | TGF- β 1, - β 2, Activin, Inhibin |

血漿リポタンパク質の一般的特徴

| 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-I , ApoC, ApoD, ApoE |

LEGEND: * Average values, TG-triglycerides, CE-cholesteryl esters, L/P- lipid/protein, **Bold** represents the major apoprotein

アポタンパク質の分類

| Apoprotein | MW | Function and Comments |
|------------|----------|---|
| ApoA-I | 29 kDa | Major protein of HDL, activates LCAT, high levels of ApoA-I are associated with a reduced risk of CHD. |
| ApoA-II | 17.4 kDa | Primarily in HDL, inhibits hepatic lipase activity. |
| ApoA-IV | 46 kDa | Present in fat-rich LPs. |
| ApoB-48 | 246 kDa | Derived from ApoB-100 gene by RNA editing, found exclusively in CMs, lack the LDLR binding domain of ApoB-100. |
| ApoB-100 | 513 kDa | Major protein of LDL, binds to LDLR, high levels of ApoB-100 are associated with an increased risk of CAD. |
| ApoC-I | 7.6 kDa | Appears to be involved in activation of LCAT. |
| ApoC-II | 8.9 kDa | Activates LPL, deficiency of ApoC-II results in accumulation of CMs and high TG levels. |
| ApoC-III | 8.75 kDa | Inhibits LPL. |
| ApoD | 33 kDa | Found only in HDL, closely associated with LCAT. |
| ApoE | 34 kDa | Three known ApoE alleles (E2, E3, E4). Binds to LDLR, inhibits development of atherosclerosis, ApoE4 is associated with late-onset Alzheimer's disease. |

Note: Tables found on pages 136-143 are reflective of current knowledge.

一般的な略号

| | | | |
|------------------|---|-------|--|
| 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-Mercaptoethanol | 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 | MW | Molecular Weight |
| Da | Daltons | MSC | Mesenchymal Stem Cells |
| DAB | 3,3' Diaminobenzidine | NaP | Sodium Phosphate (NaPO ₄) |
| DI | Deionized | NFDM | Nonfat Dry Milk |
| DMEM | Dulbecco's Modified Eagle's Medium | NKC | Natural Killer Cells |
| DMSO | Dimethyl Sulfoxide | NM | Nitrocellulose Membrane |
| DTT | Dithiothreitol | NSC | Neural Stem Cells |
| ECM | Extra Cellular Matrix | O.D. | Optical Density |
| ED ₅₀ | 50% Effective Dose | PAb | Polyclonal Antibody |
| EDK | ELISA Development Kit | PAGE | Polyacrylamide Gel Electrophoresis |
| EIA | Enzyme Immunoassay | PCR | Polymerase Chain Reaction |
| EIER | Enzyme-Induced Epitope Retrieval | PBL | Peripheral Blood Lymphocytes |
| ELISA | Enzyme-Linked Immunosorbent Assay | PBS | Phosphate Buffered Saline |
| ESC | Embryonic Stem Cells | PBST | PBS with 0.1% TWEEN-20 |
| EU | Endotoxin Unit | PBMC | Peripheral Blood Mononuclear Cells |
| FACS | Fluorescence-Activated Cell Sorter | PHA | Phytohemagglutinin |
| FBS | Fetal Bovine Serum | pI | Isoelectric Point |
| FCS | Fetal Calf Serum | PIER | Protease-Induced Epitope Retrieval |
| FFPE | Formalin-Fixed Paraffin-Embedded | Rb | Rabbit |
| FLISA | Fluorescence-linked Immunosorbent Assay | RIA | Radioimmunoassay |
| Gt | Goat | RT | Room Temperature |
| HCl | Hydrochloric Acid | SDS | Safety Data Sheet |
| 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 |

RUO サイトカイン FAQ

各製品に関する情報は、一緒にお届けする試験成績書 (Certificate of Analysis) に記載されています。溶解と貯法に関しては、この試験成績書を必ずお読みください。試験成績書をお読みになったうえで、さらに不明な点がある場合は、下記の FAQ をお読みいただくか、当社テクニカルサポートまでお問い合わせください。

1. ペプロテックのタンパク質製品の安定性について何を知っておくべきでしょうか？

試験成績書に特に記載のない限りは、当社のどの製品も凍結乾燥したタンパク質が室温で高い安定性を示すような組成になっています。ただし、凍結乾燥製品は -20°C ~ -80°C で保存することを推奨します。

大部分の製品で調製後の溶液は短期間であれば 4°C で保存することを推奨します。長期保存の場合には、タンパク質溶液は実用量に分注し、キャリアタンパク質 (例: 0.1% BSA) を添加して -20°C ~ -80°C で凍結保存してください。分注したタンパク質溶液は、1µg/mL 以上の濃度 (濃度にかかわらず 10µL 以上の液量) に調製してください。

凍結融解サイクルを経るごとにタンパク質の変性が生じるおそれがあるので留意が必要です。当社では分注保存する際には一回のみの凍結融解をお勧めします。

2. ペプロテックのタンパク質の購入時のエンドキシンレベルについて教えてください。

ペプロテックの動物由来成分不含サイトカインにおけるエンドキシン濃度はほとんどにおいて、タンパク質 1µg あたり 0.01ng もしくは 0.1EU 未満であることが保証されています。また、非動物由来成分不含サイトカインについては、そのほとんどで 1µg あたり 0.1ng 未満もしくは 1EU 未満のエンドキシン濃度であることが保証されています。ただし、弊社の多くのタンパク質では、エンドキシン濃度の実測値は常に上記のエンドキシン濃度より低くなります。詳しくは当社テクニカルサポートまでお問い合わせください。

3. バイアル中にタンパク質のペレット (パウダー) が確認できないのはなぜですか？

市販されている多くのタンパク質製品とは異なり、ペプロテックの製品はキャリアタンパク質や他の添加物 (例: BSA、HSA、ショ糖) が使用されていません。そのため、凍結乾燥の際、バイアル内には目に見えないこともあるほどの薄い層になってわずかな量のタンパク質が沈着する可能性があります。開栓前に卓上型遠心分離器で各バイアルを 20 ~ 30 秒間遠心し、キャップやバイアル内壁に付着している可能性のあるタンパク質をバイアル底部に集めることを推奨します。当社の品質管理手順によって、各バイアルに適正量の製品が充填されていることを保証しています。

4. ED₅₀ で表される活性と units/mg で表される比活性にはどのような関係がありますか？

ED₅₀ が活性最大反応の 50% に達するサイトカイン濃度と定義される一方で、比活性は物質の量または質量に関する反応比率 (すなわち活性) の大きさとして定義されます。比活性は効力の表現方法として使用され、かつシグモイド用量依存曲線に対してのみ算出される必要があります。ED₅₀ (ng/mL) で表される活性から units/mg で表される比活性に変換する公式は次のとおりです。

$$\frac{1 \times 10^6}{ED_{50} \text{ (ng/mL)}} = \text{比活性 (units/mg)}$$

5. 種間交差活性を示すサイトカインはどれですか？

多少の例外はありますが、大部分のヒトサイトカインはマウス細胞で活性を示します。多くのマウスサイトカインは、ヒト細胞で活性を示しますが、対応するヒトサイトカインと比べて比活性が低くなります。インターフェロン、GM-CSF、IL-3、IL-4 は、種特異的であり、異種細胞に対しては示したとしてもほんのわずかな活性しか示さないことが明らかになっています。これに対し、FGF およびニューロトロフィン、非常に高度に保存されており、他の動物種の細胞に対して優れた活性を発揮します。

6. 比活性と活性の国際単位 (IU) にはどのような関係がありますか？

比活性と国際単位 (IU) の値の間には直接的な相関関係、もしくは換算式がありません。国際単位では、WHO (世界保健機関) が実施した国際共同研究に基づく国際的に認められた生物学的効力の単位 (すなわち IU/ng) を持つ標準品を基準にし、物質基本量の活性を定量化することができます。WHO 標準品は NIBSC (National Institute for Biological Standards and Control) から提供されています。異なるソース / 由来から得られた物質の活性比較の単純化が目的ですが、比較方法がそれらの間で異なれば IU 測定値に差が出る可能性があります。正確かつ直接的な比較には、ソース / 由来を問わない質量に対する物質の活性の比較性を保証するうえでも標準化された分析方法が必要となります。

7. ペプロテックでは活性の国際単位 (IU) をどのように得ていますか？

可能な場合において、ペプロテックでは生物活性アッセイに当社製品に対応する WHO 標準品を使用し、複数回の対照比較により国際単位 (IU) 値を出しています。比較試験の実施により、アッセイでのバラツキの可能性 (製品、取り扱い、アッセイプロトコルなど) に起因する外れ値を説明できるようになります。これらの比較結果を使用して、WHO 標準品の活性に対する当社製品の活性の信頼できる較正值を提供できます。

GMP サイトカイン FAQ

1. 治験薬の GMP 製造や市販用治療製品の製造に PeproGMP® サイトカインを使用することはできますか？

はい。PeproGMP® サイトカインは、細胞治療製品、遺伝子治療製品、組織工学製品、複合製品、他の先端医療医薬品などの治験薬や市販の臨床用製品の GMP 製造への使用を目的としています。

ただし、PeproGMP® サイトカインは治療薬でも医薬品添加物でもないため、ヒトへの直接投与はできません。詳細については、USP (米国薬局方) <1043> Ancillary Materials for Cell, Gene, and Tissue-Engineered Products (細胞、遺伝子および組織工学製品の製造関連物質) をご覧いただくか、当社テクニカルサポートまでお問い合わせください。

2. PeproGMP® サイトカインのリスク分類はどのようになっていますか？

USP <1043> に基づき、PeproGMP® サイトカインは Tier 2 に分類されます。

Tier 1：低リスク、高度な評価がなされたもの（治療用医薬品または生物製剤、医療機器）

Tier 2：低リスク、製造関連物質としての用途を持ち、GMP に従って製造され、十分に特性解析されたもの

Tier 3：中リスク、製造関連物質としての用途を持たないもの

Tier 4：高リスクなもの

3. PeproGMP® サイトカインの製造施設は US FDA による GMP 認定を受けていますか？ ペプロテックは FDA 査察を受けたことはありますか？ 当社の QA 部門ではペプロテックや PeproGMP® サイトカインの適格性をどのように判断したらいでしょうか？

US FDA は、製造関連物質の製造施設に対しては査察も GMP 認定も行っておりません。一部の国では、その国の規制当局があらゆる種類の製品の GMP 製造に対して査察を行い、認定を行っていますが、FDA による GMP 査察の対象は治療薬と医療機器の製造施設に限られています。

PeproGMP® サイトカインは、厳格な ISO 9001 に適合した品質システムのもと、関連する US GMP に準拠して製造されています。製造、試験、ラベル表示、包装のあらゆる面において、当社の QA 部門により厳密に管理、バリデーション、モニタリングが行われています。当社では、PeproGMP® サイトカインのすべての製品において、詳細な試験成績書 (Certificate of Analysis) と原産地証明書 (Certificate of Origin) を提供しています。安全データシート (Safety Data Sheet) もご利用いただけます。

4. PeproGMP® サイトカインは動物由来成分を含まず、ヒト由来成分も含んでいないのでしょうか？

はい。PeproGMP® サイトカインの製造には組成が不明な培地、酵素、化学物質を使用しており、これらはいずれもヒトを含む動物由来ではありません。

5. PeproGMP® サイトカインは、当社が研究開発に使用し続けているペプロテックの RUO サイトカインと同じ生物学的特性を持つのでしょうか？

はい。PeproGMP® サイトカインは、機能的に対応する RUO サイトカインと同等です。

6. PeproGMP® サイトカインはどのように発送されますか？

PeproGMP® サイトカインは凍結乾燥されており、幅広い温度で安定していますので、周囲温度での発送となります。

ヒトES/iPS 細胞用維持培地 FAQ

1. PeproGrow™ hESC はどのような培地ですか？

PeproGrow™ hESC は、ラトガース大学（アメリカ・ニュージャージー州）Stem Cell Training Courseと当社が共同で設計開発した独自組成の培地です。この培地は、血清やフェノールシッドを含んでおらず、化学的組成が完全に明らかな培地で、ヒトES細胞およびヒトiPS細胞の増殖培養への使用を目的としています。この培地は、FGF-basicの他、特異なTGF-β経路活性化因子（同様の経路を活性化するインスリンの代替）を使用しており、TGF-β阻害因子は使用していません。

2. PeproGrow™ hESC はどのように保存したらよいですか？

基礎培地は2℃～8℃の暗所で6ヵ月間まで保管できます。凍結乾燥された成長因子構成成分は2℃～8℃であれば6ヵ月間、-20℃～-80℃であれば5年間まで保管できます。

3. PeproGrow™ hESC はどのように調製したらよいですか？

凍結乾燥された成長因子構成成分をキットのサイズにより細胞培養用滅菌水100μLまたは500μLで溶解します。バイアルを数分間静置し、数回ゆっくりと転倒混和したあと遠心分離します。培地ボトルに成長因子構成成分の全内容物を無菌的に添加します。混合した日付と新たに算出した使用期限（混合した日から2週間）をボトルに表示します。必要時まで4℃の暗所で培地を保管し、栄養源の供給に必要な量の培地だけをその都度加温します。

4. 現在使用している培地から PeproGrow™ hESC に切り替えるにはどうしたらよいですか？

馴化ステップを踏まずにすぐに培地を切り替えることができます（迅速プロトコル）。1週間かけて PeproGrow™ hESC 培地の割合を毎日少しずつ増やしていくことも可能です（馴化プロトコル）。

5. 馴化プロトコルで何か注意すべきことはありますか？

馴化は必須ではありません。細胞は PeproGrow™ hESC にすぐに順応しますので、馴化はお客様の判断で行ってください。馴化プロトコルを使用する場合、念のため、現在使用中の培地で培養を維持してもかまいません。培養を順応させる際、PeproGrow™ hESC に対する現在使用中の培地の比率を少しずつ変える方法も選択できます。繰り返しになりますが、馴化は必須ではありません。平坦化などの形態の変化がみられる場合がありますが、これは心配ありません。他社の培地と比べて培養の外見に若干の違いはみられるかもしれませんが、培養細胞の多能性は維持されます。

6. 馴化中に分化がみられた場合、どうすればよいですか？

ある程度の分化は予想されますので、分化したコロニーを剥がし取るか、新たにコーティングした細胞培養ディッシュに分化していないコロニーを採取して取っておく必要があります。

7. 私の細胞培養は PeproGrow™ hESC で変化しますか？

一部の細胞コロニーの形態に変化が生じる可能性があります。また、いずれのプロトコル（迅速プロトコルまたは馴化プロトコル）を用いた場合でも、培地切り替えの際にある程度の分化がみられる可能性があります。これは想定できないことではありませんので、細胞を洗浄して3回まで継代し、反応が不良のコロニーを選び出す必要があります。推奨プロトコルについては、PeproGrow™ hESC の取扱説明書をご覧ください。

8. 私の細胞培養は PeproGrow™ hESC でどのように変化しますか？

変化を正確に予測することはできませんが、当社では馴化培養液では継代の際にコロニーの弾性がさらに高まることを確認しています。コロニーの弾性をさらに高めるための継代方法に関する詳細情報は、PeproGrow™ hESC の取扱説明書に記載されています。コロニーの質感に変化がみられない場合は、お客様の通常のプロトコルを用いて継続してください。

9. 酵素を用いた継代後に細胞がうまく接着しませんでした。なぜですか？

おそらくコロニーが過剰に消化されたものと考えられますが、残った細胞は捨てないでください。一部のコロニーが接着している場合は、引き続き培養液に栄養源を供給してください。一部の細胞は4～6日後に盛んに増殖するため、2～4個のコロニーから培養を維持することが可能です。また、過剰な消化を回避するために、非酵素継代法の使用を考えてみるのもよいでしょう。

10. 酵素を用いた継代後に細胞がうまく接着しなかった場合、培養に試薬を添加してもよいですか？

2～10μM（2μMが望ましい）のY-27632（ROCK阻害剤）を添加すると、酵素（ディスパーゼまたはAccutase™）を使用した継代では細胞の生存と接着が向上することが明らかになっています。Y-27632を増量すると、可逆性が確認されている形態変化の他、神経分化も生じることが明らかになっています。

11. 細胞の継代に関するその他の推奨事項はありますか？

その他の推奨事項は下記のとおりですが、PeproGrow™ hESC の取扱説明書もあわせてご覧ください。

- 継代法で最も難しい部分は適切なタイミングを図ることです。ディスパーゼによるコロニーの過剰な消化を避けることは極めて重要ですが、その理由は、コロニーの過剰な消化によってコロニーが接着しなくなったり、接着後にコロニーが崩壊したりするためです。
- おそらく5～7日後には、継代には十分な大きさのコロニーが形成されると思われます。
- ある程度の細胞死は正常の範囲内です。ディスパーゼを用いた継代では、ある程度の割合の細胞が接着しなくなると予測されますが、生存率が50%を切った場合は、細胞の継代が過酷であったということになります。PBS/EDTAを使用する場合はディスパーゼよりは穏やかな方法となりますので、細胞の継代が正しく行われれば回復性は高くなります。

ヒトES/iPS 細胞用維持培地 FAQ (続き)

12. 細胞の継代のタイミングについて他に推奨事項はありますか？

継代のタイミングは非常に重要です。継代の時期が早すぎると、コロニーが小さくなりすぎ、継代に耐えられなくなるため、細胞がうまくディッシュ培養面を覆いません。また、コラーゲナーゼへの過剰な曝露を避けることも重要です。当社はディスペーゼまたはPBS/EDTAを推奨します。5分あれば最適な状態になりますが、どちらの方法も3分後の時点で細胞を観察し、5分が必要かどうかを判断してください。

13. 細胞密度はコロニーの増殖にどのように影響しますか？

細胞の密度が低すぎたり高すぎたりすると、分化が生じる可能性があります。スプリット比率が高すぎる場合、細胞には生存率を高められるほどの十分な自己分泌因子が存在しないため、多くの細胞が死亡したり分化したりします。コンフルエントに近い状態の培養ディッシュから開始し、ディスペーゼ使用時はスプリット比率として1:6、1:12または1:18を、PBS/EDTA使用時は1:6、1:12、1:18または1:24を試すことを推奨します。必要であればさらに希釈してもかまいません。当社は、低い細胞播種密度においてディスペーゼを使用する際にはY-27632の添加を推奨しますが、PBS/EDTAを使用する際にはその必要はありません。

14. 間隔は細胞密度にどのように影響しますか？

間隔の決定は任意です。当社は、細胞を播種する際には、ウェル(6ウェルディッシュのみ)の縁の周りに細胞を置き、その後ディッシュを前後に静かに動かして混合させることを推奨します。その他のサイズのディッシュでは、細胞を添加する際にピペットを動かして細胞を分散させてください。

15. 細胞への栄養源の供給に関して、何か推奨事項はありますか？

週末にかけて2倍量の栄養源を1回分として供給する場合は除き、細胞には毎日栄養源を供給してください。

16. 細胞培養ディッシュのコートニングに推奨されるMatrigel® (Corning社)以外のマトリックスを使用してもよいですか？

はい。当社ではLaminin/Entactin、Synthemax® II(ともにCorning社)、組換えヒトビトロネクチン(当社)を含めその他のコートニング試薬を試しました。Laminin/Entactinでは、標準的なプラスチック製細胞培養ディッシュでMatrigel®とほぼ同じ増殖がみられました。ヒトビトロネクチンとSynthemax® IIでは、因子を最適に結合させるため、CellBIND®(Corning社)またはそれと同等のプラスチック製細胞培養ディッシュを推奨します。この方法では、コロニーの広がりが少なく、接着性もわずかに弱かったため、さらに時間をかけてY-27632を添加する必要があると思われる。

無血清細胞培養培地用添加剤キット FAQ

1. 化学的組成が明らかな無血清培地とは何ですか？

化学的組成が明らかな培地は、分子の構造と濃度が明らかになっている成分のみ含有しています。

2. 化学的組成が明らかな無血清培地を使用することの利点は何ですか？

次のような利点があります：「ロット間の変動が減り、細胞増殖の再現性が高い」、「血清を添加した場合と比べてタンパク質収量が高い(タンパク質産生アプリケーションの場合)」、「一定した性能の培地が得られる」、「ウイルスや他の感染物質による汚染リスクを低減できる」、「ダウンストリーム精製の困難が軽減される(タンパク質産生アプリケーションの場合)」、「血清ロットの事前スクリーニングの必要がなくなる」、「規制要件や他の添付書類要件が簡素化される」。

3. ペプロテックの無血清細胞培養培地用添加剤キット PeperoGrow-1にはタンパク質は使用されていますか？

いいえ。当社の無血清細胞培養培地用添加剤キットには、動物由来成分が使用されていないばかりでなく、タンパク質も使用されていません。

4. PeperoGrow-1に関して動物由来成分不含の証明書は提供していただけますか？

はい。当社テクニカルサポートまでお問い合わせください。

5. PeperoGrow-1の組成をどこで見ることができますか？

当社は本キットの組成を開示しておりません。

6. DMEM/F12培地の代わりにDMEM培地を使用することはできますか？

DMEM/F12培地は、DMEM培地の半分量とF12培地の半分量を混合したものであるため、DMEM培地のみと比べて栄養価が大幅に高くなっています。当社では現時点ではDMEM培地の試験は行っていません。そのため、PeperoGrow-1はDMEM/F12培地に使用することを推奨します。

抗体の抗原親和性精製

サイトカインは、体の中での細胞間の情報伝達に必要なシグナル伝達タンパク質です。生体の生物学的機能の維持における役割と一致し、様々な哺乳類に由来する相同サイトカインのアミノ酸配列が一般に高度に保存されているため、これらのサイトカインは抗体産生のための免疫原性が低くなります。

その結果、サイトカインで免疫を誘導した宿主動物の血清（図 I-1）が含有するサイトカイン特異抗体は通常微量です。これらの抗体を標準的な精製手順（例：イオン交換クロマトグラフィー法）で分離するのは単調な作業となり効率的ではありません。一方、特定の生体分子に対する抗体の結合親和性を利用した精製プロトコルでは大幅に良好な結果が得られています。

例えば、プロテイン A とプロテイン G は、細菌（ブドウ球菌）由来タンパク質で免疫グロブリン (IgG) の Fc

(Fragment crystallizable) 領域に対して高い結合親和性を示し、固相支持体に結合させると IgG を他の血清成分から効率的に分離することができます。血清 IgG のプロテイン A/G 親和性精製により、通常、目的の抗体が 100 倍以上増加します。しかし、抗サイトカイン抗体の場合には、総 IgG 分画における目的の抗体の含有率は 0.2% 未満になることが多々あります。

これらの試料中に無関係な IgG が多量に含まれていると、サイトカイン特異抗体の相対量の定量が妨げられるだけでなく、抗体を ELISA、中和試験、免疫組織化学、ウェスタンブロット法などの分析法に使用する場合にバックグラウンドノイズが大きくなります。抗血清から特異的ポリクローナル抗体を分離する優れた方法は、抗体-抗原相互作用の特異性を利用したアフィニティクロマトグラフィー法です（図 I-2）。

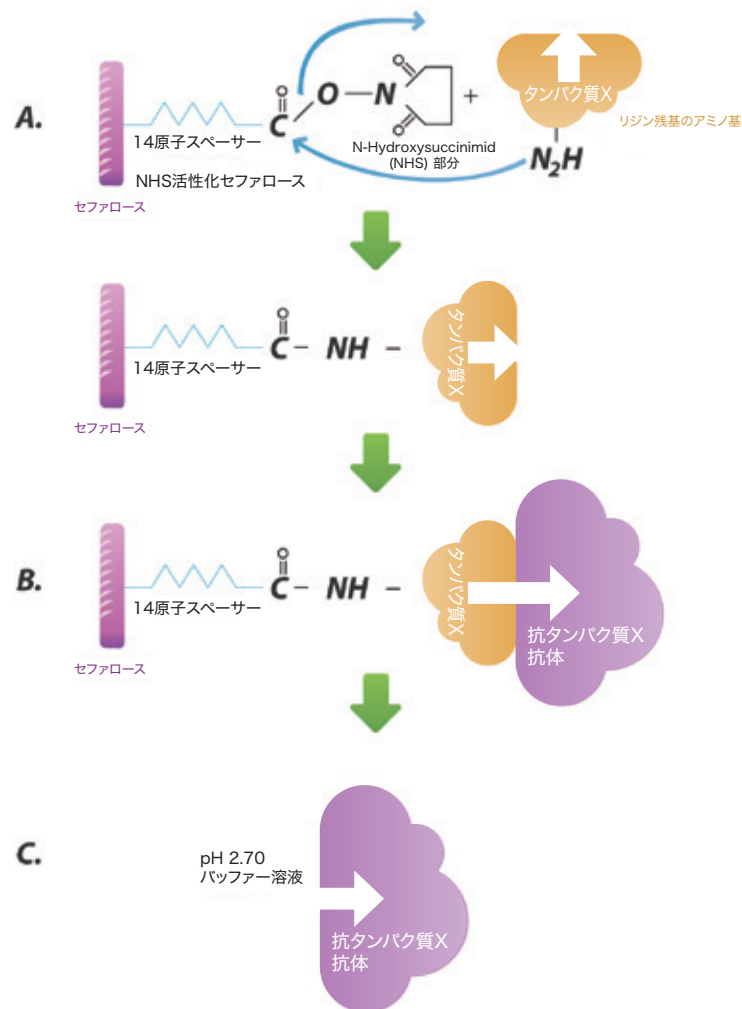
図 I-1 ウサギを用いたポリクローナル抗体産生のための一般的な免疫付与スケジュール

| 日 | 手順 | 抗血清採取量 |
|----|----------------------|---------|
| 1 | 前採血 | 3mL |
| 1 | 初回免疫付与 (250 μ g) | - |
| 21 | 免疫付与 (125 μ g) | - |
| 31 | 抗体価測定用の採血 | 3mL |
| 42 | 免疫付与 (125 μ g) | - |
| 49 | 産生用の採血 | 10-25mL |
| 56 | 産生用の採血 | 10-25mL |
| 63 | 免疫付与 (125 μ g) | - |
| 70 | 産生用の採血 | 10-25mL |
| 77 | 産生用の採血 | 10-25mL |
| 84 | 免疫付与 (125 μ g) | - |
| 91 | 産生用の採血 | 10-25mL |
| 98 | 産生用の採血 | 10-25mL |

抗体の抗原親和性精製 (続き)

図 I-2 抗体の抗原親和性精製

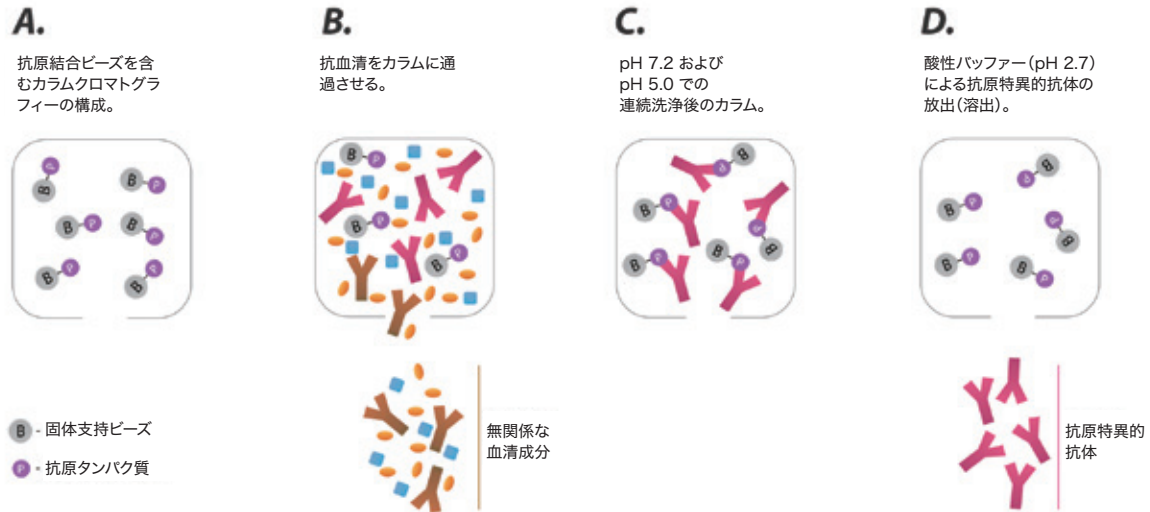
- (A.) 分離用樹脂の調製
 (B.) 抗体と樹脂の特異的結合
 (C.) 親和性カラムからの抗体の pH 溶出



この方法では、担体は、抗原が安定した共有結合によって結合する固相支持樹脂から構成されます。固定化した抗原をその後カラムクロマトグラフィー法の構成に使用すると、抗原特異的抗体は選択的に捕捉され、他の血清タンパク質および無関係の免疫グロブリンは洗い流されます (図 I-3)。

抗原と結合した抗体は酸性溶液でカラムから溶出させることが可能で (図 I-4)、この溶液を速やかに生理的 pH に戻すと酸触媒による抗体変性を防ぐことができます。この方法による収量の 95% 超は純粋な特異抗体になります (図 I-5)。

図 I-3 抗体の抗原親和性精製のためのカラムクロマトグラフィー法の構成の概略図



注: 1M NaOHを添加して溶出pHを7.2に調節する。

図 I-4 典型的な抗原親和性精製クロマトグラフ

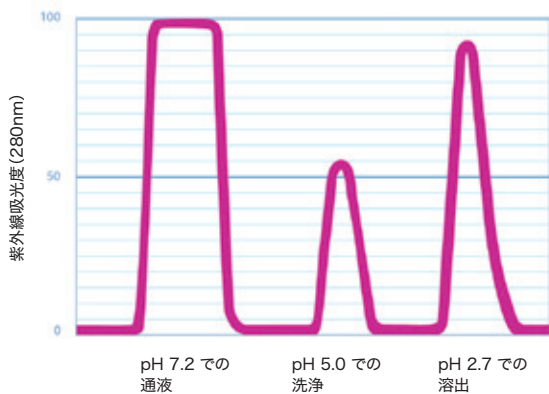
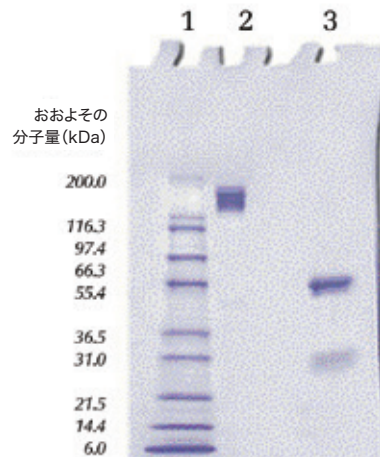


図 I-5 ウサギ抗ヒト IL-8 ポリクローナル抗体 (Rb α hIL-8) の SDS-PAGE 分析

レーン 1 : 分子量マーカー
 レーン 2 : Rb α hIL-8, 2 μ g (非還元)
 レーン 3 : Rb α hIL-8, 2 μ g (還元)



抗体 FAQ

1. ペプロテックでは自社の抗体にエンドトキシン試験を行っていますか？
 当社では LAL カイネティック法で抗体のエンドトキシン試験を行っています。詳しい情報は当社テクニカルサポートまでお問い合わせください。
2. ペプロテックのポリクローナル抗体のアイソタイプは？
 当社が製造するポリクローナル抗体は IgG 抗体です。
3. ペプロテックの抗体はどのように精製していますか？
 すべてのポリクローナル抗体とピオチン化ポリクローナル抗体に対して、抗原親和性精製を行っています。モノクローナル抗体の精製法は製品毎に異なりますので、詳しい情報はテクニカルサポートまでお問い合わせください。
4. ペプロテックの抗体が結合するエピトープについて教えてください。
 当社は現時点ではエピトープマッピングを実施していません。一般的な指針として、モノクローナル抗体は標的タンパク質の特定のエピトープに結合しますが、ポリクローナル抗体の場合は様々な抗体分子種の混合物となるため、複数のエピトープに結合します。
5. ペプロテックの抗体は中和試験を行っていますか？
 可能な場合において、中和試験は抗体毎にロットベースで実施しています。中和試験の結果は製品の該当データシートに記載されています。
6. ペプロテックの抗体は ELISA 法やウェスタンブロット法での使用に適していますか？
 当社の抗体は ELISA 法やウェスタンブロット法での使用に適しています。これらの用途に関する詳しい情報は、ELISA とウェスタンブロット法のそれぞれの FAQ をご覧ください。
7. ペプロテックの抗体製品の安定性についてどのような情報を知っておくべきでしょうか？
 当社の抗体は PBS から調製されている凍結乾燥品です。そのため、室温で少なくとも 1 ヶ月間は安定しています。1 ヶ月を超える場合には、凍結乾燥品は -20°C ~ -80°C で保存することを推奨します。
 調製後の抗体溶液は、4°C での短期保存を推奨します。長期保存する場合には、まず抗体溶液を分注し（凍結融解サイクルを 2 回以上繰り返さないため）、-20°C ~ -80°C で凍結保存してください。この抗体溶液の凍結アリコートは、-20°C ~ -80°C で保存すれば少なくとも 6 ヶ月間は安定しています。
8. ペプロテックの抗体製品はキャリアタンパク質や他の添加物を含っていますか？
 いいえ。当社では、ポリクローナル抗体、ピオチン化ポリクローナル抗体またはモノクローナル抗体に添加物やキャリアタンパク質は使用していません。
9. ペプロテックの抗体は免疫組織化学や免疫細胞化学に役立ちますか？
 現在までに試験済みのどの抗体もこれらの用途に適していることが明らかになっています。詳しい情報は当社テクニカルサポートまでお問い合わせください。
10. ペプロテックの抗体は他社が販売している標的タンパク質を認識しますか？
 当社の抗体製品は、天然型あるいは組換え型、またはその両方の対応するタンパク質に対して高い結合親和性を示します。しかし、他社のタンパク質のなかには時として真正性が欠けることもあるため、当社の抗体がこれらのタンパク質で同じような優れた性能を発揮するという事は保証できません。
11. ペプロテックの抗体は血液や血清などの複合体液中の標的タンパク質を認識しますか？
 はい。ただし、妨害物質含有量が高い試料では、認識の効率が低下して、バックグラウンドが高くなったりシグナル / ノイズ比が低下したりする可能性があります。

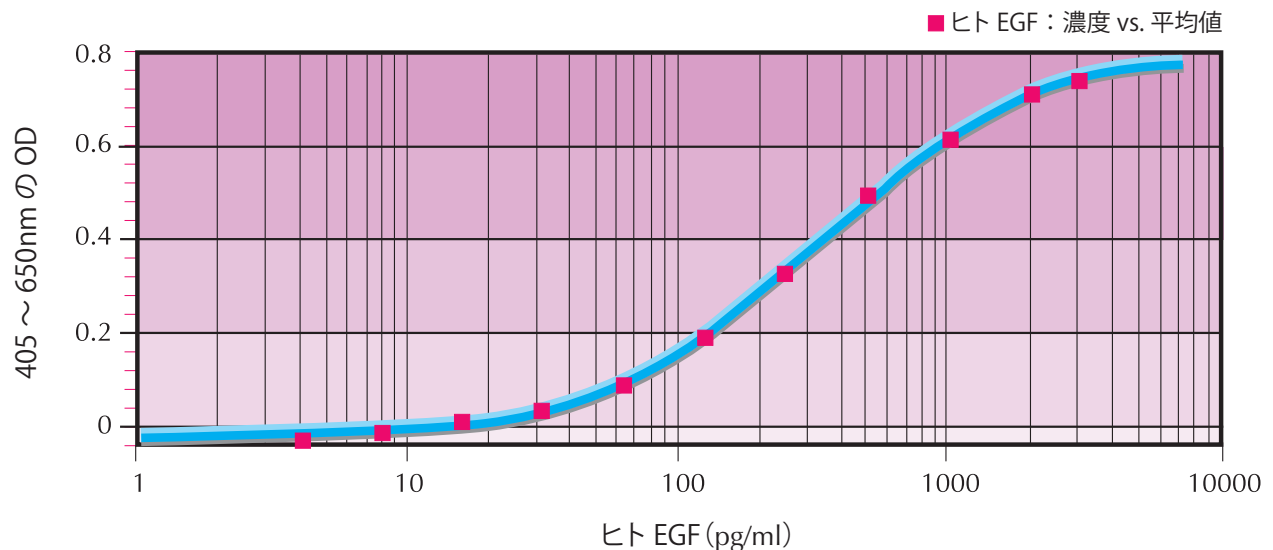
ELISA

酵素免疫測定法 (ELISA: Enzyme-linked Immunosorbent Assay) は、細胞溶解液、血清または他の複合溶液中の特定の抗原または抗体の濃度を定量するための検査手法です。最も簡素な、ダイレクト ELISA と呼ばれるフォーマットでは、ポリスチレンプレートなどの固相結合担体を測定対象抗原の捕捉に使用し、その後この抗原を特定の酵素標識抗体を利用して検出します。検出プロトコルでは、無色の基質溶液を、反応プレートで直接測定できる鮮明な色を発する産物に変換する必要があります。反応が起こっている間の吸光度の増加を幾つかの試料溶液で様々な時点にて記録し、その後収集したデータを標準曲線とあわせて使用し、元の試料中の抗原濃度を算出します (図 II-1)。ELISA は、感度と特異度が放射免疫測定法 (RIA) と同等ですが、放射性同位体と高価な計数装置を必要としないという利点があります。ELISA は研究室と臨床検査室の双方で広く使われるようになっており、ヒト免疫不全ウイルス (HIV) 感染をはじめとする多くの感染症の重要な診断検査となっています。

酵素標識抗体の調製に適している酵素は、アルカリホスファターゼ、西洋ワサビペルオキシダーゼ、炭酸脱水酵素を含めて数多くあります。酵素標識抗体はグルタルアルデヒドなどのカップリング剤で酵素と抗体を共有結合させることによって得られますが、この方法では産物の免疫活性と酵素活性の両方またはその一方が低下することが多いために一般には使用されません。完全な活性を示す酵素標識抗体を調製する優れた方法は、図 II-2 に示すようにビオチンに対するアビジンの高結合親和性を利用することです。この方法で用いるビオチン化抗体は平均 6 ~ 8 個のビオチン部分を有していますが、サイズが小さいためにこれらのビオチン部分が抗体と捕捉される抗原の相互作用を妨げることはありません。結合しなかった抗体をプレートから洗い流した後、*in situ* にてビオチン部分とアビジン - 酵素複合体で安定した複合体を形成させます。

ダイレクト ELISA フォーマットの大きな欠点として、一部の抗原 (例: 低分子サイトカイン) はポリスチレンプ

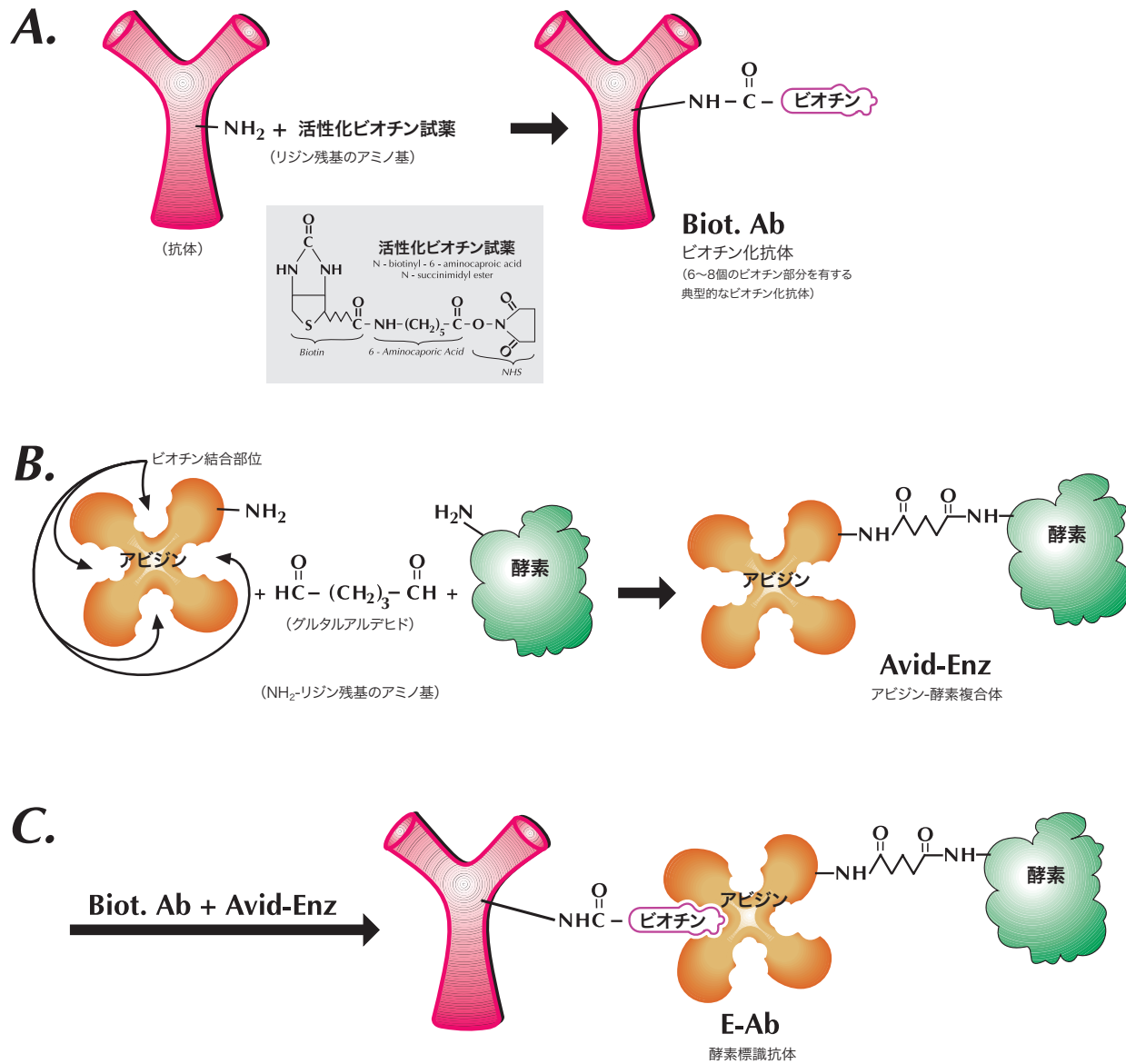
図 II-1 標準曲線の見本 - ヒト EGF ABTS ELISA



ELISA (続き)

図 II-2 アビジン - ビオチン相互作用を利用した酵素標識抗体の作製手順

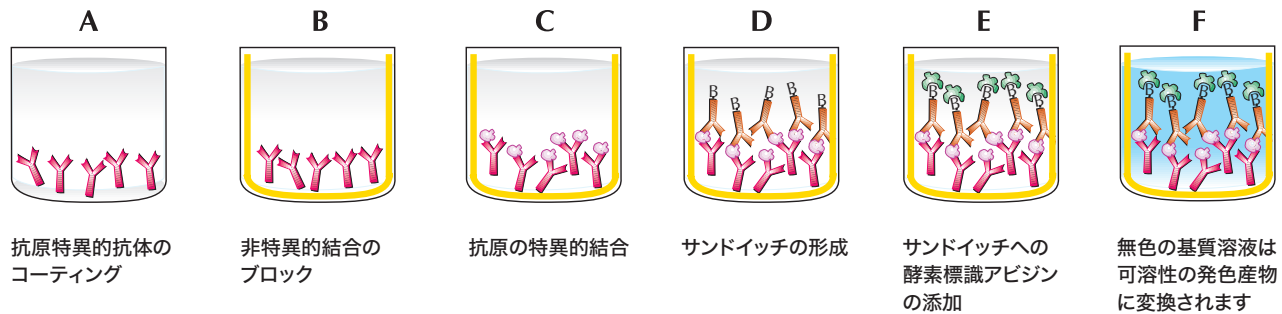
(A.) 抗体のビオチン化 (B.) アビジンと酵素の抱合反応
 (C.) アビジンとビオチンの非共有結合性相互作用による酵素標識抗体の *in situ* 形成



プレートへの結合が少ないために正確に測定することができません。この欠点を回避するために、プレートは、酵素標識抗体が使用しないエピソードで測定対象抗原を認識する特異的抗体によってあらかじめコーティングすることができます。抗原特異的抗体の対応対（一方は捕捉用、他方は検出用）を用いると、分析の感度と特異度の双方

が著しく向上します。このサンドイッチ ELISA と呼ばれるフォーマットは、ピコグラム単位の量の抗原を検出することができ、生体試料中のサイトカインおよびホルモンの測定に好ましい方法です（図 II-3）。

図 II-3 サンドイッチ ELISA プロトコルの概略図



A. 抗原特異的抗体（捕捉抗体）を PBS (1.0 μ g/mL) に溶解して新たな溶液を調製し、速やかに各ウェルに 100 μ L ずつ分注します。プレートを密封し、室温で一晩または 37 $^{\circ}$ C で 2～4 時間インキュベートします。インキュベーション時間の終了後、結合しなかった抗体を洗い流します（つまり、吸引と洗浄を 4 回繰り返します）。

B. ブロッキング剤（例：BSA）の新たな溶液を添加し、少なくとも 1 時間インキュベートします。ウェルを 4 回洗浄します。

注：非特異的結合のブロッキングが不十分だと、バックグラウンドノイズが大きくなるおそれがあります。このような場合には、インキュベーション時間を増やすか他のブロッキング剤を試してください。

C. 新たに製した標準物質、試料またはコントロールの溶液を添加し、2 時間超の間インキュベートします。ウェルを 4 回洗浄します。

D. 新たに製したビオチン化抗原特異的抗体（検出抗体）を添加し、2 時間インキュベートします。ウェルを 4 回洗浄します。

E. アビジン-HRP 複合体の溶液を添加し、30 分間インキュベートします。ウェルを 4 回洗浄します。

F. 基質溶液を添加し、その製造元の指示に従い吸光度を読み取ります。

注：特に指定がない限り、ELISA プロトコルは周囲温度で実施します。

ELISA FAQ

1. ペプロテックの ELISA Development Kit (EDK) に含まれている HRP 複合体の安定性は？

ABTS EDK に含まれているアビジン-HRP は、2～8℃で最長 1 ヶ月間、-20℃で最長 2 年間安定しています。

TMB EDK に含まれているストレプトアビジン-HRP は、2～8℃で少なくとも 6 ヶ月間安定しています。

2. キットの交差反応性についての情報はどのように入手することができますか？

ペプロテックでは EDK の交差反応性試験をロット毎で実施しています。この試験で得られた結果はキットのデータシートに記載されています。

3. ELISA プロトコルの中で週末の間に残しておくことのできる手順はありますか？

プレートは、金曜日に捕捉抗体でコーティングし、週末の間は 4℃を保ち、月曜日に再開してもかまいません。注：インキュベーション時間を変更すると、プレート間の結果にバラツキが生じるおそれがあります。

4. ペプロテックの EDK はすべての種類の試料で使用するのに適していますか？

当社は利用可能な各マトリックスですべてのキットを試験したわけではありませんが、血清、血漿、細胞培養上清、尿、唾液等のマトリックスなどでの使用には適していると思われます。

5. 反応を停止させるために反応停止液は必要ですか？

ABTS EDK (アビジン-HRP + ABTS) には反応停止液は必要ありません。信頼性の高い標準曲線は一般に、O.D. 読み取り値がゼロ標準濃度の場合には 0.2 単位、または最高標準濃度の場合には 1.2 単位を超えないときに得られます。反応停止液を希望する場合には、1% トリジール硫酸ナトリウム (SDS) を使用して反応を停止させてもかまいません。当社のラボでは ABTS EDK に反応停止液を使用していません。

一方で、TMB EDK (ストレプトアビジン-HRP + TMB) には反応停止液 (1M HCl) の使用を推奨します。

6. ペプロテックの TMB EDK では推奨される補正波長 620nm に加えて、他の波長は使用できますか？

TMB EDK では、540nm、570nm または 650nm を補正波長として使用できます。

7. ペプロテックの ABTS EDK に TMB を使用することはできますか？

当社の ABTS EDK は、ABTS を使用して最適化されているため、この基質と一緒に使用するのが最も好ましいと思われるかもしれません。しかし、このキットは、幾つか調整を行った後であれば TMBと一緒に使用することもできます。

- キットに含まれているアビジン-HRP は TMB と一緒に使用することができません。ストレプトアビジン-HRP を別途購入する必要があります。
- ストレプトアビジン-HRP 希釈液を最適化する必要があります。
- ストレプトアビジン-HRP と TMB を一緒に使用する場合には一般に、反応停止液が必要です。製造元のデータシートをご参照ください。
- 反応停止液添加前の TMB 反応時間を最適化する必要があります。
- プレートは、推奨プレートを使用する場合には 450nm (620nm で補正) で読み取りを行ってください。

8. D-マンニトールを EDK の構成成分に添加している理由は何ですか？

D-マンニトールを EDK の構成成分に添加しているのは、バイアル内のタンパク質 / 抗体の可視化に役立つためです。D-マンニトールは ELISA の結果には影響しません。

9. EDK データシート上の曲線を自分の標準曲線として使用することはできますか？

標準曲線は ELISA プレート毎に作成しなくてはなりません。つまり、あるプレートから得られた曲線を別のプレートに使用することはできません。当社が EDK データシート上で提供している曲線は、当社のラボで得られたものですが、あくまで実証用として使用しています。

10. ペプロテックは標準曲線をどのように作成していますか？

当社のラボで ELISA を実施する場合は、Molecular Devices 社のプレートリーダーおよび SoftMax® Pro ソフトウェアを使用しています。このプログラムは、受け取った値から 4-パラメータの曲線を作成します。プログラムが使用する等式は次のとおりです。

4-P フィットティング：

$$y = \frac{A-D}{1 + \left(\frac{x}{C}\right)^B} + D$$

x = 濃度 (pg/mL)

y = O.D. (405nm – 650nm)

A、B、C、D は 4 つのパラメータに対応 *

* パラメータに関する詳しい情報は当社テクニカルサポートまでお問い合わせください。

ELISA トラブルシューティングガイド

トラブルに対処する場合には、バッファーはすべて新しく用意してください。BSA 含有バッファーは滅菌し過ぎ、全ての試薬は使用する前に室温になっているようにしてください。

| 問題 | 考えられる原因 | 提案 |
|-------------------------|---------------------------------------|--|
| バックグラウンドが高い/非特異的な発色が起こる | 抗体の非特異的な結合がみられる | • 使用するブロッキングバッファーを変えてください (例: BSA の代わりにカゼインを使用)。ブロッキングステップの後に洗浄せず、中身を廃棄し、しっかりと水分を取り除いて次のステップに直接進んでください。 |
| | プレートの洗浄が不十分である | • 各洗浄ステップですべてのウェルがバッファーで満たされていることを確認してください。洗浄器具が適切に作動していることを確認してください。ステップとステップの間で3~5回の洗浄を行ってください。追加の洗浄はしないでください。最後の洗浄の後には、プレートに残留しているバッファーをペーパータオルでしっかり吸い取って除去してください。洗浄液に添加した Tween の量に間違いがないことを確認します (0.01 ~ 0.1% が推奨されます)。 |
| | バッファーの汚染が生じている | • すべてのバッファーを新たに製し (使用の7日以内)、滅菌し過ぎてください。 |
| | インキュベーション温度が高すぎる | • 手順の最初から最後まで室温 (25°C) でインキュベートしてください。 |
| | インキュベーション時間が長すぎる | • インキュベーション時間を短縮してください。 |
| | 複合体による基質の汚染または陽性コントロールによるブランクウェルの汚染 | • 試薬から試薬に移動するときにはピペット先端を交換し、別個のリザーバを使用してください。洗浄バッファーは吸引するのが理想です (注いだり、傾けて廃棄したりすると交差汚染を引き起こすおそれがあります)。 |
| | 検出抗体またはアビジン-HRP/ストレプトアビジン-HRPの濃度が高すぎる | • 算出値をチェックするか、さらに希釈を試みてください。 |
| | 使用前に基質を光に曝露した | • ウェルに分注する用意ができるまで基質は暗所で保存してください。 |
| | 読み取りの際に間違ったフィルタを使用した | • 推奨プレートを使用する場合の波長は、ABTS では 650nm で波長補正し 405nm とし、TMB では 620nm で波長補正し 450nm とします。 |
| | 発色に必要な時間を過ぎてから測定した | • ブランクの O.D. 読み取り値をモニタリングするために、推奨された時間、または時間間隔で読み取ってください。 |
| 発色が弱い / 発色しない | 誤って使用しなかった試薬や省いた手順がある | • プロトコルをチェックし、注意深く手順に従ってください。 |
| | 洗浄バッファー中の界面活性剤濃度が高すぎる | • 界面活性剤を除去するか減量してください (0.01 ~ 0.1% を推奨します)。 |
| | プレートの洗浄が不適切である | • 特に自動または半自動の洗浄装置を使用しない場合には、ステップとステップの間の洗浄回数を減らしてください。1~2回の洗浄で十分と考えられます。 |
| | 試料中に酵素阻害剤が含まれている | • アジ化ナトリウムはペルオキシダーゼ活性を阻害します。 |
| | インキュベーションの時間や温度が不適切である | • プロトコルの推奨事項をチェックしそれに従ってください。インキュベーション中はプレートをインキュベータ内に入れておき、温度の変動を避けてください (温度は 25°C に設定します)。 |
| | ウェルへの基質の添加量が不適切である | • ピペットをチェックし、目盛り付きピペットを使用してください。 |
| | 不適切な酵素 - 基質系を使用している | • 製造元の規格をチェックしてください。アビジン-HRP+ABTSまたはストレプトアビジン-HRP+TMB。 |

ELISA トラブルシューティングガイド (続き)

| 問題 | 考えられる原因 | 提案 |
|--------------------|-----------------------------|---|
| 発色が弱い / 発色しない (続き) | 複合体または基質が活性を示さない | • 別の試験系で活性を測定し、使用期限をチェックしてください。 |
| | 構成品の保存が不適切である | • どの構成品もデータシートの推奨どおりに保存してください。 |
| | 測定時に間違ったフィルタを使用している | • 推奨プレートを使用する場合の波長は、ABTS では 650nm で波長補正し 405nm とし、TMB では 620nm で波長補正し 450nm とします。 |
| 標準曲線が妥当でない | 標準物質の調製が正しく行われていない | • 標準物質はデータシートの推奨どおりに調製してください。別のバッファーが最適化されていない限り、推奨の希釈バッファーのみで希釈を行ってください。 |
| | 希釈を行うのが早すぎる | • 試薬は使用前に調製し、速やかにウェルに添加してください。 |
| | 捕捉抗体が結合しなかった | • ELISA に適したプレート (つまり、Nunc MaxiSorp™ 製品番号 439454、または Corning 社 製品番号 3590) を使用してください。組織培養プレートを使用してはいけません。 |
| | 洗浄が不十分である | • 洗浄器具が適切に作動していること (つまり、各ウェルへの分配量が均等であることを) 確認してください。吸引後にはウェルに液残りがいないことを確認してください。ウェルが適時に満たされていることを確認してください。 |
| | ピペティングエラー | • 目盛り付きピペットを使用し、各ウェルの側面に同じように速やかに分注してください。 |
| | 発色に必要な時間を過ぎてから測定した | • 信頼性の高い標準曲線は一般に、ABTS EDK では O.D. 読み取り値がゼロ標準濃度の場合には 0.2 単位、または最高標準濃度の場合には 1.2 単位を超えないときに得られ、TMB EDK では O.D. 読み取り値がゼロ標準濃度の場合には 0.15 単位を超えないときに得られます。 |
| | 構成品の保存が不適切である | • どの構成品もデータシートの推奨どおりに保存してください。調製後の試薬はあまりに長い時間室温に放置してはいけません。 |
| 精度が不良である | 試薬の混和が不十分である | • 分注前に試薬が十分に混和されるようにしてください。 |
| | 洗浄が不十分である | • 洗浄器具が適切に作動していること (つまり、各ウェルへの分配量が均等であることを) 確認してください。吸引後にはウェルに液残りがいないことを確認してください。ウェルが適時に満たされていることを確認してください。 |
| | ピペティングエラー | • 目盛り付きピペットを使用し、各ウェルの側面に同じように速やかに分注してください。 |
| | 器具の再使用 | • アンプルからアンプルに移動するときにはピペット先端を交換し、試薬から試薬に移動するときにはリザーバを交換し、インキュベーションの間にはプレートシーラーを交換してください。 |
| | ウェルをピペット先端または洗浄器具で引っ掻いてしまった | • 分注および吸引は注意して行ってください。 |
| | 試料中の沈澱物 | • バイアルは使用前に遠心してください。 |
| | ウェルの汚れや残屑 | • 使用前にウェルを点検し残屑があれば取り除いてください。プレート底部を拭き、測定前に残屑や指紋があれば除去してください。 |
| エッジ効果 | 蒸発 | • 各ステップでプレートシーラーを使用してください。 |
| | 温度にむらがある | • インキュベーション中はプレートをインキュベータ内に入れておき、温度の変動を避けてください (温度は 25°C に設定します)。プレートを積み重ねてはいけません。 |

ウェスタントランスファー法（ウェスタンブロット法）FAQ

1. ペプロテックのウェスタントランスファー法プロトコルに従った場合、免疫染色の所要時間はどのくらいになりますか？

ウェスタントランスファー法のプロセスには、タンパク質の転写からバンドの可視化まで約6時間を要します。

2. どの種類の分子量マーカースを使用すべきですか？

当社では、Novex® Sharp Protein Standardを社内ですべてのウェスタントランスファー法に使用しています。ただし、この分子量マーカースを使用しなくてはならないということではありません。しかし、ECL検出法を用いない場合には、着色済み分子量マーカースを使用する必要があります。

3. ウェスタントランスファーで陽性コントロールの添加は必要ですか？

はい。ウェスタントランスファーで目的のタンパク質をどのように可視化されるのかを正確に知るためには、ゲルに陽性コントロールを添加しなくてはなりません。ウェスタントランスファー法に当社の抗体を使用する場合には、その抗体に対する免疫抗原である当社の組換えタンパク質の使用を推奨します。

4. ペプロテックのウェスタントランスファー法プロトコルで推奨されている発色システムを使用しなくてはならないのでしょうか？

いいえ。ウェスタントランスファーの可視化に使用できる数多くのいろいろな発色システムがあります。ただし、酵素標識抗体の使用に対応した発色システムを選択しなくてはなりません。当社では、アルカリホスファターゼ標識二次抗体を使用しています。NBT/BCIPは、この酵素との使用に適しているため、当社のウェスタントランスファーの可視化に使用しています。

5. インキュベーション中には膜の攪拌は不可欠ですか？

はい。インキュベーション中に膜を攪拌することが不可欠です。膜を攪拌しないと、抗体、ブロッキングバッファーおよび洗浄バッファーが膜に均等に作用しない可能性があるため、バックグラウンドにシミや斑点が生じるおそれがあります。また、抗体によるタンパク質の検出も制限される可能性があります。

6. 同一の抗体の異なるロットを使用した場合にウェスタントランスファー法の結果に差が生じるのはなぜでしょうか？

ポリクローナル抗体の性質上、ロット間変動が生じる可能性があるためです。

7. タンパク質の転写ステップでプロットングペーパーは必要でしょうか？

はい。タンパク質の転写ステップで障壁としてプロットングペーパーを挟む必要があります。このプロットングペーパーは、ゲルおよび膜がスポンジと直接接触することによって生じる損傷を防ぐのに有用ですが、電流を妨害することはありません。

8. ウェスタントランスファー法では一次/二次抗体系でなく酵素標識一次抗体を使用することはできますか？

はい。ウェスタントランスファー法を行うとき、一次/二次抗体系を使用する代わりに酵素標識一次抗体を使用することができます。しかし、抗原特異的な一次抗体を認識する標識二次抗体を使用すると、ウェスタントランスファー法で検出されるシグナルが酵素標識一次抗体のみを使用した場合と比べて増強されます。

ウェスタントランスファー法トラブルシューティングガイド

| 問題 | 考えられる原因 | 提案 |
|---------------------|--------------------------------------|--|
| シグナルが弱い/ シグナルがない | タンパク質の量が不十分である | <ul style="list-style-type: none"> 試料中のタンパク質の量を増やしてください。 タンパク質が存在していることを別の方法で確認してください。 |
| | ゲルの泳動時間が長すぎる | <ul style="list-style-type: none"> 泳動時間を短縮して、ダイフロントを注視し、ダイフロントがゲルの底部の近くに到達したときに電流が切られていることを確認してゲルをモニタリングしてください。 |
| | タンパク質試料が古い/ 劣化している | <ul style="list-style-type: none"> 標的タンパク質の新たな試料を試験してください。 |
| | タンパク質の転写量が多すぎる/ タンパク質が適切に転写されなかった | <ul style="list-style-type: none"> 孔径の小さい膜を使用してください。 低分子タンパク質（10kDa 未満）では電圧を下げてください。 膜が製造元の指示どおりにあらかじめ浸漬されていることを確認してください。 標的タンパク質の分子量によって適切な転写時間が異なりますので、転写時間をチェックし最適化してください。 転写用の「サンドイッチ」が適切に組み立てられており、ゲルと膜の接触が十分であることを確認してください。 適切な転写バッファーが使用されていることを確認してください。 転写の際に SDS が添加されると、ニトロセルロース膜の使用時にタンパク質の結合能が低下する可能性があります。 結合能を高めるために転写バッファーに 20% メタノールを添加してください。 ポンソー S などの可逆的染色で膜を染色して主なバンドを可視化することにより、タンパク質の転写状況をチェックしてください。 |
| | タンパク質のpHが9を超えている | <ul style="list-style-type: none"> さらに pH の高いバッファー（つまり、CAPS バッファー、pH 10.5）と交換してください。 |
| | タンパク質がブロッキングバッファーによってマスクされている | <ul style="list-style-type: none"> 別の種類のブロッキングバッファーを使用して試験してください。 ブロッキングバッファーのタンパク質濃度を最適化してください。当社では diH₂O に溶解した 10% Sea Block を推奨します。 |
| | 酵素阻害剤が存在している（例：アジ化化合物） | <ul style="list-style-type: none"> HRP シグナルを阻害するため、バッファーがアジ化ナトリウムを含有していないことを確認してください。 |
| | 一次抗体が古い / 劣化している | <ul style="list-style-type: none"> 貯法や使用期限に関する製造元の推奨事項をチェックしてください。使用期限が切れていたり保存期間が過ぎていたりする場合には、新たな抗体を購入してください。 抗体に対して凍結融解サイクルを繰り返した場合には、構造およびタンパク質と抗体の結合に影響する可能性があるため、新たな抗体を購入してください。 抗体の活性が失われていないことを確認するために、ドットプロット法を実施してください。 |
| | 一次抗体や二次抗体の量が不十分である | <ul style="list-style-type: none"> 抗体濃度に関する製造元の推奨事項をチェックしてください。 個々の分析の至適条件を設定するために、幅広い濃度を検討してください。 |
| | 一次抗体が不適切である | <ul style="list-style-type: none"> 一次抗体が検討対象の動物種に由来する標的タンパク質と反応することを確認してください（つまり、ウサギ抗ヒト VEGF →ヒト VEGF）。 |
| | 二次抗体が不適切である | <ul style="list-style-type: none"> 使用する二次抗体が一次抗体の動物種に対する抗体であることを確認してください（つまり、ロバ抗ウサギ IgG →ウサギ抗ヒト VEGF）。 |
| | 一次抗体のインキュベーションが不十分である | <ul style="list-style-type: none"> 一次抗体のインキュベーション時間を延長してください。抗体は、室温で少なくとも 1 時間または 4°C で一晚、インキュベートすることができます。 |

| 問題 | 考えられる原因 | 提案 |
|-----------------------------|---|--|
| シグナルが弱い/ シグナルがない (続き) | 二次抗体のインキュベーションが不十分である | <ul style="list-style-type: none"> 二次抗体のインキュベーション時間を延長してください（インキュベーションの時間と温度に関する製造元の推奨事項をご覧ください）。 |
| | 膜の過度の洗浄 | <ul style="list-style-type: none"> 洗浄時間を短くして同時に洗浄回数を減らすか、またはそのいずれかを行ってください。 界面活性剤不含の洗浄バッファーまたは界面活性剤濃度の低い洗浄バッファーを使用してください。 |
| | 発色試薬の相性が悪い | <ul style="list-style-type: none"> 使用している発色試薬酵素標識抗体に対応していることを確認してください。 基質が製造元の指示に従って適切に作製されていることを確認してください。 |
| | 塩類が過剰に存在する | <ul style="list-style-type: none"> 洗浄バッファー中の塩類の量を減らしてください。 抗体希釈バッファー中の塩類の量を減らしてください。 |
| | 発色試薬が劣化している/ 不適切である | <ul style="list-style-type: none"> 発色試薬が適切に調製されたことを確認してください。 試薬の活性が失われていないことをチェックしてください。活性が失われている場合には新たな試薬を購入してください。 |
| | フィルムが不良である/ 使用期限が切れている（ECL 法の場合） | <ul style="list-style-type: none"> フィルムが使用期限が切れていない / 露出していないことを確認してください。使用期限が切れていたり露出していたりする場合には、新たなフィルムを購入してください。 |
| | ECL 現像液が古い/ 使用期限が切れている（ECL 法の場合） | <ul style="list-style-type: none"> 新たな ECL 現像液を使用してください。 |
| | フィルムへの露光時間が短すぎる（ECL 法の場合） | <ul style="list-style-type: none"> フィルムへの露光時間を延長してください。 |
| | クリングフィルムが反応に干渉する（ECL 法の場合） | <ul style="list-style-type: none"> 別の等級のクリングフィルムを使用してください。 |
| バックグラウンドが 高い | 抗体濃度が高すぎる | <ul style="list-style-type: none"> 一次および / または二次抗体濃度に関する製造元の推奨事項をチェックしてください。 個々の分析の至適条件を設定するために、幅広い濃度を検討してください。 |
| | 抗体のインキュベーションが過剰である | <ul style="list-style-type: none"> 製造元のプロトコルをチェックし、インキュベーションの時間と温度が適切であることを確認してください。この情報が製造元から提供されていない場合には、試験によってインキュベーション時間を最適化してください。 |
| | 抗体の非特異的な結合がみられる | <ul style="list-style-type: none"> 一次抗体が標的タンパク質のみに特異的であることを確認してください。 一次抗体のインキュベーションを省き、コントロール実験を行ってください。バンドが発現した場合には、別の二次抗体を選択してください。 二次抗体に別の宿主動物種を選択してください。 |
| | 抗体がブロッキングバッファーおよび / または試料中のタンパク質と交差反応している | <ul style="list-style-type: none"> 組成の異なるブロッキングバッファーを使用してください。 ヤギ抗体はウシタンパク質をわずかに認識するため、BSA と反応します。これによって膜上には紫色の光沢が生じます。この場合には、別の動物種の抗体または別の種類のブロッキングバッファーを使用してください。 二次抗体を懸濁する場合には、標的タンパク質と同じ動物種由来の 1 ~ 5% 正常血清を含有するバッファーで抗体を希釈してください。 |
| | ブロッキングバッファーが無効である | <ul style="list-style-type: none"> 組成の異なるブロッキングバッファーを使用してください。 Tween 20 などの界面活性剤をブロッキングバッファーに添加してください。 |

ウェスタントランスファー法トラブルシューティングガイド (続き)

| 問題 | 考えられる原因 | 提案 |
|------------------|----------------------------------|---|
| バックグラウンドが高い (続き) | ブロッキングが不十分である | <ul style="list-style-type: none"> 組成の異なるブロッキングバッファーを使用してください。 ブロッキングバッファーのロットが活性を失っている可能性があります。新たなブロッキングバッファーを使用してください。 4°Cで一晩、ブロッキングを行う場合、低温になると効果が下がることから、ブロッキング効果が低下する可能性があります。室温で1時間のインキュベーションを試してください。 ブロッキングステップのインキュベーション時間および/または温度を最適化してください。 |
| | 洗浄が不十分である | <ul style="list-style-type: none"> 各ステップの後には1回10分で3回、膜を洗浄してください。それでも十分でない場合には、洗浄時間を延長してください。 洗浄バッファーに別の種類の界面活性剤を使用してみるか、添加されていない場合には Tween 20 を添加してください。 使用する洗浄バッファーの量を増やしてください。 |
| | 発色基質のインキュベーションが過剰である | <ul style="list-style-type: none"> 発色溶液のインキュベーション時間を短縮してください。バンドが認められるまで発色状況をモニタリングし、diH_2O で膜を洗浄することによって反応を停止させてください。 |
| | 酵素が過剰に存在している | <ul style="list-style-type: none"> 選択した酵素標識抗体の濃度を下げてください。 |
| | 内在性酵素による干渉 | <ul style="list-style-type: none"> 脱脂粉乳は、内在性ビオチンを含有しているため、アビジン / ビオチン検出系に干渉する可能性があります。3% BSA などの別の種類のブロッキングバッファーを使用してください。 |
| | 試薬の汚染が生じている | <ul style="list-style-type: none"> 使用前にバッファーをろ過し、汚染物質を除去してください。 新たなバッファーを調製し、ウェスタントランスファー法を再度実行してください。 |
| | 膜に問題がある | <ul style="list-style-type: none"> 新たな膜を試してください。 手順全体を通して膜を乾燥させてもよいのは、転写と免疫染色の間のみです。免疫染色を始めたら、免疫染色の手順が終了するまで膜を乾燥させてはいけません。その他免疫染色の手順の間のどの時点であっても膜を乾燥させた場合にはウェスタントランスファー法を再度実行してください。 |
| | ECL フィルムへの露光が過度になっている (ECL 法の場合) | <ul style="list-style-type: none"> フィルムへの露光時間を短縮してください。 標的タンパク質からのシグナルが強すぎる場合には、5～10分待ってからフィルムに再露光を行ってください。 |
| バックグラウンドにシミがある | インキュベーション中の攪拌が均一でなかった | <ul style="list-style-type: none"> インキュベーション中に膜が振盪器または攪拌器で均一に攪拌されていることを確認してください。 |
| | インキュベーションバッファーの量が不十分である | <ul style="list-style-type: none"> 各インキュベーション中には膜を完全に浸漬し溶液中に膜を自由に浮遊させることができるだけの十分な量の溶液があることを確認してください。 |
| | 転写の際に気泡が生じている | <ul style="list-style-type: none"> 転写を開始する前に転写用「サンドイッチ」から丁寧に気泡をすべて除去してください。これは、ローラーまたは清浄なガラス棒 / パスツールピペットを用いて行うことができます。 |

| 問題 | 考えられる原因 | 提案 |
|---------------------|--------------------|--|
| バックグラウンドにシミがある (続き) | 膜に問題がある | <ul style="list-style-type: none"> 製造元のプロトコルに従って膜を十分に湿潤させていることを確認してください。 膜の取り扱いには慎重に行ってください。取り扱いを誤ると非特異的結合の原因となる可能性があります。 膜を素手で取り扱うと膜の汚染につながる可能性があるため、膜を取り扱う際にはピンセットを使用するか、手袋を着用してください。 |
| | HRP 標識抗体の凝集が起こっている | <ul style="list-style-type: none"> HRP を使用する場合には、標識抗体をろ過して HRP の凝集物を除去してください。 HRP 標識抗体の新たな試料を使用してください。 |
| | 試薬の汚染が生じている | <ul style="list-style-type: none"> 使用前にバッファーをろ過し、汚染物質を除去してください。 新たなバッファーを調製し、ウェスタントランスファー法を再度実行してください。 |
| 非特異的なバンドが出る | 抗体濃度が高すぎる | <ul style="list-style-type: none"> 一次および / または二次抗体濃度に関する製造元の推奨事項をチェックしてください。 個々の分析の至適条件を設定するために、幅広い濃度を検討してください。 |
| | 抗体が古い / 劣化している | <ul style="list-style-type: none"> 貯法や使用期限に関する製造元の推奨事項をチェックしてください。使用期限が切れていたり保存期間が過ぎていたりする場合には、新たな抗体を購入してください。 抗体に対して凍結融解サイクルを繰り返した場合には、構造およびタンパク質と抗体の結合に影響する可能性があるため、新たな抗体を購入してください。 |
| | 一次抗体の非特異的な結合がみられる | <ul style="list-style-type: none"> 一次抗体の濃度を下げてください。 ゲルに添加するタンパク質の濃度をチェックしてください。 モノクローナル抗体や抗原親和性精製ポリクローナル抗体など特異性の高い抗体を使用してください。 Tween 20 (0.1 ~ 0.5%) などの界面活性剤を一次抗体溶液および / またはプロテッキングバッファーに少量添加してください。 洗浄の回数を増やすか、洗浄時間を延長してください。 |
| | 二次抗体の非特異的な結合がみられる | <ul style="list-style-type: none"> 二次抗体の濃度を下げてください。 一次抗体のインキュベーションを省き、コントロール実験を行ってください。 バンドが発現した場合には、別の種類の二次抗体を選択してください。 Tween 20 (0.1 ~ 0.5%) などの界面活性剤を二次抗体溶液に少量添加してください。 洗浄の回数を増やすか、洗浄時間を延長してください。 |
| | 標的タンパク質の凝集が生じている | <ul style="list-style-type: none"> DTT、BME などの還元剤を添加するか増量し、すべてのジスルフィド結合が還元されるようにしてください。 ゲルにロードする前に、温浴槽で 5 ~ 10 分間、タンパク質試料を加熱してください。 ゲルに添加するタンパク質の濃度をチェックしてください。濃度が高すぎるとタンパク質の凝集の原因となる可能性があります。タンパク質の濃度を下げウェスタントランスファー法を再度実行してください。 |
| | タンパク質試料が劣化している | <ul style="list-style-type: none"> 新たな試料を調製し、試料の凍結融解サイクルを最小限にしてください。 プロテアーゼ阻害剤を試料に添加してから保存してください。 試料は -20°C から -80°C までの範囲で保存してください。 |

ウェスタントランスファー法 トラブルシューティングガイド (続き)

| 問題 | 考えられる原因 | 提案 |
|-------------------|------------------------------------|---|
| 非特異的なバンドが出る (続き) | ブロッキングが不十分である | <ul style="list-style-type: none"> 組成の異なるブロッキングバッファーを検討してください。 ブロッキングバッファーのロットが活性を失っている可能性があります。新たなブロッキングバッファーを使用してください。 4°Cで一晩、ブロッキングを行う場合、低温になると効果が下がることから、ブロッキング効果が低下する可能性があります。室温で1時間のインキュベーションを試してください。 ブロッキングバッファーに Tween 20 を添加してください。 ブロッキングステップのインキュベーション時間および / または温度を最適化してください。 |
| | SDS によって固定したタンパク質のバンドとの結合が促進されている | <ul style="list-style-type: none"> タンパク質の転写後に膜が十分に洗浄されていることを確認してください。 ニトロセルロース膜を使用する免疫染色では SDS を使用してはいけません。 |
| | 酵素が過剰に存在している | <ul style="list-style-type: none"> 選択した酵素標識抗体の濃度を下げてください。 |
| | 試薬の汚染が生じている | <ul style="list-style-type: none"> 使用前にバッファーをろ過し、汚染物質を除去してください。 新たなバッファーを調製し、ウェスタントランスファー法を再度実行してください。 |
| 拡散したバンド / 曖昧なバンド | 抗体濃度が高すぎる | <ul style="list-style-type: none"> 一次および / または二次抗体濃度に関する製造元の推奨事項をチェックしてください。 個々の分析の至適条件を設定するために、幅広い濃度を検討してください。 |
| | ゲル上のタンパク質が過剰である | <ul style="list-style-type: none"> ゲルにロードする前にタンパク質試料をさらに希釈してください。 |
| | ゲルが過熱されている / 電圧が高い | <ul style="list-style-type: none"> 熱によってゲルはその構造と分離能を失います。転写リザーバが氷浴槽中で作動していることを確認してください。 転写の際に使用する電圧または電流を下げてください。 |
| | 膜の作製に誤りがある | <ul style="list-style-type: none"> 膜を適切な転写溶液にあらかじめ浸漬してください (製造元のプロトコルをご覧ください)。膜の浸漬時間が適切であることを確認してください。 |
| 白抜きバンド (ECL 可視化法) | 抗体またはタンパク質濃度が高すぎる / 過剰なシグナルが発生している | <ul style="list-style-type: none"> バンドが白抜きになるのは、標識抗体の量が多すぎるために基質が急速に消費された結果です。この原因は抗体および / またはタンパク質の濃度が高すぎることにあります。抗体および / またはタンパク質濃度に関する製造元の推奨事項をチェックしてください。 |

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