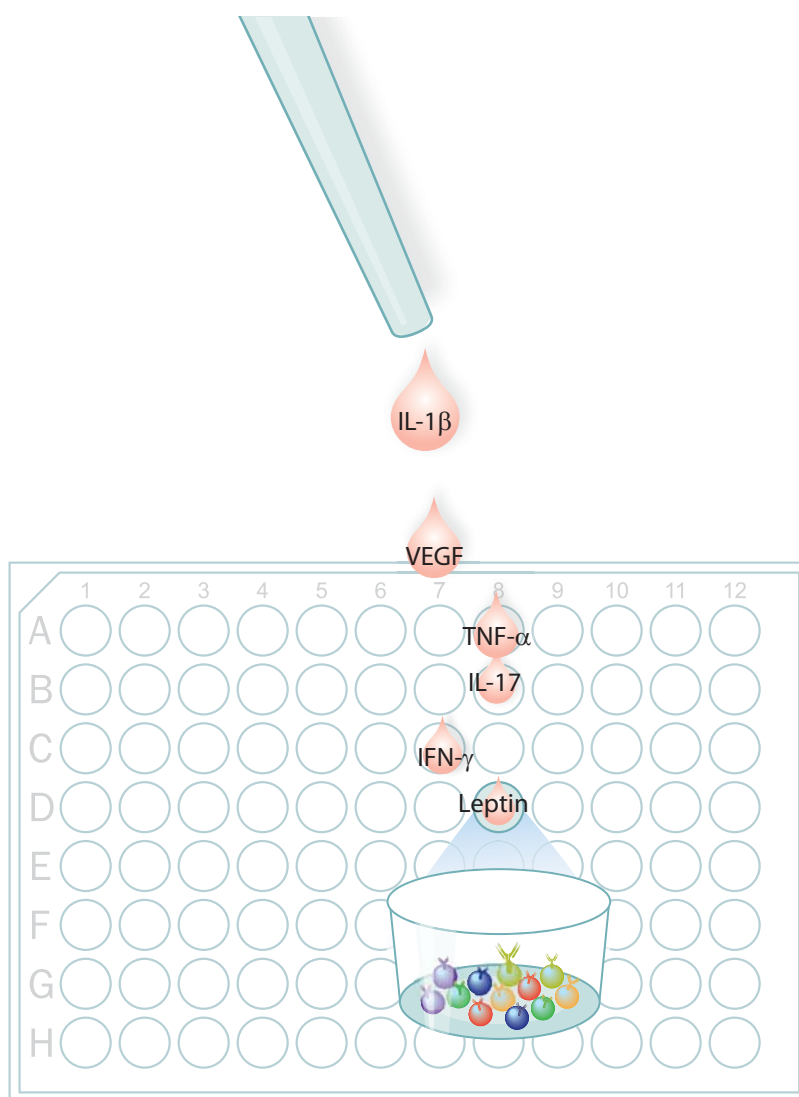
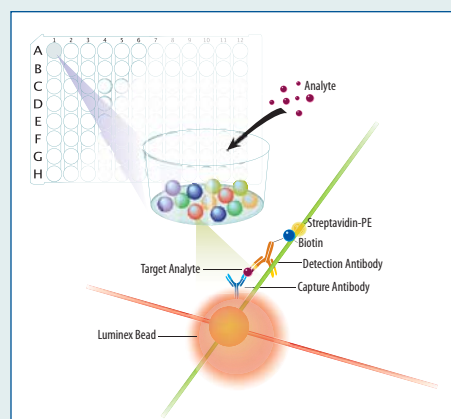


Luminex® Screening & Performance Assays

Bead-based Multiplex Kits



Luminex Screening and Performance Assays are bead-based multianalyte profiling kits. The kits utilize color-coded polystyrene or superparamagnetic microparticles coated with antibodies that specifically recognize the target analytes. The different analyte-specific beads are mixed and incubated with the sample. Captured analytes are subsequently detected using a cocktail of biotinylated detection antibodies and a streptavidin-phycoerythrin conjugate.



Kits are available in two formats depending on the target analytes:

Polystyrene beads

Polystyrene beads are designed for use with the Luminex 100™, Luminex 200™, or Bio-Rad® Bio-Plex® dual laser analyzers. One laser in these instruments determines the color of each bead while the second laser determines the magnitude of the PE-derived signal, which is directly proportional to the amount of analyte bound.

Magnetic beads

Magnetic beads are compatible with the Luminex MAGPIX®, Luminex 100, Luminex 200, and Bio-Rad Bio-Plex analyzers. The Luminex MAGPIX analyzer utilizes a magnet to hold the superparamagnetic microparticles in a monolayer while two spectrally distinct light-emitting diodes (LEDs) illuminate the beads. One LED identifies the analyte that is being detected while the second LED determines the magnitude of the PE-derived signal. Each well is imaged with a charge-coupled device (CCD) camera.

Luminex Screening Assays

Luminex Screening Assays are our most flexible kits for multianalyte profiling of cell culture supernates, serum, or plasma samples. Kits include a multi-purpose diluent that allows up to 40 out of 79 available human biomarkers to be simultaneously profiled. The analytes for the user-defined multiplex are selected from a broad and rapidly expanding menu and are supplied as premixed kits.

- ✓ Flexible: Up to 40 out of 79 available human biomarkers can be simultaneously profiled
- ✓ The most cost-effective assay for profiling multiple markers
- ✓ Offers a menu that will be rapidly expanding
- ✓ All assays can be performed in 3-3.5 hrs
- ✓ Assays require a small sample volume (<50 µL)
- ✓ Reagents are supplied as premixed kits and shipped in 3-5 days from the date of order

For more information, please visit our website at www.RnDSystems.com/LuminexScreening

Analytes available in the polystyrene bead format

| | | | |
|--|-------------------------------------|---------------------------------|------------------------------------|
| Adiponectin/Acrp30 | CXCL10/IP-10 | IL-2 | ROBO4 <i>coming soon</i> |
| Aggrecan | CXCL11/I-TAC | IL-4 | E-Selectin/CD62E |
| Angiotensin-2 <i>coming soon</i> | CXCL13/BLC/BCA-1 <i>coming soon</i> | IL-5 | P-Selectin/CD62P |
| BAFF/BLyS <i>coming soon</i> | Dcr3/TNFRSF6B | IL-6 | Serpin E1/PAI-1 <i>coming soon</i> |
| BCMA/TNFRSF17 | Dkk-1 <i>coming soon</i> | IL-10 | SHBG <i>coming soon</i> |
| BMP-2 | EGF | IL-12 p70 | SOST <i>coming soon</i> |
| BMP-4 | EphA2 | IL-17A | ST2/IL-1 R4 |
| BMP-9 | Fas/TNFRSF6 | IL-18 BPα | TACI/TNFRSF13B |
| Cardiac Troponin I/cTNI <i>coming soon</i> | Fas Ligand <i>coming soon</i> | IL-19 | Tie-1 |
| CCL2/MCP-1 | FGF basic | IL-22 <i>coming soon</i> | Tie-2 |
| CCL3/MIP-1α | FGF-21 | IL-23 | Thrombopoietin/Tpo |
| CCL4/MIP-1β | Fibrinogen <i>coming soon</i> | IL-27 | TNF-α |
| CCL5/RANTES | Galectin-3 <i>coming soon</i> | IL-28A/IFN-λ2 | TNF RI/TNFRSF1A |
| CCL8/MCP-2 <i>coming soon</i> | G-CSF | IL-31 <i>coming soon</i> | TNF RII/TNFRSF1B |
| CCL13/MCP-4 <i>coming soon</i> | GDF-15 | IL-33 | TRAIL R3/TNFRSF10C |
| CCL20/MIP-3α <i>coming soon</i> | GM-CSF | Leptin/OB | VCAM-1/CD106 |
| CD14 <i>coming soon</i> | HB-EGF | MMP-1 | VEGF |
| CD27/TNFRSF7 | HGF | MMP-2 | VEGF R1/Flt-1 |
| CD30/TNFRSF8 | ICAM-1/CD54 | MMP-3 | VEGF R3/Flt-4 |
| CD40/TNFRSF5 | IFN-γ | MMP-7 | |
| Chitinase 3-like 1/YKL40 | IFN-γ R1 | MMP-8 | |
| Comp. Factor D/Adipsin | IL-1α/IL-1F1 | MMP-9 | |
| Cripto-1 | IL-1β/IL-1F2 | MMP-12 | |
| C-Reactive Protein/CRP | IL-1ra/IL-1F3 | MMP-13 | |
| CXCL1/GROα | IL-1 RI | Myoglobin <i>coming soon</i> | |
| CXCL5/ENA-78 | IL-1 RII | PCSK9 <i>coming soon</i> | |
| CXCL8/IL-8 | | RAGE <i>coming soon</i> | |

* Analytes listed as coming soon above will be available in **June 2013**

Analytes available in the magnetic bead format

Select up to 25 phospho-RTKs from one of the panels below.

| Human Phospho-RTK Kit A | | Human Phospho-RTK Kit B | |
|-------------------------|--------------------|-------------------------|------------------|
| EGF R/ErbB1 | EphB6 | ALK/CD246 | PDGF Rα |
| EphA1 | ErbB2/Her2 | Axl | PDGF Rβ |
| EphA2 | ErbB3/Her3 | DDR1 | PTK7/CCK4 |
| EphA3 | ErbB4/Her4 | DDR2 | ROR1 |
| EphA4 | Flt-3/Flk-2 | Dtk | ROR2 |
| EphA5 | HGF R/c-MET | FGF R1 | Tie-1 |
| EphA6 | IGF-1 R | FGF R2α | Tie-2 |
| EphA7 | M-CSF R | FGF R3 | TrkB |
| EphA8 | MSP R/Ron | FGF R4 | TrkC |
| EphB1 | Ret | Insulin R/CD220 | VEGF R1/Flt-1 |
| EphB2 | SCF R/c-kit | LTK | VEGF R2/KDR |
| EphB3 | TrkA | Mer | VEGF R3/Flt-4 |
| EphB4 | | MuSK | |

www.RnDSystems.com

Analytes shown in **blue** are only available from R&D Systems.

Luminex Performance Assays

Luminex Performance Assays are our most accurate and precise bead-based multianalyte profiling kits. All analytes in a given panel are tested together to ensure optimal kit performance for the entire panel. Analytes can be ordered either as a complete panel or as a smaller subset from any panel shown below. The kits can be used to measure target analytes in qualified sample types, which may include cell culture supernates, serum, plasma, urine, saliva, and milk.

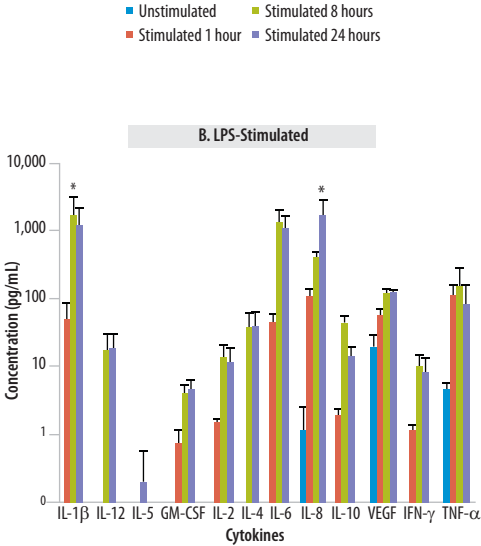
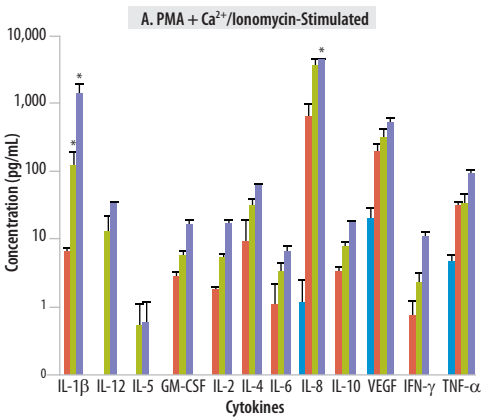
- ✓ Kits undergo similar validation testing as the Quantikine® single analyte assays and are correlated with Quantikine ELISAs, when available
- ✓ Kits consist of base kits and bead sets, which can be ordered individually or as premixed kits
- ✓ Kits are available for human, mouse, and rat analytes
- ✓ All assays can be performed in 2.5-5 hrs
- ✓ Assays require a small sample volume (<100 µL)
- ✓ Kits containing beads that the user will mix are delivered 1 day after the order is placed; kits containing beads that we mix are delivered in 2-4 days

For more information, please visit our website at www.RnDSystems.com/LuminexPerformance

Analytes available in the polystyrene bead format

| Human Biomarker Panel A | Human Cytokine Panel B | Mouse Cytokine Panel | Rat Cytokine Panel |
|-------------------------|---------------------------|---------------------------------|-----------------------------|
| BAFF/BlyS | CCL11/Eotaxin | CCL2/JE/MCP-1 | CXCL2/CINC-3 |
| CCL20/MIP-3α | CD40 Ligand/TNFSF5 | CXCL1/KC | CXCL3/CINC-2α/β |
| CD14 | CXCL10/IP-10 | CXCL2/MIP-2 | GM-CSF |
| CD27/TNFRSF7 | CXCL11/I-TAC | GM-CSF | ICAM-1/CD54 |
| CXCL13/BLC/BCA-1 | EGF | IFN-γ | IFN-γ |
| gp130 | HGF | IL-1β/IL-1F2 | IL-1α/IL-1F1 |
| IL-2 Rα | IL-12 p70 | IL-2 | IL-1β/IL-1F2 |
| IL-6 Rα | IL-13 | IL-4 | IL-2 |
| TNF RII/TNFRSF1B | Leptin/OB | IL-5 | IL-4 |
| Human Cardiac Panel A | Human Obesity Panel | IL-6 | IL-6 |
| CD40 Ligand/TNFSF5 | Adiponectin/Acrp30 | IL-10 | IL-10 |
| GDF-15 | C-Reactive Protein/CRP | IL-12 p70 | IL-13 |
| Pappalysin-1/PAPP-A | CCL2/MCP-1 | IL-13 | IL-18/IL-1F4 |
| PCSK9 | Comp. Factor D/Adipsin | IL-17 | L-Selectin/CD62L |
| ST2/IL-1 R4 | IL-6 | TNF-α | TIMP-1 |
| TNF RII/TNFRSF1B | IL-10 | VEGF | TNF-α |
| Human Cardiac Panel B | Leptin/OB | Human Adhesion Molecule 4-plex* | VEGF |
| C-Reactive Protein/CRP | Resistin | ICAM-1/CD54 | Multi-species TGF-β 3-plex* |
| Cystatin C | Serpin E1/PAI-1 | E-Selectin/CD62E | TGF-β1 |
| Myeloperoxidase/MPO | TNF-α | P-Selectin/CD62P | TGF-β2 |
| P-Selectin/CD62P | Rat Kidney Toxicity Panel | VCAM-1/CD106 | TGF-β3 |
| Serpin E1/PAI-1 | Cystatin C | | |
| TIMP-1 | FABP1/L-FABP | | |
| | Lipocalin-2/NGAL | | |
| | Osteopontin | | |
| | TIM-1/KIM-1/HAVCR | | |

*These kits are only available as premixed kits.



Multiplex Measurement of PMA/Ca²⁺/Ionomycin or LPS-stimulated Cytokine Production in Cultured Whole Blood. Whole blood samples from apparently healthy donors were cultured for one, eight, or twenty-four hours in the presence of A) phorbol 12-myristate 13-acetate (PMA; 50 ng/mL) and Ca²⁺/Ionomycin (500 ng/mL) or B) lipopolysaccharide (LPS; 50 ng/mL). Samples were taken from unstimulated and stimulated cultures and centrifuged to collect plasma. The levels of the indicated cytokines were simultaneously quantified using the Luminex Performance Human High Sensitivity Cytokine Panel (Catalog # LHSC000). Columns represent the mean of four whole blood samples + the standard deviation. *One or more of the results were above the range of the standard curve and the value was extrapolated.

Analytes available in the magnetic and polystyrene bead format

| Human Angiogenesis Panel | Human Cytokine Panel A | Human High Sensitivity Cytokine Panel | Human MMP Panel | Human TIMP 4-plex* |
|--------------------------|------------------------|---------------------------------------|-----------------|--------------------|
| Angiogenin | CCL2/MCP-1 | IL-1ra/IL-1F3 | MMP-1 | TIMP-1 |
| Angiopoietin-1 | CCL3/MIP-1α | IL-2 | MMP-2 | TIMP-2 |
| Endostatin | CCL4/MIP-1β | IL-4 | MMP-3 | TIMP-3 |
| FGF acidic | CCL5/RANTES | IL-5 | MMP-7 | TIMP-4 |
| FGF basic | CXCL5/ENA-78 | IL-6 | MMP-8 | |
| PDGF-AA | CXCL8/IL-8 | IL-10 | MMP-9 | |
| PDGF-BB | FGF basic | IL-17 | MMP-10 | |
| PIGF | G-CSF | TNF-α | MMP-12 | |
| Thrombospondin-2 | GM-CSF | Thrombopoietin/Tpo | MMP-13 | |
| VEGF | IFN-γ | VEGF | EMMPRIN | |
| VEGF-D | IL-1α/IL-1F1 | | | |
| | IL-1β/IL-1F2 | | | |

*This kit is only available as a premixed kit.

For research use only. Not for use in diagnostic procedures.

Analytes shown in blue are only available from R&D Systems.

Coming Soon!

A New Online Luminex Assay Configuration & Ordering Tool

Luminex Assay Online Configuration Tool

What type of assay is required?

Which bead type?

Which species?

Available Analytes

- Adiponectin/Acrp30
- Angiotensin
- Angiopoietin-1
- BAFF/BLyS
- CCL2/MCP-1
- CCL3/MIP-1 alpha
- CCL4/MIP-1 beta
- CCL5/RANTES
- CCL11/Eotaxin
- CCL20/MIP-3 alpha
- CD14
- CD27/TNFRSF7
- CD40 Ligand
- Complement Factor D/Adipsin
- C-Reactive Protein
- CXCL5/ENA-78
- CXCL8/IL-8
- CXCL10/IP-10
- CXCL11/I-TAC
- CXCL13/BLC/BCA-1
- Cystatin C
- EGF
- EMMPRIN
- Endostatin
- FGF acidic
- FGF basic
- G-CSF
- GDF-15
- GM-CSF
- gp130
- HGF
- IFN-gamma
- IL-1 alpha
- IL-1 beta
- IL-1ra
- IL-2
- IL-2 R alpha
- IL-4
- IL-5
- IL-6
- IL-6 R alpha
- IL-10
- IL-12 p70
- IL-13
- IL-17
- Leptin/OB
- MMP-1
- MMP-2
- MMP-3
- MMP-7
- MMP-8
- MMP-9
- MMP-10
- MMP-12
- MMP-13
- Myeloperoxidase/MPO
- Pappalysin/PAPP-A
- PDGF-AA
- PDGF-BB
- PCSK9
- PIGF
- Resistin
- E-Selectin
- P-Selectin
- Serpin E1/PAI-1
- ST2/IL-1 R4
- TGF-beta 1
- TGF-beta 3
- Thrombopoietin/Tpo
- Thrombospondin-2
- TIMP-1
- TIMP-2
- TIMP-3
- TIMP-4
- TNF-alpha
- TNF RII/TNFRSF1B
- VCAM-1
- VEGF
- VEGF-D

Available Kits

Select Analytes to view available panels

Notes: *Delivery time varies depending on delivery location

1

You select the type of assay - Luminex Screening or Performance, the bead type, species, and target analytes

A new online Luminex assay configuration and ordering tool will soon be available to help researchers design and order bead-based multiplex kits. Using this tool, the researcher will indicate if they need to run a screening or performance assay, whether the beads should be polystyrene or magnetic depending on the type of instrumentation that is available, the species that the sample is from, and the target analytes of interest. As the target analytes are selected, the configuration and ordering tool will provide a list of the Luminex multiplex kits that can be used to measure the indicated analytes. From this comprehensive list, the researcher can then choose which kit will work best for their specific assay.

Luminex Assay Online Configuration Tool

What type of assay is required?

Which bead type?

Which species?

Available Analytes

- Adiponectin/Acrp30
- Angiotensin
- Angiopoietin-1
- BAFF/BLyS
- CCL2/MCP-1
- CCL3/MIP-1 alpha
- CCL4/MIP-1 beta
- CCL5/RANTES
- CCL11/Eotaxin
- CCL20/MIP-3 alpha
- CD14
- CD27/TNFRSF7
- CD40 Ligand
- Complement Factor D/Adipsin
- C-Reactive Protein
- CXCL5/ENA-78
- CXCL8/IL-8
- CXCL10/IP-10
- G-CSF
- GDF-15
- GM-CSF
- gp130
- HGF
- IFN-gamma
- IL-1 alpha
- IL-1 beta
- IL-1ra
- IL-2
- IL-2 R alpha
- IL-4
- IL-5
- IL-6
- IL-6 R alpha
- IL-10
- IL-12 p70
- IL-13
- IL-17
- Leptin/OB
- MMP-1
- MMP-2
- MMP-3
- MMP-7
- MMP-8
- MMP-9
- MMP-10
- MMP-12
- MMP-13
- Myeloperoxidase/MPO
- Pappalysin/PAPP-A
- PDGF-AA
- PDGF-BB
- PCSK9
- PIGF
- Resistin
- E-Selectin
- P-Selectin
- Serpin E1/PAI-1
- ST2/IL-1 R4
- TGF-beta 1
- TGF-beta 3
- Thrombopoietin/Tpo
- Thrombospondin-2
- TIMP-1
- TIMP-2
- TIMP-3
- TIMP-4
- TNF-alpha
- TNF RII/TNFRSF1B
- VCAM-1
- VEGF
- VEGF-D

Available Kits

| Kit Name | Price | Qty |
|--|-------|-----|
| We Mix® (Estimated Delivery: 3-4 days*) | | |
| Luminex Performance Assay Human Obesity Panel, 1 plate | \$705 | |
| Luminex Performance Assay Human High Sensitivity Cytokine Panel, 1 plate | \$965 | |
| Luminex Performance Assay Human Cytokine Panel A, 1 plate | \$875 | |
| We Mix® (Estimated Delivery: 1 day*) | | |
| Luminex Performance Assay Human TIMP 4-plex | \$999 | |
| You Mix® (Estimated Delivery: 1 day*) | | |
| Luminex Performance Assay Human Obesity Panel, 1 plate | \$569 | |
| Luminex Performance Assay Human High Sensitivity Cytokine Panel, 1 plate | \$804 | |
| Luminex Performance Assay Human Cytokine Panel A, 1 plate | \$744 | |
| Luminex Performance Assay Human Angiogenesis Panel, 1 plate | \$394 | |

Notes: Adiponectin is a highly abundant protein and requires a significant dilution when assaying serum and plasma samples.

*Delivery time varies depending on delivery location

2

We show you a comprehensive list of the Luminex assays that will meet your needs