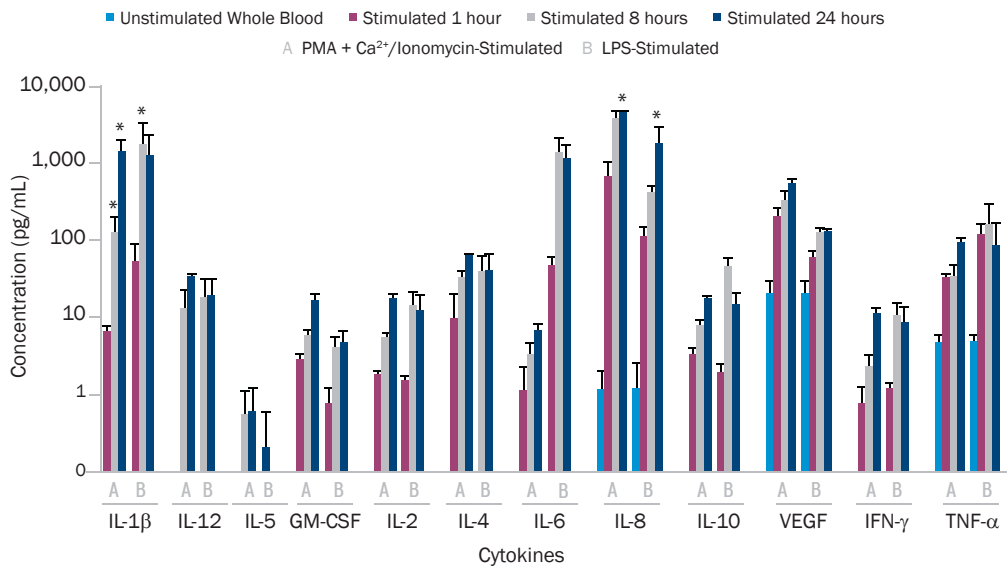
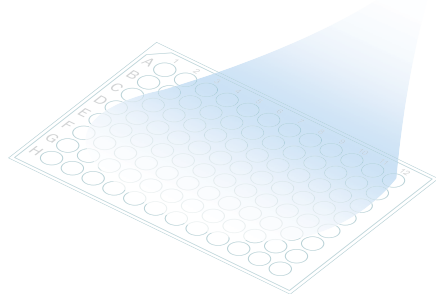


# Luminex®

Bead-Based Multiplex Kits  
Screening and Performance Assays



legend on back cover



# Luminex Screening Assays

Luminex Screening Assays are our most flexible kits for multianalyte profiling of cell culture supernatants, serum, or plasma samples. Kits include a multi-purpose diluent that allows up to 100 out of 158 available human biomarkers and 41 out of 41 available mouse analytes 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 100 out of 158 available human biomarkers and 41 out of 41 available mouse analytes can be simultaneously profiled
- ✓ The most cost-effective assay for profiling multiple markers
- ✓ Offers a rapidly expanding menu of assays
- ✓ All assays can be performed in 3 – 3.5 hours
- ✓ Assays require a small sample volume (≤50 µL)
- ✓ Polystyrene or magnetic format

## Human analytes available in polystyrene or magnetic bead formats

Adiponectin/Acrp30	CXCL9/MIG	IL-6 R $\alpha$ ■	ROBO4 ■
Aggrecan ■	CXCL10/IP-10	IL-9	SCF
Amphiregulin	CXCL11/I-TAC	IL-10	E-Selectin/CD62E
Angiopoietin-2 ■	CXCL13/BLC/BCA-1	IL-12 p70	P-Selectin/CD62P
APP ■	CXCL16 ■	IL-13	Serpin C1/Antithrombin-III
BAFF/BlyS	DcR3/TNFRSF6B ■	IL-17A	Serpin E1/PAI-1
BCMA/TNFRSF17 ■	Dkk-1	IL-17F	SHBG
BMP-2 ■	DR3 ■	IL-18 BPa ■	SOST
BMP-4 ■	EGF	IL-19 ■	SP-D ■
BMP-9	ENPP-2/Autotaxin ■	IL-22	SPARC ■
CA125/MUC16	EphA2	IL-23	ST2/IL-1 R4 ■
Calbindin D ■	Epo	IL-27	TACI/TNFRSF13B ■
Cardiac Myoglobin	Fas/TNFRSF6	IL-28A/IFN- $\lambda$ 2	Tenascin C
Cardiac Troponin I/cTNI	Fas Ligand	IL-31	TFPI ■
CCL2/MCP-1	FGF basic	IL-33	Tfr ■
CCL3/MIP-1 $\alpha$	FGF-21	IL-34 ■	Tie-1 ■
CCL4/MIP-1 $\beta$	FLRG ■	Leptin/OB	Tie-2
CCL5/RANTES	Follistatin	M-CSF	Thrombopoietin/Tpo
CCL7/MCP-3	Galectin-3	MFG-E8 ■	Thrombospondin-2 ■
CCL8/MCP-2	G-CSF	MICA ■	TNF- $\alpha$
CCL13/MCP-4	GDF-15	MICB ■	TNF R1/TNFRSF1A
CCL17/TARC	GM-CSF	MIF	TNF RII/TNFRSF1B
CCL18/PARC ■	Growth Hormone ■	MMP-1	TRAIL R2/TNFRSF10B
CCL20/MIP-3 $\alpha$	HB-EGF	MMP-2	TRAIL R3/TNFRSF10C
CCL22/MDC	HGF	MMP-3	TRANCE/RANK L/TNFSF11
CD14 ■	ICAM-1/CD54	MMP-7	ULBP-1 ■
CD27/TNFRSF7 ■	IFN- $\gamma$	MMP-8	ULBP-2/5/6 ■
CD30/TNFRSF8 ■	IFN- $\gamma$ R1 ■	MMP-9	ULBP-3 ■
CD40/TNFRSF5 ■	IGFBP-1	MMP-12	ULBP-4/RAET1E ■
CD163 ■	IGFBP-3	MMP-13	uPAR ■
Chitinase 3-like 1/YKL40 ■	IL-1 $\alpha$ /IL-1F1	MPO	Uteroglobin ■
CCL3/Eotaxin-3	IL-1 $\beta$ /IL-1F2	NRG1- $\beta$ 1/HRG1- $\beta$ 1 ■	VAP-1 ■
Coagulation Factor XIV/Protein C ■	IL-1ra/IL-1F3	Oncostatin M (OSM)	VCAM-1/CD106
Comp. Factor D/Adipsin	IL-1 RI	PCSK9 ■	VEGF
Cripto-1 ■	IL-1 RII	Pentraxin 3/TSG-14 ■	VEGF-C
C-Reactive Protein/CRP	IL-2	Periostin/OSF-2 ■	VEGF R3/Flt-4
CXCL1/GRO $\alpha$	IL-2 R $\alpha$ /CD25	Progranulin ■	vWF-A2
CXCL4/PF4	IL-4	RAGE	
CXCL5/ENA-78	IL-5	Renin	
CXCL8/IL-8	IL-6	Resistin	

## Mouse analytes available in polystyrene or magnetic bead formats

Adiponectin	CXCL12/SDF-1 $\alpha$ ■	IL-2	Lipocalin-2/NGAL
BAFF/BlyS	Epo	IL-4	LIX ■
C1q R1/CD93 ■	FGF-21 ■	IL-5	M-CSF
CCL2/JE/MCP-1	FGF-basic	IL-6	MMP-9
CCL3/MIP-1 $\alpha$	G-CSF	IL-10	Osteopontin ■
CCL4/MIP-1 $\beta$	GM-CSF	IL-12 p70	PCSK9 ■
CCL5/RANTES	IFN- $\gamma$	IL-13	Resistin
CCL20/MIP-3 $\alpha$	IGF-I	IL-17A	TNF- $\alpha$
CXCL1/KC	IL-1 $\alpha$	IL-23 p19	VEGF
CXCL2/MIP-2	IL-1 $\beta$	IL-33	
CXCL10/IP-10/CRG-2		Leptin	

■ Analyte exclusive to 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 supernatants, 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 hours
- ✓ Assays require a small sample volume (≤100 µL)

## Analytes available in the polystyrene bead format

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

## Analytes available in the magnetic and polystyrene bead format

Human Angiogenesis Panel	Human MMP Panel
Angiogenin Angiopoietin-1 ■ Endostatin ■ FGF acidic	FGF basic PDGF-AA PDGF-BB PIGF Thrombospondin-2 VEGF VEGF-D EMMPRIN ■
Human Cytokine Panel A	Human TIMP 4-plex*
CCL2/MCP-1 CCL3/MIP-1α CCL4/MIP-1β CCL5/RANTES CXCL5/ENA-78 CXCL8/IL-8 FGF basic	G-CSF GM-CSF IFN-γ IL-1α/IL-1F1 IL-1β/IL-1F2 IL-1ra/IL-1F3 IL-2 IL-4 IL-5 IL-6 IL-10 IL-17A TNF-α Thrombopoietin/Tpo TIMP-1 TIMP-3 TIMP-2 TIMP-4
Human High Sensitivity Cytokine Panel A	
CXCL8/IL-8 GM-CSF IFN-γ IL-1β/IL-1F2	IL-2 IL-4 IL-5 IL-6 IL-10 IL-12 p70 TNF-α VEGF

## Analytes available in the magnetic bead format

Human High Sensitivity Cytokine Panel B	Human Kidney Biomarker Panel
GM-CSF IFN-γ IL-1β IL-2 IL-5	IL-6 IL-7 IL-10 IL-13 IL-15 IL-17A IL-17F IL-22 IL-23 IL-31 IL-33 IL-36β ■ TNF-α
	Clusterin Cystatin C CXCL10/IP-10 Fetuin A/AHSG Lipocalin-2/NGAL Osteopontin RBP4 ■ TFF3 TIM-1/KIM-1/HAVCR

\*These kits are only available as premixed kits.

# R&D Systems is Re-Launching our Line of Luminex Immunoassays

The world leader in the development of single-analyte immunoassays provides one complete solution for profiling your complex samples. Several features of our Luminex products distinguish us from the competition.

## We are the only company to offer two types of assays

to meet the needs of researchers, Luminex Screening & Luminex Performance Assays.

## Over 25% of our rapidly expanding Screening Assay menu

is available exclusively from R&D Systems.

## We have developed the simplest online ordering tool

for researchers to design their own user-defined kits.

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.

learn more | [RnDSystems.com/Luminex](http://RnDSystems.com/Luminex)

#### On the Cover

**Multiplex Measurement of PMA/Ca<sup>2+</sup>/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 Ca<sup>2+</sup>/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.



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