

Luminex® Assay Product Listing

Winter 2016

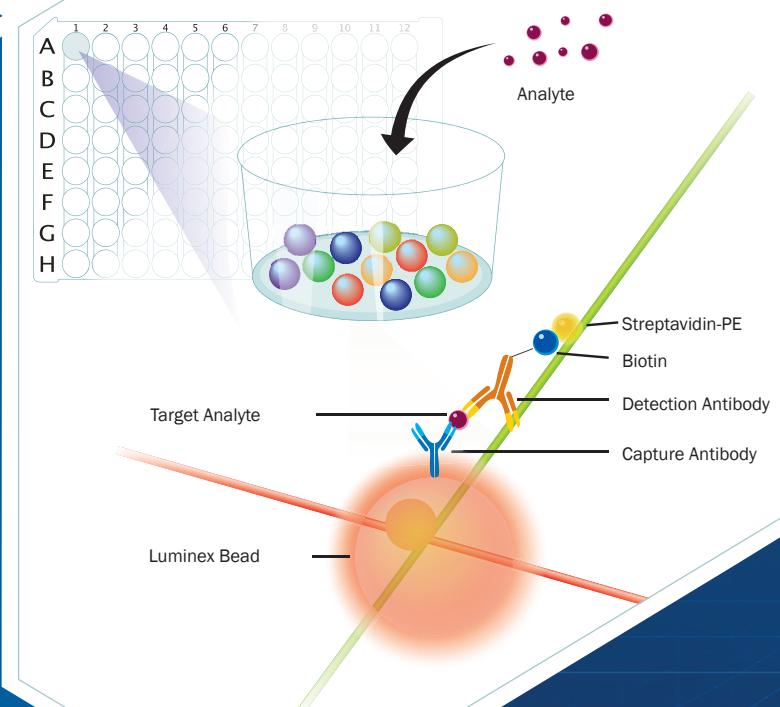


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Choose Your Luminex® Assay Format

R&D Systems offers Luminex Assays in two formats. Our Luminex Assays are optimized to simultaneously analyze a wide variety and large number of analytes, while our Luminex High Performance Assays are validated in smaller analyte panels and deliver near single analyte ELISA performance. Use the side-by-side comparison table below to determine which Luminex Assay format is right for you.

| Feature | Luminex Assay | Luminex High Performance Assay |
|----------------------------|--------------------------------|-----------------------------------|
| Species Available | Human | ✓ |
| | Mouse | ✓ |
| | Rat | ✓ |
| Sample Volume Required | µL Sample | ≤ 50 |
| Multiplex Analyte Capacity | Polystyrene | 100 User-Selected |
| | Magnetic | 50 User-Selected |
| Bead Type | Polystyrene | ✓ |
| | Magnetic | ✓ |
| Validated Sample Types | Serum | ✓ |
| | Plasma | ✓ |
| | Cell Culture Supernates | ✓ |
| | Milk | See Datasheet** |
| | Saliva | See Datasheet** |
| | Urine | See Datasheet** |
| Run Time | Hours | 3–3.5 |
| Kit Preparation | Premixed | ✓ |
| | End-user Mixed | ✓ |
| Assay Validation | Mean Sensitivity | < the low standard* |
| | Intra-assay Precision | < 20% |
| | Inter-assay Precision | < 25% |
| | Recovery (Individual Samples) | N/A |
| | Assay Linearity | Dose-Dependent Decrease in Values |
| | Linearity (Individual Samples) | Dose-Dependent Decrease in Values |
| Analytes Available | Human | >30 |
| | Mouse | 77 |
| | Rat | 17 |

Luminex® Panels by Research Topic/Disease State

Adipokine/Obesity

| | | | | |
|---|---|---|--|--|
| <ul style="list-style-type: none"> • 4-1BB/CD137 • Adiponectin • AgRP/ART • Angiopoietin-1 • Angiopoietin-2 • Angiopoietin-like 3 • Angiopoietin-like 4 • Angiopoietin-like 6 • BAFF/BLyS • BMP-4 • Cathepsin D • Cathepsin S • CCL2/MCP-1 • CCL5/RANTES | <ul style="list-style-type: none"> • Chemerin • Factor D/Adipsin • CRP • CXCL8/IL-8 • DPPIV/CD26 • Endocan/ESM-1 • EN-RAGE/S100A12 • Fetuin A/AHSG • FGF acidic • FGF basic • FGF-21 • FGF-23 • Galectin-3 • Glucagon | <ul style="list-style-type: none"> • Growth Hormone • HGF • ICAM-1 • IGFBP-1 • IGFBP-2 • IGFBP-3 • IGFBP-4 • IGFBP-6 • IGFBP-rp1/IGFBP-7 • IL-1β • IL-6 • IL-10 • IL-11 • IL-33 | <ul style="list-style-type: none"> • Insulin • Insulin C-Peptide • Leptin • LIF • Lipocalin-2/NGAL • M-CSF • MIF • MMP-8 • MPO • Oncostatin M • PBEF/Visfatin • Pentraxin 3/TSG-14 • Prolactin • PCSK9 | <ul style="list-style-type: none"> • Protein S/PROS1 • RAGE • RBP4 • Resistin • Serpin A12/Vaspin • Serpin E1/PAI-1 SP-D • TIMP-1 • TNF-α • VEGF-A • Vitamin D Binding Protein |
|---|---|---|--|--|

Angiogenesis

| | | | | |
|---|--|---|---|---|
| <ul style="list-style-type: none"> • Adiponectin • Amphiregulin • Angiogenin • Angiopoietin-1 • Angiopoietin-2 • Angiopoietin-like 3 • Angiopoietin-like 4 • Angiopoietin-like 6 • BMP-9 • CCL2/MCP-1 • CCL3/MIP-1α • CD31/PECAM-1 • CD117/c-kit/SCF R • CX3CL1/Fractalkine | <ul style="list-style-type: none"> • CXCL4/PF4 • CXCL8/IL-8 • CXCL10/IP-10 • CXCL12/SDF-1α • CXCL16 • DPPIV/CD26 • EGF • Endoglin Endostatin • Endothelin-1 • ErbB2/Her2 • ErbB3/Her3 • E-Selectin • FGF acidic | <ul style="list-style-type: none"> • FGF basic • Follistatin • G-CSF • GDNF • GM-CSF • HB-EGF • HGF • HGF R/c-MET • IGFBP-1 • IGFBP-2 • IGFBP-3 • IL-1α • IL-1β • IL-6 Rα | <ul style="list-style-type: none"> • IL-10 • Leptin • MMP-3 • MMP-8 • MMP-9 • Neuropilin-1 NRG1β1/HRG1β1 • Osteopontin • PDGF-AA • PDGF-BB • Pentraxin 3/TSG-14 • PIgf • Prolactin • Serpin E1/PAI-1 | <ul style="list-style-type: none"> • Serpin F1/PEDF • Tenascin C • Thrombospondin-2 • Tie-2 • TIMP-1 • uPA/Urokinase • uPAR • VEGF-A • VEGF-C • VEGF-D • VEGF R1/Flt-1 • VEGF R2/KDR • VEGF R3 |
|---|--|---|---|---|

Bone Proteins

| | | | |
|--|---|--|---|
| <ul style="list-style-type: none"> • Aggrecan • AgRP/ART • BMP-2 • BMP-4 • BMP-9 | <ul style="list-style-type: none"> • Dkk-1 • FGF-23 • IL-1β • IL-6 • Insulin | <ul style="list-style-type: none"> • Leptin • Osteopontin • Osteoprotegerin • SOST • TNFα | <ul style="list-style-type: none"> • TRANCE/RANK L |
|--|---|--|---|

Cardiovascular Disease

| | | | | |
|---|--|---|---|---|
| <ul style="list-style-type: none"> • ADAMTS13 • Adiponectin • Angiogenin • Angiopoietin-1 • Angiopoietin-2 • Angiopoietin-like 3 • Angiopoietin-like 4 • ApoA1 BMP-2 • Cardiac Myoglobin • Cardiac Tropomodulin 1/cTNI • CCL2/MCP-1 • CCL5/RANTES • CD31/PECAM-1 • CD40 • CD40 Ligand • Factor D/Adipsin | <ul style="list-style-type: none"> • CRP • CX3CL1/Fractalkine • CXCL1/GROα • CXCL4/PF4 • CXCL6/GCP-2 • CXCL8/IL-8 • CXCL10/IP-10 • D-dimer • EGF • Endocan/ESM-1 • Endoglin Endostatin • Endothelin-1 • E-Selectin • FABP3/H-FABP • FABP4/A-FABP • Fetuin A/AHSG | <ul style="list-style-type: none"> • FGF basic • Follistatin • GDF-15 • ICAM-1 • IFN-γ • IL-1β • IL-1 ra • IL-2 • IL-4 • IL-6 • IL-10 • IL-33 • Leptin • LIGHT • Lipocalin-2/NGAL • L-Selectin • MMP-9 | <ul style="list-style-type: none"> • MPO • Oncostatin M • PDGF-BB • Pentraxin 3/TSG-14 PLA2G7/PAF-AH/Lp-PLA2 • PIgf • PCSK9 • P-Selectin • RAGE • Renin • SCF • Serpin E1/PAI-1 • Serum Amyloid A1 • ST2 TFPI Tie-1 • Tie-2 | <ul style="list-style-type: none"> • TIM-1/KIM-1 • TIMP-1 • TNF-α • TNF RI • TNF RII • Tpo • uPA • uPAR • VCAM-1 • VEGF-A • VEGF-C • VEGF-D • VEGF R1/Flt-1 • VEGF R2/KDR • vWF-A2 |
|---|--|---|---|---|

CD8+ T cell

| | | | |
|--|--|---|---|
| <ul style="list-style-type: none"> • 4-1BB/CD137 • CCL3/MIP-1α • CCL4/MIP-1β • Fas | <ul style="list-style-type: none"> • Fas Ligand • GM-CSF • Granzyme A • Granzyme B | <ul style="list-style-type: none"> • IFN-γ • IL-2 • IL-4 • IL-5 | <ul style="list-style-type: none"> • IL-6 • IL-10 • IL-13 • TNF-α |
|--|--|---|---|

Analyte available exclusively from R&D Systems

Chemokines

- | | | | | |
|-----------------------|--------------------------|-----------------------|-------------------------|---------------------|
| • CCL1/I-309 | • CCL14/HCC-1/HCC-3 | • CCL26/Eotaxin-3 | • CXCL6/GCP-2 | • CXCL16 |
| • CCL2/MCP-1 | • CCL17/TARC | • CCL27/CTACK | • CXCL7/NAP-2 | • IL-16 |
| • CCL3/MIP-1 α | • CCL18/PARC | • CCL28 | • CXCL8/IL-8 | • Midkine |
| • CCL4/MIP-1 β | • CCL19/MIP-3 β | • Chemerin | • CXCL9/MIG | • MIF |
| • CCL5/RANTES | • CCL20/MIP-3 α | • CX3CL1/Fractalkine | • CXCL10/IP-10 | • XCL1/Lymphotactin |
| • CCL7/MCP-3 | • CCL21/6Ckine | • CX3CL1/GRO α | • CXCL11/I-TAC | |
| • CCL8/MCP-2 | • CCL22/MDC | • CXCL2/Gro β | • CXCL12/SDF-1 α | |
| • CCL11/Eotaxin | • CCL24/Eotaxin-2/MPIF-2 | • CXCL4/PF4 | • CXCL13/BLC/BCA-1 | |
| • CCL13/MCP-4 | • CCL25/TECK | • CXCL5/ENA-78 | • CXCL14/BRAK | |

Complement

- | | | | |
|------------------------|-------------|---------------|-----------|
| • Factor D/Adipsin | • C9 | • CXCL6/GCP-2 | • CXCL16 |
| • Factor XIV/Protein C | • MBL | • CXCL7/NAP-2 | • IL-16 |
| • C5/C5a | • Properdin | • CXCL8/IL-8 | • Midkine |

Inflammation

- | | | | |
|---------------|-----------------------------|-------------------|----------------------|
| • Aggrecan | • Chitinase 3-like 1/YKL-40 | • IL-6 R α | • Osteopontin |
| • APRIL | • CXCL8/IL-8 | • IL-10 | • Pentraxin 3/TSG-14 |
| • BAFF/BLyS | • gp130 | • IL-11 | • TNF- α |
| • BCMA | • IFN- β | • IL-12/23 p40 | • TNF RI |
| • CCL5/RANTES | • IFN- γ | • IL-12 p70 | • TNF RII |
| • CD30 | • IL-2 | • IL-19 | • TWEAK |
| • CD163 | • IL-6 | • IL-22 | |

Kidney Biomarker

- | | | | | |
|----------------------------|-----------------|--------------------|----------------|--------------|
| • ADAMTS13 | • CXCL10/IP-10 | • IL-6 | • RBP4 | • TNF RI |
| • Adiponectin | • CXCL16 | • IL-10 | • Renin | • TWEAK |
| • α 1-Microglobulin | • Cystatin C | • IL-18 | • Resistin | • uPAR |
| • β 2-Microglobulin | • DPPIV/CD26 | • Kallikrein 3/PSA | • SCF | • Uromodulin |
| • Calbindin D | • EGF | • Lipocalin-2/NGAL | • TFF3 | • VCAM-1 |
| • CCL2/MCP-1 | • FABP1/L-FABP | • MMP-9 | • TIM-1/KIM-1 | • VEGF-A |
| • Collagen IV α 1 | • Fetuin A/AHSG | • Osteopontin | • TIMP-1 | |
| • CXCL1/GRO α | • IL-1 ra | • RAGE | • TNF α | |

Liver Proteins

- | | | | | |
|------------------------|-----------------------|----------------|-------|--|
| • α Fetoprotein | • Angiopoietin-like 6 | • FABP1/L-FABP | • HGF | |
| • Angiopoietin-like 3 | • ApoA1 | • FGF-21 | | |
| • Angiopoietin-like 4 | • BMP-9 | • FGF-23 | | |

Myokines

- | | | | | |
|----------------------|---------------------|----------------|---------|--|
| • BDNF | • FABP3/H-FABP | • IL-15 | • SPARC | |
| • CX3CL1/Fractalkine | • Folistatin-like 1 | • LIF | | |
| • Epo | • IL-6 | • Oncostatin M | | |

Neurodegenerative Disorders

- | | | | | |
|---------------|---------------|----------|-----------|-------------------|
| • ApoA1 | • Cathepsin D | • GDNF | • PDGF-AA | • Serpin E1/PAI-1 |
| • APP | • CCL5/RANTES | • ICAM-1 | • PDGF-BB | • Serpin F1/PEDF |
| • BDNF | • CCL18/PARC | • MPO | • RAGE | • VCAM-1 |
| • Calbindin D | • CRP | • NCAM-1 | • S100B | |

Neurological Disorders

- | | | | | |
|---------------|-----------------|-------------------------|---------------|--|
| • Contactin-1 | • Fetuin A/AHSG | • Kallikrein 6/Neurosin | • Osteopontin | |
|---------------|-----------------|-------------------------|---------------|--|

Neurological Panel

- | | | | | |
|-----------------|----------------|-----------------------|--|--|
| • BMP-9 | • GFAP | • Park7/DJ-1 | | |
| • Enolase 2/NSE | • Park5/UCH-L1 | • Synuclein- α | | |

Analyte available exclusively from R&D Systems

Oncology

- | | | | | |
|-----------------------------|---------------------------------|-------------------------|---------------------|---------------------------------|
| • 4-1BB/CD137 | • CD31/PECAM-1 | • Galectin-3 | • Leptin | • PIGF |
| • αFetoprotein | • CD40 Ligand | • Galectin-3BP | • Lipocalin-2/NGAL | • Progranulin |
| • ALDH1A1 | • CD44 | • G-CSF | • Lumican | • Prolactin |
| • Amphiregulin | • CD117/c-kit/SCF R | • GDF-15 | • MCAM/CD146 | • SCF |
| • Angiopoietin-1 | • CEACAM-1/CD66a | • GFAP | • M-CSF | • Serpin C1/Antithrombin-III |
| • Angiopoietin-2 | • CEA/CEACAM-5 | • GM-CSF | • Mesothelin | • Serpin E1/PAI-1 |
| • Angiopoietin-like 4 | • Chitinase 3-like 1/YKL-40 | • HB-EGF | • MIA | • Serum Amyloid A1 |
| • ApoA1 | • CXCL8/IL-8 | • HE4/WFDC-2 | • Midkine | • SHBG |
| • APRIL | • CXCL9/MIG | • HGF | • MIF | • SPARC |
| • B7-H1/PD-L1 | • Dkk-1 | • HGF R/c-MET | • MMP-1 | • Tenascin C |
| • β2-Microglobulin | • EGF | • ICAM-1 | • MMP-2 | • TGFα |
| • BAFF/BLyS | • Endoglin | • IGFBP-1 | • MMP-3 | • Thymidine Kinase 1/TK1 |
| • BCMA | • Enolase 2/NSE | • IGFBP-2 | • MMP-8 | • Tie-2 |
| • CA125/MUC16 | • EpCAM/TROP1 | • IGFBP-3 | • MMP-9 | • TIMP-1 |
| • CA15-3 | • ENPP-2/Autotaxin | • IGFBP-4 | • MMP-10 | • TNFα |
| • Carbonic Anhydrase IX/CA9 | • ErbB2/Her2 | • IGFBP-6 | • MMP-13 | • TRAIL |
| • Cathepsin D | • ErbB3/Her3 | • IL-2 | • MPO | • TWEAK |
| • Cathepsin S | • E-Selectin | • IL-2 R α /CD25 | • MSP/MST1 | • uPA/Urokinase |
| • CCL2/MCP-1 | • Fas | • IL-6 | • Nectin-4 | • VCAM-1 |
| • CCL3/MIP-1 α | • Fas Ligand | • IL-6 R α | • Osteopontin | • VEGF-A |
| • CCL5/RANTES | • Ferritin | • IL-17E/IL-25 | • Osteoprotegerin | • VEGF-C |
| • CCL7/MCP-3 | • Fetuin A/AHSG | • IL-18 | • PBEF/Visfatin | • VEGF-D |
| • CCL8/MCP-2 | • FGF basic | • Kallikrein 3/PSA | • PDGF-AA | • VEGF R1/Flt-1 |
| • CCL18/PARC | • Fibroblast Activation Protein | • Kallikrein 5 | • PDGF-BB | • VEGF R2/KDR |
| • CCL20/MIP-3 α | • Follistatin | • Kallikrein 6/Neurosin | • Periostin/OSF-2 | • Vitamin D Binding Protein |

Proteases

- | | | | | |
|----------------------|-------------------------|---------|---------------------------|----------------|
| • ADAMTS13 | • Kallikrein 5 | • MMP-3 | • MMP-10 | • Proteinase 3 |
| • Cathepsin D | • Kallikrein 6/Neurosin | • MMP-7 | • MMP-12 | • uPA |
| • Cathepsin S | • MMP-1 | • MMP-8 | • MMP-13 | |
| • Kallikrein 3/PSA | • MMP-2 | • MMP-9 | • Proprotein Convertase 9 | |

Protease Inhibitors

- | | | | | |
|------------------|---------------------|------------------|----------|--|
| • Cystatin C | • Lipocalin-2/NGAL | • Serpin F1/PEDF | • MMP-10 | |
| • EMMPRIN | • Serpin A12/Vaspin | • TFPI | • MMP-12 | |
| • HE4/WFDC-2 | • Serpin E1/PAI-1 | • TIMP-1 | • MMP-13 | |

Sepsis

- | | | | | |
|-----------------------|--------------------|----------------------|------------|--|
| • CCL3/MIP-1 α | • Granzyme B | • MMP-8 | • Resistin | |
| • CCL4/MIP-1 β | • IL-1 α | • Procalcitonin | | |
| • CXCL8/IL-8 | • Lactoferrin | • Proteinase 3/PRTN3 | | |
| • FGF-13 1B | • Lipocalin-2/NGAL | • Resistin | | |

Soluble Receptors

- | | | | | |
|-------------------------|--------------------------|-----------------------|---------------------|-------------------|
| • 4-1BB/CD137 | • CD44 | • Galectin-3 | • IL-4 R α | • ST2 |
| • AgRP/ART | • CEACAM-1/CD66a | • Galectin-3BP | • Lipocalin-2/NGAL | • TIMP-1 |
| • Amphiregulin | • CX3CL1/Fractalkine | • Galectin-9 | • L-Selectin | • TNF RII |
| • APP | • CXCL8/IL-8 | • GITR | • MadCAM-1 | • TRAIL R2/DR5 |
| • B7-H1/PD-L1 | • DR3 | • gp130 | • MCAM/CD146 | • TRAIL R3 |
| • CD117/c-kit/SCF R | • EMMPRIN | • HB-EGF | • MMP-2 | • uPAR |
| • CD14 | • Endoglin | • HGF R/c-MET | • N-Cadherin | • VCAM-1 |
| • CD23/Fc ϵ RI | • EN-RAGE/S100A12 | • ICAM-1 | • NCAM-1 | • VEGF R3 |
| • CD27 | • EphA2 | • IFN-γ R1 | • Osteopontin | |
| • CD31/PECAM-1 | • Fas | • IL-1 RI | • P-Selectin | |
| • CD40 Ligand | • Galectin-1 | • IL-1 RII | • RAGE | |

Soluble Receptors, Hematopoietic

- | | | | | |
|-----------------------------|-------------------------|-------------------|-----------------|--|
| • CD30 | • CRP | • IL-6 R α | • Resistin | |
| • CD40 | • CXCL16 | • L-Selectin | • TNF RI | |
| • CD163 | • DPPIV/CD26 | • MMP-9 | • TRANCE/RANK L | |
| • Chitinase 3-like 1/YKL-40 | • IL-2 R α /CD25 | • MPO | • TREM-1 | |

Soluble Receptors, non-Hematopoietic

- | | | | | |
|-----------------------|---------------|---------------------|---------------------|---------------|
| • Cathepsin D | • ErbB2/Her2 | • MCAM/CD146 | • Syndecan-4 | • VEGF R2/KDR |
| • CD40 | • ErbB3/Her3 | • Nectin-4 | • Thrombospondin-2 | |
| • CEA/CEACAM-5 | • ESAM | • Periostin/OSF-2 | • VAP-1 | |
| • EpCAM/TROP1 | • E-Selectin | • Syndecan-1/CD138 | • VEGF R1/Flt-1 | |

Th17

- | | | | | |
|------------------------|-------------|------------------------|-----------------|----------------------------|
| • CCL20/MIP-3 α | • IL-4 | • IL-13 | • IL-21 | • IL-33 |
| • CD40 Ligand | • IL-5 | • IL-15 | • IL-22 | • LT α /TNF β |
| • GM-CSF | • IL-6 | • IL-17A | • IL-23 | |
| • IFN- γ | • IL-9 | • IL-17A/F Heterodimer | • IL-27 | • TNF α |
| • IL-1 β | • IL-10 | • IL-17E/IL-25 | • IL-28A/IFN-λ2 | |
| • IL-2 | • IL-12 p70 | • IL-17F | • IL-31 | |

Luminex® Assays

Luminex Assays offer our widest selection of analytes for bead-based multianalyte profiling using cell culture supernatants, serum, or plasma samples. Luminex Assays are ideal for researchers needing to evaluate multiple analytes for trends in protein expression in disease states or following treatment. They are also valuable for examining combinations of analytes not available in defined panels. Luminex Assays allow the simultaneous profiling of up to 100 biomarkers when using polystyrene microparticles or 50 biomarkers when using magnetic microparticles. The analytes for this user-defined multiplex assay are available from a rapidly expanding menu and are supplied as premixed kits.

Human Analytes for Luminex Assays

| Analyte | Entrez Gene ID | Sensitivity (Mean Minimum Detectable Dose; pg/mL) | Standard Curve Range (pg/mL)* | Starting Sample Dilution | | | Bead Region | |
|---------------------------|----------------|---|-------------------------------|--------------------------|---------|----------------------|-------------|-------------|
| | | | | Cell Culture Supernate | Serum | Heparin/ EDTA Plasma | Magnetic | Polystyrene |
| 4-1BB/CD137 | 8744 | 2.8 | 35.8-8,710 | 1:2 | 1:2 | 1:2 | 13 | 2 |
| ADAMTS13 | 11093 | 1270 | 18,646-4,530,860 | 1:2 | 1:2 | 1:2 | 52 | 81 |
| Adiponectin/Acrp30 | 9370 | 148 | 1,722-418,470 | 1:2 | 1:200 | 1:200 | 44 | 25 |
| Aggrecan | 176 | 249 | 273-66,430 | 1:2 | 1:2 | 1:2 | 75 | 47 |
| α-Fetoprotein | 174 | 205 | 1,224-297,360 | 1:2 | 1:2 | 1:2 | 66 | 41 |
| AgRP/ART | 181 | 0.183 | 5.97-1,450 | 1:2 | 1:2 | 1:2 | 42 | 23 |
| ALDH1A1 | 216 | 7.10 | 118-28,560 | 1:2 | 1:50 | 1:50 | 14 | 3 |
| α1-Microglobulin | 259 | 29,563 | 147,826-35,921,600 | 1:2 | 1:2 | 1:2 | 15 | 4 |
| Amphiregulin | 374 | 131 | 5,403-1,313,000 | 1:2 | 1:2 | 1:2 | 37 | 21 |
| Angiogenin | 283 | 3.17 | 23.2-5,640 | 1:2 | 1:200 | 1:200 | 66 | 81 |
| Angiopoietin-1 | 284 | 9.43 | 133-32,360 | 1:2 | 1:50 | 1:2 | 64 | 98 |
| Angiopoietin-2 | 285 | 17.1 | 258-62,630 | 1:2 | 1:2 | 1:2 | 26 | 61 |
| Angiopoietin-like 3 | 27329 | 23.0 | 139-33,710 | 1:2 | 1:2 | 1:2 | 72 | 42 |
| Angiopoietin-like 4 | 51129 | 86.0 | 1,803-438,180 | 1:2 | 1:2 | 1:2 | 73 | 43 |
| Angiopoietin-like 6 | 83854 | 12 | 296-71,930 | 1:2 | 1:2 | 1:2 | 12 | 41 |
| ApoA1 | 335 | 1502 | 21,432-5,207,920 | 1:2 | 1:4,000 | 1:4,000 | 13 | 42 |
| APP | 351 | 268 | 5,559-1,350,800 | 1:2 | 1:2 | 1:2 | 39 | 21 |
| APRIL | 8741 | 7.95 | 202-49,200 | 1:2 | 1:2 | 1:2 | 43 | 24 |
| B7-H1/PD-L1 | 29126 | 56.5 | 162-39,320 | 1:2 | 1:2 | 1:2 | 14 | 02 |
| β2-Microglobulin | 567 | 17.2 | 287-69,760 | 1:2 | 1:4,000 | 1:4,000 | 13 | 01 |
| BAFF/BLyS | 10673 | 1.01 | 17.4-4,240 | 1:2 | 1:2 | 1:2 | 44 | 25 |
| BCMA | 608 | 1.24 | 178-43,190 | 1:2 | 1:2 | 1:2 | 75 | 98 |
| BDNF | 627 | 0.320 | 10.9-2,650 | 1:2 | 1:2 | 1:2 | 15 | 03 |
| BMP-2 | 650 | 3.6 | 24.5-5,950 | 1:2 | 1:2 | 1:2 | 67 | 43 |
| BMP-4 | 652 | 5.0 | 47.9-11,640 | 1:2 | 1:2 | 1:2 | 72 | 44 |
| BMP-9 | 2658 | 0.6 | 4.90-1,190 | 1:2 | 1:2 | 1:2 | 73 | 45 |
| CA125/MUC16 | 94025 | 2.69 | 24.3-5,900 | 1:2 | 1:2 | 1:2 | 35 | 19 |
| CA15-3 | 4582 | 0.051 units/mL | 0.177-43.0 units/mL | 1:2 | 1:50 | 1:50 | 75 | 45 |
| Calbindin D | 795 | 12.3 | 30.5-7,400 | 1:2 | 1:2 | 1:2 | 33 | 17 |
| Carbonic Anhydrase IX/CA9 | 768 | 2.11 | 9.71-2,360 | 1:2 | 1:2 | 1:2 | 45 | 26 |
| Cardiac Myoglobin | 4151 | 1.26 | 17.1-4,160 | 1:2 | 1:50 | 1:50 | 42 | 74 |
| Cardiac Troponin I/cTNI | 7137 | 14.9 | 19.9-4,830 | 1:2 | 1:2 | 1:2 | 48 | 80 |
| Cathepsin D | 1509 | 70.9 | 709-57,400 | 1:2 | 1:50 | 1:50 | 18 | 5 |
| Cathepsin S, Total | 1520 | 9.65 | 126-30,710 | 1:2 | 1:2 | 1:2 | 35 | 68 |
| CCL1/I-309 | 6346 | 0.119 | 4.57-1,110 | 1:2 | 1:2 | 1:2 | 15 | 44 |
| CCL2/MCP-1 | 6347 | 9.9 | 98.0-7,940 | 1:2 | 1:2 | 1:2 | 25 | 10 |
| CCL3/MIP-1α | 6348 | 16.2 | 181-14,700 | 1:2 | 1:2 | 1:2 | 35 | 18 |
| CCL4/MIP-1β | 6351 | 5.8 | 261-21,150 | 1:2 | 1:2 | 1:2 | 37 | 20 |
| CCL5/RANTES | 6352 | 1.8 | 21.3-5,250 | 1:2 | 1:50 | 1:50 | 36 | 19 |
| CCL7/MCP-3 | 6354 | 3.15 | 40.0-9,730 | 1:2 | 1:2 | 1:2 | 37 | 69 |
| CCL8/MCP-2 | 6355 | 1.82 | 17.7-4,300 | 1:2 | 1:2 | 1:2 | 37 | 71 |
| CCL11/Eotaxin | 6356 | 14.6 | 121-29,310 | 1:2 | 1:2 | 1:2 | 77 | 100 |
| CCL13/MCP-4 | 6357 | 0.420 | 7.04-1,710 | 1:2 | 1:2 | 1:2 | 38 | 72 |
| CCL14/HCC-1/HCC-3 | 6358 | 31.8 | 259-62,870 | 1:2 | 1:50 | 1:50 | 28 | 12 |
| CCL17/TARC | 6361 | 6.47 | 90.5-22,000 | 1:2 | 1:2 | 1:2 | 63 | 38 |
| CCL18/PARC | 6362 | 0.326 | 12.7-3,080 | 1:2 | 1:50 | 1:50 | 33 | 65 |

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Human Analytes for Luminex Assays

| Analyte | Entrez Gene ID | Sensitivity (Mean Minimum Detectable Dose; pg/mL) | Standard Curve Range (pg/mL)* | Starting Sample Dilution | | | Bead Region | |
|---------------------------|----------------|---|-------------------------------|--------------------------|-------|----------------------|-------------|-------------|
| | | | | Cell Culture Supernate | Serum | Heparin/ EDTA Plasma | Magnetic | Polystyrene |
| CCL19/MIP-3β | 6363 | 0.765 | 14.4-3,490 | 1:2 | 1:2 | 1:2 | 42 | 22 |
| CCL20/MIP-3α | 6364 | 3.39 | 10.3-2,500 | 1:2 | 1:2 | 1:2 | 33 | 66 |
| CCL21/6CKine | 6366 | 9.06 | 35.4-8,600 | 1:2 | 1:2 | 1:2 | 65 | 41 |
| CCL22/MDC | 6367 | 8.45 | 59.0-14,340 | 1:2 | 1:2 | 1:2 | 36 | 68 |
| CCL24/Eotaxin-2/MPIF-2 | 6369 | 1.34 | 10.8-2,630 | 1:2 | 1:2 | 1:2 | 34 | 16 |
| CCL25/TECK | 6370 | 1.22 | 50.7-12,320 | 1:2 | 1:2 | 1:2 | 46 | 27 |
| CCL26/Eotaxin-3 | 10344 | 1.58 | 25.6-6,230 | 1:2 | 1:2 | 1:2 | 45 | 75 |
| CCL27/CTACK | 10850 | 0.421 | 8.52-2,070 | 1:2 | 1:2 | 1:2 | 74 | 47 |
| CCL28 | 56477 | 3.76 | 287-69,670 | 1:2 | 1:2 | 1:2 | 43 | 23 |
| CD14 | 929 | 39.6 | 210-51,030 | 1:2 | 1:200 | 1:200 | 29 | 64 |
| CD23/Fcε RII | 2208 | 16.5 | 190-46,180 | 1:2 | 1:2 | 1:2 | 44 | 24 |
| CD27 | 939 | 4.84 | 171-41,460 | 1:2 | 1:2 | 1:2 | 67 | 94 |
| CD30 | 943 | 0.130 | 2.84-690 | 1:2 | 1:2 | 1:2 | 61 | 88 |
| CD31/PECAM-1 | 5175 | 71.6 | 818-198,730 | 1:2 | 1:2 | 1:2 | 45 | 25 |
| CD40 | 958 | 2.11 | 21.4-5,200 | 1:2 | 1:2 | 1:2 | 76 | 99 |
| CD40 Ligand | 959 | 34.7 | 939-228,280 | 1:2 | 1:2 | 1:2 | 74 | 82 |
| CD44 | 960 | 42.6 | 110-26,700 | 1:2 | 1:2 | 1:2 | 72 | 44 |
| CD163 | 9332 | 530 | 4,258-1,034,700 | 1:2 | 1:2 | 1:2 | 28 | 62 |
| CEACAM-1/CD66a | 634 | 158 | 2,007-487,620 | 1:2 | 1:2 | 1:2 | 54 | 83 |
| CEA/CEACAM-5 | 1048 | 12.9 | 168-40,850 | 1:2 | 1:2 | 1:2 | 30 | 65 |
| Chemerin | 5919 | 69.0 | 441-107,240 | 1:2 | 1:2 | 1:2 | 67 | 46 |
| Chitinase 3-like 1/YKL-40 | 1116 | 3.3 | 371-90,070 | 1:2 | 1:2 | 1:2 | 20 | 57 |
| Factor D/Adipsin | 1675 | 232 | 931-226,330 | 1:2 | 1:50 | 1:50 | 64 | 40 |
| Factor XIV/Protein C | 5624 | 23.1 | 289-70,200 | 1:2 | 1:50 | 1:50 | 36 | 20 |
| Collagen I α1/COL1A1 | 1277 | 0.58 | 13.0-3,170 | 1:2 | 1:50 | 1:50 | 18 | 45 |
| Collagen IV α1 | 1282 | 10.2 | 117-28,400 | 1:2 | 1:2 | 1:2 | 55 | 83 |
| Contactin-1 | 1272 | 3.58 | 230-55,890 | 1:2 | 1:2 | 1:2 | 48 | 29 |
| C5/C5a | 727 | 0.210 | 5.80-1,410 | 1:2 | 1:2 | 1:2 | 18 | 04 |
| C9 | 735 | 2097 | 26,071-6,335,280 | 1:2 | 1:50 | 1:50 | 47 | 28 |
| CRP | 1401 | 11.6 | 145-35,210 | 1:2 | 1:200 | 1:200 | 62 | 38 |
| Cripto-1 | 6997 | 14.3 | 37.5-9,120 | 1:2 | 1:2 | 1:2 | 19 | 56 |
| CX3CL1/Fractalkine | 6376 | 64.8 | 1,340-325,580 | 1:2 | 1:2 | 1:2 | 46 | 26 |
| CXCL1/GROα | 2919 | 5.3 | 103-8,310 | 1:2 | 1:2 | 1:2 | 77 | 49 |
| CXCL2/Groβ | 2920 | 7.86 | 34.8-8,450 | 1:2 | 1:2 | 1:2 | 27 | 11 |
| CXCL4/PF4 | 5196 | 21.1 | 377-91,600 | 1:2 | 1:200 | 1:200 | 56 | 34 |
| CXCL5/ENA-78 | 6374 | 8.2 | 65.7-15,960 | 1:2 | 1:2 | 1:2 | 52 | 31 |
| CXCL6/GCP-2 | 6372 | 3.02 | 28.8-6,990 | 1:2 | 1:2 | 1:2 | 21 | 07 |
| CXCL7/NAP-2 | 5473 | 55.1 | 738-179,280 | 1:2 | 1:200 | 1:200 | 47 | 27 |
| CXCL8/IL-8 | 3576 | 1.8 | 8.19-1,990 | 1:2 | 1:2 | 1:2 | 18 | 5 |
| CXCL9/MIG | 4283 | 18.4 | 396-96,200 | 1:2 | 1:2 | 1:2 | 52 | 30 |
| CXCL10/IP-10 | 3627 | 1.18 | 2.59-630 | 1:2 | 1:2 | 1:2 | 21 | 58 |
| CXCL11/I-TAC | 6373 | 7.8 | 29.3-7,130 | 1:2 | 1:2 | 1:2 | 63 | 39 |
| CXCL12/SDF-1α | 6387 | 17.0 | 110-26,680 | 1:2 | 1:2 | 1:2 | 20 | 60 |
| CXCL13/BLC/BCA-1 | 10563 | 11.5 | 17.6-4,280 | 1:2 | 1:2 | 1:2 | 28 | 63 |
| CXCL14/BRAK | 9547 | 26.0 | 97.1-23,600 | 1:2 | 1:2 | 1:2 | 66 | 42 |
| CXCL16 | 58191 | 0.386 | 10.9-2,660 | 1:2 | 1:2 | 1:2 | 39 | 71 |
| Cystatin C | 1471 | 103 | 710-172,580 | 1:2 | 1:50 | 1:50 | 75 | 84 |
| DcR3 | 8771 | 55.9 | 1,031-250,580 | 1:2 | 1:2 | 1:2 | 54 | 84 |
| D-dimer | 2243 | 0.054 | 0.313-76.0 | 1:2 | 1:2 | 1:4,000 | 43 | 82 |
| Dkk-1 | 22943 | 50.9 | 219-53,310 | 1:2 | 1:2 | 1:2 | 30 | 65 |
| DPPIV/CD26 | 1803 | 78.7 | 200-48,580 | 1:2 | 1:50 | 1:50 | 19 | 05 |
| DR3/TNFRSF25 | 8718 | 58.6 | 866-210,370 | 1:2 | 1:2 | 1:2 | 72 | 95 |
| EGF | 1950 | 8.9 | 18.1-4,410 | 1:2 | 1:2 | 1:2 | 25 | 60 |

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Human Analytes for Luminex Assays

| Analyte | Entrez Gene ID | Sensitivity (Mean Minimum Detectable Dose; pg/mL) | Standard Curve Range (pg/mL)* | Starting Sample Dilution | | | Bead Region | |
|-----------------------------------|----------------|---|-------------------------------|--------------------------|--------|----------------------|-------------|-------------|
| | | | | Cell Culture Supernate | Serum | Heparin/ EDTA Plasma | Magnetic | Polystyrene |
| EMMPRIN | 682 | 7.6 | 87.2-21,180 | 1:2 | 1:2 | 1:2 | 12 | 85 |
| Endocan/ESM-1 | 11082 | 1.08 | 11.7-2,850 | 1:2 | 1:2 | 1:2 | 22 | 9 |
| Endoglin | 2022 | 68.0 | 364-88,410 | 1:2 | 1:2 | 1:2 | 22 | 49 |
| Endostatin | 80781 | 27.3 | 153-37,200 | 1:2 | 1:2 | 1:2 | 74 | 46 |
| Endothelin-1 | 1906 | 1.31 | 11.4-2,780 | 1:2 | 1:2 | 1:2 | 76 | 50 |
| Enolase 2/Neuron-specific Enolase | 2026 | 140 | 388-94,250 | 1:2 | 1:2 | 1:2 | 48 | 28 |
| ENPP-2/Autotaxin | 5168 | 99.3 | 2,651-644,300 | 1:2 | 1:2 | 1:2 | 42 | 22 |
| EN-RAGE/S100A12 | 6283 | 1.77 | 28.4-6,900 | 1:2 | 1:50 | 1:50 | 52 | 31 |
| EpCAM/TROP1 | 4072 | 2.22 | 48.6-11,820 | 1:2 | 1:2 | 1:2 | 53 | 32 |
| EphA2 | 1969 | 176 | 218-52,980 | 1:2 | 1:2 | 1:2 | 52 | 82 |
| ErbB2/Her2 | 2064 | 36.6 | 144-34,900 | 1:2 | 1:2 | 1:2 | 75 | 47 |
| ErbB3/Her3 | 2065 | 9.42 | 290-70,410 | 1:2 | 1:2 | 1:2 | 54 | 33 |
| Epo | 2056 | 176 | 542-131,700 | 1:2 | 1:2 | 1:2 | 34 | 18 |
| ESAM | 90952 | 7.67 | 45.3-11,000 | 1:2 | 1:2 | 1:2 | 67 | 43 |
| E-Selectin | 6401 | 18.8 | 427-103,880 | 1:2 | 1:2 | 1:2 | 45 | 26 |
| FABP1/L-FABP | 2168 | 714 | 3,118-757,680 | 1:2 | 1:2 | 1:2 | 22 | 08 |
| FABP3/H-FABP | 2170 | 472 | 1,285-312,240 | 1:2 | 1:2 | 1:2 | 25 | 09 |
| FABP4/A-FABP | 2167 | 95.7 | 631-153,350 | 1:2 | 1:2 | 1:2 | 25 | 51 |
| Fas | 355 | 3.23 | 146-35,440 | 1:2 | 1:2 | 1:2 | 73 | 96 |
| Fas Ligand | 356 | 1.23 | 17.8-4,330 | 1:2 | 1:2 | 1:2 | 39 | 73 |
| Ferritin | 2495 | 1.29 | 25.8-6,270 | 1:2 | 1:50 | 1:50 | 19 | 46 |
| Fetuin A/AHSG | 197 | 241 | 5,903-1,434,500 | 1:2 | 1:4000 | 1:4000 | 57 | 86 |
| FGF acidic | 2246 | 4.88 | 16.2-3,930 | 1:2 | 1:2 | 1:2 | 67 | 87 |
| FGF basic | 2247 | 6.5 | 74.9-18,200 | 1:2 | 1:2 | 1:2 | 47 | 28 |
| FGF-13 1B | 2258 | 20.6 | 216-52,540 | 1:2 | 1:2 | 1:2 | 25 | 10 |
| FGF-21 | 26291 | 27.0 | 623-151,330 | 1:2 | 1:2 | 1:2 | 13 | 52 |
| FGF-23 | 8074 | 10.2 | 12.1-2,940 | 1:2 | 1:2 | 1:2 | 55 | 84 |
| Fibroblast activation protein | 2191 | 0.667 | 22.6-5,480 | 1:2 | 1:50 | 1:50 | 20 | 47 |
| Fibronectin | 2335 | 171 | 3,761-914,030 | 1:2 | 1:4000 | 1:4000 | 56 | 85 |
| FLRG | 10272 | 52.0 | 962-233,660 | 1:2 | 1:2 | 1:2 | 29 | 63 |
| Flt-3 Ligand | 2323 | 1.50 | 17.5-4,260 | 1:2 | 1:2 | 1:2 | 77 | 52 |
| Follistatin | 10468 | 133 | 2,675-650,000 | 1:2 | 1:2 | 1:2 | 43 | 23 |
| Follistatin-like 1 | 11167 | 281 | 1,207-293,190 | 1:2 | 1:2 | 1:2 | 55 | 34 |
| Galectin-1 | 3956 | 632 | 1,822-442,650 | 1:2 | 1:2 | 1:2 | 51 | 29 |
| Galectin-3 | 3958 | 1.68 | 18.4-4,470 | 1:2 | 1:50 | 1:50 | 34 | 68 |
| Galectin-3BP/MAC-2BP | 3959 | 194 | 830-201,700 | 1:2 | 1:50 | 1:50 | 76 | 48 |
| Galectin-9 | 3965 | 29.0 | 79.8-19,400 | 1:2 | 1:2 | 1:2 | 18 | 55 |
| Gas6 | 2621 | 3.58 | 109-26,560 | 1:2 | 1:50 | 1:50 | 48 | 79 |
| G-CSF | 1440 | 4.1 | 33.7-8,200 | 1:2 | 1:2 | 1:2 | 54 | 33 |
| GDF-15 | 9518 | 1.2 | 34.0-8,270 | 1:2 | 1:2 | 1:2 | 65 | 41 |
| GDNF | 2668 | 0.582 | 4.4-1,070 | 1:2 | 1:2 | 1:2 | 78 | 53 |
| GFAP | 2670 | 7.34 | 65.3-15,860 | 1:2 | 1:2 | 1:2 | 26 | 61 |
| GITR | 8784 | 11.1 | 152-37,010 | 1:2 | 1:2 | 1:2 | 61 | 87 |
| Glucagon | 2641 | 11.7 | 42.8-10,400 | 1:2 | 1:2 | 1:2 | 26 | 10 |
| GM-CSF | 1437 | 4.1 | 29.9-7,260 | 1:2 | 1:2 | 1:2 | 46 | 27 |
| gp130 | 3572 | 11.2 | 225-54,630 | 1:2 | 1:2 | 1:2 | 13 | 54 |
| Granzyme A | 3001 | 2.18 | 27.4-6,650 | 1:2 | 1:2 | 1:2 | 47 | 78 |
| Granzyme B | 3002 | 1.42 | 22.2-5,400 | 1:2 | 1:2 | 1:2 | 57 | 35 |
| Growth Hormone | 2688 | 12.2 | 76.1-18,500 | 1:2 | 1:2 | 1:2 | 44 | 24 |
| HB-EGF | 1839 | 0.4 | 11.2-2,710 | 1:2 | 1:2 | 1:2 | 22 | 59 |
| HE4/WFDC-2 | 10406 | 10.8 | 198-48,000 | 1:2 | 1:2 | 1:2 | 62 | 88 |
| HGF | 3082 | 1.0 | 40.9-9,940 | 1:2 | 1:2 | 1:2 | 66 | 42 |
| HGF R/c-MET | 4233 | 2.48 | 165-40,120 | 1:2 | 1:50 | 1:50 | 63 | 89 |

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|-------------------------|----------------|---|-------------------------------|--------------------------|-------|----------------------|-------------|-------------|
| | | | | Cell Culture Supernate | Serum | Heparin/ EDTA Plasma | Magnetic | Polystyrene |
| HTRA2/Omi | 27429 | 0.955 | 55.8-13,550 | 1:2 | 1:2 | 1:2 | 65 | 91 |
| ICAM-1 | 3383 | 87.9 | 7,357-1,787,790 | 1:2 | 1:2 | 1:2 | 61 | 37 |
| IFN- β | 3456 | 0.476 | 14.1-3,430 | 1:2 | 1:2 | 1:2 | 21 | 48 |
| IFN- γ | 3458 | 0.4 | 299-24,200 | 1:2 | 1:2 | 1:2 | 29 | 14 |
| IFN- γ R1 | 3459 | 0.110 | 4.12-1,000 | 1:2 | 1:2 | 1:2 | 55 | 85 |
| IGFBP-1 | 3484 | 42.6 | 163-39,690 | 1:2 | 1:2 | 1:2 | 38 | 70 |
| IGFBP-2 | 3485 | 116 | 764-185,720 | 1:2 | 1:50 | 1:50 | 26 | 11 |
| IGFBP-3 | 3486 | 248 | 2,825-686,400 | 1:2 | 1:2 | 1:2 | 45 | 25 |
| IGFBP-4 | 3487 | 16.2 | 184-44,670 | 1:2 | 1:2 | 1:2 | 53 | 30 |
| IGFBP-6 | 3489 | 2.38 | 38.3-9,308 | 1:2 | 1:200 | 1:200 | 27 | 12 |
| IGFBP-rp1/IGFBP-7 | 3490 | 118 | 385-93,600 | 1:2 | 1:2 | 1:2 | 77 | 49 |
| IL-1 α | 3552 | 0.9 | 7.86-1,910 | 1:2 | 1:2 | 1:2 | 38 | 21 |
| IL-1 β | 3553 | 0.8 | 17.8-4,320 | 1:2 | 1:2 | 1:2 | 28 | 13 |
| IL-1 ra/IL-1F3 | 3557 | 18.0 | 39.0-9,480 | 1:2 | 1:2 | 1:2 | 30 | 15 |
| IL-1 RI | 3554 | 4.49 | 90.2-21,930 | 1:2 | 1:2 | 1:2 | 63 | 90 |
| IL-1 RII | 7850 | 18.0 | 262-63,580 | 1:2 | 1:2 | 1:2 | 62 | 89 |
| IL-2 | 3558 | 1.8 | 32.3-7,840 | 1:2 | 1:2 | 1:2 | 43 | 24 |
| IL-2 Ra/CD25 | 3559 | 1.30 | 21.4-5,190 | 1:2 | 1:2 | 1:2 | 47 | 77 |
| IL-3 | 3562 | 11.6 | 80.7-19,600 | 1:2 | 1:2 | 1:2 | 15 | 55 |
| IL-4 | 3565 | 9.3 | 18.3-4,440 | 1:2 | 1:2 | 1:2 | 39 | 22 |
| IL-4 Ra | 3566 | 0.29 | 2.42-589 | 1:2 | 1:2 | 1:2 | 22 | 49 |
| IL-5 | 3567 | 0.5 | 17.6-4,270 | 1:2 | 1:2 | 1:2 | 53 | 32 |
| IL-6 | 3569 | 1.7 | 14.1-3,420 | 1:2 | 1:2 | 1:2 | 13 | 2 |
| IL-6 Ra | 3570 | 0.580 | 82.9-20,140 | 1:2 | 1:2 | 1:2 | 27 | 61 |
| IL-7 | 3574 | 0.410 | 5.88-1,430 | 1:2 | 1:2 | 1:2 | 29 | 13 |
| IL-9 | 3578 | 109 | 3,012-732,000 | 1:2 | 1:2 | 1:2 | 46 | 26 |
| IL-10 | 3586 | 1.6 | 13.7-3,340 | 1:2 | 1:2 | 1:2 | 22 | 9 |
| IL-11 | 3589 | 24.7 | 516-125,410 | 1:2 | 1:2 | 1:2 | 72 | 94 |
| IL-12/23 p40 | 3593 | 35.2 | 383-93,100 | 1:2 | 1:2 | 1:2 | 67 | 93 |
| IL-12 p70 | 3592 | 20.2 | 278-67,590 | 1:2 | 1:2 | 1:2 | 56 | 35 |
| IL-13 | 3596 | 32.4 | 373-90,600 | 1:2 | 1:2 | 1:2 | 47 | 27 |
| IL-15 | 3600 | 1.01 | 7.70-1,870 | 1:2 | 1:2 | 1:2 | 63 | 97 |
| IL-16 | 3603 | 1.35 | 40.6-9,870 | 1:2 | 1:2 | 1:2 | 25 | 50 |
| IL-17A | 3605 | 1.8 | 21.5-5,220 | 1:2 | 1:2 | 1:2 | 42 | 23 |
| IL-17A/F Heterodimer | 3605/112744 | 48.5 | 367-89,120 | 1:2 | 1:2 | 1:2 | 28 | 13 |
| IL-17C | 27189 | 1.57 | 45.6-11,080 | 1:2 | 1:2 | 1:2 | 55 | 33 |
| IL-17E/IL-25 | 64806 | 27.7 | 313-76,130 | 1:2 | 1:2 | 1:2 | 30 | 14 |
| IL-17F | 112744 | 27.8 | 1,096-266,240 | 1:2 | 1:2 | 1:2 | 46 | 76 |
| IL-18 | 3606 | 1.93 | 58.6-14,250 | 1:2 | 1:2 | 1:2 | 78 | 50 |
| IL-18 BP α | 10068 | 1.9 | 93.3-22,660 | 1:2 | 1:2 | 1:2 | 15 | 54 |
| IL-19 | 29949 | 64.3 | 257-62,360 | 1:2 | 1:2 | 1:2 | 74 | 46 |
| IL-21 | 59067 | 0.869 | 29.4-7,140 | 1:2 | 1:2 | 1:2 | 65 | 51 |
| IL-22 | 50616 | 11.7 | 16.7-4,050 | 1:2 | 1:2 | 1:2 | 35 | 69 |
| IL-23 | 51561 | 11.4 | 221-53,800 | 1:2 | 1:2 | 1:2 | 76 | 48 |
| IL-27 | 246778 | 122 | 433-105,300 | 1:2 | 1:2 | 1:2 | 25 | 50 |
| IL-28A/IFN- λ 2 | 282616 | 8.6 | 245-59,480 | 1:2 | 1:2 | 1:2 | 12 | 51 |
| IL-28B/IFN- λ 3 | 282617 | 8.35 | 209-50,900 | 1:2 | 1:2 | 1:2 | 66 | 92 |
| IL-31 | 386653 | 9.72 | 49.9-12,120 | 1:2 | 1:2 | 1:2 | 36 | 70 |
| IL-33 | 90865 | 1.8 | 46.7-11,360 | 1:2 | 1:2 | 1:2 | 14 | 53 |
| IL-34 | 146433 | 18.7 | 88.8-21,580 | 1:2 | 1:2 | 1:2 | 43 | 73 |
| IL-36 β /IL-1F8 | 27177 | 0.903 | 4.53-1,100 | 1:2 | 1:2 | 1:2 | 65 | 99 |
| Inhibin, Total | 2310, 2312 | 21.7 | 50.3-12,220 | 1:2 | 1:2 | 1:2 | 44 | 75 |
| Insulin | 3630 | 9.91 | 31.7-7,700 | 1:2 | 1:2 | 1:2 | 14 | 44 |

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| Analyte | Entrez Gene ID | Sensitivity (Mean Minimum Detectable Dose; pg/mL) | Standard Curve Range (pg/mL)* | Starting Sample Dilution | | | Bead Region | |
|-------------------------------------|----------------|---|-------------------------------|--------------------------|---------|----------------------|-------------|-------------|
| | | | | Cell Culture Supernate | Serum | Heparin/ EDTA Plasma | Magnetic | Polystyrene |
| Insulin C-Peptide | 3630 | 2.83 | 41.6-10,120 | 1:2 | 1:2 | 1:2 | 20 | 06 |
| ITIH4 | 3700 | 141 | 1,069-259,700 | 1:2 | 1:200 | 1:200 | 12 | 51 |
| Kallikrein 3/PSA | 354 | 8.30 | 61.5-14,940 | 1:2 | 1:2 | 1:2 | 26 | 56 |
| Kallikrein 5 | 25818 | 81.5 | 367-89,280 | 1:2 | 1:2 | 1:2 | 21 | 57 |
| Kallikrein 6/Neurosin | 5653 | 5.45 | 277-67,240 | 1:2 | 1:2 | 1:2 | 56 | 35 |
| Lactoferrin | 4057 | 201 | 573-139,190 | 1:2 | 1:50 | 1:50 | 36 | 69 |
| LBP | 3929 | 839 | 7,470-1815,240 | 1:2 | 1:200 | 1:200 | 57 | 36 |
| Leptin | 3952 | 10.2 | 504-122,550 | 1:2 | 1:2 | 1:2 | 51 | 30 |
| LIF | 3976 | 9.31 | 68.1-16,550 | 1:2 | 1:2 | 1:2 | 33 | 15 |
| LIGHT | 8740 | 0.691 | 11.4-2,770 | 1:2 | 1:2 | 1:2 | 30 | 15 |
| Lipocalin-2/NGAL | 3934 | 29.2 | 96.3-23,390 | 1:2 | 1:50 | 1:50 | 53 | 88 |
| LRG1 | 116844 | 13.7 | 231-56,170 | 1:2 | 1:200 | 1:200 | 73 | 95 |
| L-Selectin | 6402 | 106 | 1,771-430,420 | 1:2 | 1:2 | 1:2 | 19 | 58 |
| Lumican | 4060 | 497 | 9,458-2,298,400 | 1:2 | 1:50 | 1:50 | 13 | 52 |
| Lymphotoxin- α /TNF- β | 4049 | 1.52 | 8.97-2,180 | 1:2 | 1:2 | 1:2 | 45 | 76 |
| M-CSF | 1435 | 33.3 | 491-119,300 | 1:2 | 1:2 | 1:2 | 48 | 28 |
| MAdCAM-1 | 8174 | 51.3 | 1,074-260,896 | 1:2 | 1:2 | 1:2 | 33 | 16 |
| MBL | 4153 | 1.78 | 44.2-10,730 | 1:2 | 1:4,000 | 1:4,000 | 61 | 37 |
| MCAM/CD146 | 4162 | 3.50 | 215-52,240 | 1:2 | 1:2 | 1:2 | 74 | 96 |
| Mesothelin | 10232 | 22.9 | 802-194,860 | 1:2 | 1:2 | 1:2 | 62 | 38 |
| MFG-E8 | 4240 | 29.4 | 392-95,200 | 1:2 | 1:2 | 1:2 | 51 | 29 |
| MIA | 8190 | 53.3 | 211-51,220 | 1:2 | 1:2 | 1:2 | 63 | 39 |
| MICA | 100507436 | 5.35 | 74.5-18,100 | 1:2 | 1:2 | 1:2 | 12 | 2 |
| MICB | 4277 | 35.8 | 148-36,000 | 1:2 | 1:2 | 1:2 | 14 | 4 |
| Midkine | 4192 | 6.64 | 45.1-10,950 | 1:2 | 1:2 | 1:2 | 64 | 39 |
| MIF | 4282 | 38.8 | 229-55,600 | 1:2 | 1:2 | 1:2 | 21 | 9 |
| MMP-1 | 4312 | 2.7 | 32.0-7,780 | 1:2 | 1:2 | 1:2 | 19 | 6 |
| MMP-2 | 4313 | 108 | 275-66,890 | 1:2 | 1:50 | 1:50 | 20 | 7 |
| MMP-3 | 4314 | 5.3 | 41.5-10,080 | 1:2 | 1:2 | 1:2 | 15 | 4 |
| MMP-7 | 4316 | 23.2 | 602-146,280 | 1:2 | 1:2 | 1:2 | 21 | 8 |
| MMP-8 | 4317 | 34.2 | 223-54,130 | 1:2 | 1:2 | 1:2 | 27 | 12 |
| MMP-9 | 4318 | 13.6 | 181-44,070 | 1:2 | 1:50 | 1:50 | 14 | 3 |
| MMP-10 | 4319 | 1.3 | 53.7-13,050 | 1:2 | 1:2 | 1:2 | 66 | 52 |
| MMP-12 | 4321 | 7.1 | 33.9-8,230 | 1:2 | 1:2 | 1:2 | 34 | 17 |
| MMP-13 | 4322 | 19.0 | 126-30,580 | 1:2 | 1:2 | 1:2 | 33 | 16 |
| MPO | 4353 | 20.4 | 142-34,500 | 1:2 | 1:50 | 1:50 | 53 | 31 |
| MSP/MST1 | 4485 | 26.9 | 103-25,000 | 1:2 | 1:200 | 1:200 | 14 | 53 |
| NAGLU | 4669 | 7.68 | 398-96,700 | 1:2 | 1:2 | 1:2 | 34 | 67 |
| N-Cadherin | 1000 | 55.1 | 1,015-246,650 | 1:2 | 1:50 | 1:50 | 39 | 83 |
| NCAM-1 | 4684 | 412 | 872-212,000 | 1:2 | 1:2 | 1:2 | 15 | 54 |
| Nectin-4 | 81607 | 17.2 | 81.5-19,810 | 1:2 | 1:2 | 1:2 | 28 | 63 |
| Nephrin | 4868 | 22.2 | 633-153,930 | 1:2 | 1:2 | 1:2 | 12 | 48 |
| NRG1- β 1/HRG1- β 1 | 3084 | 4.63 | 37.9-9,200 | 1:2 | 1:2 | 1:2 | 54 | 32 |
| NT-4 | 4909 | 1.30 | 9.05-2,200 | 1:2 | 1:2 | 1:2 | 19 | 56 |
| NT-Pro-ANP | 4878 | 66.2 | 239-58,110 | 1:2 | 1:2 | 1:2 | 35 | 17 |
| Neuropilin-1 | 8829 | 5.31 | 86.2-20,950 | 1:2 | 1:50 | 1:50 | 34 | 17 |
| Oncostatin M | 5008 | 44.3 | 378-91,950 | 1:2 | 1:2 | 1:2 | 30 | 64 |
| Osteopontin | 6696 | 413 | 3,403-826,910 | 1:2 | 1:2 | 1:2 | 54 | 89 |
| Osteoprotegerin | 4982 | 3.62 | 81.4-19,770 | 1:2 | 1:2 | 1:2 | 27 | 62 |
| Park5/UCH-L1 | 7345 | 60.7 | 2,982-241,550 | 1:2 | 1:2 | 1:2 | 77 | 59 |
| Park7/DJ-1 | 11315 | 49.1 | 279-67,880 | 1:2 | 1:2 | 1:2 | 37 | 70 |
| PBEF/Visfatin | 10135 | 2,243 | 9,926-2,411,900 | 1:2 | 1:2 | 1:2 | 20 | 57 |
| PDGF-AA | 5154 | 0.747 | 4.61-1,120 | 1:2 | 1:50 | 1:2 | 56 | 90 |

*A standard curve must be generated each time an assay is run utilizing values from the Certificate of Analysis provided with each Luminex Assay. Analyte available exclusively from R&D Systems.

Human Analytes for Luminex Assays

| Analyte | Entrez Gene ID | Sensitivity (Mean Minimum Detectable Dose; pg/mL) | Standard Curve Range (pg/mL)* | Starting Sample Dilution | | | Bead Region | |
|-------------------------------|----------------|---|-------------------------------|--------------------------|---------|----------------------|-------------|-------------|
| | | | | Cell Culture Supernate | Serum | Heparin/ EDTA Plasma | Magnetic | Polystyrene |
| PDGF-AB | 5154/5155 | 3.28 | 35.4-8,605 | 1:2 | 1:2 | 1:2 | 35 | 18 |
| PDGF-BB | 5155 | 0.200 | 14.9-3,630 | 1:2 | 1:50 | 1:50 | 18 | 59 |
| PDGF-CC | 56034 | 2.49 | 74.2-18,020 | 1:2 | 1:2 | 1:2 | 52 | 31 |
| PDGF-DD | 80310 | 0.200 | 19.3-4,690 | 1:2 | 1:2 | 1:2 | 54 | 32 |
| Pentraxin 3/TSG-14 | 5806 | 39.5 | 347-84,300 | 1:2 | 1:2 | 1:2 | 29 | 15 |
| Periostin/OSF-2 | 10631 | 80.9 | 1,084-263,500 | 1:2 | 1:2 | 1:2 | 55 | 33 |
| PLA2G7/PAF-AH/Lp-PLA2 | 7941 | 326 | 3,647-886,100 | 1:2 | 1:2 | 1:2 | 46 | 81 |
| PIGF | 5228 | 3.9 | 11.9-2,890 | 1:2 | 1:2 | 1:2 | 72 | 91 |
| PP14/Glycodelin | 5047 | 318 | 874-212,310 | 1:2 | 1:2 | 1:2 | 36 | 19 |
| Procalcitonin | 796 | 0.967 | 12.8-3,120 | 1:2 | 1:2 | 1:2 | 39 | 21 |
| Progranulin | 2896 | 174 | 1,023-248,600 | 1:2 | 1:2 | 1:2 | 57 | 35 |
| Prolactin | 5617 | 224 | 1,111-270,000 | 1:2 | 1:2 | 1:2 | 36 | 18 |
| Properdin | 5199 | 148.3 | 2,330-566,160 | 1:2 | 1:200 | 1:200 | 67 | 53 |
| Proprotein Convertase 9/PCSK9 | 255738 | 246 | 900-218,610 | 1:2 | 1:2 | 1:2 | 44 | 76 |
| Protein S/PROS1 | 5627 | 8.15 | 128-31,030 | 1:2 | 1:4,000 | 1:4,000 | 37 | 20 |
| Proteinase 3/PRTN3 | 5657 | 1.41 | 7.41-1,800 | 1:2 | 1:50 | 1:50 | 73 | 45 |
| P-Selectin | 6403 | 9.0 | 210-51,060 | 1:2 | 1:2 | 1:2 | 48 | 29 |
| RAGE | 177 | 7.23 | 216-52,380 | 1:2 | 1:2 | 1:2 | 45 | 77 |
| RBP4 | 5950 | 231 | 554-134,740 | 1:2 | 1:4,000 | 1:4,000 | 61 | 92 |
| Reg3A | 5068 | 3.71 | 253-61,550 | 1:2 | 1:2 | 1:2 | 53 | 97 |
| Relaxin-2 | 6019 | 6.72 | 84.4-20,520 | 1:2 | 1:2 | 1:2 | 56 | 34 |
| Renin | 5972 | 21.1 | 189-45,900 | 1:2 | 1:2 | 1:2 | 61 | 36 |
| Resistin | 56729 | 3.04 | 40.7-9,890 | 1:2 | 1:2 | 1:2 | 51 | 79 |
| ROBO4 | 54538 | 1.50 | 92.4-22,450 | 1:2 | 1:2 | 1:2 | 51 | 81 |
| S100A8 | 6279 | 15.3 | 85.2-20,700 | 1:2 | 1:2 | 1:2 | 21 | 58 |
| S100B | 6285 | 4.34 | 93.4-22,700 | 1:2 | 1:2 | 1:2 | 22 | 59 |
| SCF | 4254 | 1.36 | 51.4-12,500 | 1:2 | 1:2 | 1:2 | 27 | 13 |
| SCF R/CD117/c-kit | 3815 | 93.5 | 755-183,370 | 1:2 | 1:2 | 1:2 | 19 | 6 |
| SCGF/CLEC11a | 6320 | 12.6 | 369-89,680 | 1:2 | 1:2 | 1:2 | 76 | 98 |
| Serpin A7/TBG | 6906 | 28.4 | 885-215,160 | 1:2 | 1:200 | 1:200 | 61 | 36 |
| Serpin A10/ZPI | 51156 | 20.8 | 955-232,088 | 1:2 | 1:200 | 1:200 | 73 | 55 |
| Serpin A12/Vaspin | 145264 | 2.85 | 54.1-13,150 | 1:2 | 1:2 | 1:2 | 74 | 56 |
| Serpin B3/SCCA1 | 6317 | 17.6 | 81-19,690 | 1:2 | 1:2 | 1:2 | 75 | 57 |
| Serpin C1/Antithrombin-III | 462 | 207 | 3,080-748,500 | 1:2 | 1:200 | 1:200 | 30 | 16 |
| Serpin E1/PAI-1 | 5054 | 0.670 | 20.1-4,890 | 1:2 | 1:200 | 1:200 | 43 | 75 |
| Serpin F1/PEDF | 5176 | 3.66 | 143-34,793 | 1:2 | 1:4,000 | 1:4,000 | 38 | 21 |
| Serum Amyloid A1 | 6288 | 53.9 | 302-73,360 | 1:2 | 1:200 | 1:200 | 42 | 73 |
| SHBG | 6462 | 705 | 9,090-2,208,870 | 1:2 | 1:50 | 1:50 | 46 | 78 |
| SLPI | 6590 | 31.4 | 732-177,950 | 1:2 | 1:2 | 1:2 | 77 | 99 |
| SOST | 50964 | 6.96 | 7.49-1,820 | 1:2 | 1:2 | 1:2 | 47 | 79 |
| SPARC | 6678 | 97.9 | 3,415-829,920 | 1:2 | 1:50 | 1:50 | 34 | 66 |
| SP-D | 6441 | 21.3 | 254-61,600 | 1:2 | 1:2 | 1:2 | 62 | 37 |
| ST2/IL-1 R4 | 9173 | 29.9 | 580-140,860 | 1:2 | 1:2 | 1:2 | 18 | 55 |
| Syndecan-1/CD138 | 6382 | 15.6 | 173-42,110 | 1:2 | 1:2 | 1:2 | 29 | 64 |
| Syndecan-4 | 6385 | 1.69 | 56.2-13,660 | 1:2 | 1:2 | 1:2 | 78 | 100 |
| Synuclein- α | 6622 | 5.16 | 29.6-7,200 | 1:2 | 1:2 | 1:2 | 62 | 37 |
| TACI | 23495 | 0.590 | 13.3-3,240 | 1:2 | 1:2 | 1:2 | 77 | 100 |
| Tau | 4137 | 4.49 | 108-26,150 | 1:2 | 1:2 | 1:2 | 33 | 66 |
| Tenascin C | 3371 | 6.58 | 37.9-9,210 | 1:2 | 1:2 | 1:2 | 35 | 67 |
| TFF3 | 7033 | 0.819 | 18.9-4,600 | 1:2 | 1:2 | 1:2 | 62 | 93 |
| TFPI | 7035 | 33.1 | 339-82,300 | 1:2 | 1:2 | 1:2 | 64 | 39 |
| Tfr | 7037 | 67.5 | 561-136,400 | 1:2 | 1:200 | 1:200 | 13 | 3 |
| TGF- α | 7039 | 0.820 | 22.0-5,350 | 1:2 | 1:2 | 1:2 | 63 | 38 |

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Human Analytes for Luminex Assays

| Analyte | Entrez Gene ID | Sensitivity (Mean Minimum Detectable Dose; pg/mL) | Standard Curve Range (pg/mL)* | Starting Sample Dilution | | | Bead Region | |
|---------------------------|--------------------------|---|-------------------------------|--------------------------|-------|----------------------|-------------|-------------|
| | | | | Cell Culture Supernate | Serum | Heparin/ EDTA Plasma | Magnetic | Polystyrene |
| Thrombospondin-2 | 7058 | 30.7 | 349-84,860 | 1:2 | 1:2 | 1:2 | 52 | 80 |
| Thymidine Kinase 1/TK1 | 7083 | 6.64 | 48.2-11,710 | 1:2 | 1:2 | 1:2 | 76 | 58 |
| Tie-1 | 7075 | 224 | 4,547-1,104,890 | 1:2 | 1:2 | 1:2 | 64 | 91 |
| Tie-2 | 7010 | 16.0 | 431-104,790 | 1:2 | 1:2 | 1:2 | 56 | 86 |
| TIM-1/KIM-1/HAVCR | 26762 | 17.3 | 83.0-20,160 | 1:2 | 1:2 | 1:2 | 57 | 94 |
| TIMP-1 | 7076 | 3.42 | 73.2-17,790 | 1:2 | 1:50 | 1:50 | 76 | 95 |
| TNF- α | 7124 | 1.2 | 14.9-3,620 | 1:2 | 1:2 | 1:2 | 12 | 1 |
| TNF RI | 7132 | 41.0 | 221-53,820 | 1:2 | 1:2 | 1:2 | 66 | 93 |
| TNF RII | 7133 | 0.450 | 5.72-1,390 | 1:2 | 1:2 | 1:2 | 65 | 92 |
| Tpo | 7066 | 24.8 | 494-119,940 | 1:2 | 1:2 | 1:2 | 55 | 34 |
| TRAIL/TNSF10 | 8743 | 9.65 | 29.1-7,060 | 1:2 | 1:2 | 1:2 | 37 | 19 |
| TRAIL R2/DR5 | 8795 | 2.15 | 19.5-4,740 | 1:2 | 1:2 | 1:2 | 44 | 74 |
| TRAIL R3/TNFRSF10C | 8794 | 1.72 | 398-96,780 | 1:2 | 1:2 | 1:2 | 74 | 97 |
| TRANCE/RANK L/TNFSF11 | 8600 | 4.68 | 43.3-10,510 | 1:2 | 1:2 | 1:2 | 48 | 78 |
| TREM-1 | 54210 | 10.7 | 131-31,780 | 1:2 | 1:2 | 1:2 | 65 | 40 |
| TWEAK | 80329 | 5.28 | 92.2-22,410 | 1:2 | 1:2 | 1:2 | 51 | 80 |
| ULBP-1 | 80329 | 6.41 | 98.8-24,000 | 1:2 | 1:2 | 1:2 | 18 | 6 |
| ULBP-2/5/6 | 80328, 353091, 154064 | 62.3 | 119-29,000 | 1:2 | 1:2 | 1:2 | 20 | 8 |
| ULBP-3 | 79465 | 8.42 | 169-41,000 | 1:2 | 1:2 | 1:2 | 22 | 10 |
| ULBP-4/RAET1E | 135250 | 26.0 | 146-35,400 | 1:2 | 1:2 | 1:2 | 26 | 12 |
| uPA/Urokinase | 5328 | 23.5 | 133-32,200 | 1:2 | 1:2 | 1:2 | 78 | 60 |
| uPAR | 5329 | 43.2 | 424-103,000 | 1:2 | 1:2 | 1:2 | 19 | 7 |
| Uromodulin | 7369 | 36.6 | 777-188,770 | 1:2 | 1:50 | 1:50 | 64 | 40 |
| Uteroglobin | 7356 | 3.98 | 30.5-7,400 | 1:2 | 1:50 | 1:50 | 65 | 40 |
| VAP-1 | 8639 | 5.37 | 73.5-17,850 | 1:2 | 1:50 | 1:50 | 42 | 72 |
| VCAM-1 | 7412 | 238 | 7,696-1,870,100 | 1:2 | 1:2 | 1:2 | 57 | 36 |
| VEGF-A | 7422 | 2.1 | 13.2-3,210 | 1:2 | 1:2 | 1:2 | 26 | 11 |
| VEGF-C | 7424 | 5.46 | 57.6-14,000 | 1:2 | 1:2 | 1:2 | 38 | 22 |
| VEGF-D | 2277 | 11.1 | 67.5-16,400 | 1:2 | 1:2 | 1:2 | 73 | 96 |
| VEGF R1/Flt-1 | 2321 | 5.68 | 72.1-17,530 | 1:2 | 1:2 | 1:2 | 38 | 84 |
| VEGF R2/KDR | 3791 | 7.40 | 154-37,400 | 1:2 | 1:2 | 1:2 | 12 | 1 |
| VEGF R3 | 2324 | 2.71 | 96.4-23,420 | 1:2 | 1:2 | 1:2 | 57 | 87 |
| Vitamin D Binding Protein | 2638 | 227 | 7,348-1,785,490 | 1:2 | 1:50 | 1:50 | 38 | 20 |
| WF-A2 | 7450 | 11.9 | 45.7-11,100 | 1:2 | 1:2 | 1:2 | 15 | 5 |
| XCL1/Lymphotactin | 6375 | 53.0 | 90.5-7,330 | 1:2 | 1:2 | 1:2 | 39 | 22 |

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Mouse Analytes for Luminex Assays

| Analyte | Entrez Gene ID | Sensitivity (Mean Minimum Detectable Dose; pg/mL)* | Standard Curve Range (pg/mL)* | Recommended Starting Dilution | | | Bead Region | |
|--------------------|----------------|--|-------------------------------|-------------------------------------|---------|-------------------------|-----------------------------------|-------------------------------------|
| | | | | Cell Culture Supernates/ Lysates | Serum | EDTA and Heparin Plasma | Magnetic Bead Region Cat# LXSAMSM | Polystyrene Bead Region Cat# LXSAMS |
| Adiponectin | 11450 | 7.55 | 29.9–7,260 | 1:2 | 1:4,000 | 1:4,000 | 34 | 17 |
| Angiopoietin-2 | 11601 | 1.88 | 638–155,080 | 1:2 | 1:2 | 1:2 | 67 | 94 |
| BAFF/BLyS/TNFSF13B | 24099 | 11.1 | 84.3–20,490 | 1:2 | 1:2 | 1:2 | 57 | 37 |
| β-NGF | 18049 | 1.06 | 12.3–3,000 | 1:2 | 1:2 | 1:2 | 43 | 75 |
| C1q R1/CD93 | 17064 | 5.33 | 162–39,480 | 1:2 | 1:2 | 1:2 | 64 | 42 |
| CCL2/JE/MCP-1 | 20296 | 134 | 415–100,770 | 1:2 | 1:2 | 1:2 | 18 | 5 |
| CCL3/MIP-1α | 20302 | 0.452 | 10.9–2,640 | 1:2 | 1:2 | 1:2 | 46 | 27 |
| CCL4/MIP-1β | 20303 | 77.4 | 856–69,360 | 1:2 | 1:2 | 1:2 | 51 | 31 |
| CCL5/RANTES | 20304 | 19.1 | 110–26,770 | 1:2 | 1:2 | 1:2 | 38 | 21 |
| CCL7/MARC | 20306 | 1.69 | 7.86–1,910 | 1:2 | 1:2 | 1:2 | 39 | 73 |
| CCL8/MCP-2 | 20307 | 0.283 | 8.15–1,980 | 1:2 | 1:200 | 1:200 | 38 | 72 |
| CCL11/Eotaxin | 20292 | 1.46 | 18.6–4,530 | 1:2 | 1:2 | 1:2 | 74 | 47 |
| CCL12/MCP-5 | 20293 | 0.613 | 8.23–2,000 | 1:2 | 1:2 | 1:2 | 42 | 74 |
| CCL20/MIP-3α | 20297 | 39.5 | 215–52,270 | 1:2 | 1:2 | 1:2 | 48 | 29 |
| CCL21/6Ckine | 18829 | 0.056 | 2.51–610 | 1:2 | 1:50 | 1:50 | 72 | 95 |
| CCL22/MDC | 20299 | 0.965 | 28.4–6,910 | 1:2 | 1:2 | 1:2 | 75 | 48 |
| C-Reactive Protein | 12944 | 13.3 | 240–58,350 | 1:2 | 1:200 | 1:200 | 63 | 41 |
| CXCL1/KC | 14825 | 32.9 | 72.3–17,570 | 1:2 | 1:2 | 1:2 | 13 | 2 |
| CXCL2/MIP-2 | 20310 | 1.97 | 5.80–1,410 | 1:2 | 1:2 | 1:2 | 20 | 7 |
| CXCL10/IP-10/CRG-2 | 15945 | 6.85 | 153–37,170 | 1:2 | 1:2 | 1:2 | 37 | 20 |
| CXCL12/SDF-1α | 20315 | 19.1 | 581–141,140 | 1:2 | 1:2 | 1:2 | 54 | 34 |
| Cystatin C | 13010 | 2.61 | 60.8–14,780 | 1:2 | 1:200 | 1:200 | 30 | 66 |
| Dkk-1 | 13380 | 31.8 | 365–88,720 | 1:2 | 1:2 | 1:2 | 77 | 50 |
| Endoglin | 13805 | 6.15 | 124–30,150 | 1:2 | 1:2 | 1:2 | 33 | 67 |
| EGF R | 13649 | 25.4 | 683–165,910 | 1:2 | 1:200 | 1:200 | 22 | 60 |
| EMMPRIN/CD147 | 12215 | 10.5 | 136–32,990 | 1:2 | 1:2 | 1:2 | 19 | 57 |
| Epo | 13856 | 25.3 | 98.2–23,870 | 1:2 | 1:2 | 1:2 | 52 | 32 |
| Factor D/Adipsin | 11537 | 323 | 4,730–1,149,300 | 1:2 | 1:200 | 1:200 | 75 | 98 |
| FABP4/A-FABP | 11770 | 4.42 | 34.1–8,290 | 1:2 | 1:50 | 1:50 | 13 | 3 |
| Fas | 14102 | 2.26 | 64.2–15,600 | 1:2 | 1:2 | 1:2 | 66 | 93 |
| FGF-basic | 14173 | 41.3 | 157–12,700 | 1:2 | 1:2 | 1:2 | 65 | 43 |
| FGF-21 | 56636 | 0.914 | 74.4–18,080 | 1:2 | 1:2 | 1:2 | 61 | 38 |
| G-CSF | 12985 | 0.774 | 48.6–11,820 | 1:2 | 1:2 | 1:2 | 39 | 22 |
| GDF-15 | 23886 | 0.630 | 14.7–3,570 | 1:2 | 1:2 | 1:2 | 15 | 55 |
| Glucagon | 14526 | 58.5 | 136–32,940 | 1:2 | 1:2 | 1:2 | 34 | 68 |
| GM-CSF | 12981 | 1.64 | 20.5–4,980 | 1:2 | 1:2 | 1:2 | 12 | 1 |
| Granzyme B | 14939 | 0.858 | 20.0–4,850 | 1:2 | 1:2 | 1:2 | 63 | 90 |
| HGF | 15234 | 3.33 | 39.6–9,620 | 1:2 | 1:2 | 1:2 | 12 | 52 |
| ICAM-1 | 15894 | 52.7 | 627–152,270 | 1:2 | 1:2 | 1:2 | 35 | 69 |
| IFN-γ | 15978 | 1.85 | 19.8–4,820 | 1:2 | 1:2 | 1:2 | 33 | 16 |
| IGF-I | 16000 | 3.46 | 36.5–8,870 | 1:2 | 1:50 | 1:50 | 55 | 35 |
| IGFBP-3 | 16009 | 3.06 | 53.1–12,900 | 1:2 | 1:4000 | 1:4000 | 65 | 92 |
| IL-1α | 16175 | 8.17 | 62.7–15,240 | 1:2 | 1:2 | 1:2 | 47 | 28 |
| IL-1β | 16176 | 41.8 | 301–73,170 | 1:2 | 1:2 | 1:2 | 19 | 6 |
| IL-2 | 16183 | 0.481 | 10.9–2,640 | 1:2 | 1:2 | 1:2 | 22 | 9 |
| IL-4 | 16189 | 53.0 | 86.7–21,070 | 1:2 | 1:2 | 1:2 | 25 | 10 |
| IL-5 | 16191 | 0.237 | 10.7–2,600 | 1:2 | 1:2 | 1:2 | 26 | 11 |
| IL-6 | 16193 | 2.30 | 56.3–13,670 | 1:2 | 1:2 | 1:2 | 27 | 12 |
| IL-6 Rα | 16194 | 26.8 | 431–104,770 | 1:2 | 1:2 | 1:2 | 18 | 56 |
| IL-7 | 16196 | 35.4 | 267–64,770 | 1:2 | 1:2 | 1:2 | 14 | 54 |
| IL-9 | 16198 | 43.6 | 86.6–21,040 | 1:2 | 1:2 | 1:2 | 73 | 46 |

*A standard curve must be generated each time an assay is run utilizing values from the Certificate of Analysis provided with each Luminex Assay

Mouse Analytes for Luminex Assays

| Analyte | Entrez Gene ID | Sensitivity (Mean Minimum Detectable Dose; pg/mL)* | Standard Curve Range (pg/mL)* | Recommended Starting Dilution | | | Bead Region | |
|-------------------------------|----------------|--|-------------------------------|-------------------------------------|-------|-------------------------|-----------------------------------|-------------------------------------|
| | | | | Cell Culture Supernates/ Lysates | Serum | EDTA and Heparin Plasma | Magnetic Bead Region Cat# LXSAMSM | Polystyrene Bead Region Cat# LXSAMS |
| IL-10 | 16153 | 8.20 | 36.6–8,650 | 1:2 | 1:2 | 1:2 | 28 | 13 |
| IL-12 p70 | 16159 | 12.8 | 31.9–15,040 | 1:2 | 1:2 | 1:2 | 15 | 4 |
| IL-13 | 16163 | 6.46 | 13.69–3,327 | 1:2 | 1:2 | 1:2 | 29 | 14 |
| IL-17A | 16171 | 7.08 | 140–33,910 | 1:2 | 1:2 | 1:2 | 30 | 15 |
| IL-17E/IL-25 | 140806 | 9.35 | 147–35,790 | 1:2 | 1:2 | 1:2 | 55 | 85 |
| IL-23 p19 | 83430 | 47.7 | 173–42,140 | 1:2 | 1:2 | 1:2 | 42 | 23 |
| IL-27 | 246779 | 1.88 | 45.2–10,990 | 1:2 | 1:2 | 1:2 | 56 | 86 |
| IL-33 | 77125 | 57.1 | 172–41,790 | 1:2 | 1:2 | 1:2 | 43 | 24 |
| LDL R | 16835 | 411 | 1,227–298,080 | 1:2 | 1:2 | 1:2 | 37 | 71 |
| Leptin | 16846 | 12.6 | 85.4–20,750 | 1:2 | 1:2 | 1:2 | 35 | 18 |
| Lipocalin-2/NGAL | 16819 | 66.1 | 434–105,420 | 1:2 | 1:50 | 1:50 | 44 | 25 |
| LIX | 20311 | 2.02 | 63.3–15,370 | 1:2 | 1:2 | 1:2 | 66 | 40 |
| M-CSF | 12977 | 0.404 | 10.1–2,460 | 1:2 | 1:2 | 1:2 | 45 | 26 |
| MMP-3 | 17392 | 0.320 | 15.3–3,720 | 1:2 | 1:200 | 1:200 | 62 | 89 |
| MMP-8 | 17394 | 231 | 4,657–1,131,617 | 1:2 | 1:2 | 1:2 | 61 | 88 |
| MMP-9 | 17395 | 47.1 | 173–42,050 | 1:2 | 1:50 | 1:50 | 62 | 39 |
| MMP-12 | 17381 | 0.410 | 20.9–5,090 | 1:2 | 1:2 | 1:2 | 73 | 96 |
| Oncostatin M (OSM) | 18413 | 4.75 | 72.3–17,580 | 1:2 | 1:2 | 1:2 | 64 | 91 |
| Osteopontin | 20750 | 2.37 | 40.3–9,790 | 1:2 | 1:50 | 1:50 | 56 | 36 |
| Pancreatic Polypeptide/PP | 19064 | 23.3 | 252–61,160 | 1:2 | 1:2 | 1:2 | 45 | 77 |
| Periostin/OSF-2 | 50706 | 201 | 1,370–332,890 | 1:2 | 1:200 | 1:200 | 67 | 44 |
| PDGF-AA | 18590 | 0.889 | 4.16–1,010 | 1:2 | 1:200 | 1:200 | 14 | 4 |
| PDGF-BB | 18591 | 1.49 | 29.4–7,150 | 1:2 | 1:50 | 1:50 | 27 | 63 |
| PIGF-2 | 18654 | 1.70 | 9.37–2,270 | 1:2 | 1:2 | 1:2 | 44 | 76 |
| Podocalyxin | 27205 | 3.96 | 115–28,000 | 1:2 | 1:2 | 1:2 | 77 | 100 |
| Proprotein Convertase 9/PCSK9 | 100102 | 289 | 424–102,850 | 1:2 | 1:2 | 1:2 | 53 | 33 |
| P-Selectin | 20344 | 2.60 | 138–33,580 | 1:2 | 1:2 | 1:2 | 46 | 78 |
| RAGE | 11596 | 18.0 | 54.3–13,200 | 1:2 | 1:2 | 1:2 | 78 | 51 |
| Renin | 19701 | 13.2 | 129–31,300 | 1:2 | 1:2 | 1:2 | 47 | 79 |
| Resistin | 57264 | 0.737 | 10.4–2,520 | 1:2 | 1:50 | 1:50 | 36 | 19 |
| S100A8 | 20201 | 61.3 | 278–67,490 | 1:2 | 1:2 | 1:2 | 20 | 58 |
| S100A9 | 20202 | 3.55 | 110–26,720 | 1:2 | 1:2 | 1:2 | 21 | 59 |
| SOST | 74499 | 22.70 | 16.3–3,950 | 1:2 | 1:2 | 1:2 | 48 | 80 |
| SP-D | 20390 | 10.7 | 234–56,760 | 1:2 | 1:2 | 1:2 | 12 | 2 |
| Syndecan-1/CD138 | 20969 | 288 | 1,066–259,100 | 1:2 | 1:2 | 1:2 | 51 | 81 |
| Thrombospondin-4 | 21828 | 17.5 | 256–62,290 | 1:2 | 1:200 | 1:200 | 13 | 53 |
| TIM-1/KIM-1/HAVCR | 171283 | 13.1 | 257–62,380 | 1:2 | 1:2 | 1:2 | 72 | 45 |
| TNF-α | 21926 | 1.47 | 3.37–820 | 1:2 | 1:2 | 1:2 | 14 | 3 |
| TNF RI | 21937 | 0.076 | 5.43–1,320 | 1:2 | 1:50 | 1:50 | 15 | 5 |
| TNF RII | 21938 | 2.08 | 46.7–11,340 | 1:2 | 1:2 | 1:2 | 74 | 97 |
| TRANCE/RANK L | 21943 | 7.51 | 59.1–14,370 | 1:2 | 1:2 | 1:2 | 25 | 61 |
| TWEAK | 21944 | 0.184 | 2.88–700 | 1:2 | 1:2 | 1:2 | 53 | 83 |
| uPAR | 18793 | 70.9 | 1,080–262,520 | 1:2 | 1:2 | 1:2 | 76 | 99 |
| VEGF | 22339 | 3.96 | 15.5–3,760 | 1:2 | 1:2 | 1:2 | 21 | 8 |
| VEGF R2/KDR | 16542 | 27.5 | 267–64,810 | 1:2 | 1:2 | 1:2 | 26 | 62 |

*A standard curve must be generated each time an assay is run utilizing values from the Certificate of Analysis provided with each Luminex Assay

Rat Analytes for Luminex Assays

| Analyte | Entrez Gene ID | Sensitivity (Mean Minimum Detectable Dose; pg/mL) | Standard Curve Range (pg/mL)* | Starting Sample Dilution | | | Bead Region | |
|-------------------------------------|----------------|---|-------------------------------|--------------------------|-------|---------------------|-------------|-------------|
| | | | | Cell Culture Supernate | Serum | Heparin/EDTA Plasma | Magnetic | Polystyrene |
| CXCL3/ CINC-2 α / β | 114105 | 3.10 | 49.1-11,940 | 1:2 | 1:2 | 1:2 | 12 | 53 |
| CXCL2/CINC-3 | 171551 | 10.4 | 170-41,240 | 1:2 | 1:2 | 1:2 | 13 | 54 |
| GM-CSF | 116630 | 7.91 | 82.6-20,070 | 1:2 | 1:2 | 1:2 | 14 | 17 |
| ICAM-1 | 25464 | 7.52 | 137-33,270 | 1:2 | 1:2 | 1:2 | 15 | 75 |
| IFN- γ | 25712 | 70.5 | 460-111,870 | 1:2 | 1:2 | 1:2 | 18 | 80 |
| IL-10 | 25325 | 18.6 | 59.2-14,380 | 1:2 | 1:2 | 1:2 | 26 | 26 |
| IL-13 | 116553 | 6.08 | 173-41,920 | 1:2 | 1:2 | 1:2 | 27 | 74 |
| IL-18 | 29197 | 8.89 | 11.4-2,780 | 1:2 | 1:2 | 1:2 | 28 | 18 |
| IL-1 α | 24493 | 13.0 | 296-71,990 | 1:2 | 1:2 | 1:2 | 19 | 6 |
| IL-1 β | 24494 | 26.7 | 145-35,170 | 1:2 | 1:2 | 1:2 | 20 | 21 |
| IL-2 | 116562 | 45.9 | 569-138,330 | 1:2 | 1:2 | 1:2 | 21 | 61 |
| IL-4 | 287287 | 5.41 | 29.6-7,200 | 1:2 | 1:2 | 1:2 | 22 | 19 |
| IL-6 | 24498 | 56.0 | 1,759-427,350 | 1:2 | 1:2 | 1:2 | 25 | 10 |
| L-Selectin | 29259 | 33.6 | 438-106,530 | 1:2 | 1:2 | 1:2 | 29 | 34 |
| TIMP-1 | 116510 | 5.38 | 319-77,620 | 1:2 | 1:2 | 1:2 | 30 | 33 |
| TNF- α | 24835 | 22.1 | 515-125,080 | 1:2 | 1:2 | 1:2 | 33 | 4 |
| VEGF | 83785 | 4.28 | 54.9-13,330 | 1:2 | 1:2 | 1:2 | 34 | 58 |

*A standard curve must be generated each time an assay is run utilizing values from the Certificate of Analysis provided with each Luminex Assay

Luminex® High Performance Assays

Luminex High Performance Assays are our most accurate and precise bead-based multianalyte profiling kits. High Performance Assays are designed for researchers quantitating a defined set of analytes and needing the highest multiplex assay performance for select analytes with regard to recovery, linearity, and lot-to-lot reproducibility. In-house testing indicates that analyte concentrations determined with our Luminex High Performance Assays correlate closely with those obtained with our Quantikine® ELISAs. High Performance Assays are fully validated for each sample type listed. The assays rely on diluents optimized for each panel, providing maximum performance for measuring the specific analytes in that panel. Analyte-specific reagents are available either as a complete panel or as a smaller subset from any panel. The kits can be used to measure target analytes in their validated sample types, which can include cell culture supernatants, serum, plasma, urine, saliva, and milk.

Human Angiogenesis Panel A

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|--------------------------------------|--------------|-------------|--------------------|-----------|-------|
| Angiogenin | S P C U M | 2.7 pg/mL | 2.5–10,400 pg/mL | LAN265 | 1 Kit |
| Angiopoietin-1 | S P C U M | 51.1 pg/mL | 36–149,000 pg/mL | LAN923 | 1 Kit |
| Endostatin | S P C U M | 31.9 pg/mL | 22–90,500 pg/mL | LAN1098 | 1 Kit |
| FGF acidic | S P C U M | 6.7 pg/mL | 3.9–15,800 pg/mL | LAN232 | 1 Kit |
| FGF basic | S P C U M | 4.91 pg/mL | 9–2,200 pg/mL | LUH233 | 1 Kit |
| PDGF-AA | S P C U M | 1 pg/mL | 1.8–7,350 pg/mL | LAN221 | 1 Kit |
| PDGF-BB | S P C U M | 2 pg/mL | 5.3–21,800 pg/mL | LAN220 | 1 Kit |
| PIGF | S P C U M | 1 pg/mL | 2.8–11,300 pg/mL | LAN264 | 1 Kit |
| Thrombospondin-2 | S P C U M | 6.71 pg/mL | 56.2–230,000 pg/mL | LAN1635 | 1 Kit |
| VEGF | S P C U M | 1.84 pg/mL | 3–2,400 pg/mL | LUH293 | 1 Kit |
| VEGF-D | S P C U M | 19.1 pg/mL | 21–87,300 pg/mL | LAN622 | 1 Kit |
| Base Kit, Human Angiogenesis Panel A | | | N/A | LAN000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCST02 | 1 Kit |

Human Angiogenesis Magnetic Panel A

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|---|--------------|-------------|------------------|-----------|-------|
| Angiogenin | S P C U M | 2.7 pg/mL | 2.5–10,200 pg/mL | LANM265 | 1 Kit |
| Angiopoietin-1 | S P C U M | 51.1 pg/mL | 33–135,000 pg/mL | LANM923 | 1 Kit |
| Endostatin | S P C U M | 31.9 pg/mL | 22–90,000 pg/mL | LANM1098 | 1 Kit |
| FGF acidic | S P C U M | 6.7 pg/mL | 5–20,600 pg/mL | LANM232 | 1 Kit |
| FGF basic | S P C | 4.91 pg/mL | 24–5,750 pg/mL | LUHM233 | 1 Kit |
| PDGF-AA | S P C U M | 1 pg/mL | 1.8–7,400 pg/mL | LANM221 | 1 Kit |
| PDGF-BB | S P C U M | 2 pg/mL | 5.1–20,700 pg/mL | LANM220 | 1 Kit |
| PIGF | S P C U M | 1 pg/mL | 2.4–9,800 pg/mL | LANM264 | 1 Kit |
| Thrombospondin-2 | S P C U M | 6.71 pg/mL | 51–209,000 pg/mL | LANM1635 | 1 Kit |
| VEGF | S P C | 1.84 pg/mL | 4–2,850 pg/mL | LUHM293 | 1 Kit |
| VEGF-D | S P C U M | 19.1 pg/mL | 18–75,000 pg/mL | LANM622 | 1 Kit |
| Base Kit, Human Angiogenesis Magnetic Panel A | | | N/A | LANM000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCSTM02 | 1 Kit |

Human Biomarker Panel A

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|-----------------------------------|--------------|-------------|-------------------|-----------|-------|
| BAFF/BLyS/TNFSF13B | S P C | 1.06 pg/mL | 3–2,390 pg/mL | LBA124 | 1 Kit |
| CCL20/MIP-3 α | S P C | 0.23 pg/mL | 4–2,970 pg/mL | LBA360 | 1 Kit |
| CD14 | S P C | 52.2 pg/mL | 173–126,400 pg/mL | LBA383 | 1 Kit |
| CD27/TNFRSF7 | S P C | 6.69 pg/mL | 18–13,450 pg/mL | LBA382 | 1 Kit |
| CD25/IL-2 R α | S P C | 0.76 pg/mL | 10–6,900 pg/mL | LBA223 | 1 Kit |
| CXCL13/BLC/BCA-1 | S P C | 1.25 pg/mL | 3–2,230 pg/mL | LBA801 | 1 Kit |
| gp130 | S P C | 21 pg/mL | 113–82,450 pg/mL | LBA228 | 1 Kit |
| IL-6 R α | S P C | 3.48 pg/mL | 15–11,000 pg/mL | LBA227 | 1 Kit |
| TNF RII/TNFRSF1B | S P | 0.53 pg/mL | 6.2–4,500 pg/mL | LUCA726 | 1 Kit |
| Base Kit, Human Biomarker Panel A | S P C | | N/A | LBA000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCST13 | 1 Kit |

Human Cardiac Panel A

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|-------------------------------|--------------|-------------|-------------------|-----------|-------|
| CD40 Ligand/TNFSF5 | S P C | 23.4 pg/mL | 98–71,600 pg/mL | LUB201 | 1 Kit |
| GDF-15 | S P | 0.66 pg/mL | 6.3–4,600 pg/mL | LUCA975 | 1 Kit |
| Pappalysin-1/PAPP-A | S P | 139 pg/mL | 768–560,000 pg/mL | LUCA2487 | 1 Kit |
| Proprotein Convertase 9/PCSK9 | S P | 64 pg/mL | 133–97,000 pg/mL | LUCA3888 | 1 Kit |
| ST2/IL-1 R4 | S P | 9.1 pg/mL | 67–49,000 pg/mL | LUCA523 | 1 Kit |
| TNF RII/TNFRSF1B | S P | 0.53 pg/mL | 6.2–4,500 pg/mL | LUCA726 | 1 Kit |
| Base Kit, Cardiac Panel A | | | N/A | LUCA000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCST11 | 1 Kit |

Human Cardiac Panel B

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|---------------------------|--------------|-------------|-------------------|-----------|-------|
| C-Reactive Protein/CRP | S P | 39 pg/mL | 144–105,000 pg/mL | LUCB1707 | 1 Kit |
| Cystatin C | S P | 70.4 pg/mL | 422–30,800 pg/mL | LUCB1196 | 1 Kit |
| Myeloperoxidase/MPO | S P | 38.8 pg/mL | 126–92,000 pg/mL | LUCB3174 | 1 Kit |
| P-Selectin/CD62P | S P | 16.5 pg/mL | 56.7–41,300 pg/mL | LUCB137 | 1 Kit |
| Serpin E1/PAI-1 | S P | 0.84 pg/mL | 8.64–6,300 pg/mL | LUCB1786 | 1 Kit |
| TIMP-1 | S P | 5.05 pg/mL | 15.5–11,300 pg/mL | LUCB970 | 1 Kit |
| Base Kit, Cardiac Panel B | | | N/A | LUCB000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCST12 | 1 Kit |

Human Cytokine Panel A

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|----------------------------------|--------------|-------------|------------------|-----------|-------|
| CCL2/JE/MCP-1 | S P C | 0.47 pg/mL | 3.3–2,400 pg/mL | LUH279 | 1 Kit |
| CCL3/MIP-1 α | S P C | 1.45 pg/mL | 16–12,000 pg/mL | LUH270 | 1 Kit |
| CCL4/MIP-1 β | S P C | 0.72 pg/mL | 5.76–4,200 pg/mL | LUH271 | 1 Kit |
| CCL5/RANTES | S P C | 1.91 pg/mL | 2–1,700 pg/mL | LUH278 | 1 Kit |
| CXCL5/ENA-78 | S P C | 4.14 pg/mL | 6–4,000 pg/mL | LUH254 | 1 Kit |
| CXCL8/IL-8 | S P C | 1.97 pg/mL | 3–2,500 pg/mL | LUH208 | 1 Kit |
| FGF basic | S P C U M | 4.91 pg/mL | 9–2,200 pg/mL | LUH233 | 1 Kit |
| G-CSF | S P C | 1.48 pg/mL | 3–2,400 pg/mL | LUH214 | 1 Kit |
| GM-CSF | S P C | 1.98 pg/mL | 7–1,800 pg/mL | LUH215C | 1 Kit |
| IFN- γ | S P C | 1.27 pg/mL | 3–1,900 pg/mL | LUH285 | 1 Kit |
| IL-1 α /IL-1F1 | S P C | 0.36 pg/mL | 3.5–2,600 pg/mL | LUH200B | 1 Kit |
| IL-1 β /IL-1F2 | S P C | 0.57 pg/mL | 3–1,920 pg/mL | LUH201 | 1 Kit |
| IL-1ra/IL-1F3 | S P C | 10.91 pg/mL | 16.9–4,100 pg/mL | LUH280 | 1 Kit |
| IL-2 | S P C | 2.23 pg/mL | 3–2,320 pg/mL | LUH202 | 1 Kit |
| IL-4 | S P C | 4.46 pg/mL | 9–2,200 pg/mL | LUH204 | 1 Kit |
| IL-5 | S P C | 0.71 pg/mL | 2–1,300 pg/mL | LUH205 | 1 Kit |
| IL-6 | S P C | 1.11 pg/mL | 3–2,400 pg/mL | LUH206 | 1 Kit |
| IL-10 | S P C | 0.3 pg/mL | 3–2,320 pg/mL | LUH217 | 1 Kit |
| IL-17/IL-17A | S P C | 1.1 pg/mL | 3–2,100 pg/mL | LUH317 | 1 Kit |
| Thrombopoietin/Tpo | S P C | 9.94 pg/mL | 14–10,000 pg/mL | LUH288 | 1 Kit |
| TNF- α | S P C | 1.5 pg/mL | 5.3–3,900 pg/mL | LUH210 | 1 Kit |
| VEGF | S P C U M | 1.84 pg/mL | 3–2,400 pg/mL | LUH293 | 1 Kit |
| Base Kit, Human Cytokine Panel A | | | N/A | LUH000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCST03 | 1 Kit |

Sample Type Key: S Serum P Plasma C Cell Culture Supernatants U Urine V Saliva M Milk
 Analyte available exclusively from R&D Systems.

Human Cytokine Magnetic Panel A

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|---|--------------|-------------|-----------------|-----------|-------|
| CCL2/JE/MCP-1 | S P C | 0.47 pg/mL | 3–2,100 pg/mL | LUHM279 | 1 Kit |
| CCL3/MIP-1 α | S P C | 28.3 pg/mL | 68–16,500 pg/mL | LUHM270 | 1 Kit |
| CCL4/MIP-1 β | S P C | 0.72 pg/mL | 9–6,200 pg/mL | LUHM271 | 1 Kit |
| CCL5/RANTES | S P C | 1.91 pg/mL | 3–2,400 pg/mL | LUHM278 | 1 Kit |
| CXCL5/ENA-78 | S P C | 4.14 pg/mL | 9–6,900 pg/mL | LUHM254 | 1 Kit |
| CXCL8/IL-8 | S P C | 1.97 pg/mL | 4–2,950 pg/mL | LUHM208 | 1 Kit |
| FGF basic | S P C | 4.91 pg/mL | 24–5,750 pg/mL | LUHM233 | 1 Kit |
| G-CSF | S P C | 1.48 pg/mL | 6–4,500 pg/mL | LUHM214 | 1 Kit |
| GM-CSF | S P C | 1.98 pg/mL | 12–2,850 pg/mL | LUHM215 | 1 Kit |
| IFN- γ | S P C | 1.27 pg/mL | 4–3,250 pg/mL | LUHM285 | 1 Kit |
| IL-1 α /IL-1F1 | S P C | 0.36 pg/mL | 3–1,850 pg/mL | LUHM200 | 1 Kit |
| IL-1 β /IL-1F2 | S P C | 0.57 pg/mL | 3–2,400 pg/mL | LUHM201 | 1 Kit |
| IL-1ra/IL-1F3 | S P C | 10.91 pg/mL | 23–5,500 pg/mL | LUHM280 | 1 Kit |
| IL-2 | S P C | 2.23 pg/mL | 3–2,300 pg/mL | LUHM202 | 1 Kit |
| IL-4 | S P C | 4.46 pg/mL | 15–3,750 pg/mL | LUHM204 | 1 Kit |
| IL-5 | S P C | 0.71 pg/mL | 2–1,380 pg/mL | LUHM205 | 1 Kit |
| IL-6 | S P C | 1.11 pg/mL | 7–4,950 pg/mL | LUHM206 | 1 Kit |
| IL-10 | S P C | 0.03 pg/mL | 4–3,200 pg/mL | LUHM217 | 1 Kit |
| IL-17/IL-17A | S P C | 1.1 pg/mL | 3–2,550 pg/mL | LUHM317 | 1 Kit |
| Thrombopoietin/Tpo | S P C | 9.94 pg/mL | 23–16,600 pg/mL | LUHM288 | 1 Kit |
| TNF- α | S P C | 1.5 pg/mL | 6–4,500 pg/mL | LUHM210 | 1 Kit |
| VEGF | S P C | 1.84 pg/mL | 4–2,850 pg/mL | LUHM293 | 1 Kit |
| Base Kit, Human Cytokine Magnetic Panel A | | | N/A | LUHMO00 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCSTM03 | 1 Kit |

Human Cytokine Panel B

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|----------------------------------|--------------|-------------|-----------------|-----------|-------|
| CCL11/Eotaxin | S P C | 8.2 pg/mL | 16–12,000 pg/mL | LUB320 | 1 Kit |
| CD40 Ligand/TNFSF5 | S P C | 23.4 pg/mL | 98–71,600 pg/mL | LUB201 | 1 Kit |
| CXCL10/IP-10/CRG-2 | P C | 0.1 pg/mL | 3.7–2,600 pg/mL | LUB266 | 1 Kit |
| CXCL11/I-TAC | S P C | 22.5 pg/mL | 23–17,000 pg/mL | LUB672 | 1 Kit |
| EGF | S P C | 1.58 pg/mL | 4–2,700 pg/mL | LUB236 | 1 Kit |
| HGF | S P C | 4.1 pg/mL | 32–23,000 pg/mL | LUB294 | 1 Kit |
| IL-12 p70 | S P C | 14.9 pg/mL | 47–34,000 pg/mL | LUB219 | 1 Kit |
| IL-13 | S P C | 15.6 pg/mL | 38–28,000 pg/mL | LUB213 | 1 Kit |
| Leptin/OB | S P C | 20.2 pg/mL | 81–59,000 pg/mL | LUB398 | 1 Kit |
| Base Kit, Human Cytokine Panel B | | | N/A | LUB000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCST04 | 1 Kit |

Human High Sensitivity Cytokine Panel

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|---|--------------|-------------|-------------------|-----------|-------|
| CXCL8/IL-8 High Sensitivity | S P | 0.07 pg/mL | 0.78–3,200 pg/mL | LHSC208 | 1 Kit |
| GM-CSF High Sensitivity | S P | 0.13 pg/mL | 0.38–1,575 pg/mL | LHSC215 | 1 Kit |
| IFN- γ High Sensitivity | S P | 0.08 pg/mL | 0.33–1,350 pg/mL | LHSC285 | 1 Kit |
| IFN- γ | | | N/A | LHSC285B | 1 Kit |
| IL-1 β /IL-1F2 High Sensitivity | S P | 0.18 pg/mL | 0.37–1,500 pg/mL | LHSC201 | 1 Kit |
| IL-2 High Sensitivity | S P | 0.28 pg/mL | 0.6–2,450 pg/mL | LHSC202 | 1 Kit |
| IL-4 High Sensitivity | S P | 2.54 pg/mL | 6.84–7,000 pg/mL | LHSC204 | 1 Kit |
| IL-5 High Sensitivity | S P | 0.12 pg/mL | 0.39–1,600 pg/mL | LHSC205 | 1 Kit |
| IL-6 High Sensitivity | S P | 0.31 pg/mL | 0.99–4,050 pg/mL | LHSC206 | 1 Kit |
| IL-10 High Sensitivity | S P | 0.24 pg/mL | 0.51–2,100 pg/mL | LHSC217 | 1 Kit |
| IL-12 p70 High Sensitivity | S P | 2.96 pg/mL | 5.98–24,500 pg/mL | LHSC219 | 1 Kit |
| TNF- α High Sensitivity | S P | 0.54 pg/mL | 0.82–3,350 pg/mL | LHSC210 | 1 Kit |
| VEGF High Sensitivity | S P | 1.35 pg/mL | 1.95–2,000 pg/mL | LHSC293 | 1 Kit |
| Base Kit, Human High Sensitivity Cytokine | | | N/A | LHSC000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCST09 | 1 Kit |

Human High Sensitivity Cytokine Magnetic Panel A

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|--|--------------|-------------|------------------|-----------|-------|
| CXCL8/IL-8 | S P | 0.07 pg/mL | 0.78–3,200 pg/mL | LHSCM208 | 1 Kit |
| GM-CSF | S P | 0.13 pg/mL | 0.39–1,600 pg/mL | LHSCM215 | 1 Kit |
| IFN- γ | S P | 0.08 pg/mL | 0.29–1,200 pg/mL | LHSCM285 | 1 Kit |
| | | | N/A | LHSCM285B | 1 Kit |
| IL-1 β /IL-1F2 | S P | 0.18 pg/mL | 0.29–1,200 pg/mL | LHSCM201 | 1 Kit |
| IL-2 | S P | 0.28 pg/mL | 0.61–2,500 pg/mL | LHSCM202 | 1 Kit |
| IL-4 | S P | 2.54 pg/mL | 7–7,200 pg/mL | LHSCM204 | 1 Kit |
| IL-5 | S P | 0.12 pg/mL | 0.34–1,400 pg/mL | LHSCM205 | 1 Kit |
| IL-6 | S P | 0.31 pg/mL | 0.95–3,900 pg/mL | LHSCM206 | 1 Kit |
| IL-10 | S P | 0.24 pg/mL | 0.46–1,900 pg/mL | LHSCM217 | 1 Kit |
| IL-12 p70 | S P | 2.96 pg/mL | 6.9–28,300 pg/mL | LHSCM219 | 1 Kit |
| TNF- α | S P | 0.54 pg/mL | 0.76–3,100 pg/mL | LHSCM210 | 1 Kit |
| VEGF | S P | 1.35 pg/mL | 2.2–2,300 pg/mL | LHSCM293 | 1 Kit |
| Base Kit, Human High Sensitivity Cytokine Magnetic Panel A | | | N/A | LHSCM000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCSTM09 | 1 Kit |

Sample Type Key: S Serum P Plasma C Cell Culture Supernatants U Urine V Saliva M Milk

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Human High Sensitivity Cytokine Magnetic Panel B

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|--|--------------|-------------|--|-----------|-------|
| GM-CSF | S P | 0.13 pg/mL | 0.39–1,600 pg/mL | LHSCM215 | 1 Kit |
| IFN- γ | S P | 0.08 pg/mL | 0.29–1,200 pg/mL | LHSCM285 | 1 Kit |
| | | | N/A | LHSCM285B | 1 Kit |
| IL-1 β /IL-1F2 | S P | 0.18 pg/mL | 0.29–1,200 pg/mL | LHSCM201 | 1 Kit |
| IL-2 | S P | 0.28 pg/mL | 0.61–2,500 pg/mL | LHSCM202 | 1 Kit |
| IL-5 | S P | 0.12 pg/mL | 0.34–1,400 pg/mL | LHSCM205 | 1 Kit |
| IL-6 | S P | 0.31 pg/mL | 0.95–3,900 pg/mL | LHSCM206 | 1 Kit |
| IL-7 | S P C | 0.14 pg/mL | 0.828–3,390 pg/mL (S, P), 0.828–848 pg/mL (C) | LBHS207 | 1 Kit |
| IL-13 | S P C | 2.01 pg/mL | 6.25–25,600 pg/mL (S, P), 6.25–6,400 pg/mL (C) | LBHS213 | 1 Kit |
| IL-15 | S P C | 0.167 pg/mL | 0.591–2,420 pg/mL (S, P), 0.591–605 pg/mL (C) | LBHS247 | 1 Kit |
| IL-17/IL-17A | S P C | 0.349 pg/mL | 2.53–10,370 pg/mL (S, P), 2.53–2,593 pg/mL (C) | LBHS317 | 1 Kit |
| IL-17F | S P C | 4.54 pg/mL | 8.97–36,750 pg/mL (S, P), 8.97–9,188 pg/mL (C) | LBHS1335 | 1 Kit |
| IL-22 | S P C | 0.529 pg/mL | 1.64–6,700 pg/mL (S, P), 1.64–1,675 pg/mL (C) | LBHS5782 | 1 Kit |
| IL-23 | S P C | 9.52 pg/mL | 17.09–70,000 pg/mL (S, P), 17.09–17,500 pg/mL (C) | LBHS1716 | 1 Kit |
| IL-31 | S P C | 0.117 pg/mL | 5.13–21,000 pg/mL (S, P), 5.13–5,250 pg/mL (C) | LBHS2824 | 1 Kit |
| IL-33 | S P C | 1.06 pg/mL | 2.44–10,000 pg/mL (S, P), 2.44–2,500 pg/mL (C) | LBHS3625 | 1 Kit |
| IL-36 β /IL-1F8 | S P C | 0.25 pg/mL | 0.527–2,160 pg/mL (S, P), 0.527–540 pg/mL (C) | LBHS1099 | 1 Kit |
| TNF- α | S P | 0.54 pg/mL | 0.76–3,100 pg/mL | LHSCM210 | 1 Kit |
| Base Kit, Human High Sensitivity Cytokine Magnetic Panel B | | | N/A | LBHS000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCSTM14 | 1 Kit |

Human Kidney Biomarker Magnetic Panel

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|---|--------------|-------------|-------------------|-----------|-------|
| Clusterin | S P U | 64.3 pg/mL | 664–483,800 pg/mL | LHK2937 | 1 Kit |
| CXCL10/IP-10/CRG-2 | S P U | 0.693 pg/mL | 4–3,110 pg/mL | LHK266 | 1 Kit |
| Cystatin C | S P U | 57.1 pg/mL | 23–16,500 pg/mL | LHK1196 | 1 Kit |
| Lipocalin-2/NGAL | S P U | 63.1 pg/mL | 50–36,100 pg/mL | LHK1757 | 1 Kit |
| Osteopontin/OPN | S P U | 247 pg/mL | 405–295,500 pg/mL | LHK1433 | 1 Kit |
| RBP4/Retinol-Binding Protein 4 | S P U | 124 pg/mL | 65–47,400 pg/mL | LHK3378 | 1 Kit |
| TFF3 | S P U | 11.5 pg/mL | 15–11,000 pg/mL | LHK4407 | 1 Kit |
| TIM-1/KIM-1/HAVCR | S P U | 16.3 pg/mL | 159–116,000 pg/mL | LHK1750 | 1 Kit |
| Base Kit, Human Kidney Biomarker Magnetic Panel | | | N/A | LHK000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCSTM16 | 1 Kit |

Human MMP Panel

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|---------------------------|--------------|-------------|-------------------|-----------|-------|
| EMMPRIN/CD147 | S P C U V | 5.6 pg/mL | 35.3–25,700 pg/mL | LMP972 | 1 Kit |
| MMP-1 | S P C U V | 1.1 pg/mL | 25.1–18,300 pg/mL | LMP901B | 1 Kit |
| MMP-2 | S P U V | 12.6 pg/mL | 86.7–63,100 pg/mL | LMP902C | 1 Kit |
| MMP-3 | S P C U V | 2.9 pg/mL | 35.3–25,700 pg/mL | LMP513B | 1 Kit |
| MMP-7 | S P C U V | 6.6 pg/mL | 76.7–55,850 pg/mL | LMP907B | 1 Kit |
| MMP-8 | S P C U V | 16.6 pg/mL | 82–59,700 pg/mL | LMP908B | 1 Kit |
| MMP-9 | S P C U V | 13.7 pg/mL | 100–73,100 pg/mL | LMP911B | 1 Kit |
| MMP-10 | S P C U V | 3.2 pg/mL | 42.7–31,000 pg/mL | LMP910 | 1 Kit |
| MMP-12 | S P C U V | 0.7 pg/mL | 9.2–6,700 pg/mL | LMP919B | 1 Kit |
| MMP-13 | S C U V | 63.5 pg/mL | 444–324,000 pg/mL | LMP511B | 1 Kit |
| Base Kit, Human MMP Panel | | | N/A | LMP000B | 1 Kit |
| Pre-mixed Kit | | | N/A | FCST07 | 1 Kit |

Human MMP Magnetic Panel

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|------------------------------------|--------------|-------------|--------------------|-----------|-------|
| EMMPRIN/CD147 | S P C U V | 5.6 pg/mL | 35.3–25,700 pg/mL | LMPM972 | 1 Kit |
| MMP-1 | S P C U V | 1.1 pg/mL | 25.1–18,300 pg/mL | LMPM901 | 1 Kit |
| MMP-2 | S P U V | 12.6 pg/mL | 86.6–63,100 pg/mL | LMPM902 | 1 Kit |
| MMP-3 | S P C U V | 2.9 pg/mL | 35.3–25,700 pg/mL | LMPM513 | 1 Kit |
| MMP-7 | S P C U V | 6.6 pg/mL | 76.6–55,850 pg/mL | LMPM907 | 1 Kit |
| MMP-8 | S P C U V | 16.6 pg/mL | 81.9–59,700 pg/mL | LMPM908 | 1 Kit |
| MMP-9 | S P C U V | 13.7 pg/mL | 100.3–73,100 pg/mL | LMPM911 | 1 Kit |
| MMP-10 | S P C U V | 3.2 pg/mL | 42.5–31,000 pg/mL | LMPM910 | 1 Kit |
| MMP-12 | S P C U V | 0.7 pg/mL | 27.6–6,700 pg/mL | LMPM919 | 1 Kit |
| MMP-13 | S C U V | 63.5 pg/mL | 444–324,000 pg/mL | LMPM511 | 1 Kit |
| Base Kit, Human MMP Magnetic Panel | | | N/A | LMPM000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCSTM07 | 1 Kit |

Human TGF- β Panel

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|------------------------------------|--------------|-------------|-------|-----------|-------|
| TGF- β 1 | | | N/A | LTG100 | 1 Kit |
| TGF- β 2 | | | N/A | LTG200 | 1 Kit |
| TGF- β 3 | | | N/A | LTG300 | 1 Kit |
| Base Kit, Human TGF- β Panel | | | N/A | LTG000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCST17 | 1 Kit |

Human TGF- β Magnetic Panel

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|----------------|--------------|-------------|-------|-----------|-------|
| TGF- β 1 | | | N/A | LTGM100 | 1 Kit |
| TGF- β 2 | | | N/A | LTGM200 | 1 Kit |
| TGF- β 3 | | | N/A | LTGM300 | 1 Kit |
| Pre-mixed Kit | | | N/A | LTGM00 | 1 Kit |
| | | | N/A | FCSTM17 | 1 Kit |

Sample Type Key: S Serum P Plasma C Cell Culture Supernatants U Urine V Saliva M Milk
 Analyte available exclusively from R&D Systems.

Human Obesity Panel

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|-------------------------------|--------------|-------------|-------------------|-----------|-------|
| Adiponectin/Acrp30 | S P C | 19.8 pg/mL | 343–250,000 pg/mL | LOB1065 | 1 Kit |
| C-Reactive Protein/CRP | S P C | 1.9 pg/mL | 32–23,500 pg/mL | LOB1707 | 1 Kit |
| CCL2/JE/MCP-1 | S P C | 0.47 pg/mL | 3.3–2,400 pg/mL | LUH279 | 1 Kit |
| Complement Factor D/Adipsin | S P C | 3.5 pg/mL | 114–83,000 pg/mL | LOB1824 | 1 Kit |
| IL-6 | S P C | 1.11 pg/mL | 3–2,400 pg/mL | LUH206 | 1 Kit |
| IL-10 | S P C | 0.3 pg/mL | 3–2,320 pg/mL | LUH217 | 1 Kit |
| Leptin/OB | S P C | 20.2 pg/mL | 81–59,000 pg/mL | LUB398 | 1 Kit |
| Resistin | S P C | 7.3 pg/mL | 45–32,700 pg/mL | LOB1359 | 1 Kit |
| Serpin E1/PAI-1 | S P C | 2.9 pg/mL | 18–13,000 pg/mL | LOB1786 | 1 Kit |
| TNF- α | S P C | 1.5 pg/mL | 5.3 – 3,900 pg/mL | LUH210 | 1 Kit |
| Base Kit, Human Obesity Panel | | | N/A | LOB000 | 1 Kit |
| Pre-mixed Kit | | | N/A | FCST08 | 1 Kit |

Predetermined Multiplex Kits

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|------------------------------|--------------|-------------|-------|-----------|-------|
| Adhesion Molecule 4-plex Kit | S P C | | N/A | LKT007 | 1 Kit |
| TIMP 4-plex Kit | S P C U V M | | N/A | LKT003 | 1 Kit |
| TIMP 4-plex Magnetic Kit | S P C U V M | | N/A | LKTM003 | 1 Kit |

Luminex Immunoglobulin Isotyping Mouse Assay

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|-------------------------|--------------|-------------|-------|-----------|-------|
| IgA | | | N/A | LXIGM5 | 1 Kit |
| | | | N/A | LXMIGMG5 | 1 Kit |
| IgG ₁ | | | N/A | LXIGM1 | 1 Kit |
| | | | N/A | LXMIGMG1 | 1 Kit |
| IgG _{2A} | | | N/A | LXIGM2 | 1 Kit |
| | | | N/A | LXMIGMG2 | 1 Kit |
| IgG _{2B} | | | N/A | LXIGM3 | 1 Kit |
| | | | N/A | LXMIGMG3 | 1 Kit |
| IgG ₃ | | | N/A | LXIGM4 | 1 Kit |
| | | | N/A | LXMIGMG4 | 1 Kit |
| IgM | | | N/A | LXIGM6 | 1 Kit |
| | | | N/A | LXMIGMG6 | 1 Kit |
| Isotype Assay, Base Kit | | | N/A | LXIGM | 1 Kit |
| | | | N/A | LXMIGMG | 1 Kit |

Luminex Controls

| Product | Sample Types | Sensitivity | Range | Catalog # | Size |
|--|--------------|-------------|-------|-----------|--------|
| Control, Human Cytokine Panel A | | | N/A | QC02 | 1 Each |
| Control, Human Angiogenesis Panel A | | | N/A | QC06 | 1 Each |
| Control, Human Biomarker Panel A | | | N/A | QC07 | 1 Each |
| Control, Human Cardiac Panel A | | | N/A | QC08 | 1 Each |
| Control, Human Cardiac Panel B | | | N/A | QC09 | 1 Each |
| Control, Human Cytokine Panel B | | | N/A | QC10 | 1 Each |
| Control, Human HS Cytokine Panel A | | | N/A | QC11 | 1 Each |
| Control, Human MMP Panel | | | N/A | QC12 | 1 Each |
| Control, Human Obesity Panel | | | N/A | QC13 | 1 Each |
| Control, Human Adhesion Molecule Panel | | | N/A | QC15 | 1 Each |
| Control, Human TIMP Panel | | | N/A | QC16 | 1 Each |
| Control, Human Magentic Kidney Biomarker Panel | | | N/A | QC18 | 1 Each |
| Control, Human Magnetic HS Cytokine Panel B | | | N/A | QC19 | 1 Each |
| Control, TGF- β Panel | | | N/A | QC17 | 1 Each |

Sample Type Key: **S** Serum **P** Plasma **C** Cell Culture Supernatants **U** Urine **V** Saliva **M** Milk

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