

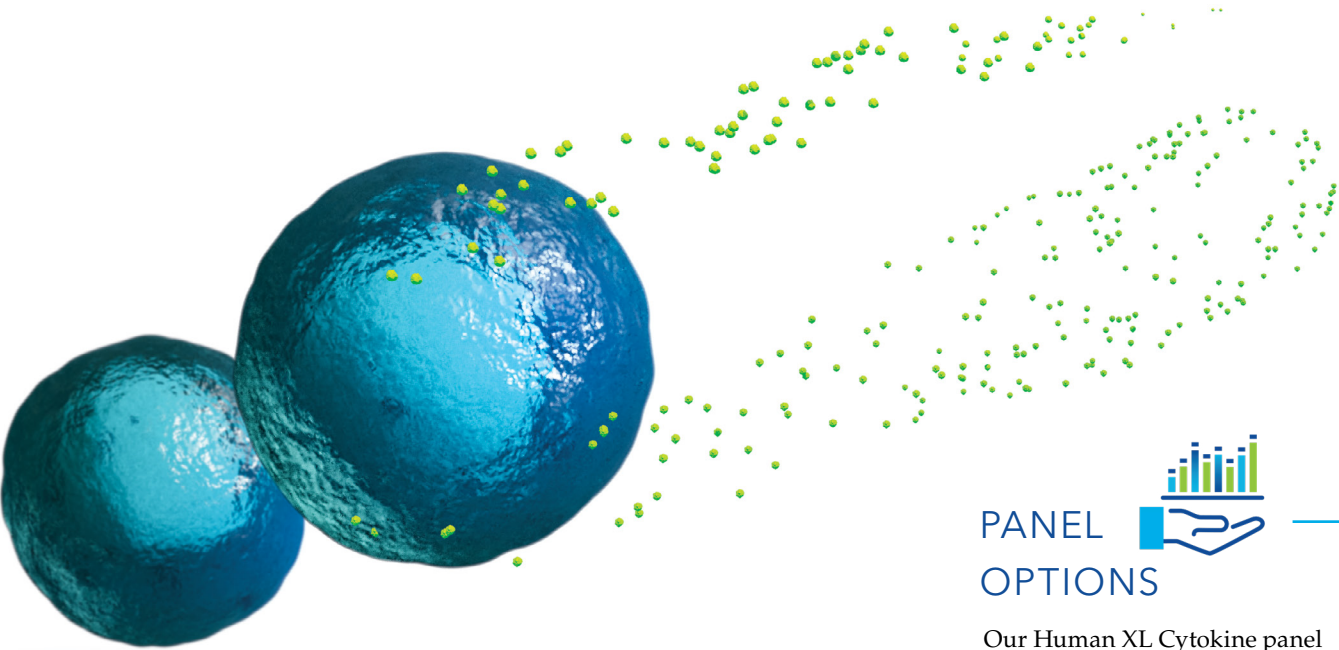


Human XL Cytokine 46-Plex

Luminex High Performance Assay

biotechne[®] | **R&D** SYSTEMS

Reliable Performance + Trusted Results



PANEL OPTIONS

Our Human XL Cytokine panel comes in a variety of configurations, allowing you to choose the option that best fits your needs.

PREMIXED

Premixed panels allow you to select your desired analytes and are shipped with the microparticle beads and biotin cocktails premixed in-house. This option provides a ready-to-use testing option that is effective, affordable, and intuitive.

USER MIXED

User Mixed panels also allow for customizable assays, but with the individual microparticle beads separated. This allows the user to combine and mix the cocktails as needed, providing more flexibility during the assay running process.

FIXED

Fixed panels provide a stocked and ready to ship alternative with shorter shipping times so you can begin your research more quickly. These panels provide a selection of analytes from various research areas allowing you to focus on your research.

NEW AND IMPROVED HUMAN XL CYTOKINE PERFORMANCE LUMINEX PANEL

The Human XL Cytokine Panel is one of our High Performance Assays and provides users with the most accurate results. High Performance Assays are the most rigorously validated Luminex assays on the market. The assays are designed to yield the best possible data in terms of linearity of dilution, sensitivity, reproducibility, spike and recovery, specificity, and detection of endogenous protein. They are also correlated with the industry standard Quantikine® kits, the most trusted ELISA assay on the market.



Newly Updated Panel

We have expanded the panel to include 2 additional targets, IL-9 and TNF-beta. Increased sample detectability for IFN-gamma and PD-L1 was also added for detecting lower concentrations.

Broad Selection

Multiplex up to 46 analytes with customizable or fixed panel options. Our Luminex panels are designed to be thorough and meet your testing needs.

Reliable and Accurate Data

Our carefully formulated diluents minimize false positive results and allow for the most accurate measurements of target analytes.

Superior Accuracy

We tested our Human XL Cytokine Panel side-by-side with assays from other leading suppliers and our panel outperformed the competition when tested for linearity of dilution and recovery.

Flexible and Easy to Order

Select any combination of analytes within the panel directly from the product datasheet or use our [online ordering tool](#).

PERFORMANCE THAT EXCEEDS OTHER COMMERCIAL KITS

The Human XL Cytokine Performance Luminex Panel outperformed other suppliers' assays when tested for linearity of dilution and recovery, both industry standard methods for assessing assay accuracy.

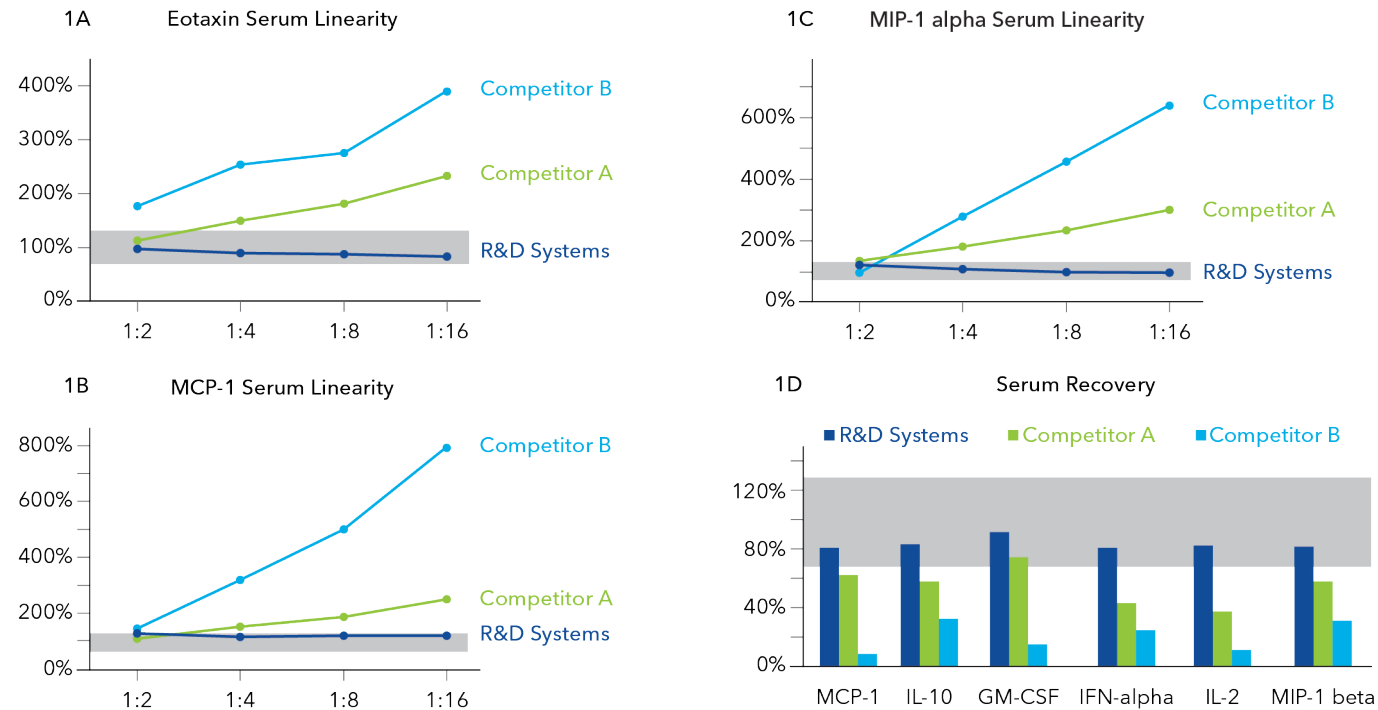


FIGURE 1. Serum linearity for Eotaxin, MCP-1, and MIP-1 alpha are shown in figures 1A, 1B, and 1C respectively. A known amount of protein was added to serum samples and serially diluted. R&D Systems human XL panel was tested side by side with two of the leading competitors. The gray zones indicate the acceptable range of expected values within the range of 70% - 130%. Serum recovery rates are shown in figure 1D. A known amount of protein was added to serum samples and the recovery rates were measured. R&D Systems human XL panel was tested side by side against two of the leading competitors. Again, gray zones are included to indicate the acceptable range of expected values of $\pm 30\%$.

A GREAT TOOL TO MONITOR
CYTOKINE-RELEASE
SYNDROME (CRS)

One of the most prominent toxicities associated with cancer immunotherapy is CRS, which can be fatal if not properly identified and managed. The Human XL Cytokine Performance Panels high sensitivity and superior accuracy offers the most reliable method of measuring CRS-associated inflammatory cytokines.

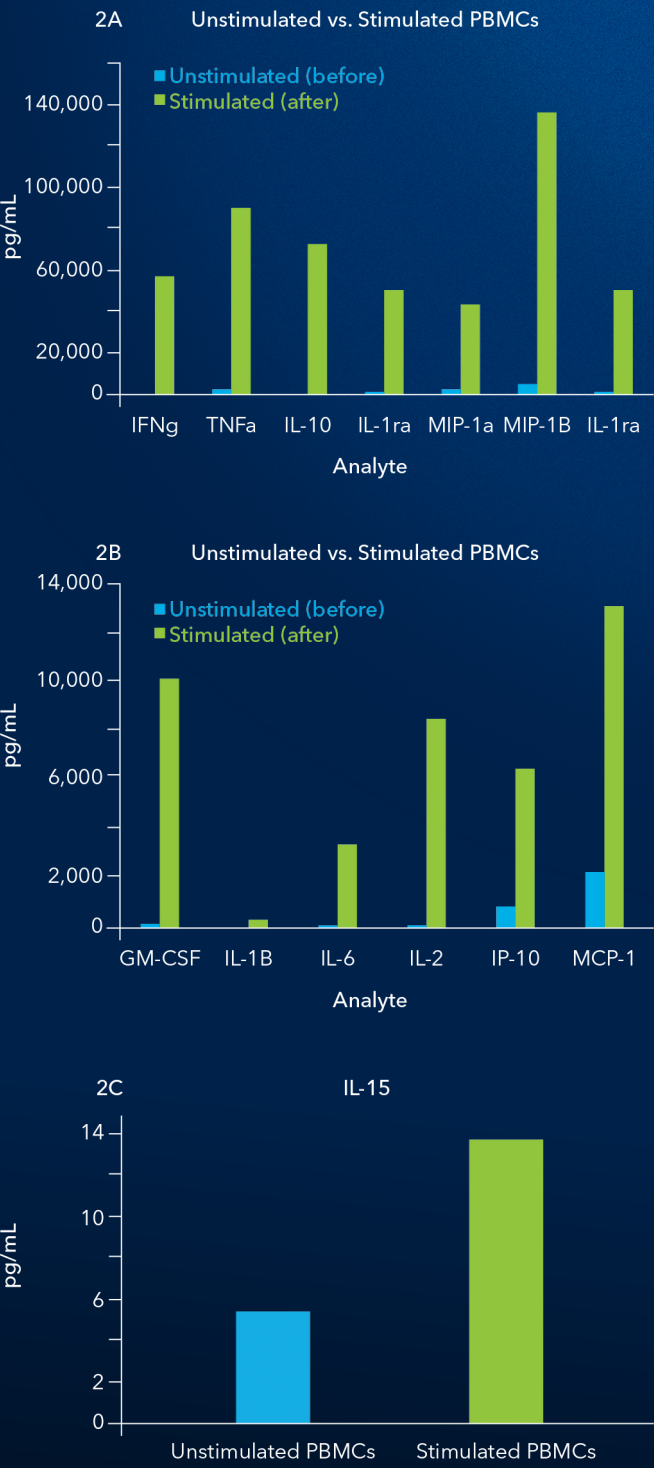


FIGURE 2. XL Cytokine Performance Panel detects the inflammatory response of CRS biomarkers. Fig. 2A Quantification of CRS analytes in PBMC cell supernatant before and after cell stimulation with anti-CD3 epsilon and anti-CD28. Fig. 2B Quantification of CRS analytes in PBMC cell supernatant before and after cell stimulation with anti-CD3 epsilon and anti-CD28. Fig. 2C IL-15 measured in unstimulated PBMC cell supernatant and after cell stimulation with anti-CD3 epsilon and anti-CD28.

Analytes Available

FROM THE HUMAN XL CYTOKINE PERFORMANCE PANEL

| | | | | | |
|-----------------|-------------|------------|--------------|--------------|-------------|
| CD40 Ligand | Gro-α/CXCL1 | IL-2 | IL-10 | MCP-1/CCL2 | RANTES/CCL5 |
| EGF | Gro-β/CXCL2 | IL-3 | IL-12 p70 | MIP-1α/CCL3 | TGF-α |
| Eotaxin/CCL11 | IFN-α2 | IL-4 | IL-13 | MIP-1β/CCL4 | TNF-α |
| FGF basic/FGF-2 | IFN-β | IL-5 | IL-15 | MIP-3 /CCL19 | TNF-β |
| Flt-3 Ligand | IFN-γ | IL-6 | IL-17A | MIP-3α/CCL20 | TRAIL |
| G-CSF | IL-1ra | IL-7 | IL-17E/IL-25 | PD-L1/B7-H1 | VEGF |
| GM-CSF | IL-1α | IL-8/CXCL8 | IL-33 | PDGF-AA | |
| Granzyme B | IL-1β | IL-9 | IP-10/CXCL10 | PDGF-BB | |

PANEL OPTIONS

| Catalog Number | Name | Plex Size |
|----------------|---|-----------|
| FCSTM18B | Human XL Cytokine Luminex Performance Panel | 1-46 |
| LUXLM000B | Human XL Cytokine Luminex Performance Assay Base Kit | 1-46 |
| LKTM008B | Human Th1/Th2 Luminex Performance Assay Fixed Panel | 13 |
| LKTM009B | Human Th9/Th17/Th22 Luminex Performance Assay Fixed Panel | 18 |
| LKTM010B | Human Immunotherapy Luminex Performance Assay Fixed Panel | 25 |
| LKTM011B | Human Cytokine Luminex Performance Assay Fixed Panel | 15 |
| LKTM012B | Human Chemokine Luminex Performance Assay Fixed Panel | 8 |
| LKTM013B | Human Growth Factor Luminex Performance Assay Fixed Panel | 21 |
| LKTM014B | Human XL Cytokine Luminex Performance Assay Fixed Panel | 46 |

ANALYTES AVAILABLE FROM
THE HUMAN XL CYTOKINE PERFORMANCE PANEL

| | LKTM008B | LKTM009B | LKTM010B | LKTM011B | LKTM012B | LKTM013B | LKTM014B |
|----------------------|----------|----------|----------|----------|----------|----------|----------|
| CD40 Ligand | | X | X | | | X | X |
| EGF | | | | | | X | X |
| Eotaxin/CCL11 | | | | | X | | X |
| FGF basic/FGF-2 | | | | | | X | X |
| Flt-3 Ligand | | | | | | X | X |
| G-CSF | | | | | | X | X |
| GM-CSF | X | X | X | | | | X |
| Granzyme B | | | X | | | X | X |
| Gro- α /CXCL1 | | | | | | | X |
| Gro- β /CXCL2 | | | | | | X | X |
| IFN- α 2 | | | X | X | | | X |
| IFN- β | | | | | | X | X |
| IFN- γ | X | X | X | X | | | X |
| IL-1 α | | | X | X | | | X |
| IL-1 β | X | X | X | X | | | X |
| IL-1ra | | | X | X | | | X |
| IL-2 | X | X | X | X | | | X |
| IL-3 | | | | X | | X | X |
| IL-4 | X | X | X | X | | | X |
| IL-5 | X | X | | | | | X |
| IL-6 | X | X | X | X | | | X |
| IL-7 | | | | X | | | X |
| IL-8/CXCL8 | | | X | | X | X | X |

ANALYTES AVAILABLE FROM
THE HUMAN XL CYTOKINE PERFORMANCE PANEL

| | LKTM008B | LKTM009B | LKTM010B | LKTM011B | LKTM012B | LKTM013B | LKTM014B |
|-----------------------|----------|----------|----------|----------|----------|----------|----------|
| IL-9 | X | X | X | X | | X | X |
| IL-10 | X | X | X | X | | | X |
| IL-12 p70 | X | X | X | | | | X |
| IL-13 | X | X | X | | | | X |
| IL-15 | | X | X | X | | | X |
| IL-17A | | X | X | | | | X |
| IL-17E/IL-25 | | X | | | | X | X |
| IL-33 | | X | X | X | | X | X |
| IP-10/CXCL10 | | | X | | X | | X |
| MCP-1/CCL2 | | | X | | X | | X |
| MIP-1 α /CCL3 | | | X | | X | X | X |
| MIP-1 β /CCL4 | | | X | | X | | X |
| MIP-3 α /CCL20 | | X | | | | | X |
| MIP-3/CCL19 | | | | | | X | X |
| PD-L1/B7-H1 | | | X | | | X | X |
| PDGF-AA | | | | | | X | X |
| PDGF-BB | | | | | | X | X |
| RANTES/CCL5 | | | | | X | | X |
| TGF- α | | | | | | X | X |
| TNF- α | X | X | X | | | | X |
| TNF- β | X | | | | | | X |
| TRAIL | | | | | | X | X |
| VEGF | | | | X | | X | X |

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