

High-plex Luminex assays for protein and gene expression multiplex analysis

The largest panels for human and mouse immune response profiling

Multiplex analysis offers a transformative advantage for biomarker discovery and validation by enabling simultaneous assessment of up to 80 analytes on an Invitrogen™ Luminex® instrument within a single experiment. This approach can help improve efficiency by conserving resources, precious samples, and time, while also providing a holistic view of complex biological interactions.

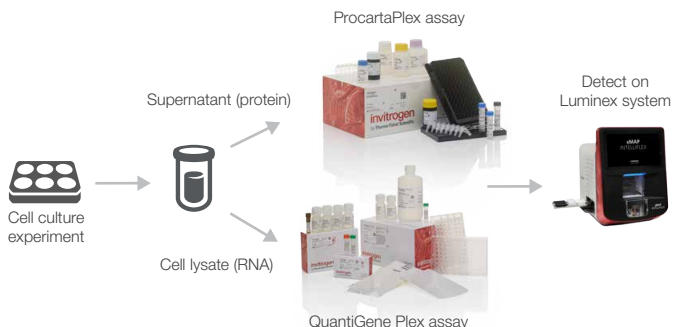
Invitrogen™ ProcartaPlex™ and Invitrogen™ QuantiGene™ Plex assays offer a unique, high-plex, high-throughput multiomics solution utilizing the Luminex platform to help you maximize your results and accelerate your scientific breakthroughs. Now you can combine proteomic and genomic workflows without compromising data interpretation or sensitivity.

The biggest panel just got better

The Invitrogen™ ProcartaPlex™ Human Immune Response Panel 80-Plex and Invitrogen™ ProcartaPlex™ Mouse Immune Response Panel 64-Plex are the largest ready-to-use panels on the Luminex platform. They are meticulously designed to deliver reliable and precise results, helping ensure that you can confidently make informed decisions based on your findings.

Advantages:

- **True multiplexing**—measure up to 80 analytes simultaneously in one plate instead of running multiple assays, reducing cost and saving time
- **Maximize limited samples**—use only 25 µL of serum or plasma, and 50 µL for supernatant
- **Scalability**—achieve reproducible performance regardless of plex size (see Figures 1 and 2)
- **High throughput**—increase sample throughput from a 96-well plate format to our 384-well plate format
- **Customizable**—easily modify the panel with our menu of 600+ analytes to suit your research needs





Human high-plex ProcartaPlex panels

ProcartaPlex Human Immune Response Panel 80-Plex							
Cat. No. EPX800-10080-901							
APRIL	CD40L	GM-CSF	IL-2R	IL-13	IL-31	M-CSF	PTX3
BAFF	CXCL6 (GCP-2)	Granzyme A	IL-3	IL-15	IL-34	MDC	SCF
BLC	ENA-78	Granzyme B	IL-4	IL-16	IL-37	MIF	TNF alpha
bNGF	Eotaxin	GRO alpha	IL-5	IL-17A	IP-10	MIG	TNF beta
CCL1 (I-309)	Eotaxin-2	HGF	IL-6	IL-18	I-TAC	MIP-1 alpha	TNF-R2
CCL17 (TARC)	Eotaxin-3	IFN alpha	IL-7	IL-20	LIF	MIP-1 beta	TRAIL
CCL21 (6CKine/SLC)	FGF-2	IFN gamma	IL-8	IL-21	MCP-1	MIP-2 alpha (CXCL2)	TREM-1
CCL23 (MPIF)	Fractalkine	IL-1 alpha	IL-9	IL-22	MCP-2	MIP-3 beta (CCL19)	TSLP
CCL25 (TECK)	Gal-3	IL-1 beta	IL-10	IL-23	MCP-3	MIP-3 alpha	TWEAK
CD30	G-CSF	IL-2	IL-12p70	IL-27	MCP-4 (CCL13)	MMP-1	VEGF-A

Table 1. Targets in bold are newly added to the ProcartaPlex Human Immune Response Panel 80-Plex and are not part of the Invitrogen™ ProcartaPlex™ Human Immune Monitoring Panel 65-Plex (EPX650-10065-901).

Scalability data to demonstrate reproducibility

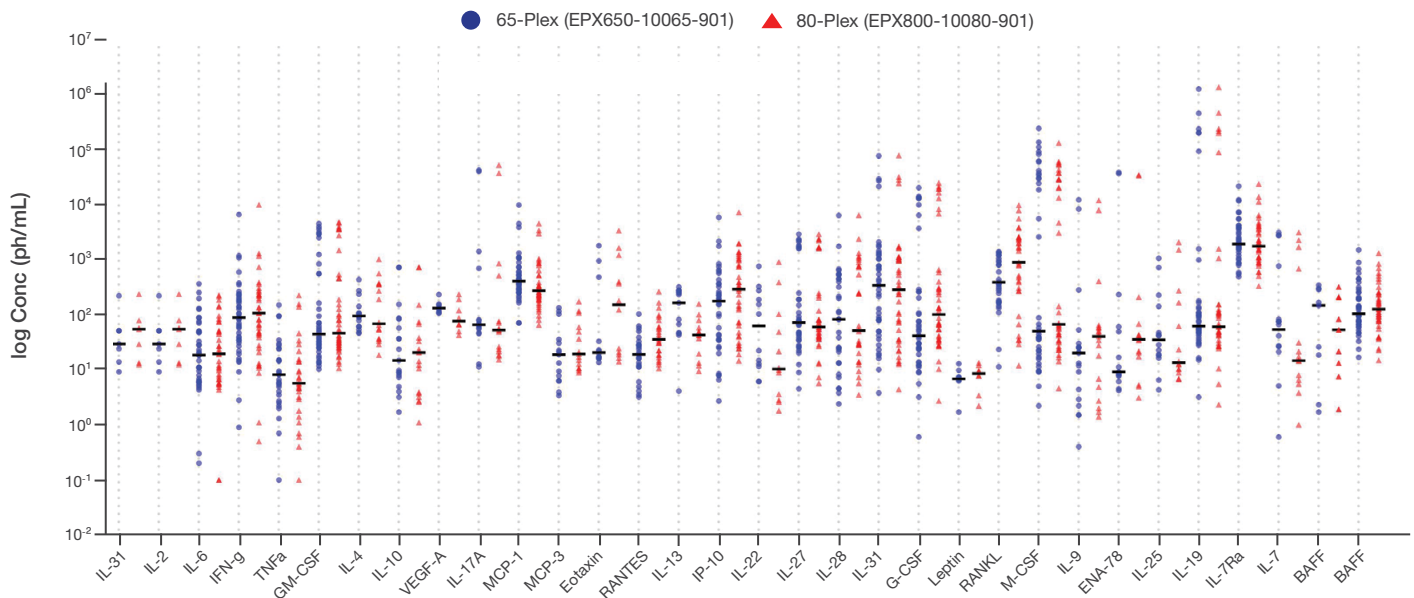


Figure 1. Comparison of protein expression data from human blood samples analyzed using the ProcartaPlex Human Immune Monitoring Panel 65-Plex and the ProcartaPlex Human Immune Response Panel 80-Plex. Data shown here illustrate the consistency in scalability between a large and small ProcartaPlex panel. A selection of analytes are shown here. Similar results are obtained when investigating other analytes.



Mouse high-plex ProcartaPlex panels

ProcartaPlex Mouse Immune Response Panel 64-Plex							
Cat. No. EPX640-20064-901							
BAFF	G-CSF (CSF-3)	IL-13	IL-2	IL-31	IL-9	M-CSF	ST2 (IL-33R)
BLC (CXCL13)	GM-CSF	IL-15/IL-15R	IL-22	IL-33	IP-10 (CXCL10)	MDC (CCL22)	SYB16 (CXCL16)
BTC	Granzyme B	IL-16	IL-23	IL-4	I-TAC (CXCL11)	MIP-1 alpha	TECK (CCL25)
CD27	GRO alpha (CXCL1)	IL-17A (CTLA-8)	IL-25 (IL-17E)	IL-5	Leptin	MIP-1 beta	TNF alpha
CTACK (CCL27)	IFN alpha	IL-18	IL-27	IL-6	LIF	MIP-2	TARC (CCL17)
ENA-78 (CXCL5)	IFN gamma	IL-19	IL-28	IL-6R/sIL-6R	MCP-1 (CCL2)	MIP-3 beta (CCL19)	TSLP
Eotaxin (CCL11)	IL-10	IL-1 alpha	IL-2R	IL-7	MCP-3 (CCL7)	RANKL	VEGF-A
Eotaxin-2 (CCL24)	IL-12p70	IL-1 beta	IL-3	IL-7R alpha	MCP-5 (CCL12)	RANTES (CCL5)	VEGF-R2 (KDR)

Table 2. Targets in bold are newly added in the ProcartaPlex Mouse Immune Response Panel 64-Plex compared to the Invitrogen™ ProcartaPlex™ Mouse Immune Monitoring Panel 48-Plex (EPX480-20834-901).

Scalability data to demonstrate reproducibility

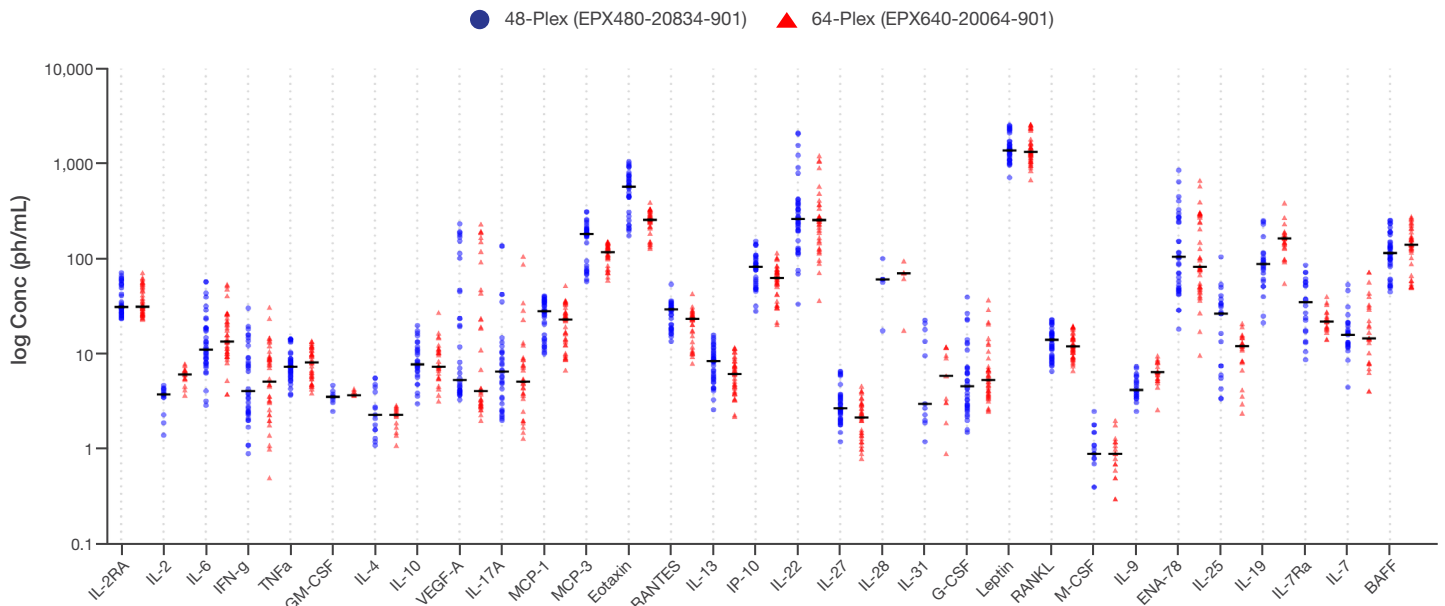


Figure 2. Comparison data for selected analytes in blood samples from healthy, untreated mice. Mouse serum and plasma samples were run on the ProcartaPlex Mouse Immune Monitoring Panel 48-Plex and the ProcartaPlex Mouse Immune Response Panel 64-Plex to compare the protein measurement and show the scalability between a smaller and larger panel.

Gain deeper insight with complementary and highly correlative immune response QuantiGene Plex panels for gene expression analysis

The Invitrogen™ QuantiGene™ Plex Human Immune Response Panel 80-Plex and Invitrogen™ QuantiGene™ Plex Mouse Immune Response Panel 80-Plex enable the study of immune function by analyzing 80 RNA targets and biomarkers in a single well using the same Invitrogen™ Luminex® xMAP® technology in combination with branched DNA signal amplification. Analyze 80 cytokine, chemokine, and growth factor targets simultaneously to enable efficient immune response profiling, biomarker discovery, and validation.

Learn more at thermofisher.com/quantigene

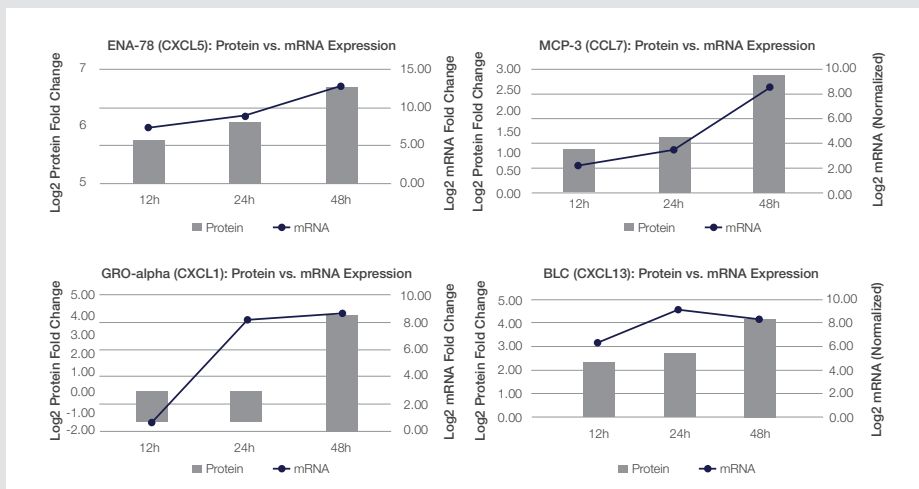


Figure 3. Correlation of gene (RNA) versus protein expression at 3 different timepoints after stimulation with PHA, ConA, or LPS. Relative RNA and protein expression of ENA (CXCL5), GRO-alpha (CXCL1), MCP-3 (CCL7), and BLC (CXCL13) at 12, 24, and 48 hours post-stimulation. The QuantiGene Plex Human Immune Response Panel 80-Plex data (line graphs) were normalized to the housekeeper PPIB. Protein data were acquired using the ProcartaPlex Human Immune Response Panel 80-Plex. Data (bar graphs) are displayed as log2 fold change over unstimulated control samples.

Selection of high-plex Luminex assays (available in 96- or 384-well format)

Product name	Target species	Cat. No.
Protein assays		
ProcartaPlex Human Immune Response Panel 80-Plex	Human	EPX800-10080-901
ProcartaPlex Human Immune Monitoring Panel 65-Plex	Human	EPX650-10065-901
ProcartaPlex Human Immune Monitoring Panel 65-Plex for MAGPIX	Human	EPX650-16500-901
ProcartaPlex Mouse Immune Response Panel 64-Plex	Mouse	EPX640-20064-901
ProcartaPlex Mouse Immune Monitoring Panel 48-Plex	Mouse	EPX480-20834-901
Gene expression assays		
QuantiGene Plex Human Immune Response Panel 80-Plex	Human	QGP-180-10080
QuantiGene Plex Mouse Immune Response Panel 80-Plex	Mouse	QGP-180-20064
Related products		
Luminex 200 Instrument System		APX10031
Luminex FLEXMAP 3D Instrument System		APX1342
Luminex xMAP INTELLIFLEX System		APX2020
Luminex xMAP INTELLIFLEX DR-SE System		APX2021

Learn more about high-plex Luminex assays at thermofisher.com/80plex

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