



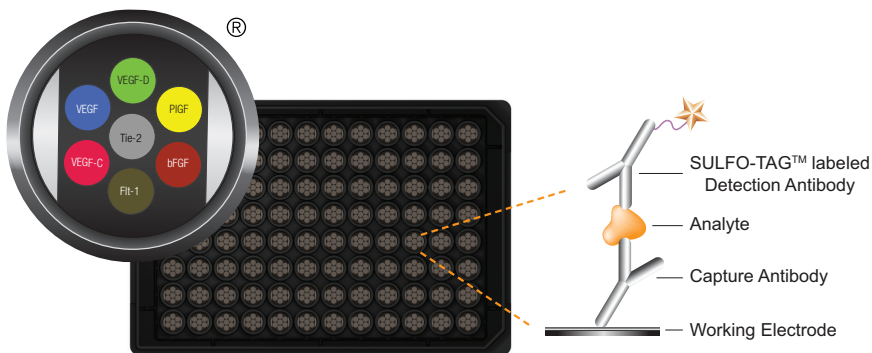
Human Biomarker Assays

For use with cell culture supernatants, serum, plasma, cerebral spinal fluid, and urine

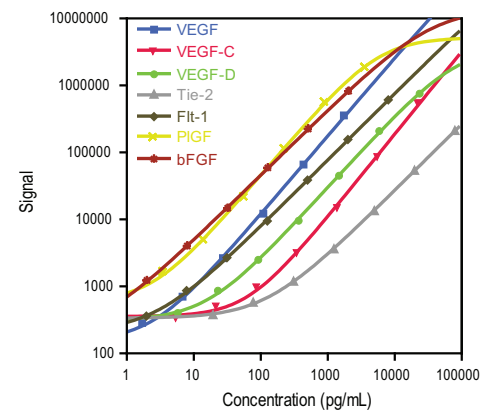
V-PLEX™ New from Meso Scale Discovery® Validated Cytokine Assays for Unsurpassed Performance and Quality

- Analytically validated panels
- Lot-to-lot reproducibility with inter-lot bridging to support long term studies
- Optimized panels with proven specificity for high performance and efficient multiplexing

Proprietary immunoassay technology



Wide dynamic range



The V-PLEX™ Human Biomarker 40-Plex Kit includes the following:

Proinflammatory Panel 1 (human)

- IFN- γ
- IL-1 β
- IL-2
- IL-4
- IL-6
- IL-8
- IL-10
- IL-12p70
- IL-13
- TNF- α

Cytokine Panel 1 (human)

- GM-CSF
- IL-1 α
- IL-5
- IL-7
- IL-12/IL23p40
- IL-15
- IL-16
- IL-17A
- TNF- β
- VEGF

Chemokine Panel 1 (human)

- Eotaxin
- MIP-1 β
- Eotaxin-3
- TARC
- IP-10
- MIP-1 α
- IL-8 (HA*)
- MCP-1
- MDC
- MCP-4

Angiogenesis Panel 1 (human)

- VEGF
- VEGF-C
- VEGF-D
- Tie-2
- Flt-1
- PlGF
- bFGF

Vascular Injury Panel 2 (human)

- SAA
- CRP
- VCAM-1
- ICAM-1

* High Abundance (This assay quantitates high levels of IL-8.)

For Research Use Only. Not for use in diagnostic procedures.



Sensitivity and reproducibility to support long term studies

MSD offers V-PLEX assays for customers who require unsurpassed performance and quality. The V-PLEX Human Biomarker 40-PLEX Kit enables measurements of 40 biomarkers with low to sub pg/mL sensitivity allowing for measurements of endogenous levels in normal samples. In addition, the low inter-lot variability (%CV) shown below translates to high reproducibility of data across kit lots.

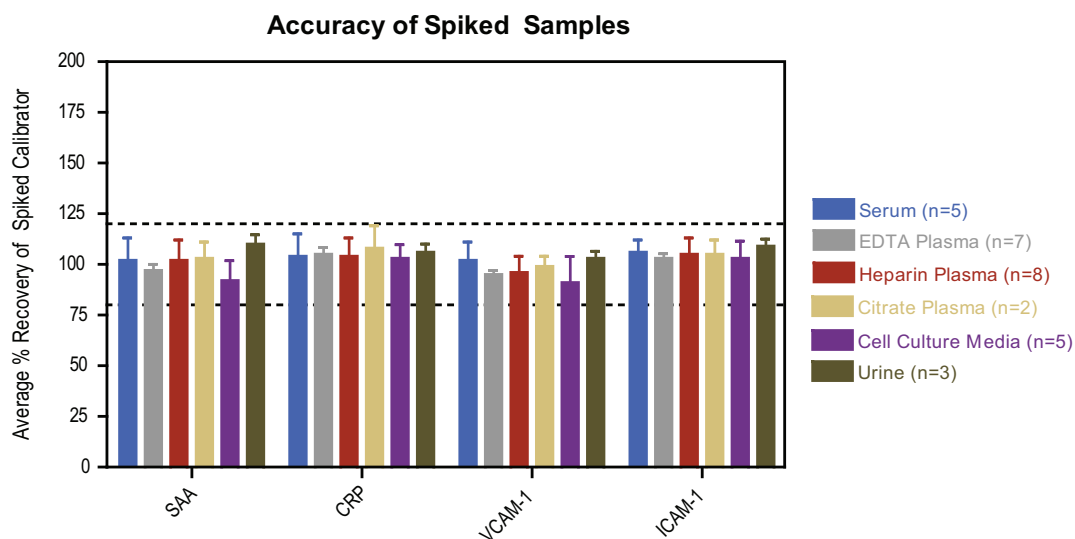
	Median LLOD (pg/mL)	Low Control Inter-lot %CV
bFGF	0.08	3.8
CRP	1.33	10.5
Eotaxin	3.26	9.4
Eotaxin-3	1.77	12.0
Flt-1	0.56	2.7
GM-CSF	0.14	1.6
ICAM-1	1.03	17.8
IFN- γ	0.20	5.0
IL-1 α	0.09	6.4
IL-1 β	0.04	5.8
IL-2	0.09	4.5
IL-4	0.02	9.2
IL-5	0.22	7.0
IL-6	0.06	5.5

	Median LLOD (pg/mL)	Low Control Inter-lot %CV
IL-7	0.16	0.9
IL-8	0.04	6.0
IL-8 (HA)	95.6	10.8
IL-10	0.03	4.8
IL-12p40	0.39	2.1
IL-12p70	0.11	4.9
IL-13	0.24	4.7
IL-15	0.17	5.4
IL-16	2.83	1.6
IL-17A	0.74	7.5
IP-10	0.37	12.4
MCP-1	0.09	10.4
MCP-4	1.69	9.3
MDC	1.22	11.7

	Median LLOD (pg/mL)	Low Control Inter-lot %CV
MIP-1 α	3.02	10.0
MIP-1 β	0.37	10.6
PIGF	0.32	5.8
SAA	10.9	6.8
TARC	0.22	10.3
Tie-2	21.1	1.9
TNF- α	0.04	6.2
TNF- β	0.05	0.7
VCAM-1	6.00	2.6
VEGF	1.12	7.2
VEGF-C	11.1	1.6
VEGF-D	2.53	2.0

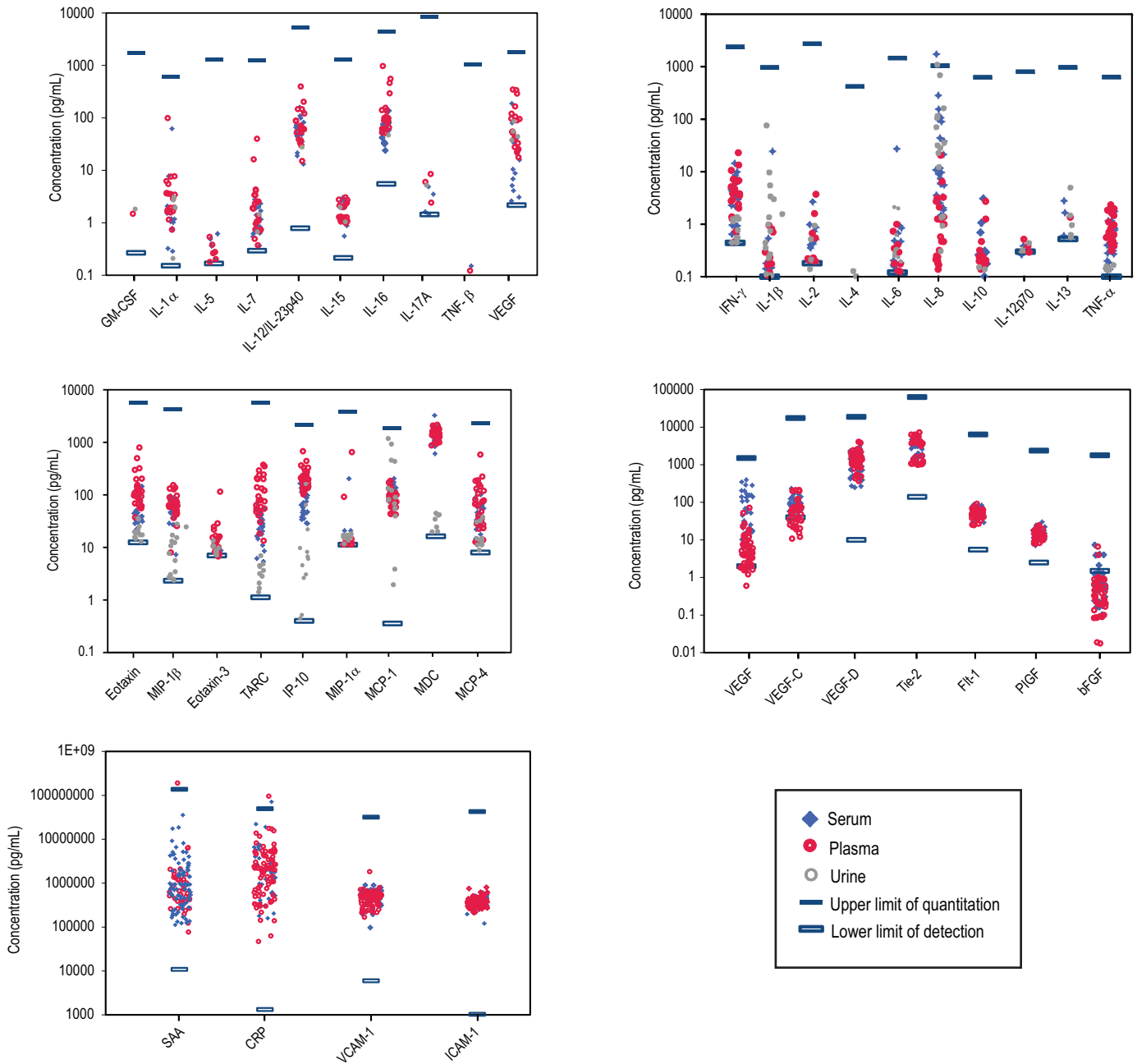
Analytical validation in multiple sample matrices

Matrix studies such as spike recovery measurements in different sample types are part of the rigorous assay validation process for V-PLEX products. Comprehensive sample validation data can be found in each kit's product insert. Spike recovery data for the V-PLEX Vascular Injury Panel 2 (human) kit is shown below as an example of the high level of accuracy observed in key sample matrices when using V-PLEX products.



Optimized panels for high performance

The 40 assays in the V-PLEX Human Biomarker 40-Plex are provided in 5 multiplex panels. The panels are optimized to achieve the highest level of performance from each assay, providing efficient biomarker screening and profiling without compromising performance. Concentrations of all analytes can be measured using a total sample volume of 110 μ L using the V-PLEX Human Biomarker 40-Plex Kit as shown in the charts below. With a dynamic range that spans low abundance cytokines and high abundance vascular injury markers, these assays effectively measure both normal and elevated analyte levels at a single dilution point.





Panels	Assays	Catalog Numbers
V-PLEX Human Biomarker 40-Plex	IFN- γ , IL-1 β , IL-2, IL-4, IL-6, IL-8, IL-10, IL-12p70, IL-13, TNF- α , GM-CSF, IL-1 α , IL-5, IL-7, IL-12/23p40, IL-15, IL-16, IL-17A, TNF- β , VEGF, Eotaxin, MIP-1 β , Eotaxin-3, TARC, IP-10, MIP-1 α , IL-8 (HA*), MCP-1, MDC, MCP-4, VEGF-C, VEGF-D, Tie-2, Flt-1, PlGF, bFGF, SAA, CRP, VCAM-1, ICAM-1	K15209D
V-PLEX Angiogenesis Panel 1 (human)	VEGF, VEGF-C, VEGF-D, Tie-2, Flt-1, PlGF, bFGF	K15190D
V-PLEX Vascular Injury Panel 2 (human)	SAA, CRP, VCAM-1, ICAM-1	K15198D
V-PLEX Proinflammatory Panel 1 (human)	IFN- γ , IL-1 β , IL-2, IL-4, IL-6, IL-8, IL-10, IL-12p70, IL-13, TNF- α	K15049D
V-PLEX Cytokine Panel 1 (human)	GM-CSF, IL-1 α , IL-5, IL-7, IL-12/23p40, IL-15, IL-16, IL-17A, TNF- β , VEGF	K15050D
V-PLEX Chemokine Panel 1 (human)	Eotaxin, MIP-1 β , Eotaxin-3, TARC, IP-10, MIP-1 α , IL-8 (HA*), MCP-1, MDC, MCP-4	K15047D

* High Abundance (This assay quantitates high levels of IL-8.)

V-PLEX kits include:

- Blended calibrator
- Individual detection antibodies
- Diluents
- Comprehensive product insert
- Certificate of analysis

V-PLEX Plus kits include:

- Blended calibrator
- Individual detection antibodies
- Diluents
- Comprehensive product insert
- Certificate of analysis
- Controls
- Wash buffer
- Plate seals

Custom combinations of the assays above may be ordered online at www.mesoscale.com/V-PLEX.

Phone: 1-240-314-2795 . Fax: 1-301-990-2776

Email: customerservice@mesoscale.com

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