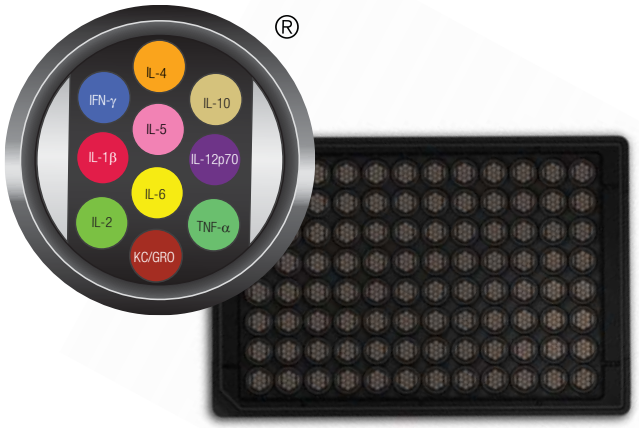
Mouse Cytokine Assays

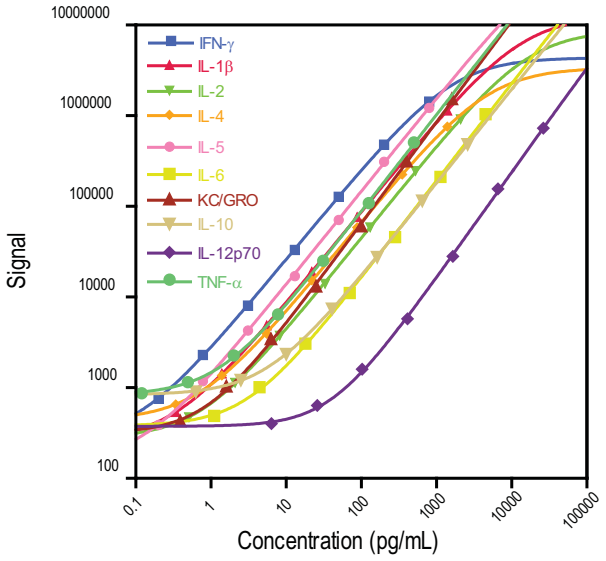
For use with cell culture supernatants, serum, plasma, and urine

V-PLEX™ New from Meso Scale Discovery®

Proinflammatory Panel 1 (mouse) Kit

- Validated across multiple lots
- Volume conserved for precious samples
- Value added, reduced cost
- Custom multiplexes
- A la carte menu
- Simple, fast, flexible





	LLOD (pg/mL)		
	MSD V-PLEX	Bead Based	ELISA
IFN-γ	0.04	0.90	2.00
IL-1β	0.11	2.00	4.80
IL-2	0.22	0.80	3.00
IL-4	0.14	0.40	2.00
IL-5	0.07	0.70	7.00
IL-6	0.61	1.80	1.80
KC/GRO	0.24	1.40	2.00
IL-10	0.95	3.30	4.00
IL-12p70	9.95	4.10	2.50
TNF-α	0.13	1.00	7.21

V-PLEX™ assays provide valuable benefits:

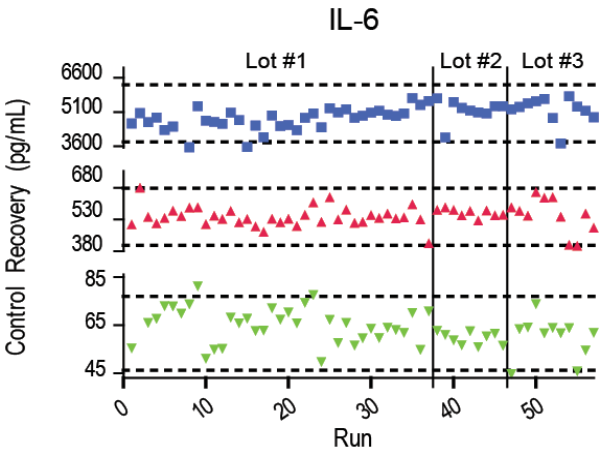
- Unsurpassed sensitivity
- Lot-to-lot reproducibility
- Wide dynamic range
- Matrix flexibility
- Qualified critical reagents
- Longer shelf life
- Simple Protocol
- Less Sample

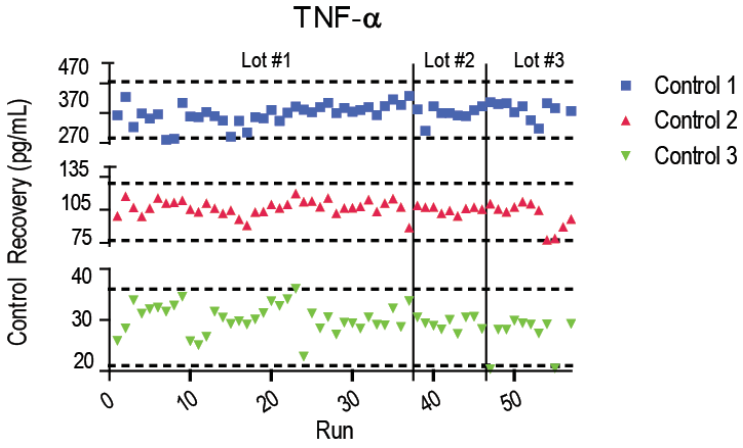
	MSD V-PLEX	Bead Based	ELISA
Protocol Time	4 hrs	5 hrs - O/N	4.5 - 5 hrs
Read Time	1 - 3 min	20 - 60 min	1 - 10 min
Sample Volume	12.5 - 25 µL	12.5 - 50 µL	50 - 400 µL

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

	Median LLOD (pg/mL)	Average Conc. (ng/mL)	Average Intra-run %CV	Inter-lot %CV
IFN-γ	0.04	740	4.4	4.7
		56.1	2.2	6.6
		5.03	2.4	7.4
IL-1β	0.11	1412	2.9	2.9
		105	2.0	5.3
		9.31	2.3	7.5
IL-2	0.22	2504	2.5	6.0
		187	2.6	9.0
		14.8	2.9	6.4
IL-4	0.14	701	2.5	4.8
		74	2.4	6.1
		10.7	3.1	9.6
IL-5	0.07	832	2.7	6.3
		53.2	2.2	8.3
		2.88	3.1	4.9

	Median LLOD (pg/mL)	Average Conc. (ng/mL)	Average Intra-run %CV	Inter-lot %CV
IL-6	0.61	5031	2.3	4.8
		542	2.6	1.1
		61.5	2.6	5.3
KC/GRO	0.24	1922	2.2	1.8
		237	2.1	6.8
		25.5	2.7	9.7
IL-10	0.95	2730	4.1	6.3
		619	3.9	7.1
		137	4.2	6.1
IL-12p70	9.95	32794	2.2	3.1
		4494	1.8	5.4
		643	2.3	6.2
TNF-α	0.13	380	2.8	6.0
		103	2.1	3.6
		28.5	2.5	8.7

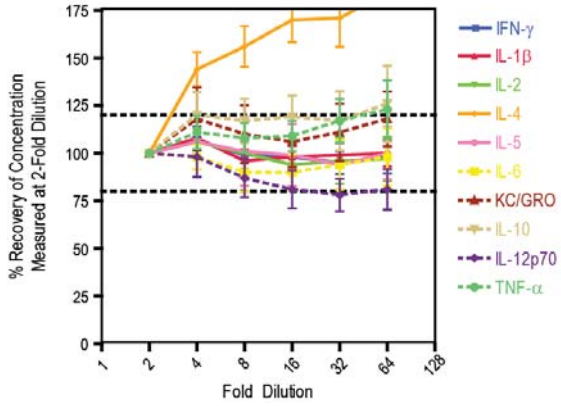




Sensitivity, Precision, and Accuracy

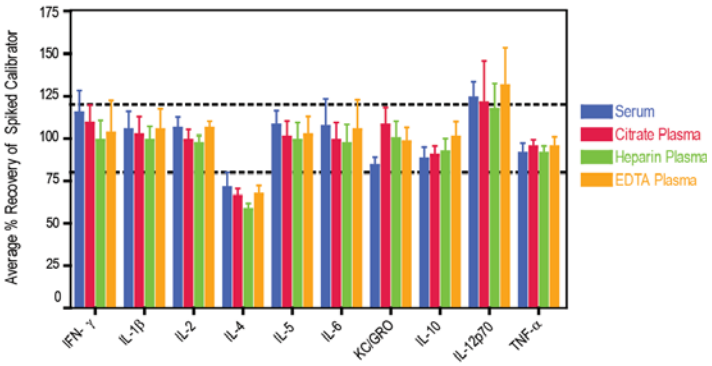
The lower limit of detection (LLOD) is a calculated concentration corresponding to a signal 2.5 standard deviations above the background (zero calibrator). The LLOD shown above was calculated based on 63 runs. Controls were made by spiking calibrator into mouse serum at 3 levels throughout the range of the assay. Analyte levels were measured using a minimum of 3 replicates on 49 runs over 5 months.

A complete set of data for each analyte is provided in the product insert available at www.mesoscale.com.



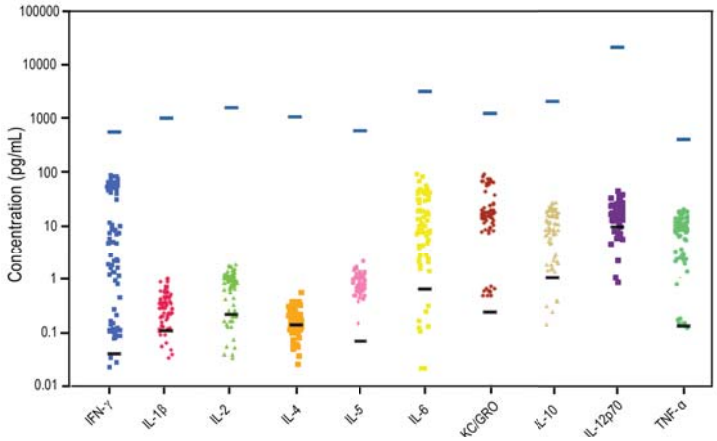
Dilutional Linearity

Normal mouse serum samples (N=8) were spiked with recombinant calibrators and diluted 2-fold, 4-fold, 8-fold, 16-fold, 32-fold, and 64-fold before testing. Samples were normalized to the concentration measured at 2-fold dilution.



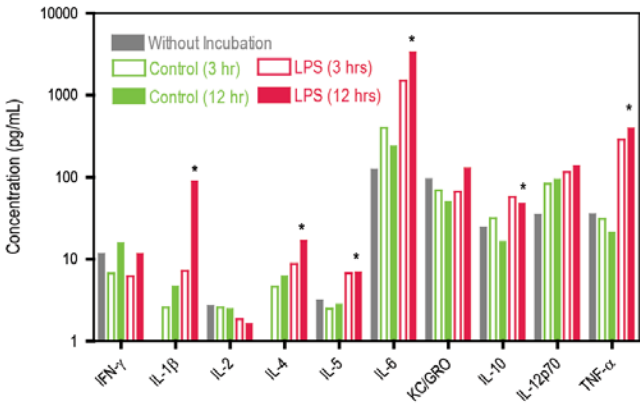
Matrix Recovery

Spike and recovery measurements of different sample types throughout the quantifiable ranges of the assays were evaluated. Samples were spiked with calibrators at 3 levels, and then diluted 2-fold.



Sample Testing

16 serum, 15 EDTA plasma, 15 heparin plasma, 16 citrate plasma, and 10 urine samples were run at a 2-fold dilution. The upper limit of quantification (ULOQ) is shown in solid blue lines for each assay. The black line represents the median LLOD established during the analytical validation. Concentration values are not dilution-adjusted.



LPS Stimulated Whole Blood

Freshly collected, normal, pooled, mouse whole blood was stimulated with lipopolysaccharide (LPS) for 3 and 12 hours. Plasma samples were isolated at the end of each incubation period and were tested with the Proinflammatory Panel 1 (mouse) kit. The dilution-adjusted concentrations (pg/mL) are shown here. Assays that showed a significant increase in analyte level with prolonged stimulation are identified with an asterisk.

Proinflammatory Panel 1 (mouse) Catalog Numbers

	V-PLEX			V-PLEX Plus		
	1 plate	5 plates	25 plates	1 plate	5 plates	25 plates
Proinflammatory Panel 1 (mouse) (IFN-γ, IL-1β, IL-2, IL-4, IL-5, IL-6, KC/GRO, IL-10, IL-12p70, TNF-α)	K15048D-1	K15048D-2	K15048D-4	K15048G-1	K15048G-2	K15048G-4

Single Assay Catalog Numbers

	V-PLEX			V-PLEX Plus		
	1 plate	5 plates	25 plates	1 plate	5 plates	25 plates
Mouse IFN-γ	K152QOD-1	K152QOD-2	K152QOD-4	K152QOG-1	K152QOG-2	K152QOG-4
Mouse IL-1β	K152QPD-1	K152QPD-2	K152QPD-4	K152QPG-1	K152QPG-2	K152QPG-4
Mouse IL-2	K152QQD-1	K152QQD-2	K152QQD-4	K152QQG-1	K152QQG-2	K152QQG-4
Mouse IL-4	K152QRD-1	K152QRD-2	K152QRD-4	K152QRG-1	K152QRG-2	K152QRG-4
Mouse IL-5	K152QSD-1	K152QSD-2	K152QSD-4	K152QSG-1	K152QSG-2	K152QSG-4
Mouse IL-6	K152QXD-1	K152QXD-2	K152QXD-4	K152QXG-1	K152QXG-2	K152QXG-4
Mouse KC/GRO	K152QTD-1	K152QTD-2	K152QTD-4	K152QTG-1	K152QTG-2	K152QTG-4
Mouse IL-10	K152QUD-1	K152QUD-2	K152QUD-4	K152QUG-1	K152QUG-2	K152QUG-4
Mouse IL-12p70	K152QVD-1	K152QVD-2	K152QVD-4	K152QVG-1	K152QVG-2	K152QVG-4
Mouse TNF-α	K152QWD-1	K152QWD-2	K152QWD-4	K152QWG-1	K152QWG-2	K152QWG-4

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.

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