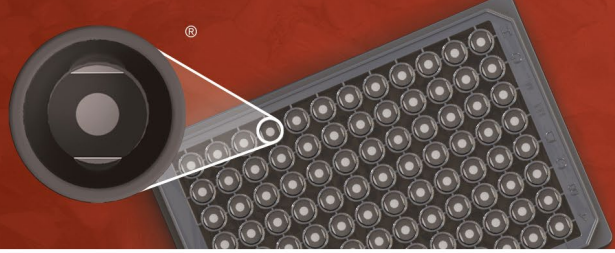
U-PLEX®

Mouse GM-CSF



www.mesoscale.com®

Ordering Information

MSD Customer Service
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Scientific Support

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Company Address

MESO SCALE DISCOVERY®
A division of
Meso Scale Diagnostics, LLC.
1601 Research Boulevard
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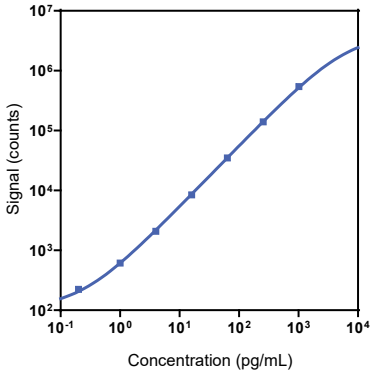
Product Options	Catalog Number	Description
Multiplex	K15069M, K25069M	U-PLEX Biomarker Group 1 (mouse)
	K152ACM, K252ACM	U-PLEX Metabolic Group 1 (mouse)
Singleplex	K152UMK-1/-2/-4	U-PLEX Mouse GM-CSF Assay with SECTOR™ plates
	K152UMK-21/-22/-24	U-PLEX Mouse GM-CSF Assay with QuickPlex® plates
	K252UMK-2/-4	U-PLEX Mouse GM-CSF Assay with 384-well plates
Antibody Set	B22UM-2/-3	U-PLEX Mouse GM-CSF Antibody Set
Protocol	U-PLEX Product Inserts are available at www.mesoscale.com	

The U-PLEX® platform was designed to provide ultimate flexibility for detection of biomarkers in a wide variety of sample types. This datasheet provides the representative performance of the U-PLEX Mouse GM-CSF Assay tested on U-PLEX 96-well SECTOR plates run as a multiplex. The data do not represent the product specifications. Under your experimental conditions, the assay may perform differently from the representative data. U-PLEX assays are offered in either singleplex or multiplex; both are available in 96- or 384-well plates. See a U-PLEX product insert for instrument compatibility.

Representative Calibration Curve and Sensitivity



Assay	Median LLOD (pg/mL)	LLOD Range (pg/mL)
GM-CSF	0.16	0.16-0.17

The Calibrator curve was fitted with a 4-parameter logistic model with a $1/Y^2$ weighting. The lower limit of detection (LLOD) is a calculated concentration corresponding to 2.5X the standard deviations above the background (zero Calibrator).

Precision

Control	Average Conc. (pg/mL)	Average Intra-run Conc. (%CV)	Inter-run Conc. (%CV)
High	384	3.8	5.1
Mid	42	3.0	5.6
Low	4.0	3.0	6.9

Controls were made by spiking Calibrator into assay diluent at 3 levels within the quantitative range of the assay. Average intra-run concentration %CV is the average %CV of the control replicates within an individual run. Inter-run concentration %CV is the variability of controls across multiple runs.

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

MSD® U-PLEX Mouse GM-CSF

Tested Samples

Sample Type	Serum (N=10)	Plasma (N=10)	Spiked Plasma (N=5)	Spiked Serum (N=5)
Median (pg/mL)	ND	ND	38	21
Range (pg/mL)	ND-0.20	ND-0.20	13-113	6.1-227
% Detected	30	50	100	100

Normal serum and plasma samples were diluted 2-fold prior to the assay. ND = non-detectable (<LLOD)

Dilution Linearity

Serum			EDTA Plasma		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
2	120	110-136	2	108	107-110
4	110	71-140	4	106	103-110
8	106	69-141	8	105	100-112

Normal mouse serum and EDTA plasma were spiked with Calibrator and tested at different dilutions. Undiluted samples were tested to determine the expected concentration of the analyte. Samples may benefit from additional dilution with assay diluent to reduce matrix effects.

% Recovery = (measured concentration / expected concentration) x 100

Spike Recovery

	Serum		EDTA Plasma	
Spike Level	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
High	89	83-95	95	90-101
Mid	89	80-96	95	92-99
Low	88	82-94	97	95-100

Normal serum and plasma were spiked with Calibrator at 3 levels. Undiluted samples were tested to determine the expected concentration of the analyte. Samples may benefit from additional dilution with assay diluent to reduce matrix effects.

% Recovery = (measured concentration / expected concentration) x 100

Specificity

To assess specificity, the GM-CSF Antibody Set was tested individually against a larger panel of analytes for nonspecific binding (6CKine/Ccl21, BAFF, BCA-1/BLC, CD40, Eotaxin, EPO, GM-CSF, IFN-α, IFN-β, IFN-γ, IL-1β, IL-2, IL-4, IL-5, IL-6, IL-9, IL-10, IL-12/IL-23p40, IL-12p70, IL-13, IL-15, IL-16, IL-17A, IL-17A/F, IL-17C, IL-17E/IL-25, IL-17F, IL-21, IL-22, IL-23, IL-27p28/IL-30, IL-31, IL-33, IP-10, KC/GRO, MCP-1, MCP-5/Ccl12, MDC, MIP-1α, MIP-1β, MIP-2, MIP-3α, MMP-9 (total), NGAL/LCN2, RANTES, SDF-1α, TARC, TNF-RI, TNF-α, VEGF-A). Nonspecific binding was less than 0.5%.

% Nonspecificity = (nonspecific signal / specific signal) x 100

Diluent Compatibility

The data included in this document have been collected with Assay Diluent 41 and Antibody Diluent 45. MSD offers a range of assay and antibody diluents for separate purchase. Depending on your assay needs, other diluents may be tested.

Assay Components

Calibrator: GM-CSF is included in Calibrator 5. The GM-CSF Calibrator is a full-length recombinant protein expressed in *E. coli*.
Antibodies: The U-PLEX Mouse GM-CSF Assay uses a rat monoclonal antibody for capture and a goat polyclonal antibody for detection.
Assay generation: A

Note: This datasheet contains representative assay performance data. In custom multiplex formats, the assay may perform differently from the representative data shown.