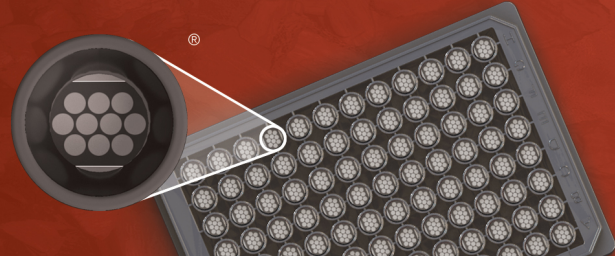


# U-PLEX<sup>®</sup> Mouse IL-13 Assay



www.mesoscale.com<sup>®</sup>

## Ordering Information

MSD<sup>®</sup> Customer Service  
 Phone: 1-240-314-2795  
 Fax: 1-301-990-2776  
 Email: CustomerService@mesoscale.com

## Scientific Support

Phone: 1-240-314-2798  
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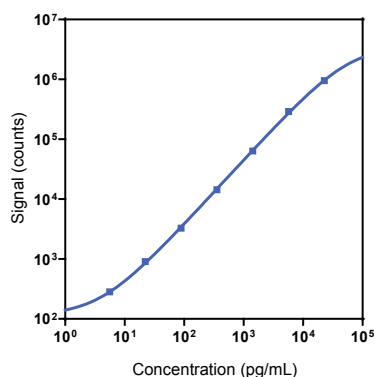
## Company Address

MESO SCALE DISCOVERY<sup>®</sup>  
 A division of  
 Meso Scale Diagnostics, LLC.  
 1601 Research Boulevard  
 Rockville, MD 20850-3173 USA

<b>Product Options</b>	Available in: U-PLEX Biomarker Group 1 (ms) K15069L; U-PLEX Metabolic Group 1 (ms) K152ACL
	Individual assay: K152UBK provided with Diluent 41 and Diluent 45
	Antibody Set: B22UB
<b>Assay Protocol</b>	U-PLEX product inserts are available at <a href="http://www.mesoscale.com/U-PLEX-documents">www.mesoscale.com/U-PLEX-documents</a> .

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 IL-13 Assay tested on U-PLEX plates run as a multiplex. The data were generated during the development of the assay and do not represent the product specifications. Under your experimental conditions and with your specific multiplex, the assay may perform differently from the representative data shown. U-PLEX assays are available in multiplex format with other compatible assays. The same assay can also be used to detect a single analyte on MSD GOLD<sup>™</sup> Small Spot Streptavidin plates.

## Representative Calibration Curve and Sensitivity



Assay	Median LLOD (pg/mL)	LLOD Range (pg/mL)
IL-13	2.7	2.3-2.8

The calibration curves used to calculate analyte concentrations were established by fitting the signals from the Calibrators using a 4-parameter logistic (or sigmoidal dose-response) model with a  $1/Y^2$  weighting. Analyte concentrations were determined from the electrochemiluminescence signals by back-fitting to the calibration curve. The lower limit of detection (LLOD) is a calculated concentration corresponding to the signal 2.5 standard deviations above the background (zero Calibrator).

## Precision

Control	Average Conc. (pg/mL)	Average Intra-run Conc. (%CV)	Inter-run Conc. (%CV)
High	6,590	3.6	5.3
Mid	624	4.4	7.0
Low	69	3.6	22.3

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 Assays

## Tested Samples

Sample Type	Serum (N=10)	Plasma (N=10)	Spiked Plasma (N=5)	Spiked Serum (N=5)
Median (pg/mL)	NA	NA	11	82
Range (pg/mL)	NA	NA	7.4-34	73-392
% Detected	0	0	100	100

NA = not applicable due to 0% detected. Normal mouse serum and EDTA plasma samples were tested without dilution prior to the assay. Spiked serum and spiked plasma represent samples that were spiked with Calibrator and/or cell culture supernatants derived from mouse Splenocytes stimulated with different compounds in vitro.

## Dilution Linearity

Serum			EDTA Plasma			Cell Culture Media		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
2	176	159-195	2	183	172-195	2	101	99-108
4	212	168-243	4	270	245-287	4	103	99-109
8	255	191-339	8	354	299-377	8	103	96-110

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

% Recovery = (measured concentration / expected concentration) x 100. NA = not applicable.

## Spike Recovery

Spike Level	Serum		EDTA Plasma		Cell Culture Media	
	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
High	39	34-44	43	37-47	99	88-113
Mid	17	13-19	13	12-14	98	86-120
Low	13	9-16	10	9-11	94	87-109

Normal mouse serum, EDTA plasma, and cell culture media were spiked with Calibrator at 3 levels. Undiluted samples were tested to determine the expected concentration of the analyte. Samples may require additional dilution with assay diluent to reduce matrix effects.

% Recovery = (measured concentration / expected concentration) x 100. NA = not applicable.

## Specificity

To assess specificity, the IL-13 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- $\alpha$ , IFN- $\beta$ , IFN- $\gamma$ , IL-1 $\beta$ , 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-1 $\alpha$ , MIP-1 $\beta$ , MIP-2, MIP-3 $\alpha$ , MMP-9 (total), NGAL/LCN2, RANTES, SDF-1 $\alpha$ , TARC, TNF-RI, TNF- $\alpha$ , 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 assay needs, customers may wish to test other diluents.

## Assay Components

**Calibrator:** Mouse IL-13 is included in Calibrator 5. The IL-13 Calibrator is a full length recombinant protein expressed in *E. coli*.

**Antibodies:** The U-PLEX Mouse IL-13 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.

