# OPLEX® Mouse IL-13

Scientific Support

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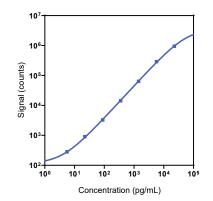
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#### **Product Options** Catalog Number Description www.mesoscale.com® K15069M, K25069M U-PLEX Biomarker Group 1 (mouse) Multiplex U-PLEX Metabolic Group 1 (mouse) K152ACM, K252ACM K152UBK-1/-2/-4 U-PLEX Mouse IL-13 Assay with SECTOR<sup>™</sup> plates **Ordering Information** Singleplex K152UBK-21/-22/-24 U-PLEX Mouse IL-13 Assay with QuickPlex® plates MSD Customer Service K252UBK-2/-4 U-PLEX Mouse IL-13 Assay with 384-well plates Phone: 1-240-314-2795 : 1-301-990-2776 Antibody Set B22UB-2/-3 U-PLEX Mouse IL-13 Antibody Set Email: CustomerService@ Protocol U-PLEX Product Inserts are available at www.mesoscale.com mesoscale.com

The U-PLEX<sup>®</sup> 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 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)
IL-13	2.7	2.3-2.8

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	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<sup>®</sup> U-PLEX Mouse IL-13

#### 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

Normal serum and plasma samples were diluted 2-fold prior to the assay. NA = not applicable due to 0% detected

#### **Dilution Linearity**

Serum			EDTA Plasma		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution Average % Recovery		% Recovery Range
2	176	159-195	2	183	172-195
4	212	168-243	4	270	245-287
8	255	191-339	8	354	299-377

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

	Ser	um	EDTA Plasma	
Spike Level	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
High	39	34-44	43	37-47
Mid	17	13-19	13	12-14
Low	13	9-16	10	9-11

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 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/F, IL-17C, IL-17E/IL-25, IL-17F, IL-21, IL-22, IL-23, IL-27p28/IL-30, IL-33, IP-10, KC/GR0, 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 your assay needs, other diluents may be tested.

#### Assay Components

**Calibrator:** 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.

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