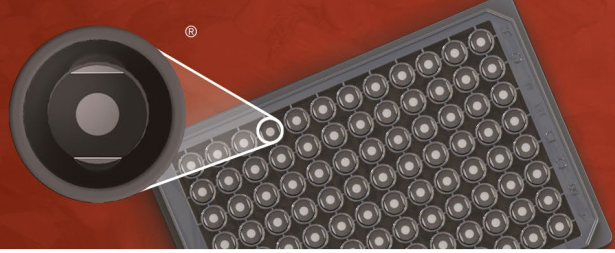
U-PLEX®

Mouse IL-12/IL-23p40



www.mesoscale.com®

Ordering Information

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Company Address

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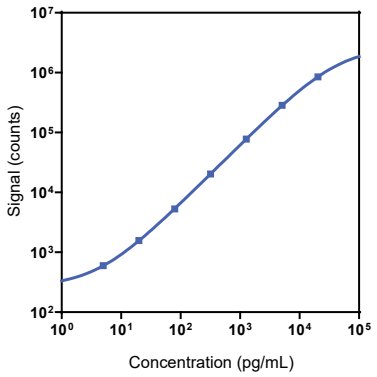
Product Options	Catalog Number	Description
Multiplex	K15069M, K25069M	U-PLEX Biomarker Group 1 (mouse)
	K152ACM, K252ACM	U-PLEX Metabolic Group 1 (mouse)
Singleplex	K152UQK-1/-2/-4	U-PLEX Mouse IL-12/IL-23p40 Assay with SECTOR™ plates
	K152UQK-21/-22/-24	U-PLEX Mouse IL-12/IL-23p40 Assay with QuickPlex Ultra™ plates
	K252UQK-2/-4	U-PLEX Mouse IL-12/IL-23p40 with 384-well plates
Antibody Set	B22UQ-2/-3	U-PLEX Mouse IL-12/IL-23p40 Antibody Set
Protocol	U-PLEX Product Inserts are available at www.mesoscale.com	

The MESO SCALE DISCOVERY® 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-12/IL-23p40 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-12/IL-23p40	1.4	1.1-1.7

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	7,880	3.2	4.9
Mid	1,110	2.3	4.7
Low	54	2.0	6.5

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.

MSD® U-PLEX Mouse IL-12/IL-23p40

Tested Samples

Sample Type	Serum (N=8)	Plasma (N=8)	Stimulated Sample (N=8)
Median (pg/mL)	3,110	2,740	2,620
Range (pg/mL)	2,480-3,670	2,000-3,220	ND-6,820
% Detected	100	100	63

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	107	99-114	2	100	96-103
4	103	96-112	4	98	93-100
8	104	96-112	8	97	88-101

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	101	94-109	98	90-107
Mid	103	91-119	99	87-107
Low	101	84-123	93	80-98

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-12/IL-23p40 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

IL-12/IL-23p40 assay will cross-react with IL-12p70 and IL-23 assays due to shared p40 subunit.

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-12/IL-23p40 is included in Calibrator 7. The IL-12/IL-23p40 Calibrator is a full-length recombinant protein expressed in insect cells.
Antibodies: The U-PLEX Mouse IL-12/IL-23p40 Assay uses a rat monoclonal antibody for capture and a rat monoclonal 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.