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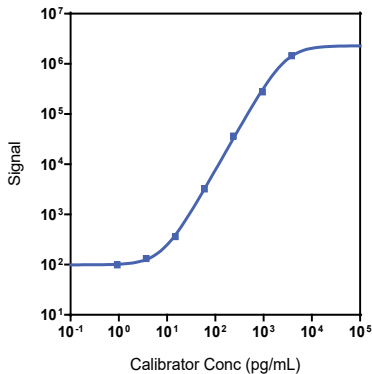
Company Address

MESO SCALE DISCOVERY®
A division of
Meso Scale Diagnostics, LLC.
1601 Research Boulevard
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Product Options	Catalog Number	Description
Multiplex	K15067M, K25067M	U-PLEX Biomarker Group 1 (human)
	K151AEM, K251AEM	U-PLEX Immuno-Oncology Group 1 (human)
	K151ACM, K251ACM	U-PLEX Metabolic Group 1 (human)
Singleplex	K151UHK-1/-2/-4	U-PLEX Human MCP-4 Assay with SECTOR™ plates
	K151UHK-21	U-PLEX Human MCP-4 Assay with QuickPlex® APT plates
	K251UHK-2/-4	U-PLEX Human MCP-4 Assay with 384-well plates
Antibody Set	B21UH-2/-3	U-PLEX Human MCP-4 Antibody Set
Protocol	U-PLEX Product Inserts are available at http://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 Human MCP-4 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 on 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)
MCP-4	7.5	5.0-8.6

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 2.5 standard deviations above the background (zero Calibrator).

Precision

Control	Average Conc. (pg/mL)	Average Intra-run Conc. (%CV)	Inter-run Conc. (%CV)
High	718	2.4	6.9
Mid	82	2.9	8.5
Low	6.7	24.0	25.3

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 Human MCP-4

Tested Samples

Sample Type	Serum (N=10)	Plasma (N=10)	Spiked Plasma (N=5)	Spiked Serum (N=5)
Median (pg/mL)	32	42	54	51
Range (pg/mL)	14-216	14-75	26-100	33-206
% Detected	100	100	100	100

Normal serum and plasma samples were diluted 2-fold prior to testing in the assay.

Dilution Linearity

Serum			EDTA Plasma		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
2	121	117-126	2	133	125-142
4	127	120-134	4	145	134-163
8	121	111-128	8	137	124-147

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

$$\% \text{ Recovery} = (\text{measured concentration} / \text{expected concentration}) \times 100$$

Spike Recovery

Spike Level	Serum		EDTA Plasma	
	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
High	85	79-88	80	72-90
Mid	94	83-100	82	75-92
Low	97	91-101	90	84-99

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

$$\% \text{ Recovery} = (\text{measured concentration} / \text{expected concentration}) \times 100$$

Specificity

The MCP-4 Antibody Set was tested against all of the analytes in Biomarker Group 1, Metabolic Group 1, and Immuno-Oncology Group 1. Any non-specific binding greater than 2.0% is noted below. The U-PLEX Assay Designer shows compatible assays.

$$\% \text{ Nonspecificity} = (\text{nonspecific signal} / \text{specific signal}) \times 100$$

Diluent Compatibility

Diluents 57 and 3 are provided when this product is ordered in singleplex and when multiplexed with other Biomarker Group 1 assays. Other diluents may be provided when combined with assays from other U-PLEX Groups. See the appropriate Product Insert for details.

Assay Components

Calibrator: MCP-4 is included in Calibrator 2. The MCP-4 Calibrator is a full-length recombinant protein expressed in *E. coli*.

Antibodies: The U-PLEX Human MCP-4 Assay uses a mouse monoclonal antibody for capture and a mouse monoclonal antibody for detection.

Assay generation: B

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

