

# Human MMP-10 (total)



[www.mesoscale.com](http://www.mesoscale.com)

## Ordering Information

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## Scientific Support

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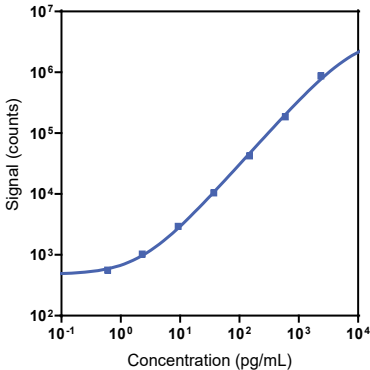
## Company Address

Meso Scale Discovery  
A division of  
Meso Scale Diagnostics, LLC.  
1601 Research Boulevard  
Rockville, MD 20850-3173 USA

Product Options	Catalog Number	Description
<b>Multiplex</b>	K151AEM, K251AEM	U-PLEX Immuno-Oncology Group 1 (human)
<b>Singleplex</b>	K151AQUK-1/-2/-4	U-PLEX Human MMP-10 (total) Assay with SECTOR™ plates
	K151AQUK-21/-22/-24	U-PLEX Human MMP-10 (total) Assay with QuickPlex Ultra™ plates
	K251AQUK-2/-4	U-PLEX Human MMP-10 (total) with 384-well plates
<b>Antibody Set</b>	B21AQU-2/-3	U-PLEX Human MMP-10 (total) Antibody Set
<b>Protocol</b>	U-PLEX Product Inserts are available at <a href="http://www.mesoscale.com">www.mesoscale.com</a>	

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® Human MMP-10 (total) Assay tested on U-PLEX 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)
MMP-10 (total)	0.37	0.25–0.48

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	1,643	16.0	2.4
Mid	353	1.6	7.3
Low	84	2.8	5.4

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 MMP-10 (total)

## Tested Samples

Sample Type	Serum (N = 8)	EDTA Plasma (N = 8)	Citrate Plasma (N = 8)	Normal Lysate (N = 5)	Tumor Lysate (N = 15)
Median (pg/mL)	407	245	450	4.4	6.0
Range (pg/mL)	194 - 830	109 - 469	194 - 886	ND - 5.9	ND - 69
% Detected	100	100	100	60	67

Normal serum and plasma samples were diluted 4-fold prior to the assay. Lysates were tested at a protein concentration of 0.5 mg/mL. EDTA and citrate in samples may adversely affect this assay and are not recommended.

## Dilution Linearity

Serum			EDTA Plasma		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
2	106	94–115	2	99	89–105
8	101	94–123	8	112	100–136
16	99	87–147	16	117	98–178

Normal human serum and EDTA plasma were spiked with Calibrator and tested at different dilutions. Percent recovery at each dilution level was normalized to the dilution-adjusted, 4-fold concentration. 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	79	57–90	54	41–66
Mid	86	69–93	62	53–73
Low	92	81–97	71	62–80

Normal serum and plasma were spiked with Calibrator at 3 levels. Spiked samples were diluted 4-fold 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 MMP-10 (total) Antibody Set was tested for nonspecific binding against all of the analytes in the Immuno-Oncology Group 1 and the majority of analytes in Biomarker Group 1. Any cross-reactivity greater than 2.0% is noted below. The U-PLEX Assay Designer shows compatible assays.

The MMP-10 (total) assay cross-reacts with the proMMP-10 assay as expected. We do not recommend multiplexing these assays on the same plate.

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

## Diluent Compatibility

Diluents 58 and 3 are provided when this is ordered in singleplex and multiplex assays.

## Assay Components

**Calibrator:** MMP-10 (total) is included in Calibrator 32. The human MMP-10 (total) Calibrator is MMP-10 (18–476) recombinant protein expressed in a mouse cell line.

**Antibodies:** The U-PLEX Human MMP-10 (total) Assay uses a mouse 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.

