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### Ordering Information

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### Scientific Support

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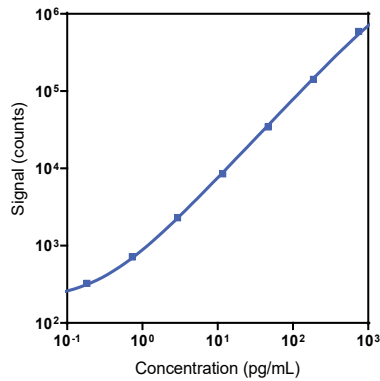
### Company Address

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>	K151AHPK-1/-2/-4	U-PLEX Human S100A12 Assay with SECTOR™ plates
	K151AHPK-21/-22/-24	U-PLEX Human S100A12 Assay with QuickPlex® plates
	K251AHPK-2/-4	U-PLEX Human S100A12 Assay with 384-well plates
<b>Antibody Set</b>	B21AHP-2/-3	U-PLEX Human S100A12 Antibody Set
<b>Protocol</b>	U-PLEX Product Inserts are available at <a href="http://www.mesoscale.com">www.mesoscale.com</a> .	

The U-PLEX® platform was designed to provide ultimate flexibility for the detection of biomarkers in a wide variety of sample types. This datasheet provides the representative performance of the U-PLEX Human S100A12 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)
S100A12	0.10	0.09–0.17

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	126	1.5	7.8
Mid	35	1.8	8.8
Low	11	3.2	10.9

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 S100A12

## Tested Samples

Sample Type	Serum (N = 9)	EDTA Plasma (N = 9)	Citrate Plasma (N = 9)	Normal Lysate (N = 5)	Tumor Lysate (N = 5)
Median (pg/mL)	16,400	8,370	6,030	1,790	4,870
Range (pg/mL)	7,700–52,700	5,820–52,100	3,620–47,500	5.7–11,900	221–9,790
% Detected	100	100	100	100	100

Normal serum and plasma samples were diluted 100-fold prior to testing in the assay. Lysates were tested at a protein concentration of 0.5 mg/mL.

## Parallelism

Serum			EDTA Plasma		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
50	96	93–98	50	93	50–100
200	102	99–105	200	102	96–108
400	102	98–106	400	100	92–106

Samples were tested at different dilutions. One hundred-fold diluted samples were tested to determine the expected concentration of the analyte.

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

## Spike Recovery

Spike Level	Serum		EDTA Plasma	
	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
High	110	102–118	100	94–105
Mid	110	101–118	99	96–104
Low	102	98–107	98	96–102

Samples were diluted 100-fold prior to addition of spike. The expected concentration of the analyte in spiked samples was calculated by addition of the Calibrator spike concentration to the unspiked sample concentration.

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

## Specificity

The S100A12 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 all of the compatible assays.

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

## Diluent Compatibility

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

## Assay Components

**Calibrator:** S100A12 is included in Calibrator 29. The human S100A12 Calibrator is a full-length recombinant protein expressed in *E. coli*.

**Antibodies:** The U-PLEX Human S100A12 Assay uses a mouse monoclonal antibody for capture and a mouse 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.

**Note:** MSD recommends that samples be diluted 100-fold prior to analysis in this assay.

