

Human CD80/B7-1



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Ordering Information

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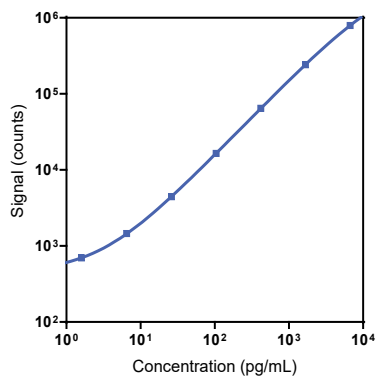
Company Address

Meso Scale Discovery
 A division of
 Meso Scale Diagnostics, LLC.
 1601 Research Boulevard
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Product Options	Catalog Number	Description
Multiplex	K151AEM, K251AEM	U-PLEX Immuno-Oncology Group 1 (human)
Singleplex	K151AQRK-1/-2/-4	U-PLEX Human CD80/B7-1 Assay with SECTOR™ plates
	K151AQRK-21/-22/-24	U-PLEX Human CD80/B7-1 Assay with QuickPlex Ultra™ plates
	K251AQRK-2/-4	U-PLEX Human CD80/B7-1 with 384-well plates
Antibody Set	B21AQR-2/-3	U-PLEX Human CD80/B7-1 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[®] Human CD80/B7-1 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)
CD80/B7-1	0.57	0.40-1.1

The Calibrator curve was fitted with a 4-parameter logistic model with a 1/Y² 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	3,434	2.9	3.8
Mid	695	2.1	7.2
Low	137	1.8	10.2

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 CD80/B7-1

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)	160	181	159	52	165
Range (pg/mL)	91–279	98–324	90–287	13–159	48–364
% Detected	100	100	100	100	100

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.

Dilution Linearity

Serum			EDTA Plasma		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
2	96	71–105	2	95	72–104
8	101	95–124	8	100	95–125
16	94	90–108	16	96	90–126

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	93	66–103	105	71–116
Mid	100	73–111	107	74–118
Low	100	77–112	105	80–116

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 CD80/B7-1 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.

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

Diluent Compatibility

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

Assay Components

Calibrator: CD80/B7-1 is included in Calibrator 32. The human CD80/B7-1 Calibrator is CD80/B7-1 (35–242) recombinant protein expressed in a human cell line.

Antibodies: The MESO SCALE DISCOVERY® U-PLEX Human CD80/B7-1 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.

