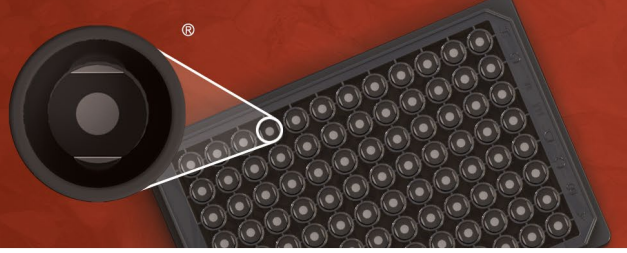
U-PLEX®

Human A2M



www.mesoscale.com

Ordering Information

MSD Customer Service
Phone: 1-240-314-2795
Fax: 1-301-990-2776
Email: CustomerService@mesoscale.com

Scientific Support

Phone: 1-240-314-2798
Email: ScientificSupport@mesoscale.com

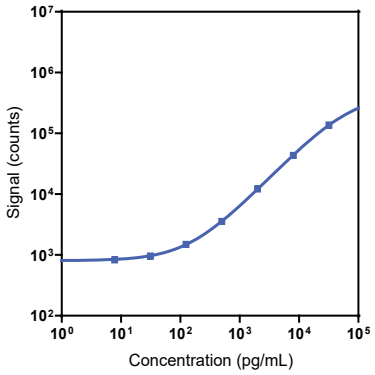
Company Address

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

Product Options	Catalog Number	Description
Multiplex	K151AGM, K251AGM	U-PLEX Biomarker Group 3 (human)
Singleplex	K151Q9K-1/-2/-4	U-PLEX Human A2M Assay with SECTOR™ plates
	K151Q9K-21/-22/-24	U-PLEX Human A2M Assay with QuickPlex Ultra™ plates
	K251Q9K-2/-4	U-PLEX Human A2M Assay with 384-well plates
Antibody Set	B21Q9-2/-4	U-PLEX Human A2M 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 A2M 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)
A2M	13	12-36

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 the signal 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	4,160	2.6	5.4
Mid	2,150	3.3	6.9
Low	1,290	2.5	8.0

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 A2M

Tested Samples

Sample Type	Serum (N=10)	EDTA Plasma (N=10)	Citrate Plasma (N=5)
Median (µg/mL)	937	877	1,160
Range (µg/mL)	767-1,890	701-1,230	786-1,460
% Detected	100	100	100

Normal serum, EDTA plasma, and citrate plasma samples were diluted 200,000-fold prior to the assay.

Parallelism

Serum			EDTA Plasma		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
100,000	96	93-99	100,000	94	90-99
400,000	102	100-104	400,000	96	93-98
800,000	102	99-105	800,000	96	94-98

Normal human serum and EDTA plasma were tested at different dilutions. Percent recovery at each dilution level was normalized to the concentration of 200,000-fold diluted samples.

% Recovery = (measured concentration / expected concentration) x 100

Specificity

To assess specificity, the A2M Antibody Set was tested individually against a larger panel of analytes for nonspecific binding (A2M, Adiponectin, ApoA1, ApoC3, CA1, Clusterin, Complement C9, Complement factor D, CRP, Cystatin C, DPPIV, Factor VII, ICAM-1, NGAL/LCN2, RBP4, SAA, Serpin A1, SHBG, sTfR-1, VCAM-1, vWF). Nonspecific binding was less than 0.5%.

% Nonspecificity = (nonspecific signal / specific signal) x 100

The A2M capture antibody cross reacts with the vWF (2.6%) and Clusterin (6.3%) calibrators.

Diluent Compatibility

The data included in this document have been collected with Assay Diluent 12 and Antibody Diluent 11. 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: A2M is included in Calibrator 26. The human A2M Calibrator is a native protein purified from human plasma.
Antibodies: The MESO SCALE DISCOVERY® U-PLEX Human A2M 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.

Note: MSD recommends that samples be diluted 200,000-fold prior to analysis in this assay.