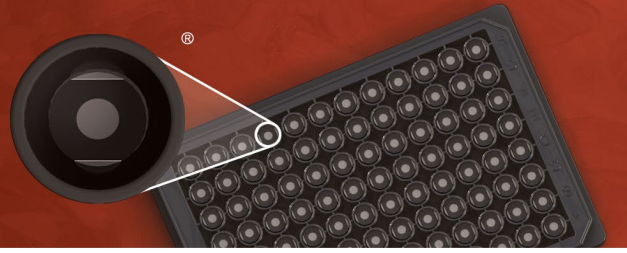
U-PLEX®

Mouse TGF-β1



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Ordering Information

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Company Address

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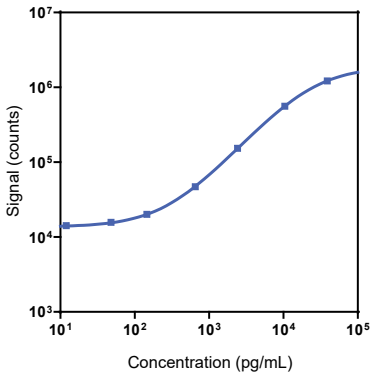
Product Options	Catalog Number	Description
Multiplex	K152ADM, K252ADM	U-PLEX Biomarker Group 2 (mouse)
Singleplex	K152XWK-1/-2/-4	U-PLEX Mouse TGF-β1 Assay with SECTOR™ plates
	K152XWK-21	U-PLEX Mouse TGF-β1 Assay with QuickPlex® APT plates
	K252XWK-2/-4	U-PLEX Mouse TGF-β1 Assay with 384-well plates
Antibody Set	B20XW-2/-3	U-PLEX Mouse TGF-β1 Antibody Set
Protocol	U-PLEX Product Inserts are available at 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 Mouse TGF-β1 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)
TGF-β1	37	24-41

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 2.5X the standard deviations above the background (zero Calibrator).

Precision

Control	Average Conc. (pg/mL)	Average Intra-run Conc. (%CV)	Inter-run Conc. (%CV)
High	1,380	7.8	14.3
Mid	280	12.1	12.1
Low	-	-	-

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.

MSD® U-PLEX Mouse TGF-β1

Tested Samples

Sample Type	Serum (N=13)	Plasma (N=10)
Median (pg/mL)	AS	11,700
Range (pg/mL)	NA	6,000-23,700
% Detected	100	100

Normal serum, EDTA plasma, and cell culture media were diluted 2-fold prior to the assay. Samples were prepared using an acidification step. NA = not applicable; AS = above standard 1

Dilution Linearity

Serum			EDTA Plasma			Cell Culture Media		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
2	125	114-138	2	121	115-125	2	112	105-118
4	116	104-133	4	129	119-139	4	113	107-121
8	120	107-140	8	139	122-152	8	111	103-122

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

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

Spike Recovery

	Serum		EDTA Plasma		Cell Culture Media	
Spike Level	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
High	88	79-95	62	59-66	85	79-87
Mid	97	88-103	64	62-68	84	79-87
Low	109	101-114	63	58-66	84	77-88

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

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

Specificity

To assess specificity, the TGF-β1 Antibody Set was tested individually against a larger panel of analytes for nonspecific binding (TGF-β1, TGF-β2, TGF-β3). Nonspecific binding was less than 0.5%.

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

It is recommended that acid-treated samples are used for the evaluation of TGF-β1. Samples may require an additional dilution before measurement to ensure TGF-β1 levels are in the quantitative range of the assay.

Diluent Compatibility

The data included in this document have been collected with Assay Diluent 41 and Antibody Diluent 45. MSD offers a range of assay and antibody diluents for separate purchase. Depending on assay needs, customers may wish to test other diluents.

Assay Components

Calibrator: Mouse TGF-β1 is included in Calibrator 11. The TGF-β1 Calibrator is a full-length recombinant protein expressed in *E. coli*.
Antibodies: The U-PLEX Mouse TGF-β1 Assay uses a mouse monoclonal antibody for capture and a chicken polyclonal antibody for detection.
Assay generation: A

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