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# Mouse SDF-1 $\alpha$

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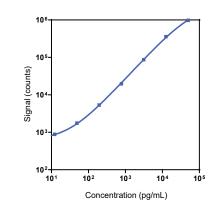
# **Company Address**

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

	Product Options	Catalog Number	Description	
9 M®	Multiplex	K15069M, K25069M	U-PLEX Biomarker Group (mouse)	
	Singleplex	K152VBK-1/-2/-4	U-PLEX Mouse SDF-1α Assay with SECTOR™ plates	
		K152VBK-21/-22/-24	U-PLEX Mouse SDF-1 $\alpha$ Assay with QuickPlex® plates	
		K252VBK-2/-4	U-PLEX Mouse SDF-1 $\alpha$ Assay with 384-well plates	
	Antibody Set	B22VB-2/-3	U-PLEX Mouse SDF-1 $\alpha$ Antibody Set	
2	Protocol	U-PLEX Product Inserts are available at <u>www.mesoscale.com</u>		

The U-PLEX<sup>®</sup> 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 SDF-1 $\alpha$  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)	
SDF-1a	8.1	6.0-10	

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

#### Precision

Control	Average Conc. (pg/mL)	Average Intra-run Conc. (%CV)	Inter-run Conc. (%CV)	
High	14,800	4.7	13.5	
Mid	2,370	3.8	10.7	
Low	412	4.1	12.3	

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.





# Tested Samples

Sample Type	Serum (N=6)	EDTA Plasma (N=6)
Median (pg/mL)	9,340	4,590
Range (pg/mL)	8,610-12,500	3,880-4,790
% Detected	100	100

Normal serum and plasma samples were tested without dilution prior to the assay.

# **Dilution Linearity**

	Serum		EDTA Plasma		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
2	135	95-157	2	121	117-124
4	132	86-158	4	130	126-137
8	110	64-145	8	136	129-148

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

	Ser	um	EDTA I	Plasma
Spike Level	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
High	91	78-108	83	80-89
Mid	96	86-104	94	88-102
Low	97	88-103	96	91-104

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 SDF-1 $\alpha$  Antibody Set was tested individually against a larger panel of analytes for nonspecific binding (6CKine/Ccl21, BAFF, BCA-1/BLC, CD40, Eotaxin, EPO, GM-CSF, IFN- $\alpha$ , IFN- $\beta$ , IFN- $\gamma$ , IL-1 $\beta$ , IL-2, IL-4, IL-5, IL-6, IL-9, IL-10, IL-12/IL-23p40, IL-12p70, IL-13, IL-15, IL-16, IL-17A/F, IL-17C, IL-17E/IL-25, IL-17F, IL-21, IL-22, IL-23, IL-27p28/IL-30, IL-33, IP-10, KC/GR0, MCP-1, MCP-5/Ccl12, MDC, MIP-1 $\alpha$ , MIP-1 $\beta$ , MIP-2, MIP-3 $\alpha$ , MMP-9 (total), NGAL/LCN2, RANTES, SDF-1 $\alpha$ , TARC, TNF-RI, TNF- $\alpha$ , VEGF-A). Nonspecific binding was less than 0.5%.

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

#### **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 your assay needs, other diluents may be tested.

#### Assay Components

**Calibrator:** SDF-1 $\alpha$  is included in Calibrator 17. The mouse SDF-1 $\alpha$  Calibrator is a full-length recombinant protein expressed in *E. coli.* **Antibodies:** The U-PLEX Mouse SDF-1 $\alpha$  Assay uses a 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.

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