



# Human VCAM-1

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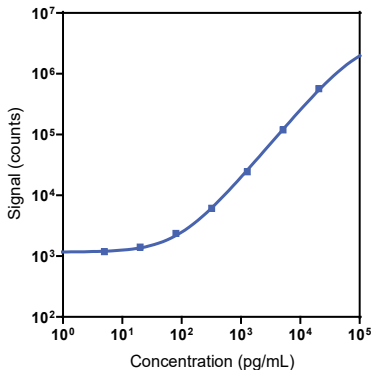
**Company Address**

MESO SCALE DISCOVERY®  
 A division of  
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Product Options	Catalog Number	Description
Multiplex	K151AGM, K251AGM	U-PLEX Biomarker Group 3 (human)
	K151H9K-1/-2/-4	U-PLEX Human VCAM-1 Assay with SECTOR™ plates
Singleplex	K151H9K-21/-22/-24	U-PLEX Human VCAM-1 Assay with QuickPlex® plates
	K251H9K-2/-4	U-PLEX Human VCAM-1 Assay with 384-well plates
Antibody Set	B21H9-2/-3	U-PLEX Human VCAM-1 Antibody Set
Protocol	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 detection of biomarkers in a wide variety of sample types. This datasheet provides the representative performance of the U-PLEX Human VCAM-1 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)
VCAM-1	7.8	7.1-9.0

The Calibrator curve was fitted with a 4-parameter logistic model with a 1/Y<sup>2</sup> 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	2,220	6.1	9.7
Mid	894	2.7	6.6
Low	352	2.3	9.2

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<sup>®</sup> U-PLEX Human VCAM-1

## Tested Samples

Sample Type	Serum (N=10)	EDTA Plasma (N=10)	Citrate Plasma (N=5)
Median (µg/mL)	0.51	0.45	0.59
Range (µg/mL)	0.37-0.68	0.29-0.54	0.46-0.93
% Detected	100	100	100

Normal serum, EDTA plasma, and citrate plasma samples were diluted 4,000-fold prior to the assay.

## Parallelism

Serum			EDTA Plasma		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
2,000	91	85-101	2,000	93	81-102
8,000	96	81-104	8,000	101	94-110
16,000	90	78-104	16,000	93	78-103

Normal human serum and EDTA plasma were tested at different dilutions. Percent recovery at each dilution level was normalized to the concentration of 4,000-fold diluted samples.

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

## Specificity

To assess specificity, the VCAM-1 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

## 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:** VCAM-1 is included in Calibrator 24. The human VCAM-1 Calibrator is a full-length recombinant protein expressed in a hamster cell line.

**Antibodies:** The U-PLEX Human VCAM-1 Assay uses a mouse monoclonal antibody for capture and a sheep 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 4,000-fold prior to analysis in this assay.

