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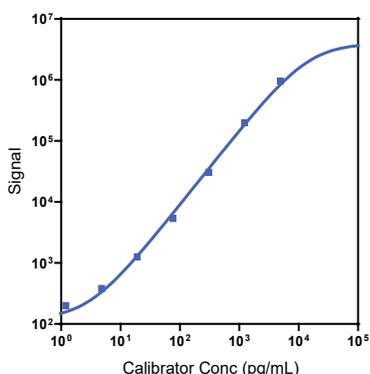
Company Address

Meso Scale Discovery
 A division of
 Meso Scale Diagnostics, LLC.
 1601 Research Boulevard
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Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
	K156UVK-1/-2/-4	U-PLEX NHP VEGF-A Assay with SECTOR™ plates
Singleplex	K156UVK-21/-22/-24	U-PLEX NHP VEGF-A Assay with QuickPlex Ultra™ plates
	K256UVK-2/-4	U-PLEX NHP VEGF-A Assay with 384-well plates
Antibody Set	B21UV-2/-3	U-PLEX Human VEGF-A Antibody Set
Assay 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[®] NHP VEGF-A 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)
VEGF-A	1.07	0.7-1.82

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
VEGF-A	High	3,420	4.3	8.3
	Mid	303	2.8	11.5
	Low	27.8	4.4	18.2

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.

Spike Recovery

	Spike Level	Serum (N=5)		Plasma (N=5)		Cell Culture Media (N=5)	
		Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
Cynomolgus Monkey	High	58	39-82	90	82-100	145	142-148
	Mid	52	35-69	77	67-86	127	123-135
	Low	59	37-80	75	66-86	121	115-126
Rhesus Monkey	High	82.1	81-100	87	76-102	145	142-148
	Mid	69.9	60-85	73	57-84	127	123-135
	Low	74.5	62-92	77	65-87	121	115-126

Normal serum, EDTA plasma, and cell culture media were spiked with Calibrator at 3 levels. Spiked samples were diluted 2-fold to determine the expected concentration of the analyte. Samples may benefit from additional dilution with assay diluent to reduce matrix effects.

$$\% \text{ Recovery} = (\text{measured concentration} / \text{expected concentration}) \times 100$$

Tested Samples

	Sample Type	Serum (N=10)	Plasma (N=10)	Spiked Serum (N=5)
Cynomolgus Monkey	Median (pg/mL)	2.53	2.45	63.3
	Range (pg/mL)	ND-8.00	ND-5.23	3.65-455
	% Detected	50	90	100
Rhesus Monkey	Median (pg/mL)	ND	1.15	347
	Range (pg/mL)	ND-6.50	ND-2.90	7.00-410
	% Detected	20	50	100

Normal serum, EDTA plasma, and cell culture media were diluted 2-fold prior to the assay. ND = not detectable (< LLOD)

Dilution Linearity

	Fold Dilution	Serum (N=5)		Plasma (N=5)			Cell Culture Media (N=5)		
		Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range		
Cynomolgus Monkey	2	102	96-110	2	107	99-111	2	84	83-85
	4	117	105-139	4	109	104-112	4	75	73-79
	8	130	112-154	8	114	101-121	8	68	65-72
Rhesus Monkey	2	102	70-113	2	110	101-118	2	84	83-85
	4	121	112-128	4	115	107-131	4	75	73-79
	8	126	110-136	8	123	110-142	8	68	65-72

Normal serum, EDTA plasma, and cell culture media 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.

$$\% \text{ Recovery} = (\text{measured concentration} / \text{expected concentration}) \times 100$$

MSD U-PLEX NHP VEGF-A

Specificity

To assess specificity, the VEGF-A Antibody Set was tested individually against a larger panel of recombinant human analytes for nonspecific binding (CTACK, Eotaxin, Eotaxin-2, Eotaxin-3, ENA-78, FLT3L, Fractalkine, G-CSF, GM-CSF, GRO- α , I-309, IFN- α 2a, IFN- γ , IL-1 α , IL-1 β , IL-1RA, IL-2, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-12/IL-23p40, IL-12p70, IL-13, IL-15, IL-16, IL-17A, IL-17AF, IL-17B, IL-17C, IL-17D, IL-17F, IL-18, IL-22, IL-23, IP-10, I-TAC, MCP-1, MCP-2, MCP-3, MCP-4, M-CSF, MDC, MIF, MIP-1 α , MIP-1 β , MIP-3 α , MIP-3 β , MIP-5, SDF-1 α , TARC, TNF- α , TNF- β , TPO, TRAIL, VEGF-A, and YKL-40). Nonspecific binding was less than 0.5%.

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

Diluent Compatibility

Diluents 57 and 3 are provided with this assay. 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: VEGF-A is included in Calibrator 1. The full-length recombinant protein is expressed in an insect cell line.

Antibodies: The U-PLEX NHP VEGF-A Assay uses a mouse monoclonal antibody for capture and a mouse monoclonal antibody for detection.

Assay generation: C

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

