

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

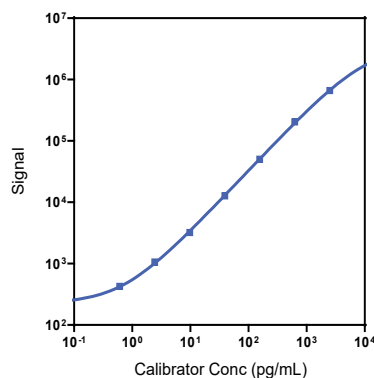
Company Address

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

Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
	K156UXK-1/-2/-4	U-PLEX NHP GRO- α Assay with SECTOR [™] plates
Singleplex	K156UXK-21	U-PLEX NHP GRO- α Assay with QuickPlex [®] APT plates
	K256UXK-2/-4	U-PLEX NHP GRO- α Assay with 384-well plates
Antibody Set	B21UX-2/-3	U-PLEX Human GRO- α Antibody Set
Assay 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 NHP GRO- α 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)
GRO- α	0.25	0.21-0.25

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
GRO- α	High	300	4.8	10.4
	Mid	81	4.7	8.7
	Low	18	8.9	12.7

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	79	76-82	82	57-95	101	93-108
	Mid	85	79-89	81	57-92	104	98-109
	Low	86	84-88	59	42-72	101	93-110
Rhesus Monkey	High	76	74-79	77	74-81	101	93-108
	Mid	84	79-92	84	78-93	104	98-109
	Low	85	82-89	82	77-87	101	93-110

Normal serum, EDTA plasma, and cell culture media 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.

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

Tested Samples

	Sample Type	Serum (N=11)	Plasma (N=11)	Cell Culture Media (N=10)
Cynomolgus Monkey	Median (pg/mL)	1,180	41	AS
	Range (pg/mL)	257-AS	12-1,520	152-AS
	% Detected	100	100	100
Rhesus Monkey	Median (pg/mL)	1,360	636	AS
	Range (pg/mL)	18-AS	123-AS	192-AS
	% Detected	100	100	100

Normal serum and plasma samples were diluted 2-fold prior to the assay. AS = above standard 1

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	104	100-112	110	104-120	89	79-98		
	4	97	91-107	111	100-125	82	71-100		
	8	93	84-108	117	106-140	77	64-97		
Rhesus Monkey	2	135	108-157	113	105-121	89	79-98		
	4	150	106-202	109	92-127	82	71-100		
	8	167	105-241	115	86-145	77	64-97		

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.

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

Specificity

To assess specificity, the GRO- α 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-17A/F, 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: GRO- α is included in Calibrator 10. The full-length recombinant protein is expressed in *E. coli*.

Antibodies: The U-PLEX NHP GRO- α 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 than the representative data shown.

