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### Ordering Information

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### Scientific Support

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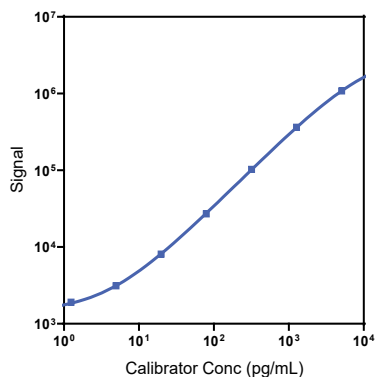
### Company Address

MESO SCALE DISCOVERY<sup>®</sup>  
 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)
	K156UNK-1/-2/-4	U-PLEX NHP IL-1 $\alpha$ Assay with SECTOR <sup>™</sup> plates
Singleplex	K156UNK-21/-22/-24	U-PLEX NHP IL-1 $\alpha$ Assay with QuickPlex <sup>®</sup> plates
	K256UNK-2/-4	U-PLEX NHP IL-1 $\alpha$ Assay with 384-well plates
Antibody Set	B26UN	U-PLEX NHP IL-1 $\alpha$ Antibody Set (1 plate set)
Assay Protocol	U-PLEX Product Inserts are available at <a href="http://www.mesoscale.com">www.mesoscale.com</a>	

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 NHP IL-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)
IL-1 $\alpha$	0.60	0.34-1.6

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 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
IL-1 $\alpha$	High	2,820	2.8	10.6
	Mid	294	3.5	12.4
	Low	30	4.7	16.7

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	41	16-69	53	45-63	129	122-137
	Mid	41	15-73	54	42-63	125	120-131
	Low	39	13-68	54	42-65	127	123-131
Rhesus Monkey	High	29	11-47	62	59-66	—	—
	Mid	29	7.0-53	60	55-65	—	—
	Low	35	7.0-52	60	55-64	—	—

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. dash (—) = not available

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

## Tested Samples

	Sample Type	Serum (N=8)	Plasma (N=8)	Cell Culture Media (N=8)
Cynomolgus Monkey	Median (pg/mL)	NA	NA	0.10
	Range (pg/mL)	NA	NA	ND-0.53
	% Detected	0	0	25
Rhesus Monkey	Median (pg/mL)	0	NA	0
	Range (pg/mL)	ND-0.90	NA	ND-0.40
	% Detected	13	0	13

Normal serum and plasma samples were tested without dilution prior to the assay. ND = not detectable (<LLOD); NA = not applicable due to 0% detected

## Dilution Linearity

	Fold Dilution	Serum (N=4)			Plasma (N=4)			Cell Culture Media (N=4)		
		Average % Recovery	% Recovery Range		Average % Recovery	% Recovery Range		Average % Recovery	% Recovery Range	
Cynomolgus Monkey	2	187	158-252		144	125-156		111	106-117	
	4	335	217-535		182	160-223		113	106-125	
	8	420	254-735		203	170-250		113	105-125	
Rhesus Monkey	2	208	151-317		138	127-155		—	—	
	4	380	185-802		157	141-178		—	—	
	8	482	201-1,100		166	151-185		—	—	

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. dash (—) = not available

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

# MSD U-PLEX NHP IL-1 $\alpha$

## Specificity

To assess specificity, the IL-1 $\alpha$  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- $\alpha$ , I-309, IFN- $\alpha$ 2a, IFN- $\gamma$ , IL-1 $\alpha$ , IL-1 $\beta$ , 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 $\alpha$ , MIP-1 $\beta$ , MIP-3 $\alpha$ , MIP-3 $\beta$ , MIP-5, SDF-1 $\alpha$ , TARC, TNF- $\alpha$ , TNF- $\beta$ , TPO, TRAIL, VEGF-A, and YKL-40). Nonspecific binding was less than 0.5%.

% Nonspecificity = (nonspecific signal / specific signal) x 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:** IL-1 $\alpha$  is included in Calibrator 3. The full-length recombinant protein is expressed in *E. coli*.

**Antibodies:** The U-PLEX NHP IL-1 $\alpha$  Assay uses a mouse monoclonal antibody for capture and a mouse monoclonal 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.

