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### 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

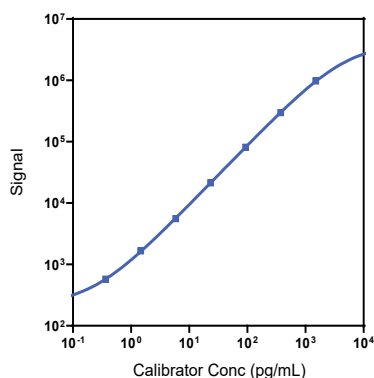
### Company Address

Meso Scale Discovery  
 A division of  
 Meso Scale Diagnostics, LLC.  
 1601 Research Boulevard  
 Rockville, MD 20850-3173 USA

Product Options	Catalog Number	Description
<b>Multiplex</b>	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
<b>Singleplex</b>	K156XKK-1/-2/-4	U-PLEX NHP IL-9 Assay with SECTOR™ plates
	K156XKK-21/-22/-24	U-PLEX NHP IL-9 Assay with QuickPlex Ultra™ plates
	K256XKK-2/-4	U-PLEX NHP IL-9 Assay with 384-well plates
<b>Antibody Set</b>	B21XK-2/-3	U-PLEX Human IL-9 Antibody Set
<b>Assay Protocol</b>	U-PLEX Product Inserts are available at <a href="http://www.mesoscale.com">www.mesoscale.com</a>	

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 IL-9 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-9	0.14	0.13-0.24

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-9	High	170	4.4	9.4
	Mid	55	5.3	8.7
	Low	14	5.4	7.7

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	53	32-85	71	51-79	105	103-111
	Mid	50	30-82	68	53-74	103	92-114
	Low	47	28-77	63	50-70	94	84-105
Rhesus Monkey	High	76	72-78	81	77-85	105	103-111
	Mid	76	69-80	79	73-86	103	92-114
	Low	78	69-84	75	70-81	94	84-105

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)	ND	NA	0.24
	Range (pg/mL)	ND-0.23	NA	ND-75
	% Detected	9.1	0	60
Rhesus Monkey	Median (pg/mL)	NA	NA	0.22
	Range (pg/mL)	NA	NA	ND-154
	% Detected	0	0	20

Normal serum, EDTA plasma, and cell culture media were diluted 2-fold prior to the assay. ND = not detectable (<LLOD); NA = not applicable due to 0% detected

## 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	113	101-127		100	93-109	2	104	101-109	
	4	132	113-162	2	101	92-107	4	102	94-121	
	8	147	124-186	4	107	97-120	8	69	63-74	
Rhesus Monkey	2	104	94-117	2	108	101-118	2	104	101-109	
	4	107	91-124	4	109	100-120	4	102	94-121	
	8	100	84-126	8	104	88-115	8	69	63-74	

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 IL-9

## Specificity

To assess specificity, the IL-9 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-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 $\alpha$ , 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%.

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

## 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:** IL-9 is included in Calibrator 9. The full-length recombinant protein is expressed in an insect cell line.

**Antibodies:** The U-PLEX NHP IL-9 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.

