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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

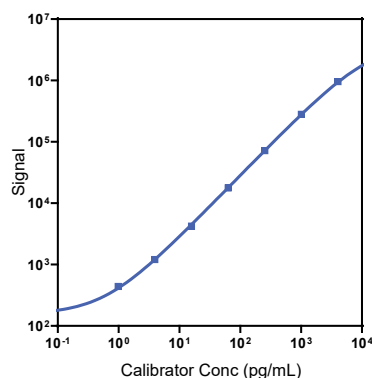
Company Address

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

Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
Singleplex	K156U0K-1/-2/-4	U-PLEX NHP IL-5 Assay with SECTOR™ plates
	K156U0K-21/-22/-24	U-PLEX NHP IL-5 Assay with QuickPlex Ultra™ plates
	K256U0K-2/-4	U-PLEX NHP IL-5 Assay with 384-well plates
Antibody Set	B21U0-2/-3	U-PLEX Human IL-5 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 IL-5 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-5	0.18	0.11-0.25

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
IL-5	High	1,730	4.2	3.8
	Mid	184	2.8	5.5
	Low	19	4.1	9.6

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	91.8	84-102	107.6	97-115	121	120-124
	Mid	97.4	92-106	112.6	101-119	125	121-129
	Low	97.7	92-105	110.8	101-114	128	124-135
Rhesus Monkey	High	96.6	81-109	95.1	85-112	121	120-124
	Mid	98.2	87-114	98.3	88-109	125	121-129
	Low	97.9	81-114	95.8	89-107	128	124-135

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=10)	Plasma (N=10)	Spiked Serum (N=5)
Cynomolgus Monkey	Median (pg/mL)	ND	ND	1.58
	Range (pg/mL)	ND-0.19	ND-0.24	ND-8.37
	% Detected	10	30	80
Rhesus Monkey	Median (pg/mL)	ND	ND	2.1
	Range (pg/mL)	ND-1.10	ND-0.30	ND-3.10
	% Detected	30	30	60

Normal serum and plasma samples were diluted 2-fold prior to the assay. ND = not detectable (<LLOD)

Dilution Linearity

	Fold Dilution	Serum (N=5)		Fold Dilution	Plasma (N=5)		Fold Dilution	Cell Culture Media (N=5)	
		Average % Recovery	% Recovery Range		Average % Recovery	% Recovery Range		Average % Recovery	% Recovery Range
Cynomolgus Monkey	2	102	89-114	2	108	103-113	2	102	97-107
	4	102	89-116	4	107	100-112	4	98	90-104
	8	106	89-120	8	108	103-112	8	97	94-101
Rhesus Monkey	2	104	66-125	2	110	96-120	2	102	97-107
	4	117	105-137	4	112	96-125	4	98	90-104
	8	119	105-140	8	120	99-141	8	97	94-101

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-5

Specificity

To assess specificity, the IL-5 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: IL-5 is included in Calibrator 1. The full-length recombinant protein is expressed in an insect cell line.

Antibodies: The U-PLEX NHP IL-5 Assay uses a mouse monoclonal antibody for capture and a rat monoclonal antibody for detection.

Assay generation: B

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

