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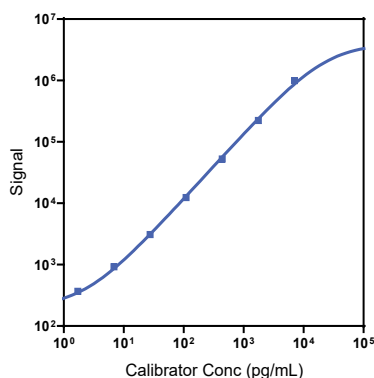
Company Address

Meso Scale Discovery
A division of
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1601 Research Boulevard
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Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
Singleplex	K156UPK-1/-2/-4	U-PLEX NHP IL-7 Assay with SECTOR™ plates
	K156UPK-21/-22/-24	U-PLEX NHP IL-7 Assay with QuickPlex Ultra™ plates
	K256UPK-2/-4	U-PLEX NHP IL-7 Assay with 384-well plates
Antibody Set	B21UP-2/-3	U-PLEX Human IL-7 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-7 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-7	0.46	0.28-0.84

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-7	High	2,220	3.4	9.2
	Mid	227	3.7	9.6
	Low	24.8	3.3	13.0

For Research Use Only.
Not for use in diagnostic procedures.

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.

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	97.9	87-106	81.8	62-97	115	112-119
	Mid	97.3	88-106	78.8	59-90	112	111-114
	Low	95.2	88-100	78.4	60-89	107	104-111
Rhesus Monkey	High	87	77-95	85	66-106	115	112-119
	Mid	90	86-95	84	60-100	112	111-114
	Low	93	90-95	84	68-96	107	104-111

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)	26.3	1.36	28.3
	Range (pg/mL)	5.34-83.8	ND-8.67	26.0-32.4
	% Detected	100	80	100
Rhesus Monkey	Median (pg/mL)	29.2	2.45	36.6
	Range (pg/mL)	5.00-58.3	ND-7.80	28.9-38.9
	% Detected	100	80	100

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	106	98-112	2	106	96-112	2	97	94-99
	4	107	91-116	4	108	95-117	4	90	87-93
	8	108	90-118	8	108	96-122	8	84	81-92
Rhesus Monkey	2	112	110-116	2	118	107-132	2	97	94-99
	4	118	113-124	4	120	102-132	4	90	87-93
	8	120	114-128	8	121	104-141	8	84	81-92

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-7

Specificity

To assess specificity, the IL-7 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-7 is included in Calibrator 3. The full-length recombinant protein is expressed in *E. coli*.

Antibodies: The U-PLEX NHP IL-7 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.

