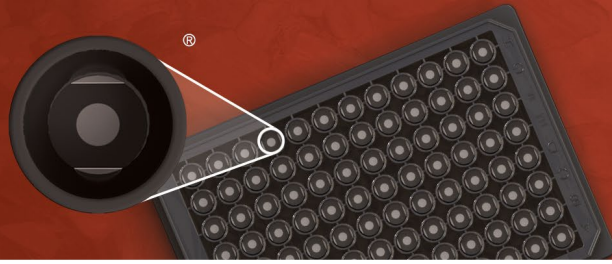
U-PLEX®

NHP MIP-3α



www.mesoscale.com®

Ordering Information

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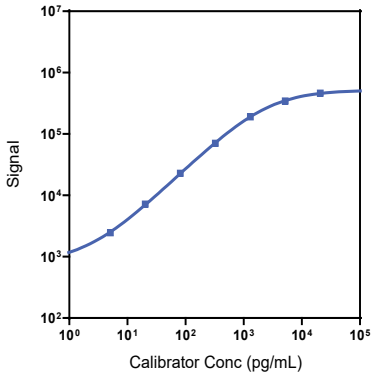
Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
Singleplex	K156UZK-1/-2/-4	U-PLEX NHP MIP-3α Assay with SECTOR™ plates
	K156UZK-21/-22/-24	U-PLEX NHP MIP-3α Assay with QuickPlex Ultra™ plates
	K256UZK-2/-4	U-PLEX NHP MIP-3α Assay with 384-well plates
Antibody Set	B26UZ-2/-3	U-PLEX NHP MIP-3α 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 MIP-3α 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)
MIP-3α	0.27	0.24-0.41

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
MIP-3α	High	NA	NA	NA
	Mid	957	5.7	14.2
	Low	95	5.3	14.3

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. NA = not applicable due to 0% detected

Spike Recovery

		Serum (N=5)		Plasma (N=5)		Cell Culture Media (N=5)	
	Spike Level	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
Cynomolgus Monkey	High	59	39-83	60	55-69	88	75-104
	Mid	53	33-74	52	38-63	72	49-92
	Low	45	26-63	45	26-62	87	83-96
Rhesus Monkey	High	52	47-63	73	50-87	88	75-104
	Mid	49	45-62	73	49-86	72	49-92
	Low	45	39-51	67	44-81	87	83-96

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.

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

Tested Samples

	Sample Type	Serum (N=11)	Plasma (N=11)	Cell Culture Media (N=10)
Cynomolgus Monkey	Median (pg/mL)	12.6	7.9	4.0
	Range (pg/mL)	1.6-24	4.0-59	0.8-14
	% Detected	100	100	100
Rhesus Monkey	Median (pg/mL)	9.9	9.6	9.6
	Range (pg/mL)	1.4-17	2.9-14	0.8-23
	% Detected	100	100	100

Normal serum, EDTA plasma, and cell culture media were diluted 2-fold prior to the assay.

Dilution Linearity

	Serum (N=5)			Plasma (N=5)			Cell Culture Media (N=5)		
	Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
Cynomolgus Monkey	2	124	110-138	2	124	107-135	2	136	126-147
	4	152	122-188	4	148	137-168	4	140	128-148
	8	160	119-216	8	154	141-188	8	153	140-160
Rhesus Monkey	2	124	103-137	2	124	108-160	2	136	126-147
	4	133	107-163	4	133	112-176	4	140	128-148
	8	141	112-175	8	137	106-176	8	153	140-160

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.

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

MSD U-PLEX NHP MIP-3α

Specificity

To assess specificity, the MIP-3α 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-α2a, IFN-γ, IL-1α, IL-1β, 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-1α, MIP-1β, MIP-3α, MIP-3β, MIP-5, SDF-1α, TARC, TNF-α, TNF-β, TPO, TRAIL, VEGF-A, and YKL-40). Nonspecific binding was less than 0.5%.

MIP-3α detection antibody interacts with capture antibodies for Eotaxin-2, Eotaxin-3, and IL-1α, causing elevated background. Background at Eotaxin-3 exceeds 12,000 counts.

% 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: MIP-3α is included in Calibrator 4. The full-length recombinant protein is expressed in *E. coli*.
Antibodies: The U-PLEX NHP MIP-3α Assay uses a rabbit polyclonal 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.