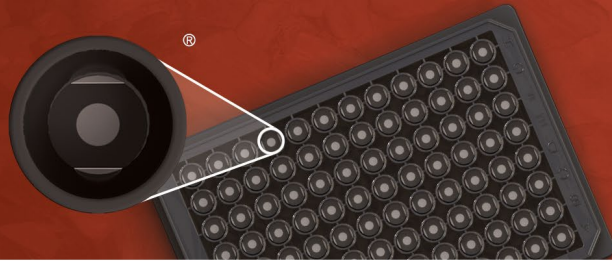
U-PLEX®

NHP MIP-3β



www.mesoscale.com®

Ordering Information

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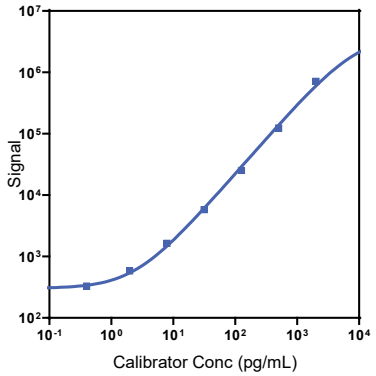
Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
Singleplex	K156VAK-1/-2/-4	U-PLEX NHP MIP-3β Assay with SECTOR™ plates
	K156VAK-21/-22/-24	U-PLEX NHP MIP-3β Assay with QuickPlex Ultra™ plates
	K256VAK-2/-4	U-PLEX NHP MIP-3β Assay with 384-well plates
Antibody Set	B21VA-2/-3	U-PLEX Human MIP-3β 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-3β 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-3β	0.35	0.22-0.66

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-3β	High	1,250	6.0	6.2
	Mid	127	5.9	10.2
	Low	14.5	7.3	14.7

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.

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	81	58-109	61	58-65	67	56-76
	Mid	89	68-110	72	66-78	74	62-90
	Low	98	82-121	84	74-89	73	65-85
Rhesus Monkey	High	93	79-104	91	78-102	67	56-76
	Mid	95	91-101	97	89-104	74	62-90
	Low	101	94-107	97	92-102	73	65-85

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=10)	Plasma (N=10)	Spiked Serum (N=5)
Cynomolgus Monkey	Median (pg/mL)	13.8	26.5	8.51
	Range (pg/mL)	ND-33.0	ND-37.8	5.06-14.3
	% Detected	80	90	100
Rhesus Monkey	Median (pg/mL)	2.7	22.3	1.9
	Range (pg/mL)	2.00-73.0	14.0-41.9	1.30-3.50
	% Detected	100	100	100

Normal serum, EDTA plasma, and cell culture media were diluted 2-foldprior to the assay. ND = not detectable (<LLOD)

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	111	108-115	2	145	130-156	2	149	130-180
	4	119	114-125	4	204	178-229	4	160	124-210
	8	129	120-134	8	330	251-400	8	165	125-215
Rhesus Monkey	2	109	102-126	2	171	124-213	2	149	130-180
	4	114	100-145	4	259	141-325	4	160	124-210
	8	119	107-159	8	419	183-555	8	165	125-215

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

Specificity

To assess specificity, the MIP-3β 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%.

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