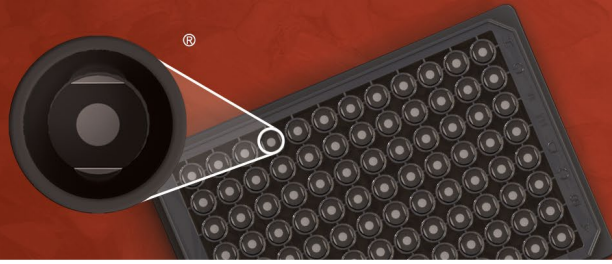
U-PLEX®

NHP IL-17F



www.mesoscale.com®

Ordering Information

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Company Address

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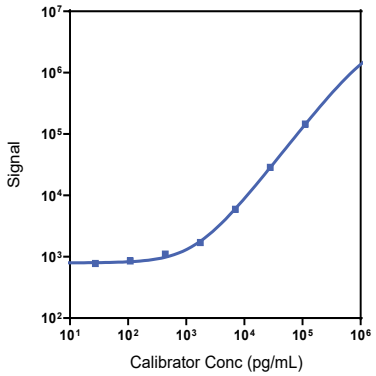
Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
Singleplex	K156WAK-1/-2/-4	U-PLEX NHP IL-17F Assay with SECTOR™ plates
	K156WAK-21/-22/-24	U-PLEX NHP IL-17F Assay with QuickPlex Ultra™ plates
	K256WAK-2/-4	U-PLEX NHP IL-17F Assay with 384-well plates
Antibody Set	B21WA-2/-3	U-PLEX Human IL-17F 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-17F 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-17F	155	113-214

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-17F	High	68,900	1.7	9.9
	Mid	26,800	3.0	13.0
	Low	12,100	2.3	13.0

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	92	41-123	107	57-126	115	109-121
	Mid	84	30-115	107	53-132	107	100-113
	Low	84	52-114	92	54-120	116	109-122
Rhesus Monkey	High	76	69-89	125	111-135	115	109-121
	Mid	78	73-90	137	121-161	107	100-113
	Low	82	73-95	143	120-177	116	109-122

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)	NA	ND	616
	Range (pg/mL)	NA	ND-405	200-947
	% Detected	0	18	100
Rhesus Monkey	Median (pg/mL)	ND	ND	563
	Range (pg/mL)	ND-980	ND	ND-833
	% Detected	18	0	80

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

Dilution Linearity

	Serum (N=5)			Plasma (N=5)			Cell Culture Media (N=4)		
	Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
Cynomolgus Monkey	2	89	85-96	2	108	101-123	2	91	82-99
	4	90	84-98	4	95	80-129	4	89	81-98
	8	50	24-84	8	73	45-105	8	108	90-129
Rhesus Monkey	2	97	87-114	2	101	96-104	2	91	82-99
	4	87	76-107	4	83	76-95	4	89	81-98
	8	71	62-84	8	60	42-79	8	108	90-129

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 IL-17F 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%.

IFN-α2a detection antibody nonspecifically binds (3.3%) with IL-17F capture/calibrator.

% 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: IL-17F is included in Calibrator 6. The IL-17F Calibrator is a homodimer consisting of two IL-17F (31–163) recombinant proteins expressed in a mouse cell line.
Antibodies: The U-PLEX NHP IL-17F 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.