U-PLEX®

NHP IL-17C

Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
Singleplex	K156WJK-1/-2/-4	U-PLEX NHP IL-17C Assay with SECTOR™ plates
	K156WJK-21/-22/-24	U-PLEX NHP IL-17C Assay with QuickPlex® plates
	K256WJK-2/-4	U-PLEX NHP IL-17C Assay with 384-well plates
Antibody Set	B21WJ-2/-3	U-PLEX Human IL-17C Antibody Set
Assay Protocol	U-PLEX Product Inserts are available at www.mesoscale.com	

The 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-17C 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
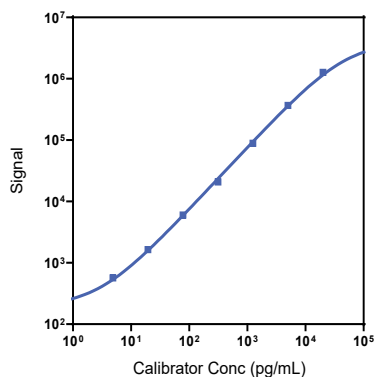
Assay	Median LLOD (pg/mL)	LLOD Range (pg/mL)
IL-17C	2.2	2.1-3.8

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-17C	High	3,520	3.8	7.8
	Mid	530	14.8	34.0
	Low	101	12.0	14.9

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	27	13-49	51	45-55	107	98-113
	Mid	21	12-29	45	40-50	97	87-110
	Low	25	11-43	42	38-47	92	80-102
Rhesus Monkey	High	43	32-54	37	28-48	107	98-113
	Mid	37	26-50	35	28-47	97	87-110
	Low	36	27-49	35	25-47	92	80-102

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)	ND	NA	ND
	Range (pg/mL)	ND-2.6	NA	ND-6.8
	% Detected	9	0	50
Rhesus Monkey	Median (pg/mL)	NA	NA	2.7
	Range (pg/mL)	NA	NA	ND-9.0
	% Detected	0	0	50

Normal serum, plasma, and cell culture media 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=5)		
	Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
Cynomolgus Monkey	2	132	115-143	2	121	105-137	2	102	99-105
	4	177	134-206	4	135	117-147	4	102	99-107
	8	209	139-251	8	145	125-169	8	71	66-74
Rhesus Monkey	2	125	111-141	2	129	120-134	2	102	99-105
	4	149	127-176	4	147	136-157	4	102	99-107
	8	149	124-186	8	155	141-166	8	71	66-74

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-17C 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 interacts with IL-17C capture antibody resulting in elevated background.

% 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-17C is included in Calibrator 9. The full-length recombinant protein is expressed in *E. coli*.
Antibodies: The U-PLEX NHP IL-17C 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.

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