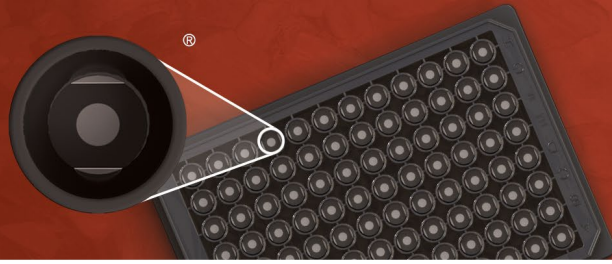
U-PLEX®

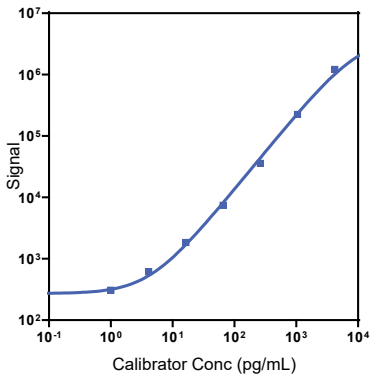
NHP CTACK



Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
Singleplex	K156VDK-1/-2/-4	U-PLEX NHP CTACK Assay with SECTOR™ plates
	K156VDK-21/-22/-24	U-PLEX NHP CTACK Assay with QuickPlex® plates
	K256VKD-2/-4	U-PLEX NHP CTACK Assay with 384-well plates
Antibody Set	B21VD-2/-3	U-PLEX Human CTACK Antibody Set
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 CTACK 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)
CTACK	0.74	0.40-1.68

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
CTACK	High	1,710	5.5	9.3
	Mid	185	3.9	10.5
	Low	17.7	6.4	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.

www.mesoscale.com®

Ordering Information
MSD Customer Service
Phone: 1-240-314-2795
: 1-301-990-2776
Email: CustomerService@mesoscale.com

Scientific Support
Phone: 1-240-314-2798
Email: ScientificSupport@mesoscale.com

Company Address
MESO SCALE DISCOVERY®
A division of
Meso Scale Diagnostics, LLC.
1601 Research Boulevard
Rockville, MD 20850-3173 USA

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	73-87	90	84-99	112	92-125
	Mid	95	91-100	96	89-101	113	89-129
	Low	105	99-111	99	98-99	116	95-128
Rhesus Monkey	High	95	89-100	95	86-108	112	92-125
	Mid	100	97-102	100	95-103	113	89-129
	Low	99	97-102	100	98-101	116	95-128

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)	856	1,174	750
	Range (pg/mL)	ND-1,520	ND-1,820	721-784
	% Detected	90	90	100
Rhesus Monkey	Median (pg/mL)	797	687	751
	Range (pg/mL)	354-1,090	367-1,360	606-774
	% Detected	100	100	100

Normal serum and plasma samples were diluted 2-fold prior to the assay. ND = not detected (<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	100	95-105	2	99	95-101	2	105	98-120
	4	100	92-106	4	96	91-103	4	97	88-114
	8	103	91-113	8	97	93-103	8	101	86-117
Rhesus Monkey	2	103	99-105	2	116	102-131	2	105	98-120
	4	102	100-105	4	121	98-146	4	97	88-114
	8	102	96-106	8	129	97-166	8	101	86-117

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 CTACK 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: CTACK is included in Calibrator 4. The full-length recombinant protein is expressed in *E. coli*.
Antibodies: The U-PLEX NHP CTACK 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.