U-PLEX®

NHP TRAIL

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Ordering Information

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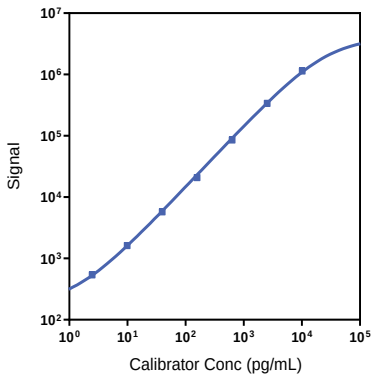
Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
Singleplex	K156XTK-1/-2/-4	U-PLEX NHP TRAIL Assay with SECTOR™ plates
	K156XTK-21/-22/-24	U-PLEX NHP TRAIL Assay with QuickPlex® plates
	K256XTK-2/-4	U-PLEX NHP TRAIL Assay with 384-well plates
Antibody Set	B21XT-2/-3	U-PLEX Human TRAIL 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 TRAIL Assay tested on U-PLEX 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)
TRAIL	0.66	0.61-0.84

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
TRAIL	High	846	3.1	6.6
	Mid	237	4.6	9.3
	Low	55	2.7	8.6

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.

MSD® U-PLEX NHP TRAIL

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	96	86-106	91	77-106	112	107-116
	Mid	92	81-102	85	75-100	110	103-118
	Low	74	64-80	67	56-76	108	102-123
Rhesus Monkey	High	96	83-109	81	77-86	112	107-116
	Mid	98	90-107	76	73-80	110	103-118
	Low	82	74-88	73	70-78	108	102-123

Normal serum, EDTA plasma, and cell culture media were spiked with Calibrator at 3 levels. Spiked samples were tested without dilution 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)	27	17	3.1
	Range (pg/mL)	12-79	9.9-30	ND-7.0
	% Detected	100	100	90
Rhesus Monkey	Median (pg/mL)	21	27	4.8
	Range (pg/mL)	1.7-52	21-51	3.3-31
	% Detected	100	100	100

Normal serum, EDTA plasma, and cell culture media samples were tested without dilution prior to prior 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	106-122	2	107	102-113	2	87	84-88
	4	110	103-120	4	109	102-115	4	82	76-92
	8	113	109-119	8	113	103-128	8	79	72-92
Rhesus Monkey	2	105	102-113	2	107	101-114	2	87	84-88
	4	103	98-115	4	107	99-112	4	82	76-92
	8	104	99-119	8	108	101-115	8	79	72-92

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

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Specificity

To assess specificity, the TRAIL 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: TRAIL is included in Calibrator 10. The full-length recombinant protein is expressed in *E. coli*.
Antibodies: The U-PLEX NHP TRAIL 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.