U-PLEX®

NHP ENA-78

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Ordering Information

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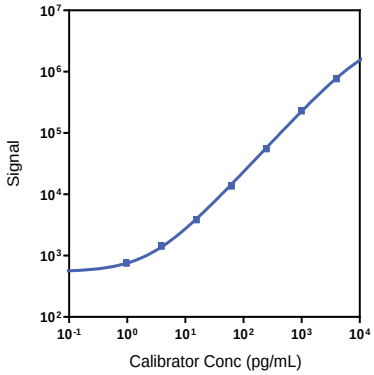
Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
Singleplex	K156VEK-1/-2/-4	U-PLEX NHP ENA-78 Assay with SECTOR™ plates
	K156VEK-21/-22/-24	U-PLEX NHP ENA-78 Assay with QuickPlex® plates
	K256VEK-2/-4	U-PLEX NHP ENA-78 Assay with 384-well plates
Antibody Set	B26VE-2	U-PLEX NHP ENA-78 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 ENA-78 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)
ENA-78	0.36	0.21-0.38

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
ENA-78	High	3,360	5.6	10.8
	Mid	254	3.3	10.9
	Low	23	4.1	10.3

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 ENA-78

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	80	70-92	80	65-101	152	135-167
	Mid	79	67-92	78	62-98	138	125-151
	Low	77	63-91	76	56-96	138	123-152
Rhesus Monkey	High	74	39-100	64	37-97	152	135-167
	Mid	71	36-98	71	49-108	138	125-151
	Low	69	35-94	70	55-90	138	123-152

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)	13	8.2	3.7
	Range (pg/mL)	4.4-89	ND-164	1.7-6.2
	% Detected	100	91	100
Rhesus Monkey	Median (pg/mL)	6.0	1.9	5.2
	Range (pg/mL)	ND-69	ND-38	3.2-6.0
	% Detected	91	64	100

Normal serum and plasma samples were tested without dilution 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	118	101-154	2	109	102-120	2	89	84-95
	4	123	90-181	4	109	96-126	4	83	77-88
	8	133	95-208	8	111	100-130	8	79	73-89
Rhesus Monkey	2	117	98-151	2	127	113-157	2	89	84-95
	4	117	89-178	4	139	114-217	4	83	77-88
	8	117	87-190	8	178	116-384	8	79	73-89

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

MSD U-PLEX NHP ENA-78

Specificity

To assess specificity, the ENA-78 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-2Rα, 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: ENA-78 is included in Calibrator 4 blend. The full-length recombinant protein is expressed in *E. coli.*
Antibodies: The U-PLEX NHP ENA-78 Assay uses a rabbit 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.