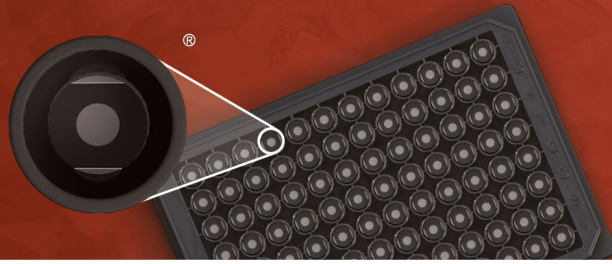
U-PLEX®

NHP IL-12p70



www.mesoscale.com®

Ordering Information

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Scientific Support

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Company Address

MESO SCALE DISCOVERY®
A division of
Meso Scale Diagnostics, LLC.
1601 Research Boulevard
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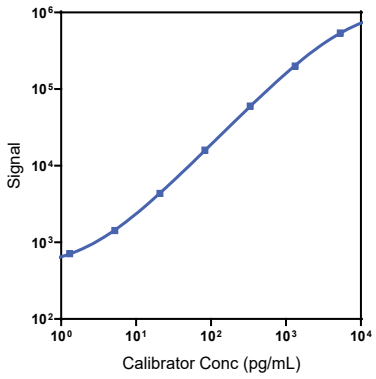
Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
Singleplex	K156UAK-1/-2/-4	U-PLEX NHP IL-12p70 Assay with SECTOR™ plates
	K156UAK-21/-22/-24	U-PLEX NHP IL-12p70 Assay with QuickPlex® plates
	K256UAK-2/-4	U-PLEX NHP IL-12p70 Assay with 384-well plates
Antibody Set	B26UA-2	U-PLEX NHP IL-12p70 Antibody Set (1 Plate Size)
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-12p70 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-12p70	0.54	0.44-1.0

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-12p70	High	2,360	16.0	18.7
	Mid	207	7.3	14.7
	Low	20	3.7	14.6

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.

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	114	43-145	101	82-111	121	113-130
	Mid	102	75-140	99	87-105	116	105-128
	Low	93	51-123	101	88-108	122	112-128
Rhesus Monkey	High	85	15-132	95	73-112	—	—
	Mid	89	6-143	93	68-110	—	—
	Low	87	8-162	94	69-113	—	—

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. dash (—) = not available

% Recovery = (measured concentration / expected concentration) x 100

Tested Samples

	Sample Type	Serum (N=8)	Plasma (N=8)	Cell Culture Media (N=8)
Cynomolgus Monkey	Median (pg/mL)	NA	NA	0.30
	Range (pg/mL)	NA	NA	ND-1.3
	% Detected	0	0	63
Rhesus Monkey	Median (pg/mL)	NA	NA	0.30
	Range (pg/mL)	NA	NA	ND-17
	% Detected	0	0	88

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=4)			Plasma (N=4)			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	108	100-115	2	91	85-97	2	89	84-95
	4	123	97-139	4	101	99-106	4	85	78-92
	8	126	111-139	8	96	86-104	8	84	75-91
Rhesus Monkey	2	153	106-275	2	100	91-110	2	—	—
	4	280	112-750	4	100	83-119	4	—	—
	8	331	113-952	8	102	85-123	8	—	—

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. dash (—) = not available

% Recovery = (measured concentration / expected concentration) x 100

Specificity

To assess specificity, the IL-12p70 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%.

The IL-12/IL-23p40 and IL-12p70 analytes both contain IL-12b (the p40 subunit). Due to cross-reactivity of the IL-12/IL-23p40 assay with the IL-12p70 analyte, we do not recommend multiplexing these two assays on the same plate.

% 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-12p70 is included in Calibrator 1. The IL-12p70 Calibrator is a hetero-dimer consisting of recombinant p40 (23–328) and p35 (23–219) proteins expressed in an insect cell line.
Antibodies: The U-PLEX NHP IL-12p70 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.