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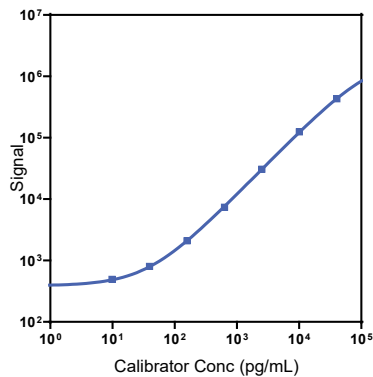
### Company Address

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

Product Options	Catalog Number	Description
Multiplex	K15068M, K25068M	U-PLEX Biomarker Group 1 (NHP)
	K156VKK-1/-2/-4	U-PLEX NHP TPO Assay with SECTOR™ plates
Singleplex	K156VKK-21/-22/-24	U-PLEX NHP TPO Assay with QuickPlex® plates
	K256VKK-2/-4	U-PLEX NHP TPO Assay with 384-well plates
Antibody Set	B21VK-2/-3	U-PLEX Human TPO Antibody Set
Assay Protocol	U-PLEX Product Inserts are available at <a href="http://www.mesoscale.com">www.mesoscale.com</a>	

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 TPO 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)
TPO	7.24	2.81-15.6

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
TPO	High	13,600	5.4	8.9
	Mid	1,380	7.0	9.6
	Low	145	7.4	14.2

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.

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

## 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	82.7	71-94	64.6	53-78	99	91-121
	Mid	83.9	76-90	67.8	57-81	90	94-123
	Low	91.4	81-101	72.4	66-81	74	90-110
Rhesus Monkey	High	77	66-89	75	65-90	99	91-121
	Mid	86	75-97	79	63-101	90	94-123
	Low	99	79-134	81	70-96	74	90-110

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)	245	41.8	328
	Range (pg/mL)	92.9-338	23.2-72.1	184-417
	% Detected	100	100	100
Rhesus Monkey	Median (pg/mL)	71.4	58.7	148
	Range (pg/mL)	44.7-476	29.4-70.3	76.0-159
	% Detected	100	100	100

Normal serum, EDTA plasma, and cell culture media samples were diluted 2-fold prior to the assay.

## 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	104-130	2	109	95-128	2	100	95-107
	4	125	109-138	4	115	106-125	4	95	89-103
	8	125	109-147	8	110	107-116	8	90	84-96
Rhesus Monkey	2	121	116-126	2	112	108-116	2	100	95-107
	4	124	120-129	4	118	93-139	4	95	89-103
	8	128	116-149	8	125	94-146	8	90	84-96

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 TPO

## Specificity

To assess specificity, the TPO 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- $\alpha$ , I-309, IFN- $\alpha$ 2a, IFN- $\gamma$ , IL-1 $\alpha$ , IL-1 $\beta$ , 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-17AF, 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-1 $\alpha$ , MIP-1 $\beta$ , MIP-3 $\alpha$ , MIP-3 $\beta$ , MIP-5, SDF-1 $\alpha$ , TARC, TNF- $\alpha$ , TNF- $\beta$ , TPO, TRAIL, VEGF-A, and YKL-40). Nonspecific binding was less than 0.5%.

$\% \text{ Nonspecificity} = (\text{nonspecific signal} / \text{specific signal}) \times 100$

## 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:** TPO is included in Calibrator 3. The full-length recombinant protein is expressed in a mouse cell line.

**Antibodies:** The U-PLEX NHP TPO Assay uses a goat polyclonal 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.

