

# Human Tie-2



[www.mesoscale.com](http://www.mesoscale.com)<sup>®</sup>

**Ordering Information**

MSD Customer Service  
 Phone: 1-240-314-2795  
 Fax: 1-301-990-2776  
 Email: [CustomerService@mesoscale.com](mailto:CustomerService@mesoscale.com)

**Scientific Support**

Phone: 1-240-314-2798  
 Email: [ScientificSupport@mesoscale.com](mailto:ScientificSupport@mesoscale.com)

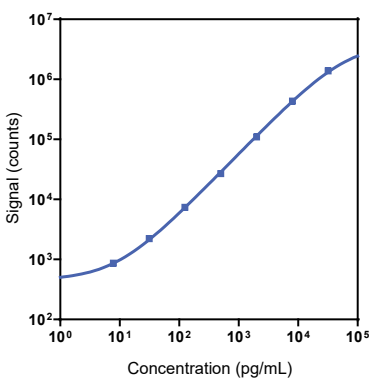
**Company Address**

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

Product Options	Catalog Number	Description
Multiplex	K151AEM, K251AEM	U-PLEX Immuno-Oncology Group 1 (human)
	K151F8K-1/-2/-4	U-PLEX Human Tie-2 Assay with SECTOR™ plates
Singleplex	K151F8K-21/-22/-24	U-PLEX Human Tie-2 Assay with QuickPlex <sup>®</sup> plates
	K251F8K-2/-4	U-PLEX Human Tie-2 Assay with 384-well plates
Antibody Set	B22F8-2/-3	U-PLEX Human Tie-2 Antibody Set
Protocol	U-PLEX Product Inserts are available at <a href="http://www.mesoscale.com">www.mesoscale.com</a>	

The U-PLEX<sup>®</sup> 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 Human Tie-2 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 on 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)
Tie-2	2.9	2.1-5.2

The Calibrator curve was fitted with a 4-parameter logistic model with a 1/Y<sup>2</sup> weighting. The lower limit of detection (LLOD) is a calculated concentration corresponding to 2.5 standard deviations above the background (zero Calibrator).

**Precision**

Control	Average Conc. (pg/mL)	Average Intra-run Conc. (%CV)	Inter-run Conc. (%CV)
High	10,000	4.1	3.4
Mid	1,590	3.8	5.2
Low	295	4.3	7.2

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.

# MSD® U-PLEX Human Tie-2

## Tested Samples

Sample Type	Serum (N=10)	EDTA Plasma (N=10)	Normal Lysate (N=5)	Tumor Lysate (N=5)
Median (pg/mL)	82,100	69,100	1,030	484
Range (pg/mL)	55,200-90,400	41,100-88,500	623-3,960	119-4,400
% Detected	100	100	100	100

Normal serum and plasma samples were diluted 100-fold prior to the assay. Lysates were tested at a protein concentration of 0.5 mg/mL.

## Parallelism

Serum			EDTA Plasma		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
50	99	96-102	50	103	101-105
200	99	95-104	200	98	96-100
400	97	94-99	400	97	92-102

Normal human serum and EDTA plasma were tested at different dilutions. One hundred-fold diluted samples were tested to determine the expected concentration of the analyte.

$$\% \text{ Recovery} = (\text{measured concentration} / \text{expected concentration}) \times 100$$

## Spike Recovery

Spike Level	Serum		EDTA Plasma	
	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
High	96	92-100	99	97-101
Mid	91	87-95	94	92-97
Low	90	87-93	88	87-91

Normal serum and plasma were spiked with Calibrator at 3 levels and diluted 4-fold. The expected concentration of the analyte in spiked samples was calculated by addition of the Calibrator spike concentration to the measured endogenous (unspiked) sample concentration.

$$\% \text{ Recovery} = (\text{measured concentration} / \text{expected concentration}) \times 100$$

## Specificity

The Tie-2 Antibody Set was tested for nonspecific binding against all of the analytes in the Immuno-Oncology Group 1 and the majority of analytes in Biomarker Group 1. Any cross-reactivity greater than 2.0% is noted below. The U-PLEX Assay Designer shows all of the compatible assays.

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

## Diluent Compatibility

Diluents 58 and 3 are provided when this is ordered in singleplex and multiplex assays.

## Assay Components

**Calibrator:** Tie-2 is included in Calibrator 22. The human Tie-2 Calibrator is a full-length recombinant protein expressed in a mouse cell line.

**Antibodies:** The U-PLEX Human Tie-2 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 from the representative data shown.

**Note:** MSD recommends that samples be diluted 100-fold prior to analysis in this assay.

