

www.mesoscale.com<sup>®</sup>

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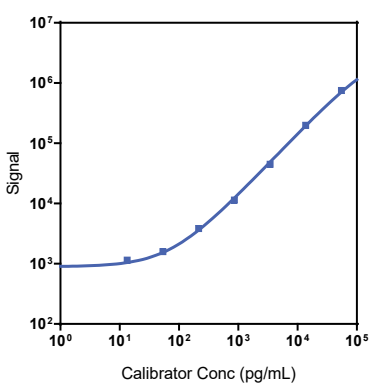
**Company Address**

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

Product Options	Catalog Number	Description
<b>Multiplex</b>	K15067M, K25067M	U-PLEX Biomarker Group 1 (human)
	K151AEM, K251AEM	U-PLEX Immuno-Oncology Group 1 (human)
	K151ACM, K251ACM	U-PLEX Metabolic Group 1 (human)
<b>Singleplex</b>	K151XGK-1/-2/-4	U-PLEX Human IL-2R $\alpha$ Assay with SECTOR <sup>™</sup> plates
	K151XGK-21	U-PLEX Human IL-2R $\alpha$ Assay with QuickPlex <sup>®</sup> APT plates
	K251XGK-2/-4	U-PLEX Human IL-2R $\alpha$ Assay with 384-well plates
<b>Antibody Set</b>	B21XG-2/-3	U-PLEX Human IL-2R $\alpha$ Antibody Set
<b>Protocol</b>	U-PLEX Product Inserts are available at <a href="http://www.mesoscale.com">http://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 IL-2R $\alpha$  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)
IL-2R $\alpha$	10	8.9-14

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	6,330	4.2	11.9
Mid	1,560	4.2	12.6
Low	337	5.7	22.8

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 IL-2R $\alpha$

## Tested Samples

Sample Type	Serum (N=10)	Plasma (N=10)
Median (pg/mL)	1,650	1,340
Range (pg/mL)	1,230-2,450	764-3,400
% Detected	100	100

Normal serum and plasma samples were diluted 2-fold prior to testing in the assay.

## Dilution Linearity

Serum			EDTA Plasma		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
2	113	106-123	2	136	108-197
4	120	109-130	4	132	111-199
8	152	140-172	8	147	122-189

Normal human serum and EDTA plasma were spiked with Calibrator and tested at different dilutions. Two-fold diluted samples were tested to determine the expected concentration of the analyte. Samples may benefit from additional dilution with assay diluent to reduce matrix effects.

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

## Spike Recovery

Spike Level	Serum		EDTA Plasma	
	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
High	106	89-124	99	81-118
Mid	146	92-183	134	90-168
Low	246	91-351	211	86-290

Normal serum and plasma were spiked with Calibrator at 3 levels. Two-fold diluted samples were tested to determine the expected concentration of the analyte. Samples may benefit from additional dilution with assay diluent to reduce matrix effects.

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

## Specificity

The IL-2R $\alpha$  Antibody Set was tested against all of the analytes in Biomarker Group 1, Metabolic Group 1, and Immuno-Oncology Group 1. Any non-specific binding greater than 2.0% is noted below. The U-PLEX Assay Designer shows compatible assays.

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

## Diluent Compatibility

Diluents 57 and 3 are provided when this product is ordered in singleplex and when multiplexed with other Biomarker Group 1 assays. Other diluents may be provided when combined with assays from other U-PLEX Groups. See the appropriate Product Insert for details.

## Assay Components

**Calibrator:** IL-2R $\alpha$  is included in Calibrator 9. The IL-2R $\alpha$  Calibrator is a full-length recombinant protein expressed in mouse cells.

**Antibodies:** The U-PLEX Human IL-2R $\alpha$  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 from the representative data shown.

