

www.mesoscale.com<sup>®</sup>

### Ordering Information

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### Scientific Support

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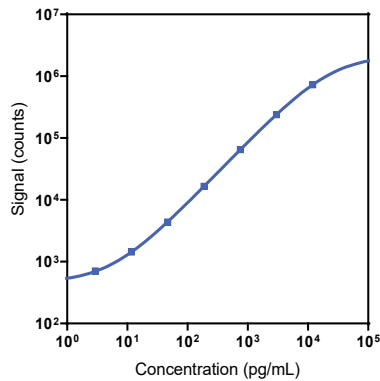
### Company Address

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   |
|---------------------|--|---|
| <b>Multiplex</b>    | K151AEM, K251AEM   | U-PLEX Immuno-Oncology Group 1 (human)                              |
| <b>Singleplex</b>   | K151AHCK-1/-2/-4   | U-PLEX Human LIGHT/TNFSF14 Assay with SECTOR™ plates                |
|                     | K151AHCK-21/-22/-24  | U-PLEX Human LIGHT/TNFSF14 Assay with QuickPlex <sup>®</sup> plates |
|                     | K251AHCK-2/-4  | U-PLEX Human LIGHT/TNFSF14 Assay with 384-well plates               |
| <b>Antibody Set</b> | B21AHC-2/-3  | U-PLEX Human LIGHT/TNFSF14 Antibody Set                             |
| <b>Protocol</b>     | 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 the detection of biomarkers in a wide variety of sample types. This datasheet provides the representative performance of the U-PLEX Human LIGHT/TNFSF14 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 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) |
|---------------|---------------------|--------------------|
| LIGHT/TNFSF14 | 1.7                 | 1.4 – 1.9          |

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 2.5 standard deviations above the background (zero Calibrator).

### Precision

| Control | Average Conc. (pg/mL) | Average Intra-run Conc. (%CV) | Inter-run Conc. (%CV) |
|---------|-----------------------|-------------------------------|-----------------------|
| High    | 1,999                 | 4.1                           | 6.7                   |
| Mid     | 441                   | 2.1                           | 6.1                   |
| Low     | 89                    | 2.4                           | 8.9                   |

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<sup>®</sup> U-PLEX Human LIGHT/TNFSF14

## Tested Samples

| Sample Type    | Serum<br>(N = 9) | EDTA Plasma<br>(N = 9) | Citrate Plasma<br>(N = 9) | Normal Lysate<br>(N = 5) | Tumor Lysate<br>(N = 5) |
|----------------|------------------|------------------------|---------------------------|--------------------------|-------------------------|
| Median (pg/mL) | 365              | 41                     | 22                        | 216                      | 76                      |
| Range (pg/mL)  | 36–817           | 27–358                 | 14–97                     | 133–714                  | ND–596                  |
| % Detected     | 100              | 100                    | 100                       | 100                      | 80                      |

Normal serum and plasma samples were diluted 4-fold prior to the assay. Lysates were tested at a protein concentration of 0.5 mg/mL. ND = non-detectable (<LLOD).

## Dilution Linearity

| Serum         |                    |                  | EDTA Plasma   |                    |                  |
|---------------|--------------------|------------------|---------------|--------------------|------------------|
| Fold Dilution | Average % Recovery | % Recovery Range | Fold Dilution | Average % Recovery | % Recovery Range |
| 50            | 96                 | 90–102           | 50            | 92                 | 87–98            |
| 200           | 103                | 99–110           | 200           | 104                | 94–110           |
| 400           | 105                | 100–109          | 400           | 111                | 96–122           |

Samples were spiked with calibrator and serially diluted. Percent recovery at each dilution was normalized to the dilution-adjusted 100-fold concentration. 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        | 108                | 94 - 114         | 117                | 103 - 125        |
| Mid         | 110                | 99 - 119         | 121                | 105 - 134        |
| Low         | 110                | 102 - 113        | 122                | 109 - 131        |

Samples were spiked with calibrator at three levels within the range of the assay.

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

## Specificity

The LIGHT/TNFSF14 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:** LIGHT/TNFSF14 is included in Calibrator 28. The human LIGHT/TNFSF14 Calibrator is a full-length recombinant protein expressed in a mouse cell line.

**Antibodies:** The U-PLEX Human LIGHT/TNFSF14 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.

