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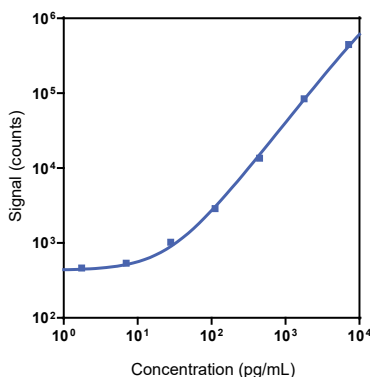
Company Address

MESO SCALE DISCOVERY®
 A division of
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 1601 Research Boulevard
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| Product Options | Catalog Number | Description |
|-----------------|--|--|
| Multiplex | K152ACM, K252ACM | U-PLEX Metabolic Group 1 (mouse) Assay |
| | K1526KK-1/-2/-4 | U-PLEX Mouse Ghrelin (active) Assay with SECTOR™ plates |
| Singleplex | K1526KK-21/-22/-24 | U-PLEX Mouse Ghrelin (active) Assay with QuickPlex® plates |
| | K2526KK-2/-4 | U-PLEX Mouse Ghrelin (active) Assay with 384-well plates |
| Antibody Set | B216K-2/-3 | U-PLEX Ghrelin (active) Antibody Set |
| 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 Mouse Ghrelin (active) Assay tested on U-PLEX 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) |
|------------------|---------------------|--------------------|
| Ghrelin (active) | 13 | 12-29 |

The Calibrator curve was fitted with a 4-parameter logistic model with a 1/Y² weighting. The lower limit of detection (LLOD) is a calculated concentration corresponding to 2.5X the standard deviation above the background (zero Calibrator).

Precision

| Control | Average Conc. (pg/mL) | Average Intra-run Conc. (%CV) | Inter-run Conc. (%CV) |
|---------|-----------------------|-------------------------------|-----------------------|
| High | 5,197 | 3.0 | 12.5 |
| Mid | 1,980 | 2.6 | 13.7 |
| Low | 773 | 3.6 | 17.2 |

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 Mouse Ghrelin (active)

Tested Samples

| Sample Type | Serum (N=10) | EDTA Plasma (N=10) | P800 Plasma (N=9) |
|----------------|--------------|--------------------|-------------------|
| Median (pg/mL) | NA | NA | NA |
| Range (pg/mL) | NA | NA | NA |
| % Detected | 0 | 0 | 0 |

Normal serum, EDTA plasma, and P800 plasma samples were diluted 4-fold prior to the assay. NA = not applicable (0% detected).

Dilution Linearity

| Serum | | | EDTA Plasma | | | P800 Plasma | | | Cell Culture Media | | |
|---------------|--------------------|------------------|---------------|--------------------|------------------|---------------|--------------------|------------------|--------------------|--------------------|------------------|
| Fold Dilution | Average % Recovery | % Recovery Range | Fold Dilution | Average % Recovery | % Recovery Range | Fold Dilution | Average % Recovery | % Recovery Range | Fold Dilution | Average % Recovery | % Recovery Range |
| 2 | 84 | 54–95 | 2 | 96 | 75–106 | 2 | 82 | 80–86 | 2 | 116 | 52–140 |
| 8 | 113 | 103–150 | 8 | 108 | 99–131 | 8 | 115 | 108–121 | 8 | 106 | 93–151 |
| 16 | 116 | 84–193 | 16 | 100 | 87–136 | 16 | 110 | 103–118 | 16 | 116 | 90–191 |

Normal mouse serum, EDTA plasma, P800 plasma, and cell culture media were spiked with Calibrator and tested at different dilutions. Percent recovery at each dilution level was normalized to the dilution-adjusted, 4-fold concentration. Samples may benefit from additional dilution with assay diluent to reduce matrix effects.

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

Spike Recovery

| Spike Level | Serum | | EDTA Plasma | | P800 Plasma | | Cell Culture Media | |
|-------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|--------------------|------------------|
| | Average % Recovery | % Recovery Range | Average % Recovery | % Recovery Range | Average % Recovery | % Recovery Range | Average % Recovery | % Recovery Range |
| High | 73 | 26–89 | 89 | 59–107 | 80 | 74–85 | 156 | 150–167 |
| Mid | 76 | 30–94 | 94 | 71–107 | 87 | 84–90 | 175 | 163–183 |
| Low | 76 | 33–93 | 97 | 76–110 | 96 | 91–105 | 189 | 189–189 |

Normal serum, EDTA plasma, P800 plasma, and cell culture media were spiked with Calibrator at 3 levels. Spiked samples were diluted 4-fold 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

Specificity

To assess specificity, the Ghrelin (active) Antibody Set was tested individually against a larger panel of analytes for nonspecific binding (BAFF, BDNF, BCA-1/BLC, CD40, C-Peptide, Desghrelin, Eotaxin, EPO, FGF-21, Ghrelin (octanoylSer3), GLP-1 (7-36), GLP-1 (9-36), Glucagon, GM-CSF, IFN- α , IFN- β , IFN- γ , IL-1 β , IL-2, IL-4, IL-5, IL-6, IL-9, IL-10, IL-12/IL-23p40, IL-12p70, IL-13, IL-15, IL-16, IL-17A, IL-17C, IL-17E/IL-25, IL-17F, IL-17A/F, IL-21, IL-22, IL-23, IL-27p28/IL-30, IL-31, IL-33, IP-10, Insulin, KC/GRO, Leptin, MCP-1, MCP-5, MDC, MIP-1 α , MIP-1 β , MIP-2, MIP-3 α , MMP-9 (total), PYY (3-36), RANTES, TARC, TNF- α , VEGF-A). Nonspecific binding was less than 0.5%.

% Nonspecificity = (nonspecific signal / specific signal) x 100

Desghrelin (Calibrator for Ghrelin (total)) cross-reacts (0.5%) with the Ghrelin (active) assay. We do not recommend multiplexing the Ghrelin (total) and Ghrelin (active) assays on the same plate.

Diluent Compatibility

The data included in this document were collected with Assay Diluent 13 (supplemented with 1,000 KIU/mL Aprotinin [provided] and 100 μ M diprotin A [not provided]) and Antibody Diluent 11. MSD offers a range of assay and antibody diluents for separate purchase. Depending on your assay needs, other diluents may be tested. Diprotin A should be purchased separately.

Assay Components

Calibrator: Ghrelin (active) is included in Ghrelin (active) Calibrator. The Ghrelin (active) Calibrator is a synthetic peptide.

Antibodies: The U-PLEX Mouse Ghrelin (active) 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.

