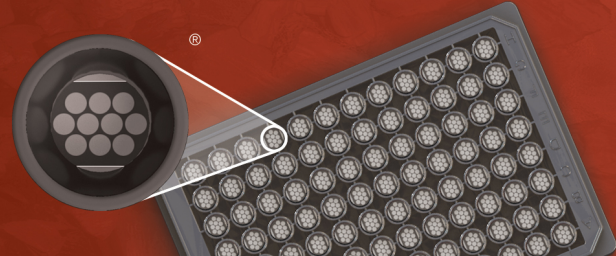


U-PLEX[®] Human PYY (total) Assay



www.mesoscale.com[®]

Ordering Information

MSD[®] Customer Service
Phone: 1-301-947-2085
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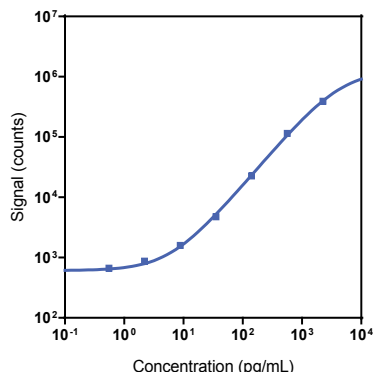
Company Address

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

| | |
|------------------------|--|
| Product Options | Available in: U-PLEX Metabolic Group 1 (hu) K151ACL |
| | Individual assay: K1516BK provided with Diluent 13 and Diluent 11 |
| | Antibody Set: B216B |
| Assay Protocol | U-PLEX product inserts are provided with the assays, and are available at www.mesoscale.com/U-PLEX-documents . |

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 Human PYY (total) Assay tested on U-PLEX plates run as a multiplex. The data were generated during the development of the assay and do not represent the product specifications. Under your experimental conditions and with your specific multiplex, the assay may perform differently than the representative data shown. U-PLEX assays are available in multiplex format with other compatible assays. The same assay can also be used to detect a single analyte on MSD GOLD[™] Small Spot Streptavidin plates.

Representative Calibration Curve and Sensitivity



| Assay | Median LLOD (pg/mL) | LLOD Range (pg/mL) |
|-------------|---------------------|--------------------|
| PYY (total) | 2.7 | 2.7-3.7 |

The calibration curves used to calculate analyte concentrations were established by fitting the signals from the Calibrators using a 4-parameter logistic (or sigmoidal dose-response) model with a $1/Y^2$ weighting. Analyte concentrations were determined from the electrochemiluminescence signals by back-fitting to the calibration curve. The lower limit of detection (LLOD) is a calculated concentration corresponding to the signal 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 | 1,019 | 3.9 | 8.9 |
| Mid | 274 | 3.2 | 12.1 |
| Low | 82 | 4.7 | 16.6 |

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 Assays

Tested Samples

| Sample Type | Serum (N=12) | EDTA Plasma (N=12) | P800 Plasma (N=8) |
|----------------|--------------|--------------------|-------------------|
| Median (pg/mL) | 8.6 | 14 | 19 |
| Range (pg/mL) | ND-18 | 5.2-20 | 6.3-37 |
| % Detected | 83 | 100 | 100 |

ND = non-detectable (<LLOD). Normal serum, EDTA plasma, and P800 plasma samples were diluted 4-fold prior to the assay.

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 | 98 | 79-112 | 2 | 107 | 96-116 | 2 | 104 | 99-113 | 2 | 112 | 107-117 |
| 4 | 100 | NA | 4 | 100 | NA | 4 | 100 | NA | 4 | 100 | NA |
| 8 | 100 | 95-110 | 8 | 95 | 89-100 | 8 | 94 | 91-97 | 8 | 94 | 89-103 |
| 16 | 108 | 95-139 | 16 | 95 | 82-106 | 16 | 94 | 89-112 | 16 | 92 | 86-105 |

Normal human 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 require additional dilution with assay diluent to reduce matrix effects.

% Recovery = (measured concentration / expected concentration) x 100. NA = not applicable.

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 | 97 | 80-107 | 110 | 101-117 | 100 | 93-105 | 107 | 99-114 |
| Mid | 94 | 78-102 | 101 | 96-110 | 100 | 94-104 | 100 | 94-107 |
| Low | 90 | 78-95 | 91 | 84-98 | 95 | 85-101 | 93 | 79-101 |

Normal human 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 require additional dilution with assay diluent to reduce matrix effects.

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

Specificity

To assess specificity, the PYY (total) Antibody Set was tested individually against a larger panel of analytes for nonspecific binding (BAFF, BDNF, β -NGF, C-Peptide, CTACK, ENA-78, Eotaxin, Eotaxin-2, Eotaxin-3, EPO, FGF-21, FGF-23, FLT3L, Fractalkine, FSH, G-CSF, Ghrelin (octanoylSer3), Desghrelin, GIP (1-42), GIP (3-42), GLP-1 (7-36), GLP-1 (9-36), Glucagon, GM-CSF, GRO- α , I-309, IFN- α 2a, IFN- β , IFN- γ , IL-1 α , IL-1 β , IL-1RA, IL-2, IL-2R α , IL-3, 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-17A/F, IL-17C, IL-17D, IL-17E/IL-25, IL-17F, IL-18, IL-21, IL-22, IL-23, IL-27, IL-29/IFN- λ 1, IL-31, IL-33, Insulin, IP-10, Leptin, LH, MCP-1, MCP-2, MCP-4, M-CSF, MDC, MIF, MIP-1 α , MIP-5, PP, Proinsulin (25-110), PYY (3-36), SDF-1 α , TARC, TNF- α , TNF- β , TPO, TRAIL, TSLP, VEGF-A, and YKL-40). Nonspecific binding was less than 0.5%. % Nonspecificity = (nonspecific signal / specific signal) x 100.

PP nonspecifically binds PYY (total) detection antibody (1.1%).

Diluent Compatibility

The data included in this document have been collected with Assay Diluent 13 (supplemented with 1000 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 assay needs, customers may wish to test other diluents.

Assay Components

Calibrator: Human PYY (total) is included in Calibrator 13. The human PYY (total) Calibrator is a synthetic peptide.

Antibodies: The U-PLEX Human PYY (total) Assay uses a mouse monoclonal antibody for capture and a rabbit polyclonal antibody for detection.

Assay generation: B

Note: This datasheet contains representative assay performance data. In custom multiplex formats, the assay may perform differently than the representative data shown.

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