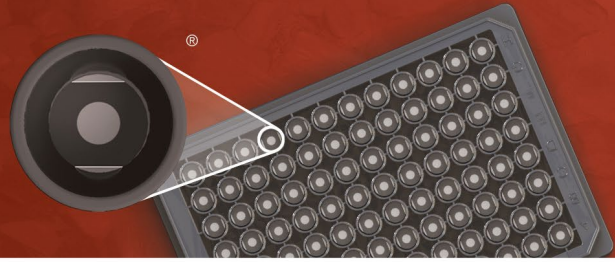
U-PLEX®

Rat GLP-1 (active)



www.mesoscale.com®

Ordering Information

MSD Customer Service
Phone: 1-240-314-2795
: 1-301-990-2776
Email: CustomerService@mesoscale.com

Scientific Support

Phone: 1-240-314-2798
Email: ScientificSupport@mesoscale.com

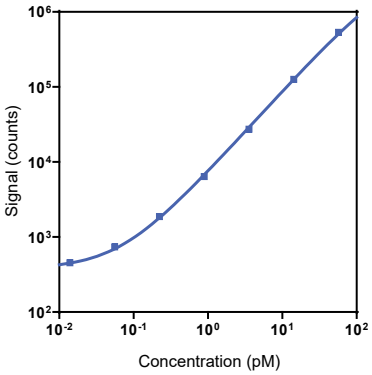
Company Address

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

Product Options	Catalog Number	Description
Multiplex	K153ACM, K253ACM	U-PLEX Metabolic Group 1 (rat) Assay
Singleplex	K1536LK-1/-2/-4	U-PLEX Rat GLP-1 (active) Assay with SECTOR™ plates
	K1536LK-21/-22/-24	U-PLEX Rat GLP-1 (active) Assay with QuickPlex® plates
	K2536LK-2/-4	U-PLEX Rat GLP-1 (active) Assay with 384-well plates
Antibody Set	B216L-2/-3	U-PLEX GLP-1 (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 Rat GLP-1 (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 (pM)	LLOD Range (pM)
GLP-1 (active)	0.01	0.01-0.02

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 2.5X the standard deviation above the background (zero Calibrator).

Precision

Control	Average Conc. (pM)	Average Intra-run Conc. (%CV)	Inter-run Conc. (%CV)
High	116	4.3	8.2
Mid	12	3.0	11.6
Low	1.6	3.4	17.4

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.

MSD® U-PLEX Rat GLP-1 (active)

Tested Samples

Sample Type	Serum (N=12)	EDTA Plasma (N=12)	P800 Plasma (N=9)
Median (pM)	0.078	0.071	0.11
Range (pM)	0.08–0.06	ND–0.07	0.09–0.16
% Detected	100	17	100

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	91	86–99	2	99	92–102	2	106	98–117	2	130	120–141
8	103	98–107	8	96	91–101	8	100	94–105	8	89	87–91
16	99	92–113	16	104	91–115	16	106	97–118	16	86	83–89

Normal rat 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

	Serum		EDTA Plasma		P800 Plasma		Cell Culture Media	
Spike Level	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
High	78	70–87	86	80–89	81	74–89	141	109–154
Mid	76	62–82	84	80–92	80	75–84	144	123–153
Low	82	70–91	80	59–87	80	75–88	148	144–156

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 GLP-1 (active) Antibody Set was tested individually against a larger panel of analytes for nonspecific binding (BDNF, C-Peptide, Desghrelin, FGF-21, Ghrelin (octanoylSer3), GLP-1 (7-36), GLP-1 (9-36), Glucagon, Insulin, Leptin, PYY (3-36)). Nonspecific binding was less than 0.5%.

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

GLP-1 (active) assay will cross-react with the GLP-1 (total) assay. We do not recommend multiplexing the GLP-1 (active) assay with the GLP-1 (total) assay 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 µM 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: GLP-1 (active) is included in GLP-1 (active) Calibrator. The GLP-1 (active) Calibrator is a synthetic peptide.
Antibodies: The U-PLEX Rat GLP-1 (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.