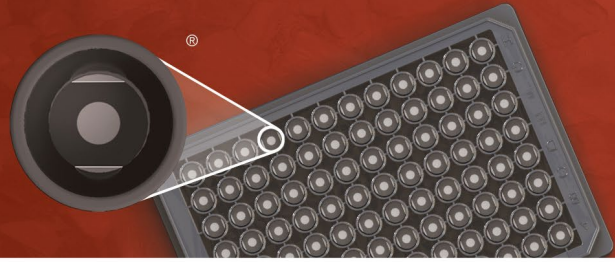
U-PLEX®

Human β-NGF



www.mesoscale.com®

Ordering Information

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

Scientific Support

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

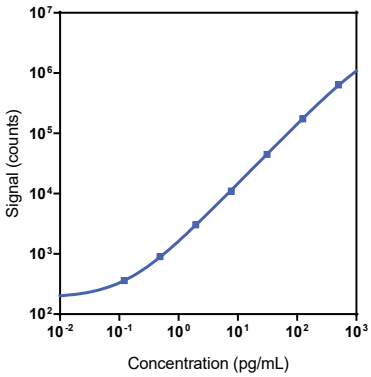
Company Address

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

Product Options	Catalog Number	Description
Multiplex	K151ACM, K251ACM	U-PLEX Metabolic Group 1 (hu)
Singleplex	K1516DK-1/-2/-4	U-PLEX Human β-NGF Assay with SECTOR™ plates
	K1516DK-21/-22/-24	U-PLEX Human β-NGF Assay with QuickPlex® plates
	K1516DK-42/-44	U-PLEX Human β-NGF Assay with 384-well SECTOR plates
Antibody Set	B216D-2/-3	U-PLEX Human β-NGF 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 Human β-NGF Assay tested on U-PLEX 96-well 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)
β-NGF	0.05	0.04-0.08

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	269	2.7	8.3
Mid	53	3.4	12.7
Low	9.8	3.9	14.8

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 β-NGF

Tested Samples

Sample Type	Serum (N=12)	EDTA Plasma (N=12)	P800 Plasma (N=8)
Median (pg/mL)	0.24	0.26	0.58
Range (pg/mL)	ND-0.40	ND-0.66	0.39-0.85
% Detected	75	50	100

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

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	76-90	2	91	75-104	2	91	88-94	2	102	100-104
8	107	100-112	8	102	99-107	8	101	98-103	8	95	94-97
16	108	99-114	16	102	97-112	16	99	95-102	16	94	91-96

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 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	83	77-93	91	81-102	94	90-96	108	104-111
Mid	83	77-94	89	78-99	92	91-93	106	104-108
Low	82	74-96	88	77-95	91	89-93	103	99-108

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 β-NGF Antibody Set was tested individually against a larger panel of analytes for nonspecific binding ((BAFF, BAFF-R/TNFRSF13C, BCMA/TNFRSF17, BDNF, C-Peptide, CD20, CD27, CD28, CD40L (soluble), CD276/B7-H3, CTACK, CTLA-4, Desghrelin, ENA-78, Eotaxin, Eotaxin-2, Eotaxin 3, EPO, FGF (basic), FGF-23, FLT3L, Fractalkine, FSH, G-CSF, GITRL/TNFSF18, GITR/TNFRSF18, Ghrelin (Ser3-octanoylated), gp130 (soluble), GIP (1–42), GIP (3–42), GLP-1 (7–36), GLP-1 (9–36), GM-CSF, Granzyme A, Granzyme B, GRO-α, HAVCR2/TIM-3, I-309, IFN-α2a, IFN-β, IFN-γ, IL-1α, IL-1β, IL-1RA, IL-2, IL-2Rα, 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-λ1, IL-31, IL-33, Insulin, IP-10, LAG3, Leptin, LH, MCP-1, MCP-2, MCP-4, M-CSF, MDC, MIF, MIP-1α, MIP-1β, MIP-5, OX40/TNFRSF4, PD1, PD-L1, PD-L2, PIGF, PP, Proinsulin, PYY (3-36), RANKL/TNFSF11, SDF-1α, Tie-2, TIGIT, TLR1, TNF-α, TNF-β, TPO, TRAIL, TSLP, VEGF-A, VEGF-D, and YKL-40). Nonspecific binding was less than 0.5%.

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

Diluent Compatibility

The data included in this document has been 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: β-NGF is included in Calibrator 14. The human β-NGF Calibrator is a full-length recombinant protein expressed in a mouse cell line.
Antibodies: The U-PLEX Human β-NGF 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.