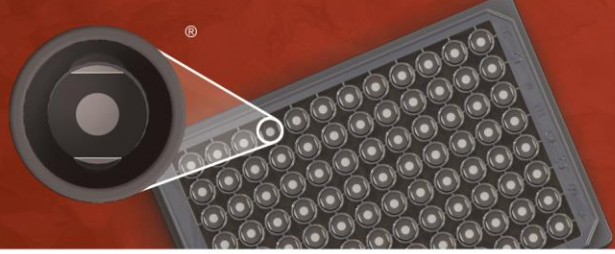
U-PLEX®

Human IFN-β



www.mesoscale.com®

Ordering Information

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Company Address

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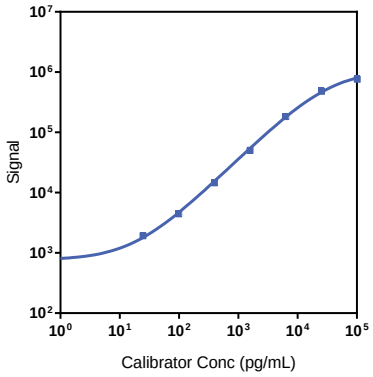
Product Options	Catalog Number	Description
Multiplex	K15067M, K25067M K151AEM, K251AEM K151ACM, K251ACM	U-PLEX Biomarker Group 1 (hu) U-PLEX Immuno-Oncology Group 1 (hu) U-PLEX Metabolic Group 1 (hu)
Singleplex	K151VIK-1/-2/-4	U-PLEX Human IFN-β Assay with SECTOR™ plates
	K151VIK-21/-22/-24	U-PLEX Human IFN-β Assay with QuickPlex® plates
	K251VIK-2/-4	U-PLEX Human IFN-β Assay with 384-well plates
Antibody Set	B21VI-2/-3	U-PLEX Human IFN-β Antibody Set
Protocol	U-PLEX Product Inserts are available at http://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 IFN-β 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)
IFN-β	3.1	3.0-3.5

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	13,300	4.7	8.0
Mid	1,090	3.2	11.3
Low	84	4.4	22.3

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 IFN-β

Tested Samples

Sample Type	Serum (N=10)	Plasma (N=10)
Median (pg/mL)	ND	ND
Range (pg/mL)	ND-53	ND-7.6
% Detected	10	10

Normal serum and plasma samples were tested without dilution prior to the assay. ND = non-detectable (<LLOD)

Dilution Linearity

Serum			EDTA Plasma		
Fold Dilution	Average % Recovery	% Recovery Range	Fold Dilution	Average % Recovery	% Recovery Range
2	131	121-151	2	140	111-175
4	167	142-200	4	157	113-205
8	219	181-255	8	173	119-223

Normal human serum and EDTA plasma were spiked with Calibrator and tested at different dilutions. Undiluted samples were tested 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

Spike Recovery

	Serum		EDTA Plasma	
Spike Level	Average % Recovery	% Recovery Range	Average % Recovery	% Recovery Range
High	52	42-63	58	38-76
Mid	47	37-57	53	35-68
Low	44	36-52	49	33-60

Normal serum and plasma were spiked with Calibrator at 3 levels. Undiluted samples were tested 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 IFN-β Antibody Set was tested individually against a larger panel of analytes for nonspecific binding (APRIL/TNFSF13, BAFF, BAFF-R/TNFRSF13C, BCMA/TNFRSF17, BDNF, C-Peptide, CD20, CD27, CD28, CD40L (soluble), CD276/B7-H3, CTACK, CTLA-4, Desghrelin, ENAAPRILAPRIL/TNFSF13, 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, E-Selectin, FGF (basic), FGF-21, FGF-23, FLT3L, Fractalkine, FSH, Galectin-9, 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), Glucagon, GM-CSF, Granzyme A, Granzyme B, GRO-α, HAVCR2/TIM-3, HVEM/TNFRSF14, ICOS, ICOS-L/B7-H2, 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, LIGHT/TNFSF14, MCP-1, MCP-2, MCP-4, M-CSF, MDC, MIF, MIG, MIP-1α, MIP-1β, MIP-5, MMP-1, MMP-2, MMP-7, MMP-9 (total), Nectin-4, OX40/TNFRSF4, PD1, PD-L1, PD-L2, Pentraxin 3, Perforin, PlGF, PP, Proinsulin, proMMP-9, P-Selectin, PYY (3–36), RAGE (soluble), RANKL/TNFSF11, RANTES, S100A12, SDF-1α, Tie-2, TIGIT, TLR1, TNF-α, TNF-β, TNF-RI, TNF-RII, TPO, TRAIL, TSLP, VEGF-A, VEGF-D, VEGFR-1/Flt-1, YKL-40, and β-NGF). Nonspecific binding was less than 2.0%.

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

Diluent Compatibility

Diluents 57 and 3 are provided with this assay. MSD offers a range of assay and antibody diluents for separate purchase. Depending on your assay needs, other diluents may be tested.

Assay Components

Calibrator: IFN-β is included in Calibrator 9. The IFN-β Calibrator is a full-length recombinant protein expressed in Chinese hamster cells.
Antibodies: The U-PLEX Human IFN-β Assay uses a goat polyclonal antibody for capture and a goat polyclonal 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.

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