Magnetic Luminex® Performance Assay
Human IL-36β High Sensitivity Kit

Catalog Number: LBHS1099
Pack Size: 100 Tests

SPECIFICATIONS AND USE

Recommended Sample Types
- Cell culture supernates, serum, EDTA plasma, and heparin plasma.

Microparticle Region
- Region-15

Components
- Microparticle Concentrate (Part 894516) is supplied as a 50X concentrated stock (0.075 mL) with preservatives.
- Biotin-Antibody Concentrate (Part 894519) is supplied as a 100X concentrated stock solution (0.075 mL) with preservatives.

Other Supplies Required
- Magnetic Luminex Performance Assay Human High Sensitivity Cytokine Base Kit B (Catalog Number LBHS000).

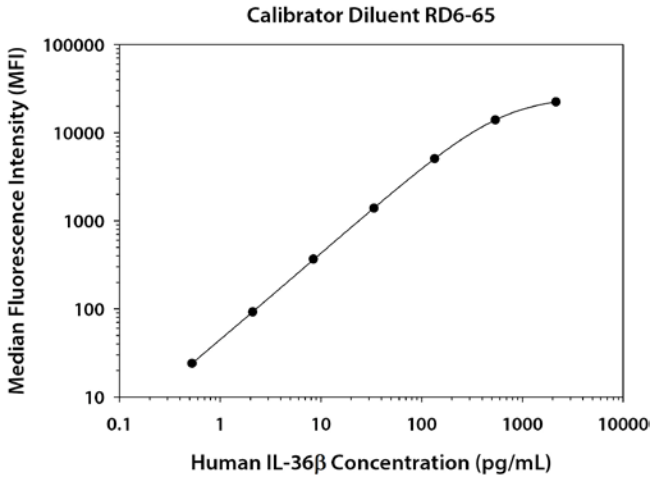
Storage
- Store the unopened kit at 2-8 °C. Do not use past the expiration date on the label.
- **Avoid freezing microparticles.**
- **Protect microparticles from light.**

Instructions for Use
- Refer to the Base Kit insert for the Magnetic Luminex Performance Assay procedure.

TYPICAL DATA

This human IL-36β standard curve is provided only for demonstration. A standard curve must be generated each time an assay is run, utilizing values from the Standard Value Card included in the Base Kit.

Note: *When running cell culture supernate samples using Calibrator Diluent RD5K, a six-point standard curve (0.527-540 pg/mL) is recommended. When running serum/plasma samples using Calibrator Diluent RD6-65, a seven-point standard curve (0.527-2160 pg/mL) is recommended.*



Standard	pg/mL	MFI	Average	Corrected
Blank	0	29 30	30	——
1	2160	22,169 22,594	22,382	22,352
2	540	13,950 13,983	13,967	13,937
3	135	5071 5157	5114	5084
4	33.8	1408 1430	1419	1389
5	8.44	393 400	397	367
6	2.11	119 124	122	92
7	0.527	54 54	54	24

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PRECISION

Intra-assay Precision (precision within an assay)
Three samples of known concentration were tested on one plate to assess precision within an assay.

Inter-assay Precision (precision between assays)
Three samples of known concentration were tested in separate assays to assess precision between assays. Assays were performed by at least three technicians using two lots of components.

	Intra-assay Precision			Inter-assay Precision		
Sample	1	2	3	1	2	3
n	20	20	20	43	43	43
Mean (pg/mL)	4.05	40.8	456	4.38	46.1	409
Standard Deviation	0.109	0.803	10.2	0.618	5.16	48.1
% CV	2.7	2.0	2.2	14.1	11.2	11.8

RECOVERY & LINEARITY

Samples were spiked with human IL-36β and evaluated for recovery and were serially diluted to evaluate assay linearity.

Recovery		
Sample Type	Average % Recovery	Range (%)
Cell culture supernates	110	100-115
Serum	105	100-109
EDTA plasma	102	93-113
Heparin plasma	106	100-113

Linearity					
		Cell culture supernates	Serum	EDTA Plasma	Heparin plasma
1:2	Average % of Expected	100	96	94	92
	Range (%)	100-100	93-110	91-96	88-95
1:4	Average % of Expected	101	99	84	81
	Range (%)	101-102	86-112	75-88	73-88
1:8	Average % of Expected	105	99	80	80
	Range (%)	104-107	81-117	70-90	69-91

SENSITIVITY

All data were collected with assays run as a multiplex.

Twenty-one assays were evaluated, and the minimum detectable dose (MDD) of human IL-36β ranged from 0.030-0.250 pg/mL. The mean MDD was 0.092 pg/mL.

The MDD was determined by adding two standard deviations to the MFI of twenty zero standard replicates and calculating the corresponding concentration.

SPECIFICITY

Note: *Refer to the base kit insert for a complete list of analytes tested for cross-reactivity and interference.*

This assay recognizes natural and recombinant human IL-36β.

TECHNICAL HINTS

- Protect the microparticles and streptavidin-PE from light at all times.
- Refer to the appropriate Base Kit Standard Value Card for reconstitution volume and values of the reconstituted standard.
- Diluted microparticles cannot be stored. Make a fresh dilution of microparticles each time the assay is run.
- The use of a magnetic device made to accommodate a microplate is necessary for washing.
- Discrepancies may exist in values obtained for the same analyte utilizing different technologies.

Magnetic Luminex Performance Assays afford the user the benefit of multianalyte analysis of cytokines in a complex sample. A single, multipurpose diluent for each sample type is used to optimize recovery, linearity, and reproducibility. Such a multipurpose, single diluent may not optimize any single analyte to the same degree that a unique diluent selected for analysis of that analyte can optimize conditions. Therefore, some performance characteristics may be more variable than those for assays designed specifically for single analyte analysis.