Magnetic Luminex® Performance Assay Human IL-17F High Sensitivity Kit

Catalog Number: LBHS1335
Pack Size: 100 Tests

SPECIFICATIONS AND USE

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

Microparticle Region
- Region-37

Components
- Microparticle Concentrate (Part 894477) is supplied as a 50X concentrated stock (0.075 mL) with preservatives.
- Biotin-Antibody Concentrate (Part 894485) 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).

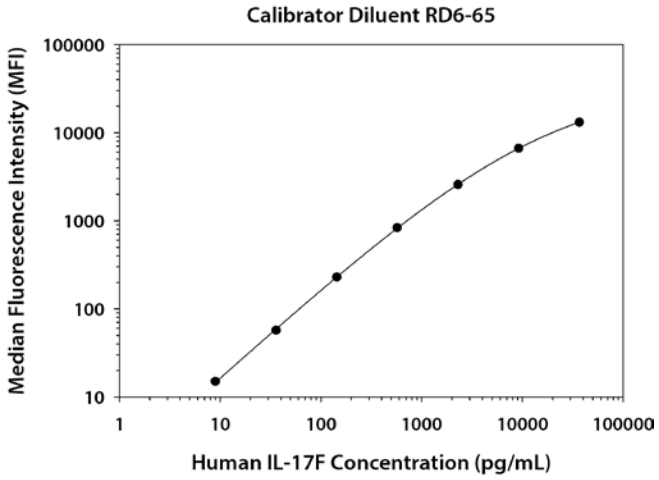
Storage
- Store the unopened kit at 2-8 °C. Do not use past the expiration date on the label.
- **Avoid freezing microparticles.**
- **Protect microparticles from light.**

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

TYPICAL DATA

This human IL-17F 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 (8.97-9188 pg/mL) is recommended. When running serum/plasma samples using Calibrator Diluent RD6-65, a seven-point standard curve (8.97-36,750 pg/mL) is recommended.*



Standard	pg/mL	MFI	Average	Corrected
Blank	0	41 42	42	——
1	36,750	13,168 13,201	13,185	13,143
2	9188	6668 6715	6692	6650
3	2297	2602 2629	2616	2574
4	574	868 887	878	836
5	144	267 274	271	229
6	35.9	98 100	99	57
7	8.97	57 57	57	15

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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)	93.9	1142	12,182	95.8	1143	9892
Standard Deviation	2.07	16.7	338	11.8	129	735
% CV	2.2	1.5	2.8	12.4	11.3	7.4

RECOVERY & LINEARITY

Samples were spiked with human IL-17F and evaluated for recovery and were serially diluted to evaluate assay linearity.

Recovery		
Sample Type	Average % Recovery	Range (%)
Cell culture supernates	111	104-126
Serum	75	70-79
EDTA plasma	79	75-88
Heparin plasma	75	72-78

Linearity					
		Cell culture supernates	Serum	EDTA Plasma	Heparin plasma
1:2	Average % of Expected	87	113	118	118
	Range (%)	86-87	108-118	113-122	113-126
1:4	Average % of Expected	88	117	120	121
	Range (%)	86-90	106-127	112-128	114-126
1:8	Average % of Expected	85	119	117	121
	Range (%)	82-87	104-137	104-127	108-136

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-17F ranged from 0.341-4.54 pg/mL. The mean MDD was 1.52 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-17F.

Recombinant human TNF RI interferes at concentrations > 25.0 ng/mL in this assay.

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.