



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

Catalog Number: LBHS317

Pack Size: 100 Tests

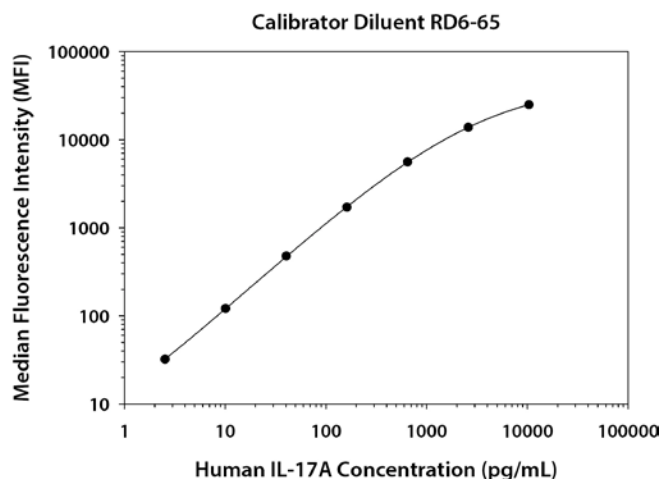
SPECIFICATIONS AND USE

- Recommended Sample Types**
- Cell culture supernates, serum, EDTA plasma, and heparin plasma.
- Microparticle Region**
- Region-36
- Components**
- Microparticle Concentrate (Part 894476) is supplied as a 50X concentrated stock (0.075 mL) with preservatives.
 - Biotin-Antibody Concentrate (Part 894484) 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-17A 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 (2.53-2593 pg/mL) is recommended. When running serum/plasma samples using Calibrator Diluent RD6-65, a seven-point standard curve (2.53-10,370 pg/mL) is recommended.



Standard	pg/mL	MFI	Average	Corrected
Blank	0	18 19	19	—
1	10,370	24,788 25,228	25,008	24,989
2	2593	13,713 13,898	13,806	13,787
3	648	5591 5607	5599	5580
4	162	1728 1735	1732	1713
5	40.5	494 498	496	477
6	10.1	137 142	140	121
7	2.53	50 52	51	32

FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES.

R&D Systems, Inc.
1-800-343-7475

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)	14.0	152	1529	14.3	159	1381
Standard Deviation	0.237	1.71	23.2	2.19	15.9	111
% CV	1.7	1.1	1.5	15.3	9.9	8.0

RECOVERY & LINEARITY

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

Recovery			Linearity					
Sample Type	Average % Recovery	Range (%)			Cell culture supernates	Serum	EDTA Plasma	Heparin plasma
Cell culture supernates	107	102-112	1:2	Average % of Expected	111	108	113	103
				Range (%)	109-112	94-120	98-120	101-108
Serum	100	94-109	1:4	Average % of Expected	112	111	112	98
				Range (%)	109-115	94-126	96-123	84-107
EDTA plasma	90	72-105	1:8	Average % of Expected	115	112	111	101
				Range (%)	115-115	97-125	100-123	78-112
Heparin plasma	91	76-100						

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-17A ranged from 0.066-0.349 pg/mL. The mean MDD was 0.156 pg/mL.

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

CORRELATION

This assay has been correlated to the Quantikine® ELISA Kit with a slope of 0.9-1.1 and an R² value greater than 0.9.

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-17A.

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.

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