Magnetic Luminex® Performance Assay
Human IL-23 High Sensitivity Kit

Catalog Number: LBHS1716
Pack Size: 100 Tests

SPECIFICATIONS AND USE

Recommended Sample Types
- Serum, EDTA plasma, and heparin plasma.
  Note: *Cell culture supernates are not suitable for use with IL-23.*

Microparticle Region
- Region-39

Components
- Microparticle Concentrate (Part 894479) is supplied as a 50X concentrated stock (0.075 mL) with preservatives.
- Biotin-Antibody Concentrate (Part 894487) is supplied as a 100X concentrated stock solution (0.075 mL) with preservatives.

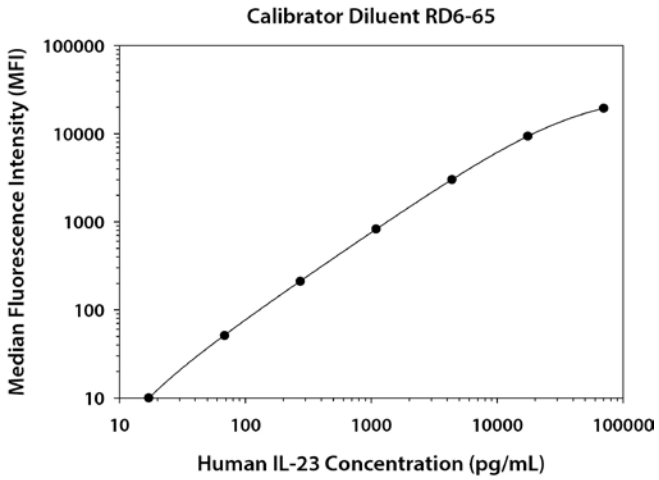
Other Supplies Required
- Magnetic Luminex Performance Assay Human High Sensitivity Cytokine Base Kit B (Catalog Number LBHS000).

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-23 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.



Standard	pg/mL	MFI	Average	Corrected
Blank	0	21 23	22	——
1	70,000	19,364 19,518	19,441	19,419
2	17,500	9268 9484	9376	9354
3	4375	3028 3048	3038	3016
4	1094	848 849	849	827
5	273	232 233	233	211
6	68.4	72 73	73	51
7	17.09	31 32	32	10

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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)	174	2015	24,195	216	671	6345
Standard Deviation	2.22	23.0	203	42.4	319	2476
% CV	1.3	1.1	0.8	19.6	13.2	10.4

RECOVERY & LINEARITY

Samples were spiked with human IL-23 and evaluated for recovery and were serially diluted to evaluate assay linearity.

Recovery			Linearity				
Sample Type	Average % Recovery	Range (%)			Serum	EDTA Plasma	Heparin plasma
Serum	78	70-86	1:2	Average % of Expected	92	106	99
				Range (%)	85-106	92-131	90-108
EDTA plasma	84	72-99	1:4	Average % of Expected	92	103	102
				Range (%)	83-108	88-121	83-121
Heparin plasma	81	76-87	1:8	Average % of Expected	92	103	107
				Range (%)	87-104	88-116	81-131

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-23 ranged from 1.19-9.52 pg/mL. The mean MDD was 3.10 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 R^2 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-23.

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.