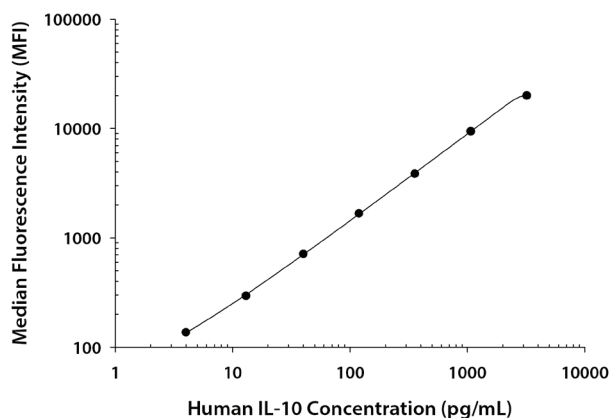


- Recommended Sample Types**
- Cell culture supernates, serum, EDTA plasma, and heparin plasma
- Microparticle Region**
- Region-29
- Components**
- Microparticle Concentrate (Part 894438) is supplied as a 100X concentrated stock (0.075 mL) with preservatives.
 - Biotin-Antibody Concentrate (Part 892624) is supplied as a 100X concentrated stock solution (0.075 mL) with preservatives.
- Other Supplies Required**
- Magnetic Luminex® Performance Assay Human Base Kit A (R&D Systems®, Catalog # LUHM000).
 - or
 - Magnetic Luminex® Performance Assay Human Obesity Base Kit (R&D Systems®, Catalog # LOBM000).
- 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-10 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	22	22	—
1	3200	20,050 20,079	20,065	20,043
2	1067	9300 9594	9447	9425
3	356	3871 3907	3889	3867
4	119	1671 1721	1696	1674
5	40	734 738	736	714
6	13	315 320	318	296
7	4	157 161	159	137

PERFORMANCE CHARACTERISTICS

All data were collected with assays run as a multiplex.

Data obtained with polystyrene and magnetic beads were equivalent.

Sensitivity - The Minimum Detectable Dose (MDD) was determined by adding two standard deviations to the MFI of twenty zero standard replicates and calculating the corresponding concentration.

Forty-three assays were evaluated, and the MDD of human IL-10 ranged from 0.07-0.30 pg/mL. The mean MDD was 0.13 pg/mL.

PRECISION

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

Inter-assay Precision (precision between assays) - Three samples of known concentration were tested in twenty-five separate assays to assess inter-assay precision.

Sample	Intra-Assay Precision			Inter-Assay Precision		
	1	2	3	1	2	3
n	20	20	20	25	25	25
Mean (pg/mL)	10.4	66	320	12	73	333
Standard deviation	0.54	3.4	20.7	1.0	5.0	24
CV (%)	5.2	5.2	6.4	10.1	7.4	7.3

RECOVERY

Samples containing and/or spiked with human IL-10 were evaluated for recovery.

Sample Type	Average % Recovery	Range
Cell culture supernates	105	95-117%
Serum	109	90-122%
EDTA plasma	97	86-106%
Heparin plasma	97	88-102%

LINEARITY

Samples containing and/or spiked with human IL-10 were serially diluted to evaluate assay linearity.

		Cell culture supernates	Serum	EDTA plasma	Heparin plasma
1:2	Average % of Expected	101	99	100	96
	Range (%)	90-111	92-109	92-110	92-101
1:4	Average % of Expected	95	95	100	92
	Range (%)	83-119	87-102	90-111	88-98
1:8	Average % of Expected	96	91	96	89
	Range (%)	76-114	88-95	84-107	82-96

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-10.

TECHNICAL HINTS

- Protect the microparticles and streptavidin-PE from light at all times.
- Refer to the 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 multi-analyte analysis of biomarkers in a complex sample. For each sample type, a single, multipurpose diluent is used to optimize recovery, linearity, and reproducibility. Such a multipurpose 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.