Magnetic Luminex® Performance Assay Human IL-12 p70 High Sensitivity Kit

Catalog Number: LHSCM219
Pack Size: 100 Tests

SPECIFICATIONS AND USE

Recommended Sample Types
- Serum, EDTA plasma, and heparin plasma.

Microparticle Region
- Region-28

Components
- Microparticle Concentrate (Part 894497) is supplied as a 50X concentrated stock (0.075 mL) with preservatives.
- Biotin-Antibody Concentrate (Part 894054) is supplied as a 100X concentrated stock solution (0.075 mL) with preservatives.

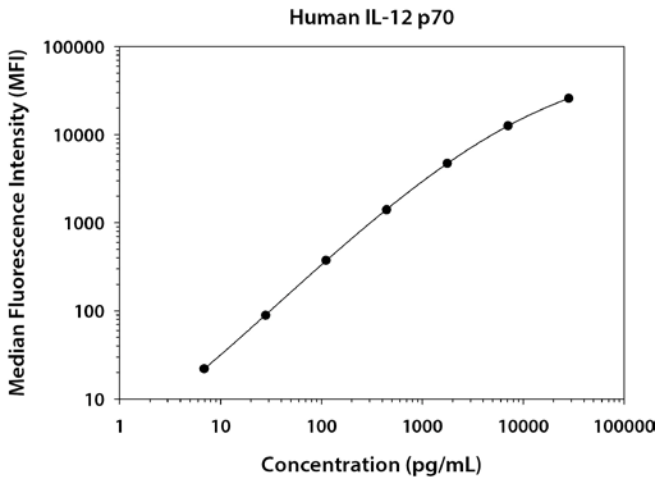
Other Supplies Required
- Magnetic Luminex Performance Assay Human High Sensitivity Cytokine Base Kit A (Catalog Number LHSCM000).

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-12 p70 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	55 56	56	——
1	28,300	25,865 25,904	25,885	25,829
2	7075	12,563 12,712	12,638	12,582
3	1769	4772 4790	4781	4726
4	442	1457 1465	1461	1406
5	111	428 431	430	374
6	28	143 146	145	89
7	6.9	78 78	78	22

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

PRECISION

Intra-assay Precision (precision within an assay)
Three samples of known concentration were tested twenty times 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.

	Intra-assay Precision			Inter-assay Precision		
Sample	1	2	3	1	2	3
n	20	20	20	60	60	60
Mean (pg/mL)	54	439	7523	51	410	8562
Standard Deviation	2.6	14.0	660	5.6	41	1042
% CV	4.8	3.2	8.8	11.0	10.0	12.2

RECOVERY & LINEARITY

Samples were spiked with human IL-12 p70 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	103	74-133	1:2	Average % of Expected	98	111	96
				Range (%)	89-119	99-136	80-109
EDTA plasma	91	61-128	1:4	Average % of Expected	99	108	94
				Range (%)	86-121	94-132	83-112
Heparin plasma	86	65-143	1:8	Average % of Expected	101	110	96
				Range (%)	90-121	93-124	81-115

SENSITIVITY

All data were collected with assays run as a multiplex.
Data obtained with polystyrene and magnetic beads were equivalent.

Twenty-eight assays were evaluated, and the minimum detectable dose (MDD) of human IL-12 p70 ranged from 0.60-2.96 pg/mL. The mean MDD was 1.81 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-12 p70.

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.

Luminex Performance Assays afford the user the benefit of multianalyte analysis of cytokines in a complex sample. A single, multipurpose diluent 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.