R&D SYSTEMS
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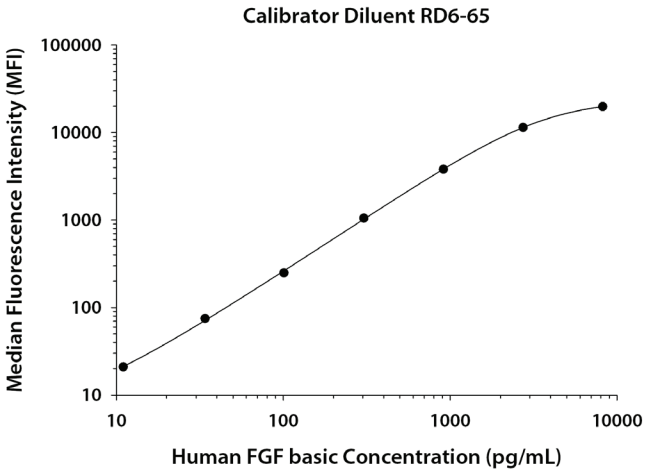
XL Magnetic Luminex® Performance Assay Human FGF basic Kit

Catalog Number: LUXLM233
Pack Size: 100 Tests

Recommended Sample Types	• Cell culture supernates, serum, EDTA plasma, and heparin plasma
Microparticle Region	• Region-77
Components	• Human FGF basic Magnetic Microparticles (Part 898849) is supplied as a 100X concentrated stock (0.075 mL) with preservatives.
Other Supplies Required	• Magnetic Luminex® Performance Assay Human XL Discovery Base Kit (R&D Systems®, Catalog # LUXLM000).
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 FGF basic 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	140 142	141	—
1	8210	19,864 19,969	19,916	19,775
2	2737	11,556 11,560	11,558	11,417
3	912	3865 4019	3942	3801
4	304	1150 1229	1190	1049
5	101	390 391	390	249
6	34	212 219	216	75
7	11	162 163	162	21

PERFORMANCE CHARACTERISTICS

All data were collected with assays run as a multiplex.

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

Six assays were evaluated, and the MDD of human FGF basic ranged from 2.62-13.2 pg/mL. The mean MDD was 4.95 pg/mL.

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Bio-Techne is a trading name for R&D Systems

PRECISION

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

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

	Intra-Assay Precision		Inter-Assay Precision	
Sample	**1**	**2**	**1**	**2**
n	20	20	25	25
Mean (pg/mL)	45.4	1866	41.6	1832
Standard deviation	3.20	23.9	8.08	247
CV (%)	7.0	1.3	19.4	13.5

RECOVERY

Samples containing and/or spiked with human FGF basic were evaluated for recovery.

Sample Type	Average % Recovery	Range
Cell culture supernates	102	83-117%
Serum	80	50-113%
EDTA plasma	80	61-96%
Heparin plasma	70	47-94%

LINEARITY

Samples containing and/or spiked with human FGF basic were serially diluted to evaluate assay linearity.

		Cell culture supernates	Serum	EDTA plasma	Heparin plasma
1:2	Average % of Expected	105	143	132	150
	Range (%)	104-107	129-156	126-141	136-162
1:4	Average % of Expected	106	157	149	199
	Range (%)	103-111	140-184	135-173	175-233
1:8	Average % of Expected	108	170	157	235
	Range (%)	103-116	145-211	132-202	200-296

CORRELATION

This assay has been correlated to the Quantikine® ELISA Kit.

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 FGF basic.
Recombinant human FGF R1α (IIIb) interferes at concentrations > 66.7 ng/mL.
Recombinant human FGF R1α (IIIc) interferes at concentrations > 0.823 ng/mL.
Recombinant human FGF R1β (IIIb) interferes at concentrations > 7.41 ng/mL.
Recombinant human FGF R1β (IIIc) interferes at concentrations > 2.47 ng/mL.

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.