Recombinant Mouse FGF R1 Fc Chimera

Catalog Number: 10135-FR

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived mouse FGF R1 protein

Mouse FGF R1 (Arg22-Ile376) Accession # P16092-6	IEGRMDP	Mouse IgG_{2A} (Glu98-Lys330)

N-terminus C-terminus

N-terminal Sequence Analysis	Arg22
Structure / Form	Disulfide-linked homodimer
Predicted Molecular Mass	66 kDa

SPECIFICATIONS

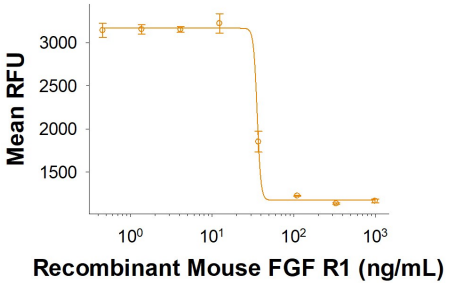
SDS-PAGE	95-115 kDa, under reducing conditions
Activity	Measured by its ability to inhibit FGF acidic-dependent proliferation of NR6R-3T3 mouse fibroblast cells. The ED_{50} for this effect is 15-90 ng/mL
Endotoxin Level	<0.10 EU per 1 µg of the protein by the LAL method.
Purity	>90%, by SDS-PAGE visualized with Silver Staining and quantitative densitometry by Coomassie® Blue Staining.
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 500 µg/mL in PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 3 months, -20 to -70 °C under sterile conditions after reconstitution.

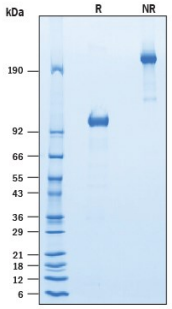
DATA

Inhibition Activity



Recombinant Mouse FGF R1 Fc Chimera (Catalog # 10135-FR) inhibits Recombinant Mouse FGF acidic (Catalog # 4686-FA) induced proliferation of NR6R-3T3 mouse fibroblast cells. The ED_{50} for this effect is 15-90 ng/mL.

SDS-PAGE



2 µg/lane of Recombinant Mouse FGF R1 Fc Chimer (Catalog # 10135-FR) was resolved with SDS-PAGE under reducing (R) and non-reducing (NR) conditions and visualized by Coomassie® blue staining, showing bands at 95-115 kDa and 190-230 kDa, respectively.

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BACKGROUND

Fibroblast growth factor receptor 1 (FGF R1) is a member of a tyrosine kinase family that acts as cell-surface receptors for fibroblast growth factors (FGFs). The FGF R family consists of four members that differ in their ligand affinities and play essential roles in the regulation of embryonic development, cell proliferation, differentiation, and migration (1, 2). Mature mouse FGF R1 consists of a 355 amino acid (aa) extracellular domain (ECD) composed of three immunoglobulin-like domains, a single transmembrane domain and a cytoplasmic tyrosine kinase domain (1). The ECD of mouse FGF R1 shares 98% and 99% aa identity with the human and rat ECD, respectively. FGF R1 binds both acidic and basic fibroblast growth factors and is involved in limb induction (2, 3). Alternative splice variants of this gene have been reported. This product is the longest variant, isoform 1 (1, 4). FGF Rs play essential roles in the regulation of embryonic development, cell proliferation, differentiation and migration (5). Upon FGF and heparan sulfate binding, the FGF Rs form homodimers and the kinase domains are activated (6, 7). Alterations in the binding regulates FGF bioactivity (8).

References:

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