

Recombinant Mouse Fgf8 protein

Cat. No. Fgf8-539M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse Fgf8 protein was expressed in Escherichia coli.
Species	Mouse
Source	E.coli
ProteinLength	246
Description	Murine FGF-8 is a heparin binding growth factor belonging to the FGF family, which plays a central role during prenatal development, postnatal growth and regeneration of a variety of tissues, by promoting cellular proliferation and differentiation. Murine FGF-8 is first purified from an androgen-dependent mouse mammary carcinoma cell line as an androgen induces secretion. Cloning and analysis of the murine FGF8 gene revealed at least eight potential protein isoforms (FGF-8a-h). Murine FGF-8a and b share 100 % amino acid identity with that in humans, and murine FGF-8e and f share 98 % amino acid identity with humans. None of the FGF-8 isoforms exhibited activity to FGFR1b, 2b, 3b, but FGFR2c, 3c and FGFR4 can be activated by several FGF-8 isoforms. FGF-8 plays an important role in the regulation of embryonic development, cell proliferation, cell differentiation and cell migration, and it is required for normal brain, eye, ear and limb development during embryogenesis.
Form	Lyophilized from a 0.2µm filtered concentrated solution in PBS, pH 7.4, 500 mM NaCl.
Bio-activity	Fully biologically active when compared to standard. The ED50 as determined by a

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	cell proliferation assay using murine balb/c 3T3 cells is less than 5.0 ng/ml, corresponding to a specific activity of $> 2.0 \times 10^5$ IU/mg in the presence of 10 µg/ml of heparin.
Molecular Mass	Approximately 28.1 kDa, a single non-glycosylated polypeptide chain containing 246 amino acids.
AA Sequence	QVRSAAQKRGPAGNPADTLGQGHEDRPFQQRSRAGKNFTNPAPNYPEEGSKEQ RDSVLPKVTQRHVREQSLVTDQLSRRLIRTYQLYSRTSGKHVQVLANKRINAMAED GDPFAKLIVETDTFGSRVRVRGAETGLYICMNKKGKLIAKSNGKGKDCVFTEIVLENN YTALQNAKYEGWYMAFTRKGRPRKGSKTRQHQREVHFMKRLPRGHHTTEQSLRF EFLNYPFTRSLRGSQRTWAPEPR
Endotoxin	Less than 1 EU/g of rMuFGF-8 as determined by LAL method.
Purity	>97% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name **Fgf8**

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Official Symbol	Fgf8
Synonyms	FGF8; fibroblast growth factor 8; HBGF-8; androgen-induced growth factor; heparin-binding growth factor 8; Aigf; Fgf-8; MGC59627;
Gene ID	14179
mRNA Refseq	NM_001166361
Protein Refseq	NP_001159833
UniProt ID	P37237
SDS-PAGE of Fgf8-539M	