Datasheet

Cat. No. P1176

Recombinant Mouse FGF-8

Information

Gene ID	14179
Accession #	P37237
Alternate Names	AIGF, HBGF-8, FGF-8c
Source	*Escherichia coli.*
M.Wt	Approximately 28.1 kDa, a single non-glycosylated polypeptide chain containing 246 amino acids.
AA Sequence	QVRSAAQKRG PGAGNPADTL GQGHEDRPFG QRSRAGKNFT NPAPNYPEEG SKEQRDSVLP KVTQRHVREQ SLVTDQLSRR LIRTYQLYSR TSGKHVQVLA NKRINAMAED GDPFAKLIVE TDTFGSRVRV RGAETGLYIC MNKKGKLIAK SNGKGKDCVF TEIVLENNYT ALQNAKYEGW YMAFTRKGRP RKGSKTRQHQ REVHFMKRLP RGHHTTEQSL RFEFLNYPPF TRSLRGSQRT WAPEPR
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4, 500 mM NaCl.
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 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED_{50} as determined by a cell proliferation assay using murine balb/c 3T3 cells is less than 5.0 ng/ml, corresponding to a specific activity of > 2.0×10^5 IU/mg in the presence of 10 μg/ml of heparin.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	5 μg	100 μg	500 μg
Recombinant Mouse FGF-8	5 μg	100 μg	500 μg

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Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rMuFGF-8 as determined by LAL method.

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.

Reference

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