Recombinant Murine Acidic Fibroblast Growth Factor (rMuaFGF)

PrimeGene Technical DataSheet

Catalog Number:	124-01
Source:	*Escherichia coli*
Molecular Weight:	Approximately 15.8 kDa, a single non-glycosylated polypeptide chain containing 140 amino acid residues.
Size:	10μg /100μg /500μg
AA Sequence:	FNLPLGNYKK PKLLYCSNGG HFLRILPDGT VDGTRDRSDQ HIQLQLSAES AGEVYIKGTE TGQYLAMDTE GLLYGSQTPN EECLFLERLE ENHYNTYTSK KHAEKNWFVG LKKNGSCKRG PRTHYGQKAI LFLPLPVSSD
Purity:	> 96 % by SDS-PAGE and HPLC analyses.
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 0.2 ng/ml, corresponding to a specific activity of > 5.0×10^6 IU/mg in the presence of 10 μg/ml of heparin.
Physical Appearance:	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation:	Lyophilized from a 0.2 μm filtered concentrated solution in 1×PBS, pH7.0, 5%Trehalose, 0.02%Tween-80, 0.5mM DTT, 0.5mM EDTA.
Endotoxin:	Less than 1 EU/μg of rMuaFGF as determined by LAL method.
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.
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.
Usage:	This material is offered by Shanghai PrimeGene Bio-Tech for research, laboratory or further evaluation purposes. **NOT FOR HUMAN USE**.

Murine Acidic Fibroblast Growth Factor

Murine aFGF, encoded by the FGF1 gene, is a member of the fibroblast growth factor (FGF) family. Fibroblast growth factor was found in pituitary extracts in 1973 and then tested in a bioassay that caused fibroblasts to proliferate. After further fractionating the extract using acidic and basic pH, two different forms have isolated that named "acidic fibroblast growth factor" (FGF-1) and "basic fibroblast growth factor" (FGF-2). Murine aFGF shares 52 % amino acid sequence identity with bFGF. Murine aFGF shares 96 % amino acid sequence identity with human aFGF, so it exhibits considerable species crossreactivity between murine and human aFGF. In mammalian FGF receptor family has 4 members, FGFR1, FGFR2, FGFR3, and FGFR4, and 1, 2, 3 have 2 sub-types “b”, “c”. aFGF can bind and activate all 7 different FGFRs. Affinity between aFGF and its receptors can be increased by heparin or heparan sulfate proteoglycan. aFGF plays an important role in the regulation of cell survival, cell division, angiogenesis, cell differentiation and cell migration. aFGF are also involved in a variety of biological processes, including embryonic development , morphogenesis, tissue repair, tumor growth and invasion.

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