

Recombinant Mouse Acidic Fibroblast Growth Factor (Mouse aFGF)

Product Information

Product Name	Cat#	Size
Recombinant Mouse Acidic Fibroblast Growth Factor (Mouse aFGF)	91314ES10	10 µg
	91314ES60	100 µg
	91314ES76	500 µg

Product Description

Mouse 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.

Product Properties

Synonyms	Fibroblast growth factor 1; FGF-1; Acidic fibroblast growth factor; HBGF-1
Accession	P61148
GeneID	14164
Source	E.coli-derived mouse Acidic Fibroblast Growth Factor protein, Phe16-Asp155
Molecular Weight	Approximately 15.8 kDa.
AA Sequence	FNLPLGNYKK PKLLYCSNGG HFLRILPDGT VDGTRDRSDQ HIQLQLSAES AGEVYIKGTE TGQYLAMDTE GLLYGSQTPN EECLFLERLE ENHYNTYTSK KHAEKNWFGV LKKNKSGCKRG PRTHYGQKAI LFLPLPVSSD
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
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.
Endotoxin	< 1.0 EU per 1µg of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in PBS, pH 7.4. We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom.
Reconstitution	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 and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only!