Data Sheet (Cat.No.TMPY-00756)

TargetMol

FGF-1 Protein, Human, Recombinant

General Information

Synonyms:	AFGF;ECGF-beta;ECGFB;fibroblast growth factor 1 (acidic);GLIO703;ECGF;ECGF-β;HBGF-1;FGF-alpha;FGFA;FGF-α;ECGFA;HBGF1;FGF-1
Protein Construction:	A DNA sequence encoding the mature form of human FGF acidic (AAA79245.1) (Phe 16-Asp 155) was expressed, with an additional Met at the N-terminus. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	P05230-1
Molecular Weight:	16 kDa (predicted); 16 kDa (reducing conditions)

QC Testing

Biological Activity:	Measured in a cell proliferation assay using Balb/c 3T3 mouse embryonic fibroblasts. The ED50 for this effect is typically 0.15-0.75 ng/mL.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

aFGF, also known as FGF1 and HBGF-1, is a member of the fibroblast growth factor family. The biological activity of aFGF protein is exerted through binding to four high affinity cell surface receptors (FGFR1-4), which results in receptor dimerization and transphosphorylation in the tyrosine kinase domain. aFGF protein shows a wide range of endocrine-like activities. As a multiple function growth factor, this protein is involved in embryo development and tissue repair. Additionally, this protein is considered to function in several important physiological and

pathological processes, such as embryonic development, morphogenesis, angiogenesis, wound healing and atheromatosis, carcinogenesis, development, and invasion of cancer.References

Reference

Jaye M., et al.,(1986), Human endothelial cell growth factor: cloning, nucleotide sequence, and chromosome localization. Science 233:541-545.

Mergia A., et al., (1989), Structural analysis of the gene for human acidic fibroblast growth factor.Biochem. Biophys. Res. Commun. 164:1121-1129.

Wang W.P., et al.,(1989), Cloning of the gene coding for human class 1 heparin-binding growth factor and its expression in fetal tissues.Mol. Cell. Biol. 9:2387-2395.

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