



Genorise® Recombinant Monkey FGF Basic Protein DataSheet

Catalog Number: GR175083

Background

Basic fibroblast growth factor, also known as bFGF, FGF2 or FGF- β , is a member of the fibroblast growth factor family (1). In normal tissue, basic fibroblast growth factor is present in basement membranes and in the subendothelial extracellular matrix of blood vessels. It stays membrane-bound as long as there is no signal peptide. It has been hypothesized that, during both wound healing of normal tissues and tumor development, the action of heparan sulfate-degrading enzymes activates bFGF, thus mediating the formation of new blood vessels, a process known as angiogenesis. bFGF has been shown in preliminary animal studies to protect the heart from injury associated with a heart attack, reducing tissue death and promoting improved function after reperfusion (2). Recent evidence has shown that low levels of FGF2 play a key role in the incidence of excessive anxiety. Basic fibroblast growth factor has been shown to interact with casein kinase 2, alpha 1(3), RPL6 (4) and ribosomal protein S19 (5).

References

1. Kim HS (1998). *Cytogenet. Cell Genet.* 83 (1-2): 73.
2. House SL, et al. (2003). *Circulation* 108 (1): 3140.
3. Skjerpen, et al. *EMBO J. (England)* 21 (15): 4058.
4. Shen, B, et al. *Biochem. Biophys. Res. Commun. (UNITED STATES)* 252 (2): 524.
5. Soulet, F, et al. *Biochem. Biophys. Res. Commun. (United States)* 289 (2): 591.



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Description

Source: *E coli*- derived

Composition: Ser5 –Ser155

Accession # XP_003936290.1

N-terminal Sequence Analysis: Ser5

Predicted Molecular Mass: 17 kDa

Specifications

SDS-PAGE: 17 kDa, reducing conditions

Activity Measured in a cell proliferation assay using NR6R-3T3 mouse fibroblast cells. Raines EW et al. (1985) Methods Enzymol. 109:749.

The ED₅₀ for this effect is typically 0.1-0.6 ng/mL

The specific activity of Recombinant Monkey FGF Basic is approximately 790 IU/μg, which is calibrated against recombinant human FGF Basic WHO International Standard (NIBSC code: 90/712).

Endotoxin Level: <0.1 EU per 1 μg of the protein by the LAL method.

Purity: >97%, by SDS-PAGE visualized by silver stain and quantitatively densitometry by coomassie blue staining.

Formulation: Lyophilized from a 0.2 μm filtered PBS solution with BSA as a carrier protein.

Preparation and Storage

Reconstitution: Reconstitute at 10-50 μg/mL in sterile PBS.

Shipping The product is shipped at ambient temperature or in a foam box with ice pad for international. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage: Use a manual defrost freezer and avoid repeated freeze thaw cycles.

- 6 months, -20 °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.

DECLARATION

THIS REAGENT IS FOR IN VITRO LABORATORY TESTING AND RESEARCH USE ONLY. DO NOT USE IT FOR CLINICAL DIAGNOSTICS. DO NOT USE OR INJECT IT IN HUMANS AND ANIMALS.

**FOR LABORATORY RESEARCH USE ONLY
NOT FOR USE IN FELINES AND ANIMALS**