

Product Information

Fibroblast Growth Factor-5 human recombinant, expressed in *E. coli*

Catalog Number **F4537**
Storage Temperature $-20\text{ }^{\circ}\text{C}$

Synonym: FGF-5

Product Description

Fibroblast Growth Factor-5 (FGF-5) was originally discovered as product of an oncogene, detected by the transfer of DNA from human tumor cell lines into NIH-3T3 cells.¹ Human recombinant FGF-5 (27 kDa) is produced in *E. coli* by expression of a DNA sequence that encodes the mature 246 amino acid methionyl-FGF-5.¹ FGF-5 has up to 50% structural homology with FGF-acidic and FGF-basic.²

The members of the FGF family of cytokines contain two conserved cysteine residues. FGF-5 is expressed in multiple regions of mammalian embryos and in the adult brain.³ FGF-5 is mitogenic for fibroblasts and endothelial cells.⁴

This product is lyophilized from a 0.2 μm filtered solution of 10 mM MOPS, 50 mM Na_2SO_4 , 0.5 mM EDTA, 0.5 mM DTT, 5% trehalose, pH 7.0, containing 50 μg BSA per μg .

The biological activity of FGF-5 is tested in culture by measuring the FGF-dependent ^3H -thymidine incorporation by quiescent NR6-3T3 fibroblasts.⁵ The EC_{50} is defined as the effective concentration of growth factor that elicits a 50% increase in cell growth in a cell based bioassay.

Purity: $\geq 97\%$ (SDS-PAGE and N-terminal analysis)

Endotoxin: $\leq 0.1\text{ ng}/\mu\text{g}$ of FGF-5

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Preparation Instructions

Reconstitute the contents of the vial using 0.2 μm filtered PBS containing 0.1% BSA and 1 $\mu\text{g}/\text{mL}$ sodium heparin to make a FGF-5 stock solution of $\geq 10\text{ }\mu\text{g}/\text{mL}$.

Storage/Stability

Store the product at $-20\text{ }^{\circ}\text{C}$.

Upon reconstitution, this cytokine can be stored at $2\text{--}8\text{ }^{\circ}\text{C}$ for up to 3 months. For extended storage, aliquot and freeze at $-20\text{ }^{\circ}\text{C}$. Avoid repeated freeze-thaw cycles.

References

1. Zhan, X., et al., *Mol. Cell. Biol.*, **8**, 3487 (1988).
2. Baird, A. et al., *Peptide Growth Factors and Their Receptors I*, Sporn, M., et al., (eds.), Springer-Verlag, (New York, NY: 1990) p. 372.
3. Bates, B., *Mol. Cell. Biol.*, **11**, 1840 (1991).
4. Coulier, F., et al., *Oncogene*, **6**, 1437 (1991).
5. Thomas, K., *Methods in Enzymology*, **147**, 120 (1987).

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