

Cytokines

Human Recombinant FGF-6



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Catalog # 78184
78184.1

25 µg
500 µg

Product Description

Fibroblast growth factor 6 (FGF-6) is a heparin-binding member of the FGF family, regulators of cell proliferation, differentiation, and function. FGF-6 binds and signals through the FGF receptors 1c, 2c, and 4 (Ornitz et al.). FGF-6 is a potent mitogen for fibroblasts, vascular endothelial cells, and prostate carcinoma cells (Asada et al.; Pizette et al.; Ropiquet et al.). FGF-6 is primarily expressed in epithelial and mesenchymal cell lineages. During development, FGF-6 is expressed in skeletal muscle, consistent with its role in muscle differentiation and regeneration (Floss et al.). FGF-6 has also been shown to promote chondrogenesis in embryonic somites in conjunction with transforming growth factor beta 2 (TGF-β2; Grass et al.).

Product Information

Alternative Names: Fibroblast growth factor 6, HBGF-6, Heparin-binding growth factor 6, Heparin secretory-transforming protein 2, HST-2, HSTF-2

Accession Number: P10767

Amino Acid Sequence: MGTRANNTLL DSRGWGTLLS RSRAGLAGEI AGVNWESGYL VGIKRQRRLY CNVGIGFHLQ VLPDGRISGT HEENPYSLLE ISTVERGVVS LFGVRSALFV AMNSKGRLYA TPSFQEECKF RETLLPNNYN AYESDLYQGT YIALSKYGRV KRGSKVSPIM TVTHFLPRI

Predicted Molecular Mass: 18.9 kDa

Species: Human

Cross Reactivity: Reported to be species-specific

Formulation: Lyophilized from a sterile-filtered solution containing sodium phosphate and sodium chloride, pH 7.5.

Source: E. coli

Specifications

Activity: The specific activity is $\geq 1.0 \times 10^6$ units/mg ($EC_{50} \leq 1$ ng/mL) as determined by a cell proliferation assay using NR6R-3T3 cells in the presence of 1 µg heparin.

Purity: $\geq 95\%$

Endotoxin Level: Measured by kinetic Limulus amebocyte lysate (LAL) analysis and is ≤ 1 EU/µg protein.

Preparation and Storage

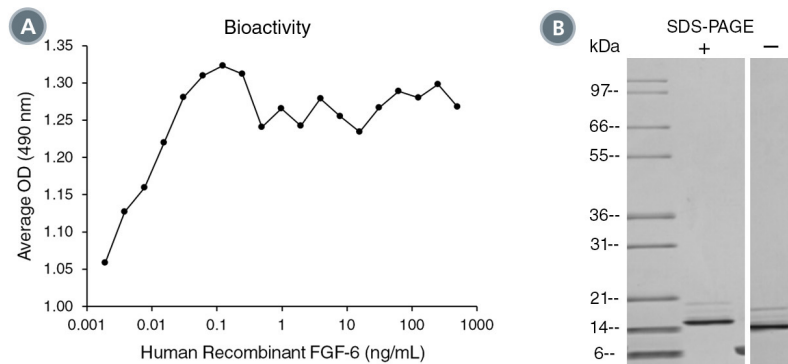
Storage: Store at -20°C to -80°C.

Stability: Stable as supplied for 12 months from date of receipt.

Preparation: Centrifuge vial before opening. Reconstitute the product in sterile water to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. Centrifuge solution, and only use the soluble fraction. 10% overfill is included to compensate for loss in precipitate.

OPTIONAL: After reconstitution, if product will not be used immediately, dilute with concentrated bovine serum albumin (BSA) to a final BSA concentration of 0.1%. The effect of storage of stock solution on product performance should be tested for each application. As a general guide, do not store at 2 - 8°C for more than 1 month or at -80°C for more than 3 months. Avoid repeated freeze-thaw cycles.

Data



(A) The biological activity of Human Recombinant FGF-6 was tested by its ability to promote proliferation of NR6R-3T3 cells in the presence of 1 μ g heparin. Cell proliferation was measured using a fluorometric assay method. The EC₅₀ is defined as the effective concentration of the growth factor at which cell proliferation is at 50% of maximum. The EC₅₀ in the example above is 0.00442 ng/mL.

(B) 1 μ g of Human Recombinant FGF-6 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant FGF-6 has a predicted molecular mass of 18.9 kDa.

Related Products

For a complete list of cytokines, as well as related products available from STEMCELL Technologies, visit www.stemcell.com/cytokines or contact us at techsupport@stemcell.com.

References

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- Ornitz DM et al. (1996) Receptor specificity of the fibroblast growth factor family. *J Biol Chem* 271(25): 15292–7.
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