Cytokines

Human Recombinant FGF-4

Fibroblast growth factor 4

Catalog # 78103  5 μg
           78103.1  25 μg
           78103.2 100 μg

Product Description

Fibroblast growth factor 4 (FGF-4) is a member of the FGF superfamily (Beenken & Mohammadi). FGF-4 is expressed in pluripotent stem cells and is implicated in various stages of development and morphogenesis in a variety of organisms (Kosaka et al. 2009). FGF-4 has been shown to have an ability to promote neural stem cell proliferation and neuronal differentiation in the postnatal brain (Kosaka et al. 2006). FGF-4 has also been shown to increase the proliferation rate of mesenchymal stem cells (Farré et al.). FGF-4 supports the maintenance and self-renewal properties of human embryonic stem cells and also promotes the proliferation of these cells (Mayshar et al.). In the mouse, the Fgf4 gene also supports proliferation of the inner cell mass (ICM) and postimplantation embryos (Feldman et al.).

Product Information

Alternative Names: HBGF-4, Heparin-binding growth factor 4, Heparin secretory transforming protein 1, HST, HST-1, HSTF-1, Kaposi sarcoma oncogene, KFGF, Transforming protein KS3
Accession Number: P08620
Amino Acid Sequence: MAPTAPNGTL EAELEERRWES LVALSLARLP VAAQPKEAAV QSGAGDYLLG IKRLRRLYCN VGIGFHLQAL PDGRIGGAHA DTRDSLLELS PVERGVVSIF GVASRFFVAM SSKGKLYGSP FFTDECTFKE ILLPNNYNAY ESYKYPGMFI ALSKNGKTKK GNRVSPTMKV THFLPRL
Predicted Molecular Mass: 19.4 kDa
Species: Human
Cross Reactivity: Mouse, Rat
Formulation: Lyophilized after dialysis against HEPES and sodium chloride, pH 7.5.
Source: E. coli

Specifications

Activity: The specific activity is ≥ 2 x 10^6 units/mg (EC50 ≤ 0.5 ng/mL) as determined by a cell proliferation assay using BALB/c 3T3 cells.
Purity: ≥ 95%
Endotoxin Level: Measured by kinetic Limulus amebocyte lysate (LAL) analysis and is ≤ 0.2 EU/μg protein.

Preparation and Storage

Storage: Store at -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.

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 2 weeks or at -20°C for more than 3 months. Avoid repeated freeze-thaw cycles.
(A) The biological activity of Human Recombinant FGF-4 was tested by its ability to promote the proliferation of BALB/c 3T3 cells. 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 above example is less than 0.5 ng/mL.

(B) 2 μg of Human Recombinant FGF-4 was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant FGF-4 has a predicted molecular mass of 19.4 kDa.

Related Products

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References