

Cytokines

Human Recombinant FGF-4



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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 EAELERRWES 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

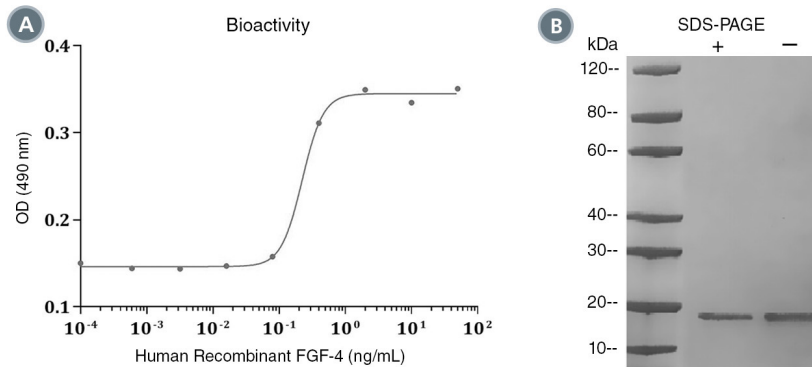
Specifications

Activity:	The specific activity is $\geq 2 \times 10^6$ units/mg ($EC_{50} \leq 0.5$ ng/mL) as determined by a cell proliferation assay of 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. Resuspend the product in sterile water containing 0.1% bovine serum albumin (BSA) or human serum albumin (HSA) to at least 0.1 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. Store at 2 - 8°C for up to 2 weeks or at -20°C to -80°C for up to 3 months. Avoid repeated freeze-thaw cycles. NOTE: If reconstituted product will be used immediately BSA or HSA is not required.

Data



(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 example above is less than 0.5 ng/mL.

(B) 2 μ g 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

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