

Cytokines

Human Recombinant FGF-4

Fibroblast growth factor 4

Catalog #	78103	5 µg
	78103.1	25 µg
	78103.2	100 µg



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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

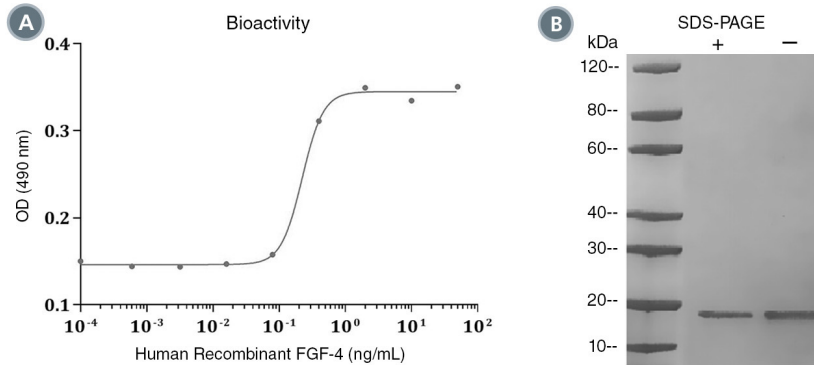
Activity:	The specific activity is $\geq 2 \times 10^6$ units/mg ($EC_{50} \leq 0.5$ ng/mL) as determined by a cell proliferation assay using BALB/c 3T3 cells.
Purity:	$\geq 95\%$
Endotoxin Level:	Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is ≤ 0.2 EU/µg protein.

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.

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 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

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