

Cytokines

Human Recombinant FGF-7 (KGF)

Fibroblast growth factor 7

Catalog #	78046	10 µg
	78046.1	50 µg
	78046.2	1000 µg



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Product Description

Fibroblast growth factor 7 (FGF-7) is a member of the FGF family, and acts exclusively through a subset of FGF receptor isoforms expressed predominantly by epithelial cells (Finch & Rubin). FGF-7 seems to act specifically on epithelial cells and stimulates proliferation, migration, and differentiation of these cells, and also participates in epithelial protection and repair both in vitro and in vivo (Finch & Rubin; Werner). In contrast, FGF-7 is produced solely by cells of mesenchymal origin, and functions as a paracrine mediator of mesenchymal-epithelial communication (Rubin et al.). FGF-7 has also been shown to supplement several wound-healing properties of bioengineered skin (Erdag et al.) and to induce autophagy in human keratinocytes (Belleudi et al.). Additionally, FGF-7 has a role in pluripotent stem cell differentiation to endodermal pancreatic-like insulin-producing cells and thymic epithelial cells (Inami et al.; Niu et al.).

Product Information

Alternative Names:	Fibroblast growth factor-7, HBGF-7, Heparin-binding growth factor 7, Keratinocyte growth factor
Accession Number:	P21781
Amino Acid Sequence:	MCNDMTPEQM ATNVNCSSPE RHTRSVDYME GGDIVRRLF CRTQWYLRID KRGKVKGTQE MKNNYNIMEI RTVAVGIVAI KGVESFYLA MNKEGKLYAK KECNEDCNFK ELILENHNT YASAKWTHNG GEMFVALNQQ GIPVRGKTK KEQKTAHFLP MAIT
Predicted Molecular Mass:	19 kDa
Species:	Human
Cross Reactivity:	Mouse, Rat
Formulation:	Lyophilized after dialysis against phosphate-buffered saline.
Source:	E. coli

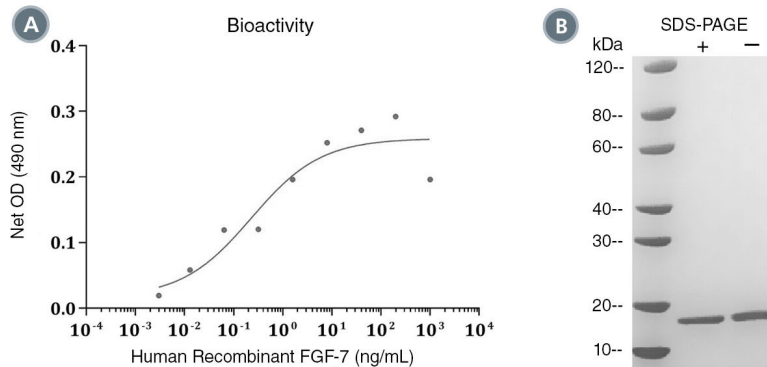
Specifications

Activity:	The specific activity is $\geq 5 \times 10^5$ units/mg ($EC_{50} \leq 2$ ng/mL) as determined by a cell proliferation assay using 4MBr-5 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. 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-7 (KGF) was tested by its ability to promote the proliferation of 4MBr-5 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 2 ng/mL.

(B) 2 µg of Human Recombinant FGF-7 (KGF) was resolved with SDS-PAGE under reducing (+) and non-reducing (-) conditions and visualized by Coomassie Blue staining. Human Recombinant FGF-7 (KGF) has a predicted molecular mass of 19 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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