

FGF-4 active protein

Mouse FGF-4

CATALOG # AAA79206	HOST E Coli	REACTIVITY Mouse
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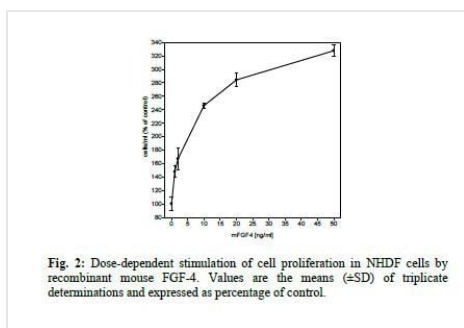
PRODUCT SYNONYMS

FGF-4; Mouse FGF-4; Recombinant Mouse FGF-4; HBGF-4; Heparin-binding growth factor 4; Kfgf; FGF-4 active protein

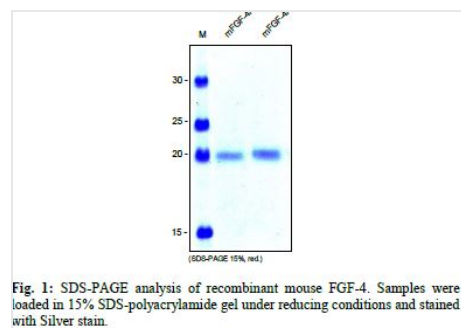
PRODUCT SPECIFICATIONS

Host	E Coli
Reactivity	Mouse
Purity/Purification	> 95% by SDS-PAGE & silver stain
Form/Format	Lyophilized
Sequence	MGHHHHHHHH HHSSGHIEGR HMAPNGTRHA ELGHGWDGLV ARSLARLPVA AQPPQAAVRS GAGDYLLGLK RLRRLYCNAV IGFHLQVLPD GRIGGVHADT RDSLLELSPV QRGVVSIFGV ASRFFVAMSS RGKLFGVPPF TDECKFKEIL LPNNYNAYEA YAYPGMFMAL SKNGRTKKGN RVSPTMKVTH FLPRL
Sequence Length	195
Label/Conjugation	His-Tag
Biological Activity	The biological activity was determined by the induction of proliferation in NHDF cells (Normal Human Dermal Fibroblasts).
Reconstitution	We recommend a quick spin followed by reconstitution in water to a concentration of 0.1-1.0mg/ml. This solution can then be diluted into other aqueous buffers and stored at 4 degree C for 1 week or -20 degree C for future use.
Preparation and Storage	The lyophilized protein is stable for a few weeks at room temperature, but best stored at -20 degree C. Reconstituted FGF-4 should be stored in working aliquots at -20 degree C. Avoid repeated freeze-thaw cycles.

IMAGES



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for FGF-4 active protein	FGF4 (fibroblast growth factor4), also known as FGF-K or K-FGF (Kaposi's sarcoma-associated FGF), is a 25 kDa secreted, heparin-binding member of the FGF family. The mouse FGF4 cDNA encodes 202 amino acids (aa) with a 29 aa signal sequence and a 173 aa mature protein with an FGF homology domain that contains a heparin binding region near the C-terminus. Mature mouse FGF 4 shares 87%, 90%, 87% and 85% aa identity with human, rat, canine and bovine FGF4, respectively. Human FGF4 has been shown to exhibit cross species activity. Expression of FGF4 and its receptors, FGF R1c, 2c, 3c and 4, is spatially and temporally regulated during embryonic development. Its expression in the trophoblast inner cell mass promotes expression of FGF R2, and is required for maintenance of the trophoctoderm and primitive endoderm. Later in development, FGF4 works together with FGF8 to mediate the activities of the apical ectodermal ridge, which direct the outgrowth and patterning of vertebrate limbs. FGF4 is proposed to play a physiologically relevant role in human embryonic stem cell self-renewal. It promotes stem cell proliferation, but may also aid differentiation depending on context and concentration, and is often included in embryonic stem cell media in vitro. A C-terminally truncated 15 kDa isoform that opposes full length FGF4 and promotes differentiation is endogenously expressed in human embryonic stem cells. FGF4 is mitogenic for fibroblasts and endothelial cells in vitro and has autocrine transforming potential. It is a potent angiogenesis promoter in vivo and has been investigated as therapy for coronary artery disease.
Product Categories/Family for FGF-4 active protein	Cytokines & Growth Factors
References	Hebert JM et al, Dev Biol 138:454, 1990 2. Niswander L and GR Martin, Development 114:755, 192 3. Feldman B et al, Science 267:246, 1995 4. Goldin SN and VE Papaioannou, Genesis 36:40, 2003 5. Sun, X. et al, Nature 418:501, 2002 6. Boulet AM et al, Dev Biol 273:361, 2004 7. Yu K and DM Ornitz, Development 135:483, 2008 8. Mariani FV et al, Nature 453:401, 2008 9. Kunath T et al, Development 134:2895, 2007 10. Mayshar Y et al, Stem Cells 26:767, 2008

NCBI AND UNIPROT INFORMATION

NCBI GI #	66955870
NCBI GeneID	14175
NCBI Accession #	NP_034332.2
NCBI GenBank Nucleotide #	NM_010202.5
UniProt Accession #	P11403; P15657; Q542N0
Molecular Weight	21,919 Da
NCBI Official Full Name	fibroblast growth factor 4
NCBI Official Synonym Full Names	fibroblast growth factor 4
NCBI Official Symbol	Fgf4
NCBI Official Synonym Symbols	KS3; hst; Fgfk; Hst1; kFGF; Fgf-4; hst-1; Hstf-1
NCBI Protein Information	fibroblast growth factor 4; HBGF-4; K-fibroblast growth factor; heparin-binding growth factor 4
UniProt Protein Name	Fibroblast growth factor 4
UniProt Gene Name	Fgf4
UniProt Synonym Gene Names	Fgf-4; Kfgf; FGF-4; HBGF-4
UniProt Entry Name	FGF4_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.