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Datasheet for ABIN1589631 FGF4 Protein (His tag)

Overview

Quantity:	5 µg
Target:	FGF4
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This FGF4 protein is labelled with His tag.

Product Details

Sequence:	MGHHHHHHHH HHSSGHIEGR HMAPNGTRHA ELGHGWDGLV ARSLARLPVA AQPPQAAVRS GAGDYLLGLK RLRLYCNVG IGFHLQVLPD GRIGGVHADT RDSLLELSPV QRGVVSIFGV ASRFFVAMSS RGKLFQVPPF TDECKFKEIL LPNNYNAYEA YAYPGMFMAL SKNGRTKKGN RVSPMKVTH FLPRL
Characteristics:	Length (AA): 195 Chromosomal location: 7 F5, 7 724.4 cM The biological activity was determined by the induction of proliferation in NHDF cells (Normal Human Dermal Fibroblasts).
Purity:	> 95 % by SDS-PAGE. Visualized by silver stain

Target Details

Target:	FGF4
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Target Details

Alternative Name: FGF-4 ([FGF4 Products](#))

Background: 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 trophectoderm 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.

Synonyms: Fgf4, KS3, hst, Fgfk, Hst1, kFGF, Fgf-4, hst-1, Hstf-1

Molecular Weight: 21.6 kDa

NCBI Accession: [NM_010202](#), [NP_034332](#)

UniProt: [P11403](#)

Pathways: [RTK Signaling](#), [Fc-epsilon Receptor Signaling Pathway](#), [EGFR Signaling Pathway](#), [Neurotrophin Signaling Pathway](#), [Stem Cell Maintenance](#)

Application Details

Comment: Cytokines & Growth Factors

Restrictions: For Research Use only

Handling

Format: Lyophilized

Handling

Reconstitution:	Reconstitution in water to a concentration of 0.1-1.0 mg/mL. This solution can then be diluted into other aqueous buffers and stored at 4 °C for 1 week or -20 °C for future use.
Buffer:	50 mM MES, 100 mM NaCl
Handling Advice:	Centrifuge vial prior to opening. Avoid repeated freeze-thaw cycles.
Storage:	-20 °C
Storage Comment:	The lyophilized protein is stable for a few weeks at room temperature, but best stored at -20 °C. Reconstituted FGF-4 should be stored in working aliquots at -20 °C.