

## Murine FGF-4 (His-Tag)

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

**PLEASE NOTE: ALWAYS CENTRIFUGE VIAL BEFORE OPENING**

Size	Order #	Lot #	Expiry Date
5 µg	1372.960.005		
25 µg	1372.960.025		
50 µg	1372.960.050		
100 µg	1372.960.100		
500 µg	1372.960.500		

Please enquire for bulk quantities and other vial sizes

### Description

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.

- **Source** *E. Coli*
- **Purity** ≥ 80% (SDS-PAGE, silver stained)

### 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 °C for 1 week or -20 °C for future use.

### Amino Acid Sequence

MGHHHHHHHH HHSSGHIEGR HMAPNGTRHA ELGHGWDGLV ARSLARLPVA AQPPQAAVRS GAGDYLLGLK  
 RLRRLYCNVG IGFHLQVLPD GRIGGVHADT RDSLLELSPV QRGVVSIFGV ASRFFVAMSS RGKLFVGPFF  
 TDECKFKEIL LPNNYNAYEA YAYPGMFMAL SKNGRTKKGN RVSPTMKVTH FLPRL

**Usage:** For research use only. Not for use in diagnostic or therapeutic procedures. Not for human use.

\*The Buffer may vary depending on the Lot #. Please contact our technical support if you have specific requirements.

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