

Active GMP Recombinant Human FGF4 Protein

Cat. No. FGF4-01HG Lot. No. (See product label)

SPECIFICATION

Product Overview

Recombinant human FGF4 protein, was expressed in CHO-K1 cell-derived in an animal component free process under cGMP guidelines.

Species

Human

Source

CHO

Description

Fibroblast growth factor-4 (FGF-4), also known as FGF-K or K-FGF, a heparin-binding growth factor, is a member of the FGF family. Proteins of this family play a central role in prenatal development, postnatal growth and regeneration of various tissues by promoting cell proliferation and differentiation. Mature human FGF4 shares 91%, 82%, 94%, and 91% AA properties with mouse, rat, canine, and bovine FGF4, and human FGF-4 exhibits cross-species activity. The expression of FGF-4 and its receptors, i.e. FGF R1c, 2c, 3c, and 4, is spatiotemporally regulated during embryonic development. FGF-4 has a physiologically relevant role in human embryonic stem cell self-renewal. FGF-4 not only promotes the proliferation of bone marrow mesenchymal stem cells (BMSCs), but also induces BMSCs to form hepatocyte-like cells in vitro. FGF4-induced bone marrow MSCs can promote liver regeneration through the microenvironment of transplantation. Thus, FGF4- bFGF-BMSCs can improve the survival of transplanted cells, reduce myocardial fibrosis, promote myocardial angiogenesis, and improve cardiac function. FGF-4 promotes fibroblast and endothelial cell mitosis in vitro and has autocrine transforming potential. It is a potent angiogenesis promoter in vivo and has been used to treat coronary artery disease.

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Form	Lyophilized powder
Endotoxin	<20 EU/mg
Bio-activity	>1.0 x 10 ⁵ IU/mg
Purity	>95.0% by high performance liquid chromatography (SEC-HPLC) and SDS-PAGE.
Storage Buffer	10mM Phosphate-Buffered Saline (pH 7.2)
Storage	Stable storage at 4°C for 7-10 days; for long-term storage, please store at -20°C after dispensing.
Sterility	Sterility
Instructions	It is recommended that lyophilized GMP rhFGF4 be dissolved in water for injection or sterilized ultrapure water at a concentration of not less than 100 µg/ml, pending further dilution to working concentration.

GENE INFORMATION

Gene Name	FGF4 fibroblast growth factor 4 [Homo sapiens (human)]
Official Symbol	FGF4
Synonyms	HST; KFGF; FGF-4; HST-1; HSTF1; K-FGF; HBGF-4; HSTF-1
Gene ID	2249
mRNA Refseq	NM_002007.4

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Protein Refseq	NP_001998.1
UniProt ID	P08620
MIM	164980

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