Datasheet

Cat. No. P1140

Recombinant Human FGF-4

Information

Gene ID	2249
Accession #	P08620
Alternate Names	HST, HST-1, HSTF-1, HBGF-4, Transforming Protein KS3
Source	*Escherichia coli.*
M.Wt	Approximately 19.8 kDa, a single non-glycosylated polypeptide chain containing 182 amino acids.
AA Sequence	GRGGAAAPTA PNGTLEAELE RRWESLVALS LARLPVAAQP KEAAVQSGAG DYLLGIKRLR RLYCNVGIGF HLQALPDGRI GGAHADTRDS LLELSPVERG VVSIFGVASR FFVAMSSKGK LYGSPFFTDE CTFKEILLPN NYNAYESYKY PGMFIALSKN GKTKKGNRVS PTMKVTHFLP RL
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Formulation	Lyophilized from a 0.2 μm filtered concentrated solution in 1 × PBS, with 350 mM NaCl, 5% trehalose and 0.02% Tween-20, pH 7.0.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in 500 mM NaCl to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The ED50 as determined by thymidine uptake assay using FGF-receptors transfected BaF3 cells is less than 0.5 ng/ml, corresponding to a specific activity of > 2.0 × 106 IU/mg.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	5 μg	100 μg	500 μg
Recombinant Human FGF-4	5 μg	100 μg	500 μg

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- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

Quality Control

Purity	> 96 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuFGF-4 as determined by LAL method.

Description

FGF-4, also named FGF-K and K-FGF, belongs to the fibroblast growth factor (FGF) family. By signaling through the FGF R1c, 2c, 3c and 4 receptors, FGF-4 has functions that maintain a population of progenitor cells in the epiblast that generates mesoderm, and contribute to the stem cell population that is incorporated in the tailbud. It is also required for axial elongation of the mouse embryo after gastrulation. Mature human FGF-4 (71-206 a.a.) shares 91 %, 82 %, 94 % and 91 % a.a. identity with murine, rat, canine and bovine FGF-4. Additionally, FGF-4 shares about 30 % sequence identity with the prototypical members of the FGF family.

Reference

1. Galland F, Stefanova M, Lafage M, et al. 1992. Cytogenet Cell Genet. 60:114-6.

2. Ornitz DM, Xu J, Colvin JS, et al. 1996. J Biol Chem. 271:15292-7.

3. Boulet AM, Capecchi MR. 2012. Dev Biol. 371:235-45.

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