

Recombinant Human Fibroblast Growth Factor 4

#R00107

Size: 5 µg/100 µg/500 µg

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.



Warning: This product is intended for scientific research only. It is not to be used for medical or diagnostic procedures in humans or animals, nor as a food, cosmetic, or household product.

Background

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.

AA Sequence

GRGGAAAPTAPNGTLEAELERRWESLVALSLARLPVA
AQPKEAAVQSGAGDYLLGIKRLRRLYCNVGIGFHLQA
LPDGRIGGAHADTRDSLLELSPVERGVVSIFGVASRF

FVAMSSKGKLYGSPFFTDECTFKEILLPNNYNAYESY
KYPGMFIALSKNGKTKKGNRVSPMTMKVTHFLPRL

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.

Product Specification

Synonyms	HST, HST-1, HSTF-1, HBGF-4, Transforming Protein KS3
Accession	P08620
GeneID	2249
Species	Human
Source	Escherichia coli.
Molecular Weight	Approximately 19.8 kDa, a single non-glycosylated polypeptide chain containing 182 amino acids.
Purity	> 96 % by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The ED ₅₀ 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 $> 2.0 \times 10^6$ IU/mg.
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in 1 $\times$ PBS, with 350 mM NaCl, 5% trehalose and 0.02% Tween-20, pH 7.0.
Endotoxin	Less than 1 EU/ μ g of rHuFGF-4 as determined by LAL method.
