

Recombinant Human KGF-1/FGF-7

Information

Gene ID	2252
Accession #	P21781
Alternate Names	HBGF-7
Source	<i>Escherichia coli</i> .
M.Wt	Approximately 18.9 kDa, a single, non-glycosylated polypeptide chain containing 163 amino acids.
AA Sequence	CNDMTPEQMA TNVNCSSPER HTRSYDYMEG GDIRVRRLLFC RTQWYLRIK RGKVKGTQEM KNNYNIMEIR TVAVGIVAIAK GVESEFYLAM NKEGKLYAKK ECNEDCNFKE LILENHNTY ASAKWTHNGG EMFVALNQKG IPVRGKKTCK EQKTAHFLPM AIT
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 solution in 20 mM PB, 0.5 M NaCl, pH 8.0.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA 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 10 ng/ml, corresponding to a specific activity of > 1.0 × 10 ⁵ 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	10 µg	100 µg	500 µg
Recombinant Human KGF-1/FGF-7	10 µg	100 µg	500 µg

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Quality Control

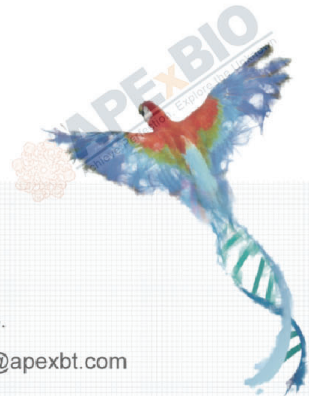
Purity	> 96 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuKGF-1/FGF-7 as determined by LAL method.

Description

Human KGF-1 also known as Fibroblast growth factor 7 (FGF-7), is encoded by the FGF7 gene. KGF-1 only binds to the b splice form of the tyrosine kinase receptor, FGFR2b/KGFR. Affinity between KGF-1 and its receptor can be increased by heparin or heparan sulfate proteoglycan. FGF-10, also called keratinocyte growth factor 2 (KGF-2), shares 51 % amino acid sequence identity and similar function to KGF-1, but uses an additional receptor, FGFR2c. KGF-1 plays an important role in the regulation of embryonic development, cell proliferation and cell differentiation. KGF-1 activates on keratinocytes, and exhibits mitogenic activity for epidermal cells, but essentially no activity for fibroblasts. KGF-1 has species crossactive, human KGF-1 shares 96 % amino acid sequence identity with murine, and 92 % with rat.

Reference

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4. Eswarakumar VP, Lax I, Schlessinger J. 2005. Cytokine Growth Factor Rev. 16:139-49.
5. Belleudi F, Leone L, Nobili V, et al. 2007. Traffic. 8:1854-72.
6. Ornitz DM, Xu J, Colvin JS, et al. 1996. J Biol Chem. 271:15292-7.
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APExBIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com