

Active Recombinant Human FGF12 Protein (181 aa)

Cat. No. FGF12-419F **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human Fibroblast Growth Factor-12 (rhFGF-12) produced in E. coli is a single non-glycosylated polypeptide chain containing 181 amino acids. A fully biologically active molecule, rhFGF-12 has a molecular mass of 20.4 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.
Species	Human
Source	E.coli
ProteinLength	181
Description	Fibroblast Growth Factor-12(FGF-12) is a heparin binding cytokine belonging to the FGF family. FGF-12 along with FGF-11, -13, and -14, form a sublineage within the FGF family: in contrast to the other members, they are all intracellular signaling proteins lacking signal peptides and containing a flanking domain beside the family conserved β -trefoil domain. FGF-12 is expressed in the cartilaginous skeleton and heart, suggesting a role in the development of connective tissue and heart. In vivo, FGF-12 binds to Islet Brain-2 and Voltage-Gated Sodium Channels (VGSC), and plays a critical role in the membrane targeting and function of VGSC. FGF-12 has been implicated in heart diseases such as cardiac arrhythmias.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	ED50 < 20 ng/mL, measured by its binding ability in a functional ELISA with immobilized rhFGF R4/Fc Chimera, corresponding to a specific activity of $> 5 \times 10^4$

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	units/mg.
Molecular Mass	20.4 kDa, observed by reducing SDS-PAGE.
AA Sequence	MESKEPQLKGIVTRLFSQQGYFLQMHPDGTIDGTDKDNSDYTLFNLIPVGLRVVAIQ GVKASLYVAMNGEGYLYSSDVFTPECKFKESVFENYYVIYSSTLYRQQESGRAWFL GLNKEGQIMKGNRVKKTTPSSHFPKPIEVCMYREPSLHEIGEKQGRSRKSSGTPT MNGGKVVNQDST
Endotoxin	< 0.2 EU/μg, determined by LAL method.
Purity	> 95% as analyzed by SDS-PAGE and HPLC.
Storage	Lyophilized recombinant human Fibroblast Growth Factor-12 (rhFGF-12) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rhFGF-12 remains stable up to 2 weeks at 4 centigrade or up to 3 months at -20 centigrade.
Storage Buffer	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O or PBS at 100 μg/mL.

GENE INFORMATION

Gene Name	FGF12 fibroblast growth factor 12 [Homo sapiens]
Official Symbol	FGF12
Synonyms	FGF12; fibroblast growth factor 12; FGF12B; FHF1; fibroblast growth factor 12B; fibroblast growth factor FGF 12b; fibroblast growth factor homologous factor 1; myocyte activating factor; FHF-1; FGF-12; myocyte-activating factor; fibroblast growth

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factor FGF-12b;

Gene ID 2257**mRNA Refseq** NM_004113**Protein Refseq** NP_004104**MIM** 601513**UniProt ID** P61328 Tel: 1-631-559-9269 1-516-512-3133 Email: info@creative-biomart.com  Fax: 1-631-938-8127 45-1 Ramsey Road, Shirley, NY 11967, USA