

DATASHEET
Version 20181206**FGF-12, Human****Cat. No.:** Z03129-50**Size:** 50.0 ug**Synonyms:** FHF1, FGF12B**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.

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 at GenScript.

Amino Acid Sequence:

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00001 MESKEPQLKG IVTRLFSQQG YFLQMHPDGT IDGTDKDNSD
00041 YTLFNLIPVG LRVVAIQGVK ASLYVAMNGE GYLYSSDVFT
00081 PECKFKESVF ENYYVIYSST LYRQQESGRA WFLGLNKEGQ
00121 IMKGNRVKKT KPSSHVPKP IEVCMYREPS LHEIGEKQGR
00161 SRKSSGTPTM NGGKVVNQDS T
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Source: *E. coli***Species:** Human**Biological 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 > 5×10⁴ units/mg.**Molecular Weight:** 20.4 kDa, observed by reducing SDS-PAGE.**Formulation:** Lyophilized after extensive dialysis against PBS.**Reconstitution:** Reconstituted in ddH₂O or PBS at 100 µg/ml.**Purity:** > 95% as analyzed by SDS-PAGE and HPLC.**Endotoxin Level:** < 0.2 EU/µg, determined by LAL method.**Storage:** Lyophilized recombinant human Fibroblast Growth Factor-12 (rhFGF-12) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhFGF-12 remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.