

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant FGF-12, Human

Catalog Number: BK0035-1mg

Source: Escherichia coli.

Quantity: 1mg

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.

Molecular Weight:

20.4 kDa, observed by reducing SDS-PAGE.

Purity:

> 95% as analyzed by SDS-PAGE and HPLC.

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 > 5×10^4 units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

MES-
KEPQLKGIVTRLFSQQGYFLQMHPDGTIDGTK-
DENS DYTLFNLIPVGLRVVAIQGV-
KASLYVAMNGEGYLYS-
SDVFTPECKFKESVFENYYVIYSSTLYRQQESGR
AWFLGLNKEGQIMKGNRVKKT KPSSHFPK-
PIEVCMYREPSLHEIGEKGGRS-
RKSSGTPTMNGGKVVNQDST

Endotoxin:

< 0.2 EU/ μ g, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O or PBS at 100 μ g/ml.

Storage:

Lyophilized recombinant human Fibroblast Growth Factor-12 (rhFGF-12) remains stable up to 6 months at -80 $^{\circ}$ C from date of receipt. Upon reconstitution, rhFGF-12 remains stable up to 2 weeks at 4 $^{\circ}$ C or up to 3 months at -20 $^{\circ}$ C.

Usage:

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