

PRODUCT DATA SHEET



Bioworld Technology, Inc.

Recombinant FGF-6, Human

Catalog Number: BK0043-1mg

Source: Escherichia coli.

Quantity: 1mg

Description:

Fibroblast Growth Factor-6 (FGF-6) is a cytokine belonging to the heparin-binding FGF family, and is structurally related to other members of FGF family, particularly FGF-4. In vivo, FGF-6 exhibits an expression profile predominantly restricted to the myogenic lineage, and it preferentially binds to two of the FGF receptors: FGFR1 and FGFR4. FGF-6 functions in muscle regeneration, myoblast proliferation and migration, and muscle differentiation in a dose-dependent manner. In vivo high concentration of recombinant FGF-6 up-regulates and down-regulates FGFR1 and FGFR4, respectively, as FGFR1 promotes the proliferation while FGFR4 promotes the differentiation in the muscle. Besides its dual function in muscle regeneration, FGF-6 may act as a regulator of bone metabolism as well. Recombinant human Fibroblast Growth Factor-6 (rhFGF-6) produced in E.coli is a single non-glycosylated polypeptide chain containing 169 amino acids. A fully biologically active molecule, rhFGF-6 has a molecular mass of 18.8 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Molecular Weight:

18.8 kDa, observed by reducing SDS-PAGE.

Purity:

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

Biological Activity:

ED50 < 2.5 ng/mL, measured by a cell proliferation assay using 3T3 cells in the presence 1 µg/mL heparin, corresponding to a specific activity of > 4 × 10⁵ units/mg.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

MGTRANNTLLDSRGWGTLLSRSRAGLAGE-
IAGVNWESGYLVGIKRQRRLYC-
NVGIGFHLQVLPDGRISGTHEEN-
PYSLLEISTVERGVVSLFGVRSALFVAMNSKGR-
LYATPSFQEECKFRETLL-
PNNYNAYESDLYQGTYIALSKYGRVKRG-
SKVSPIMTVTHFLPRI

Endotoxin:

< 0.2 EU/µg, determined by LAL method.

Reconstitution:

Reconstituted in ddH₂O at 100 µg/mL.

Storage:

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

Usage:

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