DATASHEET
Version 20181206

FGF-6, Human

Cat. No.: Z03164-50

Size: 50.0 ug

Synonyms: Fibroblast Growth Factor-6, HBGF-6, HST-2

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 tothe 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.

Amino Acid Sequence:

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00001 MGTRANNTLL DSRGWGTLLS RSRAGLAGEI AGVNWESGYL
00041 VGIKRQRRLY CNVGIGFHLQ VLPDGRISGT HEENPYSLLE
00081 ISTVERGVVS LFGVRSALFV AMNSKGRLYA TPSFQEECKF
00121 RETLLPNNYN AYESDLYQGT YIALSKYGRV KRGSKVSPIM
00161 TVTHFLPRI
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Source: *E. coli*

Species: Human

Biological Activity: ED_{50} < 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× 10^5 units/mg.

Molecular Weight: 18.8 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH_2O 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-6 (rhFGF-6) remains stable up to 6 months at lower than -70°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.

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