

Active Recombinant Human FGF6 Protein (169 aa)

Cat. No. FGF6-412F **Lot. No.** (See product label)

SPECIFICATION

Product Overview	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.
Species	Human
Source	E.coli
ProteinLength	169
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.
Form	Sterile Filtered White lyophilized (freeze-dried) powder.
Bio-activity	ED50 < 2.5 ng/mL, measured by a cell proliferation assay using 3T3 cells in the

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	presence 1 µg/mL heparin, corresponding to a specific activity of $> 4 \times 10^5$ units/mg.
Molecular Mass	18.8 kDa, observed by reducing SDS-PAGE.
AA Sequence	MGTRANNTLLDSRGWGTLSSRSRAGLAGEIAGVNWESGYLVGIKRQRRLYCNVGIG FHLQVLPDGRISGTHEENPYSLLISTVERGVVSLFGVRSALFVAMNSKGRLYATPS FQEECKFRETLLPNYNAYESDLYQGTIYALSKYGRVKRGSKVSPIMTVTHFLPRI
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-6 (rhFGF-6) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rhFGF-6 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 ddH2O at 100 µg/mL.

GENE INFORMATION

Gene Name	FGF6 fibroblast growth factor 6 [Homo sapiens]
Official Symbol	FGF6
Synonyms	FGF6; fibroblast growth factor 6; FGF-6; HST-2; HSTF-2; heparin-binding growth factor 6; heparin secretory-transforming protein 2; HST2; HBGF-6;
Gene ID	2251

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mRNA Refseq	NM_020996
Protein Refseq	NP_066276
MIM	134921
UniProt ID	P10767

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