

FGF-8a, Human

Cat. No.: Z03172-1

Size: 1.0 mg

Synonyms: AIGFa; HBGF-8a

Description:

Fibroblast Growth Factor 8a (FGF-8a) is a cytokine belonging to the heparin-binding FGF family, which has at least 23 members. FGF-8 has 8 different isoforms, named FGF-8a through FGF-8h. Different FGF-8 isoforms have different affinities to the receptors, and thus participate in different signaling cascade pathways. FGF-8 has very widespread expression during embryonic development, and is an organizer and inducer for gastrulation, somitogenesis, morphogenesis, and limb induction. However, FGF-8 is also a potential oncogene: in normal adult cells, FGF-8 has very low expression, but FGF-8 is highly expressed in cancer cells of breast, prostate, and ovarian tumors. FGF-8 promotes tumor angiogenesis by increasing neovascularization, and induces osteoblastic differentiation.

Recombinant human Fibroblast Growth Factor 8a (rhFGF-8a) produced in *E. coli* is a single non-glycosylated polypeptide chain containing 183 amino acids. A fully biologically active molecule, rhFGF-8a has a molecular mass of 21.3 kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques at GenScript.

Amino Acid Sequence:

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00001 MQHVREQSLV TDQLSRRLIR TYQLYSRTSG KHVQVLANKR
00041 INAMAEDGDP FAKLIVETDT FGSRVRVRGA ETGLYICMKN
00081 KGKLIAKSNG KGKDCVFTEI VLENNYTALQ NAKYEGWYMA
00121 FTRKGRPRKG SKTRQHQREV HFMKRLPRGH HTTEQSLRFE
00161 FLNYPPFTRS LRGSQRTWAP EPR
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Source: *E. coli*

Species: Human

Biological Activity: ED₅₀ < 500 ng/mL, measured by a cell proliferation assay using 3T3 cells in the presence of 1 µg/ml of heparin, corresponding to a specific activity of > 2 × 10³ units/mg.

Molecular Weight: 21.3 kDa, observed by reducing SDS-PAGE.

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH₂O at 100 µg/mL.

Purity: > 95% by SDS-PAGE analysis.

Endotoxin Level: < 0.2 EU/µg, determined by LAL method.

Storage: Lyophilized recombinant human Fibroblast Growth Factor 8a (rhFGF-8a) remains stable up to 6 months at lower than -70°C from date of receipt. Upon reconstitution, rhFGF-8a remains stable up to 2 weeks at 4°C or up to 3 months at -20°C.