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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 <i>E. coli</i> 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.
Accession No	P55075
Species	Human
Source	E. coli
Biological Activity	$ED_{50} < 500$ 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× 10 ³ units/mg.
Sequence	MQHVREQSLV TDQLSRRLIR TYQLYSRTSG KHVQVLANKR INAMAEDGDP FAKLIVETDT FGSRVRVRGA ETGLYICMNK KGKLIAKSNG KGKDCVFTEI VLENNYTALQ NAKYEGWYMA FTRKGRPRKG SKTRQHQREV HFMKRLPRGH HTTEQSLRFE FLNYPPFTRS LRGSQRTWAP EPR

Properties

Measured Molecula Weight	^{Ir} 21.3 kDa, observed by reducing SDS-PAGE.
Purity	> 95% by SDS-PAGE analysis.
Formulation	Lyophilized after extensive dialysis against PBS.
Reconstitution	Reconstituted in ddH ₂ O at 100 μ g/mL.
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.
Note	For research use only

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