DATASHEET
Version 20181206

FGF-8a, Human

Cat. No.: Z03172-50

Size: 50.0 ug

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:

```
00001 MQHVREQSLV TDQLSRRLIR TYQLYSRTSG KHVQVLANKR
00041 INAMAEDGDP FAKLIVETDT FGSRVRVRGA ETGLYICMNK
00081 KGKLIAKSNG KGKDCVFTEI VLENNYTALQ NAKYEGWYMA
00121 FTRKGRPRKG SKTRQHQREV HFMKRLPRGH HTTEQSLRFE
00161 FLNYPPFTRS LRGSQRTWAP EPR
```

Source: *E. coli*

Species: Human

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.

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

Formulation: Lyophilized after extensive dialysis against PBS.

Reconstitution: Reconstituted in ddH_2O 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.

GenScript USA, Inc.
860 Centennial Ave. Piscataway, NJ 08854
Tel: 1-877-436-7274; 1-732-885-9188