

Synonym

FGF1,AFGF,ECGF,ECGF-beta,ECGFA,ECGFB,FGF-alpha,FGFA,GLIO703,HBGF1

Source

Human FGF acidic, Tag Free (AFF-H4116) is expressed from E.coli cells. It contains AA Phe 16 - Asp 155 (Accession # [P05230-1](#)).

Predicted N-terminus: Met

Molecular Characterization

FGF acidic(Phe 16 - Asp 155)
P05230-1

This protein carries no "tag".

The protein has a calculated MW of 16.0 kDa. The protein migrates as 16 kDa under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>98% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally trehalose is added as protectant before lyophilization.

Contact us for customized product form or formulation.

Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

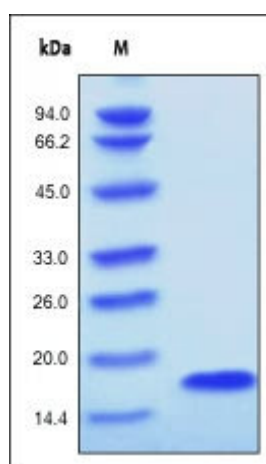
Storage

For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

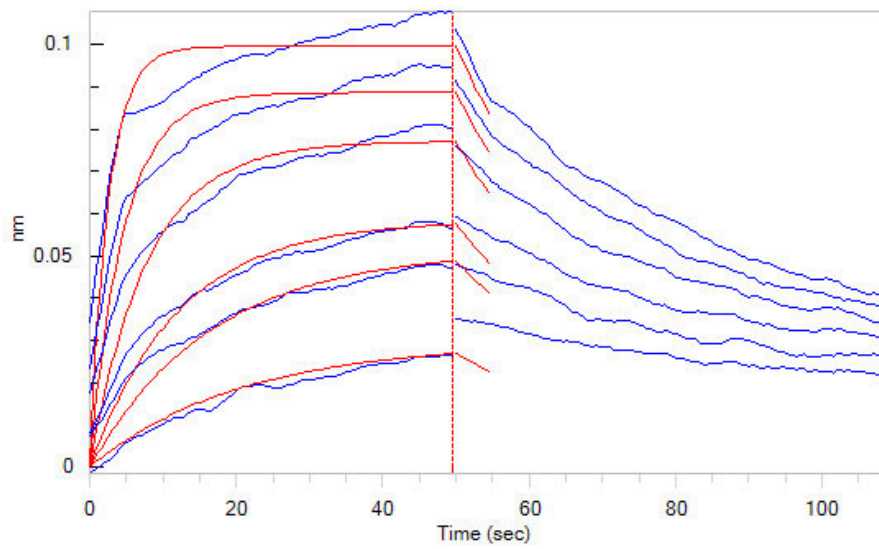
This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

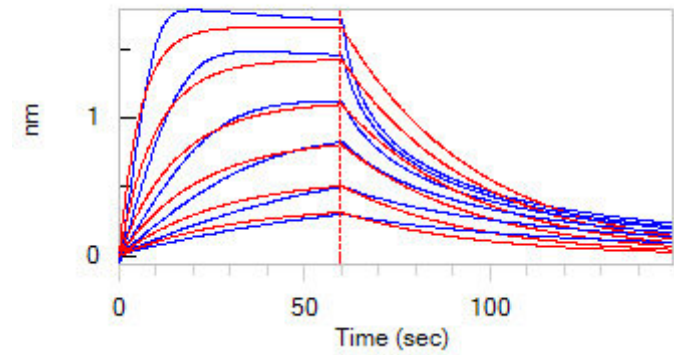
SDS-PAGE

Human FGF acidic, Tag Free on SDS-PAGE under reducing (R) condition. The gel was stained overnight with Coomassie Blue. The purity of the protein is greater than 98%.

Bioactivity-BLI



Loaded Human FGF R1, His Tag (Cat. No. FG1-H5223) on HIS1K Biosensor, can bind Human FGF acidic, Tag Free (Cat. No. AFF-H4116) with an affinity constant of 0.16 μ M as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).



Loaded Biotinylated Heparin on SA Biosensor, can bind Human FGF acidic, Tag Free (Cat. No. AFF-H4116) with an affinity constant of 186 nM as determined in BLI assay (ForteBio Octet Red96e) (Routinely tested).

Background

Heparin-binding growth factor 1 is a protein that in humans is encoded by the FGF1 gene. The protein encoded by this gene is a member of the fibroblast growth factor (FGF) family. FGF acidic is a potent growth factor for fibroblasts and endothelial cells. FGF acidic is involved in wound repair, angiogenesis, and development. FGF acidic is secreted from cells via an endoplasmic reticulum/Golgi independent mechanism. The ability of FGF acidic to bind to heparin sulfate is required for its ability to interact with FGF receptors and induce signaling. There are four distinct FGF receptors and each has multiple splice variants. FGF acidic binds with high affinity to many, but not all, FGFRs. Signaling cascades activated through FGF basic binding to FGFR include the ras-raf-MAPK, PLC γ /PKC, and PI3K/Akt pathways.

References

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.