

Synonym

FGF8, Fibroblast growth factor 8, FGF-8, Androgen-induced growth factor, Heparin-binding growth factor 8, AIGF

Source

Human / Mouse FGF-8b Protein, His Tag, premium grade(FGB-H52H1) is expressed from human 293 cells (HEK293). It contains AA Gln 23 - Arg 215 (Accession # P55075-3).

Predicted N-terminus: Gln 23

It is produced under our rigorous quality control system that incorporates a comprehensive set of tests including sterility and endotoxin tests. Product performance is carefully validated and tested for compatibility for cell culture use or any other applications in the early preclinical stage. When ready to transition into later clinical phases, we also offer a custom GMP protein service that tailors to your needs. We will work with you to customize and develop a GMP-grade product in accordance with your requests that also meets the requirements for raw and ancillary materials use in cell manufacturing of cell-based therapies.

Molecular Characterization

FGF-8b(Gln 23 - Arg 215) P55075-3

Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 24.3 kDa. The protein migrates as 32-45 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Sterility

The sterility testing was performed by membrane filtration method.

Mycoplasma

Negative.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from $0.22~\mu m$ filtered solution in PBS, pH7.4 with trehalose as protectant.

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

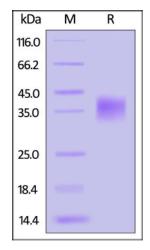
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

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



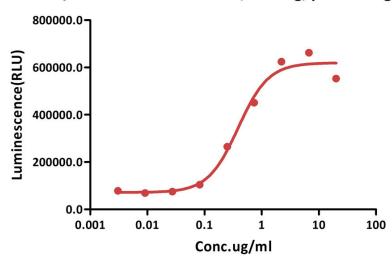
Human / Mouse FGF-8b Protein, His Tag, premium grade on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 90%.

Bioactivity-Bioactivity CELL BASE





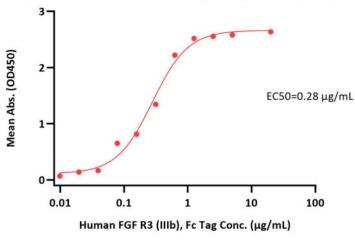
Human/Mouse FGF-8b Protein, His Tag, premium grade



Human / Mouse FGF-8b Protein, His Tag, premium grade (Cat. No. FGB-H52H1) stimulates proliferation of NIH-3T3 cells. The EC50 for this effect is $0.390 \ \mu g/mL$ (Routinely tested).

Bioactivity-ELISA

Human / Mouse FGF-8b Protein, His Tag, premium grade ELISA 0.5 μg of Human / Mouse FGF-8b Protein, His Tag, premium grade per well



Immobilized Human / Mouse FGF-8b Protein, His Tag, premium grade (Cat. No. FGB-H52H1) at 5 μ g/mL (100 μ L/well) can bind Human FGF R3 (IIIb), Fc Tag (Cat. No. FGB-H5259) with a linear range of 0.01-0.625 μ g/mL (QC tested).

Background

FGF8 is identified as an androgen-induced growth factor secreted from a mammary carcinoma cell line and widely expressed during embryonic development. It has been shown to mediate embryonic epithelial-mesenchymal transition and to have a key role in gastrulation and early organization and differentiation of midbrain/hindbrain, pharyngeal, cardiac, urogenital and limb structures. During adulthood FGF8 expression is much more restricted but in hormonal cancers it becomes frequently activated. The FGF8 subfamily, including FGF8, FGF17 and FGF18, has been not only detected in prostate, breast cancer but also in hepatocellular carcinoma (HCC). FGF8, FGF17, and FGF18 are involved in autocrine and paracrine signaling in HCC and enhance the survival of tumor cells under stress conditions, malignant behavior, and neoangiogenesis. The vertebrate FGF8 gene produces multiple protein isoforms by alternative splicing. Two evolutionarily conserved spliceforms, FGF8a and FGF8b, exhibit distinct bioactivities, with Fgf8b having a more potent inductive activity due to higher affinity for FGF receptors.

Clinical and Translational Updates

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

