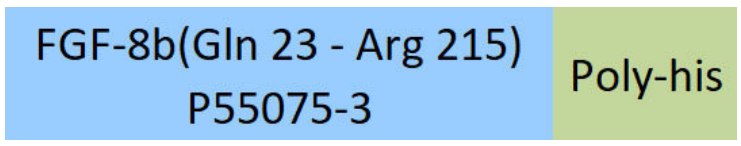
Synonym

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(FGB-H52H1) is expressed from human 293 cells (HEK293). It contains AA Gln 23 - Arg 215 (Accession # P55075-3).
Predicted N-terminus: Gln 23

Molecular Characterization



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

The protein has a calculated MW of 24.3 kDa. The protein migrates as 35-45 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 0.1 EU per μg by the LAL method.

Sterility

Negative

Mycoplasma

Negative.

Purity

>90% as determined by SDS-PAGE.

Formulation

Lyophilized from 0.22 μm 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

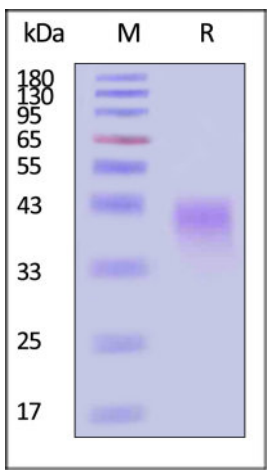
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

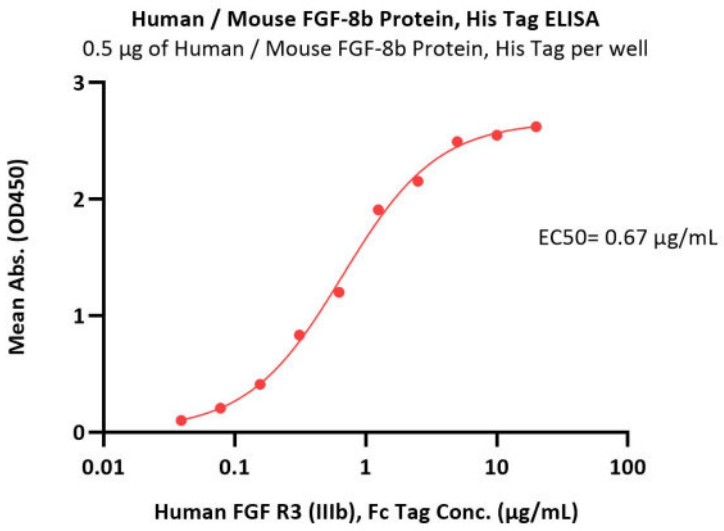
- -20°C to -70°C for 24 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



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

Bioactivity-ELISA



Immobilized Human / Mouse FGF-8b Protein, His Tag (Cat. No. FGB-H52H1) at 5 μg/mL (100 μL/well) can bind Human FGF R3 (IIIb), Fc Tag (Cat. No. FGB-H5259) with a linear range of 0.039-2.5 μg/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