Human FGF-17 Protein, His Tag, premium grade

Catalog # FG7-H5144

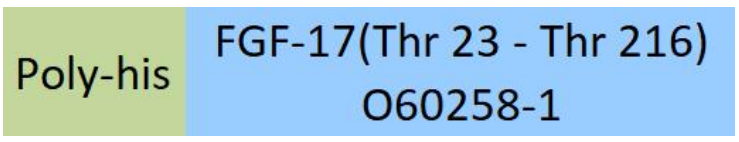
Synonym

FGF-17,Fibroblast growth factor 17,FGF17

Source

Human FGF-17 Protein, His Tag, premium grade(FG7-H5144) is expressed from E. coli cells. It contains AA Thr 23 - Thr 216 (Accession # O60258-1).
Predicted N-terminus: Met
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



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

The protein has a calculated MW of 24.5 kDa. The protein migrates as 28-30 kDa when calibrated against Star Ribbon Pre-stained Protein Marker under non-reducing (NR) condition (SDS-PAGE).

Endotoxin

Less than 0.1 EU per μg by the LAL method.

Host Cell Protein

<0.5 ng/μg of protein tested by ELISA.

Host Cell DNA

<0.02 ng/μg of protein tested by qPCR.

Sterility

Negative

Mycoplasma

Negative.

Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-HPLC.

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

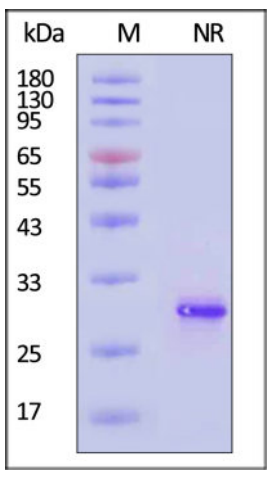
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

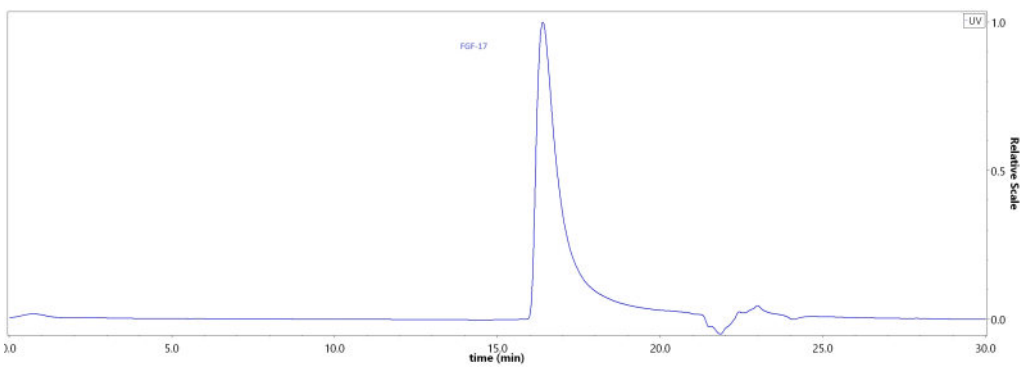
This product is stable after storage at:

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

SDS-PAGE



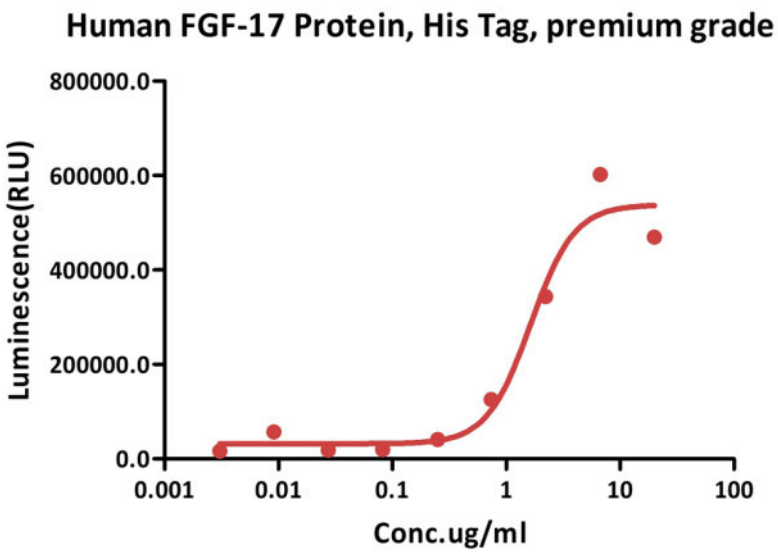
SEC-HPLC



Human FGF-17 Protein, His Tag, premium grade on SDS-PAGE under non-reducing (NR) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With Star Ribbon Pre-stained Protein Marker).

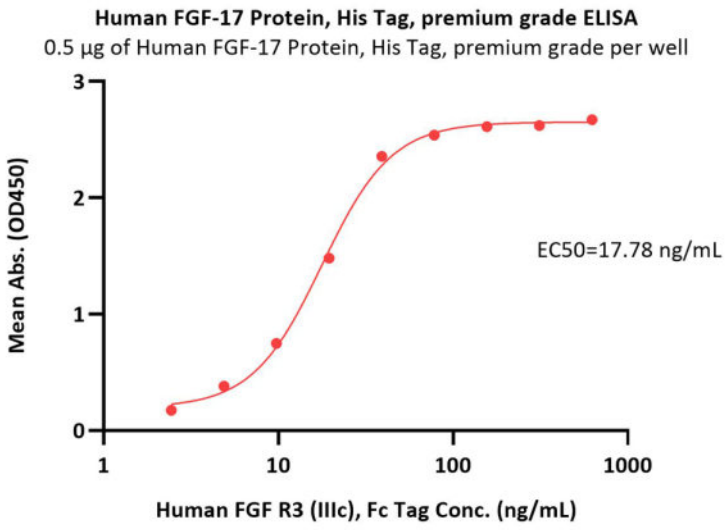
The purity of Human FGF-17 Protein, His Tag, premium grade (Cat. No. FG7-H5144) was greater than 90% as determined by SEC-HPLC.

Bioactivity-Bioactivity CELL BASE

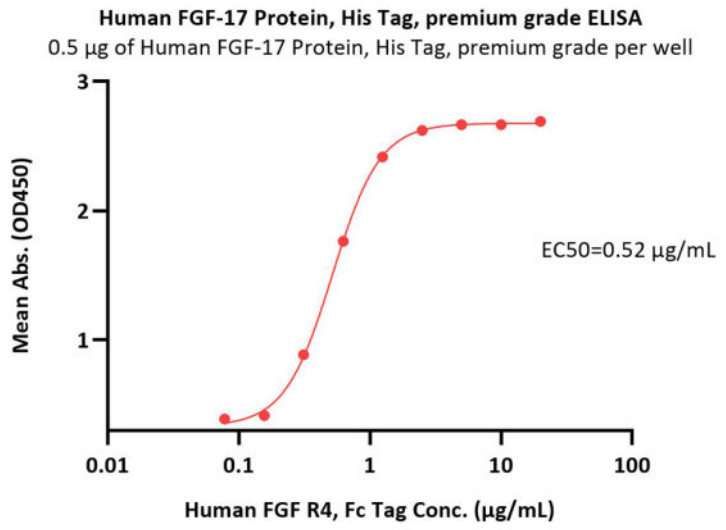


Human FGF-17 Protein, His Tag, premium grade (Cat. No. FG7-H5144) stimulates proliferation of NIH-3T3 cells. The EC50 for this effect is 1.495-1.639 μg/mL (Routinely tested).

Bioactivity-ELISA



Immobilized Human FGF-17 Protein, His Tag, premium grade (Cat. No. FG7-H5144) at 5 μg/mL (100 μL/well) can bind Human FGF R3 (IIIc), Fc Tag (Cat. No. FGC-H5256) with a linear range of 2-40 ng/mL (QC tested).



Immobilized Human FGF-17 Protein, His Tag, premium grade (Cat. No. FG7-H5144) at 5 μg/mL (100 μL/well) can bind Human FGF R4, Fc Tag (Cat. No. FG4-H5253) with a linear range of 0.078-0.625 μg/mL (QC tested).

Background

Fibroblast growth factors (FGFs) are a large family of structurally related proteins that are involved in wide variety of cellular processes including proliferation, differentiation, migration, and apoptosis. FGF17 also referred to as FGF-13, is expressed during embryogenesis and in the adult cerebellum and cortex and may be essential for vascular growth and normal brain development. Additionally, FGF17 together with FGF8, is a key factor in the patterning of the mid-hindbrain region with a complex picture of spatiotemporal gene expression during the various stages of cerebellar development.

Clinical and Translational Updates