Human GMF-beta Protein, His Tag (MALS verified)

Catalog # GMA-H5145

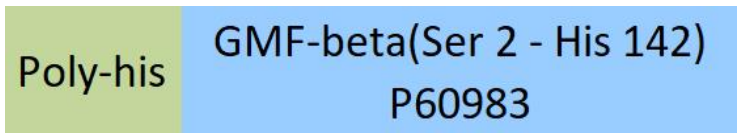
Synonym

GMF-beta,Glia maturation factor beta,GMFB

Source

Human GMF-beta, His Tag(GMA-H5145) is expressed from E. coli cells. It contains AA Ser 2 - His 142 (Accession # P60983).
Predicted N-terminus: His

Molecular Characterization



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

The protein has a calculated MW of 18.6 kDa. The protein migrates as 19-21 kDa under reducing (R) condition (SDS-PAGE).

Endotoxin

Less than 0.01 EU per μg by the LAL method.

Sterility

Negative

Mycoplasma

Negative.

Purity

>95% as determined by SDS-PAGE.

>98% as determined by SEC-MALS.

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

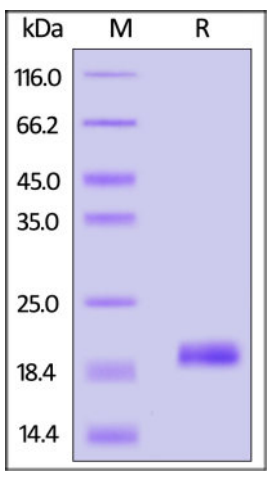
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

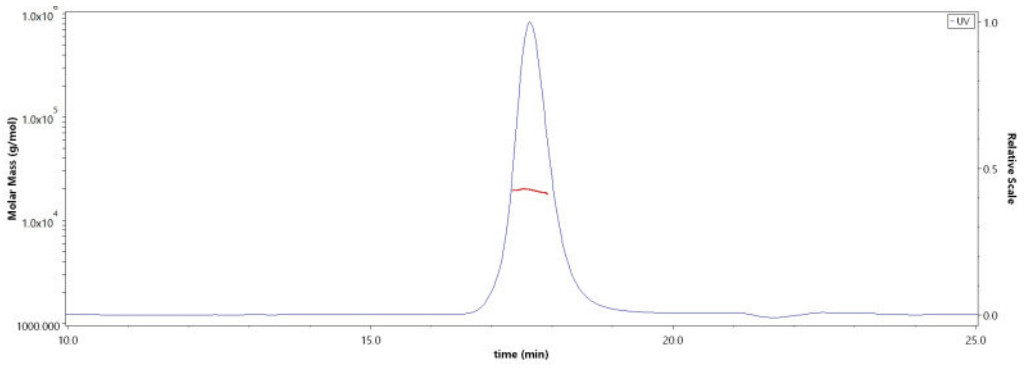
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

SDS-PAGE



Human GMF-beta, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

SEC-MALS



The purity of Human GMF-beta, His Tag (Cat. No. GMA-H5145) is more than 98% and the molecular weight of this protein is around 15-23 kDa verified by SEC-MALS.
Report

Background

Glia Maturation Factor-Beta (GMF-Beta) is a 17 kDa protein nerve gorwth factor identified as a growth and differentiation factor in the vertebrate brain.
Glia Maturation Factor-Beta stimulates differentiation of normal neurons as well as glial cells. GMFB inhibits the proliferation of the N-18 neuroblastoma line and the C6 glioma line while promoting their phenotypic expression.
GMF-beta inhances the phenotypic expression of glia & neurons thus inhibits the proliferation of their respective tumors when added to cell culture. Although astrocytes produce GMF-b and stores it inside the cells, they don't secrete the GMF-B into the cultured medium. Cell- surface GMFb acts on the target cells at close range when cells are in direct contact. GMF-Beta is produced by thymic epithelial cells and plays an important role in T cell development in favor of CD4+ T cells.
GMF-Beta is a brain-specific protein which belongs to the actin-binding proteins (ADF) family. GMF-beta appears to play a role in the differentiation, maintenance, and regeneration of the nervous system. It also supports the progression of certain auto-immune diseases, possibly through its ability to induce the production and secretion of various pro-inflammatory cytokines.

Clinical and Translational Updates