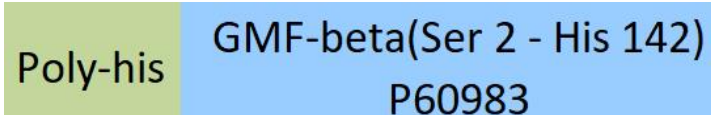


**Synonym**

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**

The sterility testing was performed by membrane filtration method.

**Mycoplasma**

Negative.

**Purity**

&gt;95% as determined by SDS-PAGE.

&gt;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.

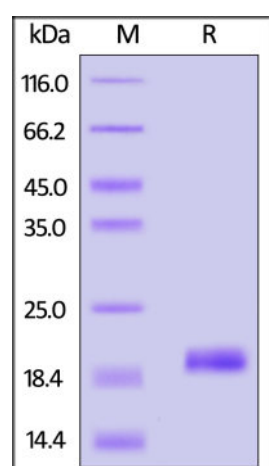
*For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.***Storage**

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

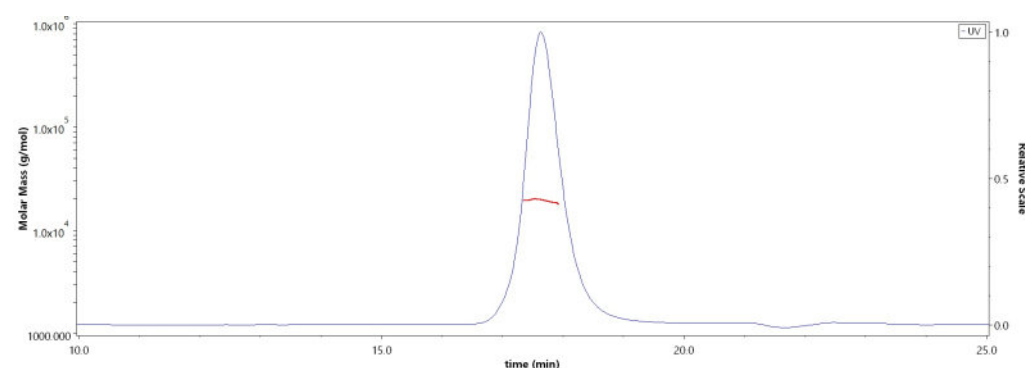
*Please avoid repeated freeze-thaw cycles.*

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 overnight 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 growth 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 enhances 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

Please contact us via [TechSupport@acrobiosystems.com](mailto:TechSupport@acrobiosystems.com) if you have any question on this product.