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## Product Data Sheet

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Product Name: GMFB Human  
 Cat. No.: GP20363  
 Batch No.: 1

**Product Data**

Purity >98% Source Escherichia Coli.  
 Physical Appearance solid Shipping Condition Shipped at Room temp.

Synonyms Glia maturation factor beta; GMFB; GMF-B; GMF-beta; GMF.

Amino Acid Sequence SESLVVCDVAEDLVEKLRKFRFRKETNNAIIMKIDKDKRLVVLDEELEGISPDELKELPERQPRFIVYSYKYQHDDGRVSYPLCFIFSSPVGCKPEQQMMY  
 AELTKVFEIRNTEDLTEEWLREKLGFFH.

Solubility It is recommended to reconstitute the lyophilized GMFB in sterile 18MΩ-cm H2O not less than 100µg/ml, which can then be further other aqueous solutions.

Formulation The GMF-beta protein was lyophilized after dialysis against 20mM PBS pH=7.4 and 130mM NaCl.

**Introduction**

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 autoimmune diseases, possibly through its ability to induce the production and secretion of various pro-inflammatory cytokines.

**Stability**

Lyophilized GMF-B although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution GMF-beta should be stored at 4°C between 2-7 days and for future use below -18°C . For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

**Background**

Glia Maturation Factor-Beta (GMF-Beta) Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 141 amino acids and having a total molecular mass of 16.5 kDa. Glia Maturation Factor-Beta, GMF-Beta, Human Recombinant is purified by proprietary chromatographic techniques.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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