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California Bioscience

Product Datasheet

Product Name	Glia Maturation Factor Beta Human Recombinant
Cata No	CB501299
Source	*Escherichia Coli.*
Synonyms	Glia maturation factor beta, GMFB, GMF-B, GMF-beta, GMF.

Description

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.

Glia Maturation Factor-Beta (GMF-Beta) Human Recombinant produced in E.Coli is a signle, 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.

Physical Appearance

Sterile Filtered White lyophilized (freeze-dried) powder.

Purity

Greater than 98.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Analysis by SDS-PAGE.

Formulation

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

Reconstitution

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

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

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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.

Sequence

SESLVVCDVAEDLVEKLRKFRFRKETNNAAIIMKID
KDKRLVVLDEELEGISPD
ELKELPERQPRFIVYSYKYQHDDGRVSYPLCFIFS
SPVGCKPEQQMMYAGSKN
KLVQT AELTKVFEIRNTEDLTEEWLREKLGFFH