

## Recombinant Human GMFB Protein (142 aa)

**Cat. No.** GMFB-390G    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <b>Product Overview</b> | Recombinant human Glia Maturation Factor beta (rhGMF-beta) produced in E. coli is a single non-glycosylated polypeptide chain containing 142 amino acids. rhGMF-beta has a molecular mass of 16.7kDa analyzed by reducing SDS-PAGE and is obtained by proprietary chromatographic techniques.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>ProteinLength</b>    | 142                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>      | Glia Maturation Factor beta (GMF-beta) is a 17 kDa brain specific protein that belongs to the ADF/cofilin superfamily. It is a neurotrophin that induces maturation of neurons and glial cells. Unlike other neurotrophins, GMF- $\beta$ lacks a leader sequence and can be phosphorylated by protein kinase A and protein kinase C suggesting its role in signal transduction. GMF- $\beta$ is a prominent mediator of inflammation in the central nervous system and can activate several inflammation-related genes such as tumor necrosis factor- $\alpha$ and interleukin-1 $\beta$ . Researchers have shown there are significantly higher levels of GMF- $\beta$ protein in all the effected regions of Alzheimer's disease (AD) brains suggesting an important role of GMF- $\beta$ in AD pathogenesis. |
| <b>Form</b>             | Sterile Filtered White lyophilized (freeze-dried) powder.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Bio-activity</b>     | Bioassay data are not available.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

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|                       |                                                                                                                                                                                                                                                                |
|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 16.7 kDa, observed by reducing SDS-PAGE.                                                                                                                                                                                                                       |
| <b>AA Sequence</b>    | MSESLVVCDVAEDLVEKLRKFRFRKETNNAAIIMKIDKDKRLVVLDEELEGISPDELK<br>DELPERQPRFIVYSYKYQHDDGRVSYPLCFIFSSPVGCKPEQQMMYAGSKNKLVT<br>AELTKVFEIRNTEDLTEEWLREKLGFFH                                                                                                          |
| <b>Endotoxin</b>      | < 0.2 EU/μg, determined by LAL method.                                                                                                                                                                                                                         |
| <b>Purity</b>         | > 95% by SDS-PAGE and HPLC analyses.                                                                                                                                                                                                                           |
| <b>Storage</b>        | Lyophilized recombinant human Glia Maturation Factor beta (rhGMF-beta) remains stable up to 6 months at -80 centigrade from date of receipt. Upon reconstitution, rhGMF-beta remains stable up to 2 weeks at 4 centigrade or up to 3 months at -20 centigrade. |
| <b>Storage Buffer</b> | Lyophilized after extensive dialysis against PBS.                                                                                                                                                                                                              |
| <b>Reconstitution</b> | Reconstituted in ddH <sub>2</sub> O at 100 μg/mL.                                                                                                                                                                                                              |

## GENE INFORMATION

|                        |                                                                                 |
|------------------------|---------------------------------------------------------------------------------|
| <b>Gene Name</b>       | GMFB glia maturation factor, beta [ Homo sapiens ]                              |
| <b>Official Symbol</b> | GMFB                                                                            |
| <b>Synonyms</b>        | GMFB; glia maturation factor, beta; glia maturation factor beta; GMF; GMF-beta; |
| <b>Gene ID</b>         | 2764                                                                            |
| <b>mRNA Refseq</b>     | NM_004124                                                                       |

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|----------------|-----------|
| Protein Refseq | NP_004115 |
| MIM            | 601713    |
| UniProt ID     | P60983    |

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