Data Sheet (Cat.No.TMPY-03216)

TargetMol

GMF beta/GMFB Protein, Human, Recombinant

General Information

Synonyms:	GMF β/GMFB;glia maturation factor, β;glia maturation factor, beta;GMF
Protein Construction:	A DNA sequence encoding the human GMFB (NP_004115.1)(Met1-His142) was expressed. Predicted N terminal: Met
Species:	Human
Expression Host:	E. coli
Accession:	P60983
Molecular Weight:	16.7 kDa (predicted); 17 kDa (reducing conditions)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

Protein Background

GMFB is a nerve growth factor which belongs to the actin-binding proteins ADF family, GMF subfamily. GMFB is involved in nervous system development, angiogenesis and immune function. It is especially crucial for the nervous system. GMFB causes brain cell differentiation, stimulates neural regeneration and inhibits tumor cell proliferation. It contains 1 ADF-H domain and is phosphorylated after phorbol ester stimulation. GMFB overexpression in astrocytes results in the increase of BDNF production. GMFB expression is increased by exercise,

thus BDNF is important for exercise-induction of BDNF.

Reference

Kim W,et al. (2011) Systematic and quantitative assessment of the ubiquitin-modified proteome. Mol Cell. 44(2): 325-40.

Zaheer S,et al. (2011) Augmented expression of glia maturation factor in Alzheimer's disease. Neuroscience. 194: 227-33.

Danielsen JM,et al. (2011) Mass spectrometric analysis of lysine ubiquitylation reveals promiscuity at site level. Mol Cell Proteomics. 10(3):M110.003590.