**BACKGROUND**

Glia maturation factor β (GMF-β) belongs to the GMF subfamily of the larger Actin-binding protein (ADF) family. This protein, which is phosphorylated following phorbol ester stimulation, is important for the nervous system. It causes brain cell differentiation, stimulates neural regeneration and inhibits tumor cell proliferation. Overexpression of GMF in astrocytes has been shown to enhance brain-derived neurotrophic factor (BDNF) production. GMF expression is increased by exercise, and the protein is crucial for exercise-induction of BDNF. Through BDNF production, GMF appears to play a role in neuroprotection. In thymoma, T cell development is maintained by GMF-β being produced by the tumor cells.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: GMFB (human) mapping to 14q22.2; Gmfβ (mouse) mapping to 14 C1.

**SOURCE**

GMF-β (SP-61) is a mouse monoclonal antibody raised against recombinant GMF-β protein of human origin.

**PRODUCT**

Each vial contains 100 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**APPLICATIONS**

GMF-β (SP-61) is recommended for detection of GMF-β of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GMF-β siRNA (h): sc-60707, GMF-β siRNA (m): sc-60708, GMF-β shRNA Plasmid (h): sc-60707-SH, GMF-β shRNA Plasmid (m): sc-60708-SH, GMF-β shRNA (h) Lentiviral Particles: sc-60707-V and GMF-β shRNA (m) Lentiviral Particles: sc-60708-V.

Molecular Weight of GMF-β: 17 kDa.

Positive Controls: GMF-β (m): 293T Lysate: sc-120543, Jurkat whole cell lysate: sc-2204 or T98G cell lysate: sc-2294.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

GMF-β (SP-61) sc-134347. Western blot analysis of GMF-β expression in non-transfected: sc-117752 (A) and mouse GMF-β transfected: sc-120543 (B) 293T whole cell lysates.

GMF-β (SP-61) sc-134347. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and membrane localization.

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

See our web site at www.scbt.com for detailed protocols and support products.