SANTA CRUZ BIOTECHNOLOGY, INC.

GMF-γ (778J2F): sc-517637



BACKGROUND

GMF- γ (glia maturation factor, γ), also known as GMFG, is a 142 amino acid protein that belongs to the GMF subfamily of the larger Actin-binding protein ADF family. GMF- γ is expressed predominantly in lung, heart and placenta. GMF- γ is considered a candidate regulatory growth factor protein, mediating both paracrine and autocrine cell-cell interactions. GMF- γ is phosphorylated at N-terminal serine, and its phosphorylation is enhanced by coexpression of dominant active Rac 1 and Cdc42. GMF- γ expression is significantly increased in a cardiac ischemia/reperfusion model where inflammation and angiogenesis take place actively. As a regulator of Actin-based cellular functions, GMF- γ may provide a novel approach to modulate the pathophysiology of cardiovascular diseases. GMF- γ is primarily found in proliferative and differentiative organs.

REFERENCES

- 1. Tsuiki, H., et al. 2000. Cloning of a rat glia maturation factor γ (rGMFG) cDNA and expression of its mRNA and protein in rat organs. J. Biochem. 127: 517-523.
- 2. Nishiwaki, A., et al. 2001. Expression of glia maturation factor during retinal development in the rat. Brain Res. Mol. Brain Res. 95: 103-109.
- Asai, K. 2001. Review of the research of glia maturation factor and cloning of human and rat glia maturation factor γ (GMFG) cDNA. Nihon Shinkei Seishin Yakurigaku Zasshi 21: 15-20.
- 4. Inagaki, M., et al. 2004. Sensitive immunoassays for human and rat GMFB and GMFG, tissue distribution and age-related changes. Biochim. Biophys. Acta 1670: 208-216.
- 5. Hotta, N., et al. 2005. Expression of glia maturation factor β after cryogenic brain injury. Brain Res. Mol. Brain Res. 133: 71-77.
- Ikeda, K., et al. 2006. Glia maturation factor γ is preferentially expressed in microvascular endothelial and inflammatory cells and modulates Actin cytoskeleton reorganization. Circ. Res. 99: 424-433.
- 7. Shi, Y., et al. 2006. Glia maturation factor γ (GMFG): a cytokine-responsive protein during hematopoietic lineage development and its functional genomics analysis. Genomics Proteomics Bioinformatics 4: 145-155.
- Skinner, M.K., et al. 2008. Regulation of granulosa and theca cell transcriptomes during ovarian antral follicle development. Mol. Reprod. Dev. 75: 1457-1472.
- Zaheer, A., et al. 2008. Glia maturation factor modulates β-Amyloid-induced glial activation, inflammatory cytokine/chemokine production and neuronal damage. Brain Res. 1208: 192-203.

CHROMOSOMAL LOCATION

Genetic locus: GMFG (human) mapping to 19q13.2.

SOURCE

GMF- γ (778J2F) is a mouse monoclonal antibody raised against His-tagged GMF- γ of human origin.

PRODUCT

Each vial contains 50 μl IgG1 in μl ascites of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

GMF- γ (778J2F) is recommended for detection of GMF- γ of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

Suitable for use as control antibody for GMF- γ siRNA (h): sc-97348, GMF- γ shRNA Plasmid (h): sc-97348-SH and GMF- γ shRNA (h) Lentiviral Particles: sc-97348-V.

Molecular Weight of GMF-y: 17 kDa.

STORAGE

Store at 4° C, **D0 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.

PROTOCOLS

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