3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-Gravin antibody, Mouse monoclonal clone JP74, purified from hybridoma cell culture

Catalog Number **G3795**

Product Description

Monoclonal Anti-Gravin (mouse IgG2a isotype) is derived from the hybridoma JP74 produced by the fusion of mouse myeloma cells (X63Ag8.653) and splenocytes from BALB/c mice immunized with fractionated membrane cortex proteins from human neurons [cell lines NT2-N and SK-N-BE(2)].[1] The isotype is determined using Mouse Monoclonal Antibody Isotyping Reagents, Catalog Number ISO2.

Monoclonal Anti-Gravin recognizes human, rat and mouse gravin, ~300 kDa. The product is useful in immunoblotting,[1] immunoprecipitation[1] and immunocytochemistry.[1]

Gravin (also known as A-Kinase Anchor Protein 12, AKAP12) was cloned from a cDNA expression library screened with serum, from a myasthenia gravis patient. Antibodies to gravin were found in 22 out of 72 myasthemia gravis patients and absent in sera of normal individuals.[2] This protein is a myristoylated high molecular weight cytoplasmic protein expressed in endothelial cells, cultured fibroblasts and osteosarcoma cells and highly expressed in the brain. Gravin can bind kinases like PKA and PKC by different domains of the protein and can localize these kinases to specific domains in the cell.[3-4] Upon differentiation of NT2 cells to neurons (NT2-N), gravin expression is up-regulated and enriched at the inner peripheral cortex in close proximity to the plasma membrane.[1] In differentiated cells, gravin is co-localized with PKCβII, PKCα and PKA. Decreased binding of PKCα to gravin was found after activation of PKC.[1]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~2 mg/ml.

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 0.02-0.04 μg/ml is determined using rat brain cytosolic S1 fraction.

Note: In order to obtain best results in different techniques and preparations, it is recommended to determine optimal working concentration by titration test.

References

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2. Gordon, T. et al., *Clin. Invest*., **90**, 992-999 (1992).
3. Diviani, D., and Scott, J.D., *J. Cell Sci*., **114**, 1431-1437 (2001).
4. Wong, W., and Scott, J.D., *Nature Rev. Mol. Cell Biol.,* **5**, 959-970 (2004).
5. Gelman, I.H., *Front Biosci.*, **7**, 1782-1797 (2002).

DS,KAA,PHC,MAM 01/18-1