
anti-Amphiphysin I

Cat #: HM1009
Goat polyclonal IgG
0.2 µg/µl, store at 4 °C

For research use only

BACKGROUND

Amphiphysin 1 is a protein highly expressed in nerve terminals where it associated with the cytoplasmic surface of synaptic vesicles. Amphiphysin 1 and Amphiphysin 2 form heterodimers that are able to bind to the clathrin associated GTPase dynamin, via their SH3 domains. This association is essential for synaptic vesicle recycling in neurons as it precedes the binding of dynamin to the clathrin-coated pits and the subsequent vesicle budding. A subset of patients with stiff-man syndrome who were also affected by breast cancer are positive for autoantibodies against Amphiphysin 1. Alternate splicing of its gene results in two transcript variants encoding different isoforms.

SPECIFICITY

This antibody detects Amphiphysin I of mouse, rat and human origin by Western Blotting, immunoprecipitation and immunofluorescence.

Molecular Weight of Amphiphysin I: 128 kDa.

Positive Controls: rat brain extract.

IMMUNOGEN

A peptide at the carboxy terminus of human amphiphysin I.

STORAGE

This antibody is stable for 12 months when stored at 2-8°C.

REFERENCE

1. Yamamoto, R., Li, X., Winter, S., Francke, U., and Kilimann, M.W. 1995. Primary structure of human amphiphysin, the dominant autoantigen of paraneoplastic stiff-man syndrome, and mapping of its gene (AMPH) to chromosome 7p13-p14. *Hum. Mol. Genet.* 4: 265-268.
2. Leprince, C., Romero, F., Cussac, D., Vayssiere, B., Berger, R., Tavitian, A., and Camonis, J.H. 1997. A new member of the amphiphysin family connecting endocytosis and signal transduction pathways. *J. Biol. Chem.* 272: 15101-15105.
3. Wigge, P., Kohler, K., Vallis, Y., Doyle, C.A., Owen, D., Hunt, S.P., and McMahon, H.T. 1997. Amphiphysin heterodimers: potential role in clathrin-mediated endocytosis. *Mol. Biol. Cell.* 8: 2003-2015.
4. Lichte, B., Veh, R.W., Meyer, H.E., and Kilimann, M.W. 1992. Amphiphysin, a novel protein associated with synaptic vesicles. *EMBO J.* 11: 2521-2530.
5. Wechsler-Reya, R., Sakamuro, D., Zhang, J., Duhadaway, J., and Prendergast, G.C. 1997. Structural analysis of the human BIN1 gene. Evidence for tissue-specific transcriptional regulation and alternate RNA splicing. *J. Biol. Chem.* 272: 31453-31458.
6. Sakamuro, D., Elliott, K.J., Wechsler-Reya, R., and Prendergast, G.C. 1996. BIN1 is a novel MYC-interacting protein with features of a tumour suppressor. *Nat. Genet.* 14: 69-77.

7. Wechsler-Reya, R., Elliott, K., Herlyn, M., and Prendergast, G.C. 1997. The putative tumor suppressor BIN1 is a short-lived nuclear phosphoprotein, the localization of which is altered in malignant cells. *Cancer Res.* 57: 3258-3263.
8. Floyd, S.R., Porro, E.B., Slepnev, V.I., Ochoa, G.C., Tsai, L.H., and De Camilli, P. (2001) Amphiphysin 1 binds the cyclin-dependent kinase (cdk) 5 regulatory subunit p35 and is phosphorylated by cdk5 and cdc2. *J. Biol. Chem.* 276, 8104-8110.

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