

Rim2 Antibody

Rim2: Rab3-interacting molecule 2, regulating synaptic membrane exocytosis 2, RIMS2

CATALOG No.: 4609

BACKGROUND:

Rab3-interacting molecules (RIMs) are synaptic proteins necessary for neuronal transmission and plasticity (1,2). Rim1 and Rim2 proteins are expressed in overlapping but distinct patterns throughout the brain. While the ablation of either gene was not lethal in mice, the deletion of both resulted in postnatal mortality. This lethality is due to a defect in neurotransmitter release; synapses without RIM proteins can still release neurotransmitters but are unable to do so in response to normal Ca^{2+} triggers (3). Like Rim1, Rim 2 is thought to be an effector protein for Rab3, binding to Rab3 on synaptic vesicles in a GTP-dependent manner (1). Rim2 is known to exist in multiple isoforms; this antibody should recognize most of them. This antibody is predicted to have no cross-reactivity to other Rim proteins.

SOURCE:

Rabbit polyclonal Rim2 antibody was raised against a 17 amino acid peptide near the center of the human Rim2 (GenBank accession no. NP_001093587).

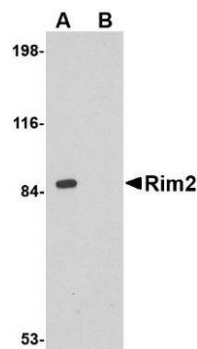
APPLICATION:

Rim2 antibody can be used for detection of Rim2 by Western blot at 0.5 – 1 μ g/ml. (Optimal dilution should be determined by user.) Rat brain tissue lysate can be used as positive control. Rim2 antibody is human, mouse and rat reactive.

For research use only.

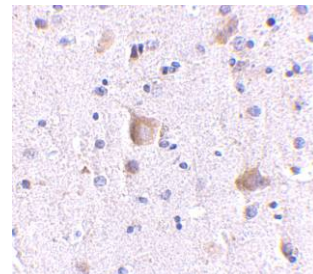
STORAGE:

Rim2 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



Western blot analysis of Rim2 in rat brain tissue lysate with Rim2 antibody at 1 μ g/ml in the (A) absence or (B) presence of blocking peptide.

Immunohistochemistry of Rim2 in human brain with Rim2 antibody at 5 μ g/ml.



RELATED PRODUCTS:

Blocking Peptide, Catalog No. **4609P**.
Rat Brain Tissue Lysate, Catalog No. **1463**.
Rim3 Antibody (NT), Catalog No. **4471**.

REFERENCES:

1. Wang Y, Sugita S, and Sudhof TC. The RIM/NIM family of neuronal C2 domain proteins: interactions with Rab3 and a new class of Src homology 3 domain proteins. *J. Biol. Chem.* 2000; 275:20033-44.
2. Liang F, Zhang B, Tang J, et al. RIM3gamma is a postsynaptic protein in the rat central nervous system. *J. Comp. Neurol.* 2007; 503:501-10.
3. Shoch S, Mittelstaedt T, Kaeser PS, et al. Redundant functions of RIM1 α and RIM2 α in Ca^{2+} -triggered neurotransmitter release. *EMBO J.* 2006; 25:5852-63. (08-01D)