

### Instruction Manual

<b>Catalog Number</b>	PK-AB718-4609
<b>Synonyms</b>	Rim2 Antibody: Rab3-interacting molecule 2, regulating synaptic membrane exocytosis 2, RIMS2
<b>Description</b>	Rab3-interacting molecules (RIMs) are synaptic proteins necessary for neuronal transmission and plasticity. 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 <sup>2+</sup> triggers. Like Rim1, Rim 2 is thought to be an effector protein for Rab3, binding to Rab3 on synaptic vesicles in a GTP-dependent manner. 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.
<b>Quantity</b>	100 µg
<b>Source / Host</b>	Rabbit
<b>Immunogen</b>	Rim2 antibody was raised in rabbits against a 17 amino acid peptide near the center of the human Rim2.
<b>Purification Method</b>	Affinity chromatography purified via peptide column.
<b>Clone / IgG Subtype</b>	Polyclonal antibody
<b>Species Reactivity</b>	Human, Mouse, Rat
<b>Specificity</b>	This antibody is predicted to have no cross-reactivity to other Rim proteins.
<b>Formulation</b>	Antibody is supplied in PBS containing 0.02% sodium azide.
<b>Reconstitution</b>	During shipment, small volumes of antibody will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the container's cap.
<b>Storage &amp; Stability</b>	Antibody can be stored at 4°C for three months and at -20°C for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
<b>Applications</b>	E, WB, IHC, IF <b>INote:</b> Antibody might be suitable for other applications not tested so far. Optimal concentrations for each application have to be determined individually. Rim2 antibody can be used for detection of Rim2 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.
<b>Images</b>	Available upon request.
<b>References</b>	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. <i>J. Biol. Chem.</i> 2000; 275:20033-44. Liang F, Zhang B, Tang J, et al. RIM3gamma is a postsynaptic protein in the rat central nervous system. <i>J. Comp. Neurol.</i> 2007; 503:501-10. Shoch S, Mittelstaedt T, Kaeser PS, et al. Redundant functions of RIM1a and RIM2a in Ca <sup>2+</sup> -triggered neurotransmitter release. <i>EMBO J.</i> 2006; 25:5852-63.
<b>Images</b>	Available upon request.
<b>Related Products</b>	Cat.No. PK-AB718-4609P; Rim2 Peptide Cat. No. PK-AB718-1463; Rat Brain Tissue Lysate

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