RIM 1

Cat.No. 140 003; Polyclonal rabbit antibody, 50 µg specific antibody (lyophilized)

**Data Sheet**

| Reconstitution/Storage | 50 µg specific antibody, lyophilized. Affinity purified with the immunogen. Albumin was added for stabilization. For reconstitution add 50 µl H2O to get a 1mg/ml solution in PBS. Then aliquot and store at -20°C until use.
| Applications | WB: 1 : 100 up to 1 : 1000 (AP staining)  
| | IP: not tested yet  
| | IHC: yes, paraformaldehyde and methanol fixation  
| | IHC-P/FFPE: 1 : 500
| Immunogen | Recombinant protein corresponding to AA 596 to 705 from rat Rim1 (UniProt ID: Q9JIR4)
| Reactivity | Reacts with: human (Q86UR5), rat (Q9JIR4), mouse (Q99NE5), hamster, chicken, frog. Other species not tested yet.
| Specificity | Specific for RIM 1 with weak cross reactivity to RIM 2.

**Selected References SYSY Antibodies**


Rab3a interacting molecule (RIM) and the tethering of pre-synaptic transmitter release site-associated Ca2+ calcium channels. Wong PK, Stanley EF  

RIM1/2-Mediated Facilitation of CaV1.4 Channel Opening Is Required for Ca2+-Stimulated Release in Mouse Rod Photoreceptors. Grabner CP, Gandini MA, Rehak R, Le Y, Zamponi GW, Schmitz F  


RIM, Munc13, and Rab3a interplay in acrosomal exocytosis. Bello OD, Zanetti MN, Zanetti F, Brose N, Baumann M, Rudolf-Wissell-Str. 28 37079 Göttingen, Germany  

RIM C2B Domains Target Presynaptic Active Zone Functions to PIP2-Containing Membranes. de Jong APH, Roggero CM, Ho MR, Wong MY, Brauslpa CM, Rizo J, Kaeser PS  

Analysis of SUMO1-conjugation at synapses. Daniel JA, Cooper BH, Palvimo JJ, Zhang FP, Brose N, Tizard M  

Dynamic Partitioning of Synaptic Vesicle Pools by the SNARE-Binding Protein Tomosyn. Cazanes VA, Niuss MM, Manly A, Salaberton A, Ben-Simon Y, Sutton MA, Ashery U, Szelenkei EL  

Epac2 Mediates cAMP-Dependent Potentiation of Neurotransmission in the Hippocampus. Fernandes HB, Riordan S, Nomura T, Remmers CL, Krishnani S, Marshall JJ, Kukreja L, Vassar R, Contractor A  

Cannabinoid type 1 receptors transiently silence glutamatergic nerve terminals of cultured cerebellar granule cells. Ramírez-Franco J, Bartolomé-Martin D, Alonso B, Torres M, Sánchez-Prieto J  


RIMs are presynaptic active zone proteins that regulate Ca2+ triggered release of neurotransmitters. RIM 1a and RIM 2a are composed of an N-terminal zinc-finger domain, a central PDZ domain and two C-terminal C2 domains that are separated by long alternatively spliced sequences. RIM 1a is a putative Rab 3a effector and has been shown to interact with other active zone proteins like Munc13-1, ERC 1b, ERC 2 and α-liprins. Deletion of RIM 1a in mice impaired neurotransmitter release without changing the structure of the synapse.