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RIM2 Rabbit pAb

Catalog # AP97467

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	Q9UQ26
Other Accession	Q9UQ26
Reactivity	Rat
Predicted	Pig, Human, Mouse, Chicken, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	160403
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RIM2
Epitope Specificity	391-490/1411
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Contains 2 C2 domains.Contains 1 FYVE-type zinc finger. Contains 1 PDZ (DHR) domain. Contains 1 RabBD (Rab-binding) domain.
SUBUNIT	Interacts with RAB3A and RAB3B that have been activated by GTP-binding. Interacts with RAB3C, RAB3D and RAB26. Interacts with BZRAP1/RIMBP1 and RIMBP2. Interacts with PPFIA3 and PPFIA4. Interacts via its zinc finger with the first C2 domain of UNC13A. Forms a complex consisting of UNC13A, RIMS2 and RAB3A. Heterodimer with PCLO. Part of a ternary complex involving PCLO and EPAC2 (By similarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Rab3, a neural/neuroendocrine-specific member of the Rab family, is involved in Ca2+-regulated exocytosis (1-2). Rab3 functions in an inhibitory capacity by controlling the recruitment of secretory vesicles into a releasable pool at the plasma membrane. Rim (rab3 interacting molecule), a putative effector protein for Rab3s, is composed of an amino-terminal zinc-finger motif and carboxy-terminal PDZ and C2 domains. Rim exists as two variants, Rim1 and Rim2, produced by alternative splicing (3). Rim1 is expressed near the active zone at the synapse, where it interacts in a GTP-dependent manner with Rab3, located on synaptic vesicles (4). Therefore, Rim serves as a Rab3-dependent regulator of synaptic-vesicle fusion by forming a GTP-dependent complex between synaptic plasma membranes and docked synaptic vesicles (5). Both Rim1 and Rim2 can bind to cAMP-GEFII, which is a direct target of cAMP in regulated exocytosis and is responsible for cAMP-dependent, PKA-dependent exocytosis (3). Rim also localizes on the plasma membrane of INS-1E cells and pancreatic beta-cells. Rab3 binding domain of Rim enhances glucose-stimulated secretion in intact cells and Ca2+-stimulated exocytosis in permeabilized cells, suggesting that Rim may also play a regulatory role in insulin secretion (6).

Additional Information

Gene ID	9699
Other Names	CRSDS; OBOE; RAB3IP3; RIM2; 2810036I15Rik; Rab3ip2; Rim2(+40A); Rim2(+44A); Rim2(+4A); Serg2; Syt3-rs; mKIAA0751; Nim2; RIMS2_HUMAN; RIMS2; Rab-3-interacting molecule 2 (RIM 2); Rab-3-interacting protein 3; KIAA0751; RIMS2_MOUSE; Rab-3-interacting protein 2; RIMS2_RAT; regulating synaptic membrane exocytosis 2; RAB3 interacting protein 3
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	RIMS2
Synonyms	KIAA0751, RAB3IP3, RIM2
Function	Rab effector involved in exocytosis. May act as scaffold protein. Plays a role in dendrite formation by melanocytes (PubMed:23999003).
Cellular Location	Cell membrane; Peripheral membrane protein. Synapse. Presynaptic cell membrane; Peripheral membrane protein
Tissue Location	Widely expressed (PubMed:32470375). Expressed in melanocytes (PubMed:23999003). In fetal tissues, predominantly expressed in the brain (PubMed:32470375). In the retina, expressed in the outer plexiform layer (at protein level) (PubMed:32470375). In the cerebellum, expressed in Purkinje cells (at protein level) (PubMed:32470375). In the pancreas, expressed in Langerhans islets (at protein level) (PubMed:32470375).

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