



Rabbit Anti-RIM2 antibody

SL11357R

Product Name:	RIM2
Chinese Name:	神经元突触膜胞外分泌调节蛋白2抗体
Alias:	Non small cell lung cancer RimL3a protein; Rab3 interacting molecule 2; RAB3IP3; Regulating synaptic membrane exocytosis protein 2; Rims2; RIMS2_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Cow,Horse,Rabbit,Sheep,
Applications:	Flow-Cyt=3ug/Test not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	160kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human RIM2:801-900/1411
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. 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.
PubMed:	PubMed
Product Detail:	Rab3, a neural/neuroendocrine-specific member of the Rab family, is involved in Ca ²⁺ -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).

Function:

RIM2 is a rab effector involved in exocytosis. It may act as scaffold protein. It is thought to be an effector protein for Rab3, binding to Rab3 on synaptic vesicles in a GTP dependent manner.

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).

Subcellular Location:

Cell membrane; Peripheral membrane protein (By similarity). Cell junction, synapse (By similarity). Cell junction, synapse, presynaptic cell membrane; Peripheral membrane protein (By similarity).

Similarity:

Contains 2 C2 domains.
Contains 1 FYVE-type zinc finger.
Contains 1 PDZ (DHR) domain.
Contains 1 RabBD (Rab-binding) domain.

SWISS:

Q9UQ26

Gene ID:

9699

Database links:

[Entrez Gene: 9699](#)Human

[Entrez Gene: 116838](#)Mouse

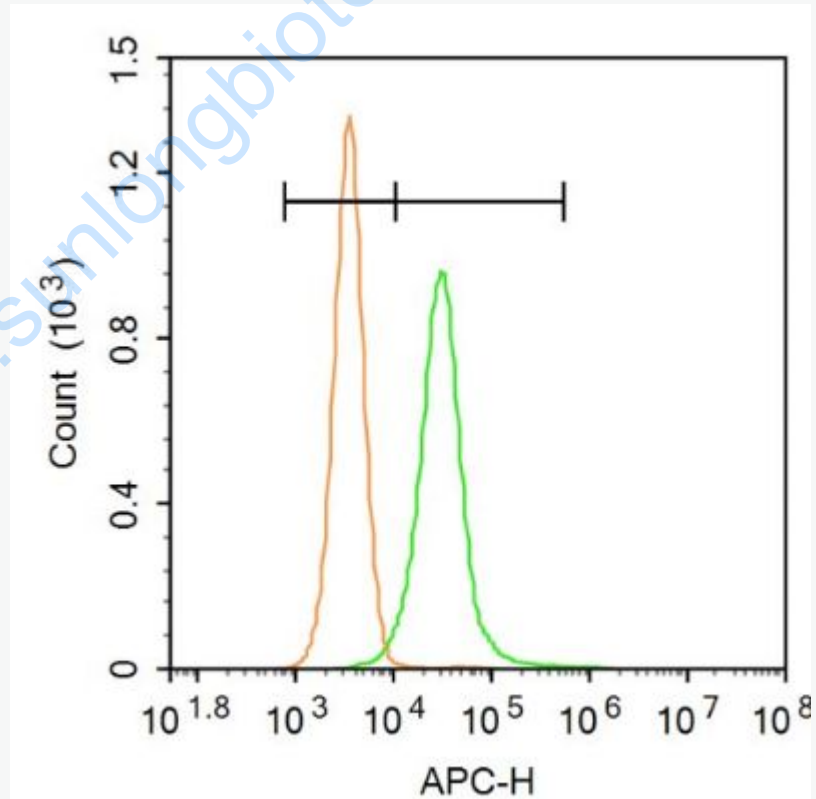
[Entrez Gene: 116839](#)Rat

[Oimim: 606630](#)Human
[SwissProt: Q9UQ26](#)Human
[SwissProt: Q9EQZ7](#)Mouse
[SwissProt: Q9JIS1](#)Rat
[Unigene: 655271](#)Human
[Unigene: 735969](#)Human
[Unigene: 309296](#)Mouse
[Unigene: 161948](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Blank control: A431.

Primary Antibody (green line): Rabbit Anti-RIM2 antibody (SL11357R)

Dilution: $3\mu\text{g} / 10^6$ cells;

Isotype Control Antibody (orange line): Rabbit IgG .

Secondary Antibody: Goat anti-rabbit IgG-AF647

Dilution: $3\mu\text{g} / \text{test}$.

Protocol

The cells were incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature .Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed.

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