

## Rim4 (C-18): sc-85885

### BACKGROUND

Rab 3, a neural/neuroendocrine-specific member of the Rab family, is involved in  $Ca^{2+}$ -regulated exocytosis. Rab 3 functions in an inhibitory capacity by controlling the recruitment of secretory vesicles into a releasable pool at the plasma membrane. Rim (Rab 3 interacting molecule), a putative effector protein for Rab 3s, is thought to regulate neurotransmitter release through its interaction with Rab 3 and other synaptic proteins. The mammalian genome contains four Rim genes that encode six forms of Rim: Rim1 $\alpha$ , 2 $\alpha$ , 2 $\beta$ , 2 $\gamma$ , 3 $\gamma$  and 4 $\gamma$ . Rim1 $\alpha$  and 2 $\alpha$  are composed of an N-terminal zinc finger, which contains the Rab 3 binding site, a central PDZ domain and two C-terminal C2 domains. Rim2 $\beta$  is identical to Rim2 $\alpha$ , but lacks the N-terminal zinc-finger region. Rim2 $\gamma$ , 3 $\gamma$  and 4 $\gamma$  lack the N-terminal zinc finger and PDZ domain, and consist of only the C-terminal C2 domain with neighboring sequences. Rim4 $\gamma$ , also known as Rab 3-interacting molecule 4, regulating synaptic membrane exocytosis protein 4 or RIM4, is a 269 amino acid protein that localizes to the cell junction and regulates synaptic membrane exocytosis.

### REFERENCES

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### CHROMOSOMAL LOCATION

Genetic locus: RIMS4 (human) mapping to 20q13.12; Rims4 (mouse) mapping to 2 H3.

### SOURCE

Rim4 (C-18) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of Rim4 of human origin.

### PRODUCT

Each vial contains 100  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, ready P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

Rim4 (C-18) is recommended for detection of Rim4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with Rim1 and Rim2.

Rim4 (C-18) is also recommended for detection of Rim4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Rim4 siRNA (h): sc-76406, Rim4 siRNA (m): sc-152967, Rim4 shRNA Plasmid (h): sc-76406-SH, Rim4 shRNA Plasmid (m): sc-152967-SH, Rim4 shRNA (h) Lentiviral Particles: sc-76406-V and Rim4 shRNA (m) Lentiviral Particles: sc-152967-V.

Molecular Weight of Rim4: 29 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### STORAGE

Store at 4° C, \*\*DO NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

### RESEARCH USE

For research use only, not for use in diagnostic procedures.

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.