

# rabphilin-3A (C-19): sc-14687

## BACKGROUND

The carboxy-terminal of rabphilin-3A consists of two C2 domains, A and B, and the amino-terminal (residues 45-170) contains a cysteine-rich region with two zinc finger motifs. Rabphilin-3A belongs to a family of other carboxy-terminal type (C-type) tandem C2 proteins, which includes synaptotagmins and Doc2. Rabphilin is expressed in neuroendocrine cells and co-localizes with Rab3A on synaptic vesicles and chromaffin granules. Rabphilin-3A binds Rab3a/GTP/Mg<sup>+</sup> within amino-terminal residues 45 and 170. Rabphilin-3A binds calcium ions and phosphatidylinositol 4,5-bisphosphate containing lipid vesicles within its C2 domains. Rabphilin-3A is a positive regulator of calcium dependent exocytosis, while Rab3a is a negative regulator of exocytosis. Although rabphilin-3A associates with Rab3a, they seem to influence exocytosis independently of each other. Rabphilin-3A effects are likely mediated through interactions with an unknown factor that recognizes the Rab3 binding domain.

## CHROMOSOMAL LOCATION

Genetic locus: RPH3A (human) mapping to 12q24.13; Rph3a (mouse) mapping to 5 F.

## SOURCE

rabphilin-3A (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of rabphilin-3A of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-14687 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

rabphilin-3A (C-19) is recommended for detection of rabphilin-3A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

rabphilin-3A (C-19) is also recommended for detection of rabphilin-3A in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for rabphilin-3A siRNA (h): sc-106476, rabphilin-3AL siRNA (m): sc-152672, rabphilin-3A shRNA Plasmid (h): sc-106476-SH, rabphilin-3AL shRNA Plasmid (m): sc-152672-SH, rabphilin-3A shRNA (h) Lentiviral Particles: sc-106476-V and rabphilin-3AL shRNA (m) Lentiviral Particles: sc-152672-V.

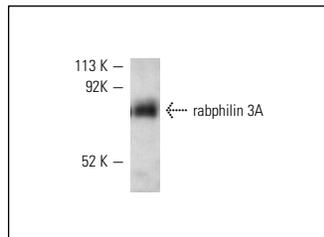
Molecular Weight of rabphilin-3A: 77 kDa.

Positive Controls: rat brain extract: sc-2392 or rabphilin-3A (m): 293T Lysate: sc-122930.

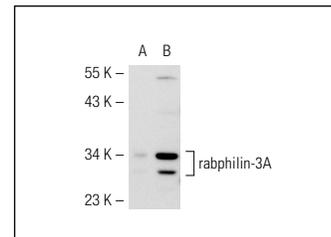
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



rabphilin 3A (C-19): sc-14687. Western blot analysis of rabphilin 3A expression in rat brain extract.



rabphilin-3A (C-19): sc-14687. Western blot analysis of rabphilin-3A expression in non-transfected: sc-117752 (A) and mouse rabphilin-3A transfected: sc-122930 (B) 293T whole cell lysates.

## 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.

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Try **rabphilin-3A (D-6): sc-393197** or **rabphilin-3A (E-2): sc-390915**, our highly recommended monoclonal alternatives to rabphilin-3A (C-19).