

## RAB3A monoclonal antibody

Catalog: MB66919

Host: Mouse

Reactivity: Human, Mouse, Rat

### BackGround:

The Rab family of proteins includes small, monomeric GTPases essential for regulating intracellular vesicle trafficking. Members of the Rab3 subfamily, including Rab3A-3D, are involved in the exocytosis of neurotransmitters and hormones. Rab3A is primarily expressed in neurons, neuroendocrine cells, and in human pancreatic islet cells. By acting as a molecular switch between active GTP-bound Rab3A and the inactive GDP-bound form, Rab3A inhibits synaptic vesicle and chromaffin granule secretion during late membrane release. Loss-of-function studies suggest Rab3A is involved in controlling synaptic vesicle targeting and docking at the active zone. Through binding to its direct effector Rabphilin, Rab3A also orchestrates the coupling between synaptic vesicle exocytosis and endocytosis.

### Product:

Mouse IgG1 kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.

### Molecular Weight:

~ 25 kDa

### Swiss-Prot:

P20336

### Purification&Purity:

This antibody is purified through a protein G column.

### Applications:

WB (1/500 - 1/1000), IF/ICC (1/10 - 1/50), FC (1/10 - 1/50)

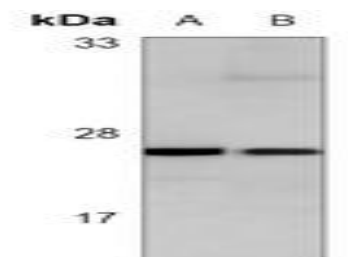
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

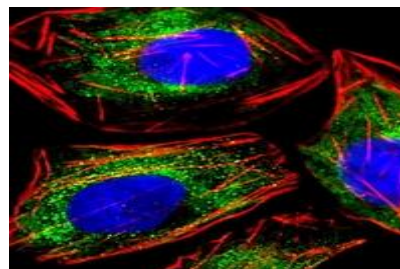
### Specificity:

Recognizes endogenous levels of RAB3A protein.

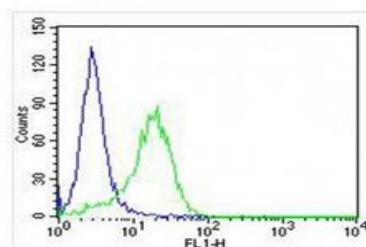
### DATA:



Western blot analysis of RAB3A expression in mouse brain (A), rat brain (B) whole cell lysates.



Immunofluorescent analysis of RAB3A staining in PC12 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF555 was used to stain the cytoplasm (red). DAPI was used to stain the cell nuclei (blue).



### Note:

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

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