

RAB3A Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP14815a**Specification**

RAB3A Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P20336](#)**RAB3A Antibody (N-term) Blocking Peptide - Additional Information****Gene ID** 5864**Other Names**

Ras-related protein Rab-3A, RAB3A

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

RAB3A Antibody (N-term) Blocking Peptide - Protein Information**Name** RAB3A**Function**

Small GTP-binding protein that plays a central role in regulated exocytosis and secretion. Controls the recruitment, tethering and docking of secretory vesicles to the plasma membrane (By similarity). Upon stimulation, switches to its active GTP-bound form, cycles to vesicles and recruits effectors such as RIMS1, RIMS2, Rabphilin-3A/RPH3A, RPH3AL or SYTL4 to help the docking of vesicles onto the plasma membrane (By similarity). Upon GTP hydrolysis by GTPase-activating protein, dissociates from the vesicle membrane allowing the exocytosis to proceed (By similarity). Stimulates insulin secretion through interaction with RIMS2 or RPH3AL effectors in pancreatic beta cells (By similarity). Regulates calcium-dependent lysosome exocytosis and plasma membrane repair (PMR) via the interaction with 2 effectors, SYTL4 and myosin-9/MYH9 (PubMed:27325790). Acts as a positive regulator of acrosome content secretion in sperm cells by interacting with RIMS1 (PubMed:22248876, PubMed:30599141). Also plays a role in the regulation of dopamine release by interacting with synaptotagmin I/SYT (By similarity). Interacts with MADD (via uDENN domain); the GTP-bound form is preferred for interaction (By similarity).

Cellular Location

Cytoplasm, cytosol {ECO:0000250|UniProtKB:P63012}. Lysosome Cytoplasmic vesicle, secretory vesicle {ECO:0000250|UniProtKB:P63012} Cell projection, axon {ECO:0000250|UniProtKB:P63011}. Cell membrane; Lipid-anchor; Cytoplasmic side. Presynapse {ECO:0000250|UniProtKB:P63011}. Postsynapse {ECO:0000250|UniProtKB:P63011}. Note=Cycles between a vesicle- associated GTP-bound form and a cytosolic GDP-bound form {ECO:0000250|UniProtKB:P63012}

Tissue Location

Specifically expressed in brain.

RAB3A Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

RAB3A Antibody (N-term) Blocking Peptide - Images**RAB3A Antibody (N-term) Blocking Peptide - Background**

RAB3A is involved in exocytosis by regulating a late step in synaptic vesicle fusion. Could play a role in neurotransmitter release by regulating membrane flow in the nerve terminal.

RAB3A Antibody (N-term) Blocking Peptide - References

Szodorai, A., et al. J. Neurosci. 29(46):14534-14544(2009)Branham, M.T., et al. J. Biol. Chem. 284(37):24825-24839(2009)Figueiredo, A.C., et al. J. Biol. Chem. 283(34):23209-23216(2008)Lopez, C.I., et al. FASEB J. 21(14):4121-4130(2007)Quick, M.W. Handb Exp Pharmacol 175, 181-196 (2006)
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