

RAB3GAP2 Antibody (C-term) Blocking Peptide Synthetic peptide Catalog # BP9635b

Specification

RAB3GAP2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession

<u>Q9H2M9</u>

RAB3GAP2 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 25782

Other Names

Rab3 GTPase-activating protein non-catalytic subunit, RGAP-iso, Rab3 GTPase-activating protein 150 kDa subunit, Rab3-GAP p150, Rab3-GAP150, Rab3-GAP regulatory subunit, RAB3GAP2, KIAA0839

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.

RAB3GAP2 Antibody (C-term) Blocking Peptide - Protein Information

Name RAB3GAP2 (HGNC:17168)

Synonyms KIAA0839

Function

Regulatory subunit of the Rab3 GTPase-activating (Rab3GAP) complex composed of RAB3GAP1 and RAB3GAP2, which has GTPase-activating protein (GAP) activity towards various Rab3 subfamily members (RAB3A, RAB3B, RAB3C and RAB3D), RAB5A and RAB43, and guanine nucleotide exchange factor (GEF) activity towards RAB18 (PubMed:24891604, PubMed:9733780). As part of the Rab3GAP complex, acts as a GAP for Rab3 proteins by converting active RAB3-GTP to the inactive form RAB3-GDP (By similarity). Rab3 proteins are involved in regulated exocytosis of neurotransmitters and hormones (By similarity). The Rab3GAP complex acts as a GEF for RAB18 by promoting the conversion of inactive RAB18- GDP to the active form RAB18-GTP (PubMed:24891604). Recruits and hormones (By similarity). The Rab3GAP complex acts as a GEF for RAB18 by promoting the conversion of inactive RAB18- GDP to the active form RAB18-GTP (PubMed:24891604). Recruits and stabilizes RAB18 at the cis-Golgi membrane in human fibroblasts where RAB18 is most likely activated (PubMed:26063829). Also involved in RAB18 recruitment at the endoplasmic



reticulum (ER) membrane where it maintains proper ER structure (PubMed:24891604). Required for normal eye and brain development (By similarity). May participate in neurodevelopmental processes such as proliferation, migration and differentiation before synapse formation, and non-synaptic vesicular release of neurotransmitters (By similarity).

Cellular Location

Cytoplasm {ECO:0000250|UniProtKB:Q5U1Z0}. Endoplasmic reticulum. Note=In neurons, it is enriched in the synaptic soluble fraction {ECO:0000250|UniProtKB:Q5U1Z0}

Tissue Location Ubiquitous..

RAB3GAP2 Antibody (C-term) Blocking Peptide - Protocols

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

<u>Blocking Peptides</u>

RAB3GAP2 Antibody (C-term) Blocking Peptide - Images

RAB3GAP2 Antibody (C-term) Blocking Peptide - Background

RAB3GAP2 belongs to the RAB3 protein family, members of which are involved in regulated exocytosis of neurotransmitters and hormones. This protein forms the Rab3 GTPase-activating complex with RAB3GAP1, where it constitutes the regulatory subunit, whereas the latter functions as the catalytic subunit. This gene has the highest level of expression in the brain, consistent with it having a key role in neurodevelopment.

RAB3GAP2 Antibody (C-term) Blocking Peptide - References

Niwa, S., et al. Nat. Cell Biol. 10(11):1269-1279(2008)Ng, E.L., et al. Brain Res Rev 58(1):236-246(2008)