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RAB3GAP2 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9635b

Product Information

Application	WB, E
Primary Accession	Q9H2M9
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB24125
Calculated MW	155985
Antigen Region	943-972

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
Target/Specificity	This RAB3GAP2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 943-972 amino acids from the C-terminal region of human RAB3GAP2.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RAB3GAP2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

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 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..

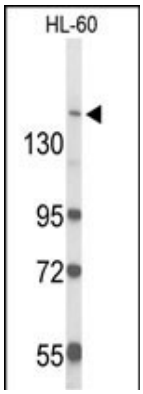
Background

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.

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)

Images



Western blot analysis of RAB3GAP2 Antibody (C-term) (Cat. #AP9635b) in HL-60 cell line lysates (35ug/lane). RAB3GAP2 (arrow) was detected using the purified Pab.

Citations

- A novel mouse model of Warburg Micro Syndrome reveals roles for RAB18 in eye development and organisation of the neuronal cytoskeleton.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.