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TBC1D24 antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI14118

Product Information

Application	WB
Primary Accession	Q9ULP9
Other Accession	NM_020705, NP_065756
Reactivity	Human, Mouse, Rat, Rabbit, Dog, Guinea Pig, Horse, Bovine
Predicted	Human, Rat, Rabbit, Chicken, Guinea Pig, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	62919

Additional Information

Gene ID	57465
Alias Symbol	KIAA1171, MGC102885, FIME
Other Names	TBC1 domain family member 24, TBC1D24, KIAA1171
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-TBC1D24 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	TBC1D24 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	TBC1D24
Synonyms	KIAA1171
Function	May act as a GTPase-activating protein for Rab family protein(s) (PubMed:20727515, PubMed:20797691). Involved in neuronal projection development, probably through negative modulation of ARF6 function (PubMed:20727515). Required for the maintenance of postsynaptic neuron dendritic spines in the adult by suppressing ARF6 activity (PubMed:32004315). Involved in the regulation of synaptic vesicle trafficking (PubMed:31257402). Promotes axonal outgrowth and membrane trafficking at the growth cone (By similarity). Positively regulates radial migration and morphological maturation of pyramidal neurons during cortical development by preventing ARF6

activation (By similarity). In one study, has been shown to inhibit the activity of the vacuolar-type ATPase (V-ATPase) by inducing disassembly of the V-ATPase complex (PubMed:38593795). In another study, has been shown to positively regulate V-ATPase assembly in neurons which promotes acidification of lysosomes and synaptic vesicles (By similarity). This supports neuronal autophagy and also regulates synaptic vesicle reacidification and the maintenance of the synaptic vesicle reserve pool (By similarity). Protects neuronal cells against oxidative stress (PubMed:30335140). Involved in the maintainenance of endosomal-mediated vesicle recycling and sustained exocytosis of hair cell ribbon synapses (By similarity). Facilitates formation of tubular recycling endosomes which promotes recycling of clathrin-independent endocytosis cargo proteins back to the plasma membrane (PubMed:32475639).

Cellular Location

Cell membrane; Peripheral membrane protein. Cytoplasm. Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:Q9VIH7}; Peripheral membrane protein. Presynapse. Postsynapse {ECO:0000250|UniProtKB:Q3UUG6}. Cell projection, neuron projection. Cell projection, dendrite {ECO:0000250|UniProtKB:Q3UUG6}. Perikaryon. Cell projection, growth cone {ECO:0000250|UniProtKB:A0A0G2K5B0}. Cytoplasmic vesicle, clathrin- coated vesicle {ECO:0000250|UniProtKB:Q3UUG6}. Note=Mainly cytoplasmic with partial expression at the plasma membrane (PubMed:20727515) Associates with certain types of membrane phosphoinositides, preferentially those phosphorylated at the D5 position of the inositol ring such as phosphatidylinositol 4,5-bisphosphate (PIP2) and phosphatidylinositol 3,4,5-trisphosphate (PIP3) (By similarity). In neurons, detected in the cell soma and along neurites (PubMed:39758816). Associated with clathrin-coated vesicles and synapses of hippocampal neurons (By similarity) {ECO:0000250|UniProtKB:Q3UUG6, ECO:0000250|UniProtKB:Q9VIH7, ECO:0000269|PubMed:20727515, ECO:0000269|PubMed:39758816}

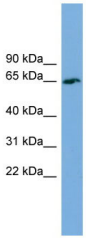
Tissue Location

Highest expression in brain.

References

Hirosawa M.,et al.DNA Res. 6:329-336(1999).
Nakajima D.,et al.DNA Res. 9:99-106(2002).
Ishibashi K.,et al.Genes Cells 14:41-52(2009).
Falace A.,et al.Am. J. Hum. Genet. 87:365-370(2010).
Corbett M.A.,et al.Am. J. Hum. Genet. 87:371-375(2010).

Images



WB Suggested Anti-TBC1D24 Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:1562500
Positive Control: Human kidney

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