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RAB18 Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8510b

Product Information

Application	WB, FC, E
Primary Accession	Q9NP72
Other Accession	Q5R5H5
Reactivity	Human, Rat, Mouse
Host	Mouse
Clonality	monoclonal
Isotype	IgG1,k
Clone Names	1573CT811.119.39
Calculated MW	22977
Antigen Region	1-206aa

Additional Information

Gene ID	22931
Other Names	Ras-related protein Rab-18, RAB18
Target/Specificity	This RAB18 antibody is generated from a mouse immunized with a recombinant protein of human RAB18.
Dilution	WB~~1:500-1:2000 FC~~1:25 E~~Use at an assay dependent concentration.
Format	Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.
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	RAB18 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RAB18 (HGNC:14244)
Function	The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes (PubMed:24891604, PubMed:30970241). Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different sets of downstream effectors directly responsible for

vesicle formation, movement, tethering and fusion (PubMed:24891604, PubMed:30970241). RAB18 is required for the localization of ZFYVE1 to lipid droplets and for its function in mediating the formation of endoplasmic reticulum-lipid droplets (ER-LD) contacts (PubMed:30970241). Also required for maintaining endoplasmic reticulum structure (PubMed:24891604). Plays a role in apical endocytosis/recycling (By similarity). Plays a key role in eye and brain development and neurodegeneration (PubMed:21473985).

Cellular Location Endoplasmic reticulum membrane. Golgi apparatus, cis-Golgi network membrane Lipid droplet. Apical cell membrane {ECO:0000250|UniProtKB:P35293}. Note=Localized to the ER membrane as well as to the cis-Golgi in fibroblasts.

Tissue Location Ubiquitous.

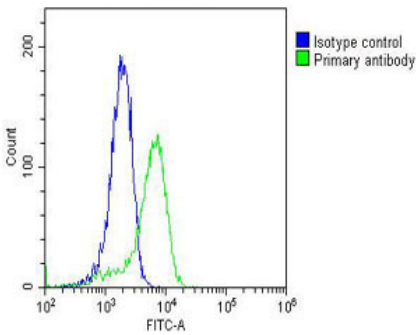
Background

Plays a role in apical endocytosis/recycling. May be implicated in transport between the plasma membrane and early endosomes. Plays a key role in eye and brain development and neurodegeneration.

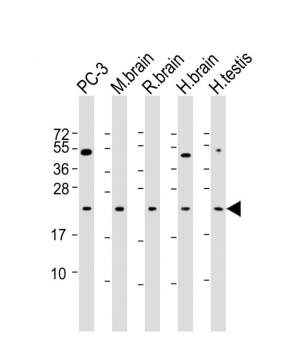
References

Chikri M.M.,et al.Submitted (APR-2000) to the EMBL/GenBank/DDBJ databases.
Schaefer U.,et al.FEBS Lett. 466:148-154(2000).
Dou T.,et al.DNA Seq. 16:230-234(2005).
Cui W.C.,et al.Submitted (JUL-2003) to the EMBL/GenBank/DDBJ databases.
Puhl H.L. III,et al.Submitted (APR-2002) to the EMBL/GenBank/DDBJ databases.

Images



Overlay histogram showing PC-3 cells stained with AM8510b(green line). The cells were fixed with 2% paraformaldehyde (10 min). The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AM8510b, 1:25 dilution) for 60 min at 37°C. The secondary antibody used was Goat-Anti-Mouse IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OJ192088) at 1/200 dilution for 40 min at 37°C. Isotype control antibody (blue line) was mouse IgG1 (1µg/1x10^6 cells) used under the same conditions. Acquisition of >10, 000 events was performed.



All lanes : Anti-RAB18 Antibody at 1:500-1:2000 dilution Lane 1: PC-3 whole cell lysate Lane 2: mouse brain lysate Lane 3: rat brain lysate Lane 4: human brain lysate Lane 5: human testis lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 23 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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