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# RAB1B Antibody

Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8541b

## Product Information

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| **Application** | WB, FC, E |
| **Primary Accession** | Q9H0U4 |
| **Other Accession** | Q5RE13 |
| **Reactivity** | Human, Rat, Mouse |
| **Predicted** | Bovine, Canine, Rabbit, Chicken |
| **Host** | Mouse |
| **Clonality** | monoclonal |
| **Isotype** | IgG1,k |
| **Clone Names** | 1673CT667.16.73 |
| **Calculated MW** | 22171 |

## Additional Information

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| **Gene ID** | 81876 |
| **Other Names** | Ras-related protein Rab-1B, RAB1B |
| **Target/Specificity** | This RAB1B antibody is generated from a mouse immunized with a recombinant protein between 1-201 amino acids from human RAB1B. |
| **Dilution** | WB~~1:4000 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** | RAB1B Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | RAB1B ( HGNC:18370) |
| **Function** | The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes (PubMed:20545908, PubMed:9437002, PubMed:23236136). Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different set of downstream effectors |

directly responsible for vesicle formation, movement, tethering and fusion (PubMed:9437002). Plays a role in the initial events of the autophagic vacuole development which take place at specialized regions of the endoplasmic reticulum (PubMed:20545908). Regulates vesicular transport between the endoplasmic reticulum and successive Golgi compartments (By similarity). Required to modulate the compacted morphology of the Golgi (PubMed:26209634). Promotes the recruitment of lipid phosphatase MTMR6 to the endoplasmic reticulum- Golgi intermediate compartment (By similarity).

**Cellular Location**

Cytoplasm. Membrane; Lipid-anchor; Cytoplasmic side. Preautophagosomal structure membrane; Lipid-anchor; Cytoplasmic side. Cytoplasm, perinuclear region {ECO:0000250|UniProtKB:P10536}. Note=Targeted by REP1 to membranes of specific subcellular compartments including endoplasmic reticulum, Golgi apparatus, and intermediate vesicles between these two compartments (PubMed:11389151). In the GDP-form, colocalizes with GDI in the cytoplasm (PubMed:11389151). Co-localizes with MTMR6 to the endoplasmic reticulum-Golgi intermediate compartment and to the peri-Golgi region (By similarity). {ECO:0000250|UniProtKB:P10536, ECO:0000269|PubMed:11389151}

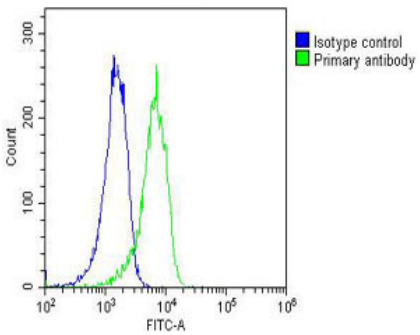
## Background

The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different set of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. RAB1B regulates vesicular transport between the endoplasmic reticulum and successive Golgi compartments. Plays a role in the initial events of the autophagic vacuole development which take place at specialized regions of the endoplasmic reticulum.

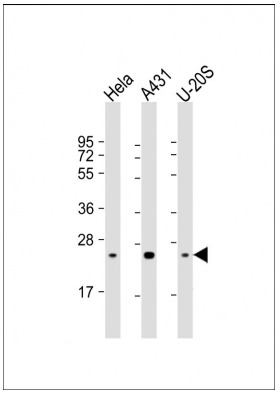
## References


Zhao Y.,et al.Submitted (SEP-1998) to the EMBL/GenBank/DDBJ databases.
Wiemann S.,et al.Genome Res. 11:422-435(2001).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Bienvenut W.V.,et al.Submitted (JUN-2005) to UniProtKB.
Wilson A.L.,et al.Biochem. J. 318:1007-1014(1996).


## Images




Overlay histogram showing A431 cells stained with AM8541b(green line). The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were then icubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody (AM8541b, 1:25 dilution) for 60 min at 37ºC. The secondary antibody used was Goat-Anti-Mouse IgG, DyLight® 488 Conjugated Highly Cross-Adsorbed(OJ192088) at 1/200 dilution for 40 min at 37ºC. 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-RAB1B Antibody at 1:4000 dilution Lane 1: Hela whole cell lysate Lane 2: A431 whole cell lysate Lane 3: U-20S whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 22 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

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