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# Anti-RAB23 Antibody

Catalog # AP51837

## Product Information

| | |
|---|---|
| **Application** | WB, IHC, IF/IC |
| **Primary Accession** | Q9ULC3 |
| **Reactivity** | Human, Mouse, Rat |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 26659 |

## Additional Information

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|---|---|
| **Gene ID** | 51715 |
| **Other Names** | Ras-related protein Rab-23 |
| **Target/Specificity** | KLH-conjugated synthetic peptide encompassing a sequence within the center region of human RAB23. The exact sequence is proprietary. |
| **Dilution** | WB~~WB (1/500 - 1/1000) IHC~~1:100~500 IF/IC~~N/A |
| **Format** | Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide. |
| **Storage** | Store at -20 °C.Stable for 12 months from date of receipt |

## Protein Information

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|---|---|
| **Name** | RAB23 ( HGNC:14263) |
| **Function** | 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. In conjunction with IFT57 and KIF17, it drives the localization of specific G protein-coupled receptors, such as the dopamime receptor DRD1, to primary cilia (PubMed:26182404). Has a critical role in the formation and elongation of neuronal primary cilia, thereby impacting the activation of sonic hedgehog (Shh) signaling (PubMed:40825043). Additionally, it is involved in the down-regulation of Shh signaling by cooperating with SUFU to prevent the nuclear import of GLI1 transcription factor, thus suppressing its transcriptional activity (PubMed:22365972) (PubMed:39615683). Regulates GLI1 in differentiating chondrocytes. Likewise, regulates GLI3 proteolytic processing and modulates GLI2 and GLI3 transcription factor activity. Plays a role in autophagic vacuole assembly, and |

mediates defense against pathogens, such as S.aureus, by promoting their capture by autophagosomes that then merge with lysosomes (PubMed:22452336).

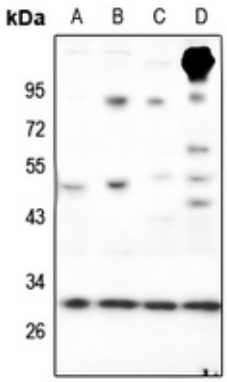
**Cellular Location**

Cell membrane {ECO:0000250|UniProtKB:P35288}; Lipid-anchor; Cytoplasmic side {ECO:0000250|UniProtKB:P35288}. Cytoplasm. Cytoplasmic vesicle, autophagosome. Endosome membrane {ECO:0000250, ECO:0000250|UniProtKB:P35288}. Cytoplasmic vesicle, phagosome. Cytoplasmic vesicle, phagosome membrane; Lipid-anchor; Cytoplasmic side. Note=Recruited to phagosomes containing S.aureus or M.tuberculosis.

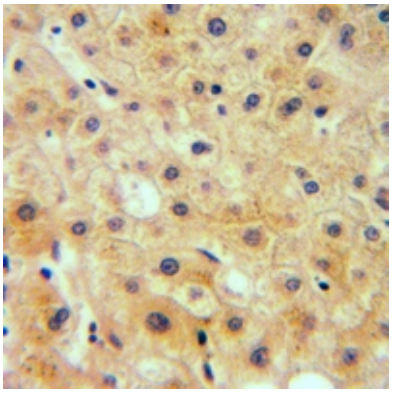
## References


Seki N.,et al.Submitted (OCT-1999) to the EMBL/GenBank/DDBJ databases.
Ikeda A.,et al.Submitted (MAR-1999) to the EMBL/GenBank/DDBJ databases.
Zhang Q.-H.,et al.Genome Res. 10:1546-1560(2000).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Puhl H.L. III,et al.Submitted (MAR-2004) to the EMBL/GenBank/DDBJ databases.


## Images

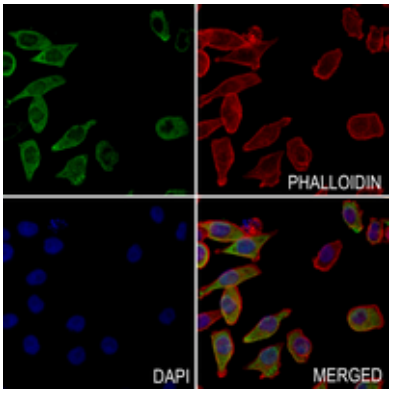



Western blot analysis of RAB23 expression in Beas2B (A), Panc1 (B), NIHC3T3 (C), PMVEC (D) whole cell lysates. (Predicted band size: 26 kD; Observed band size: 27 kD)



Immunohistochemical analysis of RAB23 staining in human liver cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Immunofluorescent analysis of RAB23 staining in MCF7 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was




used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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