

RAB40B Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP51463

Product Information

Application WB Primary Accession Q12829

Reactivity Human, Mouse, Rat

HostRabbitClonalityPolyclonalCalculated MW30956

Additional Information

Gene ID 10966

Other Names Ras-related protein Rab-40B, SOCS box-containing protein RAR, Protein Rar,

RAB40B, SEC4L

Target/Specificity KLH-conjugated synthetic peptide encompassing a sequence within the

C-term region of human RAB40B. The exact sequence is proprietary.

Dilution WB~~1:1000

Format 0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name RAB40B (<u>HGNC:18284</u>)

Synonyms SEC4L

Function RAB40B small GTPase acts as substrate-recognition components of the

ECS(RAB40B) E3 ubiquitin ligase complex which mediates the ubiquitination of target proteins (PubMed:33999101, PubMed:35293963). The Rab40 subfamily belongs to the Rab family that 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 sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion (PubMed:27789576). As part of the ECS(RAB40B) complex, GTP-bound RAB40B promotes LIMA1/EPLIN ubiquitination and degradation, thereby regulating leading-edge actin dynamics during cell migration (PubMed:33999101). As part of the ECS(RAB40B) complex, GTP-bound RAB40B also ubiquitinates RAP2A GTPase which promotes its

localization to lamellipodia and activation to drive cell migration. The ECS(RAB40B) complex does not mediate canonical ubiquitin-dependent degradation of RAP2 (PubMed:35293963). RAB40B also binds TKS5/SH3PXD2A effector independently from ECS complex to promote invadopodia-mediated extracellular matrix degradation (PubMed:27789576).

Cellular Location

Cell membrane; Lipid-anchor; Cytoplasmic side. Cytoplasm, cytosol. Cell projection, lamellipodium membrane. Cell projection, ruffle. Note=Mainly localized in the cytosol (PubMed:33999101). A subpopulation is present at the lamellipodia, where it colocalizes with actin ruffles (PubMed:33999101). Colocalized with RAP2A at the lamellipodia plasma membrane (PubMed:35293963).

Background

May be a substrate-recognition component of a SCF-like ECS (Elongin-Cullin-SOCS-box protein) E3 ubiquitin ligase complex which mediates the ubiquitination and subsequent proteasomal degradation of target proteins (By similarity).

References

Peng H., et al. Submitted (JAN-1994) to the EMBL/GenBank/DDBJ databases.

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