

Anti-Rab 1B antibody



Description Rabbit polyclonal to Rab 1B.

Model STJ95286

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, WB

Immunogen Synthesized peptide derived from human Rab 1B

Immunogen Region 50-130 aa, Internal

Gene ID 81876

Gene Symbol RAB1B

Dilution range WB 1:500-1:2000ELISA 1:10000

Specificity Rab 1B Polyclonal Antibody detects endogenous levels of Rab 1B protein.

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Ras-related protein Rab-1B

Molecular Weight 22 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:183700MIM:612565</u>

Alternative Names Ras-related protein Rab-1B

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. 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.

Cellular Localization Cytoplasm Membrane Preautophagosomal structure membrane. Targeted by

REP1 to membranes of specific subcellular compartments including endoplasmic reticulum, Golgi apparatus, and intermediate vesicles between these two compartments. In the GDP-form, colocalizes with GDI in the

cytoplasm.

Post-translational Prenylated; by GGTase II, only after interaction of the substrate with Rab **Modifications** escort protein 1 (REP1). AMPylation at Tyr-77 by L.pneumophila DrrA

occurs in the switch 2 region and leads to moderate inactivation of the GTPase activity. It appears to prolong the lifetime of the GTP state of RAB1B by restricting access of GTPase effectors to switch 2 and blocking effector-stimulated GTP hydrolysis, thereby rendering RAB1B constitutively active. It is later de-AMPylated by L.pneumophila SidD, releasing RAB1B from bacterial phagosomes. Phosphocholinated at Ser-76 by L.pneumophila AnkX,

leading to displace GDP dissociation inhibitors (GDI). Both GDP-bound and GTP-bound forms can be phosphocholinated. Dephosphocholinated by L.pneumophila Lem3, restoring accessibility to L.pneumophila GTPase

effector LepB.

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