

Anti-Rab5 Picoband Antibody
Catalog # ABO12473

Specification

Anti-Rab5 Picoband Antibody - Product Information

Application	WB, IHC
Primary Accession	P20339
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Ras-related protein Rab-5A(RAB5A) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Rab5 Picoband Antibody - Additional Information

Gene ID 5868

Other Names

Ras-related protein Rab-5A, RAB5A, RAB5

Calculated MW

23659 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, By Heat

Western blot, 0.1-0.5 µg/ml, Human, Mouse, Rat

Subcellular Localization

Cell membrane ; Lipid-anchor ; Cytoplasmic side . Early endosome membrane ; Lipid-anchor . Melanosome. Cytoplasmic vesicle . Cell projection, ruffle . Membrane. Cytoplasm, cytosol. Enriched in stage I melanosomes. Alternates between membrane-bound and cytosolic forms.

Protein Name

Ras-related protein Rab-5A

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg Na₃.

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminus of human Rab5 (179-215aa KKLPKNEPQNPGANSARGRGVDLTEPTQPTRNQCCSN), different from the related mouse and rat sequences by three amino acids.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-Rab5 Picoband Antibody - Protein Information

Name RAB5A

Synonyms RAB5

Function

Small GTPase which cycles between active GTP-bound and inactive GDP-bound states. In its active state, binds to a variety of effector proteins to regulate cellular responses such as of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Active GTP-bound form is able to recruit to membranes different sets of downstream effectors directly responsible for vesicle formation, movement, tethering and fusion. RAB5A is required for the fusion of plasma membranes and early endosomes (PubMed:10818110, PubMed:14617813, PubMed:15378032, PubMed:16410077). Contributes to the regulation of filopodia extension (PubMed:14978216). Required for the exosomal release of SDCBP, CD63, PDCD6IP and syndecan (PubMed:22660413). Regulates maturation of apoptotic cell-containing phagosomes, probably downstream of DYN2 and PIK3C3 (By similarity).

Cellular Location

Cell membrane; Lipid-anchor; Cytoplasmic side. Early endosome membrane; Lipid- anchor. Melanosome. Cytoplasmic vesicle. Cell projection, ruffle {ECO:0000250|UniProtKB:P18066}. Membrane Cytoplasm, cytosol. Cytoplasmic vesicle, phagosome membrane {ECO:0000250|UniProtKB:Q9CQD1}. Endosome membrane Note=Enriched in stage I melanosomes (PubMed:17081065). Alternates between membrane-bound and cytosolic forms (Probable) {ECO:0000269|PubMed:17081065, ECO:0000305}

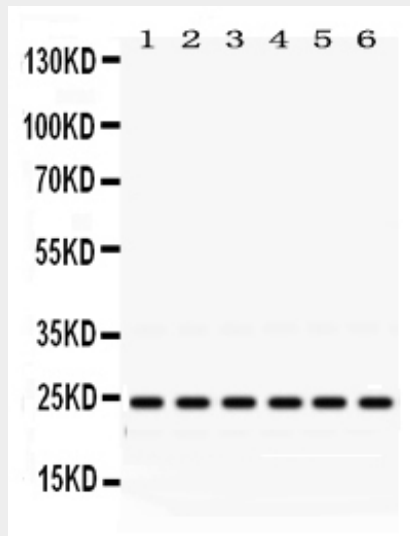
Anti-Rab5 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

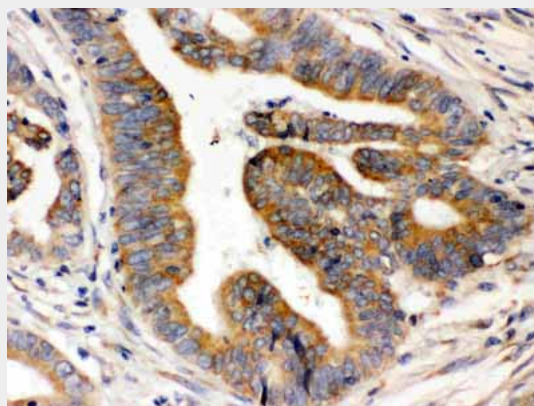
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)

• [Cell Culture](#)

Anti-Rab5 Picoband Antibody - Images



Anti-Rab5 Picoband antibody, ABO12473, Western blotting All lanes: Anti Rab5 (ABO12473) at 0.5ug/ml Lane 1: Rat Brain Tissue Lysate at 50ug Lane 2: Mouse Brain Tissue Lysate at 50ug Lane 3: HELA Whole Cell Lysate at 40ug Lane 4: SW620 Whole Cell Lysate at 40ug Lane 5: 293T Whole Cell Lysate at 40ug Lane 6: JURKAT Whole Cell Lysate at 40ug Predicted bind size: 24KD Observed bind size: 24KD



Anti-Rab5 Picoband antibody, ABO12473, IHC(P) IHC(P): Human Intestinal Cancer Tissue

Anti-Rab5 Picoband Antibody - Background

RAB5A (Ras-associated protein RAB5A), also called RAB5, is a protein that in humans is encoded by the RAB5A gene. RAB5 is a rate-limiting component of the machinery regulating the kinetics of membrane traffic in the early endocytic pathway. The RAB5A gene is mapped on 3p24.3. RAB5 is indispensable for a form of receptor tyrosine kinase-induced actin remodeling called circular ruffling. It signals to the actin cytoskeleton through RNTRE, a RAB5-specific GTPase-activating protein (GAP). RAB5 activity on phagosome membranes began to increase on disassembly of the actin coat encapsulating phagosomes. In addition, RAB5 activation is either continuous or repetitive for up to 10 minutes, but it ends before the collapse of engulfed apoptotic cells. Expression of a dominant-negative mutant of RAB5 delayed this collapse of apoptotic thymocytes, showing a role for RAB5 in phagosome maturation.