10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-RAB14 Picoband Antibody

Catalog # ABO12501

Product Information

Application	WB
Primary Accession	P61106
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Ras-related protein Rab-14(RAB14) detection. Tested with WB in Human;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	51552
Other Names	Ras-related protein Rab-14, RAB14
Calculated MW	23897
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Rat
Subcellular Localization	Recycling endosome . Early endosome membrane ; Lipid-anchor ; Cytoplasmic side . Golgi apparatus membrane ; Lipid-anchor ; Cytoplasmic side . Golgi apparatus, trans-Golgi network membrane ; Lipid-anchor ; Cytoplasmic side . Cytoplasmic vesicle, phagosome . Recruited to recycling endosomes by DENND6A (PubMed:22595670). Recruited to phagosomes containing S.aureus or M.tuberculosis (PubMed:21255211). .
Source	Eukaryota
Protein Name	Ras-related protein Rab-14
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human RAB14 (124-153aa NKADLEAQRDVTYEEAKQFAEENGLLFLEA), identical to the related mouse and rat sequences.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20˚C for one year. After r˚Constitution, 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.

Protein Information

Name

RAB14 (HGNC:16524)

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 (PubMed:22595670). RAB14 is involved in membrane trafficking between the Golgi complex and endosomes during early embryonic development (By similarity). Regulates the Golgi to endosome transport of FGFR-containing vesicles during early development, a key process for developing basement membrane and epiblast and primitive endoderm lineages during early postimplantation development. May act by modulating the kinesin KIF16B-cargo association to endosomes (By similarity). Regulates, together with its guanine nucleotide exchange factor DENND6A, the specific endocytic transport of ADAM10, N-cadherin/CDH2 shedding and cell-cell adhesion (PubMed:22595670). Mediates endosomal tethering and fusion through the interaction with RUFY1 and RAB4B (PubMed:20534812). Interaction with RAB11FIP1 may function in the process of neurite formation (PubMed:26032412).

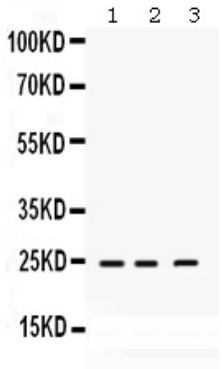
Cellular Location

Recycling endosome. Early endosome membrane; Lipid-anchor; Cytoplasmic side. Golgi apparatus membrane; Lipid-anchor; Cytoplasmic side. Golgi apparatus, trans-Golgi network membrane; Lipid-anchor; Cytoplasmic side. Cytoplasmic vesicle, phagosome. Cytoplasmic vesicle. Note=Recruited to recycling endosomes by DENND6A (PubMed:22595670). Recruited to phagosomes containing S.aureus or M.tuberculosis (PubMed:21255211). Colocalizes with RAB11FIP1 on punctate vesicles (PubMed:26032412).

Background

Ras-related protein Rab-14 is a protein that in humans is encoded by the RAB14 gene. It is mapped to 9q33.2 based on an alignment of the RAB14 sequence with the genomic sequence. RAB14 belongs to the large RAB family of low molecular mass GTPases that are involved in intracellular membrane trafficking. These proteins act as molecular switches that flip between an inactive GDP-bound state and an active GTP-bound state in which they recruit downstream effector proteins onto membranes.

Images



Anti-RAB14 Picoband antibody, ABO12501, Western blottingAll lanes: Anti RAB14 (ABO12501) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: RAJI Whole Cell Lysate at 40ugLane 3: SMMC Whole Cell Lysate at 40ugPredicted bind size: 24KDObserved bind size: 24KD

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