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Anti-RAB14 Antibody

Catalog # AP59951

Product Information

Application	WB, IHC, IF/IC
Primary Accession	P61106
Reactivity	Human, Mouse, Rat, Pig, Chicken, Mk
Host	Rabbit
Clonality	Polyclonal
Calculated MW	23897

Additional Information

Gene ID	51552
Other Names	Ras-related protein Rab-14
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human RAB14. 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

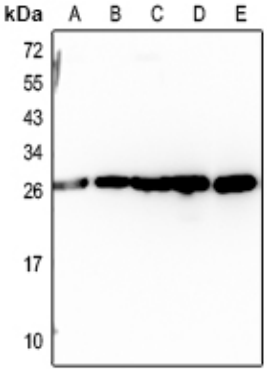
Name	RAB14 (HGNC:16524)
Function	The small GTPases Rab are key regulators of intracellular membrane trafficking, from the formation of transport vesicles to their fusion with membranes. Rabs cycle between an inactive GDP-bound form and an active GTP-bound form that is able to recruit to membranes different 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).

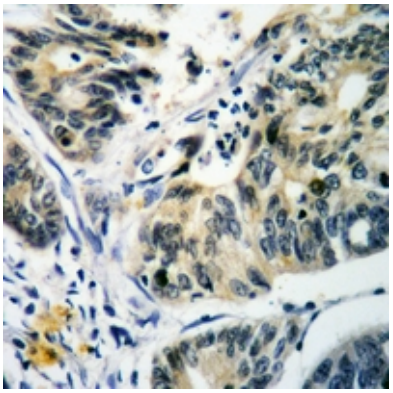
Cellular Location

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).

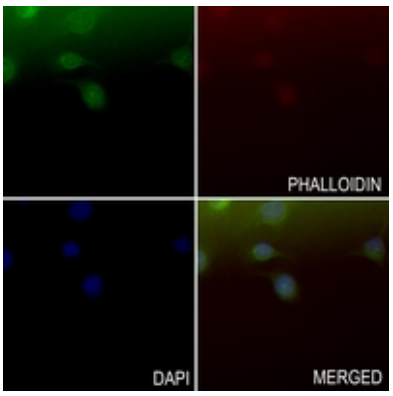
Images



Western blot analysis of RAB14 expression in A375 (A), U2OS (B), DLD (C), mouse testis (D), rat testis (E) whole cell lysates. (Predicted band size: 23 kD; Observed band size: 27 kD)



Immunohistochemical analysis of RAB14 staining in human colorectal 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 RAB14 staining in A549 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).

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