

Datasheet for ABIN361841
anti-Rab4 antibody (C-Term)

5 Images

1 Publication

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Overview

Quantity:	100 µL
Target:	Rab4 (RAB4A)
Binding Specificity:	C-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	C-terminal peptide from human Rab4
Specificity:	Detects ~26 kDa.
Cross-Reactivity:	Human, Mouse, Rat
Purification:	Peptide Affinity Purified

Target Details

Target:	Rab4 (RAB4A)
Alternative Name:	Rab4 (RAB4A Products)
Background:	Rab4 is a 25 kDa member of the Rab family of small guanosine triphosphatases (GTPases), Ras superfamily. Rab GTPases are central regulators of membrane trafficking in the eukaryotic cell. Their regulatory capacity depends on their ability to cycle between the GDP-bound inactive

Target Details

and GTP-bound active states. This conversion is regulated by GDP/GTP exchange factors (GEPs), GDP dissociation inhibitors (GDIs) and GTPase-activating proteins (GAPs) (1, 2). Activation of a Rab protein is coupled to its association with intracellular membranes, allowing it to recruit downstream effector proteins to the cytoplasmic surface of a sub-cellular compartment (3). Through these proteins, Rab GTPases regulate vesicle formation, actin- and tubulin-dependent vesicle movement, and membrane fusion(1). Rab proteins contain conserved regions involved in guanine-nucleotide binding, and hyper-variable COHO-terminal domains with a cysteine motif implicated in sub-cellular targeting. Post-translational modification of the cysteine motif with one or two geranylgeranyl groups is essential for the membrane association and correct intracellular localization of Rab proteins (3). Each Rab shows a characteristic sub-cellular distribution (4). In particular, over-expression of Rab4 causes a redistribution of receptors on plasma membrane versus endocytic compartments. The presence of excessive Rab4 leads to the accumulation of transferrin receptors in non-acidic, post-endosomal recycling vesicles considered an intermediate compartment between endosomes and plasma membranes. Rab4 also plays a role in the translocation of glucose transporter (Glu4) in adipocytes in response to insulin (5). Mediating the association of Rab4 with transferring receptor-containing early endosomes takes place through the geranylgeranyl groups at its carboxyl-terminus. Membrane association is also cell cycle dependent, as phosphorylation at its c-terminal cdc2 kinase consensus sequence in mitotic cells leads to dissociation of Rab4 into the cytosol (6).

Gene ID:	5867
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NCBI Accession:	NP_004569
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UniProt:	P20338
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Application Details

Application Notes:	<ul style="list-style-type: none">• WB (1:1000)• IHC (1:100)• ICC/IF (1:150)• optimal dilutions for assays should be determined by the user.
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Comment:	A 1:1000 dilution of ABIN361840 was sufficient for detection of Rab4 in 10 µg of heat shocked HeLa cell lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.
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Restrictions:	For Research Use only
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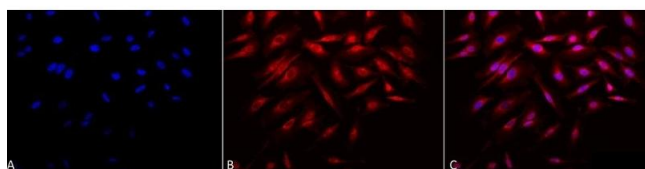
Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	-20°C

Publications

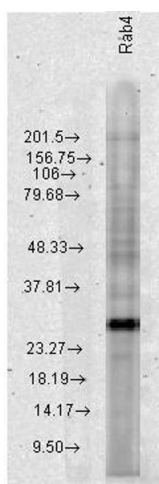
Product cited in: Chen, Cai, Liu: "A single molecule assay for ultrasensitive detection of Fn14 in human serum." in: **Analytical biochemistry**, Vol. 587, pp. 113467, (2020) ([PubMed](#)).

Images



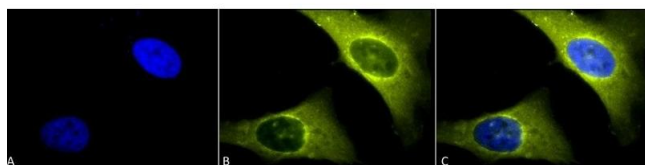
Immunocytochemistry

Image 1. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Rab4 Polyclonal Antibody (ABIN361840 and ABIN361841). Tissue: Heat Shocked Cervical cancer cell line (HeLa). Species: Human. Fixation: 2 % Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Rab4 Polyclonal Antibody (ABIN361840 and ABIN361841) at 1:150 for 12 hours at 4 °C. Secondary Antibody: APC Goat Anti-Rabbit (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Membrane. Cytoplasm. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-Rab4 Antibody. (C) Composite. Heat Shocked at 42 °C for 30 min.



Western Blotting

Image 2. Rab4, HeLa



Immunocytochemistry

Image 3. Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Rab4 Polyclonal Antibody (ABIN361840 and ABIN361841). Tissue: Heat Shocked Cervical cancer cell line (HeLa). Species: Human. Fixation: 2 % Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Rab4 Polyclonal Antibody (ABIN361840 and ABIN361841) at 1:150 for 12 hours at 4 °C. Secondary Antibody: R-PE Goat Anti-Rabbit (yellow) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Membrane. Cytoplasm. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-Rab4 Antibody. (C) Composite. Heat Shocked at 42 °C for 30 min.

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN361841.