

Datasheet for ABIN2486641

**anti-Rab4 antibody (C-Term) (HRP)****5** Images[Go to Product page](#)

## Overview

Quantity:	100 µL
Target:	Rab4 (RAB4A)
Binding Specificity:	C-Term
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Rab4 antibody is conjugated to HRP
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 ( <a href="#">RAB4A Products</a> )
Background:	Rab4 is a 25 kDa member of the Rab family of small guanosine triphosphatases (GTPases),

## Target Details

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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 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
NCBI Accession:	<a href="#">NP_004569</a>
UniProt:	<a href="#">P20338</a>

## Application Details

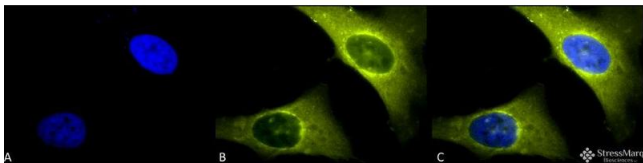
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Application Notes:	<ul style="list-style-type: none"><li>• WB (1:1000)</li><li>• IHC (1:100)</li><li>• ICC/IF (1:150)</li><li>• optimal dilutions for assays should be determined by the user.</li></ul>
Comment:	A 1:1000 dilution of ABIN2486641 was sufficient 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.

## Application Details

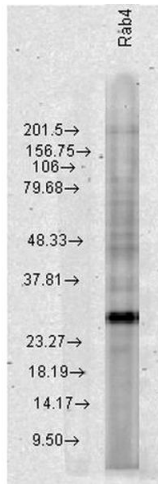
Restrictions:	For Research Use only
Handling	
Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C
Storage Comment:	Conjugated antibodies should be stored at 4°C

## Images



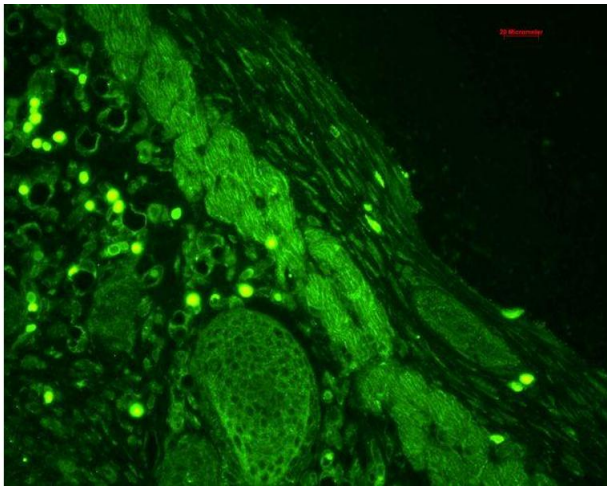
### Immunofluorescence (fixed cells)

**Image 1.** Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Rab4 Polyclonal Antibody . Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Rab4 Polyclonal Antibody 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.



### Western Blotting

**Image 2.** Western blot analysis of Human HeLa cell lysates showing detection of Rab4 protein using Rabbit Anti-Rab4 Polyclonal Antibody . Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Rabbit Anti-Rab4 Polyclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Donkey Anti-Rabbit IgG: HRP for 1 hour at RT.



### Immunohistochemistry

**Image 3.** Immunohistochemistry analysis using Rabbit Anti-Rab4 Polyclonal Antibody . Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative Solution. Primary Antibody: Rabbit Anti-Rab4 Polyclonal Antibody at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Rabbit (green) at 1:50 for 1 hour at RT. Localization: Epidermis (cell-cell border and cytoplasmic), hair follicles and muscle.

Please check the [product details page](#) for more images. Overall 5 images are available for ABIN2486641.