

Datasheet for ABIN2486165  
**anti-RAB5 antibody (Atto 390)**

4 Images

1 Publication

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## Overview

Quantity:	100 µg
Target:	RAB5 (RAB5A)
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This RAB5 antibody is conjugated to Atto 390
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunocytochemistry (ICC)

## Product Details

Immunogen:	Human Rab5 synthetic peptide conjugated to KLH, identical to dog Rab5 sequence over the residues
Specificity:	Detects ~26 kDa.
Cross-Reactivity:	Cow, Human, Monkey, Mouse, Rat
Purification:	Protein A Purified

## Target Details

Target:	RAB5 (RAB5A)
Alternative Name:	Rab5 ( <a href="#">RAB5A Products</a> )
Background:	Rab5 is a 24 kDa member of the Rab family of small guanosine triphosphatases (GTPases), Ras superfamily. Rab GTPases are central regulators of membrane trafficking in the eukaryotic

## Target Details

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 (GEFs), 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 subcellular 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 subcellular targeting. Post-translational modification of the cysteine motif with one or two geranyl groups is essential for the membrane association and correct intracellular localization of Rab proteins(3). Each Rab shows a characteristic subcellular distribution (4). In particular, Rab5 is ubiquitously expressed in human tissues. It localizes mainly to early endosomes, but is also present on the plasma membrane. It regulates the fusion between endocytic vesicles and early endosomes, as well as the homotypic fusion between early endosomes (5). Among the proteins recruited by the GTP-bound active Rab5 are Rabaptin-5 and EEA1 (6). Anti-Rab5 may be used as an early endosome marker.

Gene ID: 5868

NCBI Accession: [NP\\_004153](#)

UniProt: [P20339](#)

Pathways: [Smooth Muscle Cell Migration](#), [Regulation of long-term Neuronal Synaptic Plasticity](#)

## Application Details

Application Notes:

- WB (1:1000)
- IHC (1:100)
- ICC/IF (1:80)
- optimal dilutions for assays should be determined by the user.

Comment: 1 µl/ml of ABIN2486165 was sufficient for detection of Rab5 in 15 µg of HeLa lysate by ECL immunoblot analysis using Donkey anti-rabbit IgG:HRP as the secondary antibody.

Restrictions: For Research Use only

## Handling

Format: Liquid

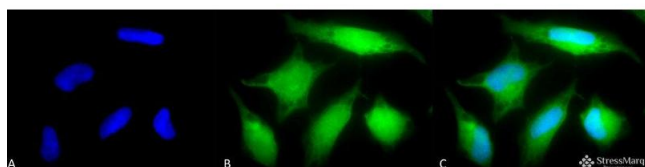
## Handling

Concentration:	1 mg/mL
Buffer:	PBS, 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

## Publications

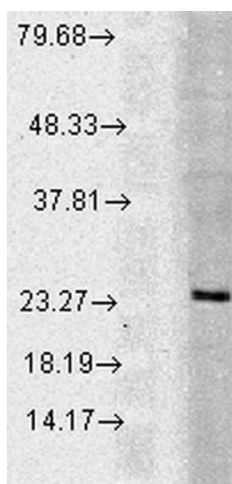
Product cited in:	Pohar, Lainšček, Ivičak-Kocjan, Cajnko, Jerala, Benčina: "Short single-stranded DNA degradation products augment the activation of Toll-like receptor 9." in: <b>Nature communications</b> , Vol. 8, pp. 15363, (2018) ( <a href="#">PubMed</a> ).
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## Images



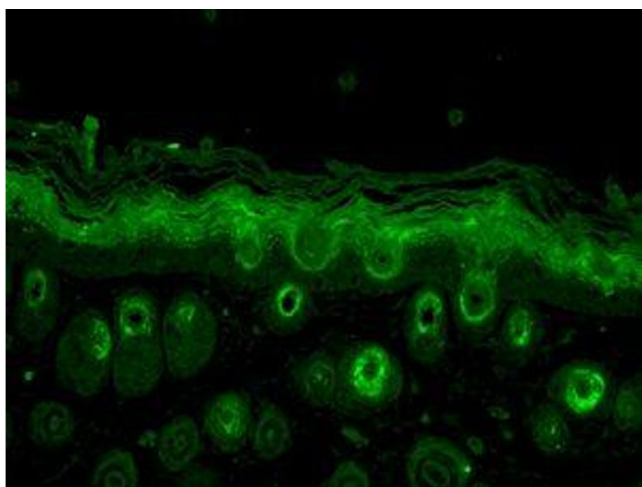
### Immunofluorescence (fixed cells)

**Image 1.** Immunocytochemistry/Immunofluorescence analysis using Rabbit Anti-Rab5 Polyclonal Antibody . Tissue: HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Rabbit Anti-Rab5 Polyclonal Antibody at 1:80 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: Cytoplasm. Melanosome. Nucleus. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-Rab5 Antibody. (C) Composite.



#### Western Blotting

**Image 2.** Western blot analysis of Human Cell line lysates showing detection of Rab5 protein using Rabbit Anti-Rab5 Polyclonal Antibody . Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Rabbit Anti-Rab5 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-Rab5 Polyclonal Antibody . Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative Solution. Primary Antibody: Rabbit Anti-Rab5 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: Cytoplasm.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN2486165.