Rab11 ABfinity™ Recombinant Rabbit Monoclonal Antibody - Purified

REF Catalog no. 700184

(See product label for lot information)

Clone/PAD: 3H18L5
Isotype: IgG
Gene ID: 8766
Protein Acc. no.: P62491
Qty: 100 µg
Volume: 200 µl
Concentration: 0.5 mg/ml

Formulation
PBS + 0.09% sodium azide.

Immunogen
A peptide corresponding to amino acids 179-194 of P62491.

Immunogen sequence
KQMSDRRENDMSPSNN

Reactivity
This antibody reacts with human Rab11. Based on sequence identity and similarity, reactivity to mouse, rat, primate, bovine, zebrafish and several avian species is expected.

Storage
2-8°C for up to 1 mo, -20°C for long term storage. Avoid repeated freezing and thawing.

Expiration Date
Expires one year from date of receipt when stored as instructed.

Validated Applications:

	Species	Test Material	Concentration
Western Blotting	human	HeLa	5-8 µg/ml
Immunofluorescence	human	HeLa	2-4 µg/ml

Background
Rab11A is a member of the YPT-1 subfamily of Ras-related GTP-binding proteins. Rab11A mRNA has been detected in a variety of tissues including brain, testis, spleen, heart, and gastrointestinal mucosa (3,4). In the gastric fundus the Rab11A protein is expressed in parietal cell tubulovesicles membranes (2). Expression of the Rab11A protein appears to occur in discrete epithelial cell populations where it localizes to apical vesicular populations (1). Recent studies have shown Rab11A is essential for resecretion of α-synuclein out of neuronal cells via endosome recycling (5) and is required for exocytosis of discoidal/fusiform vesicles of bladder umbrella cells (6). Rab11A is also implicated in biogenesis of Birbeck granules (7) and endosomal activation of the PI3K/AKT signaling pathway via Gβγ trafficking (8).

References

1. Goldenring, J.R., et al. (1996) Rab11 is an apically located small GTP-binding protein in epithelial tissues. *Am. J. Physiol.* 270:G515-G525.
2. Goldenring, J.R., et al. (1994) Enrichment of rab11, a small GTP-binding protein, in gastric parietal cells. Am. J. Physiol. 267:G187-G194.
3. Urbe, S., et al. (1993) Rab11, a small GTPase associated with both constitutive and regulated secretory pathways in PC12 cells. *FEBS Lett* 334:175-182.
4. Lai, F., et al. (1994) Molecular analysis of mouse Rab11b: a new type of mammalian YPT/Rab protein. *Genomics* 22:610-616.
5. Liu, J., et al. (2009) Rab11a and HSP90 regulate recycling of extracellular α-synuclein. *J. Neurosci*. 29: 1480-1485.
6. Khandelwal, P., et al. (2008) Rab11a-dependent exocytosis of discoidal/fusiform vesicals in bladder umbrella cells. *Proc. Natl. Acad Sci. USA* 105: 15773-15778.
7. Uzan-Gafsou, S., et al. (2007) Rab11A controls the biogenesis of Birbeck granules by regulating Langerin recycling and stability. *Mol Biol. Cell* 18: 3169-3179.
8. García-Regalado, A., et al. (2008) G protein-coupled receptor-promoted trafficking of $G\beta_1\gamma_2$ leads to AKT activation at endosomes via a mechanism mediated by Gβ1γ2-Rab11a interaction. *Mol. Biol. Cell* 19: 4188-4200.

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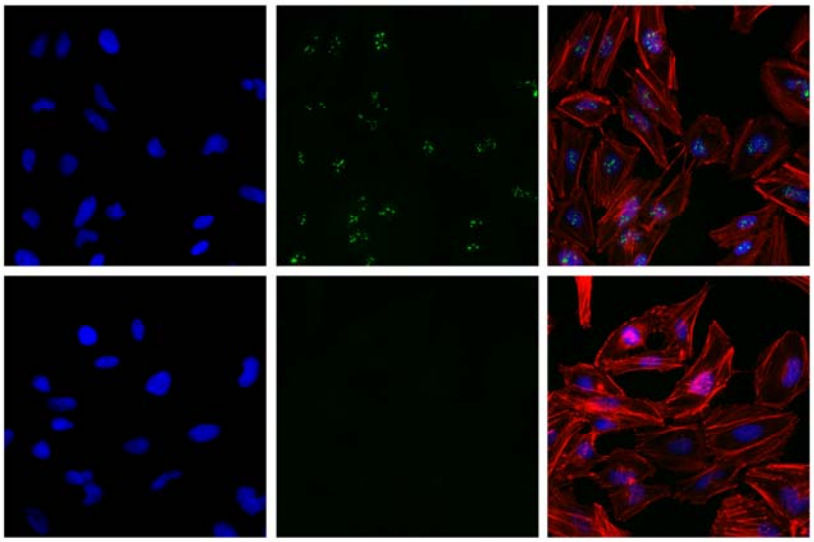
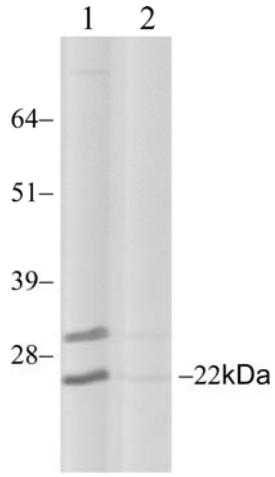
PI700184 (Rev 0210) DCC-10-0447 FORM-00089 (Rev 0.0)



Immunocytochemistry of HeLa cells labeled with rabbit anti-Rab11 (Cat. No. 700184).

HeLa cells labeled with rabbit anti-Rab11 (2.5 µg/ml) in the absence of peptides (top panels), and presence of peptide used as immunogen (bottom panels). Alexa Fluor® 488 goat anti-rabbit (Cat. No. A11008) at 1:1000 was used as secondary antibody. Actin was stained with Alexa Fluor® 568 Phalloidin (Cat. No. A12380). Hoechst only (left), Rab11 (AF488) signal only (middle), and composite image with Phalloidin (right).



Western blot of HeLa lysates labeled with rabbit anti-Rab11 (Cat. No. 700184).

Rabbit anti-Rab11 (6.5 µg/mL) was used to label Rab11 in A549 lysates (lane 1). Pre-incubation with the peptide used for immunization resulted in loss of signal (lane 2).

Explanation of symbols

Symbol	Description	Symbol	Description
REF	Catalogue Number	LOT	Batch code
RUO	Research Use Only	IVD	*In vitro* diagnostic medical device
	Use by		Temperature limitation
	Manufacturer	EC REP	European Community authorised representative
[-]	Without, does not contain	[+]	With, contains
	Protect from light		Consult accompanying documents
	Directs the user to consult instructions for use (IFU), accompanying the product.		

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