

ARG42513 anti-RAB7A antibody

Package: 100 µg
Store at: -20°C

Summary

Product Description	Goat Polyclonal antibody recognizes RAB7A
Tested Reactivity	Hu, Ms, Rat, Dog, Mk
Tested Application	ICC/IF, WB
Host	Goat
Clonality	Polyclonal
Isotype	IgG
Target Name	RAB7A
Species	Mouse
Immunogen	Purified recombinant peptide within aa. 110 to the C-terminus of Mouse RAB7A.
Conjugation	Un-conjugated
Alternate Names	PRO2706; RAB7; Ras-related protein Rab-7a

Application Instructions

Application table	Application	Dilution
	ICC/IF	1:50 - 1:250
	WB	1:250 - 1:5000
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	
Positive Control	293FT	
Observed Size	~ 25 kDa	

Properties

Form	Liquid
Purification	Affinity purification with immunogen.
Buffer	PBS, 0.05% Sodium azide and 20% Glycerol.
Preservative	0.05% Sodium azide
Stabilizer	20% Glycerol
Concentration	3 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.

Note

For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol

RAB7A

Gene Full Name

RAB7A, member RAS oncogene family

Background

RAB family members are small, RAS-related GTP-binding proteins that are important regulators of vesicular transport. Each RAB protein targets multiple proteins that act in exocytic / endocytic pathways. This gene encodes a RAB family member that regulates vesicle traffic in the late endosomes and also from late endosomes to lysosomes. This encoded protein is also involved in the cellular vacuolation of the VacA cytotoxin of *Helicobacter pylori*. Mutations at highly conserved amino acid residues in this gene have caused some forms of Charcot-Marie-Tooth (CMT) type 2 neuropathies. [provided by RefSeq, Jul 2008]

Function

Key regulator in endo-lysosomal trafficking. Governs early-to-late endosomal maturation, microtubule minus-end as well as plus-end directed endosomal migration and positioning, and endosome-lysosome transport through different protein-protein interaction cascades. Plays a central role, not only in endosomal traffic, but also in many other cellular and physiological events, such as growth-factor-mediated cell signaling, nutrient-transporter mediated nutrient uptake, neurotrophin transport in the axons of neurons and lipid metabolism. Also involved in regulation of some specialized endosomal membrane trafficking, such as maturation of melanosomes, pathogen-induced phagosomes (or vacuoles) and autophagosomes. Plays a role in the maturation and acidification of phagosomes that engulf pathogens, such as *S.aureus* and *M.tuberculosis*. Plays a role in the fusion of phagosomes with lysosomes. Plays important roles in microbial pathogen infection and survival, as well as in participating in the life cycle of viruses. Microbial pathogens possess survival strategies governed by RAB7A, sometimes by employing RAB7A function (e.g. *Salmonella*) and sometimes by excluding RAB7A function (e.g. *Mycobacterium*). In concert with RAC1, plays a role in regulating the formation of RBs (ruffled borders) in osteoclasts. Controls the endosomal trafficking and neurite outgrowth signaling of NTRK1/TRKA (PubMed:11179213, PubMed:12944476, PubMed:14617358, PubMed:20028791, PubMed:21255211). Regulates the endocytic trafficking of the EGF-EGFR complex by regulating its lysosomal degradation. Involved in the ADRB2-stimulated lipolysis through lipophagy, a cytosolic lipase-independent autophagic pathway (By similarity). Required for the exosomal release of SDCBP, CD63 and syndecan (PubMed:22660413). [UniProt]

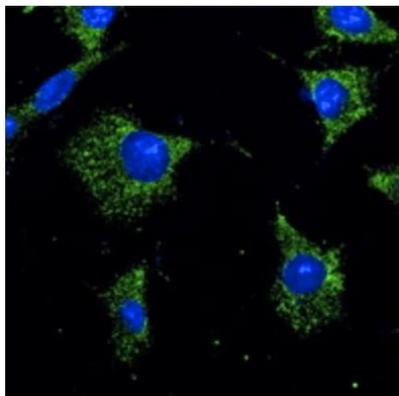
Calculated Mw

23 kDa

Cellular Localization

Cytoplasmic vesicle, phagosome membrane. Late endosome membrane. Lysosome membrane. Melanosome membrane. Cytoplasmic vesicle, autophagosome membrane. Lipid droplet. Endosome membrane. Note=Colocalizes with OSBPL1A at the late endosome. Found in the ruffled border (a late endosomal-like compartment in the plasma membrane) of bone-resorbing osteoclasts. Recruited to phagosomes containing *S.aureus* or *Mycobacterium*. Lipid droplet localization is increased upon ADRB2 stimulation. [UniProt]

Images



ARG42513 anti-RAB7A antibody ICC/IF image

Immunofluorescence: Hepa1-6 cells were fixed with methanol. Cells were stained with ARG42513 anti-RAB7A antibody (green) at 1:50 dilution. Nuclear staining (blue).

ARG42513 anti-RAB7A antibody WB image

Western blot: 100 µg of GFP-RAB7A transfected 293, 293FT, D17, AtT-20 and NIH/3T3 cell lysates stained with ARG42513 anti-RAB7A antibody at 1:500 dilution.

