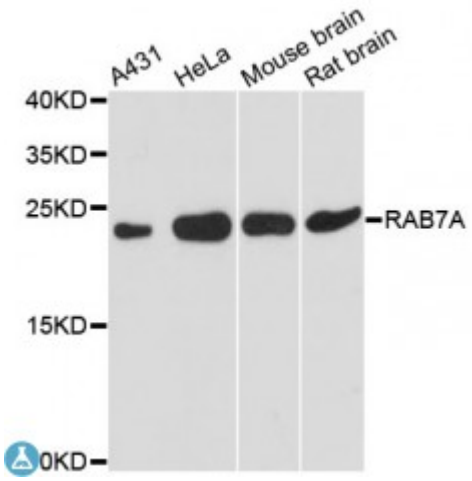
Anti-RAB7A Antibody



Description	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.

Model	STJ114654
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	WB
Immunogen	A synthetic peptide corresponding to a sequence within amino acids 100 to the C-terminus of human RAB7A (NP_004628.4).
Gene ID	7879
Gene Symbol	RAB7A
Dilution range	WB 1:500 - 1:2000
Tissue Specificity	Widely expressed
Purification	Affinity purification
Note	For Research Use Only (RUO).
Protein Name	Ras-related protein Rab-7a

Molecular Weight	23.49 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Storage Instruction	Store at -20C. Avoid freeze / thaw cycles.
Database Links	HGNC:9788OMIM:600882Reactome:R-HSA-2132295
Alternative Names	Ras-related protein Rab-7a
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-transportor 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 ,
Cellular Localization	Cytoplasmic vesicle, phagosome membrane,