

Product datasheet for **TA385109M**

RAB7 (RAB7A) Rabbit Monoclonal Antibody [Clone ID: R07-8G1]

Product data:

Product Type:	Primary Antibodies
Clone Name:	R07-8G1
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1/1000-1/5000 IHC: 1/20-1/50 ICC/IF: 1/20-1/100
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	A synthetic peptide of human RAB7
Formulation:	50mM Tris-Glycine(pH 7.4), 0.15M NaCl, 40% Glycerol, 0.01% Sodium azide and 0.05% BSA
Concentration:	lot specific
Purification:	Affinity Purified
Conjugation:	Unconjugated
Storage:	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Stability:	1 year
Predicted Protein Size:	Calculated MW: 24 kDa; Observed MW: 24 kDa
Gene Name:	RAB7A, member RAS oncogene family
Database Link:	Entrez Gene 7879 Human P51149



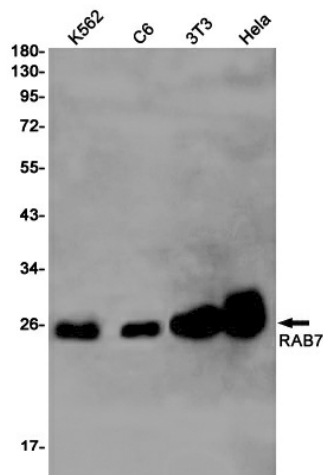
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Background:

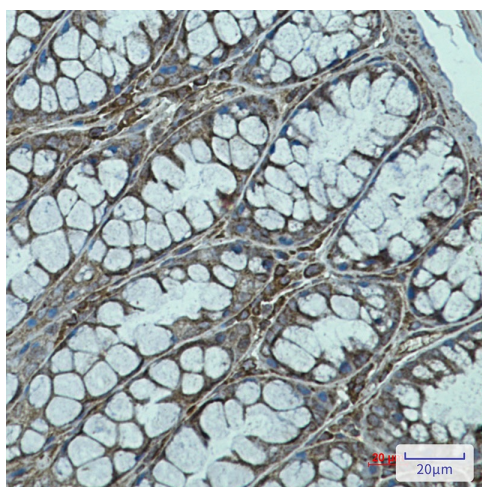
Swiss-Prot Acc.P51149.Key regulator in endo-lysosomal trafficking. Governs early-to-late endosomal maturation, microtubule minus-end as well as plus-end directed endosomal migration and positioning, and endosome-lysosome transport through different protein-protein interaction cascades. Plays a central 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 . Required for the exosomal release of SDCBP, CD63 and syndecan (PubMed:22660413).

Synonyms:

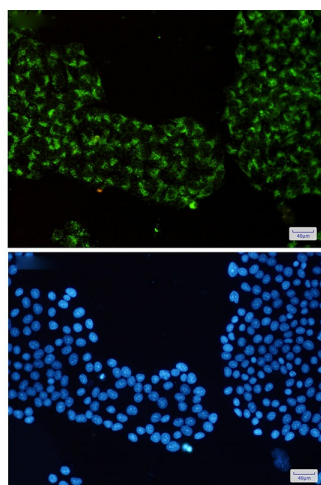
FLJ20819; PRO2706; RAB7

Product images:


Western blot analysis of RAB7 in K562, C6, 3T3, HeLa lysates using RAB7 antibody.



Immunohistochemistry analysis of paraffin-embedded mouse colon using Rab7 antibody. High-pressure and temperature Sodium Citrate pH 6.0 was used for antigen retrieval.



Immunocytochemistry analysis of RAB7 (green) in HeLa cells using RAB7 antibody, and DAPI (blue)