

Rabbit LAMTOR1 Polyclonal Antibody | anti-LAMTOR1 antibody

LAMTOR1 Antibody

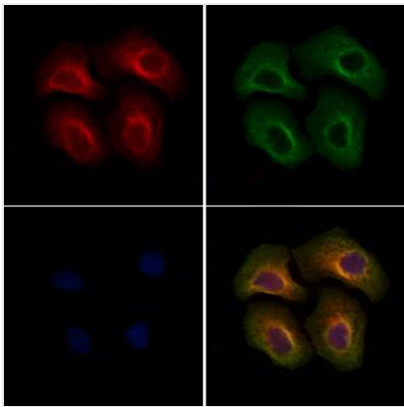
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA328984	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig(100%), Bovine(100%), Horse(100%), Sheep(100%), Rabbit(100%), Dog(100%)	ELISA

PRODUCT SYNONYMS

LAMTOR1; Polyclonal Antibody; LAMTOR1 Antibody; C11orf59; Late endosomal/lysosomal adaptor and MAPK and MTOR activator 1; Lipid raft adaptor protein p18; LTOR1_HUMAN; p18; p27Kip1-releasing factor from RhoA; p27RF-Rho; PDRO; PP7157; Protein associated with DRMs and endosomes; Ragulator complex protein LAMTOR1; ragulator complex protein PDRO; Ragulator1; RhoA activator C11orf59; anti-LAMTOR1 antibody

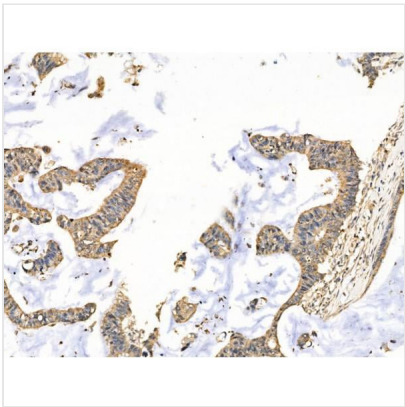
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig(100%), Bovine(100%), Horse(100%), Sheep(100%), Rabbit(100%), Dog(100%)
Clonality	Polyclonal
Isotype	IgG
Specificity	LAMTOR1 Antibody detects endogenous levels of total LAMTOR1.
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin (Thermo Fisher Scientific).
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol
Concentration	1mg/ml (varies by lot)
Sequence Length	161
Applicable Applications for anti-LAMTOR1 antibody	ELISA
Immunogen	A synthesized peptide derived from human LAMTOR1, corresponding to a region within N-terminal amino acids.
Fragment	Fab fragment
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



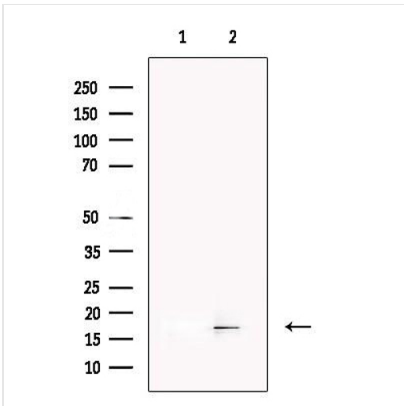
IF (Immunofluorescence)

AAA328984 staining HeLa cells by IF/ICC. The samples were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25°C. Samples were then incubated with primary Ab(AAA328984 1:200) and mouse anti-beta tubulin Ab(T0023 1:200) for 1 hour at 37°C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI(blue).



IHC (Immunohistochemistry)

AAA328984 at 1/100 staining Human colorectal cancer by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4°C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)

Western blot analysis of extracts from U251 MG, using LAMTOR1 Antibody. The lane on the left was treated with blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-LAMTOR1 antibody	Function: As part of the Ragulator complex it is involved in amino acid sensing and activation of mTORC1, a signaling complex promoting cell growth in response to growth factors, energy levels, and amino acids. Activated by amino acids through a mechanism involving the lysosomal V-ATPase, the Ragulator functions as a guanine nucleotide exchange factor activating the small GTPases Rag. Activated Ragulator and Rag GTPases function as a scaffold recruiting mTORC1 to lysosomes where it is in turn activated. LAMTOR1 is directly responsible for anchoring the Ragulator complex to membranes. Also required for late endosomes/lysosomes biogenesis it may regulate both the recycling of receptors through endosomes and the MAPK signaling pathway through recruitment of some of its components to late endosomes. May be involved in cholesterol homeostasis regulating LDL uptake and cholesterol release from late endosomes/lysosomes. May also play a role in RHOA activation. Subcellular Location: Late endosome membrane>Lipid-anchor>Cytoplasmic side. Lysosome membrane>Lipid-anchor>Cytoplasmic side. Cell membrane. Subunit Structure: Part of the Ragulator complex composed of LAMTOR1, LAMTOR2, LAMTOR3, LAMTOR4 and LAMTOR5. LAMTOR4 and LAMTOR5 form a heterodimer that interacts, through LAMTOR1, with a LAMTOR2, LAMTOR3 heterodimer. The Ragulator complex interacts with both the mTORC1 complex and heterodimers constituted of the Rag GTPases RRAGA, RRAGB, RRAGC and RRAGD; regulated by amino acid availability (PubMed:20381137, PubMed:22980980). The Ragulator complex interacts with SLC38A9; the probable amino acid sensor (PubMed:25561175, PubMed:25567906). Interacts with LAMTOR2 and LAMTOR3; the interaction is direct. Interacts with RRAGB and RRAGD; the interaction is direct indicating that it probably constitutes the main RAG-interacting subunit of the Ragulator complex (PubMed:22980980). Interacts with MMP14 (PubMed:19654316). Interacts with CDKN1B; prevents the interaction of CDKN1B with RHOA leaving RHOA in a form accessible to activation by ARHGEF2 (PubMed:19654316). Interacts with PIP4P1 (PubMed:29644770). Similarity: Belongs to the LAMTOR1 family.
---	---

NCBI AND UNIPROT INFORMATION

NCBI GI #	8923579
NCBI GeneID	55004
NCBI Accession #	NP_060377
NCBI GenBank Nucleotide #	NP_060377.1
UniProt Accession #	Q6IAA8
Molecular Weight	Observed Molecular Weight: (Observed)17kD. Predicted Molecular Weight: (Calculated)18kDa.
NCBI Official Full Name	ragulator complex protein LAMTOR1
NCBI Official Synonym Full Names	late endosomal/lysosomal adaptor, MAPK and MTOR activator 1
NCBI Official Symbol	LAMTOR1
NCBI Official Synonym Symbols	p18; PDRO; C11orf59; p27RF-Rho; Ragulator1
NCBI Protein Information	ragulator complex protein LAMTOR1
UniProt Protein Name	Ragulator complex protein LAMTOR1
UniProt Gene Name	LAMTOR1
UniProt Synonym Gene Names	C11orf59; PDRO; p27RF-Rho
UniProt Entry Name	LTOR1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.