

LAMTOR1/C11orf59 (PT1593R) PT™ Rabbit mAb

CatalogNo: YM9435 **Recombinant** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, IP, ELISA

MW

- 18kD (Calculated)
18kD (Observed)

Isotype

- IgG, Kappa

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation PBS, 50% glycerol, 0.05% Proclin 300, 0.05% BSA

Recommended Dilution Ratios

IHC 1:200-1:1000

WB 1:2000-1:10000

IF 1:200-1:1000

ELISA 1:5000-1:20000

IP 1:50-1:200

Basic Information

Clonality Monoclonal

Clone Number PT1593R

Immunogen Information

Immunogen The specific immunogen used to produce this antibody is proprietary information.

Specificity Endogenous

| Target Information

Gene name LAMTOR1 C11orf59 PDRO PP7157

Protein Name Regulator complex protein LAMTOR1

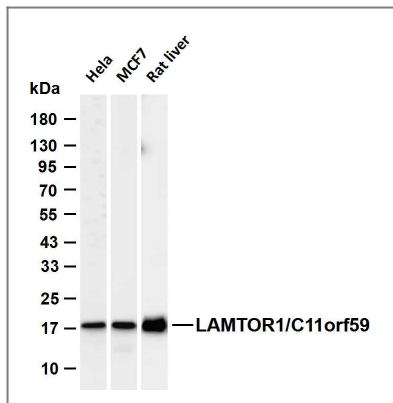
Organism	Gene ID	UniProt ID
Human	55004 ;	Q6IAA8 ;
Mouse	66508 ;	Q9CQ22 ;
Rat	308869 ;	Q6P791 ;

Cellular Localization lysosome membrane; Lipid-anchor Late endosome membrane; Lipid-anchor Note: Recruited to lysosome and endosome membranes through N-terminal myristoylation and palmitoylation.

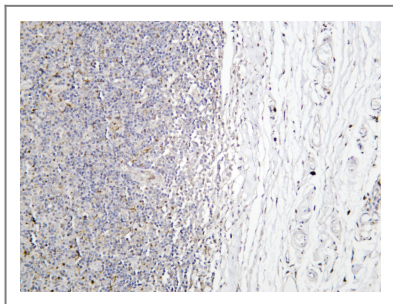
Tissue specificity Down-regulated by cholesterol (at protein level) .

Function Key component of the Regulator complex , a multiprotein complex 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 (PubMed:20381137 , PubMed:22980980 , PubMed:29158492) . Activated by amino acids through a mechanism involving the lysosomal V-ATPase , the Regulator plays a dual role for the small GTPases Rag (RagA/RRAGA , RagB/RRAGB , RagC/RRAGC and/or RagD/RRAGD) : it 1 acts as a guanine nucleotide exchange factor (GEF) , activating the small GTPases Rag and 2 mediates recruitment of Rag GTPases to the lysosome membrane (PubMed:22980980 , PubMed:28935770 , PubMed:29158492 , PubMed:30181260 , PubMed:31001086 , PubMed:32686708 , PubMed:36476874) . Activated Regulator and Rag GTPases function as a scaffold recruiting mTORC1 to lysosomes where it is in turn activated (PubMed:20381137 , PubMed:22980980 , PubMed:29158492) . LAMTOR1 is directly responsible for anchoring the Regulator complex to the lysosomal membrane (PubMed:31001086 , PubMed:32686708) . LAMTOR1 wraps around the other subunits of the Regulator complex to hold them in place and interacts with the Rag GTPases , thereby playing a key role in the recruitment of the mTORC1 complex to lysosomes (PubMed:28935770 , PubMed:29107538 , PubMed:29123114 , PubMed:29285400) . Also involved in the control of embryonic stem cells differentiation via non-canonical RagC/RRAGC and RagD/RRAGD activation: together with FLCN , it is necessary to recruit and activate RagC/RRAGC and RagD/RRAGD at the lysosomes , and to induce exit of embryonic stem cells from pluripotency via non-canonical , mTOR-independent TFE3 inactivation (By similarity) . 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 (PubMed:20381137 , PubMed:22980980) . May be involved in cholesterol homeostasis regulating LDL uptake and cholesterol release from late endosomes/lysosomes (PubMed:20544018) . May also play a role in RHOA activation (PubMed:19654316) .

| Validation Data



Various whole cell lysates were separated by 4-20% SDS-PAGE, and the membrane was blotted with anti-LAMTOR1/C11orf59 (PT1593R) antibody. The HRP-conjugated Goat anti-Rabbit IgG (H + L) antibody was used to detect the antibody. Lane 1: HeLa Lane 2: MCF7 Lane 3: Rat liver Predicted band size: 18kDa Observed band size: 18kDa



Human tonsil was stained with anti-LAMTOR1/C11orf59 (PT1593R) Rabbit antibody

Contact information

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LAMTOR1/C11orf59 (PT1593R) PT™ Rabbit mAb

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