

Product datasheet

Anti-LAMTOR2 antibody [EPR14378] ab183514


KO VALIDATED

Recombinant

RabMAb

5 Images

Overview

Product name	Anti-LAMTOR2 antibody [EPR14378]
Description	Rabbit monoclonal [EPR14378] to LAMTOR2
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human Predicted to work with: Mouse, Rat 
Immunogen	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
Positive control	WB: HeLa, HepG2, Raji and LnCaP cell lysates. IHC-P: Human thyroid tissue and Human gastric carcinoma tissues.
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR14378

Isotype

IgG

Applications

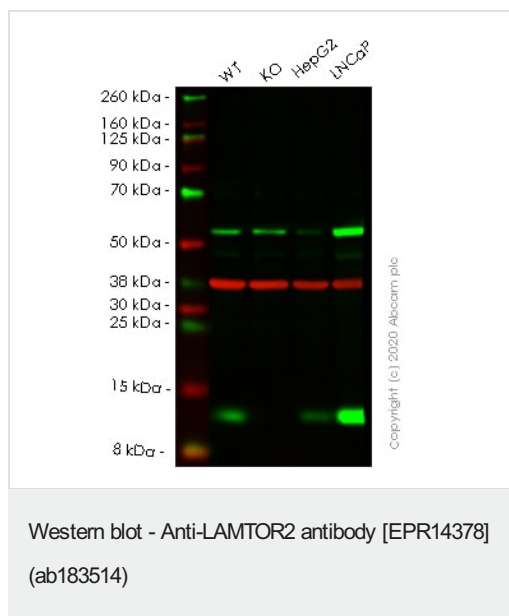
The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab183514 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000 - 1/2000. Predicted molecular weight: 14 kDa.
IHC-P		1/50. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target

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. Adapter protein that enhances the efficiency of the MAP kinase cascade facilitating the activation of MAPK2.
Involvement in disease	Defects in LAMTOR2 are the cause of immunodeficiency due to defect in MAPBP-interacting protein (ID-MAPBPIP) [MIM:610798]. This form of primary immunodeficiency syndrome includes congenital neutropenia, partial albinism, short stature and B-cell and cytotoxic T-cell deficiency.
Sequence similarities	Belongs to the GAMAD family.
Cellular localization	Late endosome membrane. Lysosome membrane.

Images



All lanes : Anti-LAMTOR2 antibody [EPR14378] (ab183514) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : LAMTOR2 knockout HeLa cell lysate

Lane 3 : HepG2 cell lysate

Lane 4 : LNCaP cell lysate

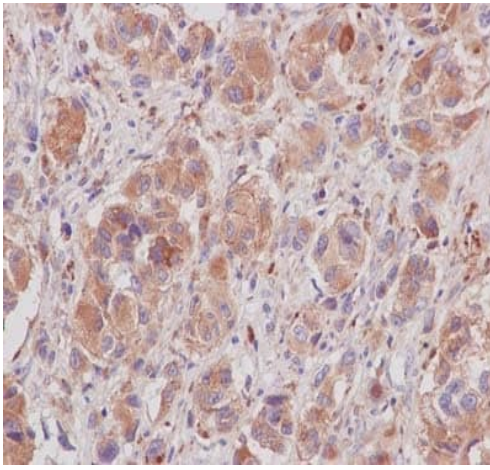
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 14 kDa

Lanes 1-4: Merged signal (red and green). Green - ab183514 observed at 14 kDa. Red - loading control [ab8245](#) observed at 37 kDa.

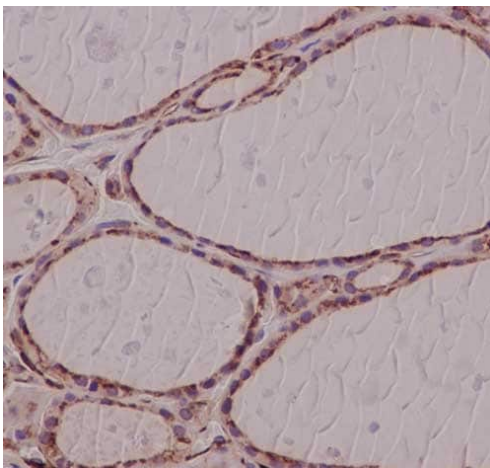
ab183514 Anti-LAMTOR2 antibody [EPR14378] was shown to specifically react with LAMTOR2 in wild-type HeLa cells. Loss of signal was observed when knockout cell line [ab265828](#) (knockout cell lysate [ab258020](#)) was used. Wild-type and LAMTOR2 knockout samples were subjected to SDS-PAGE. ab183514 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAMTOR2 antibody [EPR14378] (ab183514)

Immunohistochemical analysis of paraffin-embedded Human gastric carcinoma labeling LAMTOR2 using ab183514 at a 1/50 dilution, using a HRP Polymer for Rabbit IgG secondary antibody and counterstained with Hematoxylin.

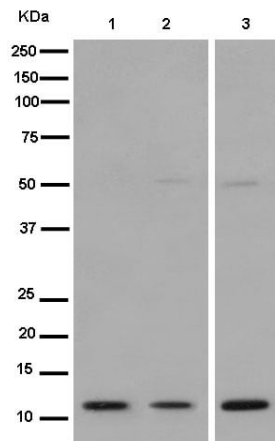
Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LAMTOR2 antibody [EPR14378] (ab183514)

Immunohistochemical analysis of paraffin-embedded Human thyroid tissue labeling LAMTOR2 using ab183514 at a 1/50 dilution, using a HRP Polymer for Rabbit IgG secondary antibody and counterstained with Hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Western blot - Anti-LAMTOR2 antibody [EPR14378] (ab183514)

All lanes : Anti-LAMTOR2 antibody [EPR14378] (ab183514) at 1/1000 dilution

Lane 1 : HepG2 cell lysate

Lane 2 : Raji cell lysate

Lane 3 : LnCaP cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 14 kDa

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-LAMTOR2 antibody [EPR14378] (ab183514)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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