

Product datasheet

Anti-LIMK2 antibody [EP969Y] - C-terminal ab45165

KO VALIDATED Recombinant RabMAb[®]

★★★★★ 1 Abreviews 5 References 5 Images

Overview

Product name	Anti-LIMK2 antibody [EP969Y] - C-terminal
Description	Rabbit monoclonal [EP969Y] to LIMK2 - C-terminal
Host species	Rabbit
Tested applications	Suitable for: IHC-P, ICC/IF, Flow Cyt, IP, WB
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human LIMK2 aa 600-700 (C terminal). The exact sequence is proprietary. Database link: P53671
Positive control	WB: Wild-type HAP1 cell lysate. Jurkat cell lysate. Ramos membrane lysate. IHC-P: Human ovary carcinoma tissue. ICC/IF: Ramos cells.
General notes	Previously labelled as LIM kinase 2. Our RabMAb [®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMab[®] patents . We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol, 0.5% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EP969Y

Isotype

IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab45165** 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
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/50 - 1/100.
Flow Cyt		1/10. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
IP		1/50.
WB	★★★★★	1/2000. Predicted molecular weight: 72 kDa.

Target

Function

Displays serine/threonine-specific phosphorylation of myelin basic protein and histone (MBP) in vitro.

Tissue specificity

Highest expression in the placenta; moderate level in liver, lung, kidney, and pancreas. LIMK2a is found to be more abundant than LIMK2b in liver, colon, stomach, and spleen, while in brain, kidney, and placenta LIMK2b is the dominant form. In adult lung, both LIMK2a and LIMK2b is nearly equally observed.

Sequence similarities

Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family.
Contains 2 LIM zinc-binding domains.
Contains 1 PDZ (DHR) domain.
Contains 1 protein kinase domain.

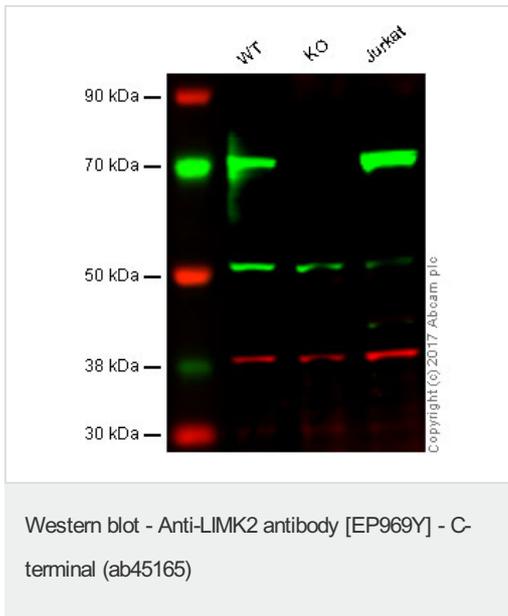
Post-translational modifications

Phosphorylated on serine and/or threonine residues by ROCK1.

Cellular localization

Cytoplasm. Nucleus. Isoform LIMK2a is distributed in the cytoplasm and the nucleus and
Cytoplasm. Nucleus. Isoform LIMK2b occurs mainly in the cytoplasm and is scarcely translocated to the nucleus.

Images



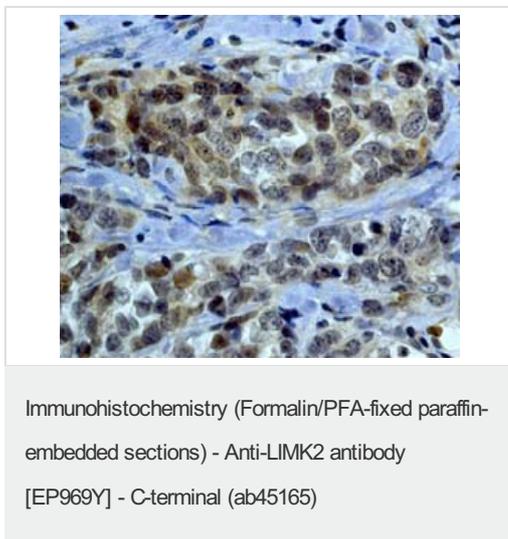
Lane 1: Wild-type HAP1 whole cell lysate (40 µg)

Lane 2: LIMK2 (LIMK2) knockout HAP1 whole cell lysate (40 µg)

Lane 3: Jurkat whole cell lysate (40 µg)

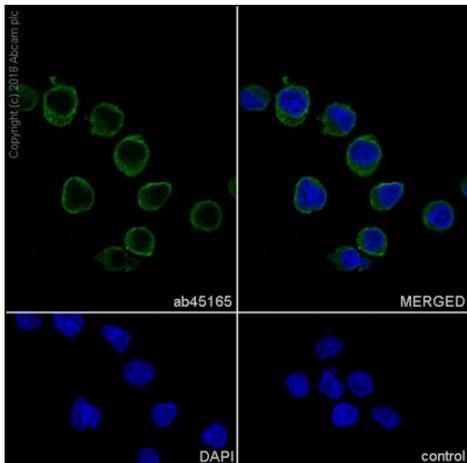
Lanes 1 - 3: Merged signal (red and green). Green - ab45165 observed at 72 kDa. Red - loading control, ab9484, observed at 37 kDa.

ab45165 was shown to specifically recognize LIMK2 (LIMK2) in wild-type HAP1 cells along with additional cross-reactive bands. No band was observed with knockout cells were examined. Wild-type and LIMK2 (LIMK2) knockout samples were subjected to SDS-PAGE. Ab45165 and ab9484 (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/2000 dilution and 1/20,000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) secondary antibodies at 1/20,000 dilution for 1 hour at room temperature before imaging.



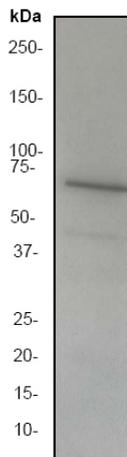
ab45165 staining LIMK2 in human ovary carcinoma by immunohistochemistry using paraffin embedded tissue.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence analysis of Ramos cells labeling LIMK2 with ab45165 at 1/250. Goat anti rabbit IgG(Alexa Fluor® 488); [ab150077](#) at 1/1000 dilution was used as the secondary antibody. Cells were fixed with 4% paraformaldehyde and permeabilised with 0.1% tritonX-100. DAPI (blue) was used as a nuclear counterstain.

Immunocytochemistry/ Immunofluorescence - Anti-LIMK2 antibody [EP969Y] - Conformation-Specific (ab45165)



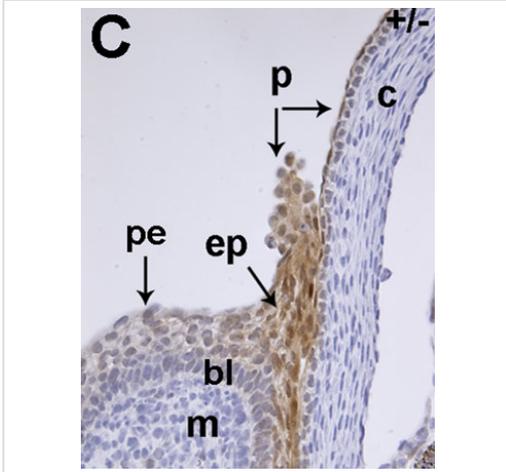
Anti-LIMK2 antibody [EP969Y] - C-terminal (ab45165) at 1/2000 dilution + Ramos (Human Burkitt's lymphoma cell line) membrane lysate

Predicted band size: 72 kDa

Observed band size: 70 kDa

[why is the actual band size different from the predicted?](#)

Western blot - Anti-LIMK2 antibody [EP969Y] - C-terminal (ab45165)



Immunohistochemical analysis of mouse upper eyelid tissue, staining LIMK2 with ab45165 at 1/200 dilution. Staining was detected using DAB.

Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-LIMK2 antibody

[EP969Y] - C-terminal (ab45165)

Image from Rice DS et al., PLoS One. 2012;7(10):e47168. doi: 10.1371/journal.pone.0047168. Epub 2012 Oct 5.; Fig 6.; October 5, 2012, PLoS ONE 7(10): e47168.

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