

Product datasheet

Anti-LIM Kinase 1 antibody [EPR912] ab108507

KO VALIDATED Recombinant RabMAb

[5 References](#) [3 Images](#)

Overview

Product name	Anti-LIM Kinase 1 antibody [EPR912]
Description	Rabbit monoclonal [EPR912] to LIM Kinase 1
Host species	Rabbit
Tested applications	Suitable for: WB Unsuitable for: Flow Cyt, ICC/IF, IHC-P or IP
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
Positive control	U-87 MG, SH SY5Y and Ramos cell lysates.
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> <p>Rat: We have preliminary internal testing data to indicate this antibody may not react with this species. Please contact us for more information.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at -20°C. Stable for 12 months at -20°C.
Storage buffer	pH: 7.20 Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
Purity	Protein A purified
Clonality	Monoclonal

Clone number EPR912
Isotype IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab108507 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 - 1/10000. Predicted molecular weight: 73 kDa.

Application notes Is unsuitable for Flow Cyt, ICC/IF, IHC-P or IP.

Target

Function Protein kinase which regulates actin filament dynamics. Phosphorylates and inactivates the actin binding/depolymerizing factor cofilin, thereby stabilizing the actin cytoskeleton. Stimulates axonal outgrowth and may be involved in brain development. Isoform 3 has a dominant negative effect on actin cytoskeletal changes.

Tissue specificity Highest expression in both adult and fetal nervous system. Detected ubiquitously throughout the different regions of adult brain, with highest levels in the cerebral cortex. Expressed to a lesser extent in heart and skeletal muscle.

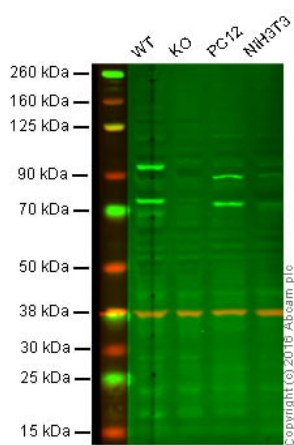
Involvement in disease Note=LIMK1 is located in the Williams-Beuren syndrome (WBS) critical region. WBS results from a hemizygous deletion of several genes on chromosome 7q11.23, thought to arise as a consequence of unequal crossing over between highly homologous low-copy repeat sequences flanking the deleted region.

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 Autophosphorylated.
Phosphorylated on serine and/or threonine residues by ROCK1. May be dephosphorylated and inactivated by SSH1.
Ubiquitinated. 'Lys-48'-linked polyubiquitination by RNF6 leads to proteasomal degradation through the 26S proteasome, modulating LIMK1 levels in the growth cone and its effect on axonal outgrowth. Also polyubiquitinated by RLIM.

Cellular localization Cytoplasm. Cell projection > growth cone.

Images



Western blot - Anti-LIM Kinase 1 antibody [EPR912] (ab108507)

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

Lane 2: LIMK1 knockout HAP1 cell lysate (40 µg)

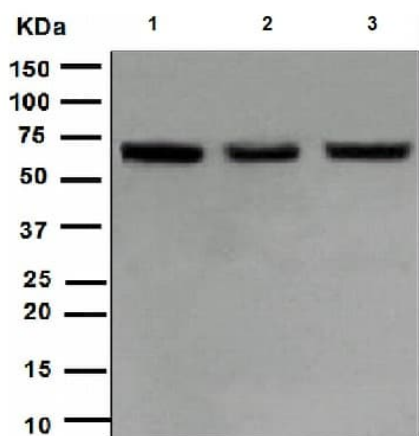
Lane 3: PC12 cell lysate (20 µg)

Lane 4: NIH3T3 cell lysate (20 µg)

Lanes 1 - 4: Merged signal (red and green). Green - ab108507 observed at 70 kDa. Red - loading control, **ab8245**, observed at 37 kDa.

ab108507 was shown to specifically react with LIM Kinase 1 when LIM Kinase 1 knockout samples were used. Wild-type and LIM Kinase 1 knockout samples were subjected to SDS-PAGE.

Ab108507 and **ab8245** (loading control to GAPDH) were diluted at 1/500 and 1/10000 dilution respectively and incubated overnight at 4C. 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 1/10000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-LIM Kinase 1 antibody [EPR912] (ab108507)

All lanes : Anti-LIM Kinase 1 antibody [EPR912] (ab108507) at 1/1000 dilution

Lane 1 : U-87 MG cell lysate

Lane 2 : SH SY5Y cell lysate

Lane 3 : Ramos cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 73 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-LIM Kinase 1 antibody [EPR912] (ab108507)

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

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