

Anti-LIM Kinase 1 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

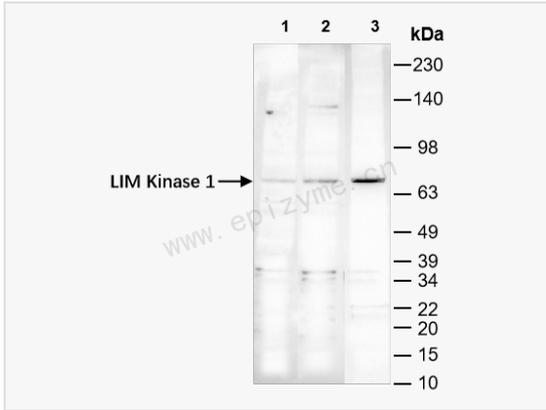
Catalog # R014925

Product Information

Application	WB, IHC-P/IF (Tissue-P), IF (Cell)/ICC, ELISA
Reactivity	Human, Mouse, Rat
Dilution	WB 1:1,000~1:3,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	42C37C10
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human LIM Kinase 1
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-LIM Kinase 1 Rabbit mAb [42C37C10] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	EC 2.7.1.37, LIM domain containing protein kinase, LIM domain kinase 1, LIM kinase, LIM motif containing protein kinase, LIMK 1, LIMK, LIMK-1, limk1, LIMK1_HUMAN.
Calculated MW	Calculated MW: 73 kDa; Observed MW: 73 kDa
Uniprot ID	P53667
Gene ID	3984
Background	There are approximately 40 known eukaryotic LIM proteins, so named for the LIM domains they contain. LIM domains are highly conserved cysteine-rich structures containing 2 zinc fingers. Although zinc fingers usually function by binding to DNA or RNA, the LIM motif probably mediates protein-protein interactions. LIM kinase-1 and LIM kinase-2 belong to a small subfamily with a unique combination of 2 N-terminal LIM motifs and a C-terminal protein kinase domain. LIMK1 is a serine/threonine kinase that regulates actin polymerization via phosphorylation and inactivation of the actin binding factor cofilin. This protein is ubiquitously expressed during development and plays a role in many cellular processes associated with cytoskeletal structure. This protein also stimulates axon growth and may play a role in brain development. LIMK1 hemizyosity is implicated in the impaired visuospatial constructive cognition of Williams syndrome. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Feb 2011]
Cellular Location	Cytoplasm. Cell projection > growth cone.
Tissue Location	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.



Western Blot - Anti-LIM Kinase 1 Rabbit mAb [42C37C10]

All lanes: R014925 at 1:3,000 dilution

Lane 1: HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysates

Lane 2: C2C12 (Mouse myoblasts epithelial cell) whole cell lysates

Lane 3: Mouse muscle whole tissue lysates

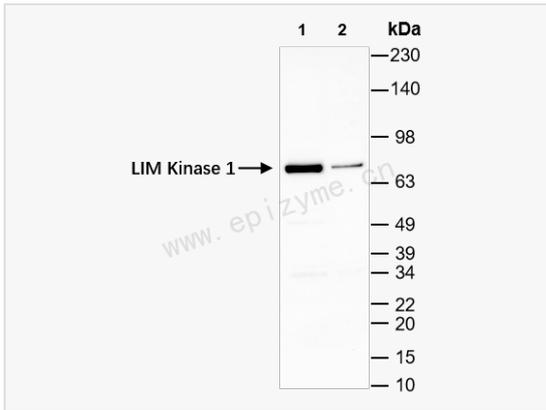
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 73 kDa

Observed band size: 73 kDa

Developed using the ECL technique (Cat. No. SQ201).



Western Blot - Anti-LIM Kinase 1 Rabbit mAb [42C37C10]

All lanes: R014925 at 1:3,000 dilution

Lane 1: Rat heart whole tissue lysates

Lane 2: Rat kidney whole tissue lysates

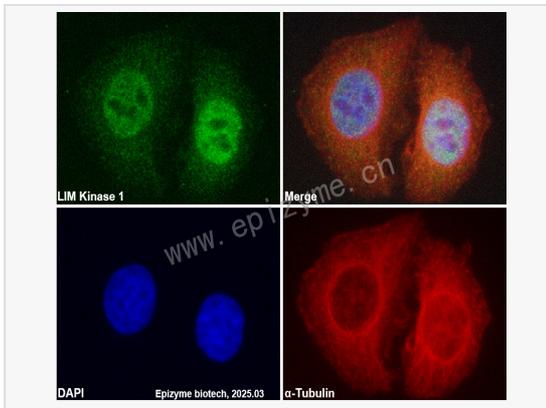
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Immunofluorescence - Anti-LIM Kinase 1 Rabbit mAb [42C37C10]

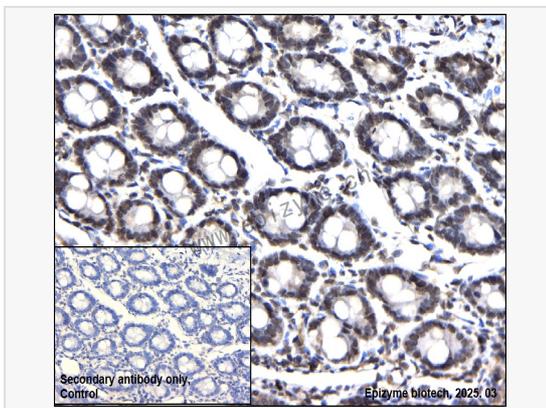
Sample: HeLa cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibodies: R014925 at 1:100 dilution and α -tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution

Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)

Nuclei were stained with DAPI (shown in blue).



Immunohistochemistry - Anti-LIM Kinase 1 Rabbit mAb [42C37C10]

Sample: Paraformaldehyde-fixed, paraffin embedded rat duodenum tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

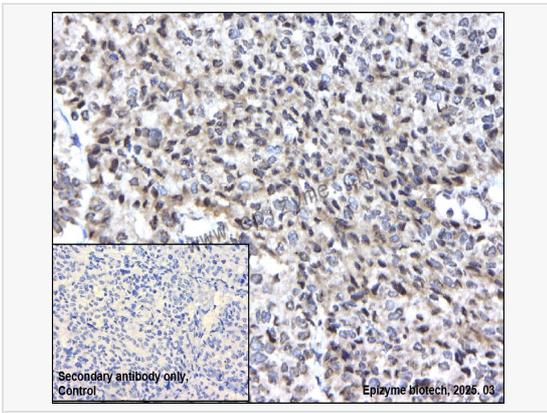
Primary antibody: R014925 at 1:200 dilution

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-LIM Kinase 1 Rabbit mAb [42C37C10]

Sample: Paraformaldehyde-fixed, paraffin embedded human endometrial carcinoma tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

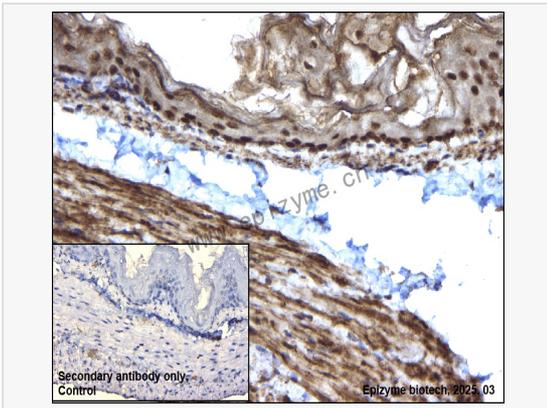
Primary antibody: R014925 at 1:200 dilution

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-LIM Kinase 1 Rabbit mAb [42C37C10]

Sample: Paraformaldehyde-fixed, paraffin embedded mouse stomach tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R014925 at 1:200 dilution

Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution
DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.