# LIMK-1/2 (PTR2545) Mouse mAb

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| **Catalog No** | BYab-17321 |
| **Isotype** | IgG |
| **Reactivity** | Human, Mouse,Rat |
| **Applications** | WB,ELISA |
| **Gene Name** | LIMK1 LIMK |
| **Protein Name** | LIM domain kinase 1 (LIMK-1) (EC 2.7.11.1) |
| **Immunogen** | Synthesized peptide derived from human LIMK-1/2 |
| **Specificity** | This antibody detects endogenous levels of LIMK-1/2 at Human, Mouse,Rat |
| **Formulation** | PBS, pH7.4, 50% glycerol, 0.03%Proclin 300 |
| **Source** | Mouse,monoclonal:IgG1,Lambda |
| **Purification** | Protein G |
| **Dilution** | WB 1:500-2000 ELISA 1:5000-20000 |
| **Concentration** | 1 mg/ml |
| **Purity** | ≥90% |
| **Storage Stability** | -20°C/1 year |
| **Synonyms** | LIM domain kinase 1 (LIMK-1) (EC 2.7.11.1) |
| **Observed Band** | 70kDa |
| **Cell Pathway** | Cytoplasm . Nucleus . Cytoplasm, cytoskeleton . Cell projection, lamellipodium . Predominantly found in the cytoplasm. Localizes in the lamellipodium in a CDC42BPA, CDC42BPB and FAM89B/LRAP25-dependent manner. . |
| **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. |
| **Function** | catalytic activity:ATP + a protein = ADP + a phosphoprotein.,disease:Haploinsufficiency of LIMK1 may be the cause of certain cardiovascular and musculo-skeletal abnormalities observed in Williams-Beuren syndrome (WBS), a rare developmental disorder. It is a contiguous gene deletion syndrome involving genes from chromosome band 7q11.23.,function:Protein kinase which regulates actin filament dynamics. Phosphorylates and inactivates the actin binding/depolymerizing factor cofilin, thereby stabilizing the actin cytoskeleton. Isoform 3 has a dominant negative effect on actin cytoskeletal changes. May be involved in brain development.,PTM:Autophosphorylated.,PTM:Phosphorylated on serine and/or |

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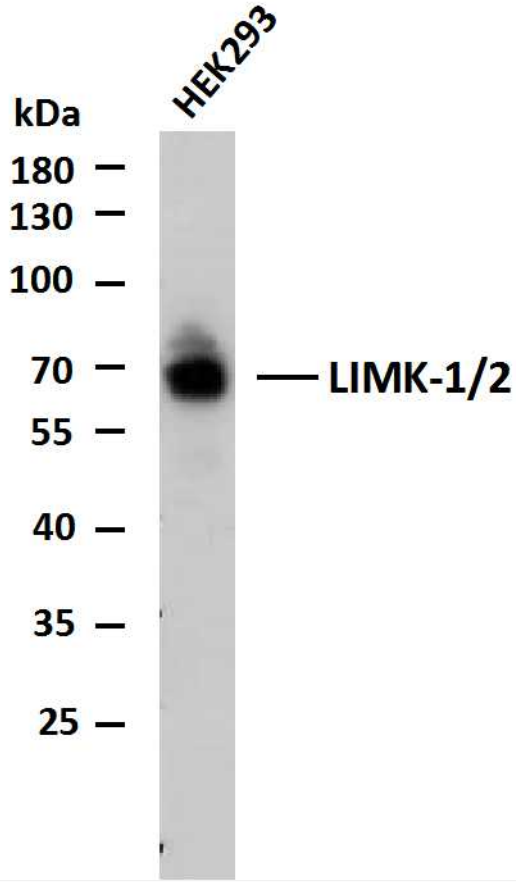
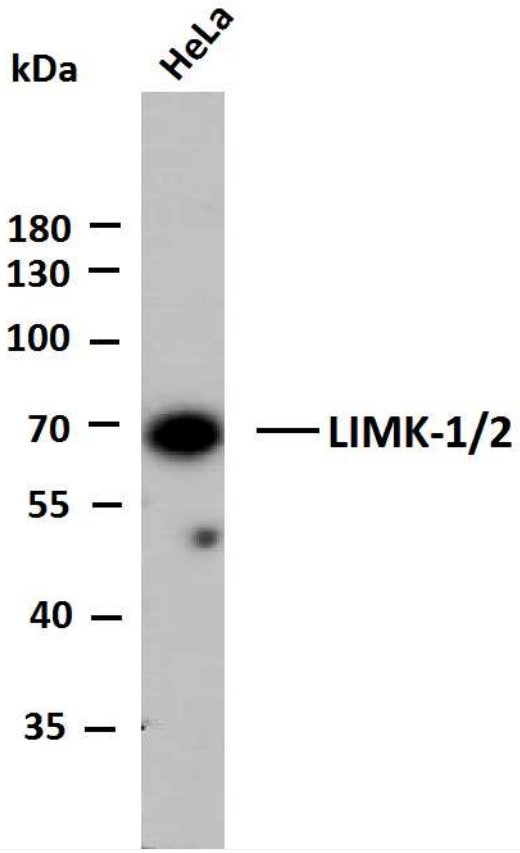
| | threonine residues by ROCK1. May be dephosphorylated and inactivated by SSH1.,similarity:Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family.,similarity:Contains 1 PDZ (DHR) doma |
| **Background** | LIM domain kinase 1(LIMK1) Homo sapiens There are approximately 40 known 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 hemizygosity is implicated in the impaired visuospatial constructive cog |
| **matters needing attention** | Avoid repeated freezing and thawing! |
| **Usage suggestions** | This product can be used in immunological reaction related experiments. For more information, please consult technical personnel. |

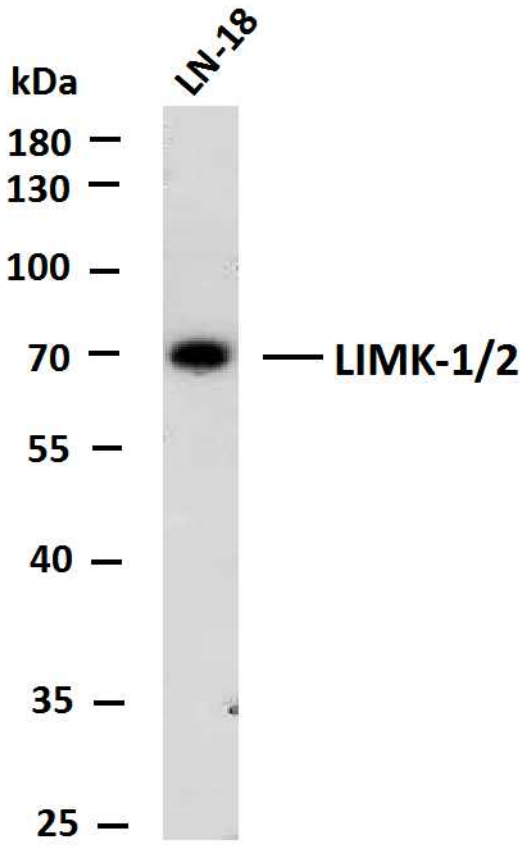
## Products Images



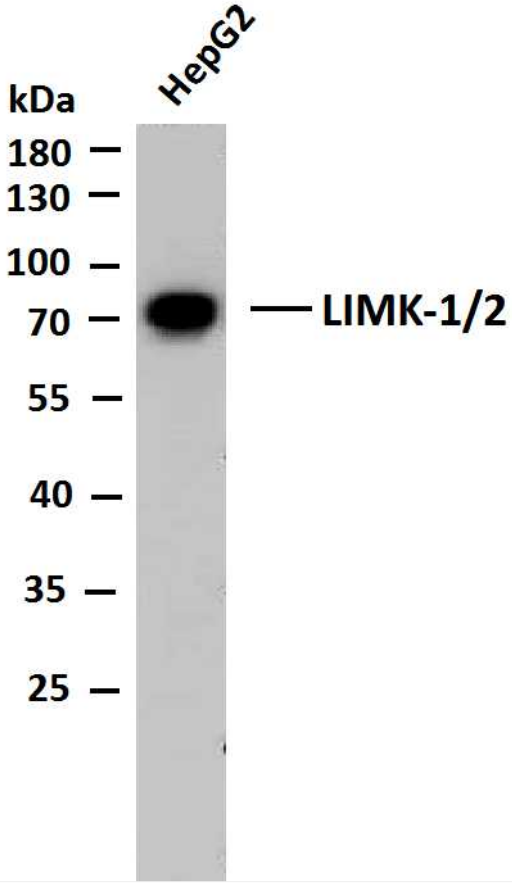

Whole cell lysates of HEK293 were separated by 10% SDS-PAGE, and the membrane was blotted with anti-LIMK-1/2 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HEK293 Predicted band size: 65,72kDa Observed band size: 68,72kDa



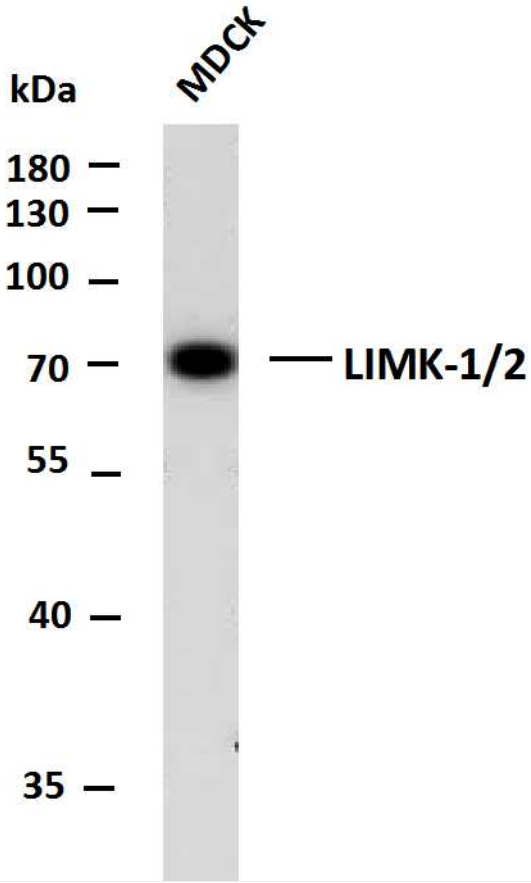

Whole cell lysates of HeLa were separated by 10% SDS-PAGE, and the membrane was blotted with anti-LIMK-1/2 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HeLa Predicted band size: 65,72kDa Observed band size: 68kDa



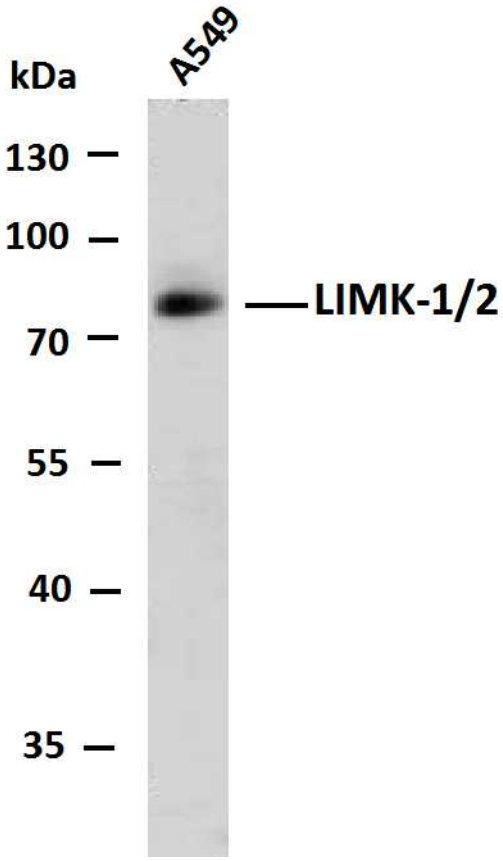

Whole cell lysates of LN-18 were separated by 10% SDS-PAGE, and the membrane was blotted with anti-LIMK-1/2 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: LN-18 Predicted band size: 65,72kDa Observed band size: 70kDa

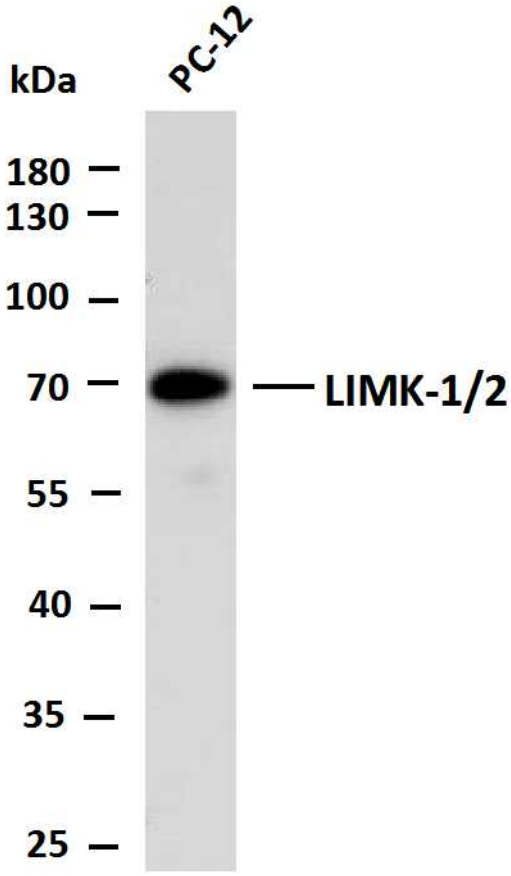



Whole cell lysates of HepG2 were separated by 10% SDS-PAGE, and the membrane was blotted with anti-LIMK-1/2 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: HepG2 Predicted band size: 65,72kDa Observed band size: 72kDa




Whole cell lysates of MDCK were separated by 10% SDS-PAGE, and the membrane was blotted with anti-LIMK-1/2 antibody. The HRP-conjugated Goat anti-Rabbit IgG(H + L) antibody was used to detect the antibody. Lane 1: MDCK Predicted band size: 65,72kDa Observed band size: 70kDa


kDa
A549
130
100
70
55
40
35
LIMK-1/2


kDa
PC-12
180
130
100
70
55
40
35
25
LIMK-1/2