

Anti-LIMK1/2 Antibody
Rabbit polyclonal antibody to LIMK1/2
Catalog # AP60022

Specification

Anti-LIMK1/2 Antibody - Product Information

Application	WB
Primary Accession	P53667
Other Accession	P53668
Reactivity	Human, Mouse, Rat, Chicken, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	72585

Anti-LIMK1/2 Antibody - Additional Information

Gene ID 3984

Other Names

LIMK; LIM domain kinase 1; LIMK-1

Target/Specificity

Recognizes endogenous levels of LIMK1/2 protein.

Dilution

WB~~WB (1/500 - 1/1000), IP (1/10 - 1/100)

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-LIMK1/2 Antibody - Protein Information

Name LIMK1

Synonyms LIMK

Function

Serine/threonine-protein kinase that plays an essential role in the regulation of actin filament dynamics. Acts downstream of several Rho family GTPase signal transduction pathways
PubMed: [10436159](http://www.uniprot.org/citations/10436159),
PubMed: [11832213](http://www.uniprot.org/citations/11832213),
PubMed: [12807904](http://www.uniprot.org/citations/12807904),
PubMed: [15660133](http://www.uniprot.org/citations/15660133),
PubMed: [16230460](http://www.uniprot.org/citations/16230460),

PubMed: [18028908](http://www.uniprot.org/citations/18028908), PubMed: [22328514](http://www.uniprot.org/citations/22328514), PubMed: [23633677](http://www.uniprot.org/citations/23633677)). Activated by upstream kinases including ROCK1, PAK1 and PAK4, which phosphorylate LIMK1 on a threonine residue located in its activation loop (PubMed: [10436159](http://www.uniprot.org/citations/10436159)). LIMK1 subsequently phosphorylates and inactivates the actin binding/depolymerizing factors cofilin-1/CFL1, cofilin-2/CFL2 and destrin/DSTN, thereby preventing the cleavage of filamentous actin (F-actin), and stabilizing the actin cytoskeleton (PubMed: [11832213](http://www.uniprot.org/citations/11832213), PubMed: [15660133](http://www.uniprot.org/citations/15660133), PubMed: [16230460](http://www.uniprot.org/citations/16230460), PubMed: [23633677](http://www.uniprot.org/citations/23633677)). In this way LIMK1 regulates several actin-dependent biological processes including cell motility, cell cycle progression, and differentiation (PubMed: [11832213](http://www.uniprot.org/citations/11832213), PubMed: [15660133](http://www.uniprot.org/citations/15660133), PubMed: [16230460](http://www.uniprot.org/citations/16230460), PubMed: [23633677](http://www.uniprot.org/citations/23633677)). Phosphorylates TPPP on serine residues, thereby promoting microtubule disassembly (PubMed: [18028908](http://www.uniprot.org/citations/18028908)). Stimulates axonal outgrowth and may be involved in brain development (PubMed: [18028908](http://www.uniprot.org/citations/18028908)).

Cellular Location

Cytoplasm. Nucleus. Cytoplasm, cytoskeleton. Cell projection, lamellipodium {ECO:0000250|UniProtKB:P53668} Note=Predominantly found in the cytoplasm. Localizes in the lamellipodium in a CDC42BPA, CDC42BPB and FAM89B/LRAP25-dependent manner. {ECO:0000250|UniProtKB:P53668}

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

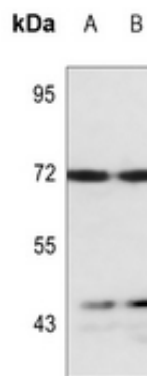
Anti-LIMK1/2 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-LIMK1/2 Antibody - Images





Western blot analysis of LIMK1/2 expression in HeLa (A), DLD (B) whole cell lysates.

Anti-LIMK1/2 Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human LIMK1/2. The exact sequence is proprietary.