

LIMK1 Antibody
Rabbit mAb
Catalog # AP92026**Specification**

LIMK1 Antibody - Product Information

Application	WB
Primary Accession	P53667
Reactivity	Rat
Clonality	Monoclonal
Other Names	
LIM kinase; LIMK 1; LIMK;	
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	72585 Da

LIMK1 Antibody - Additional Information

Dilution	WB~~1:1000
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human LIM Kinase 1
Description	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.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

LIMK1 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, PubMed:11832213),

PubMed:12807904,
PubMed:15660133,
PubMed:16230460,
PubMed:18028908,
PubMed:22328514,
PubMed:23633677).
Activated by upstream kinases including ROCK1, PAK1 and PAK4, which phosphorylate LIMK1 on a
threonine residue located in its activation loop (PubMed: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, PubMed:15660133, PubMed:16230460, PubMed:23633677). In this way
LIMK1 regulates several actin-dependent biological processes including cell motility, cell cycle
progression, and differentiation (PubMed:<a href="http://www.uniprot.org/citations/11832213"
target="_blank">11832213, PubMed:<a href="http://www.uniprot.org/citations/15660133"
target="_blank">15660133, PubMed:<a href="http://www.uniprot.org/citations/16230460"
target="_blank">16230460, PubMed:<a href="http://www.uniprot.org/citations/23633677"
target="_blank">23633677). Phosphorylates TPPP on serine residues, thereby promoting
microtubule disassembly (PubMed:<a href="http://www.uniprot.org/citations/18028908"
target="_blank">18028908). Stimulates axonal outgrowth and may be involved in brain
development (PubMed:<a href="http://www.uniprot.org/citations/18028908"
target="_blank">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

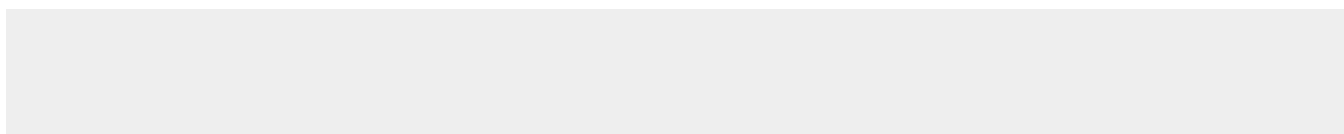
Highest expression in both adult and fetal nervous system. Detected ubiquitously throughout the
different regions of adult brain, with highest levels in the cerebral cortex. Expressed to a lesser
extent in heart and skeletal muscle

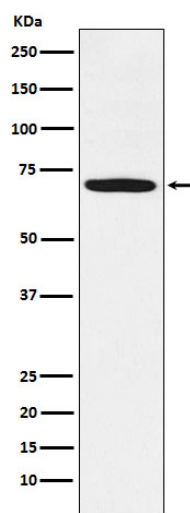
LIMK1 Antibody - Protocols

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](#)

LIMK1 Antibody - Images





Western blot analysis of LIM Kinase 1 expression in U-87MG cell lysate.