

**LIM Kinase 1 Rabbit mAb**  
Catalog # AP77920**Specification****LIM Kinase 1 Rabbit mAb - Product Information**

Application	WB
Primary Accession	<a href="#">P53667</a>
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	72585

**LIM Kinase 1 Rabbit mAb - Additional Information**

Gene ID 3984

**Other Names**

LIMK1

**Dilution**

WB~~1/500-1/1000

**Format**

Liquid

**LIM Kinase 1 Rabbit mAb - 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: [10436159](http://www.uniprot.org/citations/10436159)).

<http://www.uniprot.org/citations/11832213> target="\_blank">11832213</a>, PubMed:<a href="http://www.uniprot.org/citations/15660133" target="\_blank">15660133</a>, PubMed:<a href="http://www.uniprot.org/citations/16230460" target="\_blank">16230460</a>, PubMed:<a href="http://www.uniprot.org/citations/23633677" target="\_blank">23633677</a>). 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</a>, PubMed:<a href="http://www.uniprot.org/citations/15660133" target="\_blank">15660133</a>, PubMed:<a href="http://www.uniprot.org/citations/16230460" target="\_blank">16230460</a>, PubMed:<a href="http://www.uniprot.org/citations/23633677" target="\_blank">23633677</a>). Phosphorylates TPPP on serine residues, thereby promoting microtubule disassembly (PubMed:<a href="http://www.uniprot.org/citations/18028908" target="\_blank">18028908</a>). Stimulates axonal outgrowth and may be involved in brain development (PubMed:<a href="http://www.uniprot.org/citations/18028908" target="\_blank">18028908</a>).

### 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

## LIM Kinase 1 Rabbit mAb - 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](#)

## LIM Kinase 1 Rabbit mAb - Images



