

**LIMK1 Antibody (C-term)**  
**Mouse Monoclonal Antibody (Mab)**  
**Catalog # AM1862b****Specification**

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**LIMK1 Antibody (C-term) - Product Information**

|                   |                             |
|-------------------|-----------------------------|
| Application       | WB,E                        |
| Primary Accession | <a href="#">P53667</a>      |
| Other Accession   | <a href="#">NP_002305.1</a> |
| Reactivity        | Human, Mouse                |
| Host              | Mouse                       |
| Clonality         | Monoclonal                  |
| Isotype           | IgM,K                       |
| Antigen Region    | 479-508                     |

**LIMK1 Antibody (C-term) - Additional Information****Gene ID** 3984**Other Names**

LIM domain kinase 1, LIMK-1, LIMK1, LIMK

**Target/Specificity**

This LIMK1 antibody is generated from mice immunized with a KLH conjugated synthetic peptide between 479-508 amino acids from the C-terminal region of human LIMK1.

**Dilution**

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

LIMK1 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**LIMK1 Antibody (C-term) - 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:[11832213](#), PubMed:[15660133](#), PubMed:[16230460](#), PubMed:[23633677](#)). Phosphorylates TPPP on serine residues, thereby promoting microtubule disassembly (PubMed:[18028908](#)). Stimulates axonal outgrowth and may be involved in brain development (PubMed:[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**

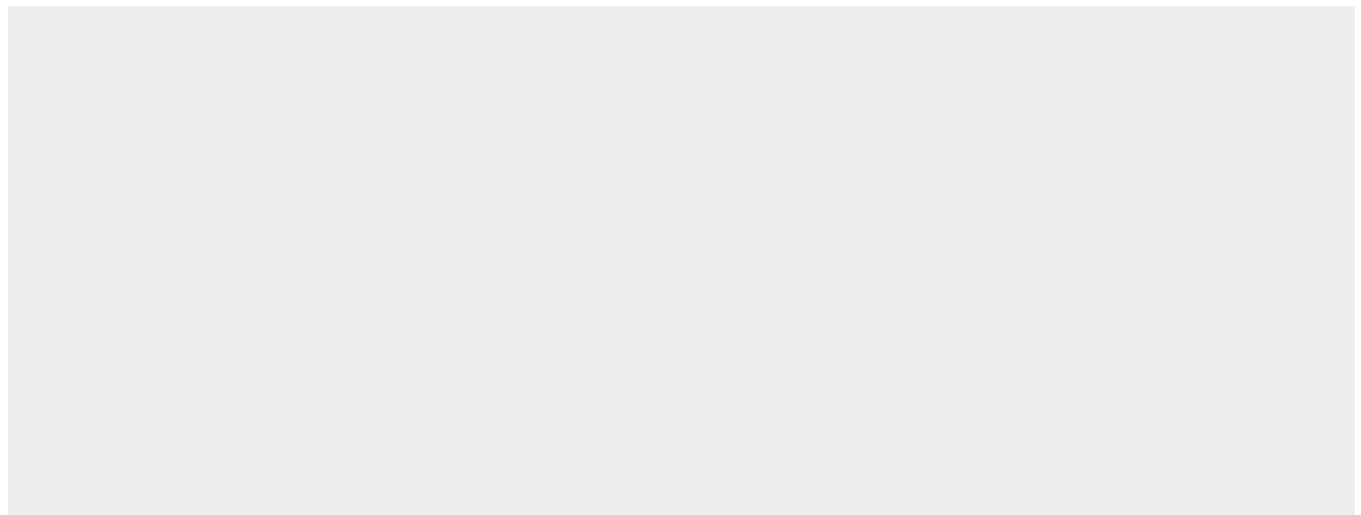
Highest expression in both adult and fetal nervous system. Detected ubiquitously throughout the different regions of adult brain, with highest levels in the cerebral cortex. Expressed to a lesser extent in heart and skeletal muscle

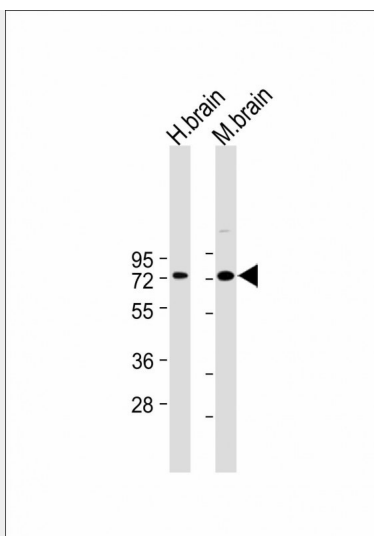
#### **LIMK1 Antibody (C-term) - Protocols**

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 (C-term) - Images**





All lanes : Anti-LIMK1 Antibody (C-term) at 1:1000 dilution Lane 1: Human brain lysate Lane 2: Mouse brain lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-mouse IgM, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 72 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

#### **LIMK1 Antibody (C-term) - Background**

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.