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# LIMK1 Antibody (C-term)

Mouse Monoclonal Antibody (Mab)
Catalog # AM1862b

## Product Information

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| **Application** | WB, E |
| **Primary Accession** | P53667 |
| **Other Accession** | NP_002305.1 |
| **Reactivity** | Human, Mouse |
| **Predicted** | Rat, Bovine, Canine, Rabbit, Chicken |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Isotype** | IgM,K |
| **Clone Names** | 175CT3.2.5 |
| **Calculated MW** | 72585 |
| **Antigen Region** | 479-508 |

## Additional Information

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| **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~~1:100~1000 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. |

## Protein Information

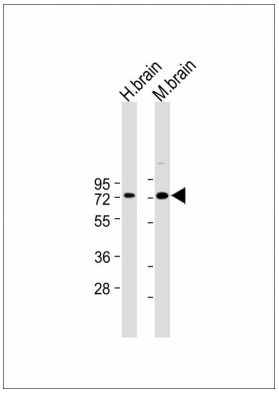
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|---|---|
| **Name** | LIMK1 |
| **Synonyms** | LIMK |
| **Function** | Serine/threonine-protein kinase that plays an essential role in the |

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| | 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 |

## 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.

## 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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.