

LIMK1 Antibody (C-term)

Mouse Monoclonal Antibody (Mab)

Catalog # AM1862b

Product Information

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

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~~1:100~1000 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

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}

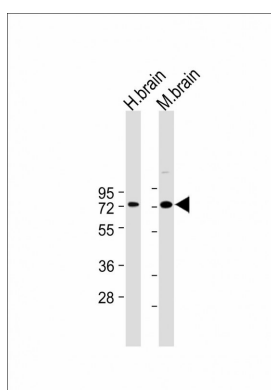
Tissue Location

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

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'.