

Anti-LIMK1 Rabbit Monoclonal Antibody

Catalog # ABO15487

Product Information

Application	WB
Primary Accession	P53667
Host	Rabbit
Isotype	IgG
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Format	Liquid
Description	Anti-LIMK1 Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human Mouse Rat.

Additional Information

Gene ID	3984
Other Names	LIM domain kinase 1, LIMK-1, 2.7.11.1, LIMK1, LIMK
Calculated MW	72585
Application Details	WB 1:500-1:2000
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: 20L63
Immunogen	A synthesized peptide derived from human LIM Kinase 1
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

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](#)).

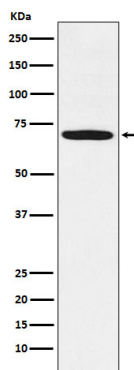
Cellular Location

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

Images



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

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