

LIMK1 Antibody

Catalog No: #33814

Package Size: #33814-1 50ul #33814-2 100ul

Orders: order@signalwayantibody.comSupport: tech@signalwayantibody.com

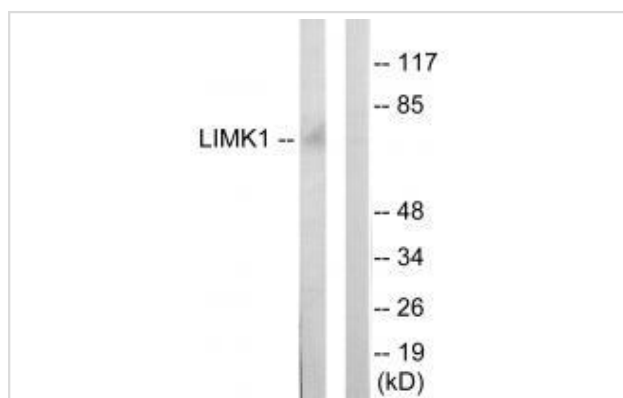
Description

Product Name	LIMK1 Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Applications	WB
Species Reactivity	Human;Mouse;Rat
Specificity	The antibody detects endogenous levels of total LIMK1 protein.
Immunogen Type	Peptide
Immunogen Description	Synthesized peptide derived from internal of human LIMK1.
Conjugates	Unconjugated
Target Name	LIMK1
Other Names	EC 2.7.11.1; KIZ-1; LIM domain kinase 1; LIMK; LIMK-1
Accession No.	Swiss-Prot: P53667NCBI Gene ID: 3984
SDS-PAGE MW	73kd
Concentration	1.0mg/ml
Formulation	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Storage	Store at -20°C

Application Details

Western blotting: 1:500~1:3000

Images



Western blot analysis of extracts from mouse brain cells, using LIMK1 antibody #33814.

Background

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. Activated by upstream kinases including ROCK1, PAK1 and PAK4, which phosphorylate LIMK1 on a threonine residue located in its activation loop. 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. In this way LIMK1 regulates several actin-dependent biological processes including cell motility, cell cycle progression, and differentiation. Phosphorylates TPPP on serine residues, thereby promoting microtubule disassembly. Stimulates axonal outgrowth and may be involved in brain development. Isoform 3 has a dominant negative effect on actin cytoskeletal changes. Required for atypical chemokine receptor ACKR2-induced phosphorylation of cofilin (CFL1).

Mizuno K., *Oncogene* 9:1605-1612(1994).

Frangiskakis J.M., *Cell* 86:59-69(1996).

Osborne L.R., *Genomics* 36:328-336(1996).

Published Papers

et al., DGCR6L, a novel PAK4 interaction protein, regulates PAK4-mediated migration of human gastric cancer cell via LIMK1. In *Int J Biochem Cell Biol* on 2010 Jan by Xiaodong Li, Qiang Ke, et al..PMID: 19778628, , (2010)

[PMID:19778628](#)

Note: This product is for in vitro research use only and is not intended for use in humans or animals.