Rabbit LIMK1 Polyclonal Antibody | anti-LIMK1 antibody

Phospho-LIMK1 (Ser323) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329695	**Rabbit**	**Human, Mouse, RatPredicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (90%), Dog (100%), Chicken (90%)**	**ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot**

PRODUCT SYNONYMS

LIMK1; Polyclonal Antibody; Phospho-LIMK1 (Ser323) Antibody; EC 2.7.11.1; LIM domain kinase 1; LIM motif-containing protein kinase; LIMK; LIMK-1; limk1; LIMK1_HUMAN; anti-LIMK1 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (90%), Dog (100%), Chicken (90%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-LIMK1 (Ser323) Antibody detects endogenous levels of LIMK1 only when phosphorylated at Ser323. Tissue Specificity: 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.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-LIMK1 antibody	ELISA (Peptide ELISA), ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human LIMK1 around the phosphorylation site of Ser323.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Autophosphorylated. Phosphorylated on Thr-508 by ROCK1 and PAK1, resulting in activation. Phosphorylated by PAK4 which increases the ability of LIMK1 to phosphorylate cofilin. Phosphorylated at Ser-323 by MAPKAPK2 during activation of VEGFA-induced signaling, which results in activation of LIMK1 and promotion of actin reorganization, cell migration, and tubule formation of endothelial cells. Dephosphorylated and inactivated by SSH1. Phosphorylated by CDC42BP.Ubiquitinated. 'Lys-48'-linked polyubiquitination by RNF6 leads to proteasomal degradation through the 26S proteasome, modulating LIMK1 levels in the growth cone and its effect on axonal outgrowth. Also polyubiquitinated by RLIM (By similarity).
Subunit Structure	Interacts (via LIM domain) with the cytoplasmic domain of NRG1. Interacts with NISCH. Interacts with RLIM and RNF6 (By similarity). Self-associates to form homodimers. Interacts with HSP90AA1; this interaction promotes LIMK1 dimerization and subsequent transphosphorylation. Interacts with CDKN1C. Interacts with SSH1. Interacts with ROCK1. Interacts (via LIM zinc-binding domains) with FAM89B/LRAP25 (via LRR repeat). Forms a tripartite complex with CDC42BPA, CDC42BPB and FAM89B/LRAP25 (By similarity).
Similarity	Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family.

Subcellular Location	Cytoplasm. Nucleus. Cytoplasm>Cytoskeleton. Cell projection>Lamellipodium. Note: Predominantly found in the cytoplasm. Localizes in the lamellipodium in a CDC42BPA, CDC42BPB and FAM89B/LRAP25-dependent manner.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



Application Data
At 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



IHC (Immunohistochemisry)
At 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohiostchemistry)
Staining Rat brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



WB (Western Blot)
Western blot analysis of LIMK1 (Phospho-Ser323) using Insulin treated Jurkat whole cell lysates.-/+ means absence or presence of N peptideï¼ˆnon-phospho peptide) and P peptide(phospho peptide).

ADDITIONAL INFORMATION

Related Product Information for anti-LIMK1 antibody	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.Has a dominant negative effect on actin cytoskeletal changes. Required for atypical chemokine receptor ACKR2-induced phosphorylation of cofilin (CFL1).

NCBI AND UNIPROT INFORMATION

NCBI GI #	324715046
NCBI GeneID	3984
NCBI Accession #	NP_001191355.1
NCBI GenBank Nucleotide #	NM_001204426.1
UniProt Accession #	P53667; O15283; Q15820; Q15821; Q75MU3; Q9Y5Q1; B7Z6I8; D3DXF4; D3DXF5
Molecular Weight	72,585 Da
NCBI Official Full Name	LIM domain kinase 1 isoform 2
NCBI Official Synonym Full Names	LIM domain kinase 1
NCBI Official Symbol	LIMK1
NCBI Official Synonym Symbols	LIMK; LIMK-1
NCBI Protein Information	LIM domain kinase 1; LIM motif-containing protein kinase

UniProt Protein Name	LIM domain kinase 1
UniProt Gene Name	**LIMK1**
UniProt Synonym Gene Names	LIMK; LIMK-1
UniProt Entry Name	LIMK1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: https://stage.aaabiotech.com/polyclonal/limk1-antibody-peptide-elisa-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/329695