

# Anti-LIMK1/2 Antibody

Rabbit polyclonal antibody to LIMK1/2

Catalog # AP60022

## Product Information

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Application	WB, IP
Primary Accession	<a href="#">P53667</a>
Other Accession	<a href="#">P53668</a>
Reactivity	Human, Mouse, Rat, Chicken, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	72585

## Additional Information

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Gene ID	3984
Other Names	LIMK; LIM domain kinase 1; LIMK-1
Target/Specificity	Recognizes endogenous levels of LIMK1/2 protein.
Dilution	WB~~WB (1/500 - 1/1000), IP (1/10 - 1/100) IP~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

## Protein Information

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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: <a href="#">10436159</a> , PubMed: <a href="#">11832213</a> , PubMed: <a href="#">12807904</a> , PubMed: <a href="#">15660133</a> , PubMed: <a href="#">16230460</a> , PubMed: <a href="#">18028908</a> , PubMed: <a href="#">22328514</a> , PubMed: <a href="#">23633677</a> ). Activated by upstream kinases including ROCK1, PAK1 and PAK4, which phosphorylate LIMK1 on a threonine residue located in its activation loop (PubMed: <a href="#">10436159</a> ). 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: <a href="#">11832213</a> , PubMed: <a href="#">15660133</a> , PubMed: <a href="#">16230460</a> , PubMed: <a href="#">23633677</a> ). 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

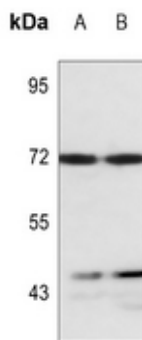
## Background

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KLH-conjugated synthetic peptide encompassing a sequence within the C-term region of human LIMK1/2. The exact sequence is proprietary.

## Images

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Western blot analysis of LIMK1/2 expression in Hela (A), DLD (B) whole cell lysates.

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