

# LIMK-1/2 (phospho Thr508/505) Polyclonal Antibody

Catalog # AP67523

## Product Information

Application	WB, IHC-P
Primary Accession	<a href="#">P53667</a> , <a href="#">P53671</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	72585

## Additional Information

Gene ID	3984
Other Names	LIMK1; LIMK; LIM domain kinase 1; LIMK-1; LIMK2; LIM domain kinase 2; LIMK-2
Dilution	WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/10000. Not yet tested in other applications. IHC-P~~N/A
Format	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.
Storage Conditions	-20°C

## 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: <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: <a href="#">11832213</a> , PubMed: <a href="#">15660133</a> , PubMed: <a href="#">16230460</a> , PubMed: <a href="#">23633677</a> ). 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

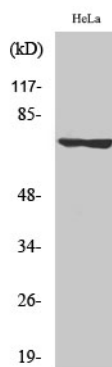
Cytoplasm. Nucleus. Cytoplasm, cytoskeleton. Cell projection, lamellipodium {ECO:0000250|UniProtKB:P53668} Note=Predominantly found in the cytoplasm. Localizes in the lamellipodium in a CDC42BPA, CDC42BPB and FAM89B/LRAP25-dependent manner. {ECO:0000250|UniProtKB:P53668}

### Tissue Location

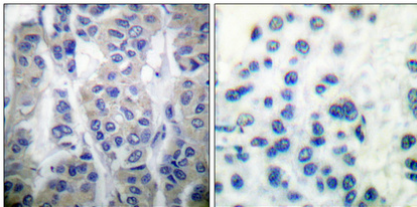
Highest expression in both adult and fetal nervous system. Detected ubiquitously throughout the different regions of adult brain, with highest levels in the cerebral cortex. Expressed to a lesser extent in heart and skeletal muscle

## Images

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Western Blot analysis of various cells using Phospho-LIMK-1/2 (T508/505) Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded Human breast cancer. Antibody was diluted at 1:100(4°,overnight). High-pressure and temperature Tris-EDTA,pH8.0 was used for antigen retrieval. Negative contrl (right) obtained from antibody was pre-absorbed by immunogen peptide.

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