

**Product Name: LIMK-1/2 Rabbit Polyclonal Antibody****Catalog #: APRab13314**

For research use only.

**Summary**

<b>Description</b>	Rabbit polyclonal Antibody
<b>Host</b>	Rabbit
<b>Application</b>	WB,IHC,ICC/IF,ELISA
<b>Reactivity</b>	Human,Mouse,Rat,Monkey
<b>Conjugation</b>	Unconjugated
<b>Modification</b>	Unmodified
<b>Isotype</b>	IgG
<b>Clonality</b>	Polyclonal
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>Storage</b>	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
<b>Shipping</b>	Ice bags
<b>Buffer</b>	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
<b>Purification</b>	Affinity purification

**Application**

<b>Dilution Ratio</b>	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:20000-1:40000
<b>Molecular Weight</b>	72kDa

**Antigen Information**

<b>Gene Name</b>	LIMK1/LIMK2
<b>Alternative Names</b>	LIMK1; LIMK; LIM domain kinase 1; LIMK-1; LIMK2; LIM domain kinase 2; LIMK-2
<b>Gene ID</b>	3984/3985
<b>SwissProt ID</b>	P53667/P53671
<b>Immunogen</b>	The antiserum was produced against synthesized peptide derived from human LIMK1/2. AA range:481-530

**Background**

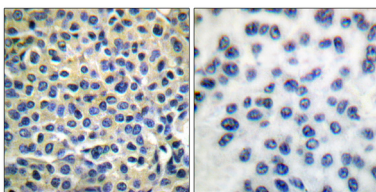
There are approximately 40 known eukaryotic LIM proteins, so named for the LIM domains they contain. LIM domains are

highly conserved cysteine-rich structures containing 2 zinc fingers. Although zinc fingers usually function by binding to DNA or RNA, the LIM motif probably mediates protein-protein interactions. LIM kinase-1 and LIM kinase-2 belong to a small subfamily with a unique combination of 2 N-terminal LIM motifs and a C-terminal protein kinase domain. LIMK1 is a serine/threonine kinase that regulates actin polymerization via phosphorylation and inactivation of the actin binding factor cofilin. This protein is ubiquitously expressed during development and plays a role in many cellular processes associated with cytoskeletal structure. This protein also stimulates axon growth and may play a role in brain development. LIMK1 hemizygosity is implicated in the impaired visuospatial constructive cogcatalytic activity:ATP + a protein = ADP + a phosphoprotein.,disease:Haploinsufficiency of LIMK1 may be the cause of certain cardiovascular and musculo-skeletal abnormalities observed in Williams-Beuren syndrome (WBS), a rare developmental disorder. It is a contiguous gene deletion syndrome involving genes from chromosome band 7q11.23.,function:Protein kinase which regulates actin filament dynamics. Phosphorylates and inactivates the actin binding/depolymerizing factor cofilin, thereby stabilizing the actin cytoskeleton. Isoform 3 has a dominant negative effect on actin cytoskeletal changes. May be involved in brain development.,PTM:Autophosphorylated.,PTM:Phosphorylated on serine and/or threonine residues by ROCK1. May be dephosphorylated and inactivated by SSH1.,similarity:Belongs to the protein kinase superfamily. TKL Ser/Thr protein kinase family.,similarity:Contains 1 PDZ (DHR) domain.,similarity:Contains 1 protein kinase domain.,similarity:Contains 2 LIM zinc-binding domains.,subunit:Self-associates. The LIM domain interacts with the cytoplasmic domain of NRG1. Binds ROCK1. Interacts with SSH1. Interacts with NISCH.,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.,

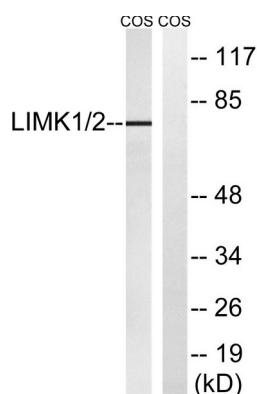
## Research Area

Axon guidance;Fc gamma R-mediated phagocytosis;Regulates Actin and Cytoskeleton;

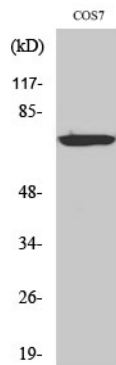
## Image Data



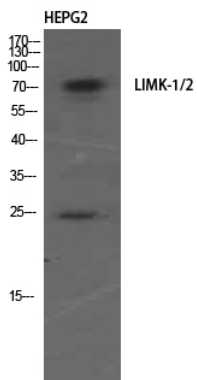
Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using LIMK1/2 Antibody. The picture on the right is blocked with the synthesized peptide.



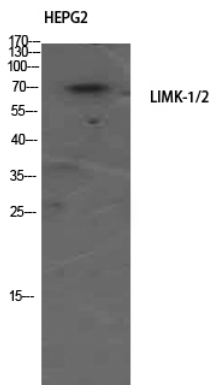
Western blot analysis of lysates from COS7 cells, using LIMK1/2 Antibody. The lane on the right is blocked with the synthesized peptide.



Western Blot analysis of various cells using LIMK-1/2 Polyclonal Antibody diluted at 1: 500



Western Blot analysis of HEPG2 using LIMK-1/2 Polyclonal Antibody. Antibody was diluted at 1:500



Western Blot analysis of HEPG2 using LIMK-1/2 Polyclonal Antibody. Antibody was diluted at 1:500