Product Name: LIMK-1 (phospho Thr508) Rabbit Polyclonal Antibody
Catalog #: APRab04953

Summary

Production Name	LIMK-1 (phospho Thr508) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,IF,ELISA
Reactivity	Human,Mouse,Rat

Performance

Conjugation	Unconjugated
Modification	Phospho Antibody
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

Gene Name	LIMK1
Alternative Names	LIMK1; LIMK; LIM domain kinase 1; LIMK-1
Gene ID	3984.0
SwissProt ID	P53667.The antiserum was produced against synthesized peptide derived from human LIMK1 around the phosphorylation site of Thr508. AA range:471-520

Application

Dilution Ratio	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:10000. Not yet tested in other applications.
Molecular Weight	72kD

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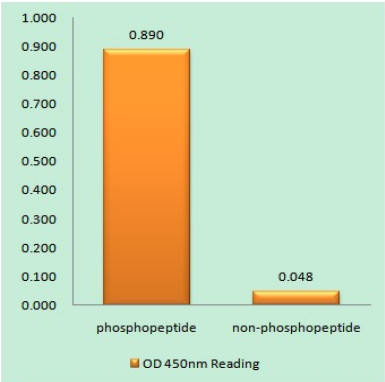
Background

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



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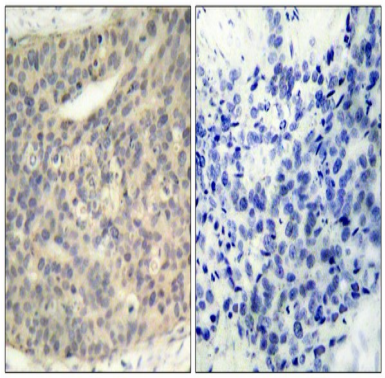
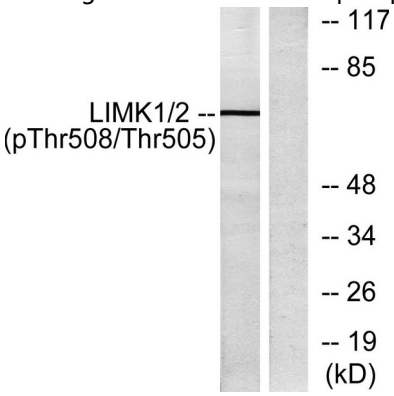
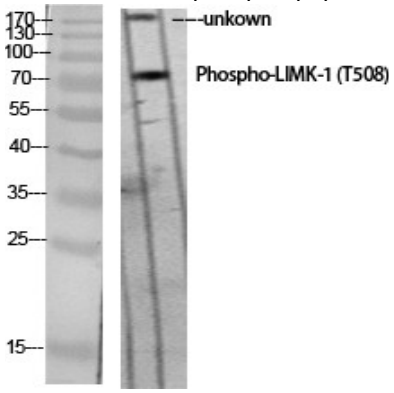
Enzyme-Linked Immunosorbent Assay (Phospho-ELISA) for Immunogen Phosphopeptide (Phospho-left) and Non-Phosphopeptide (Phospho-right), using LIMK1 (Phospho-Thr508) Antibody



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma, using LIMK1 (Phospho-Thr508) Antibody. The picture on the right is blocked with the phospho peptide.



Western blot analysis of lysates from COLO205 cells, using LIMK1 (Phospho-Thr508) Antibody. The lane on the right is blocked with the phospho peptide.



Western Blot analysis of various cells using Phospho-LIMK-1 (T508) Polyclonal Antibody diluted at 1: 1000

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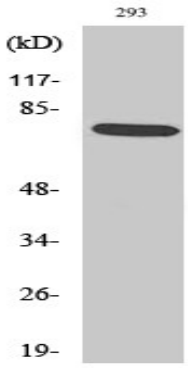
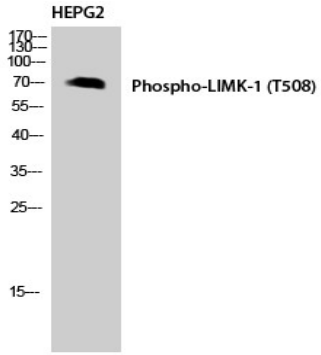


Western Blot analysis of 293 cells using Phospho-LIMK-1 （T508） Polyclonal Antibody diluted at 1： 1000



Western Blot analysis of HEPG2 using Phospho-LIMK-1 （T508） Polyclonal Antibody. Antibody was diluted at 1:1000

Note

For research use only.