



Rabbit Anti-phospho-LIM Kinase 1 (Thr508) antibody

SL18256R

Product Name:	phospho-LIM Kinase 1 (Thr508)
Chinese Name:	磷酸化单丝氨酸蛋白激酶1抗体
Alias:	LIM Kinase 1 (phospho T508); p-LIM Kinase 1 (phospho T508); LIMK1 (phospho T508);p-LIMK1 (phospho T508); EC 2.7.1.37; LIM domain containing protein kinase; LIM domain kinase 1; LIM motif containing protein kinase; LIMK 1; LIMK; LIMK-1; limk1; LIMK1_HUMAN.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Pig,Cow,Horse,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	73kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthesised phosphopeptide derived from human LIM Kinase 1 around the phosphorylation site of Thr508:RY(p-T)VV
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed

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 hemizygoty is implicated in the impaired visuospatial constructive cognition of Williams syndrome. Alternative splicing results in multiple transcript variants encoding distinct isoforms.[provided by RefSeq, Feb 2011]

Function:

Protein kinase which regulates actin filament dynamics. Phosphorylates and inactivates the actin binding/depolymerizing factor cofilin, thereby stabilizing the actin cytoskeleton. Stimulates axonal outgrowth and may be involved in brain development. Isoform 3 has a dominant negative effect on actin cytoskeletal changes.

Subcellular Location:

Cytoplasm. Cell projection > growth cone.

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.

Post-translational modifications:

Autophosphorylated.

Phosphorylated on serine and/or threonine residues by ROCK1.

May be dephosphorylated and inactivated by SSH1.

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.

DISEASE:

Note=LIMK1 is located in the Williams-Beuren syndrome (WBS) critical region. WBS results from a hemizygous deletion of several genes on chromosome 7q11.23, thought to arise as a consequence of unequal crossing over between highly homologous low-copy repeat sequences flanking the deleted region.

Similarity:

Belongs to the protein kinase superfamily.

TKL Ser/Thr protein kinase family.

Contains 2 LIM zinc-binding domains.

Product Detail:

Contains 1 PDZ (DHR) domain.
Contains 1 protein kinase domain.

SWISS:
P53667

Gene ID:
3984

Database links:

[Entrez Gene: 3984](#) Human

[Entrez Gene: 16885](#) Mouse

[Entrez Gene: 65172](#) Rat

[Omim: 601329](#) Human

[SwissProt: P53667](#) Human

[SwissProt: P53668](#) Mouse

[SwissProt: P53669](#) Rat

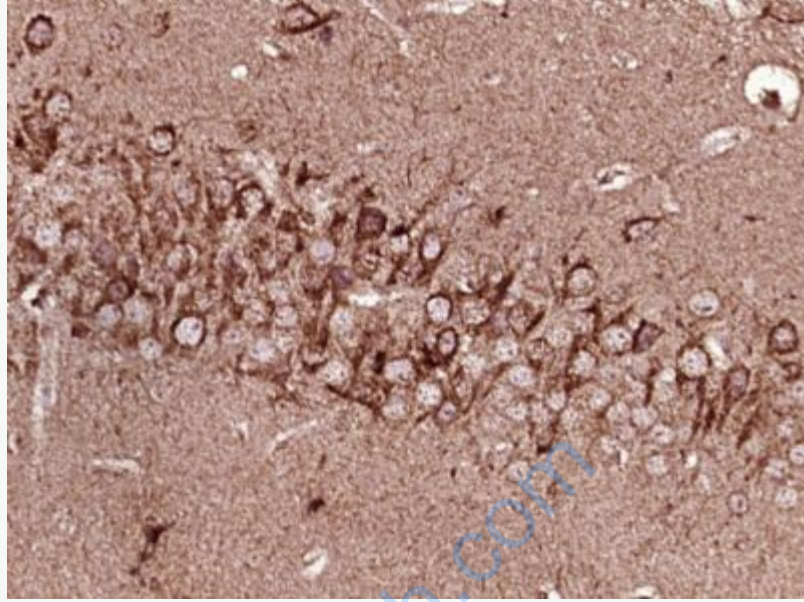
[Unigene: 647035](#) Human

[Unigene: 15409](#) Mouse

[Unigene: 11250](#) Rat

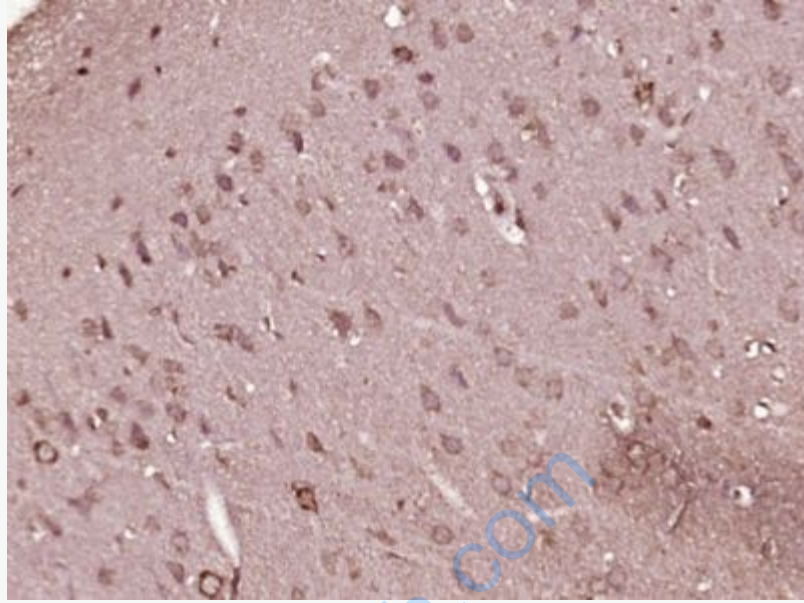
Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Picture:

Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-LIM Kinase 1 (Thr508)) Polyclonal Antibody, Unconjugated (SL18256R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (phospho-LIM Kinase 1 (Thr508)) Polyclonal Antibody, Unconjugated (SL18256R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.