

LIMK-1/2 (Phospho Thr508/505) Rabbit pAb

CatalogNo: YP0591 **Orthogonal Validated** 

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, ELISA

MW

- 72kD (Observed)

Isotype

- IgG

Storage

Storage* -15°C to -25°C/1 year (Do not lower than -25°C)

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-2000

IHC 1:100-500

IF/ICC 1:100-500

ELISA 1:5000-20000

Basic Information

Clonality Polyclonal

Immunogen Information

Immunogen Synthesized phospho-peptide around the phosphorylation site of human LIMK-1/2 (phospho Thr508/505)

Specificity

This antibody detects endogenous levels of LIMK-1/2 only when phosphorylated at Thr508/505. The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):RYtVV

Target Information

Gene name LIMK1/LIMK2

Protein Name LIM domain kinase 1/LIM domain kinase 2

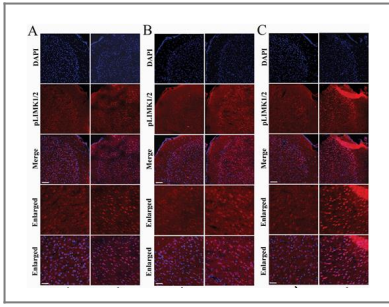
Organism	Gene ID	UniProt ID
Human	3984 ; 3985 ;	P53667 ; P53671 ;
Mouse	16885 ; 16886 ;	
Rat	29524 ;	P53669 ; P53670 ;

Cellular Localization Cytoplasm . Nucleus . Cytoplasm , cytoskeleton . Cell projection , lamellipodium . Predominantly found in the cytoplasm. Localizes in the lamellipodium in a CDC42BPA , CDC42BPB and FAM89B/LRAP25-dependent manner. .

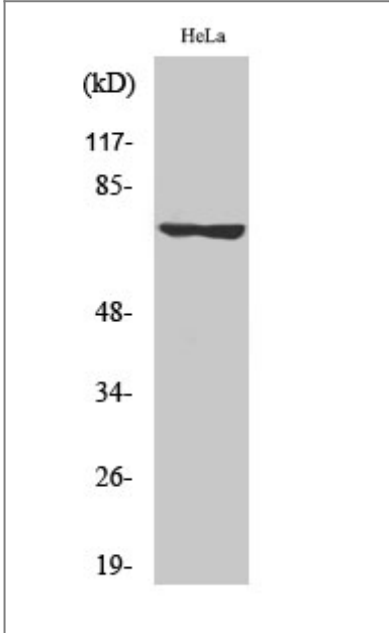
Tissue specificity Highest expression in both adult and fetal nervous system. Detected ubiquitously throughout the different regions of adult brain , with highest levels in the cerebral cortex. Expressed to a lesser extent in heart and skeletal muscle.

Function Catalytic 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. ,

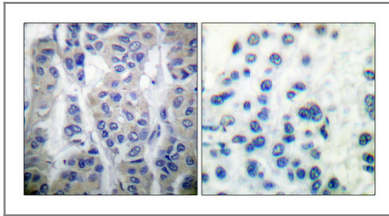
Validation Data



Gao, Ting-Ting, et al. "LIMK1/2 in the mPFC plays a role in chronic stress-induced depressive-like effects in mice." *International Journal of Neuropsychopharmacology* 23.12 (2020): 821-836.



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°C overnight). High-pressure and temperature Tris-EDTA, pH8.0 was used for antigen retrieval. Negative control (right) obtained from antibody was pre-absorbed by immunogen peptide.

Contact information

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