

## 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 When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports.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

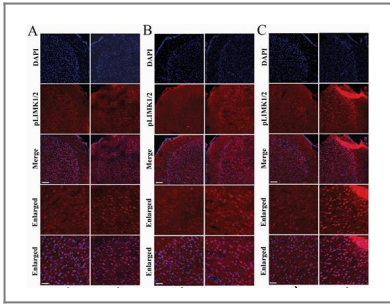
Organism	Gene ID	UniProt ID
Human	<a href="#">3984</a> ; <a href="#">3985</a> ;	<a href="#">P53667</a> ; <a href="#">P53671</a> ;
Mouse	<a href="#">16885</a> ; <a href="#">16886</a> ;	
Rat	<a href="#">29524</a> ;	<a href="#">P53669</a> ; <a href="#">P53670</a> ;

**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. .

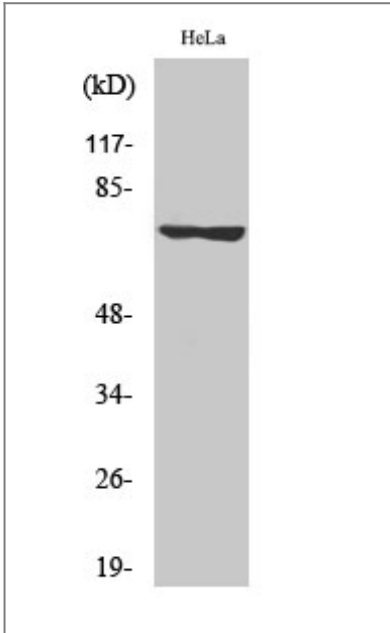
**Tissue specificity** Highest expression in both adult and fetal nervous system. Detected ubiquitously throughout the different regions of adult brain, with highest levels in the cerebral cortex. Expressed to a lesser extent in heart and skeletal muscle.

**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.,

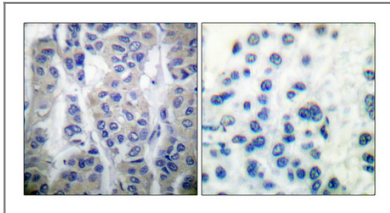
## Validation Data



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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Please scan the QR code to access additional product information:  
**LIMK-1/2 (Phospho Thr508/505) Rabbit pAb**