



# LIMK-2 (phospho Thr505) Polyclonal Antibody

<b>Catalog No</b>	BYab-14320
<b>Isotype</b>	IgG
<b>Reactivity</b>	Human;Mouse;Rat
<b>Applications</b>	WB;IHC;IF;ELISA
<b>Gene Name</b>	LIMK2
<b>Protein Name</b>	LIM domain kinase 2
<b>Immunogen</b>	Synthesized phospho-peptide around the phosphorylation site of human LIMK-2 (phospho Thr505)
<b>Specificity</b>	Phospho-LIMK-2 (T505) Polyclonal Antibody detects endogenous levels of LIMK-2 protein only when phosphorylated at T505.
<b>Formulation</b>	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
<b>Source</b>	Polyclonal, Rabbit,IgG
<b>Purification</b>	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
<b>Dilution</b>	Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.
<b>Concentration</b>	1 mg/ml
<b>Purity</b>	≥90%
<b>Storage Stability</b>	-20°C/1 year
<b>Synonyms</b>	LIMK2; LIM domain kinase 2; LIMK-2
<b>Observed Band</b>	
<b>Cell Pathway</b>	Cytoplasm, cytoskeleton, spindle . Cytoplasm, cytoskeleton, microtubule organizing center, centrosome .; [Isoform LIMK2a]: Cytoplasm . Nucleus .; [Isoform LIMK2b]: Cytoplasm . Cytoplasm, perinuclear region . Nucleus . Mainly present in the cytoplasm and is scarcely translocated to the nucleus. .
<b>Tissue Specificity</b>	Hepatoma,Lung,Ovary,
<b>Function</b>	catalytic activity:ATP + a protein = ADP + a phosphoprotein.,function:Displays serine/threonine-specific phosphorylation of myelin basic protein and histone (MBP) in vitro.,PTM:Phosphorylated on serine and/or threonine residues by ROCK1.,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.,subcellular location:Isoform LIMK2a is distributed in the cytoplasm and

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the nucleus.,subcellular location:Isoform LIMK2b occurs mainly in the cytoplasm and is scarcely translocated to the nucleus.,subunit:binds ROCK1 and LKAP. Interacts with PARD3. Interacts with NISCH.,tissue specificity:Highest expression in the placenta; moderate level in liver, lung, kidney, and pancreas. LIMK2a is found to be more abundant than LIMK2b in liver, col

#### 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. The protein encoded by this gene is phosphorylated and activated by ROCK, a downstream effector of Rho, and the encoded protein, in turn, phosphorylates cofilin, inhibiting its actin-depolymerizing activity. It is thought that this pathway contributes to Rho-induced reorganization of the actin cytoskeleton. At least three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008],

#### matters needing attention

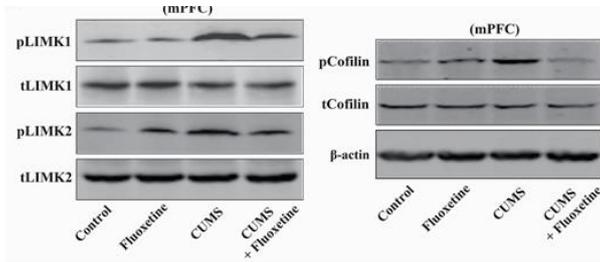
Avoid repeated freezing and thawing!

#### Usage suggestions

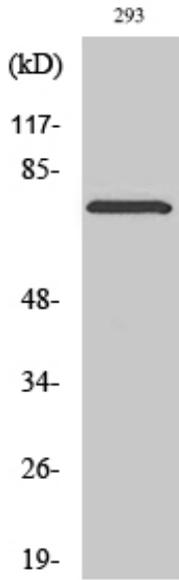
This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.



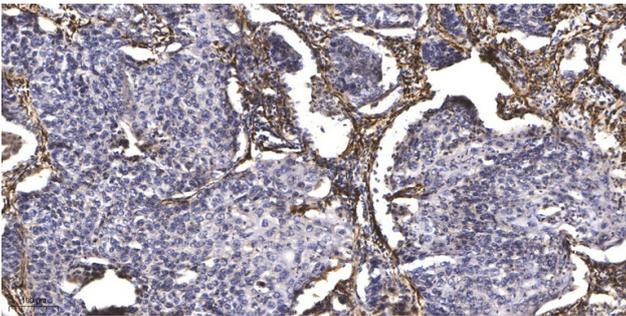
## Products Images



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-2 (T505) Polyclonal Antibody



Immunohistochemical analysis of paraffin-embedded human Squamous cell carcinoma of lung. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).