

LIMK-2 Polyclonal Antibody

Catalog No :	YT2566
Reactivity :	Human;Mouse;Rat
Applications :	WB;IHC;IF;ELISA
Target :	LIMK-2
Fields :	>>Axon guidance;>>Fc gamma R-mediated phagocytosis;>>Regulation of actin cytoskeleton;>>Human immunodeficiency virus 1 infection
Gene Name :	LIMK2
Protein Name :	LIM domain kinase 2
Human Gene Id :	3985
Human Swiss Prot No :	P53671
Mouse Gene Id :	16886
Mouse Swiss Prot No :	O54785
Rat Gene Id :	29524
Rat Swiss Prot No :	P53670
Immunogen :	The antiserum was produced against synthesized peptide derived from human LIMK2. AA range:249-298
Specificity :	LIMK-2 Polyclonal Antibody detects endogenous levels of LIMK-2 protein.
Formulation :	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source :	Polyclonal, Rabbit,IgG
Dilution :	WB 1:500 - 1:2000. IHC 1:100 - 1:300. IF 1:200 - 1:1000. ELISA: 1:40000. Not yet tested in other applications.

Purification :	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Concentration :	1 mg/ml
Storage Stability :	-15°C to -25°C/1 year(Do not lower than -25°C)
Observed Band :	72kD
Cell Pathway :	Axon guidance;Fc gamma R-mediated phagocytosis;Regulates Actin and Cytoskeleton;
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],
Function :	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 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 then LIMK2b in liver, col
Subcellular Location :	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. .
Expression :	Hepatoma,Lung,Ovary,
Tag :	orthogonal

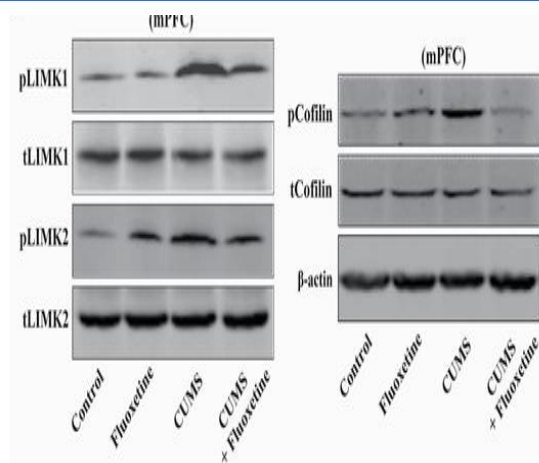
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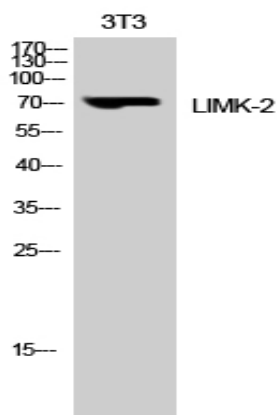
Host : Rabbit

Modifications : Unmodified

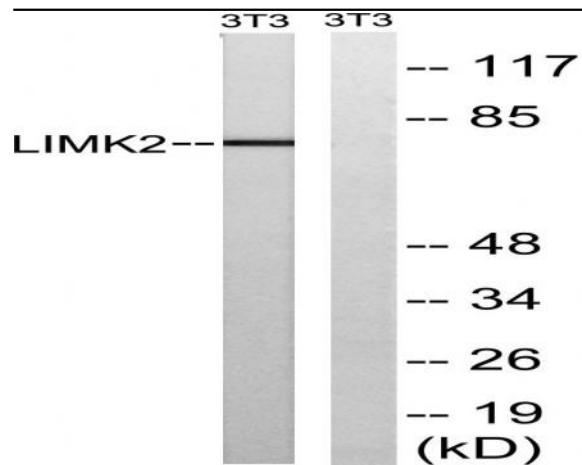
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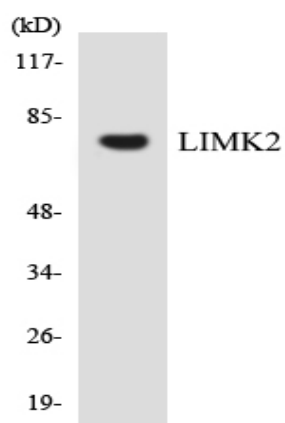
Gao, Ting-Ting, et al. "LIMK1/2 in the mPFC plays a role in chronic stress-induced depressive-like effects in mice." *International Journal of Neuropsychopharmacology* 23.12 (2020): 821-836.



Western Blot analysis of 3T3 cells using LIMK-2 Polyclonal Antibody



Western blot analysis of lysates from NIH/3T3 cells, treated with PMA 125ng/ml 30', using LIMK2 Antibody. The lane on the right is blocked with the synthesized peptide.



Western blot analysis of the lysates from RAW264.7 cells using LIMK2 antibody.