10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-LIM Kinase 2 Picoband Antibody

Catalog # ABO12403

Product Information

Application	WB
Primary Accession	P53671
Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for LIM domain kinase 2(LIMK2) detection. Tested with WB in Human;Mouse.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3985
Other Names	LIM domain kinase 2, LIMK-2, 2.7.11.1, LIMK2
Calculated MW	72232
Application Details	Western blot, 0.1-0.5 □g/ml, Human, Mouse
Subcellular Localization	Isoform LIMK2a: Cytoplasm. Nucleus. Isoform LIMK2a is distributed in the cytoplasm and the nucleus.
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, colon, stomach, and spleen, while in brain, kidney, and placenta LIMK2b is the dominant form. In adult lung, both LIMK2a and LIMK2b is nearly equally observed. .
Source	Eukaryota
Protein Name	LIM domain kinase 2
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human LIM kinase 2 (596-635aa KLEDSFEALSLYLGELGIPLPAELEELDHTVSMQYGLTRD), different from the related mouse sequence by four amino acids, and from the related rat sequence by three amino a
Purification	Immunogen affinity purified.

Cross Reactivity	No cross reactivity with other proteins
Storage	At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.

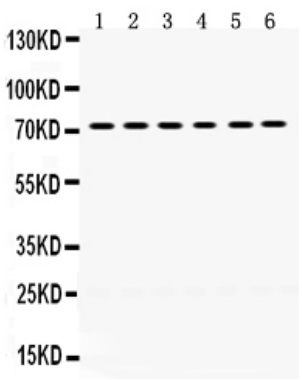
Protein Information

Name	LIMK2
Function	Serine/threonine-protein kinase that plays an essential role in the regulation of actin filament dynamics (PubMed:10436159, PubMed:11018042). Acts downstream of several Rho family GTPase signal transduction pathways (PubMed:10436159, PubMed:11018042). Involved in astral microtubule organization and mitotic spindle orientation during early stages of mitosis by mediating phosphorylation of TPPP (PubMed:22328514). Displays serine/threonine-specific phosphorylation of myelin basic protein and histone (MBP) in vitro (PubMed:8537403). Suppresses ciliogenesis via multiple pathways; phosphorylation of CFL1, suppression of directional trafficking of ciliary vesicles to the ciliary base, and by facilitating YAP1 nuclear localization where it acts as a transcriptional corepressor of the TEAD4 target genes AURKA and PLK1 (PubMed:25849865).
Cellular Location	Cytoplasm, cytoskeleton, spindle. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome [Isoform LIMK2b]: Cytoplasm. Cytoplasm, perinuclear region. Nucleus Note=Mainly present in the cytoplasm and is scarcely translocated to the nucleus.

Background

LIM domain kinase 2 is an enzyme that in humans is encoded by the LIMK2 gene. 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.

Images



Anti- LIM kinase 2 Picoband antibody, ABO12403, Western blottingAll lanes: Anti LIM kinase 2 (ABO12403) at 0.5ug/mlLane 1: Mouse Brain Tissue Lysate at 50ugLane 2: Mouse Liver Tissue Lysate at 50ugLane 3: Mouse Thymus Tissue Lysate at 50ugLane 4: Mouse Testis Tissue Lysate at 50ugLane 5: 293T Whole Cell Lysate at 40ugLane 6: HELA Whole Cell Lysate at 40ugPredicted bind size: 72KDObserved bind size: 72KD

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.