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Anti-LIM Kinase 2 Picoband Antibody

Catalog # ABO12403

Specification

Anti-LIM Kinase 2 Picoband Antibody - 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.

Anti-LIM Kinase 2 Picoband Antibody - Additional Information

Gene ID 3985

Other Names
LIM domain kinase 2, LIMK-2, 2.7.11.1, LIMK2

Calculated MW
72232 MW KDa

Application Details
Western blot, 0.1-0.5 µg/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. .

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.**

Anti-LIM Kinase 2 Picoband Antibody - 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.

Anti-LIM Kinase 2 Picoband Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-LIM Kinase 2 Picoband Antibody - Images

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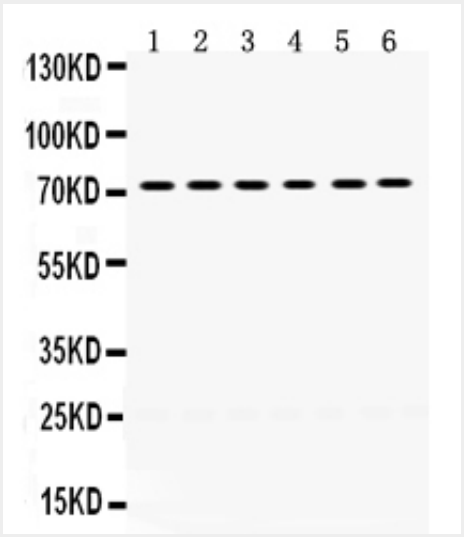

Anti- LIM kinase 2 Picoband antibody, ABO12403, Western blottingAll lanes: Anti LIM kinase 2 (ABO12403) at 0.5ug/mlLane 1: Mouse Brain Tissue Lysate at 50ugLane 2: Mouse Liver Tissue Lysate at 50ugLane 3: Mouse Thymus Tissue Lysate at 50ugLane 4: Mouse Testis Tissue Lysate at 50ugLane 5: 293T Whole Cell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

Anti-LIM Kinase 2 Picoband Antibody - Background

LIM domain kinase 2Â is anÂ enzymeÂ that in humans is encoded by theÂ LIMK2Â gene. There are approximately 40 known eukaryotic LIM proteins, so named for theÂ LIM domainsÂ 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.