Anti-LIMK1 Antibody

CATALOG NO.: **A2228-100 (100 µl)**

BACKGROUND DESCRIPTION: LIMK1 is a serine-threonine protein kinase that contains 2 zinc finger motifs, known as LIM motifs at their N-terminus and a kinase sequence at their C terminus. The protein is expressed ubiquitously in different regions of the adult brain. It has reduced expression in the heart and skeletal muscles. LIMK1 prevents the cleavage of actin filament and stabilizes the actin cytoskeleton by phosphorylating and inactivating actin binding factors such as cofilin-1 (CFL1), cofilin-2 (CFL2), and destrin (DSTN). Additionally, it acts downstream of Rho family GTPase signal transduction pathways. Kinases such as ROCK1, PAK1, and PAK4 phosphorylate LIMK1 on the threonine residue in the activation loop and increase the activity of LIMK1. LIMK1 deletion is associated with the impairment of visuospatial cognition and long-term memory of Williams syndrome. Overexpression of LIMK1 is observed in multiple cancers such as breast, colorectal, and prostate cancer.

ALTERNATE NAMES: LIMK, LIM domain kinase 1, LIMK-1, EC 2.7.11.1, LIM Motif-Containing Protein Kinase, LIMK1

ANTIBODY TYPE: Polyclonal

HOST/ISOTYPE: Rabbit / IgG

IMMUNOGEN: KLH-conjugated synthetic peptide targeting a sequence within the center region of human LIMK1

MOLECULAR WEIGHT: 73 kDa

PURIFICATION: Affinity purified

FORM: Liquid

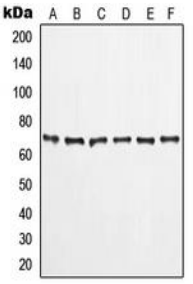
FORMULATION: In 0.42% Potassium phosphate; 0.87% NaCl; pH 7.3; 30% glycerol; and 0.01% sodium azide

SPECIES REACTIVITY: Human, Mouse, Rat

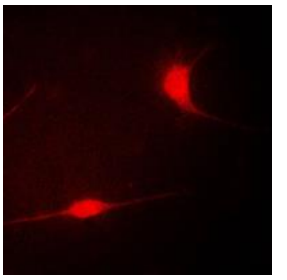
STORAGE CONDITIONS: Store at -20ºC. Avoid freeze/thaw cycles

APPLICATIONS AND USAGE: WB 1:500 - 1:1000, IF 1:100 - 1:500

This information is only intended as a guide. The optimal dilutions must be determined by the user



Western blot analysis COLO205 (A), HEK293T (B), A431 (C), NIH3T3 (D), HeLa (E), HepG2 (F) whole cell lysates using Anti-LIMK1 Antibody.



Immunofluorescent analysis of COLO205 cells using Anti-LIMK1 Antibody. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at RT. Cells were incubated with primary antibody overnight at 4oC in a humidified chamber. After overnight incubation, cells were washed with PBST and incubated with a DyLight 594-conjugated secondary antibody (red) in PBS at RT in the dark. DAPI was used to stain the cell nuclei (blue).

RELATED PRODUCTS:

Rho Kinase Alpha Antibody (3789)
PAK4 Antibody (3444)
PAK1 Antibody (3248)
LIMK2 Antibody (3584)