

LIMK1 (C-terminus)

Cat. # LP1831

Host Rabbit Polyclonal

Size 100 µl

Background:

LIM kinases (LIMK1 and LIMK2) are serine/threonine kinases that have two zinc finger motifs, known as LIM motifs, in their amino-terminal regulatory domains. LIM kinases are involved in actin cytoskeletal regulation downstream of Rho-family GTPases, PAKs, and ROCK. PAK1 and ROCK phosphorylate LIMK1 or LIMK2 at the conserved Thr-508 or Thr-505 residues in the activation loop, increasing LIMK activity. In addition, VEGF-induced stress fiber formation has been linked to p38-mediated activation of LIMK through MK-2 phosphorylation of Ser-323. Activated LIM kinases inhibit the actin depolymerization activity of cofilin by phosphorylation at the amino-terminal Ser-3 residue of cofilin. In addition, LIMKs may have a function in the nucleus. It has been shown that the nuclear localization of LIMKs can mediate suppression of Rac/Cdc42-mediated cyclin D1 expression. This effect of LIMKs was independent of cofilin phosphorylation and the regulation of actin dynamics.

References

- Okano, I. et al. (1995) J. Biol. Chem. 270:31321.
Edwards, D. C. et al. (1999) Nat. Cell Biol. 1:253.
Kobayashi, M. et al. (2006) EMBOJ 25:713.

Immunogen:

LIMK1 (C-terminus) synthetic peptide (coupled to carrier protein) corresponding to amino acids at the C-terminus of human LIMK1. This sequence is conserved in rat and mouse LIMK1, and is not found in LIMK2.

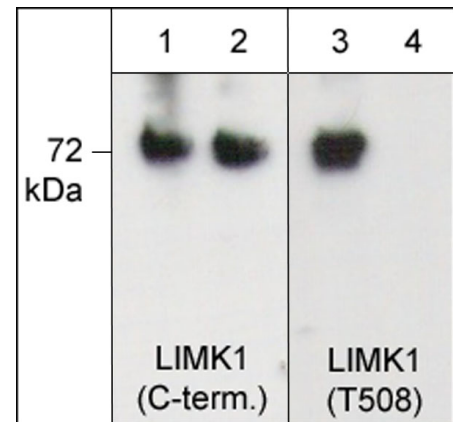
Applications:

WB 1:1,000
ELISA 1:2,000

End user should determine optimal dilution for their particular applications and experiments. Western blot membranes were incubated with diluted antibody in 5% non-fat milk, PBS, 0.04% Tween20 for 1 hour at room temperature.

Related Products:

- LP1891 LIMK1 (Thr-508), phospho-specific [Conserved site] Rabbit Polyclonal
LX1835 LIMK1 (C-terminus) Peptide
LP2431 LIMK1 (Ser-323), phospho-specific [Conserved site] Rabbit Polyclonal
CP1131 Cofilin 1 (N-terminus) Rabbit Polyclonal
CP1151 Cofilin 1 (Ser-3), phospho-specific Rabbit Polyclonal
SP1711 Slingshot-1L (C-terminal region) Rabbit Polyclonal



Western blot image of activated mouse recombinant LIMK1 untreated (lanes 1 & 3) or treated with lambda phosphatase (lanes 2 & 4). The blots were probed with anti-LIMK1 (C-term.) (lanes 1 & 2) and anti-LIMK1 (Thr-508) (lanes 3 & 4).

Buffer and Storage:

Rabbit polyclonal, affinity-purified antibody is supplied in 100 µl phosphate-buffered saline, 50% glycerol, 1 mg/ml BSA, and 0.05% sodium azide. Store at -20°C. Do not aliquot. Stable for 1 year.

Specificity:

This antibody was affinity purified using LIMK1 (C-terminus) peptide (without carrier). The antibody detects a 72 kDa* protein corresponding to the molecular mass of LIMK1 on SDS-PAGE immunoblots of mouse recombinant LIMK1.

*All molecular weights (MW) are confirmed by comparison to Bio-Rad Rainbow Markers and to western blot mobilities of known proteins with similar MW.

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www.ecmbiosciences.com
telephone: 859-879-2075
toll-free: 1-800-859-8202
tech: info@ecmbiosciences.com

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