10320 Camino Santa Fe, Suite G
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Anti-LIMK1 (Ser-323) [LIMK2 (Ser-314)], Phosphospecific Antibody

Catalog # AN1834

Specification

Anti-LIMK1 (Ser-323) [LIMK2 (Ser-314)], Phosphospecific Antibody - Product Information

Primary Accession	P53667
Reactivity	**Bovine**
Host	**Rabbit**
Clonality	**Rabbit Polyclonal**
Isotype	**IgG**
Calculated MW	**72585**

Anti-LIMK1 (Ser-323) [LIMK2 (Ser-314)], Phosphospecific Antibody - Additional Information

Gene ID	**3984**

Other Names
LIMK

Target/Specificity
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.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Anti-LIMK1 (Ser-323) [LIMK2 (Ser-314)], Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

Anti-LIMK1 (Ser-323) [LIMK2 (Ser-314)], Phosphospecific Antibody - Protocols

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

- Western Blot

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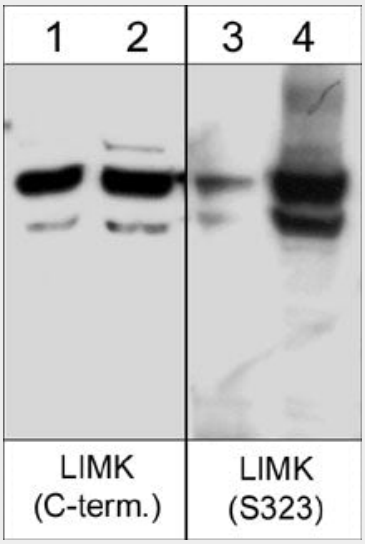
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-LIMK1 (Ser-323) [LIMK2 (Ser-314)], Phosphospecific Antibody - Images



Western blot image of human A431 cells untreated (lanes 1 & 3) or treated (lanes 2 & 4)with calyculin A (100 nM for 30 min) . The blots were probed with anti-LIMK1 (C-terminus) (lanes 1 & 2) or anti-LIMK1 (Ser-323) (lanes 3 & 4).

Anti-LIMK1 (Ser-323) [LIMK2 (Ser-314)], Phosphospecific Antibody - 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.