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LIMK1 Antibody


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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	70	Rabbit	#P53667	3984

Product Usage Information	Application Western Blotting Immunoprecipitation	Dilution 1:1000 1:50
Storage	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
Specificity / Sensitivity	LIMK1 Antibody detects endogenous levels of total LIMK1 protein independent of phosphorylation. The antibody does not cross-react with LIMK2.	
Source / Purification	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the carboxy-terminal residues of human LIMK1. Antibodies are purified by protein A and peptide affinity chromatography.	
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 (1). LIM kinases are involved in actin cytoskeletal regulation downstream of Rho-family GTPases, PAKs, and ROCK (2,3). PAK1 and ROCK phosphorylate LIMK1 or LIMK2 at the conserved Thr508 or Thr505 residues in the activation loop, increasing LIMK activity (3-5). Activated LIM kinases inhibit the actin depolymerization activity of cofilin by phosphorylation at the amino-terminal Ser3 residue of cofilin (6,7).	
Background References	1. Okano, I. et al. (1995) <i>J. Biol. Chem.</i> 270, 31321-31330. 2. Maekawa, M. et al. (1999) <i>Science</i> 285, 895-898. 3. Edwards, D. C. et al. (1999) <i>Nat. Cell Biol.</i> 1, 253-259. 4. Ohashi, K. et al. (2000) <i>J. Biol. Chem.</i> 275, 3577-3582. 5. Sumi, T. et al. (2001) <i>J. Biol. Chem.</i> 276, 670-676. 6. Arber, S. et al. (1998) <i>Nature</i> 393, 805-809. 7. Yang, N. et al. (1998) <i>Nature</i> 393, 809-812.	

Species Reactivity	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
Western Blot Buffer	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
Applications Key	WB: Western Blotting IP: Immunoprecipitation
Cross-Reactivity Key	H: human M: mouse R: rat Hm: hamster Mk: monkey Vir: virus Mi: mink C: chicken Dm: D. melanogaster X: Xenopus Z: zebrafish B: bovine Dg: dog Pg: pig Sc: S. cerevisiae Ce: C. elegans Hr: horse GP: Guinea Pig Rab: rabbit All: all species expected
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