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**Product Name: LIMK1 (1K5) Rabbit Monoclonal Antibody****Catalog #: AMRe13311**

For research use only.

**Summary**

|                      |  |
|----------------------|--|
| <b>Description</b>   | Recombinant rabbit monoclonal antibody   |
| <b>Host</b>          | Rabbit   |
| <b>Application</b>   | WB   |
| <b>Reactivity</b>    | Human  |
| <b>Conjugation</b>   | Unconjugated   |
| <b>Modification</b>  | Unmodified   |
| <b>Isotype</b>       | IgG  |
| <b>Clonality</b>     | Monoclonal   |
| <b>Form</b>          | Liquid   |
| <b>Concentration</b> | 0.5mg/ml. The concentration of this product may be batch-dependent.  |
| <b>Storage</b>       | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.  |
| <b>Shipping</b>      | Ice bags   |
| <b>Buffer</b>        | Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% New type preservative N and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle. |
| <b>Purification</b>  | Affinity purification  |

**Application**

|                         |                  |
|-------------------------|------------------|
| <b>Dilution Ratio</b>   | WB 1:1000-1:5000 |
| <b>Molecular Weight</b> | 73kDa            |

**Antigen Information**

|                          |   |
|--------------------------|---|
| <b>Gene Name</b>         | LIMK1                                     |
| <b>Alternative Names</b> | LIM kinase; LIMK 1; LIMK;                 |
| <b>Gene ID</b>           | 3984.0                                    |
| <b>SwissProt ID</b>      | P53667                                    |
| <b>Immunogen</b>         | A synthetic peptide of human LIM Kinase 1 |

**Background**

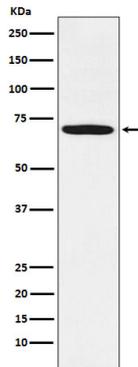
Protein kinase which regulates actin filament dynamics. Phosphorylates and inactivates the actin binding/depolymerizing

factor cofilin, thereby stabilizing the actin cytoskeleton. Stimulates axonal outgrowth and may be involved in brain development. Isoform 3 has a dominant negative effect on actin cytoskeletal changes. Serine/threonine-protein kinase that plays an essential role in the regulation of actin filament dynamics. Acts downstream of several Rho family GTPase signal transduction pathways (PubMed:10436159, PubMed:11832213, PubMed:12807904, PubMed:15660133, PubMed:16230460, PubMed:18028908, PubMed:22328514, PubMed:23633677). Activated by upstream kinases including ROCK1, PAK1 and PAK4, which phosphorylate LIMK1 on a threonine residue located in its activation loop (PubMed:10436159). LIMK1 subsequently phosphorylates and inactivates the actin binding/depolymerizing factors cofilin-1/CFL1, cofilin-2/CFL2 and destrin/DSTN, thereby preventing the cleavage of filamentous actin (F-actin), and stabilizing the actin cytoskeleton (PubMed:11832213, PubMed:15660133, PubMed:16230460, PubMed:23633677). In this way LIMK1 regulates several actin-dependent biological processes including cell motility, cell cycle progression, and differentiation (PubMed:11832213, PubMed:15660133, PubMed:16230460, PubMed:23633677). Phosphorylates TPPP on serine residues, thereby promoting microtubule disassembly (PubMed:18028908). Stimulates axonal outgrowth and may be involved in brain development (PubMed:18028908).

## Research Area

Neuroscience

## Image Data



Western blot analysis of LIM Kinase 1 expression in U-87MG cell lysate.