

Active Recombinant Human LIMK1, GST-tagged

Cat. No. LIMK1-1029H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human LIMK1 (285-638) was expressed by baculovirus in Sf9 cells using an N-terminal GST tag.
Species	Human
Source	Sf9 Cells
ProteinLength	285-638 a.a.
Description	There are approximately 40 known eukaryotic LIM proteins, so named for the LIM domains they contain. LIM domains are highly conserved cysteine-rich structures containing 2 zinc fingers. Although zinc fingers usually function by binding to DNA or RNA, the LIM motif probably mediates protein-protein interactions. LIM kinase-1 and LIM kinase-2 belong to a small subfamily with a unique combination of 2 N-terminal LIM motifs and a C-terminal protein kinase domain. LIMK1 is a serine/threonine kinase that regulates actin polymerization via phosphorylation and inactivation of the actin binding factor cofilin. This protein is ubiquitously expressed during development and plays a role in many cellular processes associated with cytoskeletal structure. This protein also stimulates axon growth and may play a role in brain development. LIMK1 hemizyosity is implicated in the impaired visuospatial constructive cognition of Williams syndrome. Alternative splicing results in multiple transcript variants encoding distinct isoforms.
Form	Recombinant protein stored in 50mM Tris-HCl, pH 7.5, 150mM NaCl, 10mM

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	glutathione, 0.1mM EDTA, 0.25mM DTT, 0.1mM PMSF, 25% glycerol.
Bio-activity	8 nmol/min/mg
Molecular Mass	~65 kDa
Purity	>95%
Applications	Kinase Assay, Western Blot
Stability	1 yr at -70°C from date of shipment.
Storage	Store product at -70°C. For optimal storage, aliquot target into smaller quantities after centrifugation and store at recommended temperature. For most favorable performance, avoid repeated handling and multiple freeze/thaw cycles.
Concentration	0.1ug/ul

GENE INFORMATION

Gene Name	LIMK1 LIM domain kinase 1 [Homo sapiens (human)]
Official Symbol	LIMK1
Synonyms	LIMK1; LIM domain kinase 1; LIMK; LIM motif-containing protein kinase; LIMK-1; NP_001191355.1; EC 2.7.11.; NP_002305.1
Gene ID	3984
mRNA Refseq	NM_002314

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Protein Refseq	NP_002305
MIM	601329
UniProt ID	P53667
Chromosome Location	7q11.23
Pathway	CDC42 signaling events; CXCR4-mediated signaling events; EPHB-mediated forward signaling; Fc gamma R-mediated phagocytosis
Function	ATP binding; heat shock protein binding; protein heterodimerization activity; protein serine/threonine kinase activity

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