

## Product datasheet for **CF502904**

### LIM Kinase 1 (LIMK1) Mouse Monoclonal Antibody [Clone ID: OTI3H6]

#### Product data:

Product Type:	Primary Antibodies
Clone Name:	OTI3H6
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB 1:500~2000, IHC 1:150, IF 1:100, FLOW 1:100
Reactivity:	Human, Monkey, Mouse, Rat
Host:	Mouse
Isotype:	IgG2b
Clonality:	Monoclonal
Immunogen:	Full length human recombinant protein of human LIMK1(NP_002305) produced in HEK293T cell.
Formulation:	Lyophilized powder (original buffer 1X PBS, pH 7.3, 8% trehalose)
Reconstitution Method:	For reconstitution, we recommend adding 100uL distilled water to a final antibody concentration of about 1 mg/mL. To use this carrier-free antibody for conjugation experiment, we strongly recommend performing another round of desalting process. (OriGene recommends Zeba Spin Desalting Columns, 7KMWCO from Thermo Scientific)
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	72.4 kDa
Gene Name:	Homo sapiens LIM domain kinase 1 (LIMK1), transcript variant 1, mRNA.
Database Link:	<a href="#">NP_002305</a> <a href="#">Entrez Gene 16885</a> <a href="#">MouseEntrez Gene 65172</a> <a href="#">RatEntrez Gene 699494</a> <a href="#">MonkeyEntrez Gene 3984</a> <a href="#">Human P53667</a>



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**Background:**

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 hemizygoty is implicated in the impaired visuospatial constructive cognition of Williams syndrome. Alternative splicing results in multiple transcript variants encoding distinct isoforms.

**Synonyms:**

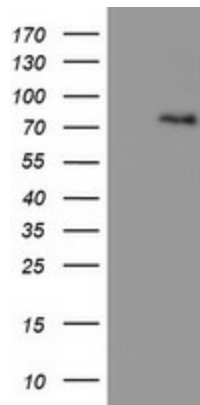
LIMK; LIMK-1

**Protein Families:**

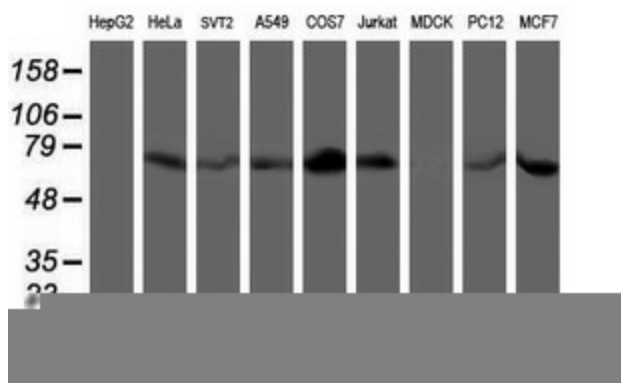
Druggable Genome, Protein Kinase

**Protein Pathways:**

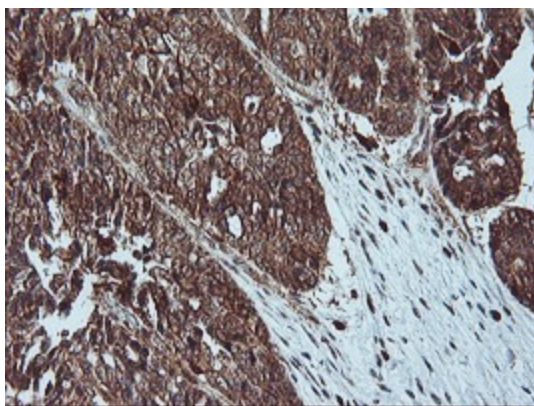
Axon guidance, Fc gamma R-mediated phagocytosis, Regulation of actin cytoskeleton

**Product images:**


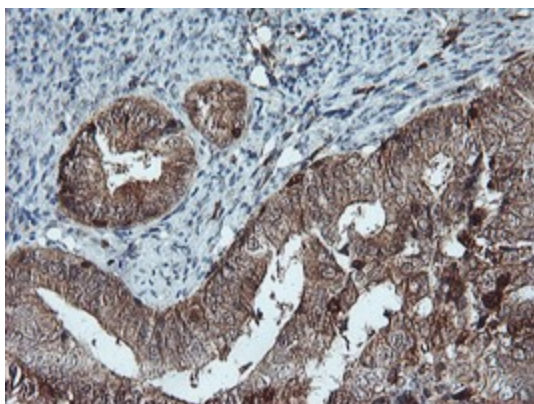
HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY LIMK1 ([RC218058], Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-LIMK1. Positive lysates [LY400838] (100ug) and [LC400838] (20ug) can be purchased separately from OriGene.



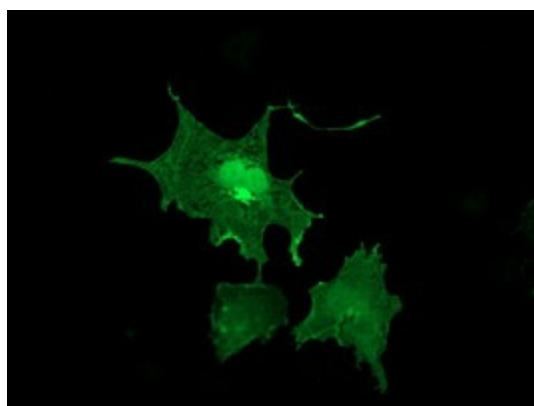
Western blot analysis of extracts (35ug) from 9 different cell lines by using anti-LIMK1 monoclonal antibody.



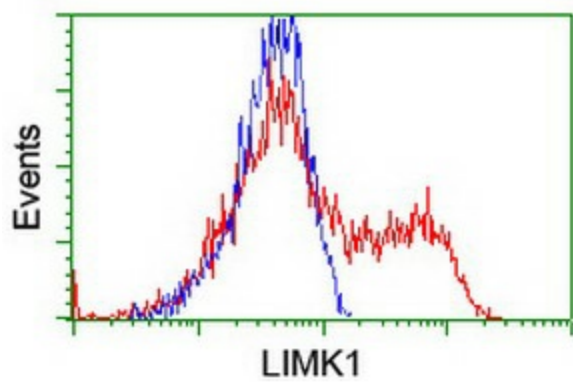
Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human ovary tissue using anti-LIMK1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA502904])



Immunohistochemical staining of paraffin-embedded Adenocarcinoma of Human endometrium tissue using anti-LIMK1 mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, [TA502904])



Anti-LIMK1 mouse monoclonal antibody ([TA502904]) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY LIMK1 ([RC218058]).



HEK293T cells transfected with either [RC218058] overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-LIMK1 antibody ([TA502904]), and then analyzed by flow cytometry.