

## Product datasheet for **TP318058L**

### LIM Kinase 1 (LIMK1) (NM\_002314) Human Recombinant Protein

#### Product data:

**Product Type:** Recombinant Proteins  
**Description:** Recombinant protein of human LIM domain kinase 1 (LIMK1), 1 mg  
**Species:** Human  
**Expression Host:** HEK293T  
**Expression cDNA Clone or AA Sequence:** >RC218058 representing NM\_002314  
**Red**=Cloning site **Green**=Tags(s)

MRLTLLCCTWREERMGEEGSELPVCASCGQRIYDGQYLQALNADWHADCFRCCDCSASLSHQYYEKDQQL  
FCKKDYWARYGESCHGCSEQITKGLVMVAGELKYHPECFICLTGTFIGDGDYTLVEHSKLYCGHCYYQ  
TVVTPVIEQILPDSPGSHLPHTVTLVSIPASSHGKRLSVSIDPPHGPPGCGTEHSHTVRVQGVDPGCMSS  
PDVKNLSIHVGDRIEINGTPIRNVPLDEIDLLIQETSRLQLTLEHDPHDTLGHGLGPETSPLSSPAYTP  
SGEAGSSARQKPVLRSCSIDRSPGAGSLGSPASQRKDLGRSESLRVVCRPHRIFRPSDLIHGEVLGKGC  
GQAIKVTHRETGEVMVMKELIRFDEETQRTFLKEVKVMRCLEHPNVLKFIGVLYKDKRLNFITEYIKGGT  
LRGIIKSMDSQYPWSQRVSAKDIASGMAYLHSMNIIHRDLNSHNCLVRENKNVWVADDFGLARLMVDEKT  
QPEGLRSLKPKDRKKRYTVVGNPNYWMAPEMINGRSYDEKVDVFSFGIVLCEIIGRVNADPDYLPRTMDFG  
LNVRGFLDRYCPNCPSPFFPITVRCCDLDEPKRPSFVKLEHWLETLRMHLAGHLPLGPQLEQLDRGFWE  
TYRRGESGLPAHPEVPD

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Tag:** C-Myc/DDK  
**Predicted MW:** 72.4 kDa  
**Concentration:** >0.05 µg/µL as determined by microplate BCA method  
**Purity:** > 80% as determined by SDS-PAGE and Coomassie blue staining  
**Buffer:** 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol  
**Preparation:** Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.  
**Note:** For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.  
**Storage:** Store at -80°C.



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**Stability:** Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

**RefSeq:** [NP\\_002305](#)

**Locus ID:** 3984

**UniProt ID:** [P53667](#)

**RefSeq Size:** 3332

**Cytogenetics:** 7q11.23

**RefSeq ORF:** 1941

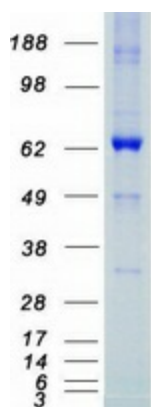
**Synonyms:** LIMK; LIMK-1

**Summary:** 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.[provided by RefSeq, Feb 2011]

**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Axon guidance, Fc gamma R-mediated phagocytosis, Regulation of actin cytoskeleton

### Product images:



Coomassie blue staining of purified LIMK1 protein (Cat# [TP318058]). The protein was produced from HEK293T cells transfected with LIMK1 cDNA clone (Cat# [RC218058]) using MegaTran 2.0 (Cat# [TT210002]).