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# Product datasheet for TP318058M

## LIM Kinase 1 (LIMK1) (NM_002314) Human Recombinant Protein

### Product data:

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| **Product Type:** | Recombinant Proteins |
| **Description:** | Recombinant protein of human LIM domain kinase 1 (LIMK1), 100 µg |
| **Species:** | Human |
| **Expression Host:** | HEK293T |
| **Expression cDNA Clone or AA Sequence:** | >RC218058 representing NM_002314<br>Red=Cloning site Green=Tags(s)<br><br>MRLTLLCCTWREERMGEEGSELPVCASCGQRIYDGQYLQALNADWHADCFRCCDCSASLSHQYYEKDGQL<br>FCKKDYWARYGESCHGCSEQITKGLVMVAGELKYHPECFICLTCGTFIGDGDTYTLVEHSKLYCGHCYYQ<br>TVVTPVIEQILPDSPGSHLPHTVTLVSIPASSHGKRGLSVSIDPPHGPPGCGTEHSHTVRVQGVDPGCMS<br>PDVKNSIHVGDRILEINGTPIRNVPLDEIDLLIQETSRLLQLTLEHDPHDTLGHGLGPETSPLSSPAYTP<br>SGEAGSSARQKPVLRSCSIDRSPGAGSLGSPASQRKDLGRSESLRVVCRPHRIFRPSDLIHGEVLGKGCF<br>GQAIKVTHRETGEVMVMKELIRFDEETQRTFLKEVKVMRCLEHPNVLKFIGVLYKDKRLNFITEYIKGGT<br>LRGIIKSMDSQYPWSQRVSFAKDIASGMAYLHSMNIIHRDLNSHNCLVRENKNVVVADFGLARLMVDEKT<br>QPEGLRSLKKPDRKKRYTVVGNPYWMAPEMINGRSYDEKVDVFSFGIVLCEIIGRVNADPDYLPRTMDFG<br>LNVRGFLDRYCPPNCPPSFFPITVRCCDLDPEKRPSFVKLEHWLETLRMHLAGHLPLGPQLEQLDRGFWE<br>TYRRGESGLPAHPEVPD<br><br>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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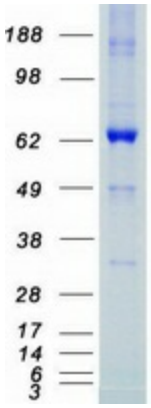
| **Stability:** | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| **RefSeq:** | NP_002305 |
| **Locus ID:** | 3984 |
| **UniProt ID:** | P53667 |
| **RefSeq Size:** | 3332 |
| **Cytogenetics:** | 7q11.23 |
| **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 hemizygosity 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]).