

Product datasheet for **RC234566**

LIM Kinase 1 (LIMK1) (NM_001204426) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LIM Kinase 1 (LIMK1) (NM_001204426) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LIM Kinase 1
Synonyms:	LIMK; LIMK-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC234566 representing NM_001204426
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCTGTTGGCTTCAGCCCCAAGAAGACGCCGCTTCTCCAGAGGGCTAAGTGTGTGACTGCAGTGCCT
 CCCTGTGCGACCACTACTATGAGAAGGATGGGCAGCTTCTGCAAGAAGGACTACTGGGCCGCTATGG
 CGAGTCTGCCATGGGTGCTCTGAGCAAATCACCAAGGGACTGGTTATGGTGGCTGGGGAGCTGAAGTAC
 CACCCCGAGTGTTCATCTGCCTCACGTGTGGACCTTTATCGGTGACGGGGACACCTACACGCTGGTGG
 AGCACTCCAAGCTGACTGCGGGCACTGCTACTACCAGACTGTGGTGACCCCGTCATCGAGCAGATCCT
 GCCTGACTCCCCTGGCTCCCACCTGCCCAACCGTCACCCTGGTGTCCATCCCAGCCTCATCTCATGGC
 AAGCGTGGACTTTCAGTCTCCATTGACCCCGCACGGCCACCGGGCTGTGGCACCGAGCACTCACACA
 CCGTCCGCGTCCAGGGAGTGGATCCGGGCTGCATGAGCCAGATGTGAAGAATCCATCCACGTCGGAGA
 CCGGATCTTGAAATCAATGGCACGCCATCCGAAATGTGCCCTGGACGAGATTGACCTGCTGATTTCAG
 GAAACCAGCCGCTGCTCCAGCTGACCCTCGAGCATGACCCTCACGATACACTGGCCACCGGGCTGGGGC
 CTGAGACCAGCCCCCTGAGCTCTCCGGCTATACTCCCAGCGGGAGGGCGGCAGCTCTGCCCGGAGAA
 ACCTGTCTTGAGGAGCTGCAGCATCGACAGGTCTCCGGGCGTGGCTCACTGGGCTCCCCGGCTCCCAG
 CGCAAGGACCTGGGTGCTCTGAGTCCCTCCGCGTAGTCTGCCGGCCACACCGCATCTTCCGGCCGTCGG
 ACCTCATCCACGGGGAGGTGCTGGGCAAGGGCTGCTTCGGCCAGGCTATCAAGGTGACACACCGTGAGAC
 AGGTGAGGTGATGGTGTGAAGGAGCTGATCCGGTTCGACGAGGAGACCCAGAGGACGTTCTCAAGGAG
 GTGAAGGTGATGCGATGCCTGGAACACCCCAACGTGCTCAAGTTCATCGGGTGCCTACAAGGACAAGA
 GGCTCAACTTCATCACTGAGTACATCAAGGGCGCACGCTCCGGGCATCATCAAGAGCATGGACGCCA
 GTACCCATGGAGCCAGAGAGTGAGCTTTGCCAAGGACATCGCATCAGGGATGGCCTACCTCCACTCCATG
 AACATCATCCACCGAGACCTCAACTCCCACAACCTGCCTGGTCCGCGAGAACAAGAATGTGGTGGTGGCTG
 ACTTCGGGCTGGCGCTCTCATGGTGGACGAGAAGACTCAGCCTGAGGGCCTGCGGAGCCTCAAGAAGCC
 AGACCGAAGAAGCGCTACACCGTGGTGGGCAACCCCTACTGGATGGCACCTGAGATGATCAACGGCCGC
 AGCTATGATGAGAAGGTGGATGTGTTCTCTTTGGGATCGTCTGTGCGAGATCATCGGGCGGGTGAACG
 CAGACCCTGACTACCTGCCCCGACCATGGACTTTGGCCTCAACGTGCGAGGATTCCTGGACCGCTACTG
 CCCCCAACTGCCCCCGAGCTTCTTCCCATCACCGTGGCTGTTGCGATCTGGACCCCGAGAAGAGG
 CCATCCTTTGTGAAGCTGGAACACTGGCTGGAGACCCTCCGATGCACCTGGCCGGCCACCTGCCACTGG
 GCCCACAGCTGGAGCAGCTGGACAGAGGTTTCTGGGAGACCTACCGCGCGGCGAGAGCGGACTGCCTGC
 CCACCCTGAGGTCCCCGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC234566 representing NM_001204426
 Red=Cloning site Green=Tags(s)

MLLASAPRRRFLQRAKCCDCSASLSHQYYEKDQQLFCKKDYWARYGESCHGCSEQITKGLVMVAGELKY
 HPECFICLTCGTFIGDGYTLVEHSLYCGHCYYQTVVTPVIEQILPDSPGSHLPHTVTLVSIASSHG
 KRGLSVSIDPPHPPGCGTEHSHTVRVQGVDPGCMSPDVKNISIHVGDRILEINGTPIRNVPLDEIDLLIQ
 ETSRLLQLTLEHDPHDTLGHGLPETSPSSPAYTPSGEAGSSARQKPVLRSCSIDRSPGAGSLGSPASQ
 RKDLGRSESLRVVCRPHRIFRPSDLIHGEVLGKCGFGQAIKVTHRETGEVMMKELIRFDEETQRTFLKE
 VKVMRCLHNPVLFKIGVLYKDKRLNFITEYIKGGTLRGIKSMDSQYPWSQRFVAKDIAAGMAYLHSM
 NIHRDLNSHNCLVRENKNVVVADFLARLMVDEKTPQPEGLRSLKPKDRKRYTVVGNPYWMAPEMINGR
 SYDEKVDVFSFGIVLCEIIGRVNADPDYLPRTMDFGLNVRGFLDRYCPNCPSPFFPITVRCCDLDEPKR
 PSFVKLEHWLETLRMHLAGHLPLGPQLEQLDRGFWETRYRRGESGLPAHPEVPD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001204426

ORF Size: 1839 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_001204426.2](#)

RefSeq Size: 3176 bp

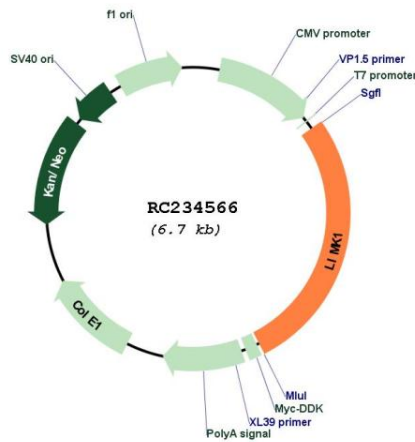
RefSeq ORF: 1842 bp

Locus ID: 3984

UniProt ID: [P53667](#)

Cytogenetics:	7q11.23
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Axon guidance, Fc gamma R-mediated phagocytosis, Regulation of actin cytoskeleton
MW:	69.2 kDa
Gene 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]

Product images:



Circular map for RC234566