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Product datasheet for SC123883

LIM Kinase 1 (LIMK1) (NM_002314) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LIM Kinase 1 (LIMK1) (NM_002314) Human Untagged Clone
Tag:	Tag Free
Symbol:	LIM Kinase 1
Synonyms:	LIMK; LIMK-1
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

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>OriGene ORF sequence for NM_002314 edited
GGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTCAGAAT
TTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGCCCGCCTCGGTCCG
CCCCTCCGCTCGCTCCCCAAGCCGCCGCGGCGCCGAGCCGGTTTCCCCGCCGGTGTCCGA
GAGGCGCCCCCGGCCCGGCCGCCCCCAGCCCCAGCCCCGCCGGGCCCCGCCCCCCGTCGA
GTGCATGAGGTTGACGCTACTTTGTTGCACCTGGAGGGAAGAACGTATGGGAGAGGAAGG
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CTATGGCGAGTCCTGCCATGGGTGCTCTGAGCAAATCACCAAGGGACTGGTTATGGTGGC
TGGGGAGCTGAAGTACCACCCCGAGTGTTTCATCTGCCTCACGTGTGGGACCTTTATCGG
TGACGGGGACACCTACACGCTGGTGGAGCACTCCAAGCTGTACTGCGGGCACTGCTACTA
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GCCCCACACCGTCACCCTGGTGTCCATCCCAGCCTCATCTCATGGCAAGCGTGGACTTTC
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CACGCTCCGGGGCATCATCAAGAGCATGGACAGCCAGTACCCATGGAGCCAGAGAGTGAG
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CTTTGCCAAGGACATCGCATCAGGGATGGCCTACCTCCACTCCATGAACATCATCCACCG
AGACCTCAACTCCCACAACTGCCTGGTCCGCGAGAACAAGAATGTGGTGGTGGCTGACTT
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GGGACCATGACTTAGGGAGGTGGGACCCACCCACCCCCATCCAGGAACCGTGACGTCCAA
GGAACCAAACCCAGACGCAGAACAATAAAATAAATTCCGTACTCCCCACCCAAAAAAAAA
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA
AAAAAAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_002314 unedited
ATAGGGCGGCCGCGAATTCGGCACGAGGCCCGCCTCGGTCCGCCCCTCCGCTCGCTCCCC
AAGCTCGCCGCGGCGCCGAGCCGGTTTCCCCGCCGGTGTCCGAGAGGCGCCCCCGGCCCG
GCCGCCCCCAGCCCCAGCCCCGCCGGGCCCCGCCCCCCGTCGAGTGCATGAGGTTGACGC
TACTTTGTTGCACCTGGAGGGAAGAACGTATGGGAGAGGAAGGAAGCGAGTTGCCCGTGT
GTGCAAGCTGCGGCCAGAGGATCTATGATGGCCAGTACCTCCAGGCCCTGAACGCGGACT
GGCACGCAGACTGCTTCAGGTGTTGTGACTGCAGTGCCTCCCTGTCGCACCAGTACTATG
AGAAGGATGGGCAGCTCTTCTGCAAGAAGGACTACTGGGCCCGCTATGGCGAGTCCTGCC
ATGGGTGCTCTGAGCAAATCACCAAGGGACTGGTTATGGTGGCTGGGGAGCTGAAGTACC
ACCCCGAGTGTTTCATCTGCCTCACGTGTGGGACCTTTATCGGTGACGGGGACACCTACA
CGCTGGTGGAGCACTCCAAGCTGTACTGCGGGCACTGCTACTACCAGACTGTGGTGACCC
CCGTCATCGAGCAGATCCTGCCTGACTCCCCTGGCTCCCAGCTGCCCCACACCGTCACCC
TGGTGTCCATCCCAGCCTCATCTCATGGCAAGCGTGGACTTTCAGTCTCCATTGACCCCC
CGCACGGCCCACCGGGCTGTGGN

Restriction Sites: NotI-NotI

ACCN: NM_002314

Insert Size: 3500 bp

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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_002314.2, NP_002305.1
RefSeq Size:	3332 bp
RefSeq ORF:	1944 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
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 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] Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments. The exon structure of the 5' UTR has been inferred from cross-species comparisons and lacks direct experimental support.