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Product datasheet for SC302595

LIM kinase 2 (LIMK2) (NM_001031801) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LIM kinase 2 (LIMK2) (NM_001031801) Human Untagged Clone
Tag:	Tag Free
Symbol:	LIMK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

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Fully Sequenced ORF:

>SC302595 representing NM_001031801.
Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGGGAGTTACTTGTCAGTCCCGGCTTACTTCACCTCCAGAGACCTGTTTCGGTGTTCAGAATGCCAG
GATTCCCTCACCAACTGGTACTATGAGAAGGATGGGAAGCTCTACTGCCCCAAGGACTACTGGGGGAAG
TTTGGGGAGTTCTGTCATGGGTGCTCCCTGCTGATGACAGGGCCTTTTATGGTGGCTGGGGAGTTCAAG
TACCACCCAGAGTGCTTTGCCTGTATGAGCTGCAAGGTGATCATTGAGGATGGGGATGCATATGCACTG
GTGCAGCATGCCACCCTCTACTGTGGGAAGTGCCACAATGAGGTGGTGCTGGCACCCATGTTTGAGAGA
CTCTCCACAGAGTCTGTTCAGGAGCAGCTGCCCTACTCTGTCACGCTCATCTCCATGCCGGCCACCACT
GAAGGCAGGCGGGGCTTCTCCGTGTCCGTGGAGAGTGCCTGCTCCAACTACGCCACCACTGTGCAAGTG
AAAGAGGTCAACCGGATGCACATCAGTCCCAACAATCGAAACGCCATCCACCCTGGGGACCGCATCCTG
GAGATCAATGGGACCCCCGTCCGCACACTTCGAGTGGAGGAGGTGGAGGATGCAATTAGCCAGACGAGC
CAGACACTTCAGCTGTTGATTGAACATGACCCCGTCTCCCAACGCCTGGACCAGCTGCGGCTGGAGGCC
CGGCTCGCTCCTCACATGCAGAATGCCGGACACCCCCACGCCCTCAGCACCCTGGACACCAAGGAGAAT
CTGGAGGGGACACTGAGGAGACGTTCCCTAAGGCGCAGTAACAGTATCTCCAAGTCCCCTGGCCCCAGC
TCCCCAAAGGAGCCCCTGCTGTTCAGCCGTGACATCAGCCGCTCAGAATCCCTTCGTTGTTCCAGCAGC
TATTCACAGCAGATCTTCCGGCCCTGTGACCTAATCCATGGGGAGGTCCTGGGGAAGGGCTTCTTTGGG
CAGGCTATCAAGGTGACACACAAAGCCACGGGCAAAGTGATGGTCATGAAAGAGTTAATTCGATGTGAT
GAGGAGACCCAGAAAACTTTTCTGACTGAGGTGAAAGTGATGCGCAGCCTGGACCACCCCAATGTGCTC
AAGTTCATTGGTGTGCTGTACAAGGATAAGAAGCTGAACCTCCTGACAGAGTACATTGAGGGGGGCACA
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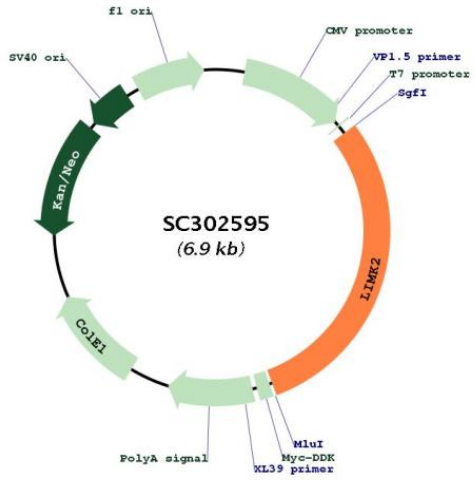
AGGGCCCCCATGGAGAAGGCCACCACCAAGAAACGCACCTTGCGCAAGAACGACCGCAAGAAGCGCTAC
ACGGTGGTGGGAAACCCCTACTGGATGGCCCCTGAGATGCTGAACGGAAAGAGCTATGATGAGACGGTG
GATATCTTCTCCTTTGGGATCGTTCTCTGTGAGATCATTGGGCAGGTGTATGCAGATCCTGACTGCCTT
CCCCGAACACTGGACTTTGGCCTCAACGTGAAGCTTTTCTGGGAGAAGTTTGTTCCCACAGATTGTCCC
CCGGCCTTCTTCCCGCTGGCCGCCATCTGCTGCAGACTGGAGCCTGAGAGCAGAGCCCCCCCCGGGGCC
GCAGGAGAGGGCCCGGGCTGCGCGGATGATGAGGGCCCAGTGAGGCGCCAAGGGAAGGTCACCATCAAG
TATGACCCCAAGGAGCTACGGAAGCACCTCAACCTAGAGGAGTGGATCCTGGAGCAGCTCACGCGCCTC
TACGACTGCCAGGAAGAGGAGATCTCAGAACTAGAGATTGACGTGGATGAGCTCCTGGACATGGAGAGT
GACGATGCCTGGGCTTCCAGGGTCAAGGAGCTGCTGGTTGACTGTTACAAACCCACAGAGGCCTTCATC
TCTGGCCTGCTGGACAAGATCCGGGCCATGCAGAAGCTGAGCACACCCCAGAAGAAGTGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites: SgfI-MluI

Plasmid Map:



ACCN:	NM_001031801
Insert Size:	2061 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).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
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_001031801.1
RefSeq Size:	2914 bp
RefSeq ORF:	2061 bp
Locus ID:	3985
UniProt ID:	P53671
Cytogenetics:	22q12.2

Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Axon guidance, Fc gamma R-mediated phagocytosis, Regulation of actin cytoskeleton
MW:	77.9 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. The protein encoded by this gene is phosphorylated and activated by ROCK, a downstream effector of Rho, and the encoded protein, in turn, phosphorylates cofilin, inhibiting its actin-depolymerizing activity. It is thought that this pathway contributes to Rho-induced reorganization of the actin cytoskeleton. At least three transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008] Transcript Variant: This variant (1) encodes the longest isoform (1).