

Product datasheet for **RG217705**

LIM kinase 2 (LIMK2) (NM_005569) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LIM kinase 2 (LIMK2) (NM_005569) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LIM kinase 2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG217705 representing NM_005569
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCGCGCTGGCGGGTGAAGATGTCTGGAGGTGTCAGGCTGTGGGGACCACATTGCTCCAAGCCAGA
 TATGGTACAGGACTGTCAACGAAACCTGGCACGGCTCTTGCTTCCGGTGTTCAGAATGCCAGGATCCCT
 CACCAACTGGTACTATGAGAAGGATGGGAAGCTCTACTGCCCAAGGACTACTGGGGGAAGTTTGGGGAG
 TTCTGTATGGGTGCTCCCTGCTGATGACAGGGCCTTTTATGGTGGCTGGGGAGTTCAAGTACCACCCAG
 AGTGCTTTGCCTGTATGAGCTGCAAGGTGATCATTGAGGATGGGGATGCATATGCACTGGTGACGATGC
 CACCCTACTGTGGGAAGTGCCACAATGAGGTGGTGTGGCACCCATGTTTGGAGACTCTCCACAGAG
 TCTGTTCCAGGAGCAGCTGCCCTACTCTGTACGCTCATCTCCATGCCGGCCACCCTGAAGGCAGGCGGG
 GCTTCTCCGTGTCCGTGGAGAGTGCCTGCTCCAACCTACGCCACCCTGTGCAAGTAAAGAGGTCAACCG
 GATGCACATCAGTCCCAACAATCGAAACGCCATCCACCCTGGGGACCGCATCCTGGAGATCAATGGGACC
 CCCGTCGCCACACTTCGAGTGGAGGAGGTGGAGGATGCAATTAGCCAGACGAGCCAGACACTTCAGCTGT
 TGATTGAACATGACCCCGTCTCCCAACGCCTGGACCAGCTGCGGGCTGGAGGCCCGGCTCGCTCCTCACAT
 GCAGAATGCCGGACACCCACGCCCTCAGCACCTGGACACCAAGGAGAATCTGGAGGGGACACTGAGG
 AGACGTTCCCTAAGGCGCAGTAACAGTATCTCCAAGTCCCTGGCCCCAGCTCCCAAAGGAGCCCTGCT
 TGTTCCAGCCGTGACATCAGCCGCTCAGAATCCCTTCGTTGTTCCAGCAGTATTCACAGCAGATCTTCCG
 GCCCTGTGACCTAATCCATGGGGAGTCTGGGAAGGGCTTCTTTGGGCAGGCTATCAAGGTGACACAC
 AAAGCCACGGGCAAAGTGATGGTCATGAAAGAGTTAATTCGATGTGATGAGGAGACCCAGAAAACCTTTTC
 TGACTGAGGTGAAAGTGATGCGCAGCCTGGACCACCCAATGTGCTCAAGTTCAATGGTGTGCTGTACAA
 GGATAAGAAGCTGAACCTGCTGACAGAGTACATTGAGGGGGGCACACTGAAGGACTTTCTGCGCAGTATG
 GATCCGTTCCCTGGCAGCAGAAGTCAAGTTTGCCTCCGAATGGCCTATTTGCACT
 CTATGTGCATCATCCACCGGATCTGAACTCGCACAACCTGCCTCATCAAGTTGGACAAGACTGTGGTGGT
 GGCAGACTTTGGGCTGTACGGCTCATAGTGGAAGAGAGGAAAAGGGCCCCCATGGAGAAGGCCACCACC
 AAGAAACGCACCTTGCAGCAAGAACGACCGCAAGAAGCGCTACACGGTGGTGGGAAACCCCTACTGGATGG
 CCCCTGAGATGCTGAACGGAAAGAGCTATGATGAGACGGTGGATATCTTCTCCTTTGGGATCGTTCTCTG
 TGAGATCATTGGCAGGTGTATGCAGATCCTGACTGCCTTCCCCGAACACTGGACTTTGGCCTCAACGTG
 AAGCTTTTCTGGGAGAAGTTTGTCCCACAGATTGTCCCCGGCCTTCTTCCCGTGGCCGCATCTGCT
 GCAGACTGGAGCCTGAGAGCAGACCAGCATTCTCGAAATTGGAGGACTCCTTTGAGGCCCTCTCCCTGTA
 CCTGGGGGAGCTGGGCATCCCGCTGCCTGCAGAGCTGGAGGAGTTGGACCACACTGTGAGCATGCAGTAC
 GGCTGACCCGGGACTCACCTCCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_005569

ORF Size: 1914 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_005569.2](#)

RefSeq Size: 3701 bp

RefSeq ORF: 1917 bp

Locus ID: 3985

UniProt ID: [P53671](#)

Cytogenetics: 22q12.2

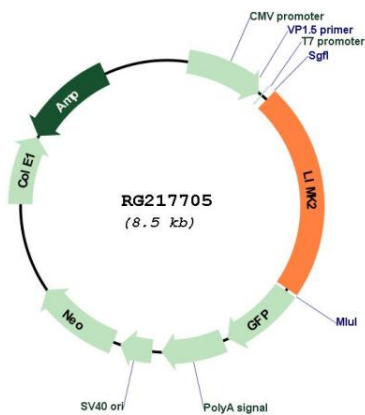
Domains: pkinase, TyrKc, PDZ, LIM, S_TKc

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. 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]

Product images:



Circular map for RG217705