

## Product datasheet for RC218058L1

#### OriGene Technologies, Inc.

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## LIM Kinase 1 (LIMK1) (NM\_002314) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: LIM Kinase 1 (LIMK1) (NM\_002314) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: LIM Kinase 1

Synonyms: LIMK; LIMK-1

Mammalian Cell None

Selection:

Vector:pLenti-C-Myc-DDK (PS100064)E. coli Selection:Chloramphenicol (34 ug/mL)

ORF Nucleotide

The ORF insert of this clone is exactly the same as(RC218058).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF.

ACCN: NM\_002314

ORF Size: 1941 bp



### LIM Kinase 1 (LIMK1) (NM\_002314) Human Tagged Lenti ORF Clone - RC218058L1

**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:** <u>NM 002314.2</u>

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

**MW:** 72.4 kDa

**Gene Summary:** There are approximately 40 known eukaryotic LIM proteins, so named for the LIM domains

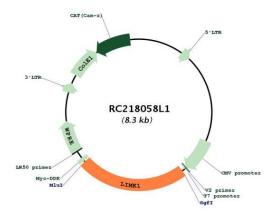
they contain. LIM domains are highly conserved cysteine-rich structures containing 2 zinc fingers. Although zinc fingers usually function by binding to DNA or RNA, the LIM motif probably mediates protein-protein interactions. LIM kinase-1 and LIM kinase-2 belong to a small subfamily with a unique combination 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 hemizygosity is implicated in the impaired visuospatial constructive cognition of Williams syndrome. Alternative splicing results in multiple transcript

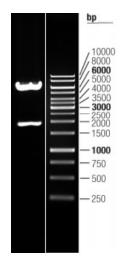
variants encoding distinct isoforms.[provided by RefSeq, Feb 2011]



# **Product images:**



Circular map for RC218058L1



Double digestion of RC218058L1 using Sgfl and Mlul  $\,$