

## Product datasheet for **MR218523**

### Lactb (NM\_030717) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Lactb (NM_030717) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Lactb
Synonyms:	LACT-1; Lact1; Mrpl56
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR218523 representing NM\_030717  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGTACCGGCTCCTGTCAAGCGTGACAGCTCGGGTCTCGGCCACCGCAGGCCAGCTGGGACGGAGGGC  
 GGC GCGGGGCGCACAGGCGACCGGGCTGCCTGTGCTGGCCCTGGTTGGGCCGGCGGCCTGGGGCTCGG  
 GCTGGGGCTGGCTCTCGGCGGAAGCTGGTGGTGGGGCTGCGGGGCGCCGTCCTCCATTAGTCCCCCGCG  
 GACCCCGAGGCGTCCGGCACTACCGAGTTATCGCACGAGCAGGCCCTGAGCCCGGGAGCCCGCACACGC  
 CTGCGCCGCCAGCAGCCAGGGGCTTCTCCAGAGCCATCGAGAGCAGCCGCGATCTGCTACACCGGATCAA  
 GGATGAGGTTGGTCCCGGCATCGTGGTTGGAGTTTCTGTAGATGGAAAAGAAGTCTGGTCAGAAGGT  
 TTAGGCTATGCAGACGTGGAGAACCGCTACCTGTAAGCCAGAAACGGTCATGAGAATCGCAAGCATCA  
 GCAAAAGCCTCACCATGGTGGCTCTGGCTAAACTGTGGGAAGCAGGAAGCTGGATCTGGACCTTCTGT  
 GCAGCACTATGTTCCCGAGTTCAGAAAAAGAATACGAGGGTAAAAGGTTTCTGTGCAACAAGATTA  
 CTAATTCGCATTTAAGTGAATTCGTCTATTGAAAAGGACATAAAGAAAGTAAAAGAAGAAAAGCTT  
 ATAAAGCCCTGAAGATGGTAAAAGGGACCCCGCCACCATCTGACCAAGAAAAAGAACTGAAAAGAAAAGG  
 AGGCAAAAACAAGAAAAGAGCGACGCCAGAAAGCCAAAGTTCGAGCAGGACAGCGAAGCCAGATGCCGC  
 AGCGCAAGCCAGGCAAGAAAAGAATGACTTCGAACAAGGCGAATTTGATTTGAAAAGAAAAGTTTGAAA  
 ATTC AATTGAATCACTAAGATTATTTAAAAATGACCCTTTATTCTTTAAACCTGGTAGTCAGTTTTTGT  
 TTCAACGTTTGGCTACTCTGCTGGCAGCCATAGTAGAAAGAGCTTCAGGATATAAATATTTGGATTAT  
 ATGCAGAAAATTTCCATGATTTGGACATGCTGACAACGTCCAGGAGGAAAACGAGCCAGTGATTTACA  
 ACAGAACAAAGATTTTACGTGTACAATAAAAAGAAACGTCTGTCAACACACCTTACGTGGATAACTCTTA  
 TAAATGGGCTGGTGGGATTTCTGTCCACAGTGGGTGACCTCCTGAAATTTGAAAACGCAATGCTGTAT  
 GGCTACCAAGTTGGGAGTTTAAGAACTCAAATGAAAATCTCTTGCCTGGATATCTCAAGCCAGAAAACA  
 TGGTGATGATGTGGACCCAGTCCCTAACACAGAGATGCTCCTGGGATAAAGAGGGGAAAATATGCAATGGC  
 GTGGGGTGTGGTAGAGAAGAAGCAAACGTACGGATCCTGCAGGAAGCAGCGGCCTACGCTCACATACT  
 GGAGGTGCTGTGGGTGCCAGTAGTGTCTGCTGGTCTTCTGAAAGAACTGGACTCAGAGGCCGTAATA  
 ACAAGGTTCCCCACGAGGAATAATCGTCTCTATCATATGCAACATGCAGTCTGTGGGGCTCAATAGCAC  
 TGCTTTGAAGATCGCTCTGGAATTTGATAAAGACAGAGCTGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>MR218523 representing NM\_030717  
 Red=Cloning site Green=Tags(s)

MYRLLSSVTARAAATAGPAWDGRRGAHRRPGLPVLGLGWAGGLGLGLLALGAKLVVGLRGAVPIQSPA  
 DPEASGTTTEL SHEQALSPGSPHTPAPPAARGFSRAIESSRDLLHRIKDEVGAPGIVVGVSDGKEVWSEG  
 LGYADVENRVPCKPETVMRIASISKSLTMMALAKLWEAGKLDLDPVQHYVPEFPEKEYEGEKVSVTTRL  
 LISHLSGIRHYEKDIKKVKEEKAYKALKMVKGTPPPSDQEKELKEKGKNNKSDAPKAKVEQDSEARCR  
 SAKPGKKKNDFEQGELYLKEKFENSIESLRLFKNDPLFFKPGSQFLYSTFGYTLAAIVERASGYKYLDY  
 MQKIFHDL DMLTTVQEENEPVIYNRARFYVYNKKRLVNTPYVDNSYKWAGGGFLSTVGDLLKFGNAMLY  
 GYQVQGFKNSNENLLPGYLKPE TMMWTPVPNTEMSWDKEGKYAMAWGVVEKKQTYGSCRKQRHYASHT  
 GGAVGASSVLLVLP EELDSEAVNNKVPPRGIIVSIICNMQSVGLNSTALKIALEFDKDRAD

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mm9091\\_c02.zip](https://cdn.origene.com/chromatograms/mm9091_c02.zip)

**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



ACCN: NM\_030717

ORF Size: 1653 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\\_030717.1](#), [NP\\_109642.1](#)

RefSeq Size: 2031 bp

RefSeq ORF: 1656 bp

Locus ID: 80907

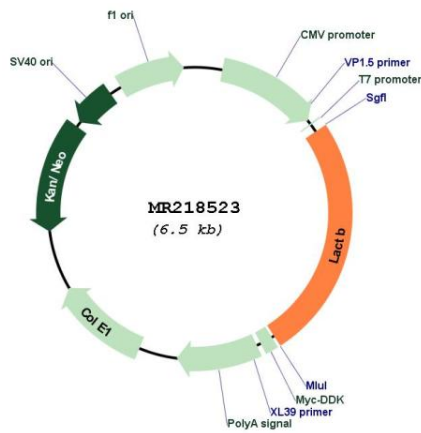
UniProt ID: [Q9EP89](#)

**Cytogenetics:** 9 C

**MW:** 60.7 kDa

**Gene Summary:** Mitochondrial serine protease that acts as a regulator of mitochondrial lipid metabolism (By similarity). Acts by decreasing protein levels of PISD, a mitochondrial enzyme that converts phosphatidylserine (PtdSer) to phosphatidylethanolamine (PtdEtn), thereby affecting mitochondrial lipid metabolism (By similarity). It is unclear whether it acts directly by mediating proteolysis of PISD or by mediating proteolysis of another lipid metabolism protein (By similarity). Acts as a tumor suppressor that has the ability to inhibit proliferation of multiple types of cancer cells: probably by promoting decreased levels of PISD, thereby affecting mitochondrial lipid metabolism (PubMed:28329758).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MR218523