

Product datasheet for **MG218523**

Lactb (NM_030717) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lactb (NM_030717) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Lactb
Synonyms:	LACT-1; Lact1; Mrpl56
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG218523 representing NM_030717
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTACCGGCTCCTGTCAAGCGTGACAGCTCGGGTCTCGGCCACCGCAGGCCAGCTGGGACGGAGGGC
 GCGCGGGGGCGCACAGGCGACCGGGCTGCCTGTGCTGGGCTTGGTTGGGCCGGCGGCCTGGGGCTCGG
 GCTGGGGCTGGCTCTCGGCGGAAGCTGGTGGTGGGGCTGCGGGGCGCCGTCCTCCATTAGTCCCCCGCG
 GACCCCGAGGCGTCCGGCACTACCGAGTTATCGCACGAGCAGGCCCTGAGCCTGGGGAGCCCGCACACGC
 CTGCGCCGCCAGCAGCCAGGGGCTTCTCCAGAGCCATCGAGAGCAGCGGCATCTGCTACACCGGATCAA
 GGATGAGGTTGGTCCCGGCATCGTGGTTGGAGTTTCTGTAGATGGAAAAGAAGTCTGGTCTGAGAGGT
 TTAGGCTATGCAGACGTGGAGAACCAGTACCCTGTAACCAGAAACGGTATGAGAATCGCAAGCATCA
 GCAAAAGCCTCACCATGGTGGCTCTGGCTAAACTGTGGGAAGCAGGAAGCTGGATCTGGACCTTCTGT
 GCAGCACTATGTTCCCGAGTTCAGAAAAAGAATACGAGGGTAAAAGGTTTCTGTACACAAGATTA
 CTAAATTCACATTTAAGTGAATTCGTCATTATGAAAAGGACATAAAGAAAGTAAAAGAAGAAAAGCTT
 ATAAAGCCCTGAAGATGGTAAAAGGGACCCCGCCACCGCTGACCAAGAAAAAGAACTGAAAAGAAAAGG
 AGGCAAAAACAAGAAAAGAGCGACACCCGAAAGCCAAAGCCGAGCAGGACAGCGAAGCCAGATGCCGC
 AGCGCGAAGCCAGGCAAGAAAAAGAAATGACTTCGAACAAGGCGAATTGATTTGAAAAGAAAAGTTTGAAA
 ATTCATTTGAATCACTAAGATTATTTAAAAATGACCCTTTATTCTTTAAACCTGGTAGTCAGTTTTTGTA
 TTCAACGTTTGGCTATACTCTGCTGGCAGCCATAGTAGAAAGAGCTTCAGGATATAAATATTTGGATTAT
 ATGCAGAAAATTTCCATGATTTGGACATGCTGACAACGTCCAGGAGGAAAACGAGCCAGTGATTTACA
 ACAGAGCAAGATTTACGTGTACAATAAAAAGAAACGCTTGTCAACACACCTTACGTGGATAACTCCTA
 TAAATGGGCTGGTGGTGAATTTCTGTCCACAGTGGGTGACCTCCTGAAATTTGAAAACGCAATGCTGTAT
 GGCTACCAAGTTGGCAGTTTAAGAACTCAAATGAAAATCTCTTGCCTGGATATCTCAAGCCAGAAACGA
 TGGTGATGATGTGGACCCAGTCCCTAACACAGAGATGCTCTGGGATAAAGAGGGGAAAATATGCAATGGC
 GTGGGGTGTGGTAGAGAAGAAGCAACGTACGGATCCTGCAGGAAGCAGCGGCCTACGCTCACATACT
 GGAGGTGCTGTGGGTGCCAGTAGTGTCTGCTGGTCTACCTGAAGAAGTGGACTCAGAGGCCGTAATA
 ACAAGGTTCCCCACGAGGAATAATCGTCTCTATCATATGCAACATGCAGTCTGTGGGGCTCAATAGCAC
 TGCTTTGAAGATCGCTCTGGAATTTGATAAAGACAGAGCTGAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG218523 representing NM_030717
 Red=Cloning site Green=Tags(s)

MYRLSSVTARAATAGPAWDGRRGAHRRPGLPVLGLGWAGGLGLGLLALGAKLVVGLRGAVPIQSPA
 DPEASGTTLSHEQALSLSGSPHPAPPAARGFSRAIESSDLLHRIKDEVGAPGIVVGVSDGKEVWSEG
 LGYADVENRVPCKPETVMRIASISKSLTMVALAKLWEAGKLDLDPVQHYVPEFPEKEYEKEKVSVTTRL
 LISHLSGIRHYEKDIKKVKEEKAYKALKMVKGTPPPDQEKELKEKGGKNEKSDTPKAKAEQDSEARCR
 SAKPGKKKNDFEQGYELYLKEKFENSIESLRLFKNDPLFFKPGSQFLYSTFGYTLAAIVERASGYKYLDY
 MQKIFHDLDMLETTVQEEPEVPIYNRRFYVYNNKKRLVNTPYVDNSYKWAGGGFLSTVGDLLKFGNAMLY
 GYQVQGFKNSNENLLPGYLKPEMTMMWTPVPNTEMSWDKEGKYAMAWGVVEKKQTYGSCRKQRHYASHT
 GGAVGASSVLLVLPPELDSEAVNNKVPPIIIVSIICNMQSVGLNSTALKIALEFDKDRAD

TRTRPLE - GFP Tag - V

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

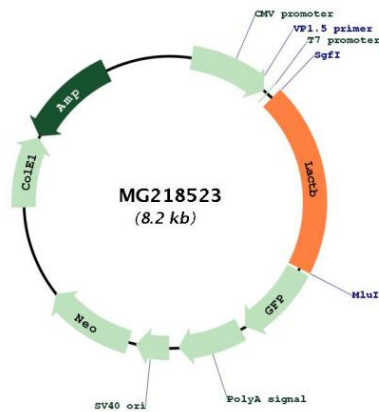
Locus ID: 80907

UniProt ID: [Q9EP89](#)

Cytogenetics: 9 C

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 MG218523