

Product datasheet for MR222878

Lamp2 (NM_001017959) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Lamp2 (NM_001017959) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Lamp2
Synonyms: CD107b; Lamp-2; Lamp-2a; Lamp-2b; Lamp-2c; Lamp II; LGP-B; Mac3
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR222878 representing NM_001017959
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTGCCCTCTCCGGTTAAAGGCGCAAAGCTCATCCTGATCTTTCTGTTCTAGGAGCCGTTTCAGTCCA
 ATGCATTGATAGTTAATTTGACAGATTCAAAGGGTACTTGCCTTTATGCAGAATGGGAGATGAATTCAC
 AATAACATATGAACTACAAACCAACCAATAAACTATAACCATTGCAGTACCTGACAAGGCGACACAC
 GATGGAAGCAGTTGTGGGATGACCGGAATAGTGCCAAAATAATGATACAATTTGGATTCTGTCTCTT
 GGGCTGTGAATTTACCAAGGAAGCATCTCATTATTCAATTCATGACATCGTGTCTTCTACAACACTAG
 TGATAGCACAGTATTTCCCTGGTGTGTAGCTAAAGGAGTTCATACTGTTAAAAATCCTGAGAATTTCAA
 GTTCCATTGGATGTCATCTTTAAGTGCAATAGTGTTTAACTTACAACCTGACTCCTGTCGTTTCAGAAAT
 ATTTGGGTATTCACCTGCAAGCTTTTGTCCAAAATGGTACAGTGAGTAAAAATGAACAAGTGTGTGAAGA
 AGACAAACTCCCACCACTGTGGCACCCATCATTACACCACTGCCCGTCGACTACAACACTCACTCACT
 CCAACTTCAACACCACTCCAACCTCAACTCCAACCTCAACCGTTGAAAACACTACAGCATTAGAAATGGCA
 ATACTACCTGTCTGTGGCTACCATGGGGCTGCAGCTGAACATCACTGAGGAGAAGTGCCTTTTCATTTT
 TAACATCAACCCCTGCCACAACCAACTTCACCGGACGCTGTCAACCTCAAAGTGTCAACTTAGGCTGAAC
 AACAGCCAAATTAAGTATCTTGACTTTTATCTTTGCTGTGAAAAATGAAAAACGGTTCTATCTGAAGGAAG
 TGAATGTCTACATGTATTTGGCTAATGGCTCAGCTTTCAACATTTCCAACAAGAACCTTAGCTTCTGGGA
 TGCCCTCTGGGAAGTTCTTATATGTGCAACAAAGAGCAGGTGCTTTCTGTGTCTAGAGCGTTTCAGATC
 AACACCTTAACTAAAGGTGCAACCTTTTAAATGTGACAAAAGGACAGTATTCTACAGCTCAAGACTGCA
 GTGCAGATGAAGACAACCTCCTTGTGCCATAGCGGTGGGAGCAGCTCTGGGAGGAGTACTTATTCTAGT
 GTTGCTGGCTATTTTATTGGTCTCAAGCGCCATCATACTGGATATGAGCAATTT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR222878 representing NM_001017959
 Red=Cloning site Green=Tags(s)

MCLSPVKGAKLILIFLFLGAVQSNALIVNLTDSKGTCLYAEWEMNFTITYETTNQTNKTITIAVPDKATH
 DGSSCGDDRRNSAKIMI QFGFAVSWAVNFKEASHYSIHDI VLSYNTSDSTVFP GAVAKGVHTVKNPENFK
 VPLDVI FKCNSVLTYNLTPVVQKYWGIHLQAFVQNGTVSKNEQVCEEDQTPPTTVAPIIHTTAPSTTTTLT
 PTSTPTPTPTPTPTVGNYSIRNGNTTCLLATMGLQLNITEEKVPIFNINPATTNFTGSCQPQSAQLRLN
 NSQIKYLDIFIFAVKNEKRFY LKEVNVMYLANGSAFNISNKNLSFWDAPL GSSYMCNKEQVLSVSRAFQI
 NTFNLKVQPFNVTKGQYSTAQDCSADEDNFLVPIAVGAALGGV LILVLLAYF IGLKRHHTGYEQF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/ja1446_h06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001017959

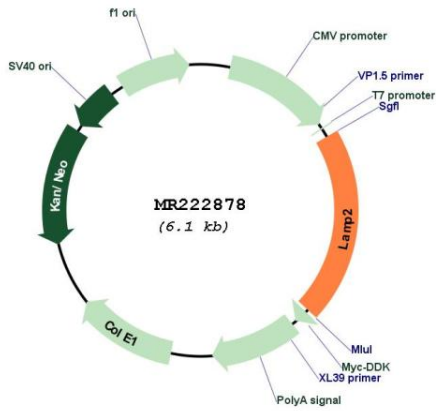
ORF Size: 1245 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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:	<ol style="list-style-type: none">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_001017959.2
RefSeq Size:	1768 bp
RefSeq ORF:	1248 bp
Locus ID:	16784
UniProt ID:	P17047
Cytogenetics:	X 22.67 cM
MW:	46.1 kDa
Gene Summary:	<p>Plays an important role in chaperone-mediated autophagy, a process that mediates lysosomal degradation of proteins in response to various stresses and as part of the normal turnover of proteins with a long biological half-live (PubMed:10972293). Functions by binding target proteins, such as GAPDH and MLLT11, and targeting them for lysosomal degradation (By similarity). Required for the fusion of autophagosomes with lysosomes during autophagy (PubMed:27628032). Cells that lack LAMP2 express normal levels of VAMP8, but fail to accumulate STX17 on autophagosomes, which is the most likely explanation for the lack of fusion between autophagosomes and lysosomes (PubMed:27628032). Required for normal degradation of the contents of autophagosomes (PubMed:10972293, PubMed:12221139). Plays a role in lysosomal protein degradation in response to starvation (PubMed:27628032). Required for efficient MHCII-mediated presentation of exogenous antigens via its function in lysosomal protein degradation; antigenic peptides generated by proteases in the endosomal/lysosomal compartment are captured by nascent MHCII subunits. Is not required for efficient MHCII-mediated presentation of endogenous antigens (By similarity).</p> <p>[UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR222878