

Product datasheet for **MR229796**

Lamp2 (NM_001290485) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Lamp2 (NM_001290485) 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: >MR229796 representing NM_001290485
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTGCCCTCTCCGGTTAAAGGCGCAAAGCTCATCCTGATCTTTCTGTTCTAGGAGCCGTTTCAGTCCA
ATGCATTGATAGTTAATTTGACAGATTCAAAGGGTACTTGCCTTTATGCAGAATGGGAGATGAATTCAC
AATAACATATGAACTACAAACCAACCAATAAACTATAACCATTGCAGTACCTGACAAGGCGACACAC
GATGGAAGCAGTTGTGGGATGACCGGAATAGTGCCAAAATAATGATACAATTTGGATTCGCTGTCTCTT
GGCTGTGAATTTACCAAGGAAGCATCTCATTATTCAATTCATGACATCGTGCTTTCCTACAACACTAG
TGATAGCACAGTATTTCCCTGGTGTGTAGCTAAAGGAGTTCATACTGTTAAAAATCCTGAGAATTTCAA
GTTCCATTGGATGTCATCTTTAAGTGCAATAGTGTTTAACTTACAACCTGACTCCTGTCGTTTCAGAAAT
ATTGGGGTATTACCTGCAAGCTTTTGTCCAAAATGGTACAGTGAGTAAAAATGAACAAGTGTGTGAAGA
AGACAAACTCCCACCACTGTGGCACCCATCATTACACCACTGCCCCGTCGACTACAACACTCACTCACT
CCAACCTCAACACCCACTCCAACCTCAACCTCAACCTCAACCGTTGAAAACACTACAGCATTAGAAATGGCA
ATACTACCTGTCTGTGGCTACCATGGGGCTGCAGCTGAACATCACTGAGGAGAAGTGCCTTTTCATTTT
TAACATCAACCCCTGCCACAACCAACTTCACCGGACGCTGTCAACCTCAAAGTGTCAACTAGGCTGAAC
AACAGCCAAATTAAGTATCTTGACTTTTATCTTTGCTGTGAAAAATGAAAAACGGTTCTATCTGAAGGAAG
TGAATGTCTACATGTATTTGGCTAATGGCTCAGCTTTCAACATTTCCAACAAGAACCTTAGCTTCTGGGA
TGCCCTCTGGGAAGTTCTTATATGTGCAACAAAGAGCAGGTGCTTTCTGTGTCTAGAGCGTTTCAGATC
AACACCTTTAACCTAAAGGTGCAACCTTTTAAATGTGACAAAAGGACAGTATTCTACAGCTGAGGAATGTG
CTGCTGACTCTGACCTCAACTTTCTTATTCCTGTTGCAGTGGGTGTGGCCTTGGGCTTCTTATAATTGC
TGTGTTTATATCTTACATGATTGGAAGACGAAAAAGTCGACTGGTTATCAGTCTGTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



[View online »](#)

Protein Sequence: >MR229796 representing NM_001290485
 Red=Cloning site Green=Tags(s)

MCLSPVKGAKLILIFLFLGAVQSNALIVNLTDSKGTCLYAEWEMNFTITYETTNTKNTITIAVPDKATH
 DGSSCGDDRRNSAKIMIQFGFAVSWAVNFTKEASHYSIHDIIVLSYNTSDSTVFPGAVAKGVHTVKNPENFK
 VPLDVIKFCNSVLTYNLTPVVQKYWGIHLQAFVQNGTVSKNEQVCEEDQTPPTTVAPIIHTTAPSTTTTLT
 PTSTPTPTPTPTPTVGNYSIRNGNTTCLLATMGLQLNITEEKVPIFNINPATTNFTGSCQPQSAQLRLN
 NSQIKYLDLDFIFAVKNEKRFYKLVNVMYMLANGSAFNISNKNLSFWDAPLGSSYMCNKEQVLSVSRAFQI
 NTFNLKVQPFNVTKGQYSTAECAADSDLNFLIPVAVGVALGFLIIAVFISYMIGRRKSRTGYQSV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001290485

ORF Size: 1248 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_001290485.2](#)

RefSeq Size: 2206 bp

RefSeq ORF: 1251 bp

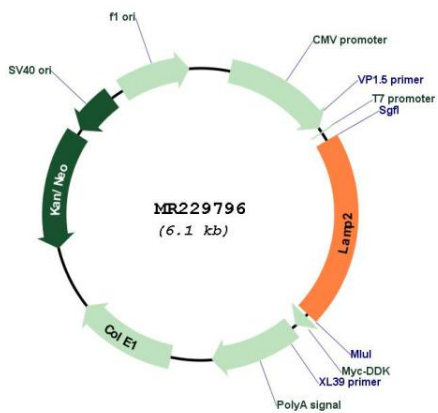
Locus ID: 16784

Cytogenetics: X 22.67 cM

MW: 45.8 kDa

Gene Summary: 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-life (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). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR229796