

## Product datasheet for RC221216

### LAMP2 (NM\_002294) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	LAMP2 (NM_002294) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	LAMP2
Synonyms:	CD107b; DND; LAMP-2; LAMPB; LGP-96; LGP110
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC221216 representing NM_002294 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGTGTGCTTCCGCTCTTCCCGGTTCCGGGCTCAGGGCTCGTTCTGGTCTGCCTAGTCTGGGAGCTG  
TGCGGTCTTATGCATTGGAACCTAATTTGACAGATTGAGAAAATGCCACTTGCCTTTATGCAAAATGGCA  
GATGAATTTACAGTACGCTATGAACTACAAATAAACTTATAAACTGTAACCATTTAGACCATGCGC  
ACTGTGACATATAATGGAAGCATTGTGGGGATGATCAGAATGGTCCCAAAATAGCAGTGCAGTTCGGAC  
CTGGCTTTTCTGGATTGCGAATTTTACCAAGGCAGCATCTACTTATTCAATTGACAGCGTCTCATTTC  
CTACAACACTGGTGATAACACAACATTTCTGATGCTGAAGATAAAGGAATTCCTACTGTTGATGAACCT  
TTGGCCATCAGAATTCATTGAATGACCTTTTTAGATGCAATAGTTTATCAACTTTGGAAAAAATGATG  
TTGTCCAACACTACTGGGATGTTCTTGTACAAGCTTTTGTCCAAAATGGCACAGTGGACAAAATGAGTT  
CCTGTGTGATAAAGACAAAACCTCAACAGTGGCACCCACCACACACACTGTGCCATCTCCTACTACA  
ACACCTACTCCAAAGGAAAAACCAAGCTGGAACCTATTCAGTTAATAATGGCAATGATACTTGTCTGC  
TGGCTACCATGGGGCTGCAGTGAACATCACTCAGGATAAGGTTGCTTCAGTTATTAACATCAACCCCAA  
TACAACCTACTCCACAGGCAGCTGCCGTTCTCACACTGCTCTACTTAGACTCAATAGCAGCACCATTAAG  
TATCTAGACTTTTGTCTTTGCTGTGAAAAATGAAAACCGATTTTATCTGAAGGAAGTGAACATCAGCATGT  
ATTTGGTTAATGGCTCCGTTTTACGATTGCAAAATAACAATCTCAGTACTGGGATGCCCCCTGGGAAG  
TTCTTATATGTGCAACAAAGAGCAGACTGTTTTCAGTGTCTGGAGCATTTCAGATAAATACCTTTGATCTA  
AGGGTTACGCTTTCAATGTGACACAAGGAAAGTATTCTACAGCTCAAGACTGCAGTGCAGATGACGACA  
ACTTCCTTGTGCCATAGCGGTGGGAGCTGCCTTGGCAGGAGTACTTATTCTAGTGTGCTGGCTTATTT  
TATTGGTCTCAAGCACCATCATGCTGGATATGAGCAATTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC221216 representing NM\_002294  
Red=Cloning site Green=Tags(s)

MVCFRLFPVPGSGLVLVCLVLGAVRSYALELNLTDSENATCLYAKWQMNFTVRYETTNKYKTVTISDHG  
 TVTYNGSICGDDQNGPKIAVQFGPGFSWIANFKAASTYSIDSVFSYNTGDNTTFPDAEDKGILTVDEL  
 LAIRIPLNDLFRCNLSLLEKNDVVQHYWDVLVQAFVQNGTVSTNEFLCDKDKTSTVAPTIHTTVPSPPT  
 TPTPKEKPEAGTYSVNGNDTCLLATMGLQLNITQDKVASVININPNTTHTSTGSCRSHALLRLNSSTIK  
 YLDFVFAVKENRFYLKEVNISMVLYNGSVFSIANNLSYWDAPLGSYMCNKEQTVSVSGAFQINTFDL  
 RVQPFNVTQGKYSTAQDCSADDDNFLVPIAVGAALAGVLLVLLAYFIGLKHGHAGYEQF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6492\\_c06.zip](https://cdn.origene.com/chromatograms/mk6492_c06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_002294

**ORF Size:** 1230 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_002294.3](#)

**RefSeq Size:** 1868 bp

**RefSeq ORF:** 1233 bp

**Locus ID:** 3920

**UniProt ID:** [P13473](#)

**Cytogenetics:** Xq24

**Domains:** Lamp

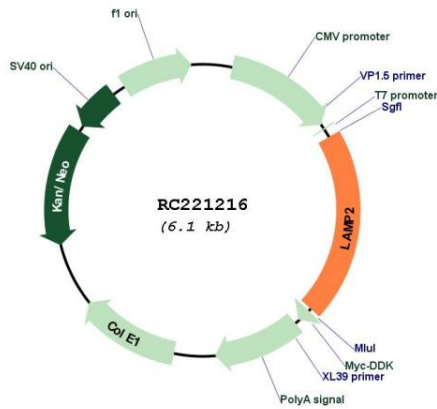
**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Transmembrane

**Protein Pathways:** Lysosome

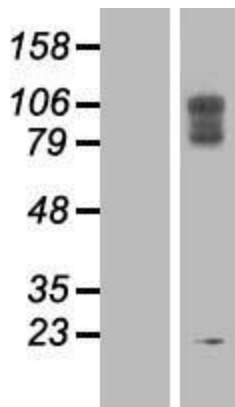
**MW:** 44.96 kDa

**Gene Summary:** The protein encoded by this gene is a member of a family of membrane glycoproteins. This glycoprotein provides selectins with carbohydrate ligands. It may play a role in tumor cell metastasis. It may also function in the protection, maintenance, and adhesion of the lysosome. Alternative splicing of this gene results in multiple transcript variants encoding distinct proteins. [provided by RefSeq, Jul 2008]

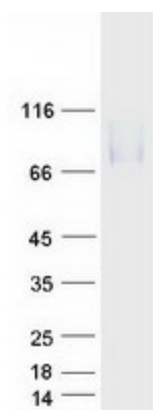
Product images:



Circular map for RC221216



Western blot validation of overexpression lysate (Cat# [LY419414]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221216 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified LAMP2 protein (Cat# [TP321216]). The protein was produced from HEK293T cells transfected with LAMP2 cDNA clone (Cat# RC221216) using MegaTran 2.0 (Cat# [TT210002]).