

Product datasheet for **RR204081**

Lptm4b (NM_001013174) Rat Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Lptm4b (NM_001013174) Rat Tagged ORF Clone
Tag: Myc-DDK
Symbol: Lptm4b
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
Cell Selection: Neomycin
ORF Nucleotide Sequence: >RR204081 representing NM_001013174
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGATGGTCGCGCCCTGGACTCGGTTCTATCCACAGCTGCTGCCTGTGCTGCCATGTCCGCACCG
GCACCATCCTGTTGGGCATCTGGTACCTGATCATCAATGCCGTGGTCTGTTGATCCTGCTGAGTGCCCT
GGCCGATCCCGATCAGTATCACTTTTCAGGCTCTGAAGTAGGAGGGAATTTGAGTTCATGGACGATGCC
AACATGTGCAATTGCTATCGCGATCTCTCCTCATGATCCTGATCTGTGCCATGGCTACCTACGGTGCAT
ACAAGCAACACGCTGCCTGGATCATCCCGTTCTTCTGTTACCAGATCTTTGATTTCCGCCCTGAATACTTT
GGTTGCAATCACCGTGTGTCTACCCCACTCCATTCAGGAGTACATAAGACAGCTGCCCCCAGCTTT
CCCTACAGAGATGACATAATGTCAGTGAACCTACCTGTTTGGTCTTGTCTCTCTCATAGGCA
TTATTTTGACATTTAAGGGCTACTTGATCAGCTGTGTTTGGAGCTGTACAGGTACATCAATGCCAGGAA
CTCCTCTGATGTTCTGGTTTACGTTACCAGCAACGATACCACGGTGTGTTGCCACCATACGATGATGCC
ACTGCTGTGACCGGCACTGCCAAGGAGCCACCGCCACCTTACGTGTCTGCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RR204081 representing NM_001013174
Red=Cloning site Green=Tags(s)

MKMVAPWTRFYSHSCCLCCHVRTGILLGIWYLIINAVLLILLALADPDQYHFSGSELGGEFEFMDDA
NMCIAIAISLLMILICAMATYGAYQHAAWIIPFCYQIFDFALNLTVAITVLVYPNSIQEYIRQLPPSF
PYRDDIMSVNPTCLVLVILLFIGIILTFKGYLISCVWSCYRYINGRNSSDVLVYVTSNDTTVLLPPYDDA
TAVTGTAKPPPPYVSA

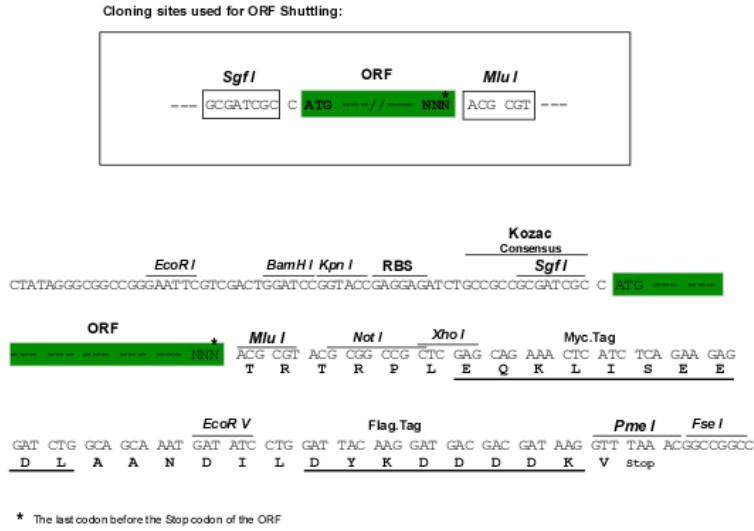
TRTRPLEQKLISEEDLAANDILDYKDDDDKV



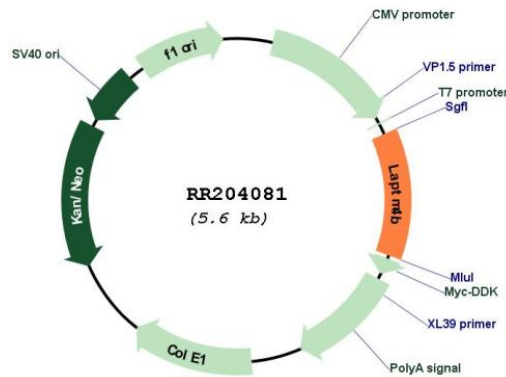
[View online »](#)

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001013174

ORF Size: 681 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:	<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:	<u>NM_001013174.1, NP_001013192.1</u>
RefSeq Size:	1750 bp
RefSeq ORF:	684 bp
Locus ID:	315047
UniProt ID:	<u>Q5U1W4</u>
Cytogenetics:	7q22
MW:	25.4 kDa
Gene Summary:	Required for optimal lysosomal function. Blocks EGF-stimulated EGFR intraluminal sorting and degradation. Conversely by binding with the phosphatidylinositol 4,5-bisphosphate, regulates its PIP5K1C interaction, inhibits HGS ubiquitination and relieves LAPTM4B inhibition of EGFR degradation. Recruits SLC3A2 and SLC7A5 (the Leu transporter) to the lysosome, promoting entry of leucine and other essential amino acid (EAA) into the lysosome, stimulating activation of proton-transporting vacuolar (V)-ATPase protein pump (V-ATPase) and hence mTORC1 activation. Plays a role as negative regulator of TGFB1 production in regulatory T cells. Binds ceramide and facilitates its exit from late endosome in order to control cell death pathways.[UniProtKB/Swiss-Prot Function]