

Product datasheet for **MG202675**

Lptm4b (NM_033521) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Lptm4b (NM_033521) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Lptm4b
Synonyms:	C330023P13Rik; LAPTM4beta
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG202675 representing NM_033521 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGATGGTCGCTCCCTGGACTCGGTTCTACTCCCACAGCTGCTGTTTGCTGCCATGTCCGCACCG
GCACCATCCTGCTGGCGTCTGGTACCTGATCATCAATGCTGTGGTCTGCTGATCCTGCTGAGTGCCCT
GGCAGATCCCAATCAGTATCACTTTTCAGGCTCTGAAGTAGGAGGGGAGTTGAGTTCATGGATGATGCC
AACATGTGCATTGCTATCGCAATCTCTCCTCATGATCCTGATATGTGCCATGGCTACTTACGGTGCAT
ACAAGCAACATGCTGCCTGGATCATCCCGTTCTTCTGTTACCAGATCTTTGATTTTGCCTGAATACTTT
GGTTGCAATCACTGTGCTTGTCTATCCGAATCCATTCAGGAATACATACGACAGCTGCCTCCTAGCTTT
CCCTACAGAGATGATATAATGTCCGTGAATCCTACCTGTTTGGTCCTTATTATTCTTCTGTTTATCGGCA
TTCTTTTGACACTTAAGGGCTACTTGATTAGCTGCGTTTGGAGCTGCTACAGGTACATCAACGGCAGGAA
CTCCTCCGATGCTCCTGGTGTATGTTACCAGCAATGATACCACAGTGTGCTGCCTCCGTACGATGATGCT
ACTGCTGTGCCTAGCACTGCCAAGGAACCACCACCACCTTACGTGTCCGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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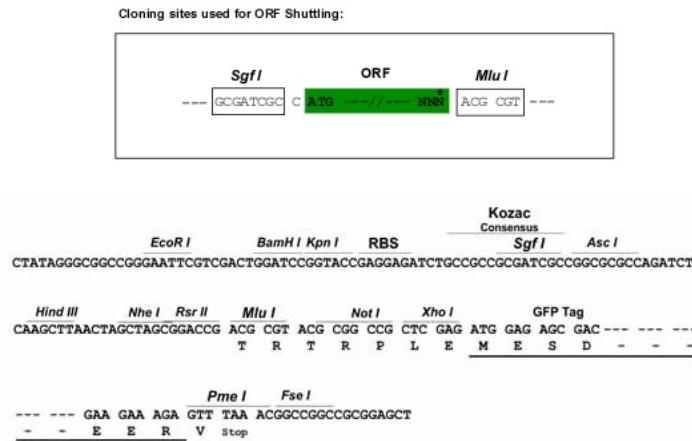
Protein Sequence: >MG202675 representing NM_033521
 Red=Cloning site Green=Tags(s)

MKMPVAPWTRFYSHSCCLCCHVRTGTILLGVWYLIINAVLLILLALADPNQYHFGSELGGEFEFMDDA
 NMCIAIAISLLMILICAMATYGAYKQHAAWIIPFFCYQIFDFALNTLVAITVLVYPNSIQEYIRQLPPSF
 PYRDDIMSVNPTCLVLIILLFIGILLTLKGYLISCVWSCYRYINGRNSDVLVYVTSNDTTVLLPPYDDA
 TAVPSTAKEPPPPYVSA

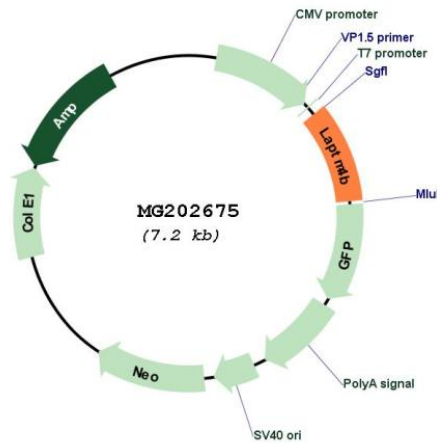
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_033521

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:	NM_033521.3 , NP_277056.1
RefSeq Size:	1897 bp
RefSeq ORF:	684 bp
Locus ID:	114128
UniProt ID:	Q91XQ6
Cytogenetics:	15 B3.1
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]