

Product datasheet for **RG207325**

LAPTM4B (NM_018407) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LAPTM4B (NM_018407) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	LAPTM4B
Synonyms:	LAPTM4beta; LC27
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG207325 representing NM_018407 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGACGTCACGGACTCGGGTCACATGGCCGAGTCCGCCCGCCCCCTCCCCGTCCCCGCCGCTGCAGCCG
TCGCCTTCGGAGCGAAGGGTACCGACCCGGCAGAAGCTCGGAGCTCTCGGGGTATCGAGGAGGCAGGCC
GCGGGCGCACGGGCGAGCGGGCCGGGAGCCGGAGCGGGAGGAGCCGGCAGCAGCGGCCGCGGGGCTC
CAGGCGAGGCGGTGACGCTCCTGAAAACCTGCGCGCGCTAGCGCCACTGCGCCGGAGCGATGAAGA
TGGTCGCGCCCTGGACGCGGTTCTACTCCAACAGCTGCTGTTGTGCTGCCATGTCCGCACCGGCACCAT
CCTGCTCGGCGTCTGGTATCTGATCATCAATGCTGTGGTACTGTTGATTTTATTGAGTGCCTGGCTGAT
CCGGATCAGTATAACTTTTCAAGTTCTGAACTGGGAGGTGACTTTGAGTTCATGGATGATGCCAACATGT
GCATTGCCATTGCGATTTCTCTTCTCATGATCCTGATATGTGCTACGGCTACTTACGGAGCGTACAAGCA
ACGCGCAGCCTGGATCATCCCATTTCTTCTGTTACCAGATCTTTGACTTTGCCCTGAACATGTTGGTTGCA
ATCACTGTGCTTATTTATCCAACTCCATTGAGGAATACATACGGCAACTGCCTCCTAATTTTCCCTACA
GAGATGATGTCATGTCAGTGAATCCTACCTGTTGGTCCTATTATTCTTCTGTTATTAGCATTATCTT
GACTTTTAAGGGTTACTTGATTAGCTGTGTTTGGAACTGCTACCGATAACATCAATGGTAGGAACTCCTCT
GATGTCCTGGTTTATGTTACCAGCAATGACACTACGGTGTGCTACCCCGTATGATGATGCCACTGTGA
ATGGTGTGCCAAGGAGCCACCGCCACCTTACGTGTCTGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG207325 representing NM_018407
 Red=Cloning site Green=Tags(s)

MTSRTRVTWSPPRPLPVPAAAAVAFGAKGTDPAEARSSRGIEEAGPRAHGRAGREPERRRSRQRRGGL
 QARRSTLLKTCARASATAPGAMKMPVWTRFYNSNCCCHVVRTGILLGVWYLIINAVLLILL SALAD
 PDQYNFSSSELGGDFEFMDDANMCIAIAISLLMILICATATYGAYKQRAAWIIPFFCYQIFDFALNMLVA
 ITVLIYPNSIQEYIRQLPPNFPYRDDVMSVNPTCLVLIILLFISIIILTFKGYLISCWNCYRYINGRNS
 DVLVYVTSNDTTVLLPPYDDATVNGAAKEPPPPYVSA

TRTRPLE - GFP Tag - V

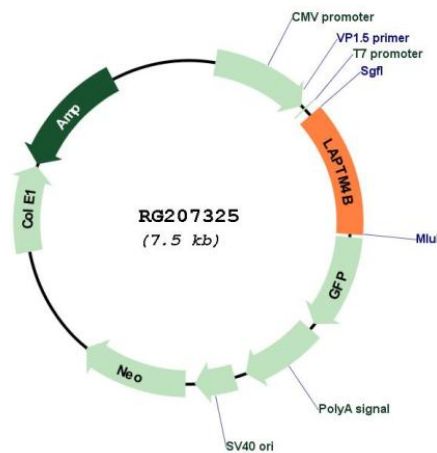
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_018407

ORF Size: 951 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_018407.4 , NP_060877.3
RefSeq Size:	2242 bp
RefSeq ORF:	681 bp
Locus ID:	55353
UniProt ID:	Q86VI4
Cytogenetics:	8q22.1
Domains:	Mtp
Protein Families:	Transmembrane
Protein Pathways:	Lysosome
Gene Summary:	Required for optimal lysosomal function (PubMed:21224396). 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 (PubMed:25588945). 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 (PubMed:25998567). Plays a role as negative regulator of TGFB1 production in regulatory T cells (PubMed:26126825). Binds ceramide and facilitates its exit from late endosome in order to control cell death pathways (PubMed:26280656).[UniProtKB/Swiss-Prot Function]