

Product datasheet for **RG200159**

LAMTOR1 (NM_017907) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: LAMTOR1 (NM_017907) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: LAMTOR1
Synonyms: C11orf59; p18; p27RF-Rho; PDRO; Ragulator1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG200159 representing NM_017907
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGGTGCTGCTACAGCAGCGAGAACGAGGACTCGGACCAGGACCGAGAGGAGCGGAAGCTGCTGCTGG
ACCCTAGCAGCCCCCTACCAAAGCTCTCAATGGAGCCGAGCCCACTACCACAGCCTGCCTTCCGCTCG
CACTGATGAGCAGGCCCTGCTCTTCCATCCTTGCCAAGACAGCCAGCAACATCATTGATGTGTCTGCT
GCAGACTCACAGGGCATGGAGCAGCATGAGTACATGGACCGTGCCAGGCAGTACAGCACCCGCTTGCTG
TGCTGAGCAGCAGCCTGACCCATTGGAAGAAGCTGCCACCGCTGCCGTCTTTACCAGCCAGCCCCACCA
AGTGCTGCCAGTGAGCCATCCCGTTCTCTGATTGACAGAGTCTCCAGGATAGCTGCTTATGCCTAC
AGTGCACTTTCTCAGATCCGTGTGGACGCAAAAAGAGGAGCTGGTTGTACAGTTTGGGATCCCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG200159 representing NM_017907
Red=Cloning site Green=Tags(s)

MGCCYSSSENEQDREERKLLLDPSPTKALNGAEPNYHSLPSARTDEQALLSSILAKTASNIIDVSA
ADSQGMEQHEYMDRARQYSTRLAVLSSSLTHWKKLPPLPSLTSQPHQVLASEPIPFSDLQVSRIAAYAY
SALSQIRVDAKEELVVQFGIP

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



[View online »](#)

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_017907.3</u>
RefSeq Size:	1112 bp
RefSeq ORF:	486 bp
Locus ID:	55004
UniProt ID:	<u>Q6IAA8</u>
Cytogenetics:	11q13.4
Gene Summary:	<p>As part of the Ragulator complex it is involved in amino acid sensing and activation of mTORC1, a signaling complex promoting cell growth in response to growth factors, energy levels, and amino acids. Activated by amino acids through a mechanism involving the lysosomal V-ATPase, the Ragulator functions as a guanine nucleotide exchange factor activating the small GTPases Rag. Activated Ragulator and Rag GTPases function as a scaffold recruiting mTORC1 to lysosomes where it is in turn activated. LAMTOR1 is directly responsible for anchoring the Ragulator complex to membranes. Also required for late endosomes/lysosomes biogenesis it may regulate both the recycling of receptors through endosomes and the MAPK signaling pathway through recruitment of some of its components to late endosomes. May be involved in cholesterol homeostasis regulating LDL uptake and cholesterol release from late endosomes/lysosomes. May also play a role in RHOA activation. [UniProtKB/Swiss-Prot Function]</p>