

Product datasheet for **RC200159L4V**

LAMTOR1 (NM_017907) Human Tagged ORF Clone Lentiviral Particle

Product data:

Product Type:	Lentiviral Particles
Product Name:	LAMTOR1 (NM_017907) Human Tagged ORF Clone Lentiviral Particle
Symbol:	LAMTOR1
Synonyms:	C11orf59; p18; p27RF-Rho; PDRO; Ragulator1
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_017907
ORF Size:	483 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC200159).
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.
RefSeq:	NM_017907.1
RefSeq Size:	1198 bp
RefSeq ORF:	486 bp
Locus ID:	55004
UniProt ID:	Q6IAA8
Cytogenetics:	11q13.4
MW:	17.7 kDa



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Gene Summary:

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]