

Product datasheet for **MC201213**

Lamtor1 (NM_025605) Mouse Untagged Clone

Product data:

Product Type: Expression Plasmids
Product Name: Lamtor1 (NM_025605) Mouse Untagged Clone
Tag: Tag Free
Symbol: Lamtor1
Synonyms: 2400001E08Rik; p18; Pdro
Mammalian Cell Selection: Neomycin
Vector: PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection: Kanamycin (25 ug/mL)

Fully Sequenced ORF: >BC020142 sequence for NM_025605
 CGGACGCGTGGGTCCTGACGACGCCGTCCTCCTCGGGCCCGCCTGAGCGCCCGCCGACCCCGCCAT
 GGGGTGCTGCTATAGCAGCGAAAACGAGGACTCGGACCAGGATCGGGAGGAGAGGAAGCTGCTGCTGGAC
 CCCAGTAGCACCCCTACCAAAGCCCTCAATGGAGCCGAGCCCACTACCATAGCCTACCTTCAGCTCGCA
 CAGATGAGCAGGCCCTGCTTTCCTCCATCCTTGCCAAGACAGCTAGCAACATCATTGATGTGTCTGCCGC
 AGACTCCCAGGGCATGGAACAGCATGAGTACATGGACCGGCAAGGCAGTACAGTACCCGCTTGGCTGTG
 CTTAGCAGCAGTCTGACCATTGGAAGAAGCTGCCACCGTTGCCATCTCTCACCAGCCAGCCCCACCAAG
 TGCTGGCCAGTGAGCCTATCCCCCTCTCTGACTTGACGAGGTCTCCAGGATAGCTGCGTATGCCTATAG
 TGCACTTTCTCAGATCCGCGTGGATGCGAAAGAAGAGCTGGTTGTACAGTTTGGGATCCCATGAAGAGGG
 GCCCTAGGACAGCTCTTCCCTCGTCTTCCACCCGCTCCACCCACCTCTTCTGGCCCCAGCCTCACTG
 TGGCTCTCTACAGTACCTAACCTGCTACTAATCACGGAGAAGAATGTGGAGGGAAAGAACAAGGCTGGAG
 GCCGGAGCAAGTGAGGACTAAGCAAGGGAAGGGAGGACCGATTGCCATCGGCCTTCATGCTCTGGTTAGG
 GTGAGGTTGGGGCCAAGAGGACAGGGCCTGGCAGATCTTCAGTCAATTGGGAAGATGGAGATACCACTGTA
 GGGGTGACACCGGGAGACCTAGGAGATCCCTTCCCTCTTCTCTTGGCCTCCGATTCACTCCTGTGTC
 CCCTTCCCTGACTTGGTCTCACAGGCACCTCACTGGGGATTATGACCAGGGTCTAGACGAGCTTGAGTC
 TGAATTGAGTTTGTATTTCTAGCACCCCTGGGTTTTACATGTTTGCTCTTTTGTTTTGTGTTGTGACCC
 CTCGATAAAGAAAGTATATTTCAAAAAAAAAAAAAAAAAAAAA

Restriction Sites: RsrII-NotI

ACCN: NM_025605

Insert Size: 486 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).



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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>BC020142</u> , <u>AAH20142</u>
RefSeq Size:	1090 bp
RefSeq ORF:	486 bp
Locus ID:	66508
UniProt ID:	<u>Q9CQ22</u>
Cytogenetics:	7 E2
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>