

Product datasheet for **MG216224**

Lamtor5 (NM_026774) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Tag: TurboGFP
Symbol: Lamtor5
Synonyms: I110003H18Rik; Hbxip; XIP
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide Sequence: >MG216224 representing NM_026774
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCTTTTCGTAAGAGCGCGGACGCGGCGCGCTGAATTTTCGTCCCTCTGGAGACGCCGTCCAGGC
GCCCGCTCGGTCAAGTCACGTGATCGAGGTTTTCGGTGAAGGAGGAAGTGTCTTCTGCGGGTCTCGG
CCTGGGCGGACAGCCTGCGGGATGGAGGCGACTTTGGAGCAGCATTTGGAGGACACAATGAAGAATCCA
TCCATTGTTGGAGTCCATGCACAGATTACAAGGACTTAATCTGGGCTGCCGTGGTACCTGTCCGGATG
AGCACGCTGGAGTCATATCTGTTCTAGCCAGCAGGCAGCTAGGCTAACCTCTGACCCACCGACATCCC
TGTGGTATGTTAGAATCAGATAATGGGAACATTATGATCCAGAAACACGATGGCATCACAGTGGCTGTG
CACAAATGGCCTCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG216224 representing NM_026774
Red=Cloning site Green=Tags(s)

MPFRKERGRGAALNFVPLETPSRPPRSSHVIEVCGEGGSVLLRGPGLGRTACGMEATLEQHLEDTMKNP
SIVGVLCTDSQGLNLGCRGTLSDHAGVISVLAQQAARLTS DPTDIPVVCLES DNGNIMI QKHDGITVAV
HKMAS

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



Cloning Scheme:


ACCN: NM_026774

ORF Size: 435 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:

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_026774.2](#), [NP_081050.2](#)

RefSeq Size: 905 bp
RefSeq ORF: 438 bp
Locus ID: 68576

UniProt ID: [Q9DIL9](#)

Cytogenetics: 3 F2.3

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. When complexed to BIRC5, interferes with apoptosome assembly, preventing recruitment of pro-caspase-9 to oligomerized APAF1, thereby selectively suppressing apoptosis initiated via the mitochondrial/cytochrome c pathway (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG216224