

Product datasheet for **RG215545**

LAP2 (TMPO) (NM_003276) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	LAP2 (TMPO) (NM_003276) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	TMPO
Synonyms:	CMD1T; LAP2; LEMD4; PRO0868; TP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG215545 representing NM_003276
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCGGAGTTCCTGGAAGACCCTCGGTCTGACAAAAGACAAGTTGAAGAGTGAGTTGGTCGCCAACA
 ATGTGACGCTGCCGGCCGGGAGCAGCGCAAAGACGTGTACGTCCAGCTCTACCTGCAGCACCTCACGGC
 TCGCAACCGGCCCGCTCCCGCCGGCACCAACAGCAAGGGGCCCGGACTTCTCCAGTGACGAAGAG
 CGCGAGCCACCCCGGTCTCGGCTCTGGGGCCCGCCGCGGGCCGGAGCCGAGCAGCCGTGCGCAGGA
 AAGCCACAAAAAACTGATAAACCCAGACAAGAAGATAAAGATGATCTAGATGTAAACAGAGCTCACTAA
 TGAAGATCTTTGGATCAGCTTGTGAAATACGGAGTGAATCCTGGTCTATTGTGGGAACAACAGGAAG
 CTATATGAGAAAAAGCTTTGAACTGAGGGAACAAGGAACAGAATCAAGATCTTCTACTCCTCTGCCAA
 CAATTTCTTCTCAGCAGAAAAACAAGGCAGAATGGAAGTAATGATTCTGACAGATACAGTGACAAATGA
 AGAAGGAAAGAAGAAAGAACACAAGAAAGTGAAGTCCACTAGGGATATTGTTCTTTTTCTGAACCTGGA
 ACTACTCCCTCTGGTGGTGGATTTTTTCAGGGTATTTCTTTTCTGAAATCTCCACCCGTCTCCTTTGG
 GCAGTACCGAACTACAGGCAGCTAAGAAAGTACATACTTCTAAGGGAGACCTACCTAGGGAGCCTCTTGT
 TGCCACAAACTTGCTGGCAGGGGACAGTTGCAGAAGTTAGCCTCTGAAAGGAATTTGTTTATTTTCATGC
 AAGTCTAGCCATGATAGGTGTTTAGAGAAAAGTTCTTCGTATCTTCTCAGCCTGAACACAGTGCCATGT
 TGGTCTCTACTGCAGCTTCTCCTCACTGATTAAGAAACCACCCTGGTACTATAAAGACATAGTAGA
 AAATATTTGCGGTAGAGAGAAAAGTGAATTAACCATATGCTCTGAGAGGTCCCATATTTTCAGATCAA
 TCGCCTCTCTCCAGTAAAAGGAAAGCACTAGAAGAGTCTGAGAGCTCACAACTAATTTCTCCGCCACTTG
 CCCAGGCAATCAGAGATTATGTCAATTCCTGTTGGTCCAGGGTGGGTAGGTAGTTTGCCTGGAACCTC
 TAACTCTATGCCCCCACTGGATGTAGAAAACATACAGAAGAGAATTGATCAGTCTAAGTTTCAAGAACT
 GAATTCCTGTCTCCTCCAAGAAAAGTCCCTAGACTGAGTGAGAAGTCAAGTGGAGGAAAGGGATTCAGGTT
 CCTTTGTGGCATTTCAGAACATACCTGGATCCGAAGTATGATGTTCTTTTGCAAAACTGTTGTCTCTCA
 TTCACTCACTACCTTAGGTCTAGAAGTGGCTAAGCAATCACAGCATGATAAAATAGATGCCTCAGAACTA
 TCTTTTCCCTTCCATGAATCTATTTTAAAAGTAATTGAAGAAGAATGGCAGCAAGTTGACAGGCAGCTGC
 CTTCACTGGCATGCAAAATCCAGTTTCTTCCAGGGAGGCAACACAGATATTATCAGTCCAAAAGTAGA
 TGATGAAATCCTAGGTTTATTTCTGAAGCCACTCCACTAGGAGGTATTCAAGCAGCCTCCACTGAGTCT
 TGCAATCAGCAGTTGGACTTAGCACTCTGTAGAGCATATGAAGCTGCAGCATCAGCATTGCAGATTGCAA
 CTCACACTGCCTTTGTAGCTAAGGCTATGCAGGCAGACATTAGTCAAGCTGCACAGATTCTTAGCTCAGA
 TCTAGTCGTACCCACCAAGCGCTTGGGATTCTGAGCAAAAACATATGATGCAGCCTCATATATTTGTGAA
 GCTGCATTTGATGAAGTGAAGATGGCTGCCATACCATGGGAAATGCCACTGTAGGTCGTCGATACCTCT
 GGCTGAAGGATTGCAAAATTAATTTAGCTTCTAAGAATAAGCTGGCTTCCACTCCCTTTAAAGGTGGAAC
 ATTATTTGGAGGAGAAGTATGCAAAGTAATTAAGGCGTGGAAATAAACAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG215545 representing NM_003276
 Red=Cloning site Green=Tags(s)

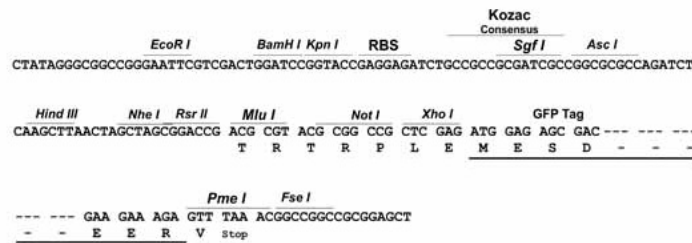
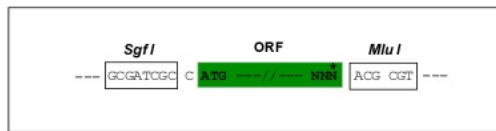
MPEFLEDPSVLTKDKLKSELVANNVTLPAGEQRKDVYVQLYLQHLTARNRPPLPAGTNSKGPPDFSSDEE
 REPTPVLGSGAAAAGRRAAVGRKATKKTDKPRQEDKDDL DVTEL TNEDLLDQLVKYGVNPGPIVGTTRK
 LYEKLLKLREQGTE SRSTPLPTISSAENTRQNGSNDSDRYSDNEEGKKKEHKKVKSTRDIVPFSELG
 TTPSGGGFFQGISFPEISTRPPLGSTELQA AKKVHTSKGDLPREPLVATNLPGRGQLQKLASERNLFISC
 KSSHDRCLEKSSSSSQPEHSAMLVSTAASPLIKETTTGYKDIVENICGREKSGIQPLCPERSHISDQ
 SPLSSKRKALEESESQ LISPPLAQAIRDYVNSLLVQGGVGS LPGTNSMPPLDVENIQKRIDQSKFQET
 EFLSPPRKVPRLSEKSVEERDSGSFVAFQNI PGSELMSSFAKT VVSHSLTTLGLEVAKQS QHDKIDASEL
 SFPFHESILKVIEEWQVDRQLPSLACKY PVSSREATQILSVPKVDDEILGFISEATPLGGIQA AASTES
 CNQQLDLALCRAYEAAASALQIATHTAFVAKAMQADISQAAQILSSDPSRTHQALGILSKTYDAASYICE
 AAFDEVKMAAHTMGNATVGRRYLWLDCKINLASKNKLASTPFKGGTLFGGEVCKVIKRGKNKH

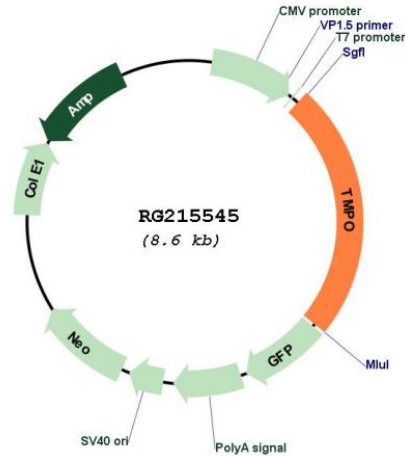
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:


ACCN: NM_003276

ORF Size: 2082 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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.

RefSeq: [NM_003276.2](#)

RefSeq Size: 2490 bp

RefSeq ORF: 2085 bp

Locus ID: 7112

UniProt ID: [P42166](#)

Cytogenetics: 12q23.1

Domains: LEM

Protein Families: Stem cell - Pluripotency, Transmembrane

Gene Summary: Through alternative splicing, this gene encodes several distinct LEM domain containing protein isoforms. LEM domain proteins include inner nuclear membrane and intranuclear proteins, and are involved in a variety of cellular functions including gene expression, chromatin organization, and replication and cell cycle control. The encoded alpha isoform is broadly diffuse in the nucleus and contains a lamin binding domain, while the beta and gamma isoforms are localized to the nuclear membrane and contain an HDAC3 interaction domain. The distinct isoforms may compete with each other when acting to chaperone other proteins and regulate transcription. [provided by RefSeq, Aug 2019]