

Product datasheet for **RC215545**

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:	Myc-DDK
Symbol:	LAP2
Synonyms:	CMD1T; LAP2; LEMD4; PRO0868; TP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC215545 representing NM_003276
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCGGAGTTCCTGGAAGACCCTCGGTCTGACAAAAGACAAGTTGAAGAGTGAGTTGGTCGCCAACA
 ATGTGACGCTGCCGGCCGGGAGCAGCGCAAAGACGTGTACGTCCAGCTCTACCTGCAGCACCTCACGGC
 TCGCAACCGGCCCGCTCCCGCCGGCACCAACAGCAAGGGGCCCGGACTTCTCCAGTGACGAAGAG
 CGCGAGCCACCCCGGTCTCGGTCTGGGGCCCGCCGCGGGCCGGAGCCGAGCAGCCGTGCGCAGGA
 AAGCCACAAAAAACTGATAAACCCAGACAAGAAGATAAAGATGATCTAGATGTAAACAGAGCTCACTAA
 TGAAGATCTTTGGATCAGCTTGTGAAATACGGAGTGAATCCTGGTCTATTGTGGGAACAACAGGAAG
 CTATATGAGAAAAAGCTTTGAACTGAGGGAACAAGGAACAGAATCAAGATCTTCTACTCCTCTGCCAA
 CAATTTCTTCTCAGCAGAAAAACAAGGCAGAATGGAAGTAATGATTCTGACAGATACAGTGACAAATGA
 AGAAGGAAAGAAGAAAGAACACAAGAAAGTGAAGTCCACTAGGGATATTGTTCTTTTTCTGAACTTGG
 ACTACTCCCTCTGGTGGTGGATTTTTTCAGGGTATTTCTTTTCTGAAATCTCCACCCGTCTCCTTTGG
 GCAGTACCGAACTACAGGCAGCTAAGAAAGTACATACTTCTAAGGGAGACCTACCTAGGGAGCCTCTTGT
 TGCCACAAACTTGCTGGCAGGGGACAGTTGCAGAAGTTAGCCTCTGAAAGGAATTTGTTTATTTTCATGC
 AAGTCTAGCCATGATAGGTGTTTAGAGAAAAGTCTTCTCGTCATCTTCTCAGCCTGAACACAGTGCCATGT
 TGGTCTCTACTGCAGCTTCTCCTTCACTGATTAAGAAACCACCCTGGTACTATAAAGACATAGTAGA
 AAATATTTGCGGTAGAGAGAAAAGTGAATTCACCATATGCTCTGAGAGGTCCCATATTTTCAGATCAA
 TCGCCTCTCTCCAGTAAAAGGAAAGCACTAGAAGAGTCTGAGAGCTCACAACTAATTTCTCCGCCACTTG
 CCCAGGCAATCAGAGATTATGTCAATTCCTGTTGGTCCAGGGTGGGTAGGTAGTTTGCCTGAACTTC
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 CCTTTGTGGCATTTCAGAACATACCTGGATCCGAAGTATGATGTTCTTTTGC AAAAAGTGTGTCTCTCA
 TTCACTCACTACCTTAGGTCTAGAAGTGGCTAAGCAATCACAGCATGATAAAATAGATGCCTCAGAACTA
 TCTTTTCCCTTCCATGAATCTATTTTAAAAGTAATTGAAGAAGAATGGCAGCAAGTTGACAGGCAGCTGC
 CTTCACTGGCATGCAAAATCCAGTTTCTTCCAGGGAGGCAACACAGATATTATCAGTTCCAAAAGTAGA
 TGATGAAATCCTAGGTTTATTTCTGAAGCCACTCCACTAGGAGGTATTCAAGCAGCCTCCACTGAGTCT
 TGCAATCAGCAGTTGGACTTAGCACTCTGTAGAGCATATGAAGCTGCAGCATCAGCATTGCAGATTGCAA
 CTCACACTGCCTTTGTAGCTAAGGCTATGCAGGCAGACATTAGTCAAGCTGCACAGATTCTTAGCTCAGA
 TCTAGTCTGACCCCAAGCGCTTGGGATTCTGAGCAAAAACATATGATGCAGCCTCATATATTTGTGAA
 GCTGCAATTTGATGAAGTGAAGATGGCTGCCCATACCATGGGAAATGCCACTGTAGGTCGTCGATACCTCT
 GGCTGAAGGATTGCAAAATTAATTTAGCTTCTAAGAATAAGCTGGCTTCCACTCCCTTTAAAGGTGGAAC
 ATTATTTGGAGGAGAAGTATGCAAAGTAATTA AAAAGCGTGAAATAAACAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC215545 representing NM_003276
 Red=Cloning site Green=Tags(s)

MPEFLEDPSVLTKDKLKSELVANNVTLPAGEQRKDVYVQLYLQHLTARNRPPLPAGTNSKGPDPDFSSDEE
 REPTPVLGSGAAAAGRRAAVGRKATKKTDKPRQEDKDDL DVTEL TNEDLLDQLVKYGVNPGPIVGTTRK
 LYEKLLKLREQGTE SRSSSTPLPTISSAENTRQNGSNDSDRYSDNEEGKKKEHKKVKSTRDIVPFSELG
 TTPSGGGFFQGISFPEISTRPPLGSTELQA AKKVHTSKGDLPREPLVATNLPGRGQLQKLASERNLFISC
 KSSHDRCLEKSSSSSQPEHSAMLVSTAASPLIKETTTGYKDIVENICGREKSGIQPLCPERSHISDQ
 SPLSSKRKALEESESQ LI SPPLAQAIRDYVNSLLVQGGVGS LPGTSNSMPPLDVENIQKRIDQSKFQET
 EFLSPPRKVPRLSEKSVEERDSGSFVAFQNI PGSELMSSFAKT VVSHSLTTLGLEVAKQS QHDKIDASEL
 SFPFHESILKVIEEWQVDRQLPSLACKYPVSSREATQILSVPKYDDEILGFISEATPLGGIQA AASTES
 CNQQLDLALCRAYEAAASALQIATHTAFVAKAMQADISQAAQILSSDPSRTHQALGILSKTYDAASYICE
 AAFDEVKMAAHTMGNATVGRRYLWLDCKINLASKNKLASTPFKGGTLFGGEVCKVIKGRGNKH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6484_c05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



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

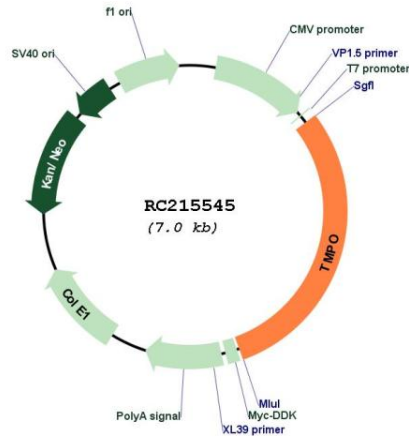
Protein Families: Stem cell - Pluripotency, Transmembrane

MW: 75.3 kDa

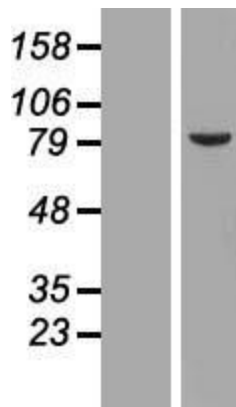
Gene Summary:

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]

Product images:



Circular map for RC215545



Western blot validation of overexpression lysate (Cat# [LY418798]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215545 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).