

## Product datasheet for **RC211447**

### DNA polymerase mu (POLM) (NM\_013284) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DNA polymerase mu (POLM) (NM_013284) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	DNA polymerase mu
Synonyms:	Pol Mu; Tdt-N
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RC211447 representing NM\_013284  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGCTCCCCAAACGGCGGCGAGCGGGTCCGCTAGCGGCGATGCCGCTTCTCCACGCCGCCCT  
 CGACGCGCTTCCCGGAGTCGCCATCTACTGGTCGAGCCTCGCATGGTTCGAGCCGCCGGCCTTCT  
 CACAGGCCTGGCGCGCTCCAAGGCTTCCGCGTCTTGACGCCTGCAGCTCCGAAGCGACACATGTTGTG  
 ATGGAAGAGACCTCAGCAGAGGAGGCCGTGAGTGGCAGGAGCGCAGGATGGCAGCTGCTCCCCGGGT  
 GCACCCCCCAGCTCTGCTGGACATAAGCTGGTTAACAGAGAGCCTGGGAGCTGGGCAGCCTGTACTGT  
 GGAGTCCCGCACCGCTGGAGGTGGTGGGCCAAGGAAGGGCCTCTGAGCCCAGCATGGATGCCTGCC  
 TATGCCTGCCAGCGCCCTACGCCCTCACACACCACAACACTGGCCTCTCCGAGGCTCTGGAGATACTGG  
 CCGAGGCAGCAGGCTTTGAAGGCAGTGAGGGCCGCTCCTCACCTTCTGCAGAGCAGCCTCGGTGCTCAA  
 GGCCCTTCCAGCCCTGTACAACCCTGAGCCAGCTGCAGGGCTTCCCCTTTGGAGAACAACCTCTCT  
 AGGGTTGTCCAGGAGCTGCTGGAGCATGGAGTGTGTGAGGAGGTGGAGAGATTCGGCGCTCAGAGAGGT  
 ACCAGACCATGAAGCTCTTACCAGATCTTCGGGGTCCGTTGTAAGACTGCTGACCGGTGGTACCGGGA  
 AGGACTGCGAACCTTAGATGACCTCCGAGAGCAGCCCCAGAACTAACCCAAACAGCAGAAAGCGGGCTC  
 CAGCACCACCAGGACCTGAGCACCCAGTCTGCGGTCCGATGTAGATGCCCTGCAGCAGGTGGTGGAGG  
 AAGCTGTGGGGCAGGCCCTGCCTGGGGCCACCGTCACGCTGACCGGGCGGCTTCCGAGGGGGAAGTTGCA  
 GGGCCATGACGTGACTTCTCATCACCCACCCCAAGGAGGTGAGGAGCGGGGCTGCTGCCTAGAGTG  
 ATGTGCCGCTGCAGGACCAGGGCCTCATCCTGTACCACCAGCACCAGCAGCTGCTGTGAGTCCCCTA  
 CCCGCTGGCCAAACAGAGCCACATGGACGCTTTTGAGAGAAGTTTCTGCATTTTCCGCTACCACAAC  
 TCCAGGGGCTGCTGTGGGGGATCCACGAGGCCCTGCCATCCTGGAAGGCCGTGAGAGTGGACTTGTA  
 GTTGACCCGTCAGCCAGTTCCTTTTCGCTGCTCGGTTGGACTGGCTCCAAGCTTTTCCAGCGGAGC  
 TGCGCCGCTTCCAGCCGAAGGAGAAGGGCTGTGGCTGAACAGCCATGGGCTGTTTGACCCGGAGCAGAA  
 GACATTTTCCAAGCGGCTTCCAGAGGAAGACATCTTCCAGACCTGGCCCTTGGATACCTTCTCCAGAG  
 CAGAGAAACGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC211447 representing NM\_013284  
 Red=Cloning site Green=Tags(s)

MLPKRRRARVGSPPGDAASSTPPSTRFPGVAIYLVPRMGRSRRRAFLTGLARSKGFRVLDACSSEATHV  
 MEETSAAEEAVSWQERRMAAAPPCTPPALLDISWLTESLGAQVPVVECRHRLEAVGPRKGPLSPAWMPA  
 YACQRPTPLTHHTGLSEALEILAEAAGFEGSEGRLLTFCRAASVLKALPSPVTLSQLQGLPHFGEHSS  
 RVVQELLEHGVCSEEVERRRSERYQTMKLFQIFGVGKTAADRWYREGLRDLDDLREQPQKLTQQQKAGL  
 QHHQDLSTPVLRSVDALQQVVEEAVGQALPGATVLTGGFRRGKLQGHVDVFLIHPKEQAEAGLLPRV  
 MCRLQDQGLILYHQHQHSCCESPTRLAQSHMDAFERSFCIFRLPQPPGAAVGGSTRPCPSWKAVRVDLV  
 VAPVSQFPFALLGWTGSKLFQRELRFRSRKEKGLWLNHGLFDPEQKTFQAAASEEDI FRHLGLEYLPE  
 QRNA

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_013284

**ORF Size:** 1482 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.

**RefSeq:** [NM\\_013284.4](#)
**RefSeq Size:** 2589 bp

**RefSeq ORF:** 1485 bp

**Locus ID:** 27434

**UniProt ID:** [Q9NP87](#)
**Cytogenetics:** 7p13

**Domains:** POLXc

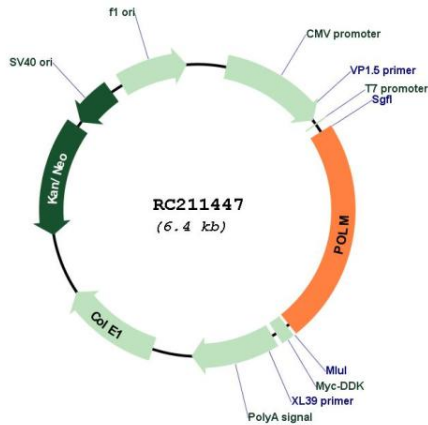
**Protein Families:** Druggable Genome

**Protein Pathways:** Non-homologous end-joining

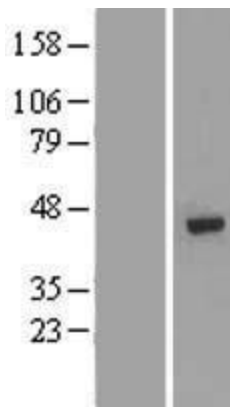
**MW:** 54.6 kDa

**Gene Summary:** Gap-filling polymerase involved in repair of DNA double-strand breaks by non-homologous end joining (NHEJ). Participates in immunoglobulin (Ig) light chain gene rearrangement in V(D) recombination.[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for RC211447



Western blot validation of overexpression lysate (Cat# [LY415682]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC211447 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).