

## Product datasheet for **RC200874**

### DNA Polymerase epsilon (POLE3) (NM\_017443) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** DNA Polymerase epsilon (POLE3) (NM\_017443) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** DNA Polymerase epsilon  
**Synonyms:** CHARAC17; CHRAC2; CHRAC17; p17; YBL1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC200874 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGGCGGAGAGGCCCGAGGACCTAAACCTGCCAATGCCGTGATCACCAGGATCATCAAGGAGGCGCTCC  
CGGACGGTGTCAACATCTCAAGGAGGCCCGAGCGCCATCTCCCGCGCCCGCAGCGTCTTCGTGTGTA  
CGCCACATCCTGTGCTAACAACTTTGCAATGAAAGGAAAGCGGAAGACGCTGAATGCCAGTGTGTCTC  
TCAGCCATGGAAGAGATGGAGTTCAGCGTTCGTTACCCATTGAAAGAAGCTCTGGAAGCATATAGGC  
GGGAGCAGAAAGCAAGAAGGAGGCCTCAGAGCAAAGAAGAAGGACAAAGACAAAAAACAGACTCGGA  
AGAGCAAGACAAGAGCAGGGATGAGGACAATGATGAAGACGAAGAAGGCTGGAAGAAGAAGACAAGAT  
GAAGAGGAAGAAGTAGACAAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC200874 protein sequence  
Red=Cloning site Green=Tags(s)  
MAERPEDLNLNAVITRIIKEALPDGVNISKEARSAISRASVFLYATSCANNFAMKGRKTLNASDVL  
SAMEEMEFQRFVTPLEALEAYRREQKQKKEASEQKKDKDKKTDSEEQDKSRDEDNDEEERLEEEEQN  
EEEEVDN

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

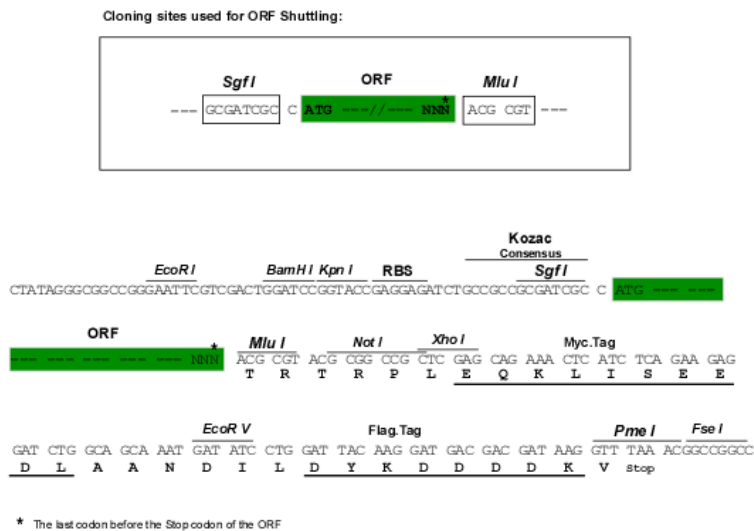
**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6821\\_f08.zip](https://cdn.origene.com/chromatograms/mk6821_f08.zip)



[View online >](#)

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_017443

ORF Size: 441 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\\_017443.5](#)

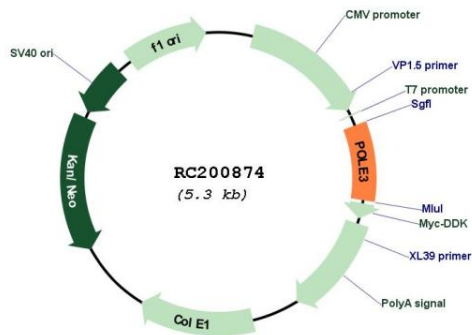
RefSeq Size: 2288 bp

RefSeq ORF: 444 bp

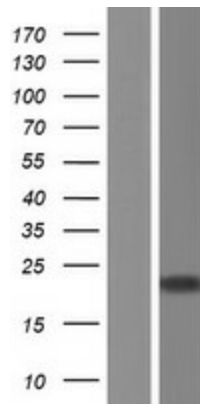
Locus ID: 54107

**UniProt ID:** [Q9NRF9](#)  
**Cytogenetics:** 9q32  
**Domains:** Cbfd\_NFYB\_HMF  
**Protein Pathways:** Base excision repair, DNA replication, Metabolic pathways, Nucleotide excision repair, Purine metabolism, Pyrimidine metabolism  
**MW:** 16.9 kDa  
**Gene Summary:** POLE3 is a histone-fold protein that interacts with other histone-fold proteins to bind DNA in a sequence-independent manner. These histone-fold protein dimers combine within larger enzymatic complexes for DNA transcription, replication, and packaging.[supplied by OMIM, Apr 2004]

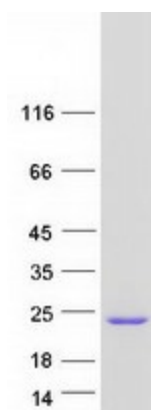
### Product images:



Circular map for RC200874



Western blot validation of overexpression lysate (Cat# [LY413749]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200874 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified POLE3 protein (Cat# [TP300874]). The protein was produced from HEK293T cells transfected with POLE3 cDNA clone (Cat# RC200874) using MegaTran 2.0 (Cat# [TT210002]).