

Product datasheet for **RC207681**

POLE4 (NM_019896) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: POLE4 (NM_019896) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: POLE4
Synonyms: p12; YHHQ1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC207681 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCGCGCGCGCGCGCGCAGGAAGCGGGACGCCCCGAGAGGAGGAGGTACCTGCTGGGGAGGCAGCGG
CCTCGCAGCCCCAGGCCCAACGAGTGTGCTGGGGCTCGTCTCTCGAGGTTGCCTCTGGCGGAGTGAA
GGCCTTGGTGAAGGCAGATCCCGACGTGACGCTAGCGGGACAGGAAGCCATCTTCATTCTGGCACGAGCC
GCGGAAGTGTGGAGACCATTGCAAAAGATGCCTACTGTTGCGCTCAGCAGGGAAAAAGGAAAAACCC
TTCAGAGGAGAGACTTGGATAATGCAATAGAAGCTGTGGATGAATTTGCTTTTCTGGAAGTACTTTAGA
T

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC207681 protein sequence
Red=Cloning site Green=Tags(s)

MAAAAAAGSGTPREEEVPAGEAAASQPQAPTSVPGARLSRLPLARVKALVKADPDVTLAQEAIIFILARA
AELFVETIAKDAYCCAQQGKRKTLQRRDLDNAIEAVDEF AFLEGLD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6552_h01.zip

Restriction Sites: Sgfl-Mlul



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Cloning Scheme:


ACCN: NM_019896

ORF Size: 351 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_019896.1](#)

RefSeq Size: 710 bp

RefSeq ORF: 354 bp

Locus ID: 56655

UniProt ID: [Q9NR33](#)

Cytogenetics: 2p12

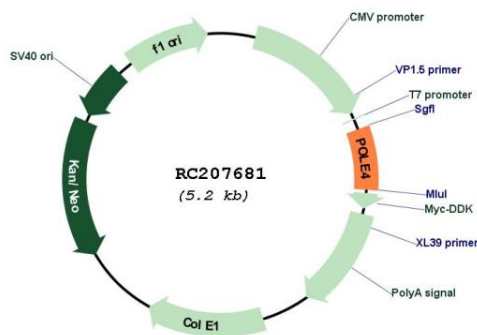
Domains: Cbfd_NFYB_HMF

Protein Pathways: Base excision repair, DNA replication, Metabolic pathways, Nucleotide excision repair, Purine metabolism, Pyrimidine metabolism

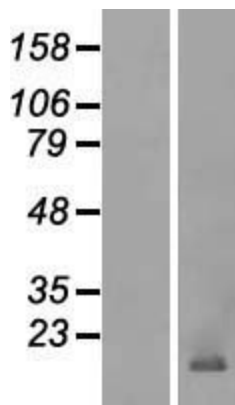
MW: 12.3 kDa

Gene Summary: POLE4 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 RC207681



Western blot validation of overexpression lysate (Cat# [LY412680]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC207681 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).