

Product datasheet for **RC209992**

POLD4 (NM_021173) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: POLD4 (NM_021173) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: POLD4
Synonyms: p12; POLDS
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC209992 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGGCCGAAGCGGCTCATCACTGATTCTACCCGTTGTGAAGAGGAGGGAGGGCCCGCTGGGCACA
GCAAGGGGAGCTGGCACCCGAGCTAGGGGAGGAGCCCCAGCCCCGCGACGAGGAGGAAGCGGAGCTGGA
GCTGCTGAGGCAGTTTGACCTGGCCTGGCAGTACGGGCCCTGCACCGGATCACACGGCTGCAGCGCTGG
TGTCGGGCCAAGCATATGGCTTGGAGCCTCCCCAGAGGTGTGGCAGGTGCTGAAGACCCACCCCGGAG
ACCCCGCTTCCAGTGCAGTCTCTGGCATCTCTATCCCCTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC209992 protein sequence
Red=Cloning site Green=Tags(s)
MGRKRLITDSYPVVKRREGPAGHSGKELAPELGEEPQPRDEEEAELELLRQFDLAWQYGPCTGITRLQRW
CRAKHMGLEPPPEVWQVLKTHPGDPRFQCSLWHL YPL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6035_f07.zip

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_021173

ORF Size: 321 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_021173.2](#), [NP_066996.2](#)

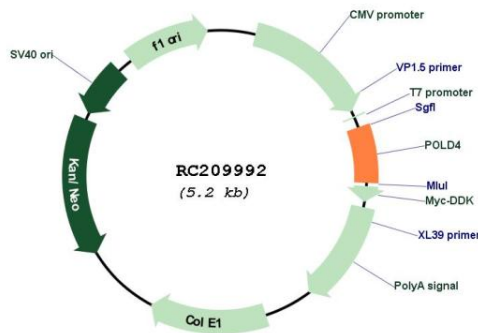
RefSeq Size: 1751 bp

RefSeq ORF: 324 bp

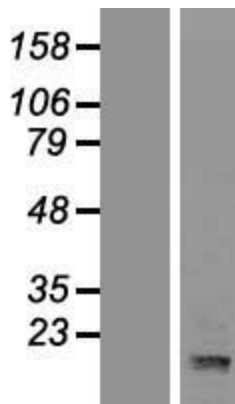
Locus ID: 57804

UniProt ID: [Q9HCU8](#)
Cytogenetics: 11q13.2
Domains: DNA_pol_delta_4
Protein Pathways: Base excision repair, DNA replication, Homologous recombination, Metabolic pathways, Mismatch repair, Nucleotide excision repair, Purine metabolism, Pyrimidine metabolism
MW: 12.4 kDa
Gene Summary: This gene encodes the smallest subunit of DNA polymerase delta. DNA polymerase delta possesses both polymerase and 3' to 5' exonuclease activity and plays a critical role in DNA replication and repair. The encoded protein enhances the activity of DNA polymerase delta and plays a role in fork repair and stabilization through interactions with the DNA helicase Bloom syndrome protein. Alternatively spliced transcript variants encoding multiple isoforms have been observed for this gene. [provided by RefSeq, Mar 2012]

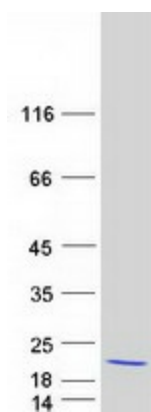
Product images:



Circular map for RC209992



Western blot validation of overexpression lysate (Cat# [LY412048]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC209992 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified POLD4 protein (Cat# [TP309992]). The protein was produced from HEK293T cells transfected with POLD4 cDNA clone (Cat# RC209992) using MegaTran 2.0 (Cat# [TT210002]).