

Product datasheet for **RC201145**

POLA2 (NM_002689) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	POLA2 (NM_002689) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	POLA2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC201145 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGTCCGCATCCGCCAGCAGCTGGCGGAGGAGCTGCAGATCTTCGGCCTAGACTGCGAGGAGGCTCTAA
 TTGAGAAATTGGTAGAGCTTTGTGTTCACTATGGACAGAATGAGGAGGGAATGGTAGCGAGCTTATAGC
 CTTCTGCACCAGCACACATAAAGTTGGCCTTACCTCAGAGATCCTGAACTCTTTGAGCATGAGTTTCTG
 AGCAAAAGATTATCGAAAGCCAGGCATAGTACCTGCAAGGACAGTGGCCATGCAGGAGCTAGAGACATTG
 TTTCCATTCAAGAGCTAATTGAAGTGAAGAAGAAGAGGAAATCCTCTTGAACCTTACACCACACCTTC
 AAAGGTTTCTCAGAAGCGAGCTATCTCTACCCAGAAACCCCTAACAAAAAGGAGTGTGTCAACTCGT
 AGCCCCATCAGTACTCTACCGTCAAGTTTCTCCAAGTGTACTCCCTCCAGAAAACAACCTCAC
 GAAGTAACCGAGGAGAAGTGTTACCTCCTTCGGCTTAGCACAGGGAGTATCTTGGTCTGGGAGAGGAGG
 AGCTGGAACATCAGCCTGAAGTCTTGGGATGTCCAGAGGCCTAACTGGGAGCTACAAATCCATGTTT
 CAGAAGCTCCAGACATTCGAGAAGTTCGACCTGTAAGATAGAAGAAGTGGCAGCGAACTCAAGGAAC
 ATTACAAGATTGAAGCTTTCACCTCTTGTAGCCCCAGCACAGGAGCCTGTCACTCTGCTGGGCCAGAT
 TGGCTGTGATAGCAACGGGAAGCTGAACAACAAGTCAAGTATTCTCGAGGGAGACCGGGAACATTCTCG
 GGTGCTCAAATCCAGTGGATTTATCTGAGCTTAAGGAATATTCTCTGTTTCTGGACAGGTTGTAATTA
 TGGAAAGGAATCAACCCACTGGTAGGAACTTGTGCCACCAACTCTACGAGGGTGTGCCACTTCCATT
 TTATCAGCCCACTGAAGAGGATGCAGACTTTGAGCAAAGCATGGTCTGGTTGCCTGTGGACCATAACCC
 ACATCTGACAGCATCACGTATGACCCCTGCTTACCTGATTGCTGTCAACCATGACCGGCCAGATG
 TCTGCATCCTGTTTGGCCCTTCTGGATGCTAAGCATGAACAGGTGGAGAATTGTCTACTGACAAGTCC
 ATTTGAAGACATTTTCAAGCAGTGTCTACGAACAATTATTGAAGGCACAAGAAGCTCCGGCTCCACCTT
 GTCTTTGTCCCGTCATTGAGAGATGTGCACCATGAGCCTGTGTACCCCGAGCCGCTTTCAGCTACTCCG
 ATCTGTCTCGAGAGGACAAAAAGCAAGTACAGTTTGTGTCCGAGCCCTGCAGCCTCTCCATAAACGGAGT
 GATCTTCGGCTTGACATCCACAGATCTGCTTTTCCACCTGGGGCCGAGGAGATCAGTAGTTCTTCCGGA
 ACTTCAGACAGATTAGCCGAATACTCAAGCACATCTTGACCCAGAGGAGCTACTACCCACTTACCCGC
 CCCAAGAAGACATGGCCATTGACTATGAGTCGTTCTATGTTTACGCACAGCTGCCTGTACCCAGATGT
 CCTCATCATCCCCTCAGAGCTGAGTACTTCGTGAAGGATGTCTCGGCTGTGTCTGTGTGAACCCTGGG
 CGCCTTACCAAAGGCAGGTGGGAGGCACCTTCGCCCAGCTCTACCTTAGGAGGCCGGCAGCGGACGGG
 CAGAGAGGCAGAGCCCATGCATTGCTGTGCAGGTGCTCAGGATC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC201145 protein sequence
 Red=Cloning site Green=Tags(s)

MSASAQQLAEELQIFGLDCEEALIEKLVELCVQYQNEEGMVGELIAFCTSTHKVGLTSEILNSFEHEFL
 SKRLSKARHSTCKDSGHAGARDIVSIQELIEVEEEEEILLNSYTTSPKGSQKRAISTPETPLTKRSVSTR
 SPHQLLSPSSFSPSATPSQKYNRSRNRGEVVSFGLAQVSWSGRGGAGNISLKVLCPEALTGSYKSMF
 QKLPDIREVLTKIEELGSELKEHYKIEAFTPLLAQAQEPVTLGQIGCDSNGKLNKSVILEGDREHSS
 GAQIPVDLSELKEYSLFPGQVIMEGINTTGRKLVATKLYEGVPLPFYQPTTEADDFEQSMVLVACGPYT
 TSDSITYDPLLDLIAVINHDRPDVCILFGPFLDAKHEQVENCLLTSFPEDIFKQCLRTIIEGTRSSGSHL
 VFPVSLRDVHHEPVYPQPPFSYSDLSREDKKQVQFVSEPCSLSINGVIFGLTSTDLLFHLGAEIISSSG
 TSDRFSLRILKHILTQRSYYPLYPQEDMAIDYESFYVYAQLPVTDPVLIIPSELRYFVKDVLGCVCVNPG
 RLTKGQVGGTFARLYLRRPAADGAERQSPCIAVQVRI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6084_e11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002689

ORF Size: 1794 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

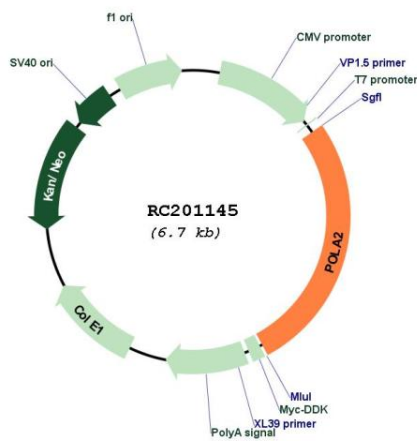
RefSeq: [NM_002689.4](#)

RefSeq Size: 2514 bp

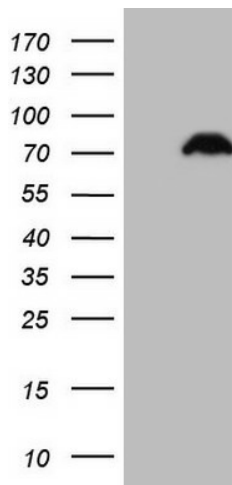
RefSeq ORF: 1797 bp

Locus ID: 23649
UniProt ID: [Q14181](#)
Cytogenetics: 11q13.1
Domains: DNA_pol_alpha_B
Protein Pathways: DNA replication, Metabolic pathways, Purine metabolism, Pyrimidine metabolism
MW: 65.9 kDa
Gene Summary: May play an essential role at the early stage of chromosomal DNA replication by coupling the polymerase alpha/primase complex to the cellular replication machinery.[UniProtKB/Swiss-Prot Function]

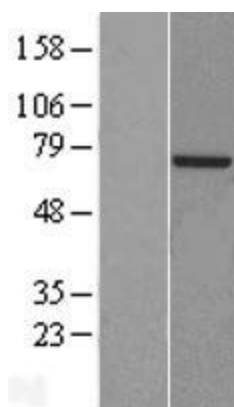
Product images:



Circular map for RC201145



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY POLA2 (Cat# RC201145, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-POLA2(Cat# [TA807639]). Positive lysates [LY419168] (100ug) and [LC419168] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419168]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201145 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).