

Product datasheet for RC201266

POLR2E (NM_002695) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: POLR2E (NM_002695) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: POLR2E
Synonyms: hRPB25; hsRPB5; RPABC1; RPB5; XAP4
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC201266 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGGACGACGAGGAGGAGACGTACCGGCTCTGGAAAATCCGCAAGACCATCATGCAGCTGTGCCACGACC
 GTGGCTATCTGGTGACCCAGGACGAGCTTGACCAGACCCTGGAGGAGTTCAAAGCCCAATTTGGGGACAA
 GCCGAGTGAGGGGCGGCCGCGGCACGGACCTCACCGTCTGGTGGCCACAACGATGACCCACCGAC
 CAGATGTTTGTGTTCTTCCAGAGGAGCCCAAGGTGGGCATCAAGACCATCAAGGTGTACTGCCAGCGCA
 TGCAGGAGGAGAACATCACACGGGCTCTCATCGTGGTGCAGCAGGCATGACACCCTCCGCAAGCAGTC
 CCTGGTCGACATGGCCCCAAGTACATCCTGGAGCAGTTTCTGCAGCAGGAGCTGCTCATCAACATCAGG
 GAGCAGGAGCTAGTCCCTGAGCACGTCGTATGACCAAGGAGGAGGTGACAGAGCTGCTGGCCCCATATA
 AGCTCCGAGAGAACCAGCTGCCAGGATCCAGGCGGGGACCCTGTGGCGCGCTACTTTGGGATAAAGCG
 TGGGCAGGTGGTGAAGATCATCCGGCCAGTGAGACGGCTGGCAGGTACATCACCTACCGGCTGGTGCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC201266 protein sequence
 Red=Cloning site Green=Tags(s)

MDDEEETRYLWKIRKTIIMQLCHDRGYLVTQDELDTLEEFKAQFGDKPSEGRPRRTDLTVLVAHNDPTD
 QMFVFFPEEPKVGIKTIKVYVYQRMQEENITRALIVVQGMTPSAKQSLVDMAPKYILEQFLQPELLINIT
 EHELVEHVMTKEEVTELLARYKLRNQLPRIQAGDPVARYFGIKRGQVVKIIRPSETAGRYITYRLVQ

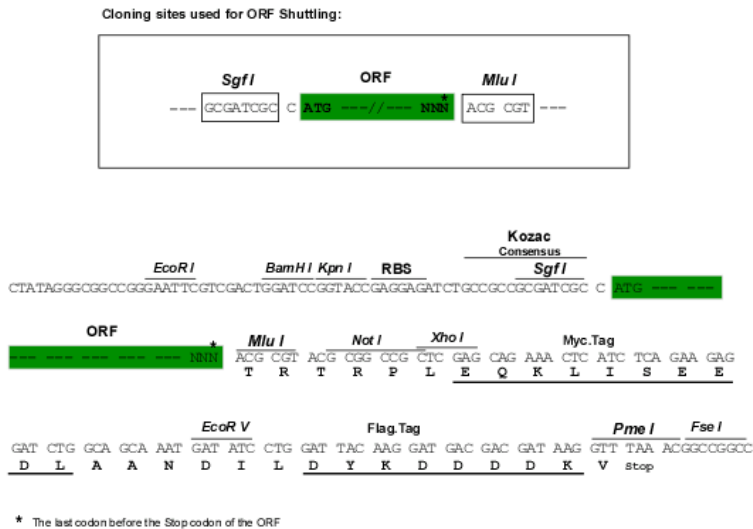
TRTRPLEQKLISEEDLAANDILDYKDDDDKV



Chromatograms: https://cdn.origene.com/chromatograms/mk6407_a06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002695

ORF Size: 630 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.

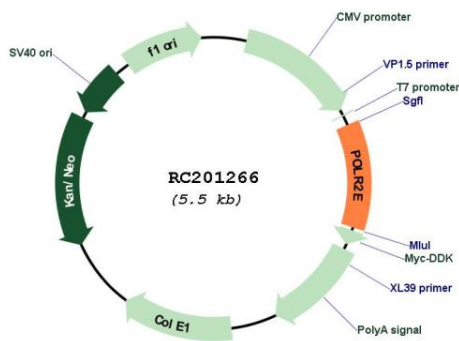
Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_002695.4](#)

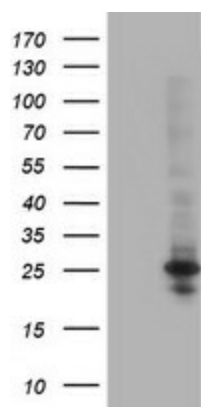
RefSeq Size: 2866 bp

RefSeq ORF:	633 bp
Locus ID:	5434
UniProt ID:	P19388
Cytogenetics:	19p13.3
Domains:	RNA_pol_Rpb5_C, RNA_pol_Rpb5_N
Protein Families:	Transcription Factors
Protein Pathways:	Huntington's disease, Metabolic pathways, Purine metabolism, Pyrimidine metabolism, RNA polymerase
MW:	24.6 kDa
Gene Summary:	This gene encodes the fifth largest subunit of RNA polymerase II, the polymerase responsible for synthesizing messenger RNA in eukaryotes. This subunit is shared by the other two DNA-directed RNA polymerases and is present in two-fold molar excess over the other polymerase subunits. An interaction between this subunit and a hepatitis virus transactivating protein has been demonstrated, suggesting that interaction between transcriptional activators and the polymerase can occur through this subunit. A pseudogene is located on chromosome 11. Three transcript variants encoding two different isoforms have been found for this gene. [provided by RefSeq, Oct 2015]

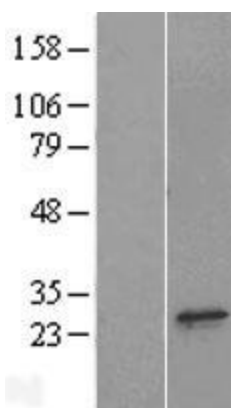
Product images:



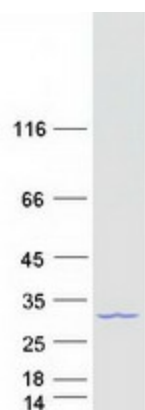
Circular map for RC201266



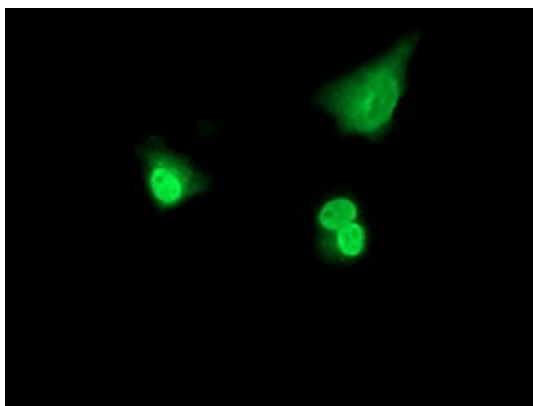
HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY POLR2E (Cat# RC201266, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-POLR2E (Cat# [TA502548]). Positive lysates [LY419161] (100ug) and [LC419161] (20ug) can be purchased separately from OriGene.



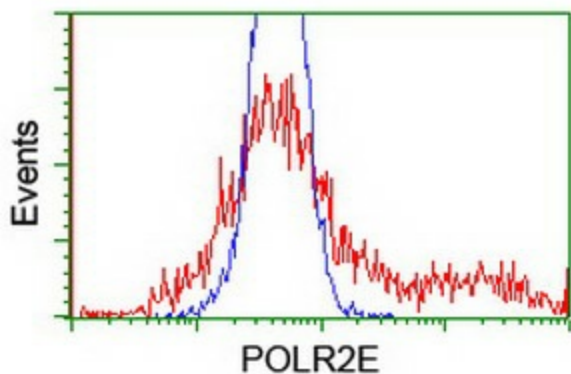
Western blot validation of overexpression lysate (Cat# [LY419161]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201266 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified POLR2E protein (Cat# [TP301266]). The protein was produced from HEK293T cells transfected with POLR2E cDNA clone (Cat# RC201266) using MegaTran 2.0 (Cat# [TT210002]).



Anti-POLR2E mouse monoclonal antibody (TA502548) immunofluorescent staining of COS7 cells transiently transfected by pCMV6-ENTRY POLR2E (RC201266).



HEK293T cells transfected with either RC201266 overexpress plasmid (Red) or empty vector control plasmid (Blue) were immunostained by anti-POLR2E antibody (TA502548), and then analyzed by flow cytometry.