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Product datasheet for RC200279

RPC62 (POLR3C) (NM_006468) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RPC62 (POLR3C) (NM_006468) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RPC62
Synonyms:	C82; RPC3; RPC62
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

View online »

ORF Nucleotide Sequence:

>RC200279 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACTCAAGCAGAAATTAAGCTCTGTTCTTTGTTGCTGCAAGAGCATTTTGGAGAGATTGTAGAAAAAA
TTGGAGTCCATCTGATAAGAACCGGCAGCCAGCCACTAAGAGTAATTGCCCATGACACAGGAACATCACT
GGATCAGGTGAAGAAAGCCCTGTGTGTCCTCGTCCAACATAACCTGGTGAGTTATCAAGTGCACAAACGT
GGTGTGGTGGAGTATGAAGCCCAGTGCAGCCGGGTATTGCGAATGCTTAGATATCCCCGGTACATCTATA
CTACCAAAACTCTGTACAGTGACACTGGAGAGCTGATTGTTGAGGAGCTTCTGTTGAACGGCAAACTGAC
AATGTCAGCTGTTGTGAAGAAAGTGGCAGACCGGCTCACAGAGACCATGGAGGATGGCAAGACCATGGAC
TATGCTGAAGTATCAAACACATTTGTGCGACTGGCAGACACACACTTTGTACAACGCTGCCCTTCGGTAC
CTACCACTGAGAATTCAGACCCTGGGCCACCACCACCTGCCCCCACACTTGTCATTAATGAAAAGGACAT
GTACCTGGTTCCTAAACTCAGCTTGATAGGGAAAGGTAAAAGGAGGAGATCATCTGATGAAGATGCTGCT
GGGGAGCCCAAGGCCAAGAGACCAAAATATACTACAGATAACAAGGAGCCCATTCCAGATGATGGGATTT
ATTGGCAGGCCAACCTTGACAGATTCCACCAACACTTCCGTGACCAAGCCATTGTGAGCGCAGTTGCTAA
CAGGATGGACCAGACAAGCAGCGAGATTGTGCGAACCATGCTCCGAATGAGTGAGATTACCACTTCCTCT
AGTGCTCCCTTCACCCAGCCATTGTCTTCCAATGAGATCTTCAGATCCCTACCTGTTGGCTATAACATCT
CTAAGCAAGTTCTTGATCAGTATCTCACTCTGCTGGCAGATGATCCACTAGAGTTTGTTGGAAAGTCTGG
CGACAGTGGTGGAGGAATGTATGTCATCAACCTCCATAAGGCATTAGCATCCCTAGCCACAGCCACTCTG
GAGTCCGTCGTACAGGAGAGATTTGGGTCTCGCTGTGCTAGAATATTCCGTCTAGTTTTGCAGAAGAAAC
ACATAGAGCAGAAGCAAGTGGAAGACTTTGCAATGATTCCTGCAAAGGAGGCAAAGGATATGCTATATAA
GATGCTCTCAGAAAATTTCATGTCACTCCAGGAAATTCCCAAAACACCAGACCATGCCCCATCCAGGACC
TTCTATTTATATACTGTGAACATCCTGTCAGCTGCCCGAATGTTGTTGCACAGGTGCTACAAGAGCATAG
CCAACTTGATAGAAAGGAGGCAATTTGAAACCAAAGAGAATAAGCGTCTACTAGAAAAATCTCAGAGGGT
AGAAGCCATCATTGCATCTATGCAGGCTACTGGTGCAGAGGAAGCACAGTTACAAGAAATAGAGGAGATG
ATCACAGCTCCTGAACGTCAGCAGCTAGAGACCCTGAAACGTAATGTCAACAAGTTGGATGCCAGTGAGA
TCCAGGTGGACGAAACCATCTTCCTGCTGGAGTCTTACATTGAGTGCACCATGAAGAGACAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200279 protein sequence
Red=Cloning site Green=Tags(s)

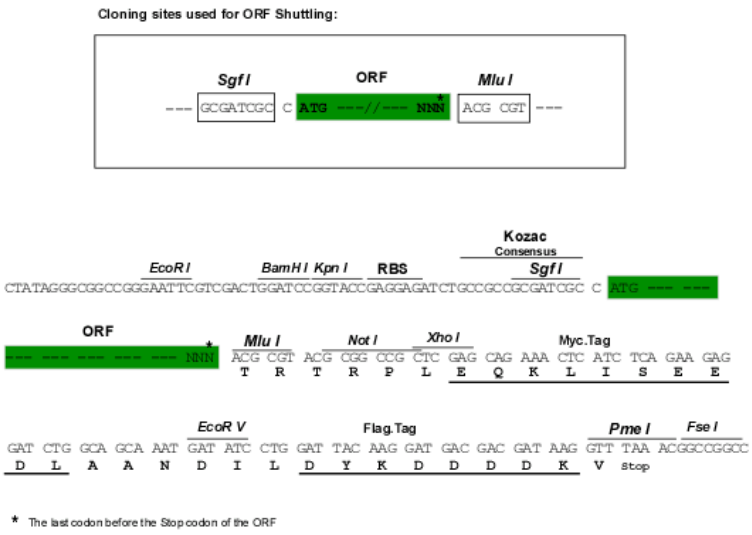
MTQAEIKLCSLLLQEHFGEIVEKIGVHLIRTGSQPLRVIAHDTGTSLDQVKKALCVLVQHNLVSYQVHKR
GVVEYEAQCSRVLRMLRYPRYIYTTKTLYSDTGELIVEELLLNGKLTMSAVVKKVADRLTETMEDGKTMD
YAEVSNTFVRLADTHFVQRCPSVPTTENSDPGPPPPAPTLVINEKDMYLVPKLSLIGKGKRRRSSDEDAA
GEPKAKRPKYTTDNKEPIPDDGIYWQANLDRFHQHFRDQAIVSAVANRMDQTSSEIVRTMLRMSEITTSS
SAPFTQPLSSNEIFRSLPVGYNISKQVLDQYLTLLADDPLEFVGKSGDSGGGMYVINLHKALASLATATL
ESVVQERFGSRCARIFRLVLQKKHIEQKQVEDFAMIPAKEAKDMLYKMLSENFMSLQEIPKTPDHAPSRT
FYLYTVNILSAARMLLHRCYKSIANLIERRQFETKENKRLLEKSQRVEAIIASMQATGAEEAQLQEIEEM
ITAPERQQLETLKRNVNKLDASEIQVDETIFLLESYIECTMKRQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6177_a06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_006468

ORF Size: 1602 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_006468.8

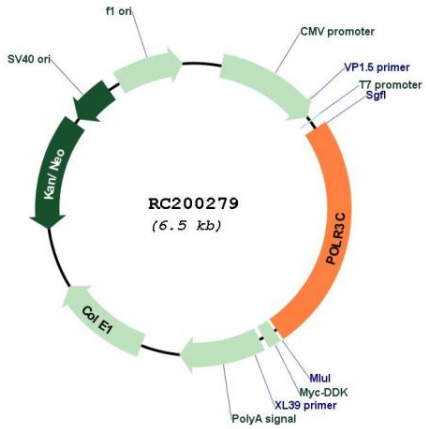
RefSeq Size: 1888 bp

RefSeq ORF: 1605 bp

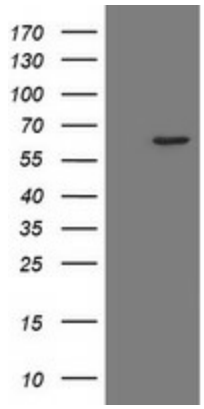
Locus ID: 10623

UniProt ID:	Q9BUI4
Cytogenetics:	1q21.1
Protein Families:	Transcription Factors
Protein Pathways:	Cytosolic DNA-sensing pathway, Metabolic pathways, Purine metabolism, Pyrimidine metabolism, RNA polymerase
MW:	60.6 kDa
Gene Summary:	DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. Specific core component of RNA polymerase III which synthesizes small RNAs, such as 5S rRNA and tRNAs. May direct with other members of the subcomplex RNA Pol III binding to the TFIIIB-DNA complex via the interactions between TFIIIB and POLR3F. May be involved either in the recruitment and stabilization of the subcomplex within RNA polymerase III, or in stimulating catalytic functions of other subunits during initiation. Plays a key role in sensing and limiting infection by intracellular bacteria and DNA viruses. Acts as nuclear and cytosolic DNA sensor involved in innate immune response. Can sense non-self dsDNA that serves as template for transcription into dsRNA. The non-self RNA polymerase III transcripts, such as Epstein-Barr virus-encoded RNAs (EBERs) induce type I interferon and NF- Kappa-B through the RIG-I pathway. Preferentially binds single-stranded DNA (ssDNA) in a sequence-independent manner (PubMed:21358628).[UniProtKB/Swiss-Prot Function]

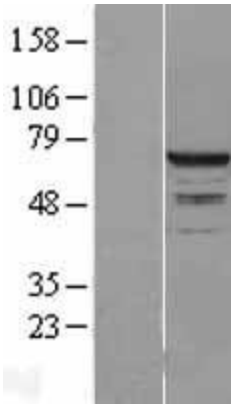
Product images:



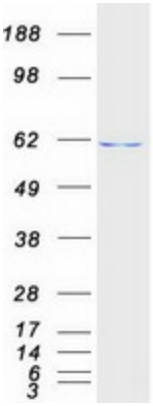
Circular map for RC200279



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY POLR3C (Cat# RC200279, 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-POLR3C(Cat# [TA505106]). Positive lysates [LY401943] (100ug) and [LC401943] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401943]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200279 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified POLR3C protein (Cat# [TP300279]). The protein was produced from HEK293T cells transfected with POLR3C cDNA clone (Cat# RC200279) using MegaTran 2.0 (Cat# [TT210002]).