

Product datasheet for **RR214037**

Polr3c (NM_001012081) Rat Tagged ORF Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | Polr3c (NM_001012081) Rat Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | Polr3c |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |



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ORF Nucleotide Sequence:

>RR214037 representing NM_001012081
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGACTCAAGCAGAAATTAACCTGTGCTCTTTGTTGCTACAAGAGCATTTTGGTGAGATTGTAGAAAAA
 TTGGAGTCCACCTAATCAGAAGCTGGGAGCCAGCCACTTAGAGTAATTGCCATGACACAAAAAGCATCACT
 GGACCAGGTGAAAAAGCCCTTTGTGTCCTCATTACCCATAACCTGGTCATCTATCATGTGCATAAACGC
 GGTGTGGTGGAGTATGAAGCCCAATGCAGCCGGTACTGCGGATGCTTCGGTACCCCGGTACATCTATA
 CTACAAAACACTGTATGGTGACACTGGAGAGCTGATTGTTGAGGAGCTTCTGCTGAATGGCAAAATGAC
 AATGTCGGCTGTTGTGAAGAAAGTAGCAGACCGACTCACAGAGCCATGGAGGATGGCAAGACCATGGAC
 TACGCTGAGGTGCAATGCATTTGTTGACTGGCAGATACTCACTTTGTACAGCGCTGTCCCTGGTTC
 CTGACACTGACAGTTCTGACCCCGGCCCGCCACCTGCCCAAACCTTGTCTTAATGAAAAGGACAT
 GTACCTAGTTCCCAAAGTGAAGTATAGGAAAAGGTAAGAGGAGGAGATCATCTGACGAAGATGCTGCT
 GGAGAGCCCAAGGCCAAGAAACCAAGATGCACAGATAATGAGGAGCCACACCAGACGATGGGATTTATT
 GGCAAGTCAACCTGGACAGATTCACCAGCACTCCCGTGACCAAGCAATTGTGAGCGCAGTGCCAAACCG
 AATGGACCAGACAAGCAGCGAGATTGTGCGGACAATGCTCCGAATGAGTGAGATTACCACTCCCTCTGGT
 GCGCCGTTTACTCAGCCACTGTCTCCAATGAGATCTTCAGATCCCTGCCCGTCGGATATAATATCTCTA
 AACAGGTTCTGGATCAGTACCTCACGCTGCTGGCAGATGACCCACTAGAATTTATTGGAAAGGCTGGCGA
 CAGTGGCGGAGGAATGTATGTCAACCTCCATAAGGCATTAGCATCCCTATCCACTGCAACTCTGGAG
 TCTGTCAATCAAGAGAGATTGCGGTCTCGCTGTGCCCGGATATCCGCTGGTGTGCAGAAGAAGCACC
 TGGACGAGAAGCAGGTGGAGGACTTTGCAATGATCCCTGCAAAGGAGGCAAGGACATGCTGTATAAGAT
 GCTCTCGGAGAACTTCATATCACTGCAGGAAATTCCTAAAACGCCAGACCACGCCCGTCCAGGACCTTC
 TATCTGTACACCGTGAATGTGCTGTACGCCAGGATGCTGTTGCACAGGTGCTACAAGAGCATAGCCA
 ACTTGATAGAAAGGCGCAATTTGAAACAAAAGAGAACAAGCGGCTACTAGAAAAGTCTCAGCGGTGGA
 AGCCATCATGGCATCAATGCAGGCCACGGTGCAGAGGAGGTACAGTGCAGGAGATCGAGGAGATGATC
 ACAGCCCCGAGCGGCAGCAGCTGGAGACTGAAACGCAACGTTAACAAGTTGGATGCCAGTGAGATCC
 AGGTAGATGAAACCATCTTCTTACTGGAATCATAATCGAGAGCACCATGAAGAGACAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR214037 representing NM_001012081
 Red=Cloning site Green=Tags(s)

MTQAEIKLCSLLLQEHFGEIVEKIGVHLIRTGSQPLRVIAHDTKASLDQVKKALCVLIHNLVIYHVHKR
 GVVEYEAQCSRVLRMLRYPRIYITTKLYGDTGELIVEELLLNGKMTMSAVVKKVADRLTETMEDGKTM
 YAEVSNFVRLADTHFVQRCLVPDTSDDPGPPPPAPNLVINEKDMYLVPKLSLIGKGRRRSSDEDAA
 GEPKAKKPRCTDNEEPTDDGIYWQVNLDRFHQHFQDQAIVSANRMDQTSSEIVRTMLRMSEITTPSG
 APFTQPLSSNEIFRSLPVGYNISQVLDQYLTLADDPLEFVIGKAGDSGGMYVINLHKALASLSTATLE
 SVIQERFGRSARIFRLVLQKHLEQKQVEDFAMIPAKEAKDMLYKMLSENFISLQEIPTPDHAPSRTF
 YLYTVNVLSAARMLLHRCYKSIANLIERRQFETKENKRLLEKSQRVEAIMASMQATGAEVQLQEIEMI
 TAPERQQLKRNVNKLDASEIQVDETFLLLESYIESTMKRQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

ACCN: NM_001012081

ORF Size: 1599 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_001012081.1](#), [NP_001012081.1](#)
RefSeq Size: 2394 bp

RefSeq ORF: 1602 bp

Locus ID: 310685

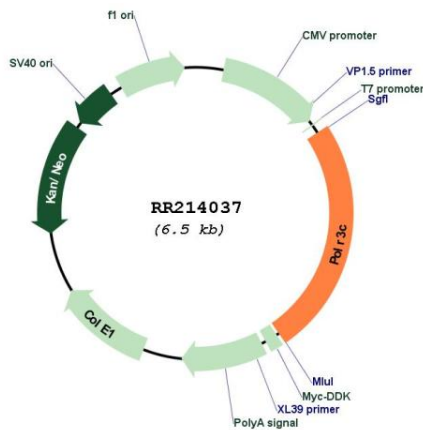
UniProt ID: [Q5XIL3](#)

Cytogenetics: 2q34

MW: 60.5 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 TFIIB-DNA complex via the interactions between TFIIB 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 induce type I interferon and NF-Kappa-B through the RIG-I pathway. Preferentially binds single-stranded DNA (ssDNA) in a sequence-independent manner.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RR214037