

Product datasheet for MR202593

Polr3g (NM_001081176) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Polr3g (NM_001081176) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Polr3g
Synonyms:	2310047G20Rik; AV275904; RPC7; RPC32
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR202593 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTGGCAATAAAGGAAGAGGGCGTGCCTACACCTTTAATATCGAAGCTGTTGGATTGAGCAGAG
GGGAGAAGTTACCTGATGTTGTGTTGAAGCCTCCACCCCTGTTTCCTGATACAGACTACAAGCCGGTGCC
CCTGAAAACGGGAGAAGATGAGGATTACATGCTGGCCTGAAGCAGGAGTTGAGGGAAACAGTAAAACGA
TTGCCGTACTTTATTGAACCACCCGAAGAAAAACAAGATGATATTGAAAGGTATAGCAAACGATACATGA
AGGTCTATAAAGAAGAATGGGTACCAGATTGGAGAAGACTTCCAAGAGAGATGATGCCAAGGAAAAATG
CAAAAAAGGGGATCCAAAATCCAAGCCGAGCAAAGCTGCAGCCAAGGCTACATCACTCATTAATTCTGCA
GATGTGTTGAAAACGATTGAGGAACTGGAAAAGAGAGGGCGAGGGTAAAAGATCGGATGAAGAAAACGAAG
AGAAAAGAGGGAGCAAAGAGAAAAGATAAAGATGATGAGGAGGATGGCGAGGAAGATGCAGAACAGGAGGA
CTACGATGAAGAGGAACAAGAAGAGGAGAATGACTACATTAACCTCTACTTCGACAACGGCGATGATTTT
GGTGTAGACAGCGACGACAACATGGATGAAGCCACCTAC

ACGCGTACGCGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >MR202593 protein sequence
Red=Cloning site Green=Tags(s)

MAGNKGRGRAAYTFNIEAVGFSRGEKLPDVVLKPPPLFPDTDYKPVPLKTGEDEYMLALKQELRETVKR
 LPYFIEPPEEKQDDIERYSKRYMKVYKEEWVPDWRRLPREMPRKKCKKGDPKSKPSKAAAKATSLINSA
 DVLKTIIEELEKRGEGERSDEENEEKEGSKEKDKDDEEDGEEDAQEDYDEEEQEEENDYINSYFDNGDDF
 GVDSDDNMDEATY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001081176

ORF Size: 672 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_001081176.1](#), [NP_001074645.1](#)

RefSeq Size: 3060 bp

RefSeq ORF: 672 bp

Locus ID: 67486

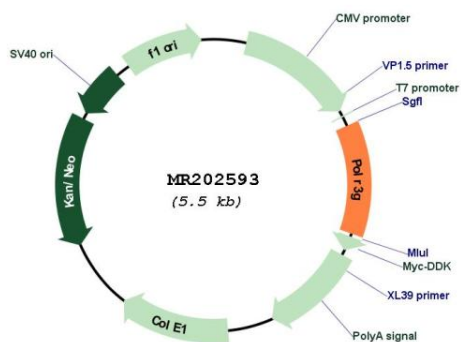
UniProt ID: [Q6NXY9](#)

Cytogenetics: 13 C3

MW: 25.9 kDa

Gene Summary: DNA-dependent RNA polymerase catalyzes the transcription of DNA into RNA using the four ribonucleoside triphosphates as substrates. Specific peripheric component of RNA polymerase III which synthesizes small RNAs, such as 5S rRNA and tRNAs. May direct with other members of the RPC3/POLR3C-RPC6/POLR3F-RPC7/POLR3G 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.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR202593