

## Product datasheet for **SC303776**

### **POLR3G (NM\_006467) Human Untagged Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	POLR3G (NM_006467) Human Untagged Clone
Tag:	Tag Free
Symbol:	POLR3G
Synonyms:	C31; RPC7; RPC32
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC303776 representing NM_006467. Blue=Insert sequence Red=Cloning site Green=Tag(s)

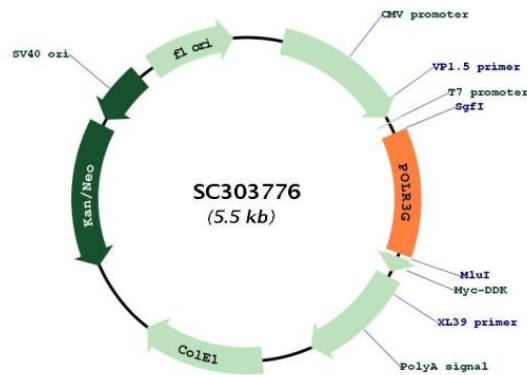
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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGCTGGGAATAAAGGAAGAGGACGTGCTGCTTATACCTTTAATATTGAGGCTGTTGGATTTAGCAAA
GGTGAAAAGTTACCTGATGTAGTGTGAAACCACCCCACTATTTCTGATACAGATTATAAACAGTG
CCACTGAAAACAGGAGAAGGTGAAGAATATATGCTGGCTTTGAAACAGGAGTTGAGAGAAACAATGAAA
AGAATGCCTTATTTTATTGAAACACCTGAAGAAAGACAAGATATTGAAAGGTATAGTAAAAGATACATG
AAGGTATACAAGGAAGAATGGATACCAGATTGGAGAAGACTTCCAAGAGAGATGATGCCAAGAAATAAA
TGTA AAAAAGCAGGCCAAAACCCAAAAGGCAAAAAGACGCAGGCAAAGGCACCACTCACTAATACT
GAAGATGTGTTGAAAAAATGGAGGAATTGGAAAAAGAGGTGATGGTGAAAAATCAGATGAGGAAAAT
GAAGAGAAAGAAGGAAGCAAAGAGAAAAGTAAAGAAGGTGATGATGACGATGACGATGATGCCCGAGAA
CAGGAGGAATATGATGAAGAAGCAAGAAGAGGAAAAATGACTACATTAATTCATACTTTGAAGATGGA
GATGATTTGGCGCAGACAGTGTGACAACATGGATGAGGCAACCTATTAG
ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

Restriction Sites: Sgfl-Mlul



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## Plasmid Map:



ACCN: NM\_006467

Insert Size: 672 bp

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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\\_006467.2](#)

RefSeq Size:	3285 bp
RefSeq ORF:	672 bp
Locus ID:	10622
UniProt ID:	<a href="#">O15318</a>
Cytogenetics:	5q14.3
Protein Pathways:	Cytosolic DNA-sensing pathway, Metabolic pathways, Purine metabolism, Pyrimidine metabolism, RNA polymerase
MW:	25.9 kDa
Gene Summary:	<p>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 (PubMed:20154270). 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, such as Epstein-Barr virus-encoded RNAs (EBERs), induce type I interferon and NF- Kappa-B through the RIG-I pathway (PubMed:19609254, PubMed:19631370).[UniProtKB/Swiss-Prot Function]</p>