

## Product datasheet for **SC111277**

### **POLK (NM\_016218) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	POLK (NM_016218) Human Untagged Clone
Tag:	Tag Free
Symbol:	POLK
Synonyms:	DINB1; DINP; POLQ
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC111277 sequence for NM\_016218 edited (data generated by NextGen Sequencing)

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ATGGATAGCACAAAGGAGAAGTGTGACAGTTACAAAGATGATCTTCTGCTTAGGATGGGA
CTTAATGATAATAAAGCAGGAATGGAAGGATTAGATAAAGAGAAAATTAACAAAATTATA
ATGGAAGCCACGAAGGGTCCAGATTTTATGGAATGAGCTCAAGAAAGAAAAGCAAGTC
AACCAACGAATTGAAAATATGATGCAACAAAAGCTCAAATCACCAGCCAACAGCTAAGA
AAAGCACAATTACAGGTTGACAGATTTGCAATGGAATTAGAACAAGCCGAAATTTGAGC
AATACCATAGTGACATTGACATGGATGCTTTCTATGCAGCTGTAGAAATGAGGGACAAT
CCAGAATTGAAGGATAAACCCATTGCTGTAGGATCAATGAGTATGCTGTCTACTTCAAAT
TACCATGCAAGGAGATTTGGTGTTCGTGCAGCCATGCCAGGATTTATTGCTAAGAGGCTG
TGCCCAACTTATAATAGTGCCCCCACTTTGACAAAACCGAGCTGTGAGTAAAGAG
GTTAAGGAAATACTTGTGATTATGATCCCAATTTTATGGCCATGAGTCTTGATGAAGCC
TACTTGAATATAACAAAGCACTTAGAAGAAAGACAAAATGGCCTGAGGATAAAAGAAGG
TATTTTCATCAAAATGGGAAGCTCTGTAGAAAATGATAATCCAGGAAAGGAAGTTAATAAA
CTGAGTGAGCATGAACGATCCATCTCTCCACTACTTTTTGAAGAGAGTCCTTCTGATGTG
CAGCCCCCAGGAGATCCTTTCCAAGTGAACCTTTGAAGAACAAAACAATCCCAAACTACT
CAAACTCAGTTGTTTTGGAACATCAGCCCAGGAAGTGTAAAGGAAATTCGTTTCAGA
ATTGAGCAGAAAACAACACTGACAGCTAGTGCAGGCATTGCCCAATACAATGTTAGCA
AAAGTATGCAGTGATAAGAATAAACCAATGGACAATACCAAAATCTTCCAATAGACAA
GCTGTGATGGACTTCATCAAGGATTTACCCATTAGAAAGGTTTCTGGAATAGGAAAAGTT
ACAGAGAAAATGTTAAAGGCCCTTGGAAATTATTACATGTACAGAACTTTACCAACAGAGG
GCATTGCTTTCTCCTTTTCTGAAACATCTGGCATTATTTCTTTCATATCTCCTTG
GGTCTAGGTTCAACACACCTGACGAGGGATGGAGAGAGGAAAAGTATGAGCGTTGAGAG
ACATTCAGTGAGATAAAATAAGCGGAAGAGCAATACAGCCTATGTCAAGAACTTTGCAGT
GAGCTTGCTCAGGATCTACAGAAAGAAAGACTTAAAGGTAGAAGTGTACCATTAAAGTTG
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GCAGAAGAAATATTTGCCATTGCTAAGGAATTGCTAAAAACAGAAATTGATGCTGATTTT
CCACATCCCTTGAGATTAAGGCTTATGGGTGTTTCGGATATCTAGTTTTCCAATGAAGAG
GACAGGAAACACCAACAAAGGAGCATTATTGGCTTTTTACAGGCTGGAAACCAAGCCCTG
TCAGCCACTGAGTGTACATTAGAGAAAAGTACAAAAGATAAGTTTGTAAAACCTCTAGAA
ATGTCTCATAAGAAGAGTTTCTTTGATAAAAAACGATCAGAAAGGAAATGGAGTACCAA
GATACATTTAAATGTGAAGCCGTGAATAAACAAAGTTTCCAGACATCACAAACCATTCCAA
GTTTTAAGAAGAAGATGAATGAGAATTTGGAATATCAGAGAATTCAGATGACTGTCAG
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TGTTACATGTTTCTGCTACCAAGTTAACAAGAAAGAAAATGTTCTGCTTCTTCACTT
TGTGAGAAGCAAGATTATGAAGCCCATCCAAAAATTAAGAAATATCTTTCAGTAGATTGT
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TGTCATCAGAATTCTTCTACTGTTTCATTGGAAAACGAAGTGTGGATCATTTAGA
CAAGAATACCGCCAGCCTTACTTATGTGAAGTGAACAGGCCAAGCTCTAGTTTGTCTT
GTTTGTAACTAGAACAAAAGACTTCAGATCTAACCTGTTCAATGTGCATGTGGATGTT
TGCTTAAATAAAAGTTTTATCCAAGAAATAAGAAAGGATAAAATTAACCCAGTTAATCAA
CCCAAAGAAAGCTCCAGAAGTACTGGTAGCTCAAGTGGAGTACAGAAGGCTGTAACAAGA
ACAAAAAGGCCAGGATTGATGACAAAGTACTCAACATCAAAGAAAATAAAACCAACAAT
CCCAAACATACCCTTGATATATTTTTTAAGTAA

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Clone variation with respect to NM\_016218.2  
927 c=>t

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_016218 unedited  
 TAATACGACTCACTATAGGGCGGCCGAATTCGGCACGAGGAACGGATAAGTTTATACC  
 ATGGATAGCACAAAGGAGAAGTGTGACAGTTACAAAGATGATCTTCTGCTTAGGATGGGA  
 CTTAATGATAATAAAGCAGGAATGGAAGGATTAGATAAAGAGAAAATTAACAAAATTATA  
 ATGGAAGCCACGAAGGGTCCAGATTTTATGGAATGAGCTCAAGAAAGAAAAGCAAGTC  
 AACCAACGAATTGAAAATATGATGCAACAAAAAGCTCAAATCACCAGCCAACAGCTAAGA  
 AAAGCACAAATTACAGGTTGACAGATTTGCAATGGAATTAGAACAAGCCGAAATTTGAGC  
 AATACCATAGTGACATTGACATGGATGCTTTCTATGCAGCTGTAGAAATGAGGGACAAT  
 CCAGAATTGAAGGATAAACCCATTGCTGTAGGATCAATGAGTATGCTGTCTACTTCAAAT  
 TACCATGCAAGGAGATTTGGTGTTCGTGCAGCCATGCCAGGATTTATTGCTAAGAGGCTG  
 TGCCCACTAATAATAGTGCCCACTTTGACAAATACCGAGCTGTGAGTAAAGAG  
 GTTAAGGAAATACTTGCTGATTATGATCCCAATTTTATGGCCATGAGTCTTGATGAAGCC  
 TACTTGAATATAACAAAGCACTTAGAAGAAAGAACAAATGGCCTGAGGATAAAAAGAGG  
 TATTTTCATCAAAATGGGAAGCTCTGTAGAAAATGATAATCCAGGAAAGGAAGTAATANAC  
 TGAGTGAGCATGAACGATCCATCTCTCCACTACTTTTTGAAGAGAGTCTTCTGATGTGC  
 AGCCCCAGNAGATCCTTTCCAGTGACTTTGAAGAACAACATNCTCAATACTCAAAT  
 CAGTGTTTTTGACATAGCCAGGAGTGGTAAAGAAATCGTTTGAATGACAAAACCTGA  
 CGCTGTGCAGCATT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_016218 unedited  
 GGCCGCATTTCTANATCGAGTTTTTTTTTTTTTTTTTTTATCGTTTTAGTAGAGACAGGGT  
 CTCACCATGTTGGCGAGGCTGGTCTCAAACCTCCTGACCTCAAGTATCTGCCCATTGCGC  
 CTCCTCAAAGGGCTGGCATTACAGGTGTGAGCCATTGTGCCTGGCCTAACTAATTATTTTT  
 TGAGAAGAACTCATTGATAGCACAAAAGTACTTGAGAAACTACTTAAGCTAACTACTAT  
 TAAGCTGTCTTCTTTCACAAATATTAATAAAAAGTACTGATAGAAATGTAAGTAAAGTACA  
 TAATGTGTTTTAATACACATTAATCTTTTGAATTACACATTTTCTCTTGAGGATTATAAT  
 AAAATGATGGTACAATTTATCCTTCTTTATAGATTTGTGGAAAGTACCAACATAATTGAC  
 AAGAAATGAAATACTGCCATTTAAAAGTCTGTATTAATAAACTACTTTGAATCATC  
 TTAGACTAAATATTTTAAAAGTCAAGTCAAGTCTTATCATAAGATAATGGAATTTTAA  
 ATAAAGAAAGCCAAATTAATAATTTTATAGGCAAAAACCATTTTAAACACAGATAATA  
 CTGTGATATTTATTTTCCCTGAAGAAAACCACTTATGCTAGTTACATTAATACTCTTCATA  
 GAACCTTAAGATAAATTCTATTATGAATGCTCATGAAGTATCTAAAGACACTAGGATCAAT  
 GCCAACANAGTAGTTAAGGGCTGAAAATTTCTTATGATATATAGGCATGTGAGAATCTTTG  
 AGAGCCCTACAAAGTTTTTATTTTCAAGTAAAAATATAAAAAATCACTTTCTTTCCATTT  
 CTAATTCCTTTAAGAATTTATCCTTAACAGATTGATTTCCATTGATGTTTATAGAAGG  
 GAAATTCATGGCTATAAAAAGAACCCGAATCCGTTTGTCTTAAAAAGCACCTCTCT  
 GGAAGGTT

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_016218

**Insert Size:**

3900 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).

**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\\_016218.1](#), [NP\\_057302.1](#)

**RefSeq Size:** 4074 bp

**RefSeq ORF:** 2613 bp

**Locus ID:** 51426

**UniProt ID:** [Q9UBT6](#)

**Cytogenetics:** 5q13.3

**Domains:** IMS, ZnF\_Rad18

**Protein Families:** Druggable Genome

**Gene Summary:** This gene encodes a member of the DNA polymerase type-Y family of proteins. The encoded protein is a specialized DNA polymerase that catalyzes translesion DNA synthesis, which allows DNA replication in the presence of DNA lesions. Human cell lines lacking a functional copy of this gene exhibit impaired genome integrity and enhanced susceptibility to oxidative damage. Mutations in this gene that impair enzyme activity may be associated with prostate cancer in human patients. [provided by RefSeq, Sep 2016]

Transcript Variant: This variant (1) encodes the longest isoform (1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data because no single transcript was available for the full length of the gene. The extent of this transcript is supported by transcript alignments.