

## Product datasheet for **SC335989**

### DNA polymerase eta (POLH) (NM\_001291970) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DNA polymerase eta (POLH) (NM_001291970) Human Untagged Clone
Tag:	Tag Free
Symbol:	POLH
Synonyms:	RAD30; RAD30A; XP-V; XPV
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC335989 representing NM_001291970. Blue=Insert sequence Red=Cloning site Green=Tag(s)

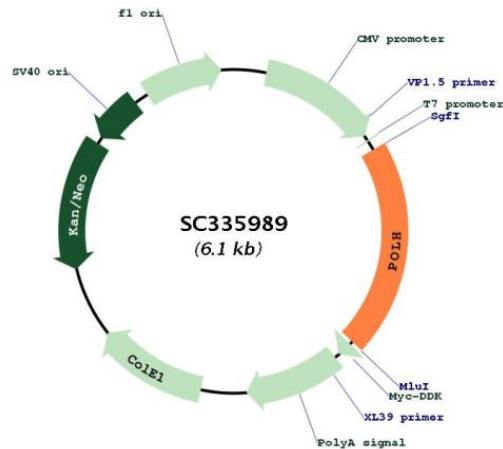
```
GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCC GCGATCGCC
ATGGCTACTGGACAGGATCGAGTGGTTGCTCTCGTGGACATGGACTGTTTTTTTGTTC AAGTGGAGCAG
CGGCAAAATCCTCATTGAGGAATAAACCTTGTGCAGTTGTACAGTACAAATCATGGAAGGGTGGTGA
ATAATTGCAGTGAGTTATGAAGCTCGTGCATTTGGAGTCACTAGAAGTATGTGGGCAGATGATGCTAAG
AAGTTATGTCCAGATCTTCTACTGGCACAAGTTCGTGAGTCCCGTGGGAAAGCTAACCTCACCAAGTAC
CGGAAGCCAGTGTGAAGTGATGGAGATAATGTCTCGTTTTGCTGTGATTGAACGTGCCAGCATTGAT
GAGGCTTACGTAGATCTGACCAGTGCTGTACAAGAGAGACTACAAAAGCTACAAGGTCAGCCTATCTCG
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TCTCCAGACCTGCAGCTCACCGTGGGAGCAGTGATTGTGGAGGAAATGAGAGCAGCCATAGAGAGGGAG
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AGCATTGTGTACAAGGAGACAAACGCCTCAGCAGCCTGCGCCGCTGCTGTGCCCTTACCCGCTATGAT
GCTCACAAGATGAGCCATGATGCATTTACTGTCATCAAGAAGTGAATACTTCTGGAATCCAGACAGAA
TGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```



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Restriction Sites: SgfI-MluI

Plasmid Map:



ACCN: NM\_001291970

Insert Size: 1245 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\\_001291970.1](#)

RefSeq Size: 8341 bp

RefSeq ORF: 1245 bp

Locus ID: 5429

UniProt ID: [Q9Y253](#)

Cytogenetics: 6p21.1

Protein Families: Druggable Genome

**MW:** 46.3 kDa

**Gene Summary:** This gene encodes a member of the Y family of specialized DNA polymerases. It copies undamaged DNA with a lower fidelity than other DNA-directed polymerases. However, it accurately replicates UV-damaged DNA; when thymine dimers are present, this polymerase inserts the complementary nucleotides in the newly synthesized DNA, thereby bypassing the lesion and suppressing the mutagenic effect of UV-induced DNA damage. This polymerase is thought to be involved in hypermutation during immunoglobulin class switch recombination. Mutations in this gene result in XPV, a variant type of xeroderma pigmentosum. Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, May 2014]

Transcript Variant: This variant (3) uses an alternate splice junction at the 3' end of an exon compared to variant 1. The resulting isoform (3) is shorter at the C-terminus compared to isoform 1. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.