

Product datasheet for RC238095

DNA polymerase eta (POLH) (NM_001291970) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	DNA polymerase eta (POLH) (NM_001291970) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	POLH
Synonyms:	RAD30; RAD30A; XP-V; XPV
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC238095 representing NM_001291970 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGGCTACTGGACAGGATCGAGTGGTTGCTCTCGTGGACATGGACTGTTTTTTTGTTCAGTGGAGCAGC
GGCAAAATCCTCATTGAGGAATAAACCTTGTGCAGTTGTACAGTACAAATCATGGAAGGGTGGTGAAT
AATTGCAGTGAGTTATGAAGCTCGTGCATTTGGAGTCACTAGAAGTATGTGGCAGATGATGCTAAGAAG
TTATGTCCAGATCTTCTACTGGCACAAGTTCGTGAGTCCCGTGGGAAAGCTAACCTCACCAAGTACCGGG
AAGCCAGTGTGAAGTATGGAGATAATGTCTCGTTTTGCTGTGATTGAACGTGCCAGCATTGATGAGGC
TTACGTAGATCTGACCAGTGTGTACAAGAGAGACTACAAAAGCTACAAGGTGAGCCTATCTCGGCAGAC
TTGTTGCCAAGCACTTACATTGAAGGGTGGCCCAAGGCCCTACAACGGCAGAAGAGACTGTTTCAGAAAAG
AGGGGATGCGAAAACAAGGCTTATTTCAATGGCTCGATTCTTTCAGATTGATAACCTCACCTCTCCAGA
CCTGCAGCTCACCGTGGGAGCAGTGATTGTGGAGGAAATGAGAGCAGCCATAGAGAGGGAGACTGGTTTT
CAGTGTTACAGTGAATTTACACAATAAGTCTGGCAAACTGGCCTGTGGACTAAACAAGCCCAACC
GCCAAACCCTGGTTTACATGGGTCAGTCCCAGCTCTTCAGCCAAATGCCATTGCAAAAATCCGTAG
TCTTGGAGGAAAGCTAGGGCCTGTGATTGAGATCCTAGGGATAGAATACATGGGTGAACCTGACCCAG
TTCACTGAATCCAGCTCCAGAGTCATTTTGGGAGAAGAATGGGTCTTGCTATATGCCATGTGCCGAG
GGATTGAACATGATCCAGTTAAACCCAGGCAACTACCCAAAACCTTGGCTGTAGTAAGAACTTCCAGG
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AGACTGACTAAAGACCGAAATGATAATGACAGGGTAGCCACCCAGCTGGTTGTGAGCATTCTGTACAAG
GAGACAAACGCCTCAGCAGCTGCGCCGCTGTGTCCTTACCCGCTATGATGCTACAAGATGAGCCA
TGATGCATTTACTGTCATCAAGAACTGTAATACTTCTGGAATCCAGACAGAA

ACGCGTACGCGGCCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC238095 representing NM_001291970
 Red=Cloning site Green=Tags(s)

MATGQDRVVALVDMDCFFVQVEQRQNPFLRNKPCAVVQYKSWKGGGIIAVSYEARAFGVTRSMWADDAKK
 LCPDLLLAQVRESRGKANLTKYREASVEVMEIMSRFAVIERASIDEAYVDLTSAVQERLQKLGQGPISAD
 LLPSTYIEGLPQGPTTAEETVQKEGMRKQGLFQWLDLQIDNLTSPDLQLTVGAVIVEEMRAAIERETGF
 QCSAGISHNKVLAKLACGLNKPNRQTLVSHGSPQLFSQMPPIRKIRSLGGKLGASVIEILGIEYMGELTQ
 FTESQLQSHFGEKNGSWLYAMCRGIEHDPVKPRQLPKTIGCSKNFPGKTALATREQVQWLLQLAQELEE
 RLTKDRNDNRVATQLVVSIRVQDKRLSSLRCCALTRYDAHKMSHDAFTVIKNCNTSGIQTE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

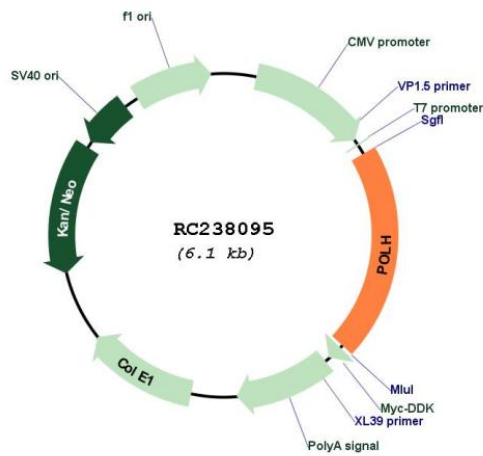
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001291970

ORF Size:	1242 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:	<ol style="list-style-type: none">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_001291970.2
RefSeq Size:	8341 bp
RefSeq ORF:	1245 bp
Locus ID:	5429
UniProt ID:	Q9Y253
Cytogenetics:	6p21.1
Protein Families:	Druggable Genome
MW:	46.7 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]