

Product datasheet for **MG216957**

Polh (NM_030715) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Polh (NM_030715) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Polh
Synonyms:	RAD30A; XPV
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide
Sequence:

>MG216957 representing NM_030715
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCTCTGGGCAGAATCGAGTGGTTGCTCTTGTAGACATGGACTGCTTTTTTGTACAAGTGGAACAGC
 GGC AAAATCCTCATTGAGGAATAAACCTTGTGCAGTTGTACAGTACAAATCATGGAAAGGTGGTGAAT
 TATTGCAGTTAGCTATGAAGCCCGAGCATTGGTGTCACTAGAAAACATGTGGGCGGATGATGCTAAGAAG
 TTATGTCCAGATCTTCTCCTGGCACAAGTTCGTGAGTCCCGTGGAAAAGCTAACCTCACCAAGTACCGGG
 AAGCTAGTGTGAAGTGTGGAGATAATGTCTTATTTTGTGTGATTGAACGTGCCAGCATCGATGAGGC
 TTATATAGATTTGACCAGTGTGTACAAGAAAGACTTCAAAGTTACAAGGTGAGCCTATCTCAGCAGAT
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 CTATTCGAAAACAAGGCTTGCTTCAGTGGCTTGATTCTCTTCAGAGTGATGATCCCACTCTCCAGACCT
 CAGGCTGACTGTGGGAGCCATGATTGTGGAAGAAATGAGAGCAGCCATAGAGAGTAAAGACTGGCTCCAG
 TGTTCACTGGAATCTCACACAATAAGTCTGGCAAACTTGCTTGTGGACTAAATAAGCCCAACCGCC
 AAACCCTGGTCTCACATGGGTGAGTCCACAGCTCTTCAGCCAGATGCCAATCCGTAATAAATCCGAAGTCT
 TGGAGGAAAGCTAGGGGCTTCTGTCAATTGAAGTCTTGGGATAGAATACATGGGTGACCTGACCCAGTTC
 ACTGAATCCCAGTCCAGAGTCAATTTGGAGAGAAGAATGGGTCTTGGCTGTATGCCATGTGTGAGGTA
 TTGAACACGATCCAGTTAAACCCAGGCAGTTACCTAAACTATTGGTGCAGCAAGAAGTCCCAGGGAA
 AACAGCTCTGGCTACTCGGGAGCAGGTACAGTGGTGGCTTTTGCAGTTAGCTCTGGAAGTGGAGAGAGG
 CTAACCAAAGATCGAAATGATAATGACCGCGTGGCCACTCAGCTGGTTCGTCAGTATTCGTTTTCAGGGAG
 ACAGGCGTCTCAGCAGCCTGCGGCGGTGTGTGCCCTCCCTCGCTATGACGCTCACAAGATGAGCCAGGA
 CGCATTTGCTGCCATCAGGAACTGTAATACATCTGGAATCCAAACTGAGTGGTCCCTCCTCTACAATG
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 AGAATGAAAGAGACTTCTTTGTACCTCTTAACACAGCCACAGAGAAGTTATCATCCAAGCCTTCACTTG
 TGTTCAAAGCAGCCAAACACAGGAAGTCACTTTCTTAAGCAGAAGAGCCTGCTGCTCCAGCACAC
 ACAGCTTAGTAAGTCTGCGGCTCCTGACCCTCCACAGGCCAGCCCTGCAGCGCAACCAAGTGTCTGCCA
 GCAGAGTGTGACAGTGGTCTGATGATGGAGCGGTGAAGCCAGTATCCTCTAAGCAGTGTCTACAG
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 AAGGGCCACTGAGGACCAAGTGCTCTGTGAGAAGTGTGACTCCCTGGTCCAGTGTGGGACATGCCAGAA
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 CTATTCCTGCCGTGTCTCCTCAGGGCAAAGAAATCCCAAGAGTCCCTCGGCTTCCAGTAGTAAGCGCCT
 TAGGCCCATGGCATGCAGACGCTGGAATCGTTTTTTAAGCCACTGACACAT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG216957 representing NM_030715
 Red=Cloning site Green=Tags(s)

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MAPGQNRVVALVDMDCFFVQVEQRQNPFLRNKPCAVVQYKSWKGGGIIAVSYEARAFGVTRNMWADDAKK
LCPDLLLAQVRESRGKANLTKYREASVEVMEIMSYFAVIERASIDEAYIDLTSAVQERLQKLGQQPISAD
LLPSTYIEGLPRGPTVEETVQKEAIRKQGLLQWLDSLQSDPTSPDLRLTVGAMIVEEMRAAIESKTGFQ
CSAGISHNKVLAKLACGLNKPQRQTLVSHGSPVQLFSQMPIRKIRSLGGKLGASVIEVLGIEYMGDLTQF
TESQLQSHFGEKNGSWLYAMCRGIEHDPVKPRQLPKTIGCSKNFPGKTALATREQVQWLLQLALELEER
LTKDRNDNDRVATQLVVSIRFQGDRLSSLRCCALPRYDAHKMSQDAFAAIRNCNTSGIQTEWSPPLTM
LFLCATKFSAAAPPACTDITAFLLSSDSSCQPKVPIASSETRTQSGPAVPTSKEAATSLASFFQKAARKQ
RMKETSFVPLNATEKLSKPSLVFQSSQTTGSQSFQKQSLLLQHTQLSNSAAPDPPQASPAAPQSPCLP
AECVDSGPDGAVKPVSSKAVSTEMNVAGDSPNVLDSPAYNSQEVTRATEDQVLCCKCDLVPVWDMPE
HTDYHFALELQKSFLLQPCCTSKPQAIPAVSPQGRNPKSPSASSSKRLRPHGMQTLSEFFKPLTH
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TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja1677_h08.zip

Restriction Sites: Sgfl-MluI

Cloning Scheme:



ACCN: NM_030715

ORF Size: 2082 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_030715.4](#)

RefSeq Size: 2580 bp

RefSeq ORF: 2085 bp

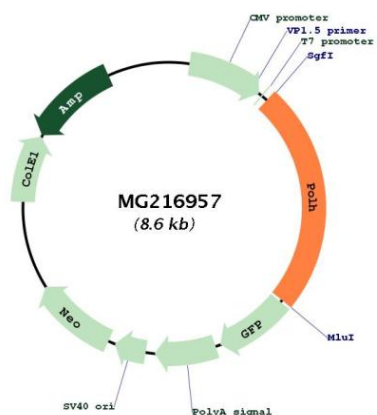
Locus ID: 80905

UniProt ID: [Q9JJN0](#)

Cytogenetics: 17 C

Gene Summary: DNA polymerase specifically involved in the DNA repair by translesion synthesis (TLS) (PubMed:10871396). Due to low processivity on both damaged and normal DNA, cooperates with the heterotetrameric (REV3L, REV7, POLD2 and POLD3) POLZ complex for complete bypass of DNA lesions. Inserts one or 2 nucleotide(s) opposite the lesion, the primer is further extended by the tetrameric POLZ complex. In the case of 1,2-intrastrand d(GpG)-cisplatin cross-link, inserts dCTP opposite the 3' guanine (By similarity). Particularly important for the repair of UV-induced pyrimidine dimers (PubMed:10871396). Although inserts the correct base, may cause base transitions and transversions depending upon the context. May play a role in hypermutation at immunoglobulin genes. Forms a Schiff base with 5'-deoxyribose phosphate at abasic sites, but does not have any lyase activity, preventing the release of the 5'-deoxyribose phosphate (5'-dRP) residue. This covalent trapping of the enzyme by the 5'-dRP residue inhibits its DNA synthetic activity during base excision repair, thereby avoiding high incidence of mutagenesis. Targets POLI to replication foci (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG216957