

## Product datasheet for **MR216957**

### Polh (NM\_030715) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Polh (NM_030715) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Polh
Synonyms:	RAD30A; XPV
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>MR216957 representing NM\_030715  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGGCTCTGGGCAGAATCGAGTGGTTGCTCTTGTAGACATGGACTGCTTTTTTGTACAAGTGGAACAGC  
 GGC AAAATCCTCATTGAGGAATAAACCTTGTGCAGTTGTACAGTACAAATCATGGAAAGGTGGTGAAT  
 TATTGCAGTTAGCTATGAAGCCCGAGCATTGGTGTCACTAGAAAACATGTGGGCGGATGATGCTAAGAAG  
 TTATGTCCAGATCTTCTCCTGGCACAAGTTCGTGAGTCCCGTGGAAAAGCTAACCTCACCAAGTACCGGG  
 AAGCTAGTGTGAAGTGTGGAGATAATGTCTTATTTTGTGTGATTGAACGTGCCAGCATCGATGAGGC  
 TTATATAGATTTGACCAGTGTGTACAAGAAAGACTTCAAAGTTACAAGGTGAGCCTATCTCAGCAGAT  
 TTGCTGCCAAGCACTTACATTGAAGGGTGCCTCCGAGGCCCTACAGTAGAAGAGACTGTTAGAAAAGAGG  
 CTATTCGAAAACAAGGCTTGCTTCAGTGGCTTGATTCTCTTCAGAGTGATGATCCCACTCTCCAGACCT  
 CAGGCTGACTGTGGGAGCCATGATTGTGGAAGAAATGAGAGCAGCCATAGAGAGTAAAGACTGGCTCCAG  
 TGTTGAGTGGAAATCTCACACAATAAGGTCTGGCAAACTTGCTTGTGGACTAAATAAGCCCAACCGCC  
 AAACCCTGGTCTCACATGGGTGAGTCCACAGCTCTTCAGCCAGATGCCAATCCGTAATAAATCCGAAGTCT  
 TGGAGGAAAGCTAGGGGCTTCTGTCTTGAAGTCTTGGGATAGAATACATGGGTGACCTGACCCAGTTC  
 ACTGAATCCCAGTCCAGAGTCAATTTGGAGAGAAGAATGGGTCTTGGCTGTATGCCATGTGTGAGGTA  
 TTGAACACGATCCAGTTAAACCCAGGCAGTTACCTAAACTATTGGTGCAGCAAGAAGTCCCAGGGAA  
 AACAGCTCTGGCTACTCGGGAGCAGGTACAGTGGTGGCTTTTGCAGTTAGCTCTGGAAGTGGAGAGAGG  
 CTAACCAAGATCGAAATGATAATGACCGCGTGGCCACTCAGCTGGTGTGATTCGTTTTCAGGGAG  
 ACAGGCGTCTCAGCAGCCTGCGGCGGTGCTGTGCCCTCCCTCGCTATGACGCTCACAAGATGAGCCAGGA  
 CGCATTTGCTGCCATCAGGAAGTGAATACATCTGGAATCCAAACTGAGTGGTCCCTCCTCTACAATG  
 CTCTTCTCTGCGCTACCAAGTCTCTGCGGCTGCCCTCCAGCTTGACGGATATCACTGCGTTCTGA  
 GTAGCGACTCAAGTTGTGAGCCAAAGGTGCCAATTGCCAGCTCTGAGACTAGGACCCAGGGGTCTGGCC  
 AGCTGTACCAACCTCTAAAGAGGAGCCACATCTTAGCGTCTTTTTTCAAAGCTGCCAAAAGCAG  
 AGAATGAAAGAGACTTCTTTGTACCTCTTAACACAGCCACAGAGAAGTTATCATCAAGCCTTCACTTG  
 TGTTCAAAGCAGCCAAACCACAGGAAGTCACTTTCTTAAGCAGAAGAGCCTGCTGCTCCAGCACAC  
 ACAGCTTAGTAAGTCTGCGGCTCCTGACCTCCACAGGCCAGCCCTGCAGCGCAACCAAGCTGTCTGCCA  
 GCAGAGTGTGACAGTGGTCTGATGATGGAGCGGTGAAGCCAGTATCCTCTAAGCAGTGTCTACAG  
 AAATGAATGTGGCTGGGACAGTCCAAACGTGCTCGATTCTCCAGCTTACAAGTCTCAGGAGGTGACCCA  
 AAGGGCCACTGAGGACCAAGTGCTCTGTGAGAAGTGTGACTCCCTGGTCCAGTGTGGGACATGCCAGAA  
 CACACGGACTACCATTTTGCATTGGAGTTGAGAAGTCTTTTTTGCAGCCTTGTACTTCAAACCCAGG  
 CTATTCCTGCCGTGTCTCCTCAGGGCAAAGAAATCCCAAGAGTCCCTCGGCTTCCAGTAGTAAGCGCCT  
 TAGGCCCCATGGCATGCAGACGCTGGAATCGTTTTTTAAGCCACTGACACAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR216957 representing NM\_030715  
Red=Cloning site Green=Tags(s)

```
MAPGQNRVVALVDMDCFFVQVEQRQNPFLRNKPCAIVVQYKSWKGGGIIAVSYEARAFGVTRNMWADDAKK
LCPDLLLAQVRESRGKANLTKYREASVEVMEIMSYFAVIERASIDEAYIDLTSAVQERLQKLGQQPISAD
LLPSTYIEGLPRGPTVEETVQKEAIRKQGLLQWLDSLQSDPTSPDLRLTVGAMIVEEMRAAIESKTGFQ
CSAGISHNKVLAKLACGLNKPNRQTLVSHGSPQLFSQMPIRKIRSLGGKLGASVIEVLGIEYMGDLTQF
TESQLQSHFGEKNGSWLYAMCRGIEHDPVKPRQLPKTIGCSKNFPGKTALATREQVQWLLQLALELEER
LTKDRNDNDRVATQLVVSIRFQGDRLSSLRCCALPRYDAHKMSQDAFAAIRNCNTSGIQTEWSPPLTM
LFLCATKFSAAAPPACTDITAFLLSSDSSCQPKVPIASSETRTQSGPAVPTSKEAATSLASFFQKAAKKQ
RMKETSFVPLNTATEKLSKPSLVFQSSQTTGSQSFFKQKSLLLQHTQLSNSAAPDPPQASPAAPQSPCLP
AECVDSGPDGAVKPVSSKAVSTEMNVAGDSPNVLDSPAYNSQEVTRATEDQVLCEKCDSLVPVWDMPE
HTDYHFALELQKSFLQPCTSKPQAIPAVSPQGRNPKSPSASSSKRLRPHGMQTLSEFFKPLTH
```

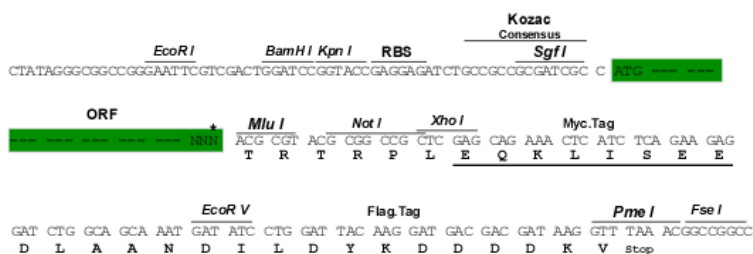
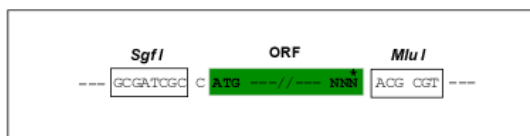
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: [https://cdn.origene.com/chromatograms/mm9046\\_d12.zip](https://cdn.origene.com/chromatograms/mm9046_d12.zip)

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

ACCN: NM\_030715

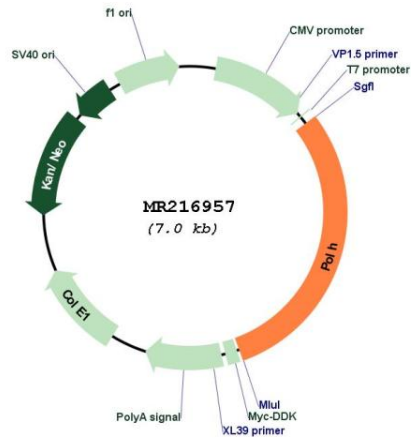
ORF Size: 2082 bp

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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_030715.4</a>
<b>RefSeq Size:</b>	2580 bp
<b>RefSeq ORF:</b>	2085 bp
<b>Locus ID:</b>	80905
<b>UniProt ID:</b>	<a href="#">Q9JJN0</a>
<b>Cytogenetics:</b>	17 C
<b>MW:</b>	76.6 kDa
<b>Gene Summary:</b>	<p>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]</p>

Product images:



Circular map for MR216957