

Product datasheet for **MC222293**

Poln (NM_181857) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Poln (NM_181857) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Poln
Synonyms:	POL4P
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >MC222293 representing NM_181857
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAATGGAAATTATGAGGCATGTGTAGGTTTTGATGTCTGTGAGATACCCCTCTGCTGTTGCTC
 AGAAGATTATGTCTGCTATGCGTTCAGGTGATTTTCATGGATTCTAGGAATGAGGGAGAGAGTACAAACAC
 TTCAAAGTGGCAAAGAATCCAGTGTTCACTACTCAGTATTAGCTGAACATGAGGAGACTCAATCACTA
 GGAACAAAGAACCCCGAGTCATTAATAACCCAGACACCAAGAGGATCCATTGAGCTCTGTCTCAGCCCT
 CCATTACTAAGCTCACATGTCAGCTCTCTGCTGGTCAAGTACAGAACAGCATCAGCTCATTGGGTCTTTC
 CAGTTATTTAATCCACAGTGTGATCAGGAAGCTTCAGTTTTACCGAACATGGAGCATAAGAGACAGCAT
 TTCCTAAAGGAAAATATAGGCAAAGAAGATAAGGACAACCTCGAGTCTTAAAAGAAAATATATTACATGTA
 GTAATCCTCAGAAAAGCAAGTAAACACACAGCTCTGGAAAAGATACTGATGGGACTGAATCCTGGCC
 AAACCTCCAGGGACACAAGAGCTTTGGGGAAAGGCTGTGTGATGTTAGATATTTGGGTGATTTGGCCAAA
 GCCCAGCTGATGGATGCTCTCAAGCAGGCAGCAGCCCTGGTGGTACATTGATGTACAAGGATGGTTCCA
 CACAGCTGAGCGCCAAGGAGGCTTAACTTGTACTGTTAAAGGAATTGTAGTGTTACTAAAAAGCCATGT
 AGGCAACAGCACTCTGACTCTCCAGCCATGGTGGTGTCTGGAAAAGGACTTCATATCCGAAGATCAC
 TGTGTCTACATACATACGGAGCATTCCCCTTCTGGGACCCAAAGCAAGAAGCACATAGTCTATTTGTCA
 GGAACATACTGTTTTGGACACTGAGGTGTAATGTCCCCTGTTGTTTTAATGCCAAGGACTTTGTGAG
 AACAGTGTGCAGCTCTATGGTGAAGATGGCAGTTGGAAGCATGTTGCTGATTTTGTAGGACTAGATCCC
 AGAGTTGCTGCATGGCTCATAGACCCAGTGACACTGCACCTTCATTTGAAGATTTAGTAGCAAAACACC
 TAGAAAAGTCCATCACAGTCAAACCAAGCAGCATTTCAGAGAAGCCTCAAGAAATACTTTGAGCAGAA
 TGTATTTATGAATCTGAAGATACTCTACGACCTTACAATGGATCTTTGTTCTAAGTTGAAGGCTTATGGC
 TTATGGCAGCTATTTGCACTTTGGAGCTTCCATTGATACCAATTTTGGCAGTGATGAAAAACCATAAGA
 TTCAGTTGACAAAGAAGAAATGGAGAGGACATCGGCACTCCTCGGGGCTCGCCTCAAGGAATTGGAGCA
 AGAAGCCCATTTTGTGCAAGGAGAACAGTCTTATAATGAGTAATAATCAACTTCGTGAGATCCTCTTT
 GGCAAGTTGAAGCTGCATTTGTTGAGTCAGAGGAAACATCTTCCAGAAGTGGGCTGCAGAACAGCTGT
 CCACATCAGAAGCCATGTTAAATCTCTACAAGACCTTCAACCATACCAAGTTAATTTTGAATATAG
 ACAGTTCCACAAGATCAAGTCAACTTTTATAGATGGATTACTAGCTTATATGAAAAAGGCTCCATCTCT
 TCTACATGGAATCAGACTGGAAGTGTGACAGGGAGACTTTCAGCCAAGCATCAAATATCCAGGGTATCT
 CCAAGCACCAATTAAGATTTCTAAGCCTTGAATTTTAAAGGTAAGAAGAGGAGACTGTCAACCATCTC
 ACCAAGAACCCTGTTTGTGTCCTCTGAAGGCCACACCTTCTGGCAGCAGACTTTTACAGATTGAATTG
 CGCATTCTTGACATTTATCTGGGGATCCAGAGCTTTTGAAGTTATTCCAGGAATCTGAAAGAGATGATG
 TATTTTCTACCCTGACTTCACAGTGAAGGACATTTCCATAGAGCGTGTGACACACATGGACAGAGAACA
 AACCAAGAAAGTGGTGTACTCCGTGGTCTATGGAGCTGGGAAAGAGCGGCTTGCTGCTTGCTTGGAGTC
 ACTGTTTTGGAAGCCACCCTTTTGGAGAGATTTTGCAGAAGTACAAGAAAATCAAGGACTTTGCC
 AGACAGTTATTGGCCAGTGTACAGTGCAGGCTATGTGACATCCATCTTGGGTAGAAGGAGGCTCTCCC
 GAGGATCTGTGCACAGGACCAGCAGCTTCGGGCACAAGCAGAGCGACAGGCAGTAACTTTGTGGTACAA
 GGCTCAGCCGACAGCTCTGTAAGCTAGCCATGATTTCGATCTCTACTGCAGTAGCCACATCCCGACCT
 TGACAGCCAGTTAGTTGCCAAATTCATGATGAGCTGCTGTTTGAAGTGAAGACACTCAGTCCCTGA
 GTTTGCACTCTTGTGAGAAGGATCATGGAGTCTTGAACAGGTACAGACCCTGGAAGTGCAGCTGCAG
 GTGCCCTAAAAGTGAAGTTGAGTGTGGCCGCTCATGGGACACCTGACCCACTGCAGGAGATCCTGG
 GCTCAGCCTGA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Restriction Sites: SgfI-MluI
ACCN: NM_181857
Insert Size: 2601 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:	<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_181857.4 , NP_862905.1
RefSeq Size:	2994 bp
RefSeq ORF:	2601 bp
Locus ID:	272158
UniProt ID:	Q7TQ07
Cytogenetics:	5 B2
Gene Summary:	<p>DNA polymerase with very low fidelity that catalyzes considerable misincorporation by inserting dTTP opposite a G template, and dGTP opposite a T template. Is the least accurate of the DNA polymerase A family (i.e. POLG, POLN and POLQ). Can perform accurate translesion DNA synthesis (TLS) past a 5S-thymine glycol. Can perform efficient strand displacement past a nick or a gap and gives rise to an amount of product similar to that on non-damaged template. Has no exonuclease activity. Error-prone DNA polymerase that preferentially misincorporates dT regardless of template sequence. May play a role in TLS during interstrand cross-link (ICL) repair. May be involved in TLS when genomic replication is blocked by extremely large major groove DNA lesions. May function in the bypass of some DNA-protein and DNA-DNA cross-links. May have a role in cellular tolerance to DNA cross-linking agents. Involved in the repair of DNA cross-links and double-strand break (DSB) resistance. Participates in FANCD2-mediated repair. Forms a complex with HELQ helicase that participates in homologous recombination (HR) repair and is essential for cellular protection against DNA cross-links.[UniProtKB/Swiss-Prot Function]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).</p>