

## Product datasheet for **RG207550**

### DNA Polymerase iota (POLI) (NM\_007195) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	DNA Polymerase iota (POLI) (NM_007195) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	DNA Polymerase iota
Synonyms:	eta2; RAD3OB; RAD30B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide  
Sequence:**

>RG207550 representing NM\_007195  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAAGTGGCGGACGTGGGGCGGCAGCCAGCTCGCAGGGAGTTCATGATCAAGTGTGCCACACCAA  
 ATGCTTCATCCAGAGTCATAGTACATGTGGATCTGGATTGCTTTTATGCACAAGTAGAAATGATCTCAAA  
 TCCAGAGCTAAAAGACAAACCTTTAGGGTTCAACAGAAATATTTGGTGGTTACCTGCAACTATGAAGCT  
 AGGAAACTTGGAGTTAAGAACTTATGAATGTCAGAGATGCAAAAAGAAAAGTGTCCACAGTTGGTATTAG  
 TTAATGGAGAAGACCTGACCCGCTACAGAGAAATGCTTATAAGGTTACAGAATTACTGGAAGAATTTAG  
 TCCAGTTGTTGAGAGACTGGATTTGATGAAAATTTGTGGATCTAACAGAAATGGTTGAGAAGAGACTA  
 CAGCAGCTGCAAAGTGATGAACCTTCTGCGGTGACTGTGTCGGGTATGTATAACAATAATCAGTCTATAA  
 ACCTGCTTGACGCTTGCACATCAGACTACTTGTGGATCTCAGATTGCAGCAGAGATGCGGGAAGCCAT  
 GTATAATCAGTTGGGCTCACTGGCTGTCTGGAGTGGCTTCTAATAAACTGTTGGCAAAATTAGTTTCT  
 GGTGTCTTTAAACCAAATCAACAAACAGCTTATTACCTGAAAGTTGTCAACATCTTATTCATAGTTTGA  
 ATCACATAAAGGAAATACCTGGTATTGGCTATAAACTGCCAAATGTCTTGAAGCACTGGGTATCAATAG  
 TGTGCGTGATCTCCAAACCTTTTACCCAAAATTTAGAAAAAGAATTAGGAATTTAGTTGCTCAGCGT  
 ATCCAAAAGCTCAGTTTGGAGAGGATAACTCCCTGTGATACTCTCAGGACCACCTCAGTCCTTTAGTG  
 AAGAAGATTCATTTAAAAATGTTATCTGAAGTTGAAGCTAAAAATAAGATTGAAGAACTACTTGTCTAG  
 TCTTTTAAACAGAGTATGCCAAGATGGAAGGAAGCCTCATACAGTGAGATTAATAATCCGTCGGTATTCC  
 TCTGAGAAGCACTATGGTCGTGAGAGTCGTGAGTGCCTTATTCTTACATGTAATTCAGAAATAGGGA  
 CAGGAAATATGATGTGATGACCCCAATGGTTGATATACCTTATGAAAATTTTTCGAAATATGGTGAATGT  
 GAAGATGCCATTTACCTTACCCTTCTAAGTGTGTGCTTCTGCAACCTTAAAGCACTAAATACTGCTAAG  
 AAAGGGCTTATTGATTATTATTTAATGCCATCATTATCAACTACTTCACGCTCTGGCAAGCACAGTTTTA  
 AAATGAAAGACTCATATGGAAGATTTTCCCAAAGACAAAGAAACAAACCGGGATTTCTACCAAGTGG  
 AAGAATTGAAAGTACAAGAACTAGGGAGTCTCCACTAGATACCACAAATTTTCTAAAGAAAAAGACATT  
 AATGAATCCCACTCTGTTCACTTCTGAAGGTGTTGACCAAGAAGTCTTCAAGCAGCTTCCAGTAGATA  
 TTCAAGAAGAAATCCTTTCTGAAAATCTAGGGAAAAATTTCAAGGAAAGGAAGTGTGAGTTGCCATT  
 ACATGCCTCTAGAGGAGTATTATCTTTCTTTCTAAAAACAAATGCAAGATATTCCTATAATCCTAGA  
 GATCATTTATCCAGTAGCAAACAGGTATCCTCTGTATCTCCTTGTGAACCGGGAACATCAGGCTTTAATA  
 GCAGTAGTTCTTCTTACATGTCTAGCCAAAAGGATTATTCATATTTAGATAATAGATTAAGATGA  
 ACGAATAAGTCAAGGACCTAAAGAACCTCAAGGATTCCACTTTACAAATTCAAACCCTGCTGTGTCTGCT  
 TTTCAATCATTTCCAACTTGCAGAGTGAGCAACTTTTCTCCAGAAACCACACTACAGATAGCCATAAGC  
 AAACAGTAGCAACAGACTCTCATGAAGGACTTACAGAAAAAGAGAGCCAGATTCTGTTGATGAGAAAAT  
 TACTTTCCCTTCTGACATTGATCCTCAAGTTTCTATGAACTACCAGAAGCAGTACAAAAGGAAGTCTG  
 GCAGAGTGAAGAGAGCAGGATCAGATTTCCACATTGGACATAAA

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG207550 representing NM\_007195  
 Red=Cloning site Green=Tags(s)

```
MELADVGAAASSQGVHDQVLPNASSRVIHVHDLDCFYAQVEMISNPELKDKPLGVQQKYLVVTCNYEA
RKLGVKKLMNVRDAKEKCPQLVLVNGEDLTRYREMSYKVTELLEEFSPVVERLGFDFENFDLTEMVEKRL
QQLQSDDEL SAVTVSGHVYNNQ SINLLDVLHIRLLVGSQIAAEMREAMYNQLGLTGCAGVASNKLLAKLVS
GVFKPNQQT VLLPESCQHLIHSLNHIKEIPGIGYKTAKCLEALGINSVRDLQTFSPKILEKELGISVAQR
IQKLSFGEDNSPVILSGPPQSFSEEDSFKKCSSEVEAKNKEEELLASLLNRVCQDGRKPHTVRLIIRRY
SEKHYGRESRQCPIPSHVIQKLGTYDVMTPMVDILMKLFRNMVNVKMPFHLTLLSVCFCNLKALNTAK
KGLIDYYLMPSLSTTSRSGKHSFKMKDTHMEDFPKDKETNRDFLPSGRIESTRTRESPLDITNFSKEKDI
NEFPLCSLPEGVDQEVFKQLPVDIQEEILSGKSREKFQGGKSVSCPLHASRGLV SFFSKKQMQDIPINPR
DHLSSSKQVSSVSPCEPGTSGFNSSSSSYMSQKDYSYLDNRLKDERISQGPKEPQGFHF TNSNP AVSA
FHSF PNLQSEQLFSRNHTTDSHKQTVATDSHEGLTENREPDVDEKITFPDIDPQVVFYELPEAVQKELL
AEWKRAGSDFHIGHK
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_007195

**ORF Size:** 2145 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\\_007195.2](#), [NP\\_009126.2](#)

**RefSeq Size:** 6074 bp

**RefSeq ORF:** 2223 bp

**Locus ID:** 11201

**UniProt ID:** [Q9UNA4](#)

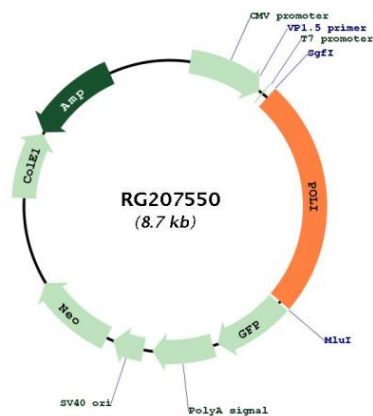
**Cytogenetics:** 18q21.2

**Domains:** IMS

**Protein Families:** Druggable Genome

**Gene Summary:** The protein encoded by this gene is an error-prone DNA polymerase involved in DNA repair. The encoded protein promotes DNA synthesis across lesions in the template DNA, which other polymerases cannot do. The encoded polymerase inserts deoxynucleotides across lesions and then relies on DNA polymerase zeta to extend the nascent DNA strand to bypass the lesion. [provided by RefSeq, May 2017]

### Product images:



Circular map for RG207550