

## Product datasheet for **MG216884**

### Polg2 (NM\_015810) Mouse Tagged ORF Clone

#### Product data:

|                           |                                          |
|---------------------------|------------------------------------------|
| Product Type:             | Expression Plasmids                      |
| Product Name:             | Polg2 (NM_015810) Mouse Tagged ORF Clone |
| Tag:                      | TurboGFP                                 |
| Symbol:                   | Polg2                                    |
| Synonyms:                 | mtPolB; p55; polG-beta                   |
| Mammalian Cell Selection: | Neomycin                                 |
| Vector:                   | pCMV6-AC-GFP (PS100010)                  |
| E. coli Selection:        | Ampicillin (100 ug/mL)                   |



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**ORF Nucleotide Sequence:**

>MG216884 representing NM\_015810  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCGCTGCGGTGGCGGCCAGGGCCTGCCGAGGGCCTGCAGGTGCTGGTGTCCGGGTACGCGGGT  
 CCGCAGATGGGACGCAGCAGCCTGACGCCCCGAGCATGCGGTGGCCCGGAGGGCCTGGTAGACCTCTG  
 CCGGAGGAGGCACTTTCTCAGCGGGACGCCGAGCAGCTCAGCACGGCTGCTCTGCTGAGCGGGTCCAC  
 GCGCGCTTTGGACCTTTGGGTGTAGAGTTACGAAAGAACCTAGCCTCACAGTGGTGGTCTCTATGGTGG  
 TGTTCAGGGAGCAGGTCTTCGCGGTGGACTCCCTCCACCAGGAGCCGGGCTTTCCGAGCCGAGGGACAG  
 TGCCTTCAGTGTAGTCTCCAGAAAGTACGCGAAATCTTGAAGACAGAGAGCCGAGTAAGGAACAG  
 CTAGTGGCATTCTTGAAGTATTAAAAACTCTGGGAACTACGGGCGACTCTTCTCACGGTGCCT  
 TGGAGCACTATGTTAATGCCTGGATCTGGTAAACAGAAAGCTACCTTTCGGTCTTGCTCAGATTGGAGT  
 CTGTTTCCATCCTGTTTGAACAGCAATCAGACACCCAGCAGTGTACAAGAGTTGGTAAAAGACGGAA  
 GCTTCTTGGTATGGTTTACTCCACAAGGACTTCGAGCCAGTGGCTTGATTTCTGGTTGCGTCATCGGC  
 TTCTGTGGTGGAGAAAGTTTGTATGAGTCCCTCTAACTTCAGCAGCGCTGATTGTCAGGATGAATTGGG  
 ACGCAAGGGAAGCAAACCTTACTACAGCTTCCCCTGGGAAAGGAGCCAAAGAAACCTGTGGAACCTA  
 GGAGATCAAGAACTCCTACACACATATCCTGGAATGTGTCTACGATACAGGGTCGAGATGGGCGGAAAA  
 ACGTGGTTCCTTGCCTTGTCTGTAAGTGGGGACGTAGACCTGGGCACGCTGGCTTACCTCTACGATTC  
 CTTCCAGCTGGCAGAACTCCTTCCAGGAAGAAGAGCCTCCAGAGAAAGGTGCTTAACTTCACCCCT  
 TGTTTAGCCCTATTAAGGTCGCTTTGGATGTGGGAAAGGCCAACGGTAGAACTCCGACAGGTTTGTG  
 AAGGGCTACTTAATGAGTTACTAGAAAAATGGATTTCTGTGTGGCCTGGCTATTCGAAACTGTCCATTC  
 CTATTAGAGCAACTCCATTCAAAGTACGATGAGATGAGTGTCCCTTCTCAGTTCTGGTCACTGAGACT  
 ACGCTGGAATAATGGGCTAATCCAGCTGCGGAGCAGAGACACCAGATGAAGGAAATGATGCACATATCCA  
 AGCTGAGAGACTTCTGGTCAAGTACCTAGCGTCAGCTAGCAATGTG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG216884 representing NM\_015810  
 Red=Cloning site Green=Tags(s)

MRCGGGARACRRACRCWLSGYAGPADGTQQPDAPEHAVAREALVDLCRRRHFLSGTPQQLSTAALLSGCH  
 ARFGPLGVELRKNLASQWWSSMVVFREQVFAVDSLHQEPGSSQPRDSAFRLVSPESIREILQDREPSKEQ  
 LVAFLNLLKTSGLRATLLHGALEHYVNCLDLVNRKLPFGLAQIGVCFHPVSNQTPSSVTRVGEKTE  
 ASLVWFPTTRTSSQWLDLFWLRHRLWWRKFAMSPSNFSSADCQDELGRKGSKLYYSPWKGKEIETLWNL  
 GDQELLHTYPGNVSTIQGRDGRKNVPCVLSVSGDLDLGTLAYLYDSFQLAENSFARKKSLQRKVLKHP  
 CLAPIKVALDVKGPTVELRQVCQGLLNELLENGISVWPGYSETVHSSLEQLHSKYDEMVSFLSVLVTET  
 TLENGLIQLRSRDTTMKEMMHISKLRLDFLVKYLASASNV

**TRTRPLE** – GFP Tag – V

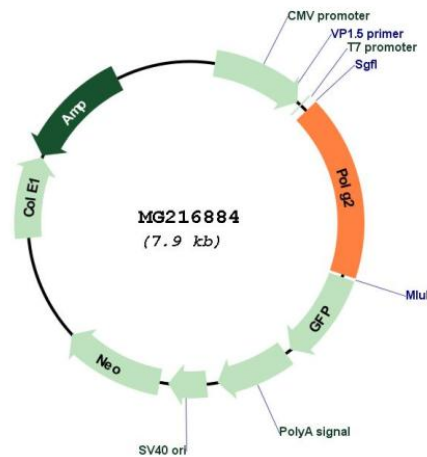
**Restriction Sites:**

Sgfl-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM\_015810

ORF Size: 1377 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>                | <u><a href="#">NM_015810.2</a></u> , <u><a href="#">NP_056625.2</a></u>                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>RefSeq Size:</b>           | 1585 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>RefSeq ORF:</b>            | 1380 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Locus ID:</b>              | 50776                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>UniProt ID:</b>            | <u><a href="#">Q9QZM2</a></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>Cytogenetics:</b>          | 11 E1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Gene Summary:</b>          | Mitochondrial polymerase processivity subunit. Stimulates the polymerase and exonuclease activities, and increases the processivity of the enzyme. Binds to ss-DNA.[UniProtKB/Swiss-Prot Function]                                                                                                                                                                                                                                                                                                                |