

## Product datasheet for **RG216029**

### Myeloperoxidase (MPO) (NM\_000250) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Myeloperoxidase (MPO) (NM_000250) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Myeloperoxidase
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

**ORF Nucleotide Sequence:**

>RG216029 representing NM\_000250  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGGGTTCCCTTCTTCTTCTCTCAGATGCATGGTGGACTTAGGACCTTGCTGGGCTGGGGTCTCA  
 CTGCAGAGATGAAGCTGCTTCTGGCCCTAGCAGGGCTCCTGGCCATTCTGGCCACGCCCCAGCCCTCTGA  
 AGGTGCTGCTCCAGCTGTCTGGGGAGGTGGACACCTCGTTGGTGTGAGCTCCATGGAGGAGGCCAAG  
 CAGCTGGTGGACAAGGCCTACAAGGAGCGGGGAAAGCATCAAGCAGCGGCTTCGCAGCGGCTCAGCCA  
 GCCCATGGAACCTCTACTTCAAGCAGCCGGTGGCAGCCACCAGGACGGCGGTGAGGGCCGCTGA  
 CTACCTGCACGTGGCTCTAGACCTGCTGGAGAGGAAGCTGCGGTCCCTGTGGCGAAGGCCATTCAATGTC  
 ACTGATGTGCTGACGCCCGCCAGCTGAATGTGTGTCCAAGTCAAGCGGCTGCGCTACCAGGACGTGG  
 GGGTGACTTGCCCGGAGCAGGACAAATACCGCACCATCACGGGATGTGCAACAACAGACGCAGCCCCAC  
 GCTGGGGCCCTCAACCGTGCCTTTGTGCGCTGGCTGCCGGCGGAGTATGAGGACGGCTTCTCTTCCC  
 TACGGCTGGACGCCCGGGTCAAGCGCAACGGCTTCCCGTGGCTCTGGCTCGCGCGGTCTCCAACGAGA  
 TCGTGGCTTCCCACTGATCAGCTGACTCCGGACCAGGAGCGCTCACTCATGTTTCAATGGGGCCA  
 GCTGTTGGACCAGACTCGACTTACCCTGAGCCGGCCGCCGGGCTCCTTCGTCAGTGGCGTCAAC  
 TGCGAGACCAGCTGCGTTGAGCAGCCCGCTGCTCCCGTCAAGATCCCGCCCAATGACCCCCGCATCA  
 AGAACCAAGCCGACTGCATCCCGTCTTCCGCTCCTGCCCGGCTTGGCCCGGAGCAACATCACCATCCG  
 CAACCAGATCAACGCGCTCACTTCTTCGTGGACGCCAGCATGGTGTACGGCAGCGAGGAGCCCCGGCC  
 AGGAACCTGCGCAACATGTCCAACCAGCTGGGGTGTGGCCGTCAACCAGCGCTTCCAAGACAACGGCC  
 GGGCCCTGCTGCCCTTTGACAACCTGCACGATGACCCCTGTCTCCTCACCAACCGCTCAGCGCCATCCC  
 CTGCTTCCGAGGGGACACCCGTTCCAGTGAGATGCCCGAGCTCACCTCCATGCACACCCTTACTT  
 CGGGAGCAACAACCGCTGGCCACAGAGCTCAAGAGCCTGAACCTAGGTGGGATGGGGAGAGGCTTACC  
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 GGGGCCAACGGCCATGAGGAAGTACCTGCCACGTACCGTTCCTACAATGACTCAGTGGACCCACGCATC  
 GCCAACGTCTTACCAATGCCTTCGCTACGGCCACACCCTATCCAACCCTTATGTTCCGCTGGACA  
 ATCGGTACCAGCCATGGAACCAACCCCGTGTCCCTCAGCAGGGTCTTTTTGCTCCTGGAGGGT  
 CGTGTGGAAGGTGGCATTGACCCATCCTCCGGGCTCATGGCCACCCTGCCAAGCTGAATCGTCAG  
 AACCAATTGCAGTGGATGAGATCCGGGAGCGATTGTTTGGAGCAGGTGATGAGGATGGGCTGGACCTGC  
 CTGCTCTGAACATGCAGCGCAGCAGGGACCACGGCTCCAGGATACAATGCCTGGAGGGCTTCTGTGG  
 GCTCCCGCAGCCTGAAACTGTGGCCAGCTGGGCACGGTGTGAGGAACCTGAAATTGGCGAGGAAACTG  
 ATGGAGCAGTATGGCAGCCCAACAACATCGACATCTGGATGGGCGGCGTGTCCGAGCCTCTGAAGCGCA  
 AAGGCCGCTGGGCCACTCCTCGCTGCATCATCGGTACCCAGTTCAGGAAGCTCCGGGATGGTATCG  
 GTTTTGGTGGGAGAACGAGGGTGTGTTGAGCATGCAGCAGCGACAGGCCCTGGCCAGATCTCATTGCC  
 CGGATCATCTGCGACAACACAGGCATCACCCCGTGTCTAAGAACAACATCTTATGTCCAACCTCATATC  
 CCCGGACTTTGTCAACTGCAGTACACTTCTGCATTGAACCTGGCTTCTGGAGGAAGCTCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG216029 representing NM\_000250  
Red=Cloning site Green=Tags(s)

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MGVFFFSSLRMVDLGPCWAGGLTAEMKLLLALAGLLAILATPQPSEGAAPAVLGEVDTSLVLSMEEAK
QLVDKAYKERRESIKQRLRSGSASPMELLSYFKQPVAATRTAVRAADYLHVALDLLERKLRSLWRRPFNV
TDVLTPAQLNVLKSSSGCAYQDVGVTCPEQDKYRTITGMCNRRSPTLGASNRAFVRWLP AEYEDGFSLP
YGWTPGVKRNQFPVALARAVSNEIVRFPTDQLTPDQERSLMFMQWQQLLDHDLDF TPEPAARASFVTGVN
CETSCVQPPCFPLKIPNDPRIKNQADCIPFFRSCPACPGSNITIRNQINALTSFVDASMYGSEEPLA
RNLRNMSNQLGLLAVNQRFQDNGRALLPFDNLHDDPCLLTNRSARIPCFLAGDTRSSEMPELTSMTLLL
REHNRLATELKS LNPRWDGERLYQEARKIVGAMVQIITYRDYLPVLVLPVTAMRKYLPYRSYNDSDVPRI
ANVFTNAFRYGH TLIQPFMRLDNRYQPMENPRVPLSRVFFASWRVVLEGGIDPILRGLMATPAKLNKQ
NQIAVDEIRERLFEQVMRIGLDLPALNMQRSDHGLPGYNARRFCGLPQPETVGQLGTVLRNLKARKL
MEQYGTNPNDIWMGGVSEPLKRRKGRVGPLLACIIGTQFRKLRDGRFVWENEGVFSMQQRQALAIQISLP
RIICDNTGITTVSKNNIFMSNSYPRDFVNCSTLPALNLSWREAS
    
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000250

**ORF Size:** 2235 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\\_000250.2](#)

**RefSeq Size:** 3215 bp

**RefSeq ORF:** 2238 bp

**Locus ID:** 4353

**UniProt ID:** [P05164](#)

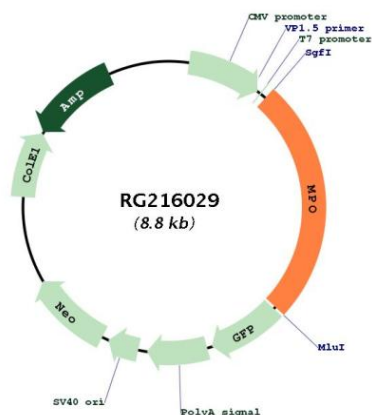
**Cytogenetics:** 17q22

**Domains:** An\_peroxidase

**Protein Families:** Druggable Genome

**Gene Summary:** Myeloperoxidase (MPO) is a heme protein synthesized during myeloid differentiation that constitutes the major component of neutrophil azurophilic granules. Produced as a single chain precursor, myeloperoxidase is subsequently cleaved into a light and heavy chain. The mature myeloperoxidase is a tetramer composed of 2 light chains and 2 heavy chains. This enzyme produces hypohalous acids central to the microbicidal activity of neutrophils. [provided by RefSeq, Nov 2014]

### Product images:



Circular map for RG216029