

## Product datasheet for **SC119994**

### Myeloperoxidase (MPO) (NM\_000250) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Myeloperoxidase (MPO) (NM_000250) Human Untagged Clone
Tag:	Tag Free
Symbol:	Myeloperoxidase
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC119994 sequence for NM\_000250 edited (data generated by NextGen Sequencing)

```
ATGGGGGTTCCCTTCTTCTTCTCAGATGCATGGTGGACTTAGGACCTTGCTGGGCT
GGGGGTCTCACTGCAGAGATGAAGTGTCTTGGCCCTAGCAGGGCTCCTGGCCATTCTG
GCCACGCCCCAGCCCTCTGAAGTGTGCTCCAGCTGTCTGGGGAGGTGGACACCTCG
TTGGTGTGAGCTCCATGGAGGAGGCCAAGCAGCTGGTGGACAAGGCTACAAGGAGCGG
CGGAAAGCATCAAGCAGCGGCTTCGCAGCGGCTCAGCCAGCCCCATGGAACCTATCC
TACTTCAAGCAGCCGGTGGCAGCCACCAGGACGGCGGTGAGGGCCGCTGACTACCTGCAC
GTGGCTCTAGACCTGCTGGAGAGGAAGCTGCGGTCCCTGTGGCGAAGGCCATTCAATGTC
ACTGATGTGCTGACGCCCGCCAGCTGAATGTGTTGTCCAAGTCAAGCGGCTGCGCCTAC
CAGGACGTGGGGTGACTTGCCCGGAGCAGGACAAATACCGCACCATCACCGGGATGTGC
AACACAGACGCAGCCCCAGCTGGGGGCTCCAACCGTGCCCTTGTGCGCTGGCTGCCG
GCGGAGTATGAGGACGGCTTCTCTTCCCTACGGCTGGACGCCCGGGTCAAGCGCAAC
GGCTTCCCGTGGCTCTGGCTCGCGGGTCTCCAACGAGATCGTGGCTTCCCCTGAT
CAGCTGACTCCGACCAGGAGCGCTCACTCATGTTTCATGCAATGGGGCCAGCTGTTGGAC
CAGGACCTCGACTTACCCTGAGCCGGCCCGGGGCTCCTTCGTCACTGGCGTCAAC
TGCGAGACCAGCTGCGTTGAGCAGCCGCTGTTCCCGCTCAAGATCCCGCCAATGAC
CCCCGATCAAGAACCAAGCCGACTGCATCCCCTTCTCCGCTCCTGCCCGGCTTGCCCC
GGGAGCAACATCACCATCCGCAACCAGATCAACGCGCTCACTTCCCTTCGTGGACGCCAGC
ATGGTGTACGGCAGCGAGGAGCCCTGGCCAGGAACCTGCGCAACATGTCCAACCAGCTG
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AACCTGCACGATGACCCCTGTCTCCTCACCAACCGCTCAGCGCGCATCCCCTGCTTCTG
GCAGGGGACACCCGTTCCAGTGAGATGCCCGAGCTCACCTCCATGCACACCCTTACTT
CGGGAGCAACAACCGCTGGCCACAGAGCTCAAGAGCCTGAACCCTAGGTGGGATGGGGAG
AGGCTCTACCAGGAAGCCGGAAGATCGTGGGGCCATGGTCCAGATCATCACTTACCGG
GACTACCTGCCCTGGTGTGGGGCCAACGGCCATGAGGAAGTACCTGCCACGTACCGT
TCCTACAATGACTCAGTGGACCCACGCATCGCCAACGTCTTACCAATGCCTTCCGCTAC
GGCCACACCCTCATCCAACCCTTATGTTCCGCTGGACAATCGGTACCAGCCCATGGAA
CCCAACCCCGTGTCCCCTCAGCAGGGTCTTTTTTGCCTCCTGGAGGGTGTGCTGGAA
GGTGGCATTGACCCATCCTCCGGGCTCATGGCCACCCTGCCAAGCTGAATCGTCAG
AACCAATTGCAGTGGATGAGATCCGGGAGCGATTGTTTGAGCAGTTCATGAGGATGGG
CTGGACCTGCCTGCTCTGAACATGCAGCGCAGCAGGGACCACGGCTCCCAGGATACAAT
GCCTGGAGGCGCTTCTGTGGGCTCCCGCAGCCTGAAACTGTGGGCCAGCTGGGCACGGT
CTGAGGAACCTGAAATGGCGAGGAACTGATGGAGCAGTATGGCACGCCCAACAACATC
GACATCTGGATGGGCGCGTGTCCGAGCCTCTGAAGCGCAAAGGCCGCGTGGGCCACTC
CTCGCCTGCATCATCGGTACCCAGTTTCAAGGAGCTCCGGGATGGTGTGCGTTTTGGTGG
GAGAACGAGGGTGTGTTTACAGCATGCAGCAGCGACAGGCCCTGGCCAGATCTCATTGCC
CGGATCATCTGCGACAACACAGGCATCACACCCTGTCTAAGAACAACATCTTCATGTCC
AACTCATATCCCCGGGACTTTGTCAACTGCAGTACACTTCTGCATTGAACCTGGCTTCC
TGGAGGAAGCCCTCTAG
```

Clone variation with respect to NM\_000250.1

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_000250 unedited  
 TAAGTTTAAATATTTGTATACGACTCATATAGGCGGCCGCGNAATTCGCACCAGGTCCTT  
 GGAAGCTGGATGACAGCAGCTGGCAAGGGGATAAGAGAGCAGTGAGCCCCCTCCCTCAAGA  
 GGTCTGGCTTTATCCATAGACAGGGCCCTCTGAGGTGGGGCTGAGGTACAAAGGGGGATT  
 GAGCAGCCAGGAGAAGAGAGATGGGGGTTCCCTTCTTCTCTCTCAGATGCATGGTG  
 GACTTAGGACCTTGCTGGGCTGGGGTCTCACTGCAGAGATGAAGCTGCTTCTGGCCCTA  
 GCAGGGCTCTGGCCATTCTGGCCACGCCACGCCCTCTGAAGGTGCTGCCAGCTGTC  
 CTGGGGGAGGTGACACCTCGTTGGTGTGAGCTCCATGGAGGAGCCAAGCAGCTGGTG  
 GACAAGGCCTACAAGGAGCGCGGAAAGCATCAAGCAGCGGCTTCGCAGCGGCTCAGCC  
 AGCCCCATGGAACCTCTATCCTACTTCAAGCAGCCGGTGGCAGCCACCAGGACGGCGGTG  
 AGGGCCGCTGACTACCTGCACGTGGCTCTAGACCTGCTGGAGAGGAAGCTGCGGTCCCTG  
 TGGCGAAGGCCATTCAATGTCACTGATGTGCTGACGCCGCCAGCTGAATGTGTGTGCC  
 AAGTCAAGCGGCTGCGCCTACCAGGACGTGGGGGTGACTGCCCCGAGCANGACAATAC  
 CGCACCATCACCGNGATGTGCAACAACAGACGCAGCCCCACGCTGGGGGCTCCAACCG  
 TGCCTTTGTGCGCTGGCTGCNCGNGAGTATGANGACGGCTTCTCTTCCCTACNGCTG  
 GACGCCCGGGGTCAAGCGCAAACGCTTACCCGTGGCTCTGGCTCGCGGGTCTCCACCNA  
 NATCGTGC

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_000250 unedited  
 AAAAGGGGAAAANNACANNNCNNTTTCCCCCTNTTTTTACTTAGNNACGCGNCCGC  
 ATNCTANGATCGAGTTTTTTTTTTTTTTTTTTTTCAGCAAACACACGCATGAAAAAGCC  
 AATTTATATACTTCGCACATACATGAGCACACAAATGAACGTCTAGTCACTCATTTTCTC  
 AGCTGCACCCAAACAGGGCTGGGCTCATCTAGGGCAAGGAGATCTCCGTGGTTCCAACTG  
 GCCAGCCAGATATACCCTCACTGCTGCACCCCTTACCTGGCCTCTAGGAGGTTCCC  
 TCCAGGAAGCCAGGTTCAATGCAGGAAGTACTGCAGTTGACAAAGTCCCGGGGATATG  
 AGTTGGACATGAAGATGTTGTTCTTAGACACGGTGGTGTGCCTGTGTTGTGCGAGATGA  
 TCCGGGGCAATGAGATCTGGGCCAGGGCTGTGCTGTGATGCTGAACACACCCTCGT  
 TCTCCACCAAACCGATCACCATCCCGGAGCTTCTGAACTGGGTACCGATGATGCAGG  
 CGAGGAGTGGGCCACGCGGCCCTTTCGCTTTCAGAGGCTCGGACACGCCGCCCATCCAGA  
 TGTCGATGTTGTTGGGCGTGCCATACTGCTCCATCAGTTTCTCGCCAATTTTCAGGTTCC  
 TCAGCACCGTGGCCAGCTGGCCACAGTTTCAGGCTGCGGGAGGCCACAGAAGCGCTCC  
 AGGCATTGTATCCTGGGAGGCCGTGGTCCCTGCTGCGCTGCATGTTCAAAGCAAGCAGGT  
 CCAGCCCAATCCTATGACCTGCTCAACAATCGCTCCCGGACTCATCCCTGCAATTTGGTT  
 CTGACCATTACCTGGCAGGGTGGGCATGAGCCCCGAAGAAGGGTCAATGCCACCTTCA  
 GACGACCCTCAGAAGCAAAAAACCTCTTAGGGGAACACGGGTTGGTCCATGGCTTG  
 TACCCATGTCCAGCCGCATGAGGTTGGA

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_000250

**Insert Size:**

2560 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:**

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\\_000250.1](#), [NP\\_000241.1](#)

**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]