

## Product datasheet for **MR210262**

### **Mpo (NM\_010824) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Mpo (NM_010824) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Mpo
Synonyms:	mKIAA4033
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide  
Sequence:

>MR210262 ORF sequence  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGAAGCTACTCTTGGCCTTGGCAGGCCTCTGGCCCCTCTGGCCATGCTTCAGACCTCCAATGGTGCCA  
CCCCAGCTCTCCTGGGGGAAGTGGAGAATTCAGTTGTGCTGAGCTGTATGGAAGAGGCCAAGCAGCTAGT  
GGACAGAGCCTACAAGGAGCGGAGAGAAAAGCATCAAGCGAGCCTCCAAGCGGCTCTGCCAGCCCCACG  
GAGCTCTGTTTTACTTCAAGCAGCCGGTGGCGGGCACCAGAACAGCTGTGAGGGCCGCTGATTATCTAC  
ATGTGGCCCTAGACCTGCTGAAGAGGAAGCTGCAGCCCCGTGGCCAAGGCCTTCAATGTTACAGATGT  
GTTGACACCTGCTCAGCTGAATCTGTTGTCCGTGTCAAGTGGCTGTGCCTATCAGGACGTGAGGGTGACA  
TGCCACCGAATGACAAGTATCGCACCATCACTGGACACTGCAACAACAGACGAAGCCCCACTCTGGGGG  
CCTCCAACCGTGCCTTTGTACGCTGGTTGCCTGCAGAGTATGAAGATGGCGTCTCCATGCCCTTTGGCTG  
GACGCCTGGAGTCAATCGCAATGGCTTCAAGGTGCCCTGGCTGCCAGGTCTCCAATGCCGTCTGCGC  
TTCCCCAACGATCAGCTGACCAAGGACCAGGAGCGTGCCTCATGTTTCATGCAGTGGGGACAGTTTCTGG  
ATCATGATATCACCTTGACTCCAGAGCCAGCTACCCGGTTCTCCTTCTCACTGGCCTCAACTGCGAGAC  
CAGCTGCCTGCAGCAGCCACCCTGCTTCCCCCTCAAGTCCCACCCAATGACCCTCGAATCAAGAACCAA  
AAGGACTGCATCCCCTTCTTCCGCTCCTGCCCGCATGCACCAGGAACAACATCACCATTGCAACCAGA  
TCAACGCGCTCACTTCTTCCGTGGACGCCAGCGGGGTGTACGGCAGCGAGGACCCCTAGCCAGAAAAGCT  
GCGCAACCTCACCAACCAGCTGGGGTGTGGCTATCAATACACGCTTCCAAGACAATGGCAGGGCCCTG  
ATGCCCTTTGACAGCCTGCAGATGACCCTGCCTCCTACCAACCGCTCCGCCCGCATTCTTTGTTTC  
TGGCAGGGGACATGCGCTCCAGCGAGATGCCGGAGCTCACCTCCATGCACACCCTTTTGTTCGAGAGCA  
TAACCGGCTGGCCACACAGCTCAAGCGCCTGAATCCTCGATGGAATGGGGAGAAGCTCTACCAGGAGGCC  
CGGAAGATTGTAGGGCCATGGTCCAGATCATCACATACCGGACTACCTGCCCTTGGTGTGGGGCCAG  
CAGCCATGAAGAAGTACCTACCCAGTACCGATCTTACAACGACTCAGTAGACCCTCGAATCGCCAATGT  
CTTACCAACGCTTTCGTTATGGCCACACCCTCATCCAACCCTTTCATGTTCCGCTGAACAATCAGTAC  
CGGCCACAGGGCCCAACCCCGAGTCCCCTCAGCAAGGTCTTTTTTGGCAGCTGGAGAGTCGTGTTGG  
AAGGTGGCATTGACCCCATCCTCCGAGGCCTCATGGCCACTCCAGCCAACTGAATCGCCAGAATCAAAT  
TGTGGTGGATGAGATCCGGGAGCGACTATTTGAGCAAGTCATGAGGATAGGACTGGATTTGCCTGCTCTT  
AACATGCAGCGCAGCCGGGATCACGGCCTCCCAGGATACAATGCCTGGAGACGCTTTTGTGGCTTCCAC  
AGCCCAGCACAGTGGGTGAGCTCGGCACGGTGCCTGAAGAACCTGGAGTTGGCAGCGAAGCTGATGGCACA  
ATATGGCAGCCCAACAACATTGACATCTGGATGGGCGGTGTGTCCGAGCCCCTGGAGCCCAATGGCCGT  
GTAGGCCAGCTCCTTGCCTGCCTCATTGGCACTCAGTTTAGGAAGCTACGTGATGGTGATCGGTTTTGGT  
GGGAGAACCAGGCGTGTTCAGTAAACAGCAGAGACAGGCCTTGGCCAGCATCTCCTTGGCCCGTATCAT  
CTGTGACAACACTGGCATCACCCTGTGTGGAAGAACAACATCTTCATGTCCAACACATACCCCGAGAC  
TTTGTGAGCTGTAACACTTCTCTAAACTGAACCTGACTTCTGGAAGGAGACC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR210262 protein sequence  
 Red=Cloning site Green=Tags(s)

MKLLLLALAGLLAPLAMLQTSNGATPALLGEVENSVVLSCEMEEAKQLVDRAYKERRESIKRSLQSGSASPT  
 ELLFYFKQPVAGTRTAVRAADYLHVALDLLKRKLQPLWPRPFNVTDVLTQAQLNLLSVSSGCAYQDVRVT  
 CPPNDKYRTITGHCNNRRSPTLGASNRAFVRWLP AEYEDGVSMFPFGWTPGVNRNGFKVPLARQVSNVAVR  
 FPNQDLTKDQERALMFMQWQFLDHDITLTPEPATRF SFFTGLNCETSCLQPPCFPLKIPPNDPRIKNO  
 KDCIPFFRSCPACTRNITIRNQINALTSFVDASGVYGSSEPLARKLRNLTNQLGLLAINTRFQDNGRAL  
 MPFDSLHDDPCLLTNRSARIPCFLAGDMRSSEMPELTSMHFTLVREHNRLATQLKRLNPRWNGEKLYQEA  
 RKIVGAMVQIITYRDYLPVLGPAAMKKYL PQYRSYNDSDVPRIANVFTNAFRYGHTLIQPFMFRLNQY  
 RPTGPNRPVPLSKVFFASWRVLEGGIDPILRGLMATPAKLNQNIIVDEIRERLFEQVMRIGLDL PAL  
 NMQRSDHGLPGYNARRFCGLPQPSTVGELGTVLKNLELARKLMAQYGPNNIDIWMMGGVSEPLEPNGR  
 VGQLLACLIGTQFRKLRDGRF WWENPGVFSKQQRQALASISLPRIICDNTGITT VSKNNIFMSNTYPRD  
 FVSCNTLPKLNLT SWKET

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_010824

**ORF Size:** 2157 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\\_010824.2](#)

**RefSeq Size:** 2570 bp

**RefSeq ORF:** 2157 bp

**Locus ID:** 17523

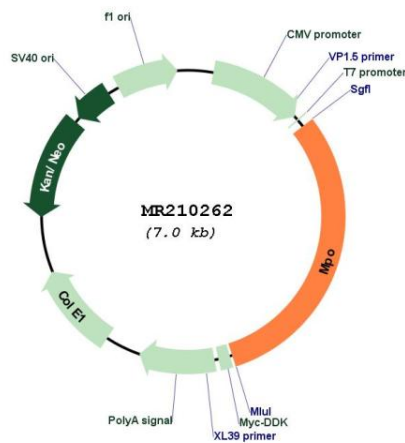
**UniProt ID:** [P11247](#)

**Cytogenetics:** 11 C

**MW:** 81.2 kDa

**Gene Summary:** Part of the host defense system of polymorphonuclear leukocytes. It is responsible for microbicidal activity against a wide range of organisms. In the stimulated PMN, MPO catalyzes the production of hypohalous acids, primarily hypochlorous acid in physiologic situations, and other toxic intermediates that greatly enhance PMN microbicidal activity. [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR210262