

Product datasheet for **RC216029**

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:	Myc-DDK
Symbol:	Myeloperoxidase
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC216029 representing NM_000250
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGGTTCCCTTCTTCTTCTCTCAGATGCATGGTGGACTTAGGACCTTGCTGGGCTGGGGTCTCA
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ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC216029 representing NM_000250
Red=Cloning site Green=Tags(s)

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MGVPPFSSLRCMVDLGPCWAGGLTAEMKLLALAGLLAILATPQPSEGAAPAVLGEVDTSVLVSSMEEAK
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TDVLTPAQLNVLKSSSGCAYQDVGVTCPEQDKYRTITGMCNRRSPTLGASNRAFVRWLP AEYEDGFSLP
YGWTPGVKRNQFPVALARAVSNEIVRFPDQLTPDQERSLMFMQWQQLLDHDLDF TPEPAARASFTGVN
CETSCVQPPCFPLKIPPNDPRIKNQADCIPFFRSCPACPGSNITIRNQINALTSFVDASMYGSEEPLA
RNLRNMSNQLGLLAVNQRFQDNGRALLPFDNLHDDPCLLTNRSARIPCFLAGDTRSSEMPELTSMTHTLLL
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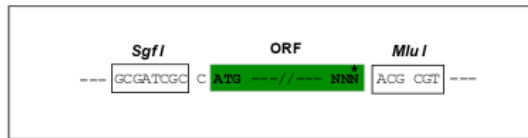
TRTRPLEQKLISEEDLANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6255_c04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_000250

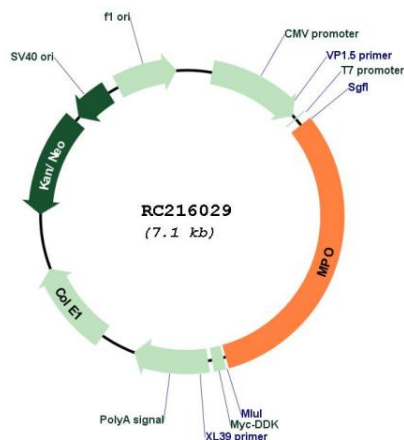
ORF Size: 2235 bp

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](#)

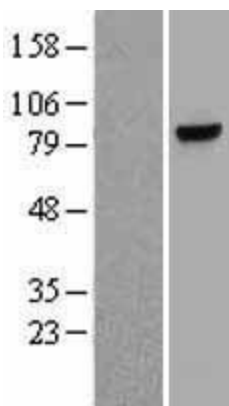
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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:	<ol style="list-style-type: none">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
MW:	83.7 kDa
Gene Summary:	<p>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]</p>

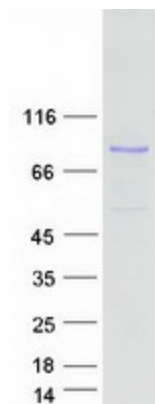
Product images:



Circular map for RC216029



Western blot validation of overexpression lysate (Cat# [LY424842]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC216029 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MPO protein (Cat# [TP316029]). The protein was produced from HEK293T cells transfected with MPO cDNA clone (Cat# RC216029) using MegaTran 2.0 (Cat# [TT210002]).