

## 32-8968: Recombinant Mouse Myeloperoxidase/MPO (C-10His)

**Gene :** Mpo  
**Gene ID :** 17523  
**Uniprot ID :** P011247

### Description

Source: Human Cells.  
MW :81.1kD.

Recombinant Mouse Myeloperoxidase is produced by our Mammalian expression system and the target gene encoding Met16-Thr718 is expressed with a 10His tag at the C-terminus. Myeloperoxidase (MPO) is a hemecontaining enzyme belonging to the XPO subfamily of peroxidases. It is an abundant neutrophil and monocyte glycoprotein that catalyzes the hydrogen peroxiddependent conversion of chloride, bromide, and iodide to multiple reactive species. MPO activity results in protein nitrosylation and the formation of 3-chlorotyrosine and dityrosine crosslinks. Modification of ApoB100, as well as the lipid and cholesterol components of LDL and HDL, promotes the development of atherosclerosis. MPO is also associated with a variety of other diseases, and inhibits vasodilation in inflammation by depleting the levels of NO. Serum albumin functions as a carrier protein during MPO movement to the basolateral side of epithelial cells. MPO is stored in neutrophil azurophilic granules. Upon cellular activation, it is deposited into pathogencontaining phagosomes. While mice lacking MPO are impaired in clearing select microbial infections, MPO deficiency in humans does not necessarily result in heightened susceptibility to infections.

### Product Info

**Amount :** 10 µg / 50 µg

**Purification :** Purity is >95%. Lyophilized from a 0.2 µm filtered solution of PBS, pH7.4.

**Content :** Myeloperoxidase (MPO) is a hemecontaining enzyme belonging to the XPO subfamily of peroxidases. It is an abundant neutrophil and monocyte glycoprotein that catalyzes the hydrogen peroxiddependent conversion of chloride, bromide, and iodide to multiple reactive species. MPO activity results in protein nitrosylation and the formation of 3-chlorotyrosine and dityrosine crosslinks. Modification of ApoB100, as well as the lipid and cholesterol components of LDL and HDL, promotes the development of atherosclerosis. MPO is also associated with a variety of other diseases, and inhibits vasodilation in inflammation by depleting the levels of NO. Serum albumin functions as a carrier protein during MPO movement to the basolateral side of epithelial cells. MPO is stored in neutrophil azurophilic granules. Upon cellular activation, it is deposited into pathogencontaining phagosomes. While mice lacking MPO are impaired in clearing select microbial infections, MPO deficiency in humans does not necessarily result in heightened susceptibility to infections.

**Storage condition :** Lyophilized protein should be stored at -20°C, though stable at room temperature for 3 weeks. Reconstituted protein solution can be stored at 4-7°C for 2-7 days. Aliquots of reconstituted samples are stable at -20°C for 3 months.

**Amino Acid :** MLQTSNGATPALLGEVENSVVLSCMEEAKQLVDRAYKERRESIKRSLQSGSASPTPELLFYFKQPVAGTRTAVRA  
ADYLHVALDLLKRLQPLWPRPFNVTDVLTPAQLNLLSVSSGCAYQDVRVTCPPNDKYRTITGHCNRRSPTLG  
ASNRAFVRWLP AEYEDGVSMPFGWTPGVNRNGFKVPLARQVSNAIVRFPNDQLTKDQERALMFMQWQGLD  
HDITLTPEPATRFSFFTGLNCETSCLQPPCFPLKIPNDPRIKNQKDCIPFFRSCPACTRNNITIRNQINALTSFVD  
ASGVYGEDPLARKLRNLTNQLGLLAINTRFQDNGRALMPFDSLHDDPCLLTNRSARIPCFLAGDMRSSEMP  
TSMHTLVREHNRLATQLKRLNPRWNGEKLYQEARKIVGAMVQIITYRDYLPVLVGAAMKKYLPQYRSYNSV  
DPRIANVFTNAFRYGHTLIQPFMRLNNQYRPTGPNPRVPLSKVFFASWRVVLEGGIDPILRGLMATPAKLNQRN  
QIVVDEIRERLFEQVMRIGLDLPALNMQRSRDHGLPGYNAWRRFCGLPQPSTVGELGTVLKNLELARKLMAQY  
GTPNNIDIWMGGVSEPLEPNRGRVQLLACLIGTQFRKLRDGRFVWENPGVFSKQQRQALASISLPRIICDNT  
GITTVSKNNIFMSNTYPRDFVSCNTLPKLNLT SWKETHHHHHHHHHHH

## Application Note

**Endotoxin** : Less than 0.1 ng/ $\mu$ g (1 IEU/ $\mu$ g) as determined by LAL test.

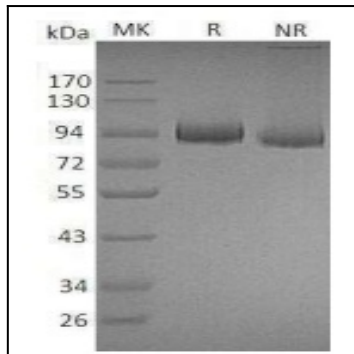


Figure 1: Recombinant Mouse MPO ran on SDS-Page under reducing and non-reducing conditions.