MPO
Native Human Myeloperoxidase

Catalog No.	CRM132A	**Quantity:**	25 µg
	CRM132B		100 µg
	CRM132C		1 mg

Alternate Names: EC 1.11.2.2

Description: 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, MPO is subsequently cleaved into a light and heavy chain. The mature MPO is a tetramer composed of 2 light chains and 2 heavy chains. This enzyme produces hypohalous acids central to the microbicidal activity of neutrophils. MPO is a peroxidase enzyme and lysosomal protein stored in azurophilic granules of the neutrophils. Since human MPO has a heme pigment, it causes the green color in secretions rich in neutrophils.

Gene ID: 4353

UniProtKB: P05164

Source: Human neutrophils

Formulation: Clear, green liquid supplied as filtered solution in 50 mM sodium acetate, 100 mM sodium chloride, pH 6.0 with bromo-nitro-dioxane and methylisothiazolone as preservatives.

Purity: ≥96% by SDS-PAGE

Enzymatic Activity: 1,870 U/mL

Specific Activity: 1,110 U/mg protein
One unit of MPO will catalyze the consumption of one micromole of hydrogen peroxide and the production of 0.25 micromole of tetraguaiacol per minute at pH 7.0 and 25 °C.

Protein Concentration: 1.7 mg/mL ($E^{0.1\%}_{430\ nm}$ = 1.19)

Recovery: Microfuge vial prior to removing contents.

Storage & Stability: Store at 2-8 °C for up to 1 year. **DO NOT FREEZE.**

Statement: Handle as potentially hazardous substance. Negative or non-reactive at the donor level for anti-HIV-1 and 2, anti-HCV, HBsAg, HIV-1(NAT), HBV (NAT) HCV (NAT) and syphilis by FDA approved methods. However, because no test method can offer complete assurance that infectious agents are absent, this material should be handled at Bio-Safety Level 2 (BSL 2) as recommended for any potentially infectious human serum or blood specimen in the CDC/NIH manual "Biosafety in Microbiological and Biomedical Laboratories", 2009.

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