

Myeloperoxidase Assay Kit

Cat. No. Kit-2459 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

MYELOPEROXIDASE (MPO; EC 1.11.2.2) is a peroxidase enzyme and can be found in neutrophil, monocytes, and some soft tissue macrophages. MPO has an ability to use chloride as a cosubstrate with hydrogen peroxide to generate hypochlorous acid, a powerful antimicrobial agent produced by neutrophils. However, an excessive production of hypochlorous acid can lead to oxidative stress and tissues damage. Inflammation may also result when MPO oxidizes various substances such as phenols and anilines. Studies show that increased MPO levels may increase the risk of myocardial infarction and cardiovascular disease. EnzyFluo™ myeloperoxidase (MPO) assay kit is based on the MPO enzyme reaction with hydrogen peroxide (H₂O₂) which oxidizes the dye reagent to a highly fluorescent product. The fluorescence intensity of this product, measured at $\lambda_{\text{ex/em}} = 530/585 \text{ nm}$, is proportional to the total peroxidation activity in the sample. The provided MPO inhibitor is used to suppress peroxidase activity due to MPO in order to differentiate other peroxidase activities that may be present in the samples.

Storage

-20°C

Shipping

On Ice

Size

100 tests

Detection method

FL530/585nm

Compatible Sample Types

Cell lysates, tissues, etc

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Features & Benefits	Fast and sensitive. Linear detection range (20 μ sample): 0.0025 to 2 U/L for 10 min reaction at 25°C.
	Convenient and high-throughput. Homogeneous "mix-incubate-measure" type assay. Can be readily automated on HTS liquid handling systems for processing thousands of samples per day.
Assay time	Approximately 30 min
Sensitivity	0.0025 U/L

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