

Myeloperoxidase (MPO) Fluorometric Activity Assay Kit

Cat. No. Kit-2293 **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Myeloperoxidase (MPO) is a peroxidase enzyme (EC 1.11.1.7) most abundantly present in neutrophil granulocytes. It is a green hemoprotein found in neutrophils and monocytes that catalyzes the reaction of hydrogen peroxide and halide ions to form cytotoxic acids and other intermediates that play a role in the oxygen-dependent killing of tumor cells and microorganisms. Its heme pigment causes the green color in secretions rich in neutrophils, such as pus and some forms of mucus. Furthermore, it can oxidize tyrosine to a tyrosyl radical using hydrogen peroxide as an oxidizing agent. In MPO Assay Kit, MPO catalyzes the production of NaClO from H₂O₂ and NaCl. Subsequently, NaClO will react stoichiometrically with Aminophenyl fluorescein (APF) to generate fluorescein, which has a strong fluorescence and can be detected at Ex/Em = 485/525 nm. The kit provides a rapid, simple, sensitive, and reliable test suitable as a high throughput assay of MPO activity. This kit can be used to detect MPO activity as low as 0.5 μ U per well.

Storage

-20°C

Shipping

Gel Pack

Size

100 assays

Kit Components

Assay Buffer; MPO Substrate Stock; MPO Probe; Fluorescein Standard (1 mM); MPO Positive Control

Target Species

Mammalian

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Detection method	Fluorescence (Ex/Em = 485/525 nm)
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Features & Benefits	Simple procedure; Fast and convenient; Sensitive assays for measuring MPO as low as 0.5 μ U per well
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