abcam

Product datasheet

Myeloperoxidase (MPO) Activity Assay Kit (Fluorometric) ab111749

1 Abreviews 16 References 2 Images

Overview

Product name	Myeloperoxidase (MPO) Activity Assay Kit (Fluorometric)
Detection method	Fluorescent
Sample type	Cell culture supernatant, Tissue Extracts
Assay type	Enzyme activity
Sensitivity	> 0.0005 mU/well
Assay time	0h 30m
Species reactivity	**Reacts with:** Mammals, Other species
Product overview	Myeloperoxidase (MPO) Activity Assay Kit ab111749 provides a rapid, simple and reliable fluorometric assay to study MPO activity. In the MPO assay protocol, MPO catalyzes the production of sodium hypochlorite (NaClO) from hydrogen peroxide (H_2O_2) and sodium chloride (NaCl). Subsequently, NaClO reacts stoichiometrically with the free radical sensor Aminophenyl fluorescein (APF) to generate fluorescein, whose fluorescence can be detected at Ex/Em = 485/525 nm. This MPO assay kit can be used to detect MPO activity as low as 0.5 µU per well. MPO assay protocol summary: - add fluoroscein standard to wells and analyze with a microplate reader - add samples to wells - add reaction mix - analyze every 2-3 mins with a microplate reader in kinetic mode for at least 30 mins
Notes	This product is manufactured by BioVision, an Abcam company and was previously called K745 Myeloperoxidase (MPO) Fluorometric Activity Assay Kit. K745-100 is the same size as the 100 test size of ab111749.
Platform	Microplate reader

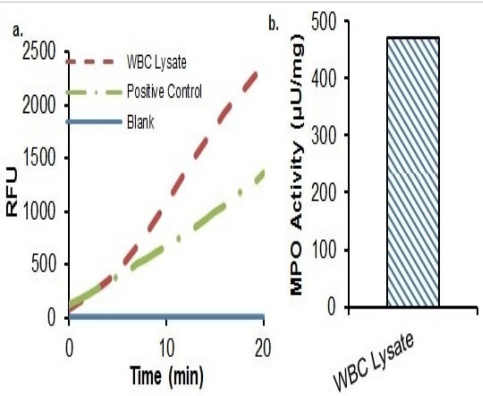
Properties

Storage instructions	Store at -20°C. Please refer to protocols.

Components	100 tests
Assay Buffer LVIV	1 x 25ml
Fluorescence Standard IV	1 x 50µl
Hydrogen Peroxide Solution II	1 x 50µl
MPO Chlorination Probe	1 x 200µl
MPO Positive Control	1 vial

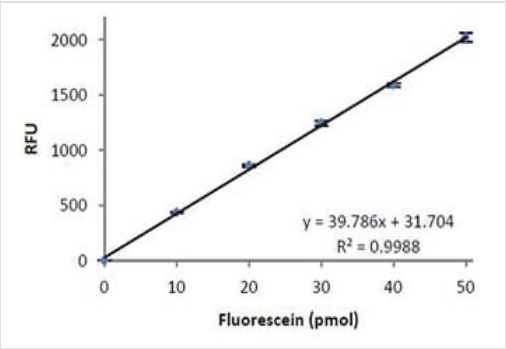
Function	Part of the host defense system of polymorphonuclear leukocytes. It is responsible for microbicidal activity against a wide range of organisms. In the stimulated PMN, MPO catalyzes the production of hypohalous acids, primarily hypochlorous acid in physiologic situations, and other toxic intermediates that greatly enhance PMN microbicidal activity.
Involvement in disease	Defects in MPO are the cause of myeloperoxidase deficiency (MPD) [MIM:254600]. MPD is an autosomal recessive defect that results in disseminated candidiasis.
Sequence similarities	Belongs to the peroxidase family. XPO subfamily.
Cellular localization	Lysosome.

Images



MPO activity - ab111749

a. Measurement of MPO activity in WBC lysate (0.1 µg) and MPO Positive Control (3 µL). b. MPO specific activity in WBC lysate.



Functional Studies - Myeloperoxidase (MPO)
Fluorometric Activity Assay Kit (ab111749)

Standard Curve using this kit protocol (Ex/Em = 485/525 nm)

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