

Neutrophil Myeloperoxidase Activity Assay Kit

Product Information

Cat.No.

Kit-1986

Size

192 wells

Description

Myeloperoxidase (MPO), released from neutrophils to degrade invading pathogens, provides one of the earliest lines of defense in innate immunity. It catalyzes the hydrogen peroxide-mediated oxidation of halide ions to products such as hypochlorous acid (HOCl). These reactive products participate in a variety of secondary reactions which in turn lead to modifications of proteins and destruction of the extracellular matrix. The Neutrophil Myeloperoxidase Activity Assay kit utilizes 3,3',5,5'-tetramethyl-benzidine (TMB) as a chromogenic substrate, which upon reacting with MPO, yields a blue color detectable by its absorbance at 650 nm. The color intensity is proportional to the amount of MPO in the sample. Reagents needed to isolate neutrophils from whole blood are included in the kit, as is PMA, which is known to stimulate MPO release from neutrophils. A specific inhibitor for MPO, 4-aminobenzhydrazide (ABH), is also included in the kit for verifying the specificity of the assay.

Storage

-20°C

Kit Components

Cell-Based Assay Buffer Tablet: 1 vial/1 tablet; Room Temperature RBC Lysis Buffer (10X): 1 vial/10 ml; Room Temperature Cell-Based Assay Neutrophil Isolation Histopaque: 1 vial/25 ml; 4°C PMA (1 mM) Assay Reagent: 1 vial/50 µl; -20°C Cell-Based Assay Myeloperoxidase Positive Control: 1 vial/25 µl; -20°C TMB Substrate Solution: 1 vial/12 ml; 4°C Cell-Based Assay Myeloperoxidase Inhibitor: 1 vial/50 µl; -20°C 96-Well Solid Plate (Colorimetric Assay): 2 plates; Room Temperature 96-Well Cover Sheet: 2 covers; Room Temperature