Creative Enzymes®

Native Human Myeloperoxidase

Cat. No. NATE-0457

Lot. No. (See product label)

Introduction

Description	Myeloperoxidase (MPO) is a peroxidase enzyme that in humans is encoded by the MPO gene on chromosome 17. MPO is most abundantly expressed in neutrophil granulocytes (a subtype of white blood cells), and produces hypohalous acids to carry out their antimicrobial activity. It is a lysosomal protein stored in azurophilic granules of the neutrophil and released into the extracellular space during degranulation. MPO has a heme pigment, which causes its green color in secretions rich in neutrophils, such as pus and some forms of mucus.
Synonyms	MPO; myeloperoxidase; Peroxidase; myelo; EC 1.11.1.7; 9003-99-0

Product Information

Species	Human
Source	Human leuk ocytes
Form	Lyophilized from 50 mM sodium acetate buffer, pH 6.0, 0.1 M sodium chloride
EC Number	EC 1.11.1.7
CAS No.	9003-99-0
Activity	> 50 units/mg protein
Buffer	H2O: soluble ; aqueous buffers such as 50 mM sodium acetate: soluble (Freezing of the enzyme in solution may result in a substantial loss of activity.)
Pathway	C-MYB transcription factor network, organism-specific biosystem; Folate Metabolism, organism-specific biosystem; IL23-mediated signaling events, organism-specific biosystem; Phagosome, organism-specific biosystem; Phagosome, conserved biosystem; Selenium Pathway, organism-specific biosystem; Transcriptional misregulation in cancer, organism-specific biosystem
Function	chromatin binding; heme binding; heparin binding; metal ion binding; oxidoreductase activity; peroxidase activity
Unit Definition	One unit will produce an increase in absorbance (A470) of 1.0 per min at pH 7.0 and 25°C, calculated from the initial rate of reaction using guaiacol as substrate. Total reaction volume: 3.035 mL.

Storage and Shipping Information

Storage	−20°C