Creative Enzymes®

Native Human Eosinophil Peroxidase

Cat. No. NATE-0228

Lot. No. (See product label)

Introduction

Description Eosinophil peroxidase is an enzyme found within the eosinophil granulocytes, innate immune cells of humans and mammals. This oxidoreductase protein is encoded by the gene EPX, expressed within these myeloid cells. EPO shares many similarities with its orthologous peroxidases, myeloperoxidase (MPO), lactoperoxidase (LPO), and thyroid peroxidase (TPO). The protein is concentrated in secretory granules within eosinophils. Eosinophil peroxidase is a heme peroxidase, its activities including the oxidation of halide ions to bacteriocidal reactive oxygen species, the cationic disruption of bacterial cell walls, and the post-translational modification of protein amino acid residues.

Synonyms EPX; eosinophil peroxidase; EPO; EPP; EPX PEN; EPX-PEN; EC 1.11.1.7; 9003-99-0; peroxidase; lactoperoxidase; guaiacol peroxidase; plant peroxidase; Japanese radish peroxidase; horseradish peroxidase (HRP); soybean peroxidase (SBP); extensin peroxidase; heme peroxidase; oxyperoxidase; protoheme peroxidase; pyrocatechol peroxidase; scopoletin peroxidase; Coprinus cinereus peroxidase; Arthromyces ramosus peroxidase

Product Information

Species	Human
Source	Human Eosinophils
Appearance	Clear, green to brown liquid
Form	Liquid
EC Number	EC 1.11.1.7
CAS No.	9003-99-0
Molecular Weight	77 kda (~53 kDa mw heavy chain, ~13 kDa mw light chain)
Purity	> 98% (SDS-PAGE)
Activity	> 1,000 U/mL (Enzymatic)
Specificity	> 1 kDa U/mg protein
Pathway	Asthma, organism-specific biosystem; Asthma, conserved biosystem
Function	heme binding; metal ion binding; oxidoreductase activity; peroxidase activity
Unit Definition	One unit of eosinophil peroxidase will catalyze the consumption of one micromole of hydrogen peroxide and the production of ¼ micromole of tetraguaiacol per minute at pH 7.0 and 25°C.

Storage and Shipping Information

Storage 2-8°C