

BIOXYTECH® MPO-EIA™

Enzyme Immunoassay For Human Myeloperoxidase

For Research Use Only. Not For Use In Diagnostic Procedures.

Catalog No. 21013

INTRODUCTION

Human myeloperoxidase (MPO) is a hemoprotein with molecular weight of 140 kDa. It is composed of two heavy subunits of 53 kDa and of two light subunits of 15 kDa. Each MPO molecule contains two prosthetic porphyrins which play an essential role in the catalytic cycle.

MPO is stored in primary granules (azurophilic) of neutrophils. It is a major component of the bactericidal armamentarium of neutrophils, due to its capacity to catalyse the production of hypochlorous acid (HOCl), a powerful oxidant which is derived from chloride ion (Cl⁻) and hydrogen peroxide (H₂O₂). In a number of inflammatory situations, MPO is released in the extracellular medium where its measurement can be used as an index of neutrophil activation.

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Methodology	Enzyme Immunoassay
Specimen Requirements	Human samples: Serum, plasma, urine, tissue homogenate, synovial fluid, bronchoalveolar fluid, CNS fluid and supernates from cell cultures.
Specificity	Observed cross reactivity with eosinophil peroxidase is < 2%
Sensitivity	Threshold detection limit of 1.5 ng/mL
Assay Standard Curve Range	1.6 - 100 ng/mL
Expected Values	Normal human plasma: 40 - 80 ng/mL (Sinclair, 1995)
Tests per Kit	96 tests
Storage and Stability	Twelve months from date of manufacture when stored at 2° - 8° C
Kit Contents	<ul style="list-style-type: none">• 96 well microtiter wells (3 x 32)• Purified MPO standard• Concentrated biotin-coupled goat polyclonal anti-MPO• Concentrated avidin coupled alkaline phosphatase solution• 4 pNPP tablets• Diluting and washing buffers• Stop solution