

# MYELOPEROXIDASE (MPO) ASSAY



Inflammatory Marker

Myeloperoxidase (MPO) is a hemoprotein present in leukocytes of blood circulation. It is well known that in published literature, elevated levels of plasma MPO is a sensitive marker of inflammatory disorders.<sup>1-6</sup> MPO is involved in the oxidation of lipids contained within LDL particles, and its reaction products including hydrogen peroxide are involved in the initiation of systemic inflammation.<sup>7-10</sup>

Diazyme's Latex Enhanced Immunoturbidimetric MPO Assay is accurate, cost effective and designed to work on validated general chemistry analyzers.

## ***DIAZYME MYELOPEROXIDASE (MPO) ASSAY ADVANTAGES***

- The MPO assay is designed to work on most chemistry analyzers
- Fast test results (10 minutes) for a rapid turnaround time
- Liquid stable format requires no reagent, calibrator and control preparation
- Wide range of instrument parameters available for simplifying implementation

## ***REGULATORY STATUS***

EU:  

SKU For Export Only. Not for Distribution in the USA.

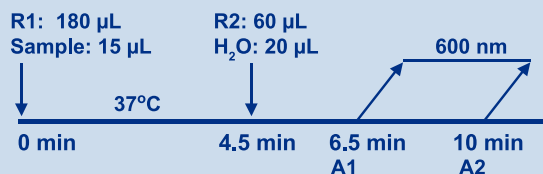
# MYELOPEROXIDASE (MPO) ASSAY

Dual Vial  
Liquid Stable

## ASSAY SPECIFICATIONS

<b>Method</b>	Latex Enhanced Immunoturbidimetric Assay
<b>Sample Type &amp; Volume</b>	<ul style="list-style-type: none"> <li>Plasma</li> <li>- Lithium Heparin</li> <li>- EDTA</li> </ul> <p>Sample Volume 15 <math>\mu</math>L</p>
<b>Method Comparison</b>	<p>N = 54 y-intercept = 35.4 pmol/L Slope = 1.01 R<sup>2</sup> = 0.98</p> <p>Sample Range: 218 to 4966 pmol/L</p>
<b>Linearity</b>	83 to 5000 pmol/L
<b>LOQ</b>	83 pmol/L
<b>Calibration Levels</b>	5-Point Calibration

### Myeloperoxidase (MPO) Assay Procedure\*



\*Analyzer Dependent

For a list of validated parameters please contact Diazyme technical support at 858.455.4768 or email [support@diazyme.com](mailto:support@diazyme.com)

- Nilsson L et al. (1988) Activation of inflammatory system during cardiopulmonary bypass. *Scand J Thorac Cardiovasc Surg.* 22: 51-3
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- Luigi M. B. et al. (1996) Intracellular Neutrophil Myeloperoxidase is reduced in unstable angina and acute myocardial infarction, but its reduction is not related ischemia. *JACC Vol. 27, No.3: 611-6.*
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- Podrez EA, Schmitt D, Hoff HF et al.: Myeloperoxidase-generated reactive nitrogen species convert LDL into an atherogenic form in vitro. *J. Clin. Invest.* 103, 1547-1560 (1999).
- Naruko T, Ueda M, Haze K et al.: Neutrophil infiltration of culprit lesions in acute coronary syndromes. *Circulation* 106, 2894-2900 (2002).
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## ASSAY PRECISION

The simple precision of the Diazyme MPO Immunoassay was evaluated. In the study, two levels of MPO controls containing 534 pmol/L (77ng/mL) and 3824 pmol/L (551 ng/mL) MPO respectively were tested with 15 duplicates in one run.

	Level 1: 534 pmol/L	Level 2: 3824 pmol/L
<b>Number of Data Points</b>	15	15
<b>Mean (pmol/L)</b>	534	3824
<b>SD (pmol/L)</b>	15	158
<b>CV (%)</b>	2.7%	4.1%

## ASSAY INTERFERENCE

The substances normally present in the plasma were tested. Less than 10% deviation was produced when tested up to the concentrations shown below:

Ascorbic Acid:	10 mM
Bilirubin, free:	40 mg/dL
Bilirubin, conjugated:	40 mg/dL
Hemoglobin:	200 mg/dL
Triglyceride:	270 mg/dL
Rheumatoid Factor:	75 IU/mL

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