Myeloperoxidase Assay Kit (MPO)

Method: Immunoturbidimetric

Cat . No.	Size	Instrument
GS251X	R1:1×60 ml R2:1×20 ml	For Hitachi 7170/7180& Olympus AU640/400/600
GB250X	R1:1×60 ml R2:1×20 ml	For Hitachi 7060/7150& ShimadzuCL7200/8000
GX251X	R1:1×60 ml R2:1×20 ml	For Beckman
GT251X	R1:1×45 ml R2:1×15 ml	For Toshiba40
GH251X	R1:1×45 ml R2:1×15 ml	For Hitachi 7020
GD251X	R1:24×3.8 ml R2:12×2.6 ml	For Dupont

INTENDED USE

For the *in vitro* quantitative determination of Myeloperoxidase in serum or plasma.

CLINICAL SIGNIFICANCE

Myeloperoxidase (MPO) is a haematin protein in leukocytes, It is linked to both inflammation and oxidative stress by its location in leukocytes and its role in catalyzing the formation of oxidizing agents. Recentevidence suggests that MPO activity precipitates atherogenesis. Measurement of MPO in plasma or serum may therefore contribute to cardiovascular disease (CVD) risk stratification and other chronic disease.

ASSAY PRINCIPLE

Myeloperoxidase in sample reacts with antibody specific for human Myeloperoxidase coated by latex particals. The formation of the antibody-antigen complex results in an increase in turbidity at 600nm. By constructing the standard curve, the concentration of Myeloperoxidase can be determined.

REAGENT COMPOSITION

Contents	Concentration of Solutions
Reagent 1 (R1)	
Tris/HCl buffer	80 mmol/L
Polyethylene Glycol	9%
Reagent 2 (R2)	
Tris/HCl buffer	20 mmol/L
Antibody for Myeloperoxidase coated by latex particals	0.12%

SAMPLE COLLECTION AND PREPARATION

Serum and plasma(EDTA or heparin) sample.
Sample is stable for 5 days at 2-8℃.

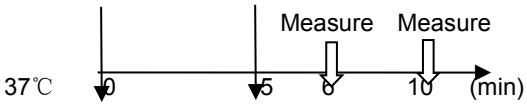
STABILITY AND PREPARATION OF REAGENTS

All reagents are ready to use.Donot frozen.
Stable up to the expiry date when stored at 2-8℃

ASSAY PROCEDURE

Test Procedure for Analyzers (Hitachi 7180)
Assay Mode: 2 Point End 21-34
Wave length (main): 600nm

Sample 15 µl
R1: 180µl R2: 60 µl



CALIBRATION

Recommend using Gcell calibrator (Cat .No. GC-MPO).

CALCULATIONS OF RESULTS

Plot calibrator concentrations against the corresponding ΔA values using graph paper. The concentration of MPO in the sample is obtained by reading a value from the calibration curve. Do not attempt to extrapolate above or below the range of the calibrators.

QUALITY CONTROL

For quality control, use GQ-MPO as daily quality control and can be purchased separately. Values should fall within a specific range. If these values fall outside the range and repetition excludes error, the following steps should be taken:

1. Check instrument settings and light source.
2. Check reaction temperature.
3. Check expiration date of kit and contents.

NORMAL VALUE

＜127ng/ml.
It is recommended that each laboratory should establish its own normal range to reflect the age, sex, diet and geographical location of the population.

MAIN PERFORMANCE CHARACTERISTICS

LINEARITY

Between 25~ 1300 ng/ml, the linear correlation coefficient r ≥ 0.990. In the range of 25 ~100 ng/ml (containing 100 ng/ml), linearity deviation shall not exceed ± 10 ng/ml. In the range 100 ~ 1300 ng/ml, the linear deviation should not exceed ± 10%.

PRECISION

The CV of the test should be ≤ 10%.

Beijing Strong Biotechnologies, Inc.
Add: 5/F Kuang Yi Building, No. 15 Hua Yuan Dong Lu, Haidian District, Beijing 100191 P. R. China
Tel: +86 10 8201 2486 Fax: +86 10 8201 2812
Web: www.bsbe.com.cn Email: jq.tech@bsbe.com.cn

CE version 2014

Intar assay precision		
N=20	level 1	level 2
Mean(ng/dl)	85.35	654.23
SD	1.71	11.83
CV(%)	2.00	1.81

Inter assay precision			
N=5	Batch 1	Batch 2	Batch 3
Mean(ng/dl)	86.08	86.98	84.8
$\bar{x}$	85.95		
(Xmax-Xmin)/$\bar{x}$	(86.98-84.8)/85.95*100=1.49%		

INTERFERENCE

The following analytes were tested up to the levels indicated and found not to interfere:

Ascorbic acid: up to 10 mmol/L
Bilirubin: up to 40 mg/dl
Hemoglobin: up to 200 mg/dl
Triglyceride: up to 270 mg/dl
RF: up to 75U/ml

SAFETY PRECAUTIONS AND WARNINGS

1. For in vitro diagnostic use only. Do not pipette by mouth. Exercise the normal precautions required for handling laboratory reagents.
2. Reagent contains Sodium Azide. Avoid ingestion or contact with skin or mucous membranes. In case of skin contact, flush affected area with copious amounts of water. In case of contact with eyes or if ingested, seek immediate medical attention.
3. Sodium Azide reacts with lead and copper plumbing, to form potentially explosive azides. When disposing of such reagents flush with large volumes of water to prevent azide from building up. Exposed metal surfaces should be cleaned with 10% sodium hydroxide.
4. Specimens should be treated as potentially infectious (HIV, Hepatitis B virus, Hepatitis C virus, etc.) and handled with appropriate caution.
5. Reagents with different lot numbers should not be interchanged or mixed.

REFERENCES

1. Leckie MJ, Gomma AH, Purcell IF, et al. Automated quantitation of peripheral blood neutrophil activation in patients with myocardial ischaemia. Int J Cardiol, 2004,95:307-313.
2. Malech HL, Nauseef WM. Primary inherited defects in neutrophil function: etiology and treatment. Semin Hematol,1997,34:279-290.
3. Tiruppathi C, Naqvi T,Wu YB, et al. Albumin mediates the transcytosis of myeloperoxidase by means of caveolae in endothelial cells[J], Proc Natl Acad Sci USA,2004, 101(20):7699-7704
4. Meuwese M C,Stroes E S,Hazen S L,et al.Serum myeloperoxidase levels are associated with the future risk of coronary artery disease in apparently healthy individuals:the EPIC Norfolk Prospective Population Study[J].J Am Coll Cardiol.2007,50(2):159—165.

INDEX OF SYMBOLS


Manufacture


Catalogue Number


Lot number

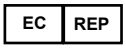

Date of manufacture


Use by(Expiration date)


For In-Vitro Diagnostic use only


Stored at 2-8℃


Attention:See instruction for use


Authorized Representative in the European Company

Beijing Strong Biotechnologies, Inc.
Add: 5/F Kuang Yi Building, No. 15 Hua Yuan Dong Lu, Haidian District, Beijing 100191 P. R. China
Tel: +86 10 8201 2486 Fax: +86 10 8201 2812
Web: www.bsbe.com.cn Email: jq.tech@bsbe.com.cn

CE version 2014