CORALYZER
System Pack

CK-MB (NAC act.) Kit

(Immunoinhibition / Mod. IFCC Method)
For the determination of CK - MB activity in serum.
(For Invitro Diagnostic Use Only)

Summary
CK is dimeric molecule composed of M and B subunits, which are immunologically distinct. It exists as three main iso enzymes CK - MM, CK - MB, and CK - BB. The CK - MM is found in the muscle while CK - MB is found mainly in the myocardial cells. The CK - BB is found mainly in the brain and lungs, and enters the blood stream only on injury to these organs like cerebrovascular accident or pulmonary infarction. Normally CK - MM is found in the blood. CK - MB levels increase significantly 4 - 6 hours following a myocardial infarction and peak at around 12 to 24 hours after the infarct. The levels return to normal, in case of no further myocardial damage, after 24 to 48 hours. Hence the increased levels of CK - MB along with elevated levels of total CK is a good indicator of myocardial infarction. CK - MB levels usually do not rise in chest pain caused by angina, pulmonary embolism or congestive heart failure.

Principle
CK - M fractions of the CK - MM and the CK - MB in the sample are completely inhibited by an anti CK - M antibody present in the reagent. Then the activity of the CK - B fraction is measured by the CK (NAC act.) method. The CK - MB activity is obtained by multiplying the CK - B activity by two.

Normal reference values

Serum		=	upto 24 U/L at 37°C

Indication of myocardial infarction is based on the the following factors:

Total CK	(male)	:	> 195 U/L at 37°C
	(female)	:	> 170 U/L at 37°C
CK - MB		:	> 24 U/L at 37°C
CK - MB to Total CK		:	> 6% - 25%

It is recommended that each laboratory establish its own normal range representing its patient population.

Contents

Coralyzer 100 System Packs	**50 ml**	
L1 : Enzyme Reagent	2 x 20 ml	
L2 : Starter Reagent	10 ml	
Coralyzer 200 System Packs	**120 ml**	**200 ml**
L1 : Enzyme Reagent	4 x 24 ml	4 x 40 ml
L2 : Starter Reagent	2 x 12 ml	4 x 10 ml
Coralyzer 200 System Packs	**40 ml**	
L1 : Enzyme Reagent	32 ml	
L2 : Starter Reagent	8 ml	

Storage / stability
Contents are stable at 2 - 8°C till the expiry mentioned on the labels.

Reagent preparation
Reagents are ready to use.

Sample material
Serum. Free from hemolysis.

Calibration
Calibrator is recommended for calibration of this assay.

Linearity
This procedure is linear upto 1000 U/L. Inhibition of CK - MM is upto 2000 U/L at 37°C.

Note
This method will also measure any CK - BB isoenzyme present in the sample. The amount of CK - BB is usually negligible in serum from normal individuals or in patients with myocardial infarction.
A macro form of BB has been observed and this will be measured as CK - B activity. if the CK - B activity exceedes 20% of the total CK activity the presence of macro BB should be suspected.

References

Programming on	**CORALYZER 100/200**
Item	CK-MB
Full Name	CK-MB
Test Method	Kinetic
Base Information	
Unit	U/L
Filter	340 nm
Sub. Filter	670 nm
Decimal	xx.xx
High pollute	No
Reagent Blank	
Blank Medium	Reagent
Blank Value	0
Blank Low	0
Blank High	0.8
Sample	
Sample Volume	15
Dilution Times	1
Range Setup	
Reagent	
Rgt. 1 Volume	240
Rgt. 2 Volume	60
Linearity	1000
Read data for check	
Assistant Start	NONE
Assistant End	NONE
Range Low	0
Range High	2
Test Point Start	32
Test Point End	42
Standard	
Number of standard	1
Factor	1
Correct Factor	1
Standard Cup	User Defined
Conc.	See Calibrator

Manufactured by :
Coral Clinical Systems
A Division of Tulip Diagnostics (P) Ltd.
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