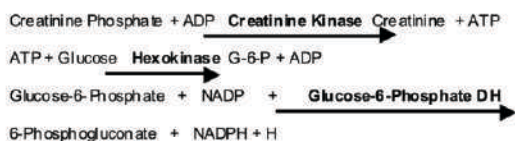


This reagent kit is for quantitative estimation of Creatinine Kinase activity in serum.

PRINCIPLE

Creatinine Kinase present in the sample catalyses the conversion of creatinine phosphate and ADP to release creatinine and ATP. ATP phosphorylates glucose. Glucose 6 Phosphate Dehydrogenase oxidises the glucose 6 phosphate to 6 phosphogluconate which in turn reduces NADP to NADPH. The increase in absorbance is measured at 340 nm and is proportional to the activity of creatinine kinase.



CLINICAL SIGNIFICANCE:

Creatinine Kinase is present in skeletal muscles, cardiac muscles and in the brain. Estimating the level of creatinine kinase is an important diagnostic parameter while following myocardial infarction. CK activity begin to rise about 4-6 hours following myocardial infarction and peak values are attain after 24 - 30 hours and returns back to normal within 2-3 days.

Since the liver contains no CK, an elevated CK level helps in differentiating myocardial infarction from congestive heart failure and other conditions causing damage to the liver.

SPECIMEN COLLECTION AND STORAGE

- Serum sample is preferred.

REAGENTS

All the reagents are to be stored at 2°-8° C.

	No. of bottles	
	5x 10 ml	25 ml
Reagent 1 (Buffer)	4 (1x8 ml)	2 (10 ml)
Reagent 2 (Enzyme)	1 (1x2 ml)	1 (5 ml)

PRECAUTION

- CK-NAC reagent is for In Vitro diagnostic use only.

REAGENT RECONSTITUTION:

Prepare the working reagent as per the need of the laboratory in the following proportion:

Reagent 1 0.4 ml
Reagent 2 0.1 ml

Mix gently. Keep for 5 minutes before use. Reconstituted reagent may be stored at 2°-8° C, protected from light when not in use.

REAGENT STORAGE AND STABILITY:

All the reagents are stable upto expiry date stated on the label. Working reagent when stored at 2°-8° C in a dark coloured bottle is stable for 5 days.

GENERAL INSTRUMENT PARAMETERS

Reaction Type	: Kinetic
Slope of Reaction	: Increasing
Wavelength	: 340 nm
Flowcell Temperature	: 37° C
Reagent Volume	: 1.0 ml
Sample Volume	: 50 µl (0.05ml)
Delay Time	: 120 seconds
Interval	: 30 seconds
No. of readings	: 4
Factor	: 3376
Units	: IU/L
Zero Setting	: Distilled water
Path length	: 1.0 cm

PROCEDURE

Allow the sample and reagent to attain room temperature prior to use.

Dispense into test tubes	Test
Working Reagent	1.0 ml
Sample	50 µl

Mix. Aspirate, read absorbance after a delay of 120 seconds at an interval of 30 seconds i.e. at 30, 60, 90 and 120 seconds at 340 nm. Obtained the mean change in absorbance per minute (ΔA/min)

LINEARITY

This method is linear for CK-NAC activity upto 1000 IU/L. For sample values exceeding the linearity limit, dilute the sample suitably with normal saline and repeat the assay. Apply proper dilution factor while calculation.

CALCULATION

Concentration of CK-NAC in sample (IU/L) : ΔA?/min. x Factor
Factor = 3376

REFERENCE VALUES

Men : 25-200 IU/L at 37° C.
Women : 25-170 IU/L at 37° C.

It is recommended that each laboratory establish its own reference values.

BIBLIOGRAPHY

- TIETZ N., (ed). Fundamentals of Clinical Chemistry. W.B. Saunders Co., Philadelphia PA 1976.

Angstrom Biotech Pvt.Ltd.
G1 - 1035, RIICO Industrial Area
Phase - III, Bhiwadi,
Alwar, Rajasthan.
Pin Code - 301019
Email: info@angstrombiotech.in
Website: www.angstrombiotech.in
Customer Care Number - 9599194831

	Attention, see instructions for use		Consult Instructions For Use
	For in vitro diagnostic use only		Catalog #
	Store between 2-8°C		Lot Number
	Do not use if package is damaged		Date of Manufacturing
	Manufacturer		Use by