Hemezyme
GENUINE QUALITY, RELIABLE RESULTS.

CREATININE
(JAFFÉ)

SAFETY PRECAUTIONS AND WARNINGS:

This reagent is for *In vitro* diagnostic use only.

INTENDED USE:

This reagent kit is intended for ***"in vitro"*** quantitative determination of Creatinine concentration in serum & urine. A colorimetric, alkaline picrate method (Jaffé).

CLINICAL SIGNIFICANCE:

Creatinine is released during metabolism of creatine phosphate and is excreted by the kidneys. Creatinine concentration in blood and in urine represents a primary indicator for renal function, especially that for glomerular filtration. Increased levels are associated with acute renal impairment, chronic nephritis, obstruction of the urinary tract, strong physical overloading. Low creatinine concentrations are found in conditions with juvenile diabetes mellitus, pregnancy and muscular dystrophy.

PRINCIPLE

Creatinine forms with alkaline picrate (in ratio of 1:1) a colored creatinine picrate complex containing ionic bounds. The rate of formation of the colored complex is proportional to the creatinine concentration.

REAGENT COMPOSTION:

Reagent 1: Picrate Reagent
Reagent 2: Alkaline Reagent
Creatinine standard: 2.0 mg/dl

MATERIALS REQUIRED BUT NOT PROVIDED:

-Clean & Dry Glassware.
-Micropipettes & Tips.
-Colorimeter or Bio-Chemistry Analyzer.

SAMPLES:

Serum free of haemolysis.
12 h or 24 h collected urine. Urine must be diluted in ratio of 1:100 with distilled water.

STABILITY OF REAGENT:

When Stored tightly closed at room temperature, protected from light and contaminations prevented during their use; reagents are stable up to the expiry date stated on the label.

WORKING REAGENT:

Mix Reagent 1 with Reagent 2 in a ratio of 1:1.

REFERENCE NORMAL VALUE:

Serum: Male : 0.7-1.3 mg/dl
(62- 115 mol/l)
Female: 0.5-1.2 mg/dl
(44-106 mol/l)

GENERAL SYSTEM PARAMETERS:

REACTION TYPE	Fixed Time
WAVE LENGTH	492 nm
LIGHT PATH	1 cm
REACTION TEMPERATURE	37°c
BLANK / ZERO SETTING	With Distilled Water
REAGENT VOLUME	1 ml
SAMPLE VOLUME	100 µl
LAG / DELAY TIME	30 Sec.
READ TIME	120 Sec.
INTERVAL TIME	60 Sec.
STANDARD CONCENTRATION	2.0 mg/dl
LOW NORMAL	0.7 mg/dl
HIGH NORMAL	1.3 mg/l
LINEARITY	25 mg/dl

ASSAY PROCEDURE:

1.Aspirate the standard and wait for factor generation.
2.Add the sample to reagent tube (T), one by one,mix well,then aspirate and see the final results on the instrument.

	Standard	Sample
REAGENT	**1ml**	**1ml**
STANDARD	**100 µl**	
SAMPLE		**100 µl**

Mix well and after 30 secs incubation read initial absorbance A1.
Exactly after 120 seconds interval read absorbance A2
Determine the △Absorbance.
△Abs. =A2-A1

CALCULATIONS:

$$\text{Creatine Conc. (mg/dl)} = \frac{\triangle\text{Abs of Sample}}{\triangle\text{Abs of Standard}} \times \text{Conc. of Standard}$$

LINEARITY

Reagent is Linear up to 25 mg/dl.
Dilute the sample appropriately and re-assay if Creatinine concentration exceeds 25 mg/dl.
Multiply result with dilution factor.

QUALITY CONTROL:

For accuracy it is necessary to run known controls with every assay.

LIMITATION & PRECAUTIONS:

1. Storage conditions as mentioned on the kit to be adhered.
2. Do not freeze or expose the reagents to higher temperature as it may affect the performance of the kit.
3. Before the assay bring all the reagents to room temperature.
4. Avoid contamination of the reagent during assay process.

BIBLIOGRAPHY:

Henry, J.B, Young D.S.teitz N.W, Vasilades, J,Can, Chem(1972), 18
PACK SIZE: HCD100 4X25ml

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