

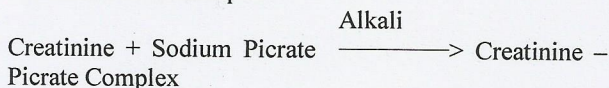


## CREATININE KIT-SR

**METHOD:** Jaffe's Kinetic

**PRINCIPLE:**

Creatinine in basic picric solution forms an orange red complex. The Absorbance at predetermined times during conversion is proportional to the concentration of Creatinine in the sample.



**REAGENT PREPARATION & STABILITY:**

1. Creatinine Reagent: Ready-To-Use
- 2 Creatinine Standard (2mg/dl) Ready-To-Use

**PRECAUTIONS:**

Avoid Contamination of Ready - To - Use Reagents. Always use fresh pipette tips. Keep always the caps tightly closed.

**SPECIMEN COLLECTION AND STORAGE:**

1. Serum/Heparinised Plasma. Unhemolyzed serum is the sample of choice.
2. Creatinine in serum is stable for twenty-four hours at refrigerated temperature (2 - 8° C) and for several months when frozen (20° C) and protected from evaporation and contamination.
3. 24 hours urine specimens must be preserved with 15 grams of Boric acid.

**ASSAY PARAMETERS:**

MODE	: Fixed Time
REACATION SLOPE	: Increasing
WAVE LENGTH	: 505nm
TEMPERATURE	: 37° C
OPTICAL PATH LENGTH:	1 cm
BLANK	: Distill Water
WORKING REAGENT VOLUME	: 1000 µl
SAMPLE VOLUME	: 100 ul
REACTION TIME	: 90 sec
DELAY	: 30 sec
STANDARD CONCENTRATION:	2 mg/dl.
LINEARITY	: 25 mg/dl
UNITS	: mg/dl.

**MANUAL ASSAY**

Pipette into cuvettes	Macro (µl)	Semi-Micro (µl)
Working Reagent	1000	500
Sample/ standards	100	50

Mix & take the first reading after 30 Sec. (A1) and take one additional readings after 90 Sec. (A2) interval at 490-520 nm. Determine the A between the two readings (A<sub>2</sub>-A<sub>1</sub>).

**CALCULATION:**

The Creatinine value of the sample is determined as follows:

$$\frac{(A_2 - A_1) \text{ Sample}}{(A_2 - A_1) \text{ Standard}} \times \text{Conc. of Standard} = \text{Creatinine (A}_2 - \text{mg/dl)}$$

**EXPECTED VALUES:** Male 0.9 – 1.5 mg/dl  
: Female 0.7 – 1.37 mg/dl

**LINEARITY**

The Kit is linear upto 25mg/dl.

**REFERENCES:**

1. Tietz, N.W., Fundamentals of Clinical Chemistry, W. B. Saunders, R.S., Philadelphia, p. 1211 (1976).
2. Butler, A.R., Clin. Chim. Acta 59:227 (1975).
3. Young, D.S., et al., Clin. Chem. 21 (1975).
4. Henry, J.B., Clinical Diagnosis and Management by Laboratory Method, 16<sup>th</sup> ed, Sauders, Philadelphia, PA, p. 263, (1974).
5. Vasilades, J. Clin. Chem. 22: 1664 (1976).
6. Heinegard, D. and Tiderstrom, G., Clin. Chem. Acta, 43:305 (1973).