

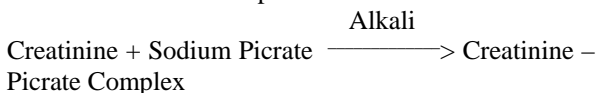


## CREATININE KIT

**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 Buffer Reagent R1 : Ready-To-Use
2. Creatinine Picric Acid Reagent R2 : Ready-To-Use
3. 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.

**WORKING REAGENTS PREPARATION:**

Combine 1 volume of Creatinine Picric Acid Reagent R2 with 1 volume of Creatinine Buffer Reagent R1. Mix well. Combined reagent is stable for 5 hours at 15 – 25<sup>0</sup> C.

**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<sup>0</sup> C) and for several months when frozen (20<sup>0</sup> 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
REACTION SLOPE	: Increasing
WAVE LENGTH	: 505nm
TEMPERATURE	: 37 <sup>0</sup> C
OPTICAL PATH LENGTH:	1 cm
BLANK	: Distill Water
WORKING REAGENT VOLUME	: 1000 UL
SAMPLE VOLUME	: 50 ul.
DELAY	: 30 sec.
REACTION TIME	: 60 sec
STANDARD CONCENTRATION:	2 mg/dl.
LINEARITY	: 25 mg/dl
UNITS	: mg/dl.

**MANUAL ASSAY**

Pipette into cuvettes	Macro	Semi-Micro
Working Reagent	1000 µl	500 µl
Sample/ standards	50 µl	25 µl

Mix & take the first reading after 30 Sec. (A1) and take one additional readings after 60 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:

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

**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:**

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