

CREATININE

Colorimetric Method (End Point) 100 Tests

PRINCIPLE :

Creatinine forms a colored complex with picrate in an alkaline medium .

SAMPLES :

Serum, heparinized plasma and urine.
Dilute fresh urine 1 + 49 with dist. water .

NORMAL VALUES :

Serum:Men: 0.6 – 1.1 mg / dl (53 – 97 µmol/L)
Women:0.5 – 0.9 mg / dl (44 – 80 µmol/L)
Urine : 1.0 – 2.0 g / 24 hrs.
Creatinine clearance : Men:98 – 156 ml / min.
Women: 95 – 160 ml / min.

REAGENTS :

1.	Standard	2 mg / dL (177 µmol/L)
2.	Picric Acid	20 mmol / L
3.	Sodium hydroxide	1.2 mmol / L
	Additional reagent: (available on request) Trichloroacetic acid (TCA) 1.2 mol / L	

STABILITY :

The reagents are stable up to the expiry date specified when stored at +15 to +25 °C .

DEPROTEINIZATION :

Pipette into centrifuge tube :	
Trichloroacetic acid	0.5 ml
Serum or heparinized plasma	0.5 ml
Mix well. Wait for 5 min. Centrifuge for 10 min. at 3000 rpm , then carefully pour the clear supernatant into dry test tube. The supernatant can be stored to seven days at +4 °C .	

PROCEDURE :

Working reagent

Mix equal volumes of reagents 2 and 3 immediately before the assay .

	Blank mL	Standard mL	Serum mL	Urine mL
Dis. H ₂ O	0.25	-	-	-
Reagent 1	-	0.25	-	-
TCA	0.25	0.25	-	0.25
Serum supernate	-	-	0.5	-
Urine diluted	-	-	-	0.25
Working Reagent	0.5	0.5	0.5	0.5

Mix. Incubate 5 min. at 37°C. Measure the absorbances of sample (A_{Sample}) and standard (A_{Standard}) against the blank at 520 nm.(500 – 550 nm).Linearity up to10 mg / dl in serum or plasma and 300 mg /dl in diluted urine .

CALCULATION :

$$\text{Creatinine in serum or plasma (mg/ dl)} = \frac{A_{\text{Sample}}}{A_{\text{Standard}}} \times 2$$

$$\text{Creatinine in urine (mg / dl)} = \frac{A_{\text{Sample}}}{A_{\text{Standard}}} \times 100$$

Creatinine Clearance (ml / min.)

$$= \frac{\text{mg creatinine / dl urine} \times \text{ml urine / 24 hrs}}{\text{mg creatinine / dl serum} \times 1440}$$

QUALITY CONTROL :

For Accuracy and reproducibility control:- Assayed Multi – Sera, Normal and Elevated .

REFERENCE :

Schirmeister ., J. et al . (1964) : Dtsch.med Wschr 89 : 1940

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**Colorimetric Method
(End Point)**
+15 to +25°C 100 Tests
In vitro diagnostic use

CAT. No. CR 12 50



REAGENTS

R1 Standard 25 ml
R2 Picric acid 25 ml
R3 Sodium hydroxide 25 ml

CONTACTS

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