

POTASSIUM

Turbidimetric Method 50 Tests

PRINCIPLE :

Potassium ions in protein-free filtrate react with sodium tetraphenyl boron forming colloidal solution which can be measured colorimetrically. The procedure compare well with flame photometric analysis .

SAMPLES :

Fresh serum or plasma.Hemolysis interferes. Potassium is stable for 7 days at +2 to +8 °C

NORMAL VALUES :

Serum : 3.6 – 5.5 mmol. / L
Plasma : 4.0 – 4.8 mmol. / L

REAGENTS :

1.	Standard Equivalent to :	5 mmol/L
2.	Acid reagent Trichloroacetic acid	1.5 mol/L
3.	Alkaline reagent: Sodium hydroxide Containing other additives	0.7 mol/L
4.	Boron reagent: Sodium tetraphenylboron Containing other additives	0.4 mol/L

STABILITY :

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

DEPROTEINIZATION :

Pipette into centrifuge tubes (Potassium - free):

Reagent 2 (TCA)	0.25 ml
Serum, or plasma	0.05 ml

Mix well, let stand for 5 min., centrifuge for 10 min., at 3000 rpm / min, use supernate for measurment.

PROCEDURE :

Working Reagent:

Prepare 1 + 10 mixture of Reagent 3 and 4 respectively in a volume enough for the assay stable for 5 hours at +15 to +25°C when stored in the dark.

	Blank ml	Standard ml	Sample ml
Reagent 1	-	0.05	-
Sample supernate	-	-	0.05
Working Reagent	1.0	1.0	1.0

Mix well, let stand for 5 min. at room temp. Read the absorbances of sample (^A sample) and standard (^A standard) against the reagent blank at 420 nm. The colloidal solution is stable for 2 hours. The reaction is linear up to 10 mmol / L .

CALCULATION :

Potassium Concentration

$$\text{mmol / L} = \frac{A_{\text{Sample}}}{A_{\text{Standard}}} \times 5$$

QUALITY CONTROL :

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

REFERENCE :

Sunderman. F. W. Jr. and Sunderman F. W. (1958): Am.J. Clin. Pathol. 29 : 95 .

POTASSIUM

Turbidimetric Method

+15 to +25°C

50 Tests

In vitro diagnostic use

CAT. No.

PT 18 20

REAGENTS

R1	Standard	3 ml
R2	TCA	15 ml
R3	Alkaline Reagent	5 ml
R4	Boron Reagent	50 ml

CONTACTS

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