Potassium
Tetr phenylborate Method
Without Deproteinization

Intended Use

Spectrum-Diagnostics Potassium reagent is intended for the in-vitro quantitative diagnostic estimation of potassium in human serum on manual systems.

Background

Sodium and Potassium are the major cations of extracellular and intracellular fluids respectively. Sodium maintains the normal distribution of water and the osmotic pressure in the various fluid compartments. Potassium influences the acid base balance and osmotic pressure including water retention. Increased sodium levels are found in severe dehydration and excessive treatment with sodium salts. Decreased levels are found in severe polyurea, metabolic acidosis, diarrhea and renal insufficiency. Increased potassium levels are found in renal failure, dehydration, shock and adrenal insufficiency. Decreased levels are found in malnutrition, gastrointestinal fluid loss, and hyperactivity of the adrenal cortex.

Method

Turbidimetric Tetr phenylborate (TPB)

Assay Principle

At an alkaline pH Potassium ions and TPB form a turbid emulsion, the increase of which can be measured quantitatively in a photometer at 578 nm. The increase of the absorbance (A) is directly proportional to the concentration of Potassium in the sample.

Reagent

Reagent R NaOH 0.50 mol/L TBP-Na 240 mmol/L

Irritant (Xi): R36/38: Irritating to eyes and skin. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39: Wear suitable gloves and eye/face protection.

Standard Potassium 5.00 mmol/L

Precautions and Warnings

Do not ingest or inhale. In case of contact with eyes or skin; rinse immediately with plenty of soap and water. In case of severe injuries; seek medical advice immediately.

Reagent Storage and Stability

Reagent and standard are ready-to-use. When stored at 2 – 25 °C; they are stable up to the expiry date printed on the label. The remaining stability after opening the bottles is 1 month at 18 – 25 °C

Samples

Human Serum.
References

ORDERING INFORMATION

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<th>CATALOG NO.</th>
<th>QUANTITY</th>
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<tbody>
<tr>
<td>298 001</td>
<td>2 x 25 ml 50 Test</td>
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<td>298 003</td>
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