

DATASHEET

ELECTRODE, POTASSIUM (K) TIP



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669117 BI

Use: This electrode cartridge is for *in vitro* use only. It is used for the quantitative determination of Potassium on Beckman Coulter, LX, CX, ALX, E4, and E2 chemistry analyzers.

Type: Solid State - Neutral carrier (Valinomycin) in PVC matrix
Life Span: 12000 tests or 2 months from installation date.

Storage: Store a room temperature in provided packaging.  **Shelf Life:** 18 month minimum shelf life.  51 C
-6 C

PERFORMANCE CHARACTERISTICS (TYPICAL):

Span: ≥ 550 (new) or Slope = 50 ± 15 mv per decade
Within-run SD: 0.1
Within-run CV: 2.0%
Total SD: 0.15
Total CV: 3.0%
Analytical Range: 1-200 mmol/L (Serum/Urine)
Notes: The above values are based on a Beckman CX analyzer (values <5 mmol/L).

INTERFERENCES:

Please refer to references listed below for a thorough discussion on interferences of valinomycin in PVC membrane type electrodes.

CLEANING/MAINTENANCE

Follow OEM recommended procedure(s) in instrument operators manual. Procedure will vary depending on the specific analyzer model.

PRECAUTIONS:

This electrode has been tested for control recoveries using Beckman Decision, BioRad Lypocheck serum/urine, Roche Precinorm/Precipath, N.I.S.T. SRM 909b and Hi Chem Align linearity standards/controls. PVI recommends that an independent correlation study be performed to confirm the appropriate operational parameters for your laboratory before utilizing this product in compliance with good laboratory practices.

THEORY:

When the sample in buffer mixture contacts the Valinomycin impregnated membrane, potassium ions are selectively transported to and from the sample in solution. As this ion exchange takes place, a potential is developed at the face of the electrodes membrane. This potential is measured by a silver/silver bilet. The potential follows the Nernst equation.

REFERENCES:

Friedman, Clin. Chem. 1980, **26**, 4
Young, Clin. Chem. 1975, **21**, 5
Synchron CX chemistry information man. 1996, Potassium (K) Interferences