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PERPHORMAX TM

CE IVD EC REP
CE Partner4U, Esdoomlaan 13,
3951DB Maam, The Netherlands

DATASHEET

DATE OF ISSUE: 05/05/2008

ELECTRODE, K^+

MU9195 OL

Use: This electrode cartridge is for *in vitro* use only. It is used for the quantitative determination of potassium on Olympus AU series chemistry analyzers..

Type: Neutral carrier (Valinomycin) in PVC matrix -gel/membrane
Life Span: 6 months or 40,000 samples from installation date.

Storage: Store a room temperature in provided packaging.
Shelf Life: 12 months from manufacture date (see Note 2)

51 C
-6 C

PERFORMANCE CHARACTERISTICS (TYPICAL WHEN NEW):

Slope:	54 ± 3 mv per decade (serum-typical)
Within-run SD:	<0.07
Within-run CV:	<1.10%
Total SD:	<.10
Total CV:	<1.80%
Linearity:	1-10 mEq/L (serum) 2-200 mEq/L (urine)
Selectivity Test:	5.08 - 5.15 (5.00 mmol K with 500 mmol NA)

INTERFERENCES:

Substance **Effect**

Please refer to the references listed at bottom of this sheet for a thorough discussion of interferences seen by valinomycin based ion-selective 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 Synchron Controls, BioRad Lypochek serum/urine, N.I.S.T. SRM 909b and Vital Scientific Align linearity standards/controls. *Minor control shifts may occur!* PVI recommends that an independent correlation study be considered to confirm the appropriate operational parameters for your laboratory before utilizing this product in compliance with good laboratory practices. Our studies indicate that in cases studied recovered values were equivalent to recoveries generated by an OEM potassium electrode. Pearson Correlation equal to or better than .999. (See note 1 for further information.) Our tests also indicates improved selectivity (K over NA), and improved Linearity in higher ranges (150-200 mmol).

THEORY:

A Valinomycin impregnated pvc membrane selectively transports potassium ions to and from the diluted sample. The potassium ions that cross the membrane develop a Nernstian potential that is sensed by a silver/silver chloride wire.

REFERENCES:

Friedman, Clin. Chem. 1980, **26**, 4
Young, Clin. Chem. 1975, **21**, 5

Note 1 - A comparison of Hitachi and Perphormax Brand Ion-selective Electrode Response; D. Nagahara, *Internal White Paper*; Januaryr, 2008; Peripheral Visions, Inc.

Note 2 - If electrode is installed or used after 12 months from Manufacture date, Life Span duration shall be considered beginning 365 days from date of manufacture. Expiration date of electrode is 18 months from date of manufacture after which NO WARRANTY APPLIES. For Electrode Warranty Term, the number of months or the number of tests shall be used, whichever comes first.