

# CVC 223

## CO-OXIMETER CALIBRATION VERIFICATION CONTROLS

### INTENDED USE

RNA Medical® Brand **CVC 223** CO-Oximeter Calibration Verification Controls are assayed quality control materials used for monitoring the performance and linearity of analyzers that measure total hemoglobin and hemoglobin fractions. This control may be used on stand-alone CO-Oximeters or combination blood gas and CO-Oximetry systems. When used as a supplement to instrument calibration, daily QC procedures, preventative maintenance, and proper record keeping, CVC 223 will contribute to the laboratory's overall quality assurance program.

CVC 223 may be used to:

- Check analyzer linearity
- Troubleshoot analyzer problems
- Document proper calibration
- Confirm preventative maintenance
- Assist with regulatory compliance

### PRODUCT DESCRIPTION

CVC 223 is a purified bovine hemoglobin solution. It has been saturated with carbon monoxide or treated with precise concentrations of carbon monoxide. This product contains no preservatives and no human-based materials.

CVC 223 is provided in convenient, ready-to-use ampuls containing 1.2 mL of solution. It is a five (5) level product with four (4) ampuls of each level in each kit. CVC 223 values cover the significant range of instrument performance for total hemoglobin, oxyhemoglobin, and carboxyhemoglobin. It also contains methemoglobin. For optimal performance, use of one (1) kit per analyzer is recommended.

### STORAGE AND SHELF LIFE

CVC 223 has a shelf life of eighteen (18) months from the date of manufacture when stored at 2-8 °C. This product should be protected from freezing and exposure to temperatures greater than 8 °C.

### CONTROL VALUES AND ANALYTES

Lot specific values are provided with each box of controls. The typical values for CVC 223 are as follows:

Analyte	Low Value	-	High Value
tHb (g/dL)	5.0	-	22.0
O <sub>2</sub> Hb (%)	1.0	-	95.0
COHb (%)	5.0	-	97.0
MetHb (%)	0.0	-	1.0

### CVC 223 SPECIFICATIONS

Packaging: 5 levels (4 ampuls per level), 1.2 mL per ampul

Storage: 2-8 °C

Shelf Life: 18 months from date of manufacture

Matrix: Bovine hemoglobin solution

Analytes: tHb, O<sub>2</sub>Hb, COHb, MetHb

### DIRECTIONS FOR USE

The basic steps for running CVC 223 are outlined below. Refer to the package insert for specific instructions.

1. Calibrate the instrument as directed by the manufacturer.
2. Sample each of the Level 1 ampuls until three (3) replicates are completed. Test Levels 2, 3, 4, and 5 the same way.
3. Record the results on the Data Collection and Linearity Worksheets included in the kit.
4. Calculate the mean value for each test analyte and compare it to the range on the Expected Values Chart.
5. Using the graphs provided, plot the test result against the expected result. Connect the points to visualize linearity.

*Note: Steps 3, 4, and 5 may be performed on-line as a feature of PeerQC described below.*

### PEERQC STATISTICAL ANALYSIS

Available at [www.RNAMedical.com](http://www.RNAMedical.com), PeerQC provides web-based graphing and reporting for RNA Medical's Calibration Verification Controls. This easy-to-use service eliminates time-consuming manual data calculation and hand linearity graphing.

Specific features of PeerQC include:

- Instant data calculation and analysis
- Peer comparison data in *real-time*
- Printable graph and detailed report for each analyte
- Report download for archiving

### ORDERING INFORMATION

Please specify this catalog number when ordering RNA Medical CVC 223 CO-Oximeter Calibration Verification Controls.

**Catalog number: CVC 223**

### ADDITIONAL PRODUCTS

RNA Medical's broad line of products include blood gas controls, capillary blood collection tubes, and controls for various point-of-care tests. For further information about CO-Oximeter Calibration Verification Controls or any other RNA Medical product, please call us or visit our website at [www.RNAMedical.com](http://www.RNAMedical.com).

RNA Medical is a registered trademark of Bionostics, Inc., Devens, MA, USA. The products described herein are covered by U.S. Patent 7,027,931.

# INSTRUMENT REFERENCE CHART

## CVC 223 CO-Oximeter Calibration Verification Controls

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### MANUFACTURER AND MODEL ANALYTES REPORTED BY INSTRUMENT IN CVC 223

#### AVOX

AVOXimeter® 1000E	tHb, O <sub>2</sub> Hb
AVOXimeter 4000	tHb, O <sub>2</sub> Hb, COHb, MetHb

#### BAYER®

270	tHb, O <sub>2</sub> Hb, COHb, MetHb
280, 288	tHb
845, 855, 865	tHb, O <sub>2</sub> Hb, COHb, MetHb

#### IL

482	tHb, O <sub>2</sub> Hb, COHb, MetHb
682	tHb, O <sub>2</sub> Hb, COHb, MetHb
Synthesis™ 15, 25	tHb, O <sub>2</sub> Hb, COHb, MetHb
GEM OPL®	tHb, O <sub>2</sub> Hb, COHb, MetHb

#### RADIOMETER

OSM®3	tHb, O <sub>2</sub> Hb, COHb, MetHb
ABL® 510, 520	tHb, O <sub>2</sub> Hb, COHb, MetHb
ABL 610, 615, 620, 625	tHb, O <sub>2</sub> Hb, COHb, MetHb
ABL 710, 715, 720, 725	tHb, O <sub>2</sub> Hb, COHb, MetHb

#### ROCHE

AVL® 912	tHb, O <sub>2</sub> Hb, COHb, MetHb
AVL 995 Hb	tHb
OMNI® 2, 3, 5, 6, 8, 9	tHb, O <sub>2</sub> Hb, COHb, MetHb

AVOXimeter is a registered trademark of A-Vox Systems, Inc., Fair Oaks Ranch, TX, USA. Bayer is a registered trademark of Bayer AG, Leverkusen, Germany. Synthesis is a trademark and GEM OPL is a registered trademark of Instrumentation Laboratory SPA, Milan, Italy. OSM and ABL are registered trademarks of Radiometer A/S Corporation, Copenhagen, Denmark. AVL is a registered trademark of AVL GMBH, Graz, Austria. Roche OMNI is a registered trademark of Roche Diagnostics GMBH, Mannheim, Germany.

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