

# QC 623

## BLOOD GAS • ELECTROLYTE CONTROL

### INTENDED USE

RNA Medical® Brand **QC 623 Blood Gas • Electrolyte Control** is an assayed quality control material used for monitoring the performance of blood gas and electrolyte instrumentation. It may be used on multiple test analyzers (such as the Siemens® 800 Series, Radiometer 500, 600 or 800 Series) or any of the blood gas and electrolyte testing systems listed on the back page. **QC 623** is also for use on ITC® IRMA TruPoint® and i-SENS® i-SMART® Analyzers.

### PRODUCT DESCRIPTION

QC 623 is a buffered aqueous solution containing electrolytes. It has been equilibrated with specific levels of oxygen, carbon dioxide, and nitrogen. This product contains no preservatives and no biological materials.

QC 623 is provided in convenient, ready-to-use ampuls containing 2.5 mL of solution. It is available in three (3) levels for monitoring pH,  $p\text{CO}_2$ ,  $p\text{O}_2$ ,  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Cl}^-$ , and  $\text{Ca}^{++}$  at varying points within the clinical range. A fourth level is provided for elevated  $p\text{O}_2$  monitoring. Ampuls are packaged in single level boxes (30 ampuls of the same level) or multi-level boxes (10 ampuls each of levels 1, 2, and 3).

### STORAGE AND SHELF LIFE

Levels 1, 2, and 3 have a shelf life of forty-eight (48) months from the date of manufacture. Level 4 has a shelf life of thirty-six (36) months. All levels of QC 623 require room temperature (up to 25 °C) storage. This product should be protected from freezing and exposure to temperatures greater than 30 °C.

### CONTROL VALUES AND ANALYTES

Lot specific values are provided with each box of controls. The typical target values for QC 623 are as follows:

Analyte	Level 1	Level 2	Level 3	Level 4
pH	7.15	7.40	7.61	7.40
$p\text{CO}_2$ (mmHg)	66	42	22	42
$p\text{O}_2$ (mmHg)	60	102	140	280
$\text{Na}^+$ (mmol/L)	114	134	160	134
$\text{K}^+$ (mmol/L)	2.0	4.4	6.2	4.4
$\text{Cl}^-$ (mmol/L)	84	101	132	101
$\text{Ca}^{++}$ (mmol/L)	1.50	1.10	0.50	1.10

### QC 623 SPECIFICATIONS

Packaging: 2.5 mL per ampul, 30 ampuls per box.

Storage: Room temperature (up to 25 °C).

Shelf Life: 48 months from date of manufacture for levels 1, 2, and 3 (36 months for level 4).

Matrix: Buffered aqueous solution.

Analytes: pH,  $p\text{CO}_2$ ,  $p\text{O}_2$ ,  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Cl}^-$ ,  $\text{Ca}^{++}$ .

### PEERQC® STATISTICAL ANALYSIS

RNA has been providing peer statistics for over twenty years and, in 1999, was the first to introduce on-line data submission and reporting in real-time.

PeerQC is provided free of charge for use with RNA quality control products and features:

- Data submission and reporting via the RNA Medical website ([www.RNAMedical.com](http://www.RNAMedical.com))
- Real-time generation of monthly and peer comparison reports
- Patented error prevention technology to ensure peer group integrity
- Ability to add, edit, or print data submitted in prior months
- Automatic unit conversion for alternate unit submittals
- Web interface supporting multiple languages

### ORDERING INFORMATION

RNA Medical can reserve a single lot of control for up to twelve (12) months. Pending availability and shelf life, additional sequestration may be possible. Automatic shipments may be arranged from a standing order on a predetermined frequency.

Please specify these catalog numbers when ordering RNA Medical QC 623 Controls.

- Catalog number:** **QC 623-1** (Level 1)  
**QC 623-2** (Level 2)  
**QC 623-3** (Level 3)  
**QC 623** (Multi-level)  
**QC 623-4** (Level 4 with elevated  $p\text{O}_2$ )

### ADDITIONAL PRODUCTS

RNA Medical offers a full line of blood gas and CO-Oximetry controls, calibration verification materials, capillary blood collection tubes, and quality control materials for various point-of-care tests. For further information about QC 623 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 and PeerQC is a registered service mark of Bionostics, Inc., Devens, MA, USA. Siemens is a registered trademark of Siemens Aktiengesellschaft FED REP GERMANY Wittelsbacherplatz 2 80333 München FED REP GERMANY. ITC, and IRMA TRUPoint are registered trademarks of International Technidyne Corporation, Edison, NJ, USA. i-SENS and i-SMART are registered trademarks of i-SENS, Inc. CORPORATION REPUBLIC OF KOREA 465-6, Wolgye 4-dong, Nowon-gu Seoul REPUBLIC OF KOREA 139-845.

# INSTRUMENT REFERENCE CHART

QC 623 Blood Gas • Electrolyte Control

# QC 623

## MANUFACTURER AND MODEL ANALYTES REPORTED BY INSTRUMENT IN QC 823

### AADEE

AADEE ZEN	pH, pCO <sub>2</sub> , pO <sub>2</sub>
AADEE ZEN ISE	Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
AADEE RUMI BG	pH, pCO <sub>2</sub> , pO <sub>2</sub>
AADEE RUMI MINI ISE	Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>

### ESCHWEILER

System 2000	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Ca <sup>++</sup>
System 3000	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>

### IL

1300 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub>
GEM® Premier™ 3000 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Ca <sup>++</sup>
GEM Premier 4000	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
Synthesis™ Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>

### i-SENS®

i-Smart®	Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup>
----------	--

### ITC

IRMA® and IRMA TRUpoint®	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
--------------------------	--

### MEDICA

EasyBloodGas	pH, pCO <sub>2</sub> , pO <sub>2</sub>
EasyStat®	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Ca <sup>++</sup>

### NOVA

CCX	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
pHOx®	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
Stat Profile® Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>

### RADIOMETER

ABL® 5	pH, pCO <sub>2</sub> , pO <sub>2</sub>
ABL 50, 500 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Ca <sup>++</sup>
ABL 600 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
ABL 700 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
ABL 77, 80 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
ABL 800 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
NPT 7	pH, pCO <sub>2</sub> , pO <sub>2</sub>

### ROCHE

Cobas® b 121	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
Cobas b 221	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
Roche OMNI® Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
AVL® 983	Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup>

### SIEMENS® (BAYER®)

238	pH, pCO <sub>2</sub> , pO <sub>2</sub>
248	pH, pCO <sub>2</sub> , pO <sub>2</sub>
400 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
800 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
600 Series	pH, Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
1200 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
RapidPoint® 340	pH, pCO <sub>2</sub> , pO <sub>2</sub>
RapidPoint 350	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>

### VIA MEDICAL

VIA V-ABG	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup>
VIA V-LVM	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup>

Synthesis and Premier are trademarks and GEM is a registered trademark of Instrumentation Laboratory, Bedford, MA, USA. i-SENS and i-SMART are registered trademarks of i-SENS, Inc., Corporation Republic of Korea, 465-6, Wolgye 4-dong, Nowon-gu Seoul, Republic of Korea 139-845. IRMA and IRMA TRUpoint are registered trademarks of International Technidyne Corporation, Edison, NJ, USA. EasyStat is a registered trademark of Medica Corporation, Bedford, MA, USA. Stat Profile and pHOx are registered trademarks of Nova Biomedical Corporation, Waltham, MA, USA. ABL is a registered trademark of Radiometer Medical APS Corporation, Bronshoj, Denmark. AVL is a registered trademark of AVL GMBH, Graz, Austria. Cobas is a registered trademark of Roche Diagnostics Operations, Inc., Indianapolis, IN, USA. Roche OMNI is a registered trademark of Roche Diagnostics GmbH, Mannheim, Germany. Siemens is a registered trademark of Siemens Aktiengesellschaft FED REP GERMANY Wittelsbacherplatz 2 80333 München FED REP GERMANY. Bayer is a registered trademark of Bayer AG, Leverkusen, Germany. RapidPoint is a registered trademark of Siemens Healthcare Diagnostics Inc. Corporation California 1717 Deerfield Road, Deerfield, IL 60015. BIOMKT-0014 Rev. B 9/2011



RNA Medical, Division of Bionostics, Inc. • 7 Jackson Road • Devens, MA 01434 USA  
(800)533-6162 • (978)772-9070 • Fax (978)772-9071 [www.RNAMEDICAL.com](http://www.RNAMEDICAL.com)