**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, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, and Ca²⁺ at varying points within the clinical range. A fourth level is provided for elevated pO₂ 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:

<table>
<thead>
<tr>
<th>Analyte</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>7.15</td>
<td>7.40</td>
<td>7.61</td>
<td>7.40</td>
</tr>
<tr>
<td>pCO₂ (mmHg)</td>
<td>66</td>
<td>42</td>
<td>22</td>
<td>42</td>
</tr>
<tr>
<td>pO₂ (mmHg)</td>
<td>60</td>
<td>102</td>
<td>140</td>
<td>280</td>
</tr>
<tr>
<td>Na⁺ (mmol/L)</td>
<td>114</td>
<td>134</td>
<td>160</td>
<td>134</td>
</tr>
<tr>
<td>K⁺ (mmol/L)</td>
<td>2.0</td>
<td>4.4</td>
<td>6.2</td>
<td>4.4</td>
</tr>
<tr>
<td>Cl⁻ (mmol/L)</td>
<td>84</td>
<td>101</td>
<td>132</td>
<td>101</td>
</tr>
<tr>
<td>Ca²⁺ (mmol/L)</td>
<td>1.50</td>
<td>1.10</td>
<td>0.50</td>
<td>1.10</td>
</tr>
</tbody>
</table>

**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, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺.

**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)
- 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 pO₂)

**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.

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.
MANUFACTURER AND MODEL | ANALYTES REPORTED BY INSTRUMENT IN QC 823
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**AADEE**  
AADEE ZEN | pH, pCO₂, pO₂  
AADEE ZEN ISE | Na⁺, K⁺, Cl⁻, Ca²⁺  
AADEE RUMI BG | pH, pCO₂, pO₂  
AADEE RUMI MINI ISE | Na⁺, K⁺, Cl⁻, Ca²⁺
**ESCHWEILER**  
System 2000 | pH, pCO₂, pO₂, Na⁺, K⁺, Ca²⁺  
System 3000 | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺
**IL**  
1300 Series | pH, pCO₂, pO₂  
Gem Premier™ 3000 Series | pH, pCO₂, pO₂, Na⁺, K⁺, Ca²⁺  
Gem Premier 4000 | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
Synthesis™ Series | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺
**i-SENS**  
i-Smart® | Na⁺, K⁺, Cl⁻
**ITC**  
IRMA® and IRMA TRUpoint® | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺
**MEDICA**  
EasyBloodGas | pH, pCO₂, pO₂  
EasyStat® | pH, pCO₂, pO₂, Na⁺, K⁺, Ca²⁺
**NOVA**  
CCX | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
pHOx® | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
Stat Profile® Series | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺
**RADIOMETER**  
ABL® 5 | pH, pCO₂, pO₂  
ABL 50, 500 Series | pH, pCO₂, pO₂, Na⁺, K⁺, Ca²⁺  
ABL 600 Series | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
ABL 700 Series | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
ABL 77, 80 Series | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
ABL 800 Series | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
NPT 7 | pH, pCO₂, pO₂
d**ROCHE**  
Cobas® b 121 | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
Cobas b 221 | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
Roche OMNI® Series | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
AVL® 983 | Na⁺, K⁺, Cl⁻
**SIEMENS® (BAYER®)**  
238 | pH, pCO₂, pO₂  
248 | pH, pCO₂, pO₂  
400 Series | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
800 Series | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
600 Series | pH, Na⁺, K⁺, Cl⁻, Ca²⁺  
1200 Series | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺  
RapidPoint® 340 | pH, pCO₂, pO₂  
RapidPoint 350 | pH, pCO₂, pO₂, Na⁺, K⁺, Cl⁻, Ca²⁺
**VIA MEDICAL**  
VIA V-ABG | pH, pCO₂, pO₂, Na⁺, K⁺
VIA V-LVM | pH, pCO₂, pO₂, Na⁺, K⁺