

# QC 823

## BLOOD GAS • ELECTROLYTE • METABOLITE • BUN CONTROL

### INTENDED USE

RNA Medical Brand **QC 823** Blood Gas • Electrolyte • Metabolite • BUN Control is an assayed quality control material used for monitoring the performance of blood gas, electrolyte, metabolite and BUN (urea) instrumentation. It may be used on any of the multiple test analyzers or individual blood gas, electrolyte, and metabolite testing systems listed on the back page. When used in conjunction with **QC 253**, *Full Range CO-Oximeter Control*, QC 823 is the ideal control for combination analyzers that measure blood gas, electrolytes, metabolites, BUN, total hemoglobin and CO-Ox fractions.

### PRODUCT DESCRIPTION

QC 823 is a buffered aqueous solution containing electrolytes, glucose, lactate, and urea. It has been equilibrated with specific levels of oxygen, carbon dioxide, and nitrogen. This product contains no preservatives and no biological materials.

QC 823 is provided in convenient, ready-to-use ampuls containing 2.5 mL of solution. It is available in three (3) levels for monitoring pH,  $p\text{CO}_2$ ,  $p\text{O}_2$ ,  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Cl}^-$ ,  $\text{Ca}^{++}$ ,  $\text{Mg}^{++}$ , glucose, lactate, and BUN (urea) at varying points within the clinical range. Ampuls are packaged in single level boxes (30 ampuls of the same level) or multi-level boxes (10 ampuls of each level).

### STORAGE AND SHELF LIFE

QC 823 has a shelf life of thirty-six (36) months from the date of manufacture when stored at 2-8 °C. It may be stored at room temperature (up to 25 °C) for nine (9) months, not exceeding the stated expiration date. 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 823 are as follows:

Analyte	Level 1	Level 2	Level 3
pH	7.15	7.40	7.56
$p\text{CO}_2$ (mmHg)	66	42	24
$p\text{O}_2$ (mmHg)	61	102	150
$\text{Na}^+$ (mmol/L)	114	134	160
$\text{K}^+$ (mmol/L)	2.0	4.4	6.2
$\text{Cl}^-$ (mmol/L)	84	101	125
$\text{Ca}^{++}$ (mmol/L)	1.50	1.10	0.50
$\text{Mg}^{++}$ (mmol/L)	1.15	0.60	0.30
Glucose (mg/dL)	80	200	300
Lactate (mmol/L)	0.7	2.7	7.4
BUN (mg/dL)	9.5	27.5	47.5
Urea (mmol/L)	3.4	9.8	17.0

### QC 823 SPECIFICATIONS

Packaging: 2.5 mL per ampul, 30 ampuls per box  
Storage: 2-8 °C (up to 9 months at room temperature)  
Shelf Life: 36 months from date of manufacture  
Matrix: Buffered aqueous solution  
Analytes: pH,  $p\text{CO}_2$ ,  $p\text{O}_2$ ,  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Cl}^-$ ,  $\text{Ca}^{++}$ ,  $\text{Mg}^{++}$ , glucose, lactate, and BUN (urea)

### 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 823 Controls.

**Catalog number:** **QC 823-1** (Level 1)  
**QC 823-2** (Level 2)  
**QC 823-3** (Level 3)  
**QC 823** (Multi-level)

### 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 823 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.

# INSTRUMENT REFERENCE CHART

QC 823 Blood Gas • Electrolyte • Metabolite • BUN Control

# QC 823

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

MANUFACTURER AND MODEL	ANALYTES REPORTED BY INSTRUMENT IN QC 823
<b>IL<sup>®</sup></b>	
1600 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <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> , Glucose
GEM <sup>®</sup> Premier <sup>®</sup> 3000 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Ca <sup>++</sup> , Glucose, Lactate
GEM Premier 4000	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Glucose, Lactate
<b>ITC<sup>®</sup></b>	
IRMA <sup>®</sup> and IRMA TRUpoint <sup>®</sup>	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Glucose, Lactate
<b>MEDICA</b>	
EasyBloodGas	pH, pCO <sub>2</sub> , pO <sub>2</sub>
EasyStat <sup>®</sup>	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
<b>NOVA</b>	
CCX	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Mg <sup>++</sup> , Glucose, Lactate
pHOX <sup>®</sup>	pH, pCO <sub>2</sub> , pO <sub>2</sub>
pHOX Plus	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Mg <sup>++</sup> , Glucose, Lactate
Stat Profile 1-10	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Glucose, Lactate
Stat Profile Ultra	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Mg <sup>++</sup> , Glucose, Lactate
<b>OPTIMEDICAL<sup>®</sup></b>	
OPTI <sup>®</sup> CCA	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Glucose
OPTI R	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Ca <sup>++</sup>
OPTI LION	pH, Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup>
<b>RADIOMETER<sup>®</sup></b>	
ABL <sup>®</sup> 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> , Cl <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> , Glucose, Lactate
ABL 700 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Glucose, Lactate
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> , Glucose
ABL 800 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Glucose, Lactate
NPT 7	pH, pCO <sub>2</sub> , pO <sub>2</sub>
<b>ROCHE<sup>®</sup></b>	
Compact Series	pH, pCO <sub>2</sub> , pO <sub>2</sub>
Cobas <sup>®</sup> b 221	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Glucose, Lactate
Roche OMNI <sup>®</sup> 1-9	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Glucose, Lactate
<b>SIEMENS<sup>®</sup> (BAYER<sup>®</sup>)</b>	
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> , Glucose
800 Series	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Glucose, Lactate
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> , Glucose, Lactate
<b>YSI<sup>®</sup></b>	
2300 Stat Plus	Glucose, Lactate

Synthesis and Premier are trademarks and GEM is a registered trademark of Instrumentation Laboratory, Bedford, MA, USA. ITC, 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. OPTI and OPTIMEDICAL are registered trademarks of Opti Medical Systems, Inc., Roswell, GA, USA. ABL is a registered trademark of Radiometer Medical APS Corporation, Bronshøj, Denmark. 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. YSI is a registered trademark of YSI Incorporated, Yellow Springs, OH, USA.

BIOMKT-0015  
Rev. C 8/2011