

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 Bayer® 850, Radiometer 505, and Radiometer 600) or any of the blood gas and electrolyte testing systems listed on the back page. QC 623 is also for use on ITC IRMA® 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, $p\text{CO}_2$, $p\text{O}_2$, Na^+ , K^+ , Cl^- , and 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.

STATISTICAL SUPPORT

The RNA Medical statistical service program is the new standard in inter-laboratory peer analysis. Only RNA offers true on-line data submission and reporting options in *real-time*. Monthly reports with cumulative and lot-specific peer comparison data can now be a valuable troubleshooting tool.

Specific features of the RNA program include:

- Optional on-line submission of either summary or raw data via the RNA Medical website.
- *Real-time* availability of monthly and peer comparison reports for internet submitted data, providing immediate access to statistical information.
- Error checking of data before submission to peer group, ensuring the integrity of peer comparison data.
- Customized peer group options and reports.
- Acceptance of data not previously submitted (late data).
- Reprinting and replacement of lost reports with data current to the date of submission.

CONTROL VALUES AND ANALYTES

Lot specific values are provided with each box of controls. The typical 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
Na^+ (mmol/L)	114	134	160	134
K^+ (mmol/L)	2.0	4.4	6.2	4.4
Cl^- (mmol/L)	84	101	132	101
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, $p\text{CO}_2$, $p\text{O}_2$, Na^+ , K^+ , Cl^- , Ca^{++} .

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 has a broad line of blood gas and critical blood analyte control products, including Calibration Verification Controls with on-line graphing options. For further information about QC 623, Calibration Verification Controls, or any other RNA Medical product, please contact us at the number listed on the back page or visit our website at www.RNAMedical.com.

RNA Medical is a registered trademark of Bionostics, Inc., Devens, MA, USA. Bayer is a registered trademark of Bayer AG, Leverkusen, Germany. IRMA is a registered trademark of International Technidyne Corporation, Edison, NJ, USA. The products described herein are covered by one or more of the following U.S. Patents and their foreign counterparts: 5,558,985; 5,320,965; 5,304,491; 5,045,529; 5,013,666; 4,945,062; 4,843,013; 4,753,888.

INSTRUMENT REFERENCE CHART

QC 623 Blood Gas • Electrolyte Control

QC 623

MANUFACTURER AND MODEL ANALYTES REPORTED BY INSTRUMENT IN QC 623

AADEE

AADEE ZEN ^Δ	pH, pCO ₂ , pO ₂
AADEE ZEN ISE ^Δ	Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺

BAYER DIAGNOSTICS

238	pH, pCO ₂ , pO ₂
248	pH, pCO ₂ , pO ₂
278, 280	pH, pCO ₂ , pO ₂
288	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺
840, 845, 850, 855, 860, 865	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺
614, 634, 644	pH, Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺

ESCHWEILER

System 2000 ^Δ	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Ca ⁺⁺
System 3000 ^Δ	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺

INSTRUMENTATION LABORATORY

1304, 1306, 1312	pH, pCO ₂ , pO ₂
BG3	pH, pCO ₂ , pO ₂
BGE	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Ca ⁺⁺
1610, 1620, 1630, 1640, 1650	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺
Synthesis 10, 15, 20, 25, 30, 35	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺

ITC

IRMA ^Δ	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Ca ⁺⁺
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METRACOR

VIA V-ABG ^Δ	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺
VIA V-LVM ^Δ	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺

NOVA BIOMEDICAL

Stat Profile [®] 1-10	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺
Stat Profile Ultra	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺

OSMETECH

OPTI [™] 1 [□]	pH, pCO ₂ , pO ₂
OPTI CCA [□]	pH, pCO ₂ , pO ₂
OPTI R [□]	pH, pCO ₂ , pO ₂

RADIOMETER

ABL [®] 3, 30	pH, pCO ₂ , pO ₂
ABL 300, 330	pH, pCO ₂ , pO ₂
ABL 4	pH, pCO ₂ , pO ₂ , K ⁺
ABL 5	pH, pCO ₂ , pO ₂
ABL 50, 500, 505, 510, 520	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺
ABL 600, 605, 610, 615, 620, 625	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺
ABL 70	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Ca ⁺⁺
ICA, KNA 1	Ca ⁺⁺ , Na ⁺ , K ⁺
KNA 2	Na ⁺ , K ⁺
EML 100, 105	Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺

ROCHE DIAGNOSTICS

AVL 945, 947	pH, pCO ₂ , pO ₂
AVL 990, 995	pH, pCO ₂ , pO ₂
AVL Compact Series [□]	pH, pCO ₂ , pO ₂
AVL OMNI [®] 1-9	pH, pCO ₂ , pO ₂ , Na ⁺ , K ⁺ , Cl ⁻ , Ca ⁺⁺
AVL 983 ^Δ	Na ⁺ , K ⁺ , Cl ⁻

^Δ Values for QC 623 Levels 1, 2 and 3 only.

[□] Values for QC 623 Level 4 only.

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