

# RA 525

## BLOOD GAS • ELECTROLYTE • METABOLITE CO-OXIMETER (RADIOMETER) CONTROL

### INTENDED USE

RNA Medical® Brand **RA 525 Blood Gas • Electrolyte • Metabolite • CO-Oximeter (Radiometer) Control** is an assayed quality control material used for monitoring the performance of blood gas, electrolyte, metabolite, and CO-Oximeter instrumentation. The unique formulation of this control makes it the ideal choice for Radiometer 500 and 600 Series analyzers. RA 525 may also be used on Radiometer OSM®3 CO-Oximeters or any stand-alone blood gas system listed on the back page that is paired with these analyzers.

### PRODUCT DESCRIPTION

RA 525 is a buffered aqueous solution containing electrolytes, glucose, lactate, and dyes. It has been equilibrated with specific levels of oxygen, carbon dioxide, and nitrogen. This product contains no preservatives and no biological materials.

RA 525 is provided in convenient, ready-to-use ampuls containing 2.5 mL of solution. It is available in three (3) levels for monitoring pH,  $p\text{CO}_2$ ,  $p\text{O}_2$ ,  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Cl}^-$ ,  $\text{Ca}^{++}$ , glucose, lactate, total hemoglobin, and hemoglobin fractions 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

RA 525 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 eight (8) months, not exceeding the stated expiration date. 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 RA 525 are as follows:

Analyte	Level 1	Level 2	Level 3
pH	7.15	7.37	7.58
$p\text{CO}_2$ (mmHg)	65	43	23
$p\text{O}_2$ (mmHg)	61	102	150
$\text{Na}^+$ (mmol/L)	120	142	163
$\text{K}^+$ (mmol/L)	3.0	5.0	7.0
$\text{Cl}^-$ (mmol/L)	80	100	120
$\text{Ca}^{++}$ (mmol/L)	1.45	1.03	0.55
Glucose (mg/dL)	40	110	280
Lactate (mmol/L)	7.0	3.0	1.0

#### Values for Radiometer CO-Oximeters

tHb (g%)	10.0	14.5	20.0
HbO <sub>2</sub> (%)	25.0	20.0	10.0
HbO <sub>2</sub> Sat	30.0	25.0	11.0
HbCO (%)	3.0	2.0	5.0
MetHb (%)	5.0	6.0	5.0
O <sub>2</sub> Ct (Vol %)	3.5	4.5	3.0

### RA 525 SPECIFICATIONS

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

Storage: 2-8 °C (up to 8 months at room temperature).

Shelf Life: 36 months from date of manufacture.

Matrix: Buffered aqueous solution.

Analytes: pH,  $p\text{CO}_2$ ,  $p\text{O}_2$ ,  $\text{Na}^+$ ,  $\text{K}^+$ ,  $\text{Cl}^-$ ,  $\text{Ca}^{++}$ , glucose, lactate, total hemoglobin, and hemoglobin fractions when measured on Radiometer CO-Oximeters.

### 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 RA 525 Controls.

**Catalog number:** **RA 525-1** (Level 1)  
**RA 525-2** (Level 2)  
**RA 525-3** (Level 3)  
**RA 525** (Multi-level)

### 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 RA 525, 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](http://www.RNAMedical.com).

RNA Medical is a registered trademark of Bionostics, Inc. OSM is a registered trademark of Radiometer A/S Corporation, Copenhagen, Denmark. 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

*RA 525 Blood Gas • Electrolyte • Metabolite  
CO-Oximeter (Radiometer) Control*

# RA 525

## MANUFACTURER AND MODEL ANALYTES REPORTED BY INSTRUMENT IN RA 525

### BAYER® DIAGNOSTICS

238	pH, pCO <sub>2</sub> , pO <sub>2</sub>
248	pH, pCO <sub>2</sub> , pO <sub>2</sub>
278, 280	pH, pCO <sub>2</sub> , pO <sub>2</sub>
840	pH, pCO <sub>2</sub> , pO <sub>2</sub>

### INSTRUMENTATION LABORATORY

1304, 1306, 1312	pH, pCO <sub>2</sub> , pO <sub>2</sub>
BG3	pH, pCO <sub>2</sub> , pO <sub>2</sub>

### NOVA BIOMEDICAL

Stat Profile® 3	pH, pCO <sub>2</sub> , pO <sub>2</sub>
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### RADIOMETER

ABL® 3, 30	pH, pCO <sub>2</sub> , pO <sub>2</sub>
ABL 300, 330	pH, pCO <sub>2</sub> , pO <sub>2</sub>
ABL 4	pH, pCO <sub>2</sub> , pO <sub>2</sub> , K <sup>+</sup>
ABL 5	pH, pCO <sub>2</sub> , pO <sub>2</sub>
ABL 50, 500, 510, 520	pH, pCO <sub>2</sub> , pO <sub>2</sub> , sO <sub>2</sub> , tHb and Hb fractions
ABL 505	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Ca <sup>++</sup>
ABL 600, 605, 610, 615, 620, 625	pH, pCO <sub>2</sub> , pO <sub>2</sub> , Na <sup>+</sup> , K <sup>+</sup> , Cl <sup>-</sup> , Ca <sup>++</sup> , Glucose, Lactate, sO <sub>2</sub> , tHb and Hb fractions
OSM3	tHb and Hb fractions

### ROCHE DIAGNOSTICS

AVL 945, 947	pH, pCO <sub>2</sub> , pO <sub>2</sub>
AVL 990, 995	pH, pCO <sub>2</sub> , pO <sub>2</sub>

### YELLOW SPRINGS INSTRUMENTS

2300 Stat Plus	Glucose, Lactate
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