CVC 123

5 Levels

CVC 123 Calibration Verification Controls

LOT		Exp.:	
	Set: 612328		Set: 2029-03-31
	Level 1: 64126		Level 1: 2029-03-31
	Level 2: 61546		Level 2: 2029-03-31
	Level 3: 61645		Level 3: 2029-03-31
	Level 4: 61745		Level 4: 2029-03-31
	Level 5: 64228		Level 5: 2029-03-31

REF CVC 123

IVD For *In Vitro* Diagnostic Use

INTENDED USE

RNA Medical® Brand **CVC 123** *Calibration Verification Controls* are assayed materials used for confirming the calibration and linearity of blood gas, electrolyte, and metabolite instrumentation for the analytes and analyzers listed on the Expected Values Chart.

PRODUCT DESCRIPTION

CVC 123 is provided in five (5) distinct levels of pH, pCO_2, pO_2, Na^+, K^+, Cl^-, Ca^{++}, Mg^{++}, glucose, and lactate covering the significant range of instrument performance. It is packaged in sealed glass ampuls, each containing 2.5 mL of solution. Ampuls are packaged in kits containing four (4) ampuls of each level.

Active Ingredients:
CVC 123 is a buffered solution containing electrolytes, glucose, and lactate. It has been equilbrated with specific levels of CO_2, O_2, and N_2. This product contains no preservatives and no human or biological materials.

STORAGE

The expiration date stated on the CVC 123 packaging is for product stored at 2-8 °C. The product may also be stored at room temperature (up to 25 °C) for nine (9) months, provided the labeled expiration date is not exceeded. Avoid exposure to freezing and temperatures greater than 30 °C.

DIRECTIONS FOR USE

CVC 123 should be brought to a temperature of 20-25 °C before use (see instructions regarding Expected Values). Allow at least four (4) hours for the ampuls to equilibrate to this temperature prior to testing.

It is best to run calibration verification materials in the same manner as patient samples, however, please refer to the Expected Values Chart enclosed and/or any specific instructions for your analyzer regarding the use of aqueous control materials.

For Roche OMNI 1-9, Omni-S and Cobas b 221 Analyzers: Always test CVC 123 as an aqueous material in the Sample or QC Mode.

Follow the procedures listed below:

1. Perform a two-point calibration on your instrument before beginning the calibration verification procedure.
2. Beginning with Level 1, hold the ampul at the top and bottom (with forefinger and thumb) and shake 15 to 20 times (about 10 seconds) to mix the solution. Tap the ampul to restore the liquid to the bottom of the ampul.
3. Open the ampul by snapping off the tip at the score. Use the Snapper® provided to protect fingers from cuts.
4. Immediately introduce the liquid from the ampul to the analyzer. Use direct aspiration, syringe transfer, or capillary mode techniques.
5. Record the results on the Data Collection and Linearity Worksheet provided for each analyte.
6. Repeat steps 2 through 5 for the remaining ampuls of Level 1 until three (3) replicates are completed (a fourth ampul of each level is provided in case of accidental breakage or obvious sampling error). Test Levels 2, 3, 4, and 5 the same way. Record all values on the worksheets.
7. Calculate the mean value for each test analyte and compare your mean to the range on the Expected Values Chart. If your mean is within the range, circle **Y** at the question **OK?**. If your mean is outside the range, circle **N** and take corrective action.
8. To graph the linearity of your results:
   a) Using the graph area provided, plot the Test Value (mean) against the Expected Value.
   b) Connect the plotted points to visualize linearity.

   Note: *Steps 7 and 8 may be performed on-line as a feature of PeerQC described below.*

EXPECTED VALUES

The values for each analyte on the enclosed Expected Values Chart are based on multiple determinations performed on randomly selected samples from each lot. The listing for each instrument represents the expected range and mean value for this range for ampuls that are at 25 °C when tested. (Note: pO_2 values will vary inversely by about one percent (1%) per degree Celsius that the temperature of the ampul varies from 25 °C.)

The Expected Values are provided as a guide in evaluating analyzer performance. Since instrument design and operating conditions may vary, each laboratory should establish its own acceptance criteria.

STATISTICAL SUPPORT

RNA Medical PeerQC®, available at www.RNAMedical.com, features web-based graphing and reporting for its Calibration Verification Controls and is available at no charge to RNA Medical customers. The graphing steps outlined above may be performed on-line as a feature of this service. Please contact RNA Medical or visit our website for information about utilizing PeerQC for this product.

LIMITATIONS

1. CVC 123 is sensitive to many instrument related factors that would affect analytical results. Because it is not a blood-based material, it may not detect certain malfunctions that would affect the testing of blood.
2. This product is intended for use in evaluating the performance of laboratory instruments. It is not for use as a calibration standard and its use should not replace other aspects of a complete quality control program.

RNA® MEDICAL

CVC 123 Calibration Verification Controls

Level 1

LOT 64126

Exp.: 2029-03-31

Expected Values Chart

Analyzers	pH mean	pH range	pCO_2 mmHg mean	pCO_2 mmHg range	pO_2 mmHg mean	pO_2 mmHg range	Na^+ mmol/L mean	Na^+ mmol/L range	K^+ mmol/L mean	K^+ mmol/L range	Cl^- mmol/L mean	Cl^- mmol/L range	Ca^{++} mmol/L mean	Ca^{++} mmol/L range	Mg^{++} mmol/L mean	Mg^{++} mmol/L range	Glucose mg/dL mean	Glucose mg/dL range	Lactate mmol/L mean	Lactate mmol/L range
EPOCAL																				
EPOC	6.80	6.75 - 6.85	95	83 - 107	35	20 - 50	93	88 - 98	DNA[3]				2.72	2.22 - 3.22			497	397 - 597	DNA[3]	
IL																				
GEM Premier 3000 Series	ORL[2]		90	78 - 102	41	26 - 56	ORL[2]		11.7	9.2 - 14.2			2.77	2.27 - 3.27			494	448 - 540	DNA[3]	
GEM Premier 4000 Series	6.81	6.78 - 6.84	89	77 - 101	43	28 - 58	ORL[2]		12.0	9.5 - 14.5	64	59 - 69	3.02	2.52 - 3.52			465	415 - 515	15.1	11.6 - 18.6
GEM Premier 5000 / 7000 Series	ORL[2]		93	86 - 100	45	35 - 55	DNA[3]		12.3	11.5 - 13.1	67	63 - 71	3.26	2.95 - 3.57			498	452 - 544	17.6	15.1 - 20.1
Medica																				
EasyBloodGas	ORL[2]		93	81 - 105	31	19 - 43														
EasyStat	6.82	6.79 - 6.85	95	83 - 107	31	19 - 43	83	78 - 88	11.2	9.2 - 13.2	63	58 - 68	3.05	2.65 - 3.45						
Nova																				
pHOx Ultra	6.89	6.86 - 6.92	83	71 - 95	29	14 - 44	89	84 - 94	12.1	9.6 - 14.6	72	67 - 77	DNA[3]		DNA[3]		475	425 - 525	16.5	13.0 - 20.0
pHOx	6.89	6.86 - 6.92	82	70 - 94	30	15 - 45														
pHOx Plus	6.89	6.86 - 6.92	82	70 - 94	26	11 - 41	90	85 - 95	12.1	9.6 - 14.6	68	63 - 73	DNA[3]				447	397 - 497	DNA[3]	
OPTI Medical																				
OPTI CCA / TS / TS2	6.88	6.83 - 6.93	90	78 - 102	60	45 - 75	ORL[2]		ORL[2]		81	76 - 86	2.53	2.03 - ORL[2]			ORL[2]		14.7	11.2 - ORL[2]
Radiometer																				
ABL 700 Series	6.84	6.81 - 6.87	90	78 - 102	41	26 - 56	86	81 - 91	11.4	8.9 - 13.9	64	59 - 69	2.91	2.41 - 3.41			446	396 - 496	14.9	11.4 - 18.4
ABL 80 Series	DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]				DNA[3]		DNA[3]	
ABL 800 Series	6.84	6.81 - 6.87	88	76 - 100	46	31 - 61	85	80 - 90	11.4	8.9 - 13.9	63	58 - 68	2.90	2.40 - 3.40			446	396 - 496	15.6	12.1 - 19.1
ABL 90 Series	DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]				DNA[3]		DNA[3]	
Roche																				
Cobas b 221	6.89	6.86 - 6.92	91	79 - 103	9	0 - 24	DNA[3]		DNA[3]		DNA[3]		DNA[3]				DNA[3]		DNA[3]	
OMNI 1-9[1]	6.89	6.86 - 6.92	90	78 - 102	22	7 - 37	87	82 - 92	11.6	9.1 - 14.1	72	67 - 77	2.77	2.27 - 3.27			437	387 - 487	16.2	12.7 - 19.7
Siemens																				
500 Series	6.78	6.74 - 6.82	98	84 - 112	44	28 - 60	ORL[2]		11.1	8.6 - 13.6	ORL[2]		2.77	2.27 - 3.27			DNA[3]		DNA[3]	
1200 Series	6.86	6.83 - 6.89	93	81 - 105	34	19 - 49	86	81 - 91	11.8	9.3 - 14.3	70	65 - 75	2.77	2.27 - 3.27			431	381 - 481	15.4	11.9 - 18.9

FOOTNOTES:
1. Always Test as an Aqueous Material in the Sample or QC Mode
2. ORL - Outside (Analyzer's) Reportable Limits
3. DNA - Data Not Available at Time of Printing

CVC 123 Calibration Verification Controls

Level 2

LOT 61546

Exp.: 2029-03-31

Expected Values Chart

Analyzers	pH mean	pH range	pCO_2 mmHg mean	pCO_2 mmHg range	pO_2 mmHg mean	pO_2 mmHg range	Na^+ mmol/L mean	Na^+ mmol/L range	K^+ mmol/L mean	K^+ mmol/L range	Cl^- mmol/L mean	Cl^- mmol/L range	Ca^{++} mmol/L mean	Ca^{++} mmol/L range	Mg^{++} mmol/L mean	Mg^{++} mmol/L range	Glucose mg/dL mean	Glucose mg/dL range	Lactate mmol/L mean	Lactate mmol/L range
EPOCAL																				
EPOC	7.10	7.05 - 7.15	69	61 - 77	72	57 - 87	111	106 - 116	DNA[3]				1.42	1.27 - 1.57			80	69 - 91	0.6	0.3 - 0.9
IL																				
GEM Premier 3000 Series	7.14	7.10 - 7.18	70	61 - 79	75	63 - 87	112	107 - 117	1.8	1.3 - 2.3			1.50	1.35 - 1.65			69	62 - 76	0.5	0.1 - 0.9
GEM Premier 4000 Series	7.13	7.09 - 7.17	68	59 - 77	74	62 - 86	113	108 - 118	1.9	1.4 - 2.4	78	73 - 83	1.53	1.38 - 1.68			76	66 - 86	0.6	0.3 - 0.9
GEM Premier 5000 / 7000 Series	7.13	7.09 - 7.17	68	62 - 74	69	59 - 79	110	105 - 115	1.6	1.1 - 2.1	79	75 - 83	1.54	1.39 - 1.69			74	67 - 81	0.6	0.2 - 1.0
Medica																				
EasyBloodGas	7.15	7.12 - 7.18	70	63 - 77	67	57 - 77														
EasyStat	7.14	7.11 - 7.17	71	64 - 78	67	57 - 77	112	107 - 117	1.8	1.3 - 2.3	72	67 - 77	1.44	1.34 - 1.54						
Nova																				
pHOx Ultra	7.18	7.15 - 7.21	64	57 - 71	68	59 - 77	112	107 - 117	2.0	1.5 - 2.5	82	77 - 87	1.56	1.41 - 1.71	1.10	0.95 - 1.25	83	73 - 93	0.5	0.2 - 0.8
pHOx	7.18	7.15 - 7.21	63	56 - 70	67	58 - 76														
pHOx Plus	7.21	7.18 - 7.24	63	56 - 70	66	57 - 75	115	110 - 120	2.0	1.5 - 2.5	73	68 - 78	1.49	1.34 - 1.64			87	77 - 97	DNA[3]	
OPTI Medical																				
OPTI CCA / TS / TS2	7.18	7.13 - 7.23	69	61 - 77	79	64 - 94	117	109 - 125	1.9	1.4 - 2.4	92	87 - 97	1.30	1.15 - 1.45			85	69 - 101	0.7	0.4 - 1.0
Radiometer																				
ABL 700 Series	7.15	7.12 - 7.18	68	61 - 75	76	66 - 86	115	110 - 120	2.1	1.6 - 2.6	76	71 - 81	1.56	1.41 - 1.71			79	69 - 89	0.6	0.3 - 0.9
ABL 80 Series	7.15	7.10 - 7.20	69	62 - 76	61	51 - 71	115	110 - 120	2.0	1.5 - 2.5	65	60 - 70	1.42	1.27 - 1.57			76	66 - 86		
ABL 800 Series	7.15	7.12 - 7.18	67	60 - 74	78	68 - 88	113	108 - 118	2.0	1.5 - 2.5	75	70 - 80	1.56	1.41 - 1.71			82	72 - 92	0.6	0.3 - 0.9
ABL 90 Series	DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]				DNA[3]		DNA[3]	
Roche																				
Cobas b 221	7.16	7.13 - 7.19	71	63 - 79	56	41 - 71	DNA[3]		DNA[3]		DNA[3]		DNA[3]				DNA[3]		DNA[3]	
OMNI 1-9[1]	7.16	7.13 - 7.19	70	62 - 78	65	50 - 80	115	110 - 120	2.0	1.5 - 2.5	84	79 - 89	1.50	1.35 - 1.65			81	66 - 96	0.6	0.3 - 0.9
Siemens																				
500 Series	7.13	7.09 - 7.17	71	61 - 81	78	66 - 90	110	105 - 115	1.9	1.4 - 2.4	72	66 - 78	1.50	1.34 - 1.66			78	68 - 88	DNA[3]	
1200 Series	7.17	7.14 - 7.20	68	61 - 75	69	59 - 79	111	106 - 116	1.8	1.3 - 2.3	79	74 - 84	1.46	1.31 - 1.61			76	66 - 86	0.7	0.4 - 1.0

FOOTNOTES:
1. Always Test as an Aqueous Material in the Sample or QC Mode
2. ORL - Outside (Analyzer's) Reportable Limits
3. DNA - Data Not Available at Time of Printing

CVC 123 Calibration Verification Controls

Level 3

LOT 61645

Exp.: 2029-03-31

Expected Values Chart

Analyzers	pH mean	pH range	pCO_2 mmHg mean	pCO_2 mmHg range	pO_2 mmHg mean	pO_2 mmHg range	Na^+ mmol/L mean	Na^+ mmol/L range	K^+ mmol/L mean	K^+ mmol/L range	Cl^- mmol/L mean	Cl^- mmol/L range	Ca^{++} mmol/L mean	Ca^{++} mmol/L range	Mg^{++} mmol/L mean	Mg^{++} mmol/L range	Glucose mg/dL mean	Glucose mg/dL range	Lactate mmol/L mean	Lactate mmol/L range
EPOCAL																				
EPOC	7.40	7.35 - 7.45	39	34 - 44	103	86 - 120	134	129 - 139	DNA[3]				1.15	1.05 - 1.25			192	162 - 222	2.3	1.7 - 2.9
IL																				
GEM Premier 3000 Series	7.43	7.39 - 7.47	41	34 - 48	110	98 - 122	135	130 - 140	4.3	3.8 - 4.8			1.15	1.05 - 1.25			188	170 - 206	2.5	2.1 - 2.9
GEM Premier 4000 Series	7.42	7.38 - 7.46	40	33 - 47	110	98 - 122	133	128 - 138	4.5	4.0 - 5.0	102	97 - 107	1.15	1.05 - 1.25			187	167 - 207	2.1	1.6 - 2.6
GEM Premier 5000 / 7000 Series	7.47	7.43 - 7.51	39	34 - 44	96	85 - 107	130	126 - 134	4.3	3.8 - 4.8	99	94 - 104	1.16	1.05 - 1.27			194	176 - 212	2.5	2.1 - 2.9
Medica																				
EasyBloodGas	7.45	7.42 - 7.48	41	36 - 46	107	97 - 117														
EasyStat	7.44	7.41 - 7.47	41	36 - 46	107	97 - 117	135	130 - 140	4.3	3.8 - 4.8	94	89 - 99	1.06	0.96 - 1.16						
Nova																				
pHOx Ultra	7.43	7.40 - 7.46	40	35 - 45	108	99 - 117	131	126 - 136	4.4	3.9 - 4.9	102	97 - 107	1.17	1.07 - 1.27	0.55	0.45 - 0.65	197	177 - 217	2.6	2.1 - 3.1
pHOx	7.46	7.43 - 7.49	39	34 - 44	105	96 - 114														
pHOx Plus	7.45	7.42 - 7.48	39	34 - 44	107	98 - 116	134	129 - 139	4.4	3.9 - 4.9	97	92 - 102	1.12	1.02 - 1.22			212	192 - 232	DNA[3]	
OPTI Medical																				
OPTI CCA / TS / TS2	7.43	7.38 - 7.48	40	35 - 45	103	86 - 120	142	133 - 151	4.5	4.0 - 5.0	104	99 - 109	1.14	1.04 - 1.24			198	175 - 221	2.4	1.9 - 2.9
Radiometer																				
ABL 700 Series	7.40	7.37 - 7.43	42	37 - 47	110	100 - 120	134	129 - 139	4.4	3.9 - 4.9	98	93 - 103	1.19	1.09 - 1.29			188	168 - 208	2.3	1.8 - 2.8
ABL 80 Series	7.40	7.35 - 7.45	42	37 - 47	100	90 - 110	134	129 - 139	4.3	3.8 - 4.8	96	91 - 101	1.14	1.04 - 1.24			188	168 - 208		
ABL 800 Series	7.41	7.38 - 7.44	41	36 - 46	111	101 - 121	133	128 - 138	4.5	4.0 - 5.0	98	93 - 103	1.19	1.09 - 1.29			190	170 - 210	2.4	1.9 - 2.9
ABL 90 Series	DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]				DNA[3]		DNA[3]	
Roche																				
Cobas b 221	7.41	7.38 - 7.44	44	39 - 49	101	89 - 113	DNA[3]		DNA[3]		DNA[3]		DNA[3]				DNA[3]		DNA[3]	
OMNI 1-9[1]	7.40	7.37 - 7.43	44	39 - 49	104	92 - 116	135	130 - 140	4.5	4.0 - 5.0	104	99 - 109	1.15	1.05 - 1.25			189	169 - 209	2.7	2.2 - 3.2
Siemens																				
500 Series	7.42	7.38 - 7.46	42	36 - 48	108	96 - 120	131	126 - 136	4.3	3.8 - 4.8	100	94 - 106	1.09	0.97 - 1.21			196	176 - 216	DNA[3]	
1200 Series	7.43	7.40 - 7.46	40	35 - 45	103	93 - 113	130	125 - 135	4.2	3.7 - 4.7	100	95 - 105	1.09	0.99 - 1.19			188	168 - 208	2.5	2.0 - 3.0

FOOTNOTES:
1. Always Test as an Aqueous Material in the Sample or QC Mode
2. ORL - Outside (Analyzer's) Reportable Limits
3. DNA - Data Not Available at Time of Printing

CVC 123 Calibration Verification Controls

Level 4

LOT 61745

Exp.: 2029-03-31

Expected Values Chart

Analyzers	pH mean	pH range	pCO_2 mmHg mean	pCO_2 mmHg range	pO_2 mmHg mean	pO_2 mmHg range	Na^+ mmol/L mean	Na^+ mmol/L range	K^+ mmol/L mean	K^+ mmol/L range	Cl^- mmol/L mean	Cl^- mmol/L range	Ca^{++} mmol/L mean	Ca^{++} mmol/L range	Mg^{++} mmol/L mean	Mg^{++} mmol/L range	Glucose mg/dL mean	Glucose mg/dL range	Lactate mmol/L mean	Lactate mmol/L range
EPOCAL																				
EPOC	7.61	7.56 - 7.66	19	14 - 24	152	129 - 175	156	151 - 161	DNA[3]				0.42	0.32 - 0.52			281	216 - 346	6.9	5.4 - 8.4
IL																				
GEM Premier 3000 Series	7.65	7.61 - 7.69	20	14 - 26	161	149 - 173	159	154 - 164	6.3	5.8 - 6.8			0.41	0.31 - 0.51			274	247 - 301	7.0	6.0 - 8.0
GEM Premier 4000 Series	7.63	7.59 - 7.67	20	14 - 26	156	144 - 168	155	150 - 160	6.4	5.9 - 6.9	124	119 - 129	0.41	0.31 - 0.51			272	242 - 302	6.1	4.6 - 7.6
GEM Premier 5000 / 7000 Series	7.70	7.66 - 7.74	19	14 - 24	149	134 - 164	149	145 - 153	6.4	5.9 - 6.9	120	114 - 126	0.38	0.28 - 0.48			287	260 - 314	6.9	5.9 - 7.9
Medica																				
EasyBloodGas	7.65	7.62 - 7.68	21	17 - 25	157	145 - 169														
EasyStat	7.64	7.61 - 7.67	21	17 - 25	156	144 - 168	157	152 - 162	6.3	5.8 - 6.8	117	112 - 122	0.39	0.29 - 0.49						
Nova																				
pHOx Ultra	7.60	7.57 - 7.63	21	17 - 25	160	150 - 170	156	151 - 161	6.6	6.1 - 7.1	124	119 - 129	0.51	0.41 - 0.61	0.32	0.24 - 0.40	286	256 - 316	7.3	5.8 - 8.8
pHOx	7.62	7.59 - 7.65	21	17 - 25	160	150 - 170														
pHOx Plus	7.62	7.59 - 7.65	21	17 - 25	167	157 - 177	157	152 - 162	6.6	6.1 - 7.1	117	112 - 122	0.56	0.46 - 0.66			297	267 - 327	DNA[3]	
OPTI Medical																				
OPTI CCA / TS / TS2	7.66	7.60 - 7.72	22	18 - 26	149	137 - 161	164	154 - 174	6.6	6.1 - 7.1	123	117 - 129	0.32	0.27 - 0.37			284	234 - 334	6.1	4.6 - 7.6
Radiometer																				
ABL 700 Series	7.59	7.56 - 7.62	22	18 - 26	153	143 - 163	155	150 - 160	6.2	5.7 - 6.7	120	115 - 125	0.53	0.43 - 0.63			272	242 - 302	6.3	4.8 - 7.8
ABL 80 Series	7.58	7.52 - 7.64	22	18 - 26	147	137 - 157	155	150 - 160	6.1	5.6 - 6.6	121	116 - 126	0.49	0.39 - 0.59			272	242 - 302		
ABL 800 Series	7.59	7.56 - 7.62	23	19 - 27	155	145 - 165	155	150 - 160	6.4	5.9 - 6.9	121	116 - 126	0.50	0.40 - 0.60			272	242 - 302	6.6	5.1 - 8.1
ABL 90 Series	DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]				DNA[3]		DNA[3]	
Roche																				
Cobas b 221	7.57	7.54 - 7.60	22	18 - 26	157	145 - 169	DNA[3]		DNA[3]		DNA[3]		DNA[3]				DNA[3]		DNA[3]	
OMNI 1-9[1]	7.57	7.54 - 7.60	23	19 - 27	153	141 - 165	158	153 - 163	6.5	6.0 - 7.0	124	119 - 129	0.46	0.36 - 0.56			282	247 - 317	7.3	5.8 - 8.8
Siemens																				
500 Series	7.61	7.57 - 7.65	21	16 - 26	153	141 - 165	155	148 - 162	6.2	5.7 - 6.7	122	112 - 132	0.41	0.31 - 0.51			281	251 - 311	DNA[3]	
1200 Series	7.62	7.59 - 7.65	20	16 - 24	150	139 - 161	152	147 - 157	6.2	5.7 - 6.7	121	116 - 126	0.46	0.36 - 0.56			272	242 - 302	7.0	5.5 - 8.5

FOOTNOTES:
1. Always Test as an Aqueous Material in the Sample or QC Mode
2. ORL - Outside (Analyzer's) Reportable Limits
3. DNA - Data Not Available at Time of Printing

CVC 123 Calibration Verification Controls

Level 5

LOT 64228

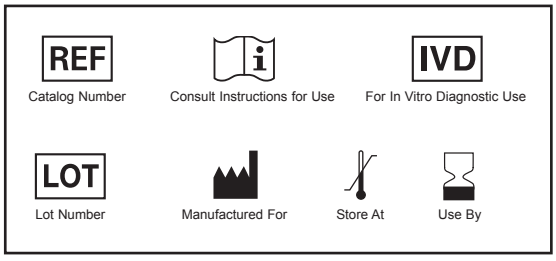
Exp.: 2029-03-31

Expected Values Chart

Analyzers	pH mean	pH range	pCO_2 mmHg mean	pCO_2 mmHg range	pO_2 mmHg mean	pO_2 mmHg range	Na^+ mmol/L mean	Na^+ mmol/L range	K^+ mmol/L mean	K^+ mmol/L range	Cl^- mmol/L mean	Cl^- mmol/L range	Ca^{++} mmol/L mean	Ca^{++} mmol/L range	Mg^{++} mmol/L mean	Mg^{++} mmol/L range	Glucose mg/dL mean	Glucose mg/dL range	Lactate mmol/L mean	Lactate mmol/L range
EPOCAL																				
EPOC	7.86	7.80 - 7.92	13	9 - 17	488	398 - 578	173	167 - 179	DNA[3]				0.22	0.12 - 0.32			0	0 - 10	DNA[3]	
IL																				
GEM Premier 3000 Series	ORL[2]		12	8 - 16	465	405 - 525	179	174 - 184	1.4	0.9 - 1.9			0.13	0.03 - 0.23			DNA[3]		11.9	10.2 - 13.6
GEM Premier 4000 Series	7.85	7.81 - 7.89	12	8 - 16	465	405 - 525	166	161 - 171	1.4	0.9 - 1.9	137	132 - 142	0.13	0.03 - 0.23			ORL[2]		10.9	8.4 - 13.4
GEM Premier 5000 / 7000 Series	7.91	7.87 - 7.95	11	6 - 16	426	382 - 470	163	158 - 168	1.1	0.6 - 1.6	136	129 - 143	0.12	0.02 - 0.22			DNA[3]		11.8	10.1 - 13.5
Medica																				
EasyBloodGas	7.82	7.77 - 7.87	13	9 - 17	455	405 - 505														
EasyStat	7.81	7.76 - 7.86	13	9 - 17	477	427 - 527	176	171 - 181	1.4	0.9 - 1.9	133	128 - 138	0.25	0.15 - 0.35						
Nova																				
pHOx Ultra	7.80	7.76 - 7.84	13	9 - 17	488	428 - 548	170	165 - 175	1.6	1.1 - 2.1	133	128 - 138	0.25	0.15 - 0.35	DNA[3]		DNA[3]		11.6	9.1 - 14.1
pHOx	7.82	7.78 - 7.86	13	9 - 17	513	453 - 573														
pHOx Plus	7.80	7.76 - 7.84	13	9 - 17	518	458 - 578	169	164 - 174	1.6	1.1 - 2.1	127	122 - 132	DNA[3]				DNA[3]		DNA[3]	
OPTI Medical																				
OPTI CCA / TS / TS2	ORL[2]		14	10 - 18	470	410 - 530	ORL[2]		1.8	1.3 - 2.3	140	134 - 146	ORL[2]				ORL[2]		9.9	7.4 - 12.4
Radiometer																				
ABL 700 Series	7.80	7.76 - 7.84	12	8 - 16	448	388 - 508	168	163 - 173	1.7	1.2 - 2.2	131	126 - 136	0.33	0.23 - 0.43			0	0 - 5	10.4	7.9 - 12.9
ABL 80 Series	DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]				DNA[3]			
ABL 800 Series	7.80	7.76 - 7.84	12	8 - 16	448	388 - 508	168	163 - 173	1.7	1.2 - 2.2	132	127 - 137	0.33	0.23 - 0.43			0	0 - 5	10.6	8.1 - 13.1
ABL 90 Series	DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]		DNA[3]				DNA[3]		DNA[3]	
Roche																				
Cobas b 221	7.77	7.73 - 7.81	12	8 - 16	488	428 - 548	DNA[3]		DNA[3]		DNA[3]		DNA[3]				DNA[3]		DNA[3]	
OMNI 1-9[1]	7.75	7.71 - 7.79	13	9 - 17	443	383 - 503	172	167 - 177	1.6	1.1 - 2.1	134	129 - 139	0.21	0.11 - 0.31			ORL[2]		11.4	8.9 - 13.9
Siemens																				
500 Series	ORL[2]		ORL[2]		474	414 - 534	172	162 - 182	1.5	1.0 - 2.0	132	122 - 142	ORL[2]				ORL[2]		DNA[3]	
1200 Series	7.84	7.80 - 7.88	11	7 - 15	488	428 - 548	164	159 - 169	1.4	0.9 - 1.9	132	127 - 137	ORL[2]				ORL[2]		11.0	8.5 - 13.5

FOOTNOTES:
1. Always Test as an Aqueous Material in the Sample or QC Mode
2. ORL - Outside (Analyzer's) Reportable Limits
3. DNA - Data Not Available at Time of Printing

CVC 123 Calibration Verification Controls



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