



Lyphochek® Assayed Chemistry Control Levels 1 and 2



C-310-5 Level 1 12 x 5 mL
C-315-5 Level 2 12 x 5 mL
313X MiniPak 2 x 5 mL



EXP 2024-05-31



89700

Level 1 89701
Level 2 89702



<https://www.myeinserts.com/89700>

Revision Date 2023-04-20 → Indicates Revised Information

METHOD (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
ACID PHOSPHATASE (TOTAL) (2)					
Colorimetric Test Substrate Naphytl. Pentandiol (3)	U/L	▲		▲	
ALBUMIN					
Catechem ChemWell-T (Bromcresol green) (5)	g/dL	3.60	2.10 – 5.10	2.50	1.60 – 3.40
ALKALINE PHOSPHATASE (2)					
Catachem ChemWell-T (5)	U/L	116	87.0 – 145	528	453 – 603
ALT/SGPT (2)					
Catachem ChemWell-T (5)	U/L	27.0	18.0 – 36.0	95.0	72.0 – 118
Vector-Best (5)	U/L	27.2	21.8 – 32.6	93.8	76.9 – 111
AMYLASE (2)					
Catachem ChemWell-T (5)	U/L	70.0	46.0 – 94.0	462	349 – 575
AST/SGOT (2)					
Catachem ChemWell-T (5)	U/L	34.0	23.0 – 45.0	156	106 – 206
Vector-Best (5)	U/L	41.7	34.2 – 49.2	182	155 – 209
BILIRUBIN (DIRECT)					
Advanced Instruments BR2 Bilirubin Stat-Analyzer (Photometric) (5)	mg/dL	0.100	0.000 – 0.200	0.700	0.400 – 1.10
Catachem ChemWell-T (5)	mg/dL	0.290	0.160 – 0.420	0.940	0.680 – 1.20
Wako L-Type (AU480) (5)	mg/dL	0.310	0.288 – 0.332	1.53	1.47 – 1.59
BILIRUBIN (TOTAL)					
Advanced Instruments BR2 Bilirubin Stat-Analyzer (Photometric) (5)	mg/dL	1.90	1.50 – 2.30	4.00	3.20 – 4.80
Agappe Diagnostics Ltd. (MISPA BS 390/Clinia) (5) →	mg/dL	1.02	0.790 – 1.25	3.88	3.36 – 4.40
Catachem ChemWell-T (5)	mg/dL	0.890	0.540 – 1.24	3.81	3.01 – 4.61
Vector-Best (5)	mg/dL	1.10	0.901 – 1.30	4.19	3.43 – 4.94
Wako L-Type (AU480) (5)	mg/dL	0.990	0.960 – 1.02	3.78	3.64 – 3.92
CALCIUM					
Catachem ChemWell-T (5)	mg/dL	9.10	7.30 – 10.9	11.5	10.3 – 12.7
CALCIUM (IONIZED)					
ISE Direct (3)	mg/dL	3.40	3.00 – 3.80	4.74	3.90 – 5.58
CARBON DIOXIDE (CO2)					
Catachem ChemWell-T (5)	mEq/L	28.9	19.9 – 37.9	16.3	9.40 – 23.2
CHLORIDE					
Vector-Best (5)	mEq/L	98.8	89.9 – 108	85.8	78.1 – 93.5
CHOLESTEROL (HDL) (7)					
Wako L-Type (AU480) (5)	mg/dL	68.8	66.3 – 71.3	27.2	25.7 – 28.7
CHOLESTEROL (LDL)					
Wako L-Type (AU480) (5)	mg/dL	147	141 – 152	58.5	56.5 – 60.5

METHOD (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
CHOLESTEROL (TOTAL)					
Catachem ChemWell-T (5)	mg/dL	242	190 – 294	94.0	75.0 – 113
Vector-Best (5)	mg/dL	265	238 – 292	101	91.1 – 111
COPPER					
Atomic Absorption	µg/dL	§		§	
CREATINE KINASE (CK) (2)					
Catachem ChemWell-T (5)	U/L	168	134 – 202	509	409 – 609
CREATININE					
Catachem ChemWell-T (5)	mg/dL	2.26	1.86 – 2.66	5.19	3.69 – 6.69
Vector-Best (5)	mg/dL	2.25	1.84 – 2.66	5.36	4.56 – 6.17
GAMMA GLUTAMYLTRANSFERASE (GGT) (2)					
Catachem ChemWell-T (5)	U/L	69.0	56.0 – 82.0	183	143 – 223
GLUCOSE					
Catachem ChemWell-T (5)	mg/dL	98.0	64.0 – 132	325	291 – 359
Vector-Best (5)	mg/dL	83.8	75.3 – 92.3	277	250 – 305
GLUTAMATE DEHYDROGENASE (GLDH) (2)					
Standard Method without Correction for the Non-Specific Creep Reaction (3)	U/L	6.65	4.40 – 8.89	12.9	10.8 – 15.0
IRON					
Catachem ChemWell-T (5)	µg/dL	279	229 – 329	82.0	70.0 – 94.0
LACTATE DEHYDROGENASE (LDH) (2)					
Catachem ChemWell-T (5) →	U/L	185	150 – 220	419	349 – 489
LIPASE (2)					
Catachem ChemWell-T (5)	U/L	52.0	37.0 – 67.0	82.0	60.0 – 104
LITHIUM					
Atomic Absorption	mEq/L	0.589	0.509 – 0.670	1.81	1.58 – 2.05
MAGNESIUM					
Atomic Absorption	mg/dL	§		§	
OSMOLALITY					
Freezing Point Depression	mOsm/kg	589	556 – 622	490	463 – 517
PHOSPHORUS					
Catachem ChemWell-T (5)	mg/dL	4.20	3.40 – 5.00	8.00	6.80 – 9.20
POTASSIUM					
Flame Photometry	mEq/L	3.81	3.39 – 4.23	6.03	4.83 – 7.22
PROTEIN SERUM (TOTAL)					
Catachem ChemWell-T (5)	g/dL	6.50	5.00 – 8.00	4.30	3.40 – 5.20
Vector-Best (5)	g/dL	6.95	6.32 – 7.58	4.46	4.01 – 4.91
TRIGLYCERIDES					
Vector-Best (5)	mg/dL	177	150 – 204	81.0	66.4 – 95.6
UREA					
Vector-Best (5)	mg/dL	34.3	29.1 – 39.5	101	85.9 – 116
UREA NITROGEN (BUN) (4)					
Catachem ChemWell-T (5)	mg/dL	20.1	15.6 – 24.6	58.9	44.9 – 72.9
URIC ACID					
Catachem ChemWell-T (5)	mg/dL	6.80	5.60 – 8.00	9.90	8.40 – 11.4
Vector-Best (5)	mg/dL	4.69	4.12 – 5.26	8.96	7.89 – 10.0

INSTRUMENT (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
ABAXIS-PICCOLO (5)					
Albumin	g/dL	4.40	3.90 – 4.90	3.00	2.50 – 3.50
Alkaline Phosphatase (2)	U/L	104	77.0 – 131	473	398 – 548
ALT/SGPT (2)	U/L	27.0	14.0 – 40.0	89.0	73.0 – 105
Amylase (2)	U/L	66.0	55.0 – 77.0	352	313 – 391
AST/SGOT (2)	U/L	43.0	34.0 – 52.0	173	154 – 192
Bilirubin (Direct)	mg/dL	0.400	0.100 – 0.700	1.30	1.00 – 1.60
Bilirubin (Total)	mg/dL	1.10	0.700 – 1.50	3.80	3.20 – 4.40
Calcium	mg/dL	9.30	8.50 – 10.1	12.4	11.1 – 13.7
Carbon Dioxide (CO2)	mEq/L	34.0	26.0 – >40.0	24.0	20.0 – 28.0
Chloride	mEq/L	98.0	90.0 – 106	85.0	<80.0 – 92.0
Cholesterol (HDL) (7)	mg/dL	56.0	47.0 – 65.0		<15.0 – 17.0
Cholesterol (Total)	mg/dL	247	214 – 280	105	91.0 – 119
Creatine Kinase (CK) (2)	U/L	154	101 – 207	438	377 – 499
Creatinine	mg/dL	1.80	1.30 – 2.30	5.10	4.30 – 5.90
Gamma Glutamyltransferase (GGT) (2)	U/L	64.0	57.0 – 71.0	157	143 – 171
Glucose	mg/dL	83.0	72.0 – 94.0	272	249 – 295
Lactate Dehydrogenase (LDH) (2)	U/L	146	122 – 170	297	237 – 357
Magnesium	mg/dL	2.00	1.70 – 2.30	5.10	4.60 – 5.60
Phosphorus	mg/dL	4.30	3.70 – 4.90	8.60	7.70 – 9.50
Potassium	mEq/L	3.70	3.20 – 4.20	5.80	5.20 – 6.40
Protein Serum (Total)	g/dL	6.90	6.40 – 7.40	4.50	4.10 – 4.90
Sodium	mEq/L	147	140 – 154	131	124 – 138
Triglycerides	mg/dL	175	161 – 189	98.0	81.0 – 115
Urea Nitrogen (BUN) (4)	mg/dL	16.0	13.0 – 19.0	46.0	41.0 – 51.0
Uric Acid	mg/dL	3.80	3.00 – 4.60	8.90	7.40 – 10.4
Abbott Alinity c Analyzer					
Albumin (Bromcresol Green (BCG))	g/dL	4.03	3.55 – 4.52	2.54	2.22 – 2.87
Albumin (Bromcresol Purple (BCP))	g/dL	3.98	3.62 – 4.34	2.52	2.29 – 2.75
Alkaline Phosphatase (2)	U/L	106	83.8 – 127	426	363 – 488
ALT/SGPT (IFCC) (2)	U/L	24.4	17.1 – 31.7	96.3	83.1 – 110
Amylase (CNP-triose/CNPG3) (2)	U/L	77.7	68.4 – 87.0	431	388 – 474
Amylase (CNP-triose/CNPG3) (IFCC) (2)	U/L	83.4	73.7 – 93.1	467	421 – 512
AST/SGOT (2)	U/L	42.7	33.8 – 51.5	196	157 – 235
Bilirubin (Direct)	mg/dL	0.405	0.314 – 0.496	1.34	1.12 – 1.57
Bilirubin (Total)	mg/dL	1.07	0.784 – 1.35	3.92	3.17 – 4.67
Calcium	mg/dL	9.37	8.64 – 10.1	12.0	11.0 – 12.9
Carbamazepine	µg/mL	3.03	2.34 – 3.72	9.90	8.12 – 11.7
Chloride	mEq/L	101	94.5 – 108	85.4	80.2 – 90.6
Cholesterol (HDL) (7)	mg/dL	71.8	60.7 – 82.9	25.2	19.2 – 31.3
Cholesterol (LDL)	mg/dL	116	102 – 129	49.4	43.1 – 55.8
Cholesterol (Total)	mg/dL	252	222 – 282	98.5	85.7 – 111
Cholinesterase (2)	U/L	8705	6933 – 10477	1210	607 – 1813
Creatine Kinase (CK) (2)	U/L	143	125 – 162	451	396 – 506
Creatinine (Alkaline picrate-kinetic rate blanked,IFCC-IDMS Standardized)	mg/dL	2.74	2.16 – 3.33	6.41	5.88 – 6.95
Creatinine (Enzymatic IFCC-IDMS Standardized)	mg/dL	1.83	1.38 – 2.28	5.22	4.37 – 6.08
Digoxin	ng/mL	1.09	0.477 – 1.70	3.05	2.64 – 3.45
Gamma Glutamyltransferase (GGT) (2)	U/L	58.9	48.0 – 69.7	152	126 – 179
Gentamicin (8P55)	µg/mL	1.40	0.938 – 1.86	7.10	6.18 – 8.01

INSTRUMENT (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
Abbott Alinity c Analyzer (continued)					
Glucose	mg/dL	81.5	71.2 – 91.8	296	270 – 322
Haptoglobin	mg/dL	137	123 – 150	74.3	65.4 – 83.3
Immunoglobulin A (IgA)	mg/dL	189	152 – 226	122	97.6 – 146
Immunoglobulin G (IgG)	mg/dL	1013	900 – 1126	630	560 – 700
Immunoglobulin M (IgM)	mg/dL	86.7	67.0 – 107	55.5	37.4 – 73.5
Iron	µg/dL	241	221 – 261	67.6	59.3 – 75.9
Lactate (Lactic Acid)	mg/dL	37.7	31.1 – 44.4	11.1	9.00 – 13.1
Lactate Dehydrogenase (LDH) (2)	U/L	171	145 – 196	383	338 – 427
Lithium	mEq/L	0.543	0.426 – 0.660	1.80	1.56 – 2.04
Magnesium	mg/dL	2.07	1.76 – 2.37	4.97	4.47 – 5.46
Phenobarbital (09P85)	µg/mL	12.5	8.04 – 17.0	44.0	34.4 – 53.6
Phenytoin (08P54)	µg/mL	9.83	7.84 – 11.8	23.3	18.9 – 27.8
Phosphorus	mg/dL	3.40	3.07 – 3.73	7.40	6.89 – 7.91
Potassium	mEq/L	3.91	3.66 – 4.17	6.24	5.88 – 6.60
Protein Serum (Total)	g/dL	6.71	6.31 – 7.12	4.10	3.76 – 4.43
Sodium	mEq/L	151	144 – 158	131	124 – 137
Theophylline (09P89)	µg/mL	8.58	6.79 – 10.4	24.2	18.8 – 29.5
Transferrin (08P38)	mg/dL	250	227 – 274	168	151 – 185
Triglycerides	mg/dL	161	148 – 174	90.0	80.6 – 99.4
Urea Nitrogen (BUN) (4)	mg/dL	14.2	12.5 – 15.9	45.3	40.9 – 49.7
Uric Acid	mg/dL	4.66	4.14 – 5.18	9.79	8.81 – 10.8
Valproic Acid (09P92)	µg/mL	39.1	33.9 – 44.3	109	97.9 – 119
Vancomycin	µg/mL	7.00	5.43 – 8.57	30.7	26.0 – 35.3
ABBOTT ARCHITECT cSYSTEMS					
Acetaminophen	µg/mL	18.0	15.7 – 20.2	81.2	76.4 – 86.0
Albumin (Bromcresol Green (BCG))	g/dL	4.06	3.57 – 4.54	2.60	2.26 – 2.94
Albumin (Bromcresol Purple (BCP))	g/dL	4.04	3.66 – 4.41	2.56	2.32 – 2.80
Alkaline Phosphatase (PNPP, AMP Buffer) (2)	U/L	107	84.4 – 130	440	362 – 519
ALT/SGPT (UV with P5P) (2)	U/L	24.6	17.0 – 32.1	96.1	81.7 – 110
ALT/SGPT (UV without P5P) (2)	U/L	26.7	21.4 – 32.0	101	88.2 – 113
Amylase (CNP-triose/CNPG3) (2)	U/L	81.3	71.8 – 90.9	451	407 – 495
AST/SGOT (UV with P5P) (2)	U/L	42.3	34.4 – 50.3	197	173 – 220
AST/SGOT (UV without P5P) (2)	U/L	38.4	32.5 – 44.2	173	151 – 194
Bilirubin (Direct) (Diazotization)	mg/dL	0.400	0.311 – 0.489	1.40	1.17 – 1.63
Bilirubin (Total) (Diazonium Ion)	mg/dL	1.10	0.817 – 1.38	3.96	3.21 – 4.70
Calcium (Arsenazo III)	mg/dL	9.34	8.56 – 10.1	11.9	10.9 – 12.9
Carbamazepine (Immunoturbidimetric) (5P05-21)	µg/mL	2.95	2.26 – 3.63	10.2	8.35 – 12.0
Carbon Dioxide (CO2) (Enzymatic)	mEq/L	33.1	25.3 – 40.8	19.1	13.7 – 24.6
Chloride (ISE indirect)	mEq/L	100	93.7 – 107	84.6	79.5 – 89.8
Cholesterol (HDL) (Ultra HDL) (7)	mg/dL	73.3	62.0 – 84.7	26.2	20.1 – 32.4
Cholesterol (LDL) (Direct measure)	mg/dL	124	110 – 138	53.9	47.2 – 60.7
Cholesterol (Total) (Cholesterol oxidase, esterase, peroxidase)	mg/dL	260	244 – 276	103	94.7 – 111
Complement C3 (Immunoturbidimetric)	mg/dL	147	131 – 163	89.3	77.9 – 101
Creatine Kinase (CK) (NAC activated) (IFCC) (2)	U/L	143	124 – 162	451	396 – 506
Creatinine (Alkaline picrate-kinetic rate blanked,IFCC-IDMS Standardized)	mg/dL	2.68	2.01 – 3.36	6.22	5.56 – 6.87
Digoxin (Immunoturbidimetric)	ng/mL	1.03	0.559 – 1.49	2.82	2.36 – 3.28
Gamma Glutamyltransferase (GGT) (2)	U/L	69.4	56.8 – 82.0	178	149 – 206
Gentamicin (Immunoturbidimetric)	µg/mL	1.59	1.12 – 2.05	7.30	6.40 – 8.20

INSTRUMENT (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
ABBOTT ARCHITECT cSYSTEMS (continued)					
Glucose (Hexokinase)	mg/dL	80.3	70.1 – 90.6	285	259 – 311
Haptoglobin (Immunoturbidimetric)	mg/dL	125	112 – 139	68.8	60.4 – 77.2
Immunoglobulin A (IgA) (Immunoturbidimetric)	mg/dL	191	154 – 229	123	98.8 – 147
Immunoglobulin G (IgG) (Immunoturbidimetric)	mg/dL	1037	925 – 1149	642	571 – 714
Immunoglobulin M (IgM) (Immunoturbidimetric)	mg/dL	85.3	65.6 – 105	55.2	37.3 – 73.0
Iron (Ferene)	µg/dL	241	220 – 263	68.3	59.9 – 76.7
Iron (UIBC)	µg/dL	79.6	<41.0 – 130	133	84.5 – 182
Lactate (Lactic Acid) (Lactate to pyruvate) (9P18-21)	mg/dL	38.4	31.7 – 45.2	10.8	8.80 – 12.8
Lactate Dehydrogenase (LDH) (Lactate to pyruvate) (IFCC) (2)	U/L	173	142 – 204	386	342 – 430
Lipase (Enzymatic with colipase) (2)	U/L	52.0	37.6 – 66.3	87.8	68.8 – 107
Magnesium (Arsenazo I) (7D70)	mg/dL	§		§	
Magnesium (Enzymatic) (3P68)	mg/dL	1.84	1.57 – 2.11	4.40	3.94 – 4.87
Phenobarbital (Immunoturbidimetric) (5P07-21)	µg/mL	12.9	8.39 – 17.3	44.0	34.4 – 53.7
Phenytoin (EIA) (5P08-21)	µg/mL	§		§	
Phosphorus (Phosphomolybdate method)	mg/dL	3.41	3.08 – 3.74	7.33	6.82 – 7.83
Potassium (ISE indirect)	mEq/L	3.90	3.64 – 4.16	6.17	5.79 – 6.55
Protein Serum (Total) (Biuret, no serum blank, end point)	g/dL	6.80	6.35 – 7.25	4.23	3.84 – 4.61
Salicylate (Enzymatic)	mg/dL		<5.00 – 7.21	13.9	12.0 – 15.7
Sodium (ISE indirect)	mEq/L	147	140 – 154	125	119 – 131
Theophylline (EIA) (5P06-21)	µg/mL	§		§	
Tobramycin (Immunoturbidimetric)	µg/mL	§		§	
Transferrin (Immunoturbidimetric)	mg/dL	244	215 – 272	162	144 – 180
Triglycerides (Enzymatic, end point)	mg/dL	173	159 – 187	94.9	85.2 – 105
Urea Nitrogen (BUN) (Urease, UV) (4)	mg/dL	16.0	14.2 – 17.8	46.0	41.4 – 50.6
Uric Acid (Uricase, colorimetric)	mg/dL	4.66	4.12 – 5.20	9.56	8.57 – 10.5
Valproic Acid (Immunoturbidimetric)	µg/mL	36.4	31.4 – 41.4	103	92.7 – 113
Vancomycin (Immunoturbidimetric)	µg/mL	6.53	5.02 – 8.04	29.6	25.1 – 34.1
BECKMAN COULTER ACCESS / 2 / 2i					
Cortisol	µg/dL	9.20	6.90 – 11.5	41.1	31.6 – 50.5
hCG (Total hCG) (5th IS)	mIU/mL	212	180 – 244	21.0	16.8 – 25.1
BECKMAN COULTER AU SYSTEMS					
Acetaminophen (Emit 2000)	µg/mL	19.0	15.9 – 22.0	81.1	73.6 – 88.5
Albumin (Bromocresol Green (BCG))	g/dL	4.06	3.68 – 4.44	2.60	2.32 – 2.88
Alkaline Phosphatase (PNPP, AMP Buffer) (2)	U/L	107	70.8 – 143	446	305 – 588
Alkaline Phosphatase (PNPP, AMP Buffer) (IFCC 2002) (Europe/Asia) (2)	U/L	126	84.1 – 168	523	358 – 688
ALT/SGPT (UV with P5P) (Europe/Asia) (2)	U/L	28.4	20.7 – 36.1	103	84.9 – 122
ALT/SGPT (UV without P5P) (2)	U/L	24.7	17.1 – 32.3	88.0	66.5 – 109
Amylase (CNP-triose/CNPG3) (2)	U/L	58.3	33.8 – 82.8	369	286 – 452
Amylase (G7 PNP, Blocked) (Europe/Asia) (2)	U/L	81.1	60.4 – 102	395	326 – 464
AST/SGOT (UV with P5P) (IFCC 2002)(Europe/Asia) (2)	U/L	43.7	34.1 – 53.3	206	176 – 237
AST/SGOT (UV without P5P) (2)	U/L	35.7	25.2 – 46.1	153	112 – 193
Bilirubin (Direct) (Diazotization)	mg/dL	0.246	0.147 – 0.345	1.08	0.861 – 1.29
Bilirubin (Direct) (Diazotization) (Europe/Asia)	mg/dL	0.293	0.193 – 0.392	1.21	0.975 – 1.45
Bilirubin (Total) (DPD)	mg/dL	1.09	0.899 – 1.27	3.79	3.22 – 4.35
Bilirubin (Total) (DPD) (Europe/Asia)	mg/dL	1.17	0.970 – 1.37	4.06	3.45 – 4.66
Calcium (Arsenazo III)	mg/dL	9.37	8.62 – 10.1	12.1	11.2 – 13.0
Carbamazepine (EIA) (Emit 2000)	µg/mL	2.78	<2.00 – 3.79	14.6	9.96 – 19.3
Carbon Dioxide (CO2) (Enzymatic)	mEq/L	36.2	26.9 – >45.0	21.2	14.8 – 27.7

INSTRUMENT (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
BECKMAN COULTER AU SYSTEMS (continued)					
Chloride (ISE indirect)	mEq/L	99.5	94.7 – 104	82.1	77.2 – 86.9
Cholesterol (HDL) (Direct measure, immunoinhibition) (Europe/Asia) (7)	mg/dL	69.7	56.3 – 83.1	26.5	20.2 – 32.8
Cholesterol (HDL) (Direct measure, polymer-polyanion) (7)	mg/dL	75.9	54.5 – 97.3	25.9	18.4 – 33.4
Cholesterol (LDL) (OSR6X83) (Europe/Asia)	mg/dL	155	102 – 209	59.5	38.2 – 80.9
Cholesterol (LDL) (OSR6X96)	mg/dL	105	65.7 – 144	44.3	26.7 – 61.8
Cholesterol (Total) (Cholesterol oxidase, esterase, peroxidase)	mg/dL	255	226 – 284	95.6	82.7 – 108
Cholesterol (Total) (Cholesterol oxidase, esterase, peroxidase) (Europe/Asia)	mg/dL	274	246 – 303	104	90.7 – 118
Cholinesterase (Butyrylthiocholine (Trinder)) (Europe/Asia) (2)	U/L	6951	5719 – 8182	1076	<1000 – 1438
Creatine Kinase (CK) (NAC activated) (2)	U/L	130	97.5 – 163	402	308 – 496
Creatine Kinase (CK) (NAC activated) (Europe/Asia) (2)	U/L	149	112 – 186	466	358 – 574
Creatinine (Alkaline picrate method) (Europe/Asia)	mg/dL	2.11	1.77 – 2.45	5.27	4.83 – 5.70
Creatinine (Alkaline picrate method, IFCC-IDMS Standardized)	mg/dL	2.07	1.70 – 2.43	5.21	4.62 – 5.80
Digoxin (EIA) (Emit 2000)	ng/mL	1.18	0.776 – 1.59	2.94	2.22 – 3.67
Gamma Glutamyltransferase (GGT) (2)	U/L	54.0	37.7 – 70.2	136	96.8 – 176
Gamma Glutamyltransferase (GGT) (IFCC 2002)(Europe/Asia) (2)	U/L	65.8	47.3 – 84.4	168	122 – 213
Gentamicin (EIA) (Emit 2000)	µg/mL	1.48	1.01 – 1.94	6.84	5.93 – 7.75
Glucose (Hexokinase)	mg/dL	80.5	72.7 – 88.3	286	261 – 312
Immunoglobulin A (IgA) (Immunoturbidimetric)	mg/dL	192	157 – 228	128	104 – 151
Immunoglobulin G (IgG) (Immunoturbidimetric)	mg/dL	988	820 – 1155	625	528 – 722
Immunoglobulin M (IgM) (Immunoturbidimetric)	mg/dL	86.7	69.4 – 104	55.8	41.1 – 70.6
Iron (TPTZ-no deproteinization)	µg/dL	263	231 – 295	69.4	58.8 – 79.9
Iron (TPTZ-no deproteinization) (Europe/Asia)	µg/dL	251	221 – 282	65.7	55.6 – 75.7
Iron (UIBC) (Nitroso-PSAP)	µg/dL	91.7	64.1 – 119	148	121 – 175
Lactate (Lactic Acid) (Lactate to pyruvate) (OSR6193) (Europe/Asia)	mg/dL	37.9	30.6 – 45.2	9.89	8.14 – 11.6
Lactate Dehydrogenase (LDH) (IFCC 2002)(Europe/Asia) (2)	U/L	167	127 – 207	374	285 – 463
Lactate Dehydrogenase (LDH) (Lactate to pyruvate) (2)	U/L	150	113 – 186	326	248 – 404
Lipase (Enzymatic, colorimetric) (2)	U/L	51.9	30.4 – 73.4	90.6	52.9 – 128
Lithium (Colorimetric)	mEq/L	0.600	0.526 – 0.674	1.80	1.61 – 1.99
Magnesium (Xylydyl blue)	mg/dL	1.93	1.66 – 2.20	4.34	3.76 – 4.92
Phenobarbital (EIA) (Emit 2000)	µg/mL	12.1	7.12 – 17.0	44.9	33.0 – 56.8
Phenytoin (EIA) (Emit 2000)	µg/mL	10.7	7.40 – 13.9	22.9	16.4 – 29.3
Phosphorus (Phosphomolybdate method)	mg/dL	3.38	2.94 – 3.82	7.18	6.43 – 7.93
Potassium (ISE indirect)	mEq/L	3.78	3.57 – 3.98	5.94	5.61 – 6.27
Protein Serum (Total) (Biuret method)	g/dL	6.45	5.84 – 7.06	4.10	3.65 – 4.55
Salicylate (EIA)	mg/dL	6.70	5.07 – 8.33	16.9	15.1 – 18.6
Sodium (ISE indirect)	mEq/L	144	138 – 150	122	117 – 128
Theophylline (EIA) (Emit 2000)	µg/mL	8.92	7.22 – 10.6	25.3	18.5 – 32.2
Tobramycin (EIA) (Emit 2000)	µg/mL	\$		\$	
Transferrin (Immunoturbidimetric)	mg/dL	240	215 – 265	164	142 – 186
Triglycerides (Enzymatic, end point)	mg/dL	166	143 – 189	87.8	73.7 – 102
Triglycerides (Enzymatic, end point) (Europe/Asia)	mg/dL	167	144 – 190	87.3	73.4 – 101
Urea Nitrogen (BUN) (Urease, UV) (4)	mg/dL	15.0	11.0 – 18.9	44.1	25.0 – 63.3
Uric Acid (Uricase, colorimetric)	mg/dL	4.57	4.12 – 5.02	9.57	8.39 – 10.7
Uric Acid (Uricase, colorimetric) (Europe/Asia)	mg/dL	4.65	4.19 – 5.11	10.1	8.82 – 11.3
Valproic Acid (EIA) (Emit 2000)	µg/mL	41.3	30.2 – 52.4	111	90.0 – 133
Vancomycin (EIA) (Emit 2000)	µg/mL	6.65	5.11 – 8.19	25.8	22.0 – 29.6
BECKMAN COULTER SYNCHRON/UniCel Dxc SERIES					
Acetaminophen (Immunoturbidimetric)	µg/mL	26.7	19.7 – 33.7	101	85.2 – 118

INSTRUMENT (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
BECKMAN COULTER SYNCHRON/UniCel DxC SERIES (continued)					
Albumin (Bromcresol Purple (BCP))	g/dL	4.25	3.85 – 4.65	2.65	2.37 – 2.93
Alkaline Phosphatase (PNPP, AMP Buffer) (2)	U/L	109	85.0 – 134	476	403 – 550
ALT/SGPT (UV with P5P) (IFCC 2002) (2)	U/L	\$		\$	
ALT/SGPT (UV without P5P) (2)	U/L	29.7	23.4 – 36.1	96.7	82.7 – 111
Amylase (G7 PNP, Blocked) (2)	U/L	80.3	69.7 – 90.8	413	375 – 451
AST/SGOT (UV with P5P) (IFCC 2002) (2)	U/L	\$		\$	
AST/SGOT (UV without P5P) (2)	U/L	40.6	35.0 – 46.2	169	148 – 190
Bilirubin (Direct) (Diazotization)	mg/dL	0.202	<0.100 – 0.333	0.884	0.718 – 1.05
Bilirubin (Total) (Jendrassik Grof)	mg/dL	1.14	0.739 – 1.55	4.31	3.72 – 4.90
Calcium (ISE indirect)	mg/dL	9.33	8.72 – 9.93	12.0	11.3 – 12.8
Carbamazepine (Immunoturbidimetric)	µg/mL	2.37	<2.00 – 2.88	14.5	12.2 – 16.8
Carbon Dioxide (CO2) (ISE indirect)	mEq/L	34.3	27.9 – 40.6	19.9	15.5 – 24.2
Chloride (ISE indirect)	mEq/L	99.5	93.2 – 106	84.2	78.4 – 90.0
Cholesterol (HDL) (Direct measure, polymer-polyanion) (HDL)(REF A15625) (7)	mg/dL	73.4	58.4 – 88.3	24.7	17.9 – 31.5
Cholesterol (LDL) (Direct measure)	mg/dL	115	96.0 – 133	48.9	36.8 – 61.1
Cholesterol (Total) (Cholesterol oxidase, esterase, peroxidase)	mg/dL	275	253 – 296	107	97.4 – 117
Cholinesterase (Butyrylthiocholine (Trinder)) (CHEX) (2)	kU/L	7.46	6.79 – 8.12	1.19	<1.00 – 1.61
Creatine Kinase (CK) (NAC activated) (2)	U/L	\$		\$	
Creatine Kinase (CK) (Rosalki, Other Modified) (2)	U/L	144	124 – 164	454	389 – 519
Creatinine (Alkaline picrate method, IFCC-IDMS Standardized)	mg/dL	\$		\$	
Digoxin (Immunoturbidimetric)	ng/mL	1.02	0.551 – 1.48	2.77	2.30 – 3.23
Gamma Glutamyltransferase (GGT) (Szasz) (2)	U/L	62.5	49.6 – 75.3	174	146 – 203
Gentamicin (Immunoturbidimetric)	µg/mL	1.10	0.752 – 1.45	8.53	8.09 – 8.97
Glucose (Glucose oxidase, oxygen consumption) (GLUCm)	mg/dL	75.3	65.6 – 85.0	273	247 – 298
Glucose (Hexokinase) (GLUH)	mg/dL	80.6	68.2 – 93.0	282	255 – 310
Immunoglobulin A (IgA) (Immunoturbidimetric)	mg/dL	197	170 – 223	125	101 – 148
Immunoglobulin G (IgG) (Immunoturbidimetric)	mg/dL	983	902 – 1064	626	537 – 715
Immunoglobulin M (IgM) (Immunoturbidimetric)	mg/dL	82.7	72.8 – 92.6	52.7	40.1 – 65.3
Iron (Ferrozine-no deproteinization)	µg/dL	244	219 – 268	68.1	59.1 – 77.1
Iron (TIBC) (Ion exchange resin, ferrozine)	µg/dL	332	292 – 371	215	189 – 241
Lactate (Lactic Acid) (Enzymatic)	mg/dL	38.3	33.9 – 42.7	10.7	8.73 – 12.7
Lactate Dehydrogenase (LDH) (IFCC) (2)	U/L	\$		\$	
Lactate Dehydrogenase (LDH) (Lactate to pyruvate) (2)	U/L	142	108 – 175	317	249 – 385
Lipase (Colorimetric) (2)	U/L	49.8	36.8 – 62.8	88.2	72.6 – 104
Magnesium (Calmagite)	mg/dL	2.03	1.72 – 2.33	4.45	3.89 – 5.01
Phenobarbital (Immunoturbidimetric)	µg/mL	▲		▲	
Phenytoin (Immunoturbidimetric)	µg/mL	10.5	9.10 – 11.9	21.7	18.3 – 25.2
Phosphorus (Phosphomolybdate method) (PHOSm)	mg/dL	3.63	3.02 – 4.25	7.74	6.70 – 8.79
Phosphorus (Phosphomolybdate method) (PHS)	mg/dL	3.50	2.91 – 4.09	7.65	6.65 – 8.66
Potassium (ISE indirect)	mEq/L	3.88	3.56 – 4.21	6.22	5.81 – 6.63
Protein Serum (Total) (Biuret, kinetic) (TPm)	g/dL	6.50	5.95 – 7.05	4.18	3.76 – 4.60
Protein Serum (Total) (Biuret, no serum blank, end point) (TP)	g/dL	6.91	6.12 – 7.69	4.48	3.95 – 5.02
Salicylate (Enzymatic)	mg/dL	6.03	4.04 – 8.01	16.3	14.6 – 17.9
Sodium (ISE indirect)	mEq/L	148	140 – 156	128	121 – 135
Theophylline (Immunoturbidimetric)	µg/mL	8.45	6.74 – 10.2	24.6	21.5 – 27.8
Tobramycin (Immunoturbidimetric)	µg/mL	8.34	6.63 – 10.0	2.10	1.42 – 2.78
Transferrin (Immunoturbidimetric)	mg/dL	261	225 – 297	169	146 – 192
Triglycerides (Enzymatic with glycerol blank)	mg/dL	184	161 – 206	99.6	84.5 – 115

INSTRUMENT (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
BECKMAN COULTER SYNCRON/UniCel DxC SERIES (continued)					
Urea Nitrogen (BUN) (Conductivity (Conductometry)) (BUNm) (4)	mg/dL	15.0	11.4 – 18.6	44.4	39.9 – 48.8
Urea Nitrogen (BUN) (Urease, UV) (BUN) (4)	mg/dL	16.7	14.1 – 19.2	49.3	43.7 – 54.9
Uric Acid (Uricase, colorimetric)	mg/dL	4.65	4.30 – 5.01	9.13	8.44 – 9.82
Valproic Acid (Immunoturbidimetric)	µg/mL	37.0	24.7 – 49.3	92.4	72.9 – 112
Vancomycin (Immunoturbidimetric)	µg/mL	7.58	5.95 – 9.21	33.9	28.8 – 38.9
ORTHO VITROS MICROS�IDE SERIES					
Acetaminophen (Enzymatic, colorimetric)	µg/mL	13.4	11.4 – 15.5	86.4	78.2 – 94.7
Albumin (Bromcresol green)	g/dL	4.81	3.97 – 5.66	2.63	2.25 – 3.02
Alkaline Phosphatase (PNPP, AMP Buffer-VITROS) (2)	U/L	56.6	40.5 – 72.7	278	224 – 333
ALT/SGPT (2)	U/L	20.8	12.8 – 28.9	79.7	64.3 – 95.1
ALT/SGPT (ALTv) (2)	U/L	21.3	14.7 – 27.8	77.9	64.9 – 90.8
Amylase (Amylopectin, colorimetric-VITROS) (2)	U/L	62.3	44.3 – 80.3	223	172 – 273
AST/SGOT (Enzymatic, colorimetric-VITROS) (2)	U/L	48.5	40.1 – 56.9	200	170 – 230
Bilirubin (Direct) (Spectrophotometric)	mg/dL	<0.001		0.253	0.124 – 0.381
Bilirubin (Indirect) (Direct measure)	mg/dL	0.697	0.314 – 1.08	3.34	2.66 – 4.02
Bilirubin (Total) (Diphylline, Diazonium Salt-VITROS) (TBIL)	mg/dL	0.907	0.447 – 1.37	4.25	3.23 – 5.26
Calcium (Arsenazo III)	mg/dL	8.88	8.02 – 9.74	11.9	10.9 – 13.0
Carbamazepine (EIA)	µg/mL	<3.00		12.2	9.33 – 15.0
Carbon Dioxide (CO2) (Enzymatic)	mEq/L	29.5	22.0 – 36.9	19.6	13.6 – 25.7
Chloride (ISE direct)	mEq/L	97.7	90.0 – 105	81.3	74.7 – 87.9
Cholesterol (HDL) (Direct measure, PTA/MgCl2-VITROS) (7)	mg/dL	73.2	58.7 – 87.8	25.6	20.6 – 30.7
Cholesterol (LDL) (Calculated)	mg/dL	147	96.4 – 198	58.3	34.1 – 82.5
Cholesterol (Total) (Cholesterol oxidase, esterase, peroxidase)	mg/dL	258	230 – 286	103	90.1 – 115
Creatine Kinase (CK) (Rosalki, Other Modified-VITROS) (2)	U/L	76.4	55.7 – 97.1	297	224 – 370
Creatinine (Enzymatic-VITROS, IFCC-IDMS Standardized)	mg/dL	1.96	1.65 – 2.26	5.54	4.83 – 6.25
Digoxin (EIA)	ng/mL	1.15	0.522 – 1.77	2.85	2.02 – 3.68
Gamma Glutamyltransferase (GGT) (2)	U/L	64.6	53.3 – 75.9	217	190 – 244
Glucose (Glucose oxidase, hydrogen peroxide (Trinder))	mg/dL	91.9	81.5 – 102	271	246 – 296
Iron (Pyridyl azo dye)	µg/dL	268	213 – 323	60.0	38.6 – 81.3
Lactate (Lactic Acid) (Lactate to pyruvate)	mg/dL	39.2	35.7 – 42.7	9.35	7.30 – 11.4
Lactate Dehydrogenase (LDH) (Pyruvate to lactate-VITROS) (2)	U/L	422	326 – 518	1101	965 – 1236
Lipase (Enzymatic with colipase-VITROS) (2)	U/L	516	425 – 606	1236	1023 – 1449
Lithium (Colorimetric)	mEq/L	<0.200		1.23	0.932 – 1.52
Magnesium (Formazan dye)	mg/dL	1.70	1.39 – 2.02	4.56	3.95 – 5.18
Phenytoin (EIA)	µg/mL	9.79	6.56 – 13.0	21.1	14.1 – 28.2
Phosphorus (Phosphomolybdate reduction-VITROS)	mg/dL	3.23	2.74 – 3.71	6.70	5.76 – 7.64
Potassium (ISE direct)	mEq/L	3.94	3.63 – 4.24	6.06	5.62 – 6.51
Protein Serum (Total) (Biuret, no serum blank, end point-VITROS)	g/dL	5.24	4.53 – 5.96	3.59	3.08 – 4.09
Salicylate (Colorimetric-VITROS)	mg/dL	6.31	4.65 – 7.97	17.4	14.2 – 20.5
Sodium (ISE direct)	mEq/L	146	136 – 156	125	116 – 133
Theophylline (Enzymetric)	µg/mL	§		§	
Triglycerides (Enzymatic, end point)	mg/dL	179	156 – 202	95.8	80.2 – 111
Urea Nitrogen (BUN) (Urease, colorimetric) (4)	mg/dL	15.8	13.5 – 18.1	40.6	36.0 – 45.2
Uric Acid (Uricase, colorimetric)	mg/dL	4.28	3.85 – 4.71	8.51	7.62 – 9.40
ORTHO VITROS MICROTIP SERIES					
Cholesterol (LDL) (Direct measure)	mg/dL	111	83.3 – 138	43.8	<30.0 – 62.5
Iron (TIBC) (Chromazurol B-VITROS)	µg/dL	313	269 – 357	217	178 – 255
Valproic Acid (EIA)	µg/mL	39.7	28.6 – 50.9	108	86.5 – 129

INSTRUMENT (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
ORTHO VITROS MICROTIP SERIES (continued)					
Vancomycin (EIA)	µg/mL	6.63	5.07 – 8.19	28.4	24.2 – 32.6
ROCHE / HITACHI COBAS C SYSTEMS					
Acetaminophen (EIA) (ACET2) (REF 06769942190)	µg/mL	18.9	15.9 – 21.8	78.8	71.9 – 85.8
Albumin (Bromcresol Green (BCG))	g/dL	4.36	3.98 – 4.74	2.70	2.40 – 3.00
Alkaline Phosphatase (ALP2 (IFCC Schumann calibration)) (2)	U/L	106	89.7 – 122	416	359 – 472
Alkaline Phosphatase (PNPP, AMP Buffer) (2)	U/L	105	89.2 – 122	411	362 – 460
ALT/SGPT (UV with P5P) (IFCC 2002) (2)	U/L	26.7	22.2 – 31.2	97.9	84.2 – 112
ALT/SGPT (UV without P5P) (2)	U/L	25.2	19.8 – 30.6	94.4	82.2 – 107
Amylase (G7 PNP, Blocked) (2)	U/L	81.3	74.8 – 87.8	372	346 – 399
Amylase (Pancreatic) (G7 PNP immunoinhibition) (2)	U/L	45.2	40.9 – 49.4	345	326 – 364
AST/SGOT (UV with P5P) (IFCC 2002) (2)	U/L	41.6	32.8 – 50.3	201	164 – 238
AST/SGOT (UV without P5P) (2)	U/L	36.9	30.6 – 43.2	175	151 – 199
Bilirubin (Direct) (Diazotization) (DBILI)	mg/dL	0.210	<0.200 – 0.352	0.855	0.336 – 1.37
Bilirubin (Total) (Diazonium Ion, Blanked (Roche)) (BILT3)	mg/dL	0.908	0.729 – 1.09	3.63	3.13 – 4.13
Bilirubin (Total) (Diazonium Ion, Blanked (Roche)) (BILTS)	mg/dL	0.945	0.764 – 1.13	3.61	3.13 – 4.10
Calcium (BAPTA) (CA2)	mg/dL	9.38	8.79 – 9.97	12.3	11.6 – 12.9
Carbamazepine (EIA)	µg/mL	2.82	1.80 – 3.84	14.6	9.87 – 19.3
Carbon Dioxide (CO2) (Enzymatic)	mEq/L	35.1	27.1 – 43.1	20.5	14.8 – 26.1
Chloride (ISE indirect)	mEq/L	102	94.4 – 110	82.7	76.2 – 89.2
Cholesterol (HDL) (Direct measure, polymer-polyanion) (HDL C4) (7)	mg/dL	57.1	52.0 – 62.3	15.7	13.4 – 18.0
Cholesterol (LDL) (Direct measure) (LDL C3)	mg/dL	142	110 – 174	53.7	43.6 – 63.8
Cholesterol (Total) (Cholesterol oxidase, esterase, peroxidase)	mg/dL	254	234 – 275	97.7	87.0 – 108
Cortisol (Electrochemiluminescence (ECL))	µg/dL	10.1	8.35 – 11.9	38.9	33.9 – 43.9
Creatine Kinase (CK) (NAC activated) (IFCC 2002) (2)	U/L	140	125 – 156	425	384 – 466
Creatine Kinase (CK) (NAC activated) (IFCC 2002) (Cobas 8000) (2)	U/L	138	123 – 153	417	377 – 457
Creatinine (Alkaline picrate-kinetic rate blanked,IFCC-IDMS Standardized)	mg/dL	1.88	1.57 – 2.20	5.28	4.63 – 5.92
Creatinine (Enzymatic IFCC-IDMS Standardized)	mg/dL	1.86	1.69 – 2.03	5.23	4.84 – 5.61
Digoxin (KIMS (Roche))	ng/mL	1.24	0.832 – 1.65	3.14	2.72 – 3.57
Gamma Glutamyltransferase (GGT) (IFCC 2002) (2)	U/L	64.7	51.4 – 78.0	165	133 – 197
Glucose (Hexokinase)	mg/dL	79.7	71.6 – 87.8	275	252 – 297
Haptoglobin (Immunoturbidimetric)	mg/dL	121	108 – 133	67.7	60.4 – 75.1
Immunoglobulin A (IgA) (Immunoturbidimetric)	mg/dL	194	177 – 210	118	95.8 – 141
Immunoglobulin G (IgG) (Immunoturbidimetric)	mg/dL	984	894 – 1075	634	563 – 704
Immunoglobulin M (IgM) (Immunoturbidimetric)	mg/dL	85.1	71.6 – 98.6	55.6	43.6 – 67.6
Iron (Ferrozine-no deproteinization)	µg/dL	244	226 – 262	68.2	59.0 – 77.5
Iron (TIBC) (Calculated)	µg/dL	313	263 – 362	196	158 – 234
Iron (UIBC) (Ferrozine)	µg/dL	62.1	34.2 – 89.9	118	88.6 – 147
Lactate (Lactic Acid) (Enzymatic)	mg/dL	38.2	35.5 – 40.9	10.5	9.12 – 11.9
Lactate Dehydrogenase (LDH) (Lactate to pyruvate) (2)	U/L	170	155 – 185	380	348 – 412
Lipase (Enzymatic, colorimetric) (2)	U/L	56.8	47.8 – 65.8	86.5	76.7 – 96.3
Lithium (Colorimetric)	mEq/L	0.611	0.367 – 0.855	1.90	1.69 – 2.10
Magnesium (Xylidyl blue) (MG2)	mg/dL	1.97	1.76 – 2.19	4.45	4.12 – 4.79
Phenobarbital (KIMS (Roche))	µg/mL	11.8	7.93 – 15.6	48.5	38.1 – 58.9
Phenytoin (KIMS (Roche))	µg/mL	9.46	6.28 – 12.6	21.3	14.1 – 28.4
Phosphorus (Phosphomolybdate method)	mg/dL	3.32	3.02 – 3.63	7.29	6.73 – 7.86
Potassium (ISE indirect)	mEq/L	3.93	3.68 – 4.17	6.21	5.84 – 6.58
Protein Serum (Total) (Biuret, serum blank, end point)	g/dL	6.85	6.35 – 7.35	4.40	4.05 – 4.75
Salicylate (Enzymatic)	mg/dL	5.54	3.54 – 7.55	14.0	12.3 – 15.8

INSTRUMENT (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
ROCHE / HITACHI COBAS C SYSTEMS (continued)					
Sodium (ISE indirect)	mEq/L	146	139 – 153	125	119 – 132
Theophylline (KIMS (Roche))	µg/mL	8.26	6.67 – 9.84	22.6	17.0 – 28.2
Transferrin (Immunoturbidimetric)	mg/dL	259	235 – 282	164	150 – 178
Triglycerides (Enzymatic, end point)	mg/dL	170	156 – 185	92.7	83.9 – 102
Urea Nitrogen (BUN) (Urease, UV) (4)	mg/dL	15.0	13.3 – 16.7	44.6	40.1 – 49.2
Uric Acid (Uricase, colorimetric)	mg/dL	4.54	4.09 – 5.00	9.30	8.45 – 10.2
Valproic Acid (EIA)	µg/mL	35.4	26.1 – 44.8	98.1	75.5 – 121
Vancomycin (KIMS (Roche)) (VANC3)	µg/mL	6.65	5.13 – 8.17	30.4	26.0 – 34.7
ROCHE COBAS INTEGRA					
Albumin (Bromcresol Green (BCG))	g/dL	4.40	3.96 – 4.84	2.79	2.47 – 3.10
Alkaline Phosphatase (PNPP, AMP Buffer) (2)	U/L	103	82.0 – 124	408	356 – 460
ALT/SGPT (UV with P5P) (IFCC 2002) (2)	U/L	25.1	18.8 – 31.3	96.4	80.6 – 112
Amylase (G7 PNP, Blocked) (2)	U/L	79.5	72.5 – 86.5	373	347 – 400
AST/SGOT (UV with P5P) (2)	U/L	39.8	32.9 – 46.8	206	182 – 231
Bilirubin (Total) (Diazonium Ion, Blanked (Roche)) (BILT3)	mg/dL	0.921	0.719 – 1.12	3.64	3.09 – 4.20
Bilirubin (Total) (Diazonium Ion, Blanked (Roche)) (BILTS)	mg/dL	§		§	
Calcium (BAPTA) (CA2)	mg/dL	9.38	8.78 – 9.99	12.4	11.7 – 13.1
Carbamazepine (Fluorescence Polarization-Roche)	µg/mL	2.58	2.21 – 2.96	16.0	13.0 – 19.0
Creatine Kinase (CK) (NAC activated) (2)	U/L	137	115 – 158	421	361 – 481
Creatinine (Alkaline picrate method, IFCC-IDMS Standardized) (CREJ2)	mg/dL	2.02	1.73 – 2.31	5.08	4.45 – 5.71
Gamma Glutamyltransferase (GGT) (2)	U/L	65.3	51.4 – 79.2	171	132 – 210
Gentamicin (Fluorescence Polarization-Roche)	µg/mL	1.45	0.992 – 1.91	7.54	6.59 – 8.50
Glucose (Hexokinase)	mg/dL	83.6	74.2 – 93.0	295	269 – 322
Iron (Ferrozine-no deproteinization)	µg/dL	235	210 – 260	62.7	49.5 – 75.9
Lactate Dehydrogenase (LDH) (Lactate to pyruvate) (IFCC 2002) (2)	U/L	170	152 – 188	382	345 – 420
Lipase (Enzymatic, colorimetric) (2)	U/L	53.5	43.3 – 63.6	81.2	66.7 – 95.6
Lithium (ISE direct)	mEq/L	0.578	0.475 – 0.681	1.79	1.55 – 2.03
Phenobarbital (Fluorescence Polarization-Roche)	µg/mL	12.5	10.1 – 14.9	46.0	39.2 – 52.7
Phenytoin (Fluorescence Polarization-Roche)	µg/mL	10.5	8.80 – 12.3	21.3	17.4 – 25.3
Phosphorus (Phosphomolybdate method)	mg/dL	3.46	3.10 – 3.81	7.49	6.86 – 8.12
Protein Serum (Total) (Biuret, serum blank, end point)	g/dL	6.32	5.73 – 6.92	4.02	3.57 – 4.47
Sodium (ISE indirect)	mEq/L	143	134 – 153	124	117 – 131
Theophylline (Fluorescence Polarization-Roche)	µg/mL	8.92	7.25 – 10.6	24.1	17.9 – 30.3
Uric Acid (Uricase, colorimetric)	mg/dL	4.71	4.17 – 5.24	9.72	8.71 – 10.7
Valproic Acid (Fluorescence Polarization-Roche)	µg/mL	34.2	29.9 – 38.6	97.9	83.7 – 112
Vancomycin (Fluorescence Polarization-Roche)	µg/mL	6.94	3.31 – 10.6	32.8	17.5 – 48.1
SIEMENS ADVIA CENTAUR CP					
Carbamazepine (CARB)	µg/mL	2.44	1.86 – 3.02	15.7	13.1 – >18.0
Cortisol (COR)	µg/dL	8.70	6.81 – 10.6	42.0	34.3 – 49.7
Digoxin (DIG)	ng/mL	0.994	0.626 – 1.36	2.32	1.86 – 2.77
Gentamicin (GENT)	µg/mL	1.22	0.763 – 1.68	7.27	6.30 – 8.24
Phenobarbital (PHNB)	µg/mL	14.3	9.97 – 18.6	55.6	44.5 – 66.7
Phenytoin (PHTN)	µg/mL	13.0	10.2 – 15.7	27.8	22.2 – 33.3
T3 (Total) (T3)	ng/mL	0.708	0.529 – 0.887	3.93	3.61 – 4.26
T3 Uptake/T Uptake (TUp)	T Uptake Unit	0.967	0.845 – 1.09	2.19	1.99 – 2.39
T4 (Free) (FT4)	ng/dL	1.26	1.13 – 1.39	16.9	13.5 – 20.3
T4 (Total) (T4)	µg/dL	6.15	4.53 – 7.76	23.6	18.0 – 29.2
Theophylline (THEO2)	µg/mL	8.16	6.48 – 9.83	21.8	16.2 – 27.4

INSTRUMENT (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
SIEMENS ADVIA CENTAUR CP (continued)					
Thyroid Stimulating Hormone (TSH) (TSH)	µIU/mL	1.50	0.917 – 2.09	21.1	17.3 – 24.9
Thyroid Stimulating Hormone (TSH) (TSH3UL)	µIU/mL	1.21	0.764 – 1.66	16.0	12.2 – 19.7
Valproic Acid (VALP)	µg/mL	36.5	28.7 – 44.3	103	85.9 – 121
Vancomycin (VANC)	µg/mL	5.13	3.66 – 6.61	21.2	17.9 – 24.6
Vitamin B12 (VB12)	pg/mL	87.7	65.7 – 110	166	120 – 211
SIEMENS ADVIA CENTAUR SYSTEMS					
Carbamazepine (CARB)	µg/mL	2.61	2.02 – 3.19	15.9	13.2 – >18.0
Cortisol (COR)	µg/dL	8.40	5.39 – 11.4	39.9	30.8 – 48.9
Digoxin (DIG)	ng/mL	1.27	0.879 – 1.65	3.27	2.75 – 3.79
Gentamicin (GENT)	µg/mL	1.41	0.931 – 1.88	7.99	6.96 – 9.03
Phenobarbital (PHNB)	µg/mL	16.6	11.9 – 21.4	62.0	50.8 – 73.1
Phenytoin (PHTN)	µg/mL	11.8	9.32 – 14.4	27.7	22.1 – 33.2
T3 (Total) (T3)	ng/mL	0.774	0.691 – 0.858	4.18	3.72 – 4.65
T3 Uptake/T Uptake (TUp)	T Uptake Unit	0.925	0.865 – 0.984	1.97	1.82 – 2.12
T4 (Free) (FT4)	ng/dL	1.18	0.920 – 1.43	9.81	8.54 – 11.1
T4 (Total) (T4)	µg/dL	5.89	4.27 – 7.50	22.7	17.2 – 28.2
Theophylline (THEO2)	µg/mL	8.27	6.59 – 9.94	20.8	15.5 – 26.0
Thyroid Stimulating Hormone (TSH)	µIU/mL	1.53	0.935 – 2.11	21.3	17.5 – 25.0
Thyroid Stimulating Hormone (TSH) (TSH3UL)	µIU/mL	1.14	0.636 – 1.63	14.8	11.1 – 18.5
Valproic Acid (VALP)	µg/mL	38.0	30.0 – 46.0	106	88.2 – 124
Vancomycin (VANC)	µg/mL	5.00	3.53 – 6.47	21.7	18.3 – 25.1
Vitamin B12 (VB12)	pg/mL	115	71.5 – 158	148	93.9 – 201
SIEMENS ADVIA CHEMISTRY SYSTEMS					
Acetaminophen (Enzymatic) (ACET)	µg/mL	17.3	13.9 – 20.6	75.2	60.7 – 89.7
Albumin (Bromocresol Green (BCG)) (ALB, ALB_c)	g/dL	4.29	4.00 – 4.57	2.71	2.51 – 2.92
Albumin (Bromocresol Purple (BCP)) (ALBP)	g/dL	4.10	3.59 – 4.61	2.60	2.26 – 2.95
Alkaline Phosphatase (IFCC) (ALP_2c) (2)	U/L	102	70.5 – 134	389	312 – 466
ALT/SGPT (ALT, ALT_c) (2)	U/L	28.0	20.9 – 35.1	100	87.9 – 112
ALT/SGPT (ALTP5P, ALTP_c) (2)	U/L	31.0	24.5 – 37.5	108	96.7 – 118
Amylase (Ethylidene blocked-pNPG7) (AMYLAS) (2)	U/L	78.2	69.4 – 87.1	380	332 – 427
Amylase (Pancreatic) (PAMY) (2)	U/L	46.4	41.1 – 51.7	360	337 – 384
AST/SGOT (AST, AST_c) (2)	U/L	39.5	31.7 – 47.3	180	159 – 201
AST/SGOT (ASTP5P, ASTP_c) (2)	U/L	40.4	30.9 – 50.0	210	187 – 233
Bilirubin (Direct) (Vanadate Oxidation) (DBIL_2)	mg/dL	0.375	0.276 – 0.474	1.75	1.38 – 2.13
Bilirubin (Total) (Vanadate Oxidation) (TBIL_2)	mg/dL	1.14	0.991 – 1.29	4.36	3.87 – 4.85
Calcium (Arsenazo III) (CA_2, CA_2c)	mg/dL	9.10	8.38 – 9.83	11.4	10.6 – 12.2
Calcium (CA, CA_c)	mg/dL	9.17	8.46 – 9.87	12.4	11.4 – 13.4
Carbamazepine (EIA) (CARB_2)	µg/mL	2.96	1.96 – 3.96	14.2	9.67 – 18.7
Carbon Dioxide (CO2) (Enzymatic) (CO2_L, CO2_c)	mEq/L	35.7	27.3 – >40.0	21.5	15.5 – 27.5
Chloride (ISE indirect) (CL)	mEq/L	101	94.7 – 106	83.1	78.0 – 88.1
Cholesterol (HDL) (Direct measure) (DHDL) (7)	mg/dL	62.4	52.7 – 72.0	16.2	13.7 – 18.7
Cholesterol (LDL) (Direct measure) (DLDL)	mg/dL	140	114 – 166	53.5	42.5 – 64.4
Cholesterol (Total) (CHOL_2, CHOL_c)	mg/dL	248	231 – 266	101	92.3 – 109
Cholinesterase (Butyrylthiocholine (Trinder)) (CHE) (2)	U/L	7721	5778 – 9664	<1500	
Creatine Kinase (CK) (CK_L) (2)	U/L	133	108 – 158	411	358 – 464
Creatine Kinase (CK) (CKNAC) (2)	U/L	\$		\$	
Creatine Kinase (CK) (IFCC) (CKNAC) (2)	U/L	148	130 – 166	456	407 – 506
Creatinine (Enzymatic) (ECRE_2)	mg/dL	1.77	1.57 – 1.97	5.12	4.70 – 5.54

INSTRUMENT (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
SIEMENS ADVIA CHEMISTRY SYSTEMS (continued)					
Creatinine (Jaffe) (CREA, CREA_2, CRE_2c)	mg/dL	2.45	2.08 – 2.81	5.74	5.26 – 6.23
Digoxin (Immunoturbidimetric) (DIG)	ng/mL	1.05	0.616 – 1.49	2.81	2.47 – 3.15
Gamma Glutamyltransferase (GGT) (IFCC) (2)	U/L	62.2	44.0 – 80.5	163	125 – 201
Gentamicin (EIA) (GENT_2)	µg/mL	1.44	0.959 – 1.91	6.54	5.63 – 7.45
Glucose (GLUH, GLUH_3, GLUH_c)	mg/dL	80.1	71.1 – 89.1	275	252 – 298
Glucose (GLUO, GLUO_2)	mg/dL	82.3	71.6 – 93.1	277	250 – 303
Immunoglobulin A (IgA) (IGA_2)	mg/dL	208	141 – 274	132	95.0 – 168
Immunoglobulin G (IgG) (IGG_2)	mg/dL	1003	879 – 1127	643	389 – 898
Immunoglobulin M (IgM) (IGM_2)	mg/dL	86.8	70.0 – 104	56.1	41.8 – 70.4
Iron (Ferrozine-no deproteinization) (IRON_2)	µg/dL	245	230 – 260	65.2	57.8 – 72.6
Iron (TIBC) (TIBC)	µg/dL	325	288 – 362	224	193 – 254
Lactate (Lactic Acid) (Lactate to pyruvate) (LAC)	mg/dL	37.0	33.6 – 40.4	8.45	7.43 – 9.46
Lactate Dehydrogenase (LDH) (LDLP) (IFCC) (2)	U/L	164	146 – 181	369	330 – 407
Lactate Dehydrogenase (LDH) (LDPL) (2)	U/L	326	248 – 405	828	685 – 971
Lipase (Enzymatic, colorimetric) (LIP) (2)	U/L	67.1	55.1 – 79.2	107	91.5 – 122
Lithium (Colorimetric) (LITH)	mEq/L	0.542	0.396 – 0.687	1.86	1.63 – 2.08
Magnesium (Xylidyl blue) (MG, MG_c)	mg/dL	2.00	1.72 – 2.29	4.57	3.98 – >5.00
Phenobarbital (EIA) (PHNB_2)	µg/mL	13.7	8.26 – 19.1	51.4	37.7 – 65.1
Phenytoin (EIA) (PHYN_2)	µg/mL	10.5	7.26 – 13.7	22.4	16.0 – 28.8
Phosphorus (IP, IP_c)	mg/dL	3.53	3.01 – 4.04	7.48	6.59 – 8.38
Potassium (ISE indirect) (K)	mEq/L	3.93	3.66 – 4.21	6.24	5.89 – 6.59
Protein Serum (Total) (TP, TP_c)	g/dL	6.56	6.10 – 7.02	4.23	3.90 – 4.57
Salicylate (Enzymatic) (SAL)	mg/dL	5.80	3.87 – 7.73	15.6	14.0 – 17.2
Sodium (ISE indirect) (NA)	mEq/L	148	142 – 154	126	121 – 131
Theophylline (EIA) (THEO_2)	µg/mL	8.61	6.99 – 10.2	23.1	17.2 – 29.1
Tobramycin (EIA) (TOB_2)	µg/mL	5.57	4.24 – 6.89	1.50	0.897 – 2.10
Transferrin (Immunoturbidimetric) (TRF)	mg/dL	253	220 – 286	168	146 – 190
Triglycerides (Enzymatic, end point) (TRIG)	mg/dL	175	160 – 190	95.3	84.1 – 107
Urea Nitrogen (BUN) (Urease, UV) (UN, UN_c) (4)	mg/dL	15.9	14.2 – 17.6	46.9	43.0 – 50.8
Uric Acid (Uricase, colorimetric) (UA, UA_c)	mg/dL	4.87	4.49 – 5.25	9.88	9.27 – 10.5
Valproic Acid (EIA) (VPA_2)	µg/mL	38.4	27.7 – 49.1	101	81.0 – 120
Vancomycin (EIA) (VANC_2)	µg/mL	6.37	4.91 – 7.83	27.3	23.2 – 31.5
SIEMENS BN SERIES NEPHELOMETERS					
Alpha 1-Antitrypsin	mg/dL	§		§	
Apolipoprotein A-I	mg/dL	136	112 – 160	69.3	56.3 – 82.3
Apolipoprotein B	mg/dL	69.3	53.5 – 85.2	42.6	30.5 – 54.6
Ceruloplasmin	mg/dL	32.3	22.9 – 41.7	22.2	14.6 – 29.9
Complement C3	mg/dL	163	148 – 177	98.1	87.3 – 109
Haptoglobin	mg/dL	136	122 – 151	72.8	64.5 – 81.1
Immunoglobulin A (IgA)	mg/dL	224	196 – 253	137	112 – 163
Immunoglobulin G (IgG)	mg/dL	1037	918 – 1156	663	572 – 754
Immunoglobulin M (IgM)	mg/dL	107	85.1 – 129	66.2	49.0 – 83.4
SIEMENS DIMENSION SERIES					
Acetaminophen (Enzymatic, colorimetric)	µg/mL	23.4	18.0 – 28.8	91.2	82.3 – 100
Albumin (Bromcresol Purple (BCP))	g/dL	3.92	3.59 – 4.25	2.52	2.29 – 2.75
Alkaline Phosphatase (IFCC ALPI) (2)	U/L	107	65.4 – 149	417	258 – 577
ALT/SGPT (IFCC ALTI) (2)	U/L	32.3	24.3 – 40.3	101	83.4 – 119
Amylase (CNP-triose/CNPG3) (2)	U/L	77.3	69.6 – 85.1	499	457 – 540

INSTRUMENT (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
SIEMENS DIMENSION SERIES (continued)					
AST/SGOT (2)	U/L	42.0	34.0 – 50.0	192	169 – 216
AST/SGOT (IFCC 2002 Correlated) (2)	U/L	42.1	34.0 – 50.1	192	168 – 216
Bilirubin (Direct) (Diazotization) (DBI)	mg/dL	0.201	0.088 – 0.313	0.834	0.645 – 1.02
Bilirubin (Total) (Jendrassik Grof) (TBI)	mg/dL	0.973	0.763 – 1.18	3.90	3.46 – 4.33
Calcium	mg/dL	8.95	8.10 – 9.80	12.1	11.1 – 13.1
Carbamazepine	µg/mL	2.81	2.10 – 3.52	13.9	11.4 – 16.3
Carbon Dioxide (CO2) (Enzymatic)	mEq/L	35.2	28.6 – 41.8	20.9	15.7 – 26.1
Chloride	mEq/L	124	110 – 137	100	88.6 – 112
Cholesterol (HDL) (DF48B) (7)	mg/dL	57.6	45.1 – 70.0	26.5	20.1 – 32.9
Cholesterol (LDL) (ALDL)	mg/dL	133	112 – 155	58.4	48.3 – 68.6
Cholesterol (Total)	mg/dL	257	230 – 284	94.3	80.5 – 108
Cholinesterase (Butyrylthiocholine (Trinder)) (2)	U/L	12587	11982 – 13191	1566	1355 – 1778
Creatine Kinase (CK) (IFCC CKI) (2)	U/L	144	121 – 166	443	395 – 491
Creatinine (CRE2)	mg/dL	2.74	2.30 – 3.17	6.23	5.47 – 6.99
Creatinine (EZCR)	mg/dL	§		§	
Digoxin (EIA)	ng/mL	0.690	0.437 – 0.943	2.10	1.71 – 2.49
Gamma Glutamyltransferase (GGT) (2)	U/L	83.1	69.5 – 96.7	198	172 – 224
Gamma Glutamyltransferase (GGT) (IFCC 2002 Correlated) (2)	U/L	71.2	57.6 – 84.8	170	144 – 196
Gentamicin (Immunoturbidimetric)	µg/mL	1.47	0.959 – 1.98	6.74	5.73 – 7.75
Glucose (Hexokinase)	mg/dL	83.4	74.7 – 92.1	282	256 – 308
Immunoglobulin A (IgA)	mg/dL	198	169 – 227	121	96.2 – 146
Immunoglobulin G (IgG)	mg/dL	1040	873 – 1206	663	518 – 809
Immunoglobulin M (IgM)	mg/dL	86.2	69.2 – 103	60.7	45.2 – 76.2
Iron (Ferene)	µg/dL	238	217 – 258	61.6	51.7 – 71.5
Iron (TIBC) (IBCT)	µg/dL	328	275 – 380	198	158 – 237
Lactate (Lactic Acid) (Enzymatic)	mg/dL	39.2	32.8 – 45.5	11.3	7.24 – 15.3
Lactate Dehydrogenase (LDH) (IFCC LDI) (2)	U/L	164	127 – 202	366	295 – 437
Lipase (Colorimetric) (2)	U/L	182	149 – 215	254	213 – 296
Lipase (LIP) (REF DF56A) (2) (5)	U/L	55.0	44.0 – 66.0	76.0	61.0 – 91.0
Lithium (Colorimetric)	mEq/L	0.616	0.498 – 0.733	2.01	1.64 – 2.38
Magnesium	mg/dL	2.09	1.74 – 2.43	4.61	4.10 – 5.11
Phenobarbital	µg/mL	14.1	9.61 – 18.5	49.7	39.1 – 60.4
Phenytoin	µg/mL	11.3	8.59 – 14.1	24.1	19.5 – 28.7
Phosphorus (DF61A)	mg/dL	3.73	3.33 – 4.12	7.50	6.90 – 8.10
Potassium	mEq/L	3.82	3.53 – 4.11	6.16	5.69 – 6.62
Protein Serum (Total)	g/dL	7.10	6.54 – 7.66	4.59	4.18 – 5.00
Salicylate (Trinder)	mg/dL	7.62	6.28 – 8.95	11.9	10.1 – 13.7
Sodium	mEq/L	147	138 – 155	128	120 – 135
T3 Uptake/T Uptake (EIA)	% Uptake	§		§	
T4 Free (EIA)	ng/dL	§		§	
T4 (Free) (Chemiluminescence)	ng/dL	0.967	0.742 – 1.19	>8.00	
T4 (Total) (EIA)	µg/dL	§		§	
Theophylline	µg/mL	8.43	6.62 – 10.2	23.3	18.1 – 28.4
Thyroid Stimulating Hormone (TSH) (Chemiluminescence)	µIU/mL	1.19	0.692 – 1.70	22.5	18.8 – 26.2
Thyroid Stimulating Hormone (TSH) (EIA)	µIU/mL	§		§	
Tobramycin	µg/mL	§		§	
Transferrin	mg/dL	232	203 – 260	158	137 – 180
Triglycerides (Enzymatic, end point)	mg/dL	162	144 – 180	87.6	74.5 – 101

INSTRUMENT (1)

SIEMENS DIMENSION (1)	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
SIEMENS DIMENSION SERIES (continued)					
Urea Nitrogen (BUN) (Urease, UV) (4)	mg/dL	15.5	12.7 – 18.2	46.7	41.0 – 52.4
Uric Acid (Uricase, UV)	mg/dL	4.56	4.09 – 5.03	9.30	8.52 – 10.1
Valproic Acid	µg/mL	36.6	30.2 – 43.0	96.8	79.3 – 114
Vancomycin	µg/mL	7.55	5.91 – 9.19	31.0	26.3 – 35.7
SIEMENS DIMENSION VISTA SYSTEMS					
Acetaminophen	µg/mL	25.8	20.4 – 31.2	97.2	88.4 – 106
AFP	ng/mL	2.64	2.40 – 2.88	1.69	1.52 – 1.86
Albumin (Bromcresol Purple (BCP))	g/dL	3.94	3.66 – 4.23	2.57	2.32 – 2.82
Alkaline Phosphatase (IFCC ALPI) (2)	U/L	115	98.0 – 133	428	381 – 475
Alpha 1-Antitrypsin	mg/dL	145	134 – 157	99.9	86.6 – 113
ALT/SGPT (IFCC ALTI) (2)	U/L	30.8	25.8 – 35.7	97.2	89.2 – 105
Amylase (CNP-triose/CNPG3) (2)	U/L	74.7	69.9 – 79.6	495	472 – 517
Apolipoprotein A-I	mg/dL	147	123 – 171	76.0	61.9 – 90.2
Apolipoprotein B	mg/dL	70.6	54.3 – 87.0	42.9	30.5 – 55.2
AST/SGOT (2)	U/L	42.0	32.9 – 51.1	201	181 – 220
Bilirubin (Direct) (Diazotization)	mg/dL	0.227	0.172 – 0.281	0.857	0.708 – 1.01
Bilirubin (Total) (Jendrassik Grof)	mg/dL	1.00	0.880 – 1.13	3.80	3.43 – 4.17
Calcium	mg/dL	9.15	8.56 – 9.75	12.3	11.6 – 13.0
Carbamazepine	µg/mL	2.89	2.22 – 3.55	14.0	11.6 – 16.3
Carbon Dioxide (CO2) (Enzymatic)	mEq/L	35.1	30.5 – 39.8	21.4	18.1 – 24.8
CEA	ng/mL	0.895	0.717 – 1.07	0.772	0.635 – 0.909
Ceruloplasmin	mg/dL	32.4	23.0 – 41.8	24.0	16.0 – 31.9
Chloride (ISE indirect)	mEq/L	99.0	93.7 – 104	85.5	80.3 – 90.7
Cholesterol (HDL) (HDL) (7)	mg/dL	59.6	48.9 – 70.3	30.3	24.3 – 36.4
Cholesterol (LDL) (ALDL)	mg/dL	144	121 – 168	62.5	49.8 – 75.2
Cholesterol (Total)	mg/dL	262	241 – 283	98.1	86.7 – 109
Cholinesterase (Butyrylthiocholine (Trinder)) (2)	U/L	11753	9958 – 13548	898	310 – 1486
Complement C3	mg/dL	157	143 – 172	93.6	83.2 – 104
Creatine Kinase (CK) (IFCC CKI) (2)	U/L	133	110 – 157	409	360 – 457
Creatinine (CRE2)	mg/dL	2.70	2.27 – 3.13	6.25	5.53 – 6.98
Creatinine (ECREA)	mg/dL	1.81	1.29 – 2.32	5.04	4.25 – 5.83
Digoxin (Chemiluminescence)	ng/mL	1.25	0.883 – 1.61	2.83	2.37 – 3.30
Gamma Glutamyltransferase (GGT) (2)	U/L	80.6	64.2 – 97.0	204	165 – 242
Gentamicin	µg/mL	1.51	1.05 – 1.98	7.34	6.41 – 8.27
Glucose (Hexokinase)	mg/dL	82.5	76.4 – 88.6	277	257 – 297
Haptoglobin	mg/dL	127	112 – 141	69.3	61.2 – 77.3
hCG	mIU/mL	174	166 – 181	17.9	16.3 – 19.5
Immunoglobulin A (IgA)	mg/dL	208	180 – 236	131	106 – 157
Immunoglobulin G (IgG)	mg/dL	1071	952 – 1190	674	582 – 767
Immunoglobulin M (IgM)	mg/dL	105	83.7 – 126	66.8	49.7 – 83.9
Iron (Ferene)	µg/dL	236	216 – 256	62.2	49.6 – 74.8
Iron (TIBC)	µg/dL	362	308 – 416	202	162 – 242
Lactate (Lactic Acid)	mg/dL	41.6	35.6 – 47.6	12.2	10.2 – 14.2
Lactate Dehydrogenase (LDH) (IFCC LDI) (2)	U/L	170	132 – 208	375	318 – 431
Lipase (Colorimetric) (2)	U/L	210	174 – 246	313	266 – 361
Lithium (Colorimetric)	mEq/L	0.619	0.483 – 0.755	1.86	1.64 – 2.09
Magnesium	mg/dL	2.30	1.98 – 2.61	4.90	4.45 – 5.36
Phenobarbital	µg/mL	14.2	9.97 – 18.5	50.1	40.1 – 60.1

INSTRUMENT (1)

	Units	Level 1 - 89701		Level 2 - 89702	
		Mean	Range	Mean	Range
SIEMENS DIMENSION VISTA SYSTEMS (continued)					
Phenytoin	µg/mL	12.2	9.86 – 14.4	24.7	20.1 – 29.2
Phosphorus	mg/dL	3.39	3.11 – 3.67	7.56	6.90 – 8.22
Potassium (ISE indirect)	mEq/L	3.80	3.68 – 3.92	6.10	5.88 – 6.32
Protein Serum (Total)	g/dL	7.13	6.71 – 7.55	4.60	4.31 – 4.90
Salicylate (Trinder)	mg/dL	7.55	6.73 – 8.37	12.3	11.0 – 13.5
Sodium (ISE indirect)	mEq/L	146	141 – 150	128	123 – 133
T3 (Free) (Chemiluminescence)	pg/mL	2.85	2.40 – 3.30	22.9	21.7 – 24.1
T3 Uptake/T Uptake (EIA)	% Uptake	37.8	31.4 – 44.3	57.0	48.8 – >58.0
T4 (Free) (Chemiluminescence)	ng/dL	0.952	0.821 – 1.08	>8.00	
T4 (Total) (EIA)	µg/dL	9.05	6.85 – 11.2	>24.0	
Theophylline	µg/mL	8.60	6.93 – 10.3	23.3	19.1 – 27.5
Thyroid Stimulating Hormone (TSH)	µIU/mL	1.20	0.714 – 1.69	20.8	17.2 – 24.4
Tobramycin	µg/mL	7.16	5.54 – 8.78	1.55	0.948 – 2.15
Transferrin	mg/dL	249	222 – 276	164	145 – 183
Triglycerides (Enzymatic, end point)	mg/dL	177	157 – 197	97.3	84.2 – 110
Urea Nitrogen (BUN) (Urease, UV) (4)	mg/dL	15.6	13.2 – 17.9	47.1	42.2 – 52.0
Uric Acid (Uricase, UV)	mg/dL	4.62	4.40 – 4.85	9.54	9.11 – 9.96
Valproic Acid	µg/mL	41.7	34.4 – 49.1	108	90.8 – 125
Vancomycin	µg/mL	7.82	6.23 – 9.40	31.6	26.9 – 36.3
Vitamin B12	pg/mL	315	260 – 370	230	175 – 285
SIEMENS IMMULITE / IMMULITE 1000					
T4 (Total)	µg/dL	7.44	5.69 – 9.19	23.6	18.2 – >24.0
Thyroid Stimulating Hormone (TSH) (Gen. 3)	µIU/mL	1.40	0.864 – 1.94	16.7	13.1 – 20.3
SIEMENS IMMULITE 2000 / 2000 XPI					
Cortisol	µg/dL	▲		▲	
T3 (Total)	ng/dL	▲		▲	
T4 (Total)	µg/dL	6.41	4.87 – 7.94	22.7	17.4 – >24.0
Thyroid Stimulating Hormone (TSH) (Gen. 3)	µIU/mL	1.58	0.985 – 2.17	16.6	12.9 – 20.3
Thyroid Stimulating Hormone (TSH) (Rapid TSH)	µIU/mL	▲		▲	

FOOTNOTES

- (1) All footnotes may not apply to your custom selected data chart.
- (2) Values were obtained at 37°C.
- (3) The mean value is calculated from data generated by instruments using this method.
- (4) mg/dL Urea Nitrogen x 2.14 = mg/dL Urea. S.I. Units value range is expressed as Urea.
- (5) The assigned values were determined using the reagent and/or instrument manufacturer's protocol and may not represent ±3SD ranges.
- (6) This product has been tested using the methodologies listed in the package insert. The performance of this product has not been evaluated for use with capillary electrophoresis methods.
- (7) Direct methods only.
- (8) % Total Protein
- ▲ Data is not available at this time. Please inquire.
- § The data required to establish the means and acceptable ranges for this assay were not obtained due to limited assignment participation. If your facility is interested in participating in the Value Assignment Program for this assay, please contact your local Bio-Rad office.