

CALIBRATION SERUM LEVEL 2 (CAL 2)

CAT. NO. CAL 2350 **GTIN:** 05055273200959 **SIZE:** 20 x 5ml
LOT NO. 1668UN **EXPIRY:** 2025-11-28

INTENDED USE

For use as a Calibrator in clinical chemistry assays. RANDOX Calibration Sera are based on lyophilised human serum. The concentrations and activities are suitable for calibration of clinical chemistry assays on a wide range of automatic analysers. Constituent concentrations are available at 2 levels.

SAFETY PRECAUTIONS AND WARNINGS

Human source material, from which this product has been derived, has been tested at donor level for the Human Immunodeficiency Virus (HIV 1, HIV 2) antibody, Hepatitis B Surface Antigen (HbsAg), and Hepatitis C Virus (HCV) antibody and found to be NON-REACTIVE. FDA approved methods have been used to conduct these tests. However, since no method can offer complete assurance as to the absence of infectious agents, this material and all patient samples should be handled as though capable of transmitting infectious diseases and disposed of accordingly. For *in vitro* diagnostic use only.

STORAGE AND STABILITY

Unreconstituted serum is stable up to the expiry date shown on the side of each individual bottle. Once reconstituted, the components of the Calibration Sera are stable for 8 hours at +15°C to +25°C, 7 days at +2°C to +8°C, and 28 days at -20°C when frozen once (see Limitations).

PREPARATION FOR USE

Serum must only be reconstituted using the following procedure:

1. Open the vial carefully, avoiding any loss of material.
2. Reconstitute by pipetting exactly 5ml of distilled water at +15°C to +25°C, into the vial.
3. Replace the rubber stopper and leave to stand for 30 minutes out of bright light before use.
4. Swirl gently several times during the reconstitution period to ensure that the contents are completely dissolved.
5. Prior to use, mix the contents by inverting the vial. Do not shake the vial, as the formation of foam should be avoided. Ensure that no lyophilised material remains unreconstituted.
6. The serum is then ready for use with either a manual test or with an automated instrument.

MATERIALS PROVIDED

Calibration Serum - Level 2
Cat No. CAL 2350 20 x 5ml

MATERIALS REQUIRED BUT NOT PROVIDED

Calibrated pipette, double deionised water.

LIMITATIONS

After reconstitution, Bicarbonate is stable for 8 hours in the closed bottle and 1 hour in the open bottle. For Total and Prostatic Acid Phosphatase, the material should be stabilised by adding 1 drop (25µl - 30µl) of 0.7M Acetic acid solution to 1ml of the serum exactly 30 minutes after reconstitution. After stabilisation, Total & Prostatic Acid Phosphatase are stable for 2 hours at +15°C to +25°C, 2 days at +2°C to +8°C, and 28 days when frozen once at -20°C. Alkaline Phosphatase is stable for 2 days at +2°C to +8°C and levels in the reconstituted serum will rise over the stability period.

It is recommended that the reconstituted serum is allowed to stand for 1 hour at +15°C to +25°C before measurement. Bilirubin in the serum is light sensitive and it is recommended that the serum is stored in the dark. Stored in the dark, it is stable for 1 day at +2°C to +8°C. Do not store at +15°C to +25°C. Do not freeze. GLDH is stable for 1 day at +2°C to +8°C

Bacterial contamination of the reconstituted serum will cause reductions in the stability of many components. Different lot numbers of this calibrator should not be interchanged, as the values assigned to the calibrators vary from lot to lot. Due to the zinc content in some batches of rubber stoppers, the QC material should be aliquoted into suitable containers without rubber stoppers and stored at +2°C to +8°C to ensure stable zinc levels throughout the stability period.

VALUE ASSIGNMENT

Each batch of serum is distributed to approximately 3000 laboratories worldwide and values are assigned by a consensus of results obtained by these laboratories. The Calibration values for each instrument have been determined in at least 10 independent laboratories. Values are verified against a master lot of calibrator, which is traceable to reference methods or reference materials. In some cases, values may be assigned at Randox Laboratories in comparison to a master lot of calibrator, which is traceable to reference methods or reference materials.

If an instrument specific value is not available, refer to the Method section. If necessary, contact Randox Laboratories - Technical Services, Northern Ireland, tel: +44 (0) 28 9445 1070 or email Technical.Services@randox.com.

NOTES

- ® All trademarks recognised.
- (1) Values established by reference laboratories officially recognised by the Federal Chamber of Physicians in Germany.
 - (2) DGKC: German Society for Clinical Chemistry
 - (3) IFCC: International Federation of Clinical Chemistry
 - (4) SCE: Scandinavian Committee on Enzymes

EC	REP
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CALIBRATION SERUM LEVEL 2 (CAL 2)

METHOD Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	40.8	Bromocresol Green
	g/dl	4.08	
	g/l	41.6	Bromocresol Purple
	g/dl	4.16	
	g/l	41.4	Turbidimetric Assays
	g/dl	4.14	
Alkaline Phosphatase	U/l	187	AMP optimised to IFCC 37°C
	U/l	146	AMP optimised to IFCC 30°C
	U/l	119	AMP optimised to IFCC 25°C
	U/l	190	AMP non-optimised 37°C
	U/l	148	AMP non-optimised 30°C
	U/l	121	AMP non-optimised 25°C
ALT (GPT)	U/l	39	Colorimetric 37°C
	U/l	29	Colorimetric 30°C
	U/l	22	Colorimetric 25°C
	U/l	41	Tris buffer with P5P 37°C
	U/l	30	Tris buffer with P5P 30°C
	U/l	23	Tris buffer with P5P 25°C
	U/l	38	Tris buffer without P5P 37°C
	U/l	28	Tris buffer without P5P 30°C
	U/l	21	Tris buffer without P5P 25°C
	U/l	40	Phosphate buffer DGKC 37°C
	U/l	30	Phosphate buffer DGKC 30°C
	U/l	23	Phosphate buffer DGKC 25°C
	U/l	40	Tris buffer with P5P NVKC 37°C
	U/l	30	Tris buffer with P5P NVKC 30°C
	U/l	23	Tris buffer with P5P NVKC 25°C
	U/l	38	Tris buffer SCE 37°C
	U/l	28	Tris buffer SCE 30°C
	U/l	21	Tris buffer SCE 25°C
Amylase Pancreatic	U/l	60	Roche EPS Liquid 37°C
Amylase Total	U/l	86	pNP Maltotrioxide substrates 37°C
	U/l	94	Siemens - blocked pNPG7 37°C
	U/l	90	Randox Lyo. Ethylidene pNPG7 37°C
	U/l	93	Randox Liquid Ethylidene pNPG7 37°C
	U/l	88	Siemens - maltopenta/hexaoside 37°C
	U/l	83	Saccharogenic 37°C
	U/l	86	Roche Integra 2-chloro-pNPG7 37°C
	U/l	85	Other Roche 2-chloro-pNPG7 37°C

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METHOD Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Amylase Total	U/l	85	Roche liquid stable pNPG7 37°C
	U/l	89	Siemens 2-chloro-pNPG3 37°C
	U/l	86	bioMerieux 2-chloro-pNPG3 37°C
	U/l	87	Beckman Coulter - blocked pNPG7 37°C
	U/l	90	Beckman Synchron AMY7 37°C
	U/l	78	Agappe - CNPG3 37°C
	U/l	85	Weiner Amilokit (AU/dl) 37°C
	U/l	84	I.L. 2-chloro-pNPG3 37°C
	U/l	88	Abbott Architect / Alinity cal factor 3806 37°C
	U/l	88	Abbott Architect / Alinity cal factor 3431 37°C
	U/l	78	Beckman CNPG3 (Extinction Coeff) 37°C
	U/l	85	BM/Roche Colorimetric pNPG7 37°C
	U/l	86	Abbott - blocked pNPG7 37°C
	U/l	87	Abbott Alinity Amylase 2 37°C
	U/l	87	Abbott Architect 37°C
AST (GOT)	U/l	32	Colorimetric 37°C
	U/l	22	Colorimetric 30°C
	U/l	15	Colorimetric 25°C
	U/l	32	Tris buffer without P5P 37°C
	U/l	22	Tris buffer without P5P 30°C
	U/l	15	Tris buffer without P5P 25°C
	U/l	32	Tris buffer with P5P NVKC 37°C
	U/l	22	Tris buffer with P5P NVKC 30°C
	U/l	15	Tris buffer with P5P NVKC 25°C
	U/l	35	Tris buffer SCE 37°C
Bicarbonate	mmol/l	15.2	Enzymatic
	mmol/l	15.2	Enzymatic
Bile Acids	µmol/l	28.0	4th Generation Colorimetric
	µmol/l	28.5	5th Generation Colorimetric
Bilirubin Direct	µmol/l	18.8	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.10	Dichlorophenyl Diazonium (DPD)
	µmol/l	18.5	Diazo with Dichloroaniline (DCA)
	mg/dl	1.08	Diazo with Dichloroaniline (DCA)
	µmol/l	17.2	Oxidation to Biliverdin/Vanadate
	mg/dl	1.01	Oxidation to Biliverdin/Vanadate
Bilirubin Total	µmol/l	17.0	Modified Jendrassik
	mg/dl	0.990	Modified Jendrassik
	µmol/l	26.8	Diazo with Dichloroaniline (DCA)
	mg/dl	1.57	Diazo with Dichloroaniline (DCA)
	µmol/l	28.3	Diazo with Sulphanilic Acid
	mg/dl	1.65	Diazo with Sulphanilic Acid

CALIBRATION SERUM LEVEL 2 (CAL 2)

METHOD Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Bilirubin Total	μmol/l	26.3	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.54	
	μmol/l	23.9	Nitrobenzenediazonium salt
	mg/dl	1.40	
	μmol/l	25.4	Diazonium ion
	mg/dl	1.49	
	μmol/l	30.1	Oxidation to Biliverdin/Vanadate
	mg/dl	1.76	
	μmol/l	34.3	Modified Jendrassik
	mg/dl	2.01	
Calcium	mmol/l	2.12	Cresolphthalein complexone
	mg/dl	8.50	
	mmol/l	2.16	Ion selective electrode
	mg/dl	8.66	
	mmol/l	2.18	Methylthymol blue
	mg/dl	8.74	
	mmol/l	2.16	Arsenazo III
	mg/dl	8.66	
	mmol/l	2.15	Phosphonazo
	mg/dl	8.62	
	mmol/l	2.13	NM-BAPTA
	mg/dl	8.54	
Chloride	mmol/l	97.8	Colorimetric
	mmol/l	94.1	ISE indirect
	mmol/l	96.6	ISE direct
Cholesterol	mmol/l	4.22	Cholesterol Oxidase - Abell Kendall
	mg/dl	163	
	mmol/l	4.23	Cholesterol Oxidase - IDMS
	mg/dl	163	
	mmol/l	4.23	Cholesterol Dehydrogenase
	mg/dl	163	
Cholinesterase	U/l	5446	Colorimetric Benzoylcholine 37°C
	U/l	5943	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	179	CK-NAC serum start (DGKC) 37°C
	U/l	112	CK-NAC serum start (DGKC) 30°C
	U/l	76	CK-NAC serum start (DGKC) 25°C
	U/l	180	CK-NAC substrate start (DGKC) 37°C
	U/l	113	CK-NAC substrate start (DGKC) 30°C
	U/l	77	CK-NAC substrate start (DGKC) 25°C
	U/l	175	CK-NAC (IFCC) 37°C
	U/l	110	CK-NAC (IFCC) 30°C
	U/l	74	CK-NAC (IFCC) 25°C
	U/l	190	Monothioglycerol 37°C
	U/l	119	Monothioglycerol 30°C
	U/l	81	Monothioglycerol 25°C

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Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Copper	μmol/l	16.1	Colorimetric
	μg/dl	103	
Creatinine	μmol/l	126	Alkaline picrate with deproteinization
	mg/dl	1.42	
	μmol/l	124	Alkaline picrate no deproteinization
	mg/dl	1.41	
	μmol/l	125	Enzymatic UV method
	mg/dl	1.41	
	μmol/l	125	Creatinine PAP method
	mg/dl	1.41	
	μmol/l	124	Jaffe rate blanked
	mg/dl	1.40	
	μmol/l	152	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.72	
	μmol/l	139	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.57	
	μmol/l	121	IDMS traceable
	mg/dl	1.37	
gamma-GT	U/l	54	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	33	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	54	Gamma glutamyl-4-nitroanilide 37°C
	U/l	43	Gamma glutamyl-4-nitroanilide 30°C
	U/l	33	Gamma glutamyl-4-nitroanilide 25°C
	U/l	57	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	45	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	55	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
	U/l	43	DCL gamma glutamyl-3-carboxy-4-nitroanilide 30°C
	U/l	34	DCL gamma glutamyl-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	17	Triethanolamine buffer 50 mmol 37°C
	U/l	13	Triethanolamine buffer 50 mmol 30°C
	U/l	11	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	5.98	Glucose dehydrogenase
	mg/dl	108	
	mmol/l	5.90	Hexokinase
	mg/dl	106	
	mmol/l	5.94	Oxygen electrode
	mg/dl	107	
	mmol/l	6.03	Glucose oxidase
	mg/dl	109	

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METHOD Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Iron	μmol/l	20.3	Colorimetric with ppt.
	μg/dl	113	
	μmol/l	20.3	Colorimetric without ppt.
	μg/dl	113	
Lactate	mmol/l	1.51	Colorimetric Lactate Oxidase
	mg/dl	13.6	
	mmol/l	1.40	Enzymatic Electrode
	mg/dl	12.6	
	mmol/l	1.52	Ion selective electrode
	mg/dl	13.7	
LD (LDH)	U/l	201	L->P 37°C
	U/l	145	L->P 30°C
	U/l	102	L->P 25°C
	U/l	417	P->L Scandinavian & Dutch 37°C
	U/l	301	P->L Scandinavian & Dutch 30°C
	U/l	211	P->L Scandinavian & Dutch 25°C
	U/l	393	P->L German methods 37°C
	U/l	284	P->L German methods 30°C
	U/l	199	P->L German methods 25°C
	U/l	399	P->L SFBC 37°C
	U/l	288	P->L SFBC 30°C
	U/l	202	P->L SFBC 25°C
	U/l	201	L->P IFCC 37°C
	U/l	145	L->P IFCC 30°C
	U/l	102	L->P IFCC 25°C
Lipase	U/l	33	Roche Colorimetric 37°C
Lithium	mmol/l	0.939	Ion selective electrode
	mg/dl	0.652	
	mmol/l	0.940	Spectrophotometric
	mg/dl	0.653	
Magnesium	mmol/l	0.903	Arsenazo III
	mg/dl	2.19	
	mmol/l	0.924	Atomic absorption
	mg/dl	2.25	
	mmol/l	0.907	Calmagite
	mg/dl	2.20	
	mmol/l	0.922	Xylidyl Blue
	mg/dl	2.24	
	mmol/l	0.904	Methylthymol blue
	mg/dl	2.20	
	mmol/l	0.925	Chlorphosphonazo III
	mg/dl	2.25	
	mmol/l	0.900	Enzymatic
	mg/dl	2.19	

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METHOD Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Osmolality	mOsm/kg	290	Calculated
	mOsm/kg	297	Freezing point depression
Phosphate Inorganic	mmol/l	1.44	Phosphomolybdate enzymatic
	mg/dl	4.46	
	mmol/l	1.45	Phosphomolybdate UV
	mg/dl	4.50	
Potassium	mmol/l	4.28	Enzymatic
	mmol/l	3.82	Flame photometry
	mmol/l	3.88	ISE method - direct
	mmol/l	3.97	ISE method - indirect
	mmol/l	3.86	Colorimetric
Protein Total	g/l	58.3	Biuret reaction end point
	g/dl	5.83	
	g/l	57.9	Biuret reaction kinetic
	g/dl	5.79	
Sodium	mmol/l	142	Enzymatic
	mmol/l	141	Flame photometry
	mmol/l	138	ISE method - direct
	mmol/l	141	ISE method - indirect
	mmol/l	140	Colorimetric
TIBC	μmol/l	41.4	Removal of excess free iron
	μg/dl	231	
	μmol/l	43.2	FE+UIBC(saturation with iron)
	μg/dl	241	
	μmol/l	44.6	Direct Colorimetric
	μg/dl	249	
	μmol/l	43.1	Calculated from Transferrin
	μg/dl	241	
Triglycerides	mmol/l	1.09	Lipase/GPO-PAP no correction
	mg/dl	96.5	
	mmol/l	1.10	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	97.4	
	mmol/l	1.09	L/G Kinase EP. no correction
	mg/dl	96.5	
	mmol/l	1.10	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	97.4	
Urea	mmol/l	7.54	Beckman-Conductivity
	mg/dl	45.3	
	mmol/l	7.33	Urease end point
	mg/dl	44.1	

CALIBRATION SERUM LEVEL 2 (CAL 2)

METHOD Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Urea	mmol/l	7.31	Urease kinetic
	mg/dl	43.9	
	mmol/l	7.19	Urease hypochlorite
	mg/dl	43.2	
	mmol/l	7.31	BUN
	mg/dl	20.5	
Uric Acid (Urate)	mmol/l	0.338	Uricase catalase 340nm
	mg/dl	5.68	
	mmol/l	0.340	Reduction methods
	mg/dl	5.71	
	mmol/l	0.341	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.73	
	mmol/l	0.341	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.73	
	mmol/l	0.336	Spectrophotometric at 280-290
	mg/dl	5.64	
	mmol/l	0.336	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.64	
Zinc	µmol/l	27.0	Colorimetric with deproteinisation
	µg/dl	177	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Abbott Alinity/ Architect c/ci Systems® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	40.6	Bromocresol Green
	g/dl	4.06	
	g/l	41.2	Bromocresol Purple
	g/dl	4.12	
Alkaline Phosphatase	U/l	183	AMP optimised to IFCC 37°C
	U/l	179	AMP non-optimised 37°C
	U/l	178	Colorimetric 37°C
ALT (GPT)	U/l	37	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	60	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	85	Abbott Architect / Alinity cal factor 3806 37°C
	U/l	88	Abbott Architect / Alinity cal factor 3431 37°C
	U/l	88	Abbott - blocked pNPG7 37°C
	U/l	87	Abbott Architect 37°C
AST (GOT)	U/l	31	Tris buffer without P5P 37°C
Bile Acids	µmol/l	28.8	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	18.0	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.05	
	µmol/l	18.3	Diazo with Sulphanilic Acid
	mg/dl	1.07	
	µmol/l	18.6	Diazo with Dichloroaniline (DCA)
	mg/dl	1.09	
Bilirubin Total	µmol/l	26.3	Diazo with Dichloroaniline (DCA)
	mg/dl	1.54	
	µmol/l	27.1	Diazo with Sulphanilic Acid
	mg/dl	1.58	
	µmol/l	27.3	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.60	
Calcium	mmol/l	2.09	Arsenazo III
	mg/dl	8.38	
Chloride	mmol/l	96.2	ISE indirect
Cholesterol	mmol/l	4.19	Cholesterol Oxidase - Abell Kendall
	mg/dl	162	
	mmol/l	4.20	Cholesterol Oxidase - IDMS
	mg/dl	162	
	mmol/l	4.23	Cholesterol Dehydrogenase
	mg/dl	163	
	mg/dl	161	
Cholinesterase	U/l	6923	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	176	CK-NAC serum start (DGKC) 37°C

CALIBRATION SERUM LEVEL 2 (CAL 2)

Abbott Alinity/ Architect c/ci Systems® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
CK Total	U/l	177	CK-NAC substrate start (DGKC) 37°C
	U/l	179	CK-NAC (IFCC) 37°C
	U/l	179	Abbott CK-NAC (IFCC) 37°C
Creatinine	μmol/l	123	Alkaline picrate with deproteinization
	mg/dl	1.38	
	μmol/l	124	Alkaline picrate no deproteinization
	mg/dl	1.41	
	μmol/l	123	Enzymatic UV method
	mg/dl	1.39	
Creatinine	μmol/l	126	Jaffe rate blanked
	mg/dl	1.43	
gamma-GT	U/l	56	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	56	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	54	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	5.80	Hexokinase
	mg/dl	105	
	mmol/l	5.91	Glucose oxidase
	mg/dl	106	
Iron	μmol/l	21.6	Colorimetric with ppt.
	μg/dl	121	
	μmol/l	21.6	Colorimetric without ppt.
	μg/dl	121	
	μmol/l	21.6	Abbott Architect
	μg/dl	121	
Lactate	mmol/l	1.57	Colorimetric Lactate Oxidase
	mg/dl	14.1	
LD (LDH)	U/l	195	L->P 37°C
	U/l	194	L->P IFCC 37°C
Lipase	U/l	32	Other Colorimetric 37°C
Lithium	mmol/l	0.918	Spectrophotometric
	mg/dl	0.637	
Magnesium	mmol/l	0.884	Arsenazo III
	mg/dl	2.15	
	mmol/l	0.886	Xylidyl Blue
	mg/dl	2.15	
	mmol/l	0.882	Enzymatic
	mg/dl	2.14	
Phosphate Inorganic	mmol/l	1.42	Phosphomolybdate enzymatic
	mg/dl	4.40	
	mmol/l	1.41	Phosphomolybdate UV
	mg/dl	4.37	
Potassium	mmol/l	3.93	ISE method - indirect
Protein Total	g/l	59.1	Biuret reaction end point
	g/dl	5.91	

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Abbott Alinity/ Architect c/ci Systems® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Protein Total	g/l	59.5	Biuret reaction kinetic
	g/dl	5.95	
Sodium	mmol/l	141	ISE method - indirect
TIBC	μmol/l	42.2	FE+UIBC(saturation with iron)
	μg/dl	236	
Triglycerides	mmol/l	1.04	Lipase/GPO-PAP no correction
	mg/dl	92.0	
	mmol/l	1.02	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	90.3	
	mmol/l	1.06	L/G Kinase EP. no correction
	mg/dl	93.8	
	mmol/l	1.02	Lipase/Glycerol Dehydrogenase
	mg/dl	90.3	
Urea	mmol/l	7.62	Urease end point
	mg/dl	45.8	
	mmol/l	7.50	Urease kinetic
	mg/dl	45.1	
	mmol/l	7.50	BUN
Uric Acid (Urate)	mmol/l	0.337	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.66	
	mmol/l	0.335	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.63	
	mmol/l	0.337	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.66	
Zinc	μmol/l	27.0	Colorimetric with deproteinisation
	μg/dl	176	

CALIBRATION SERUM LEVEL 2 (CAL 2)

ABX Pentra 400® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	39.7	Bromocresol Green
	g/dl	3.97	
Alkaline Phosphatase	U/l	170	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	42	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	20.5	Diazo with Dichloroaniline (DCA)
	mg/dl	1.20	
Bilirubin Total	µmol/l	28.1	Diazo with Dichloroaniline (DCA)
	mg/dl	1.65	
Calcium	mmol/l	2.22	Arsenazo III
	mg/dl	8.90	
Chloride	mmol/l	98.5	ISE direct
Cholesterol	mmol/l	4.32	Cholesterol Oxidase - Abell Kendall
	mg/dl	167	
CK Total	U/l	182	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	130	Alkaline picrate no deproteinization
	mg/dl	1.47	
	µmol/l	123	Jaffe rate blanked
	mg/dl	1.39	
gamma-GT	U/l	52	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	51	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.08	Hexokinase
	mg/dl	110	
	mmol/l	6.22	Glucose oxidase
	mg/dl	112	
Iron	µmol/l	20.5	Colorimetric without ppt.
	µg/dl	115	
LD (LDH)	U/l	393	P->L German methods 37°C
	U/l	215	L->P IFCC 37°C
Magnesium	mmol/l	0.915	Xylidyl Blue
	mg/dl	2.22	
Phosphate Inorganic	mmol/l	1.73	Phosphomolybdate UV
	mg/dl	5.36	
Potassium	mmol/l	3.89	ISE method - direct
Protein Total	g/l	61.0	Biuret reaction end point
	g/dl	6.10	
Sodium	mmol/l	138	ISE method - direct
Triglycerides	mmol/l	1.12	Lipase/GPO-PAP no correction
	mg/dl	99.1	
Urea	mmol/l	7.00	Urease kinetic
	mg/dl	42.1	

CALIBRATION SERUM LEVEL 2 (CAL 2)

ABX Pentra 400® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Urea	mmol/l	7.00	BUN
	mg/dl	19.6	
Uric Acid (Urate)	mmol/l	0.329	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.53	
	mmol/l	0.329	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.53	
	mmol/l	0.330	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.54	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Beckman Coulter AU Series® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	39.9	Bromocresol Green
	g/dl	3.99	
	g/l	39.9	Bromocresol Purple
	g/dl	3.99	
Alkaline Phosphatase	U/l	201	AMP optimised to IFCC 37°C
	U/l	197	AMP non-optimised 37°C
	U/l	190	Colorimetric 37°C
ALT (GPT)	U/l	41	Colorimetric 37°C
	U/l	41	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	56	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	85	pNP Maltotriose substrates 37°C
	U/l	83	Randox Liquid Ethylidene pNPG7 37°C
	U/l	83	Beckman Synchron CX4/CX5/CX7 37°C
	U/l	87	Beckman Coulter - blocked pNPG7 37°C
	U/l	89	Beckman Synchron AMY7 37°C
	U/l	78	Beckman CNPG3 (Extinction Coeff) 37°C
AST (GOT)	U/l	32	Colorimetric 37°C
	U/l	34	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	19.1	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.12	
	µmol/l	18.5	Diazo with Sulphanilic Acid
	mg/dl	1.08	
	µmol/l	19.1	Diazo with Dichloroaniline (DCA)
	mg/dl	1.12	
	µmol/l	16.6	Oxidation to Biliverdin/Vanadate
	mg/dl	0.971	
Bilirubin Total	µmol/l	19.3	Diazo/ Sulphanilic Beckman DxC
	mg/dl	1.13	
	µmol/l	28.1	Diazo with Dichloroaniline (DCA)
	mg/dl	1.64	
	µmol/l	29.6	Diazo with Sulphanilic Acid
	mg/dl	1.73	
	µmol/l	29.6	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.73	
Calcium	µmol/l	29.5	DPD (Beckman AU)
	mg/dl	1.73	
	mmol/l	2.17	
	mg/dl	8.70	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Beckman Coulter AU Series® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Calcium	mmol/l	2.18	Ion selective electrode
	mg/dl	8.74	
	mmol/l	2.18	Arsenazo III
	mg/dl	8.74	
Chloride	mmol/l	94.4	ISE indirect
Cholesterol	mmol/l	4.24	Cholesterol Oxidase - Abell Kendall
	mg/dl	164	
	mmol/l	4.24	Cholesterol Oxidase - IDMS
	mg/dl	164	
	mmol/l	4.23	Cholesterol Dehydrogenase
	mg/dl	163	
Cholinesterase	U/l	5597	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	187	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	124	Alkaline picrate with deproteinization
	mg/dl	1.41	
	μmol/l	124	Alkaline picrate no deproteinization
	mg/dl	1.40	
	μmol/l	126	Enzymatic UV method
	mg/dl	1.42	
	μmol/l	128	Creatinine PAP method
	mg/dl	1.45	
	μmol/l	124	Jaffe rate blanked
	mg/dl	1.40	
gamma-GT	μmol/l	148	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.67	
	μmol/l	135	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.53	
	μmol/l	119	IDMS traceable
	mg/dl	1.34	
Glucose	mmol/l	5.97	GOD/02-Beckman method
	mg/dl	108	
	mmol/l	5.86	Glucose dehydrogenase
	mg/dl	106	
	mmol/l	5.86	Hexokinase
	mg/dl	106	
	mmol/l	6.06	Glucose oxidase
	mg/dl	109	
Iron	μmol/l	20.9	Colorimetric with ppt.
	μg/dl	117	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Beckman Coulter AU Series® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Iron	μmol/l	20.6	Colorimetric without ppt.
	μg/dl	115	
Lactate	mmol/l	1.47	Colorimetric Lactate Oxidase
	mg/dl	13.2	
LD (LDH)	U/l	200	L->P 37°C
	U/l	421	P->L Scandinavian & Dutch 37°C
	U/l	197	L->P IFCC 37°C
	U/l	187	L to P Beckman (Extinction Coeff) 37°C
Lipase	U/l	31	Other Colorimetric 37°C
Lithium	mmol/l	0.968	Spectrophotometric
	mg/dl	0.672	
Magnesium	mmol/l	0.941	Arsenazo III
	mg/dl	2.29	
	mmol/l	0.920	Calmagite
	mg/dl	2.24	
	mmol/l	0.917	Xylidyl Blue
	mg/dl	2.23	
	mmol/l	0.956	Enzymatic
	mg/dl	2.32	
Phosphate Inorganic	mmol/l	1.43	Phosphomolybdate enzymatic
	mg/dl	4.43	
	mmol/l	1.43	Phosphomolybdate UV
	mg/dl	4.43	
	mmol/l	1.43	Beckman PHOSm (365nm)
	mg/dl	4.43	
Potassium	mmol/l	3.96	ISE method - indirect
Protein Total	g/l	57.2	Biuret reaction CX4/5/7
	g/dl	5.72	
	g/l	57.7	Biuret reaction end point
	g/dl	5.77	
	g/l	57.3	Biuret reaction kinetic
	g/dl	5.73	
Sodium	mmol/l	141	ISE method - indirect
TIBC	μmol/l	46.4	FE+UIBC(saturation with iron)
	μg/dl	259	
	μmol/l	46.1	Direct Colorimetric
	μg/dl	258	
	μmol/l	41.2	Calculated from Transferrin
	μg/dl	230	
Triglycerides	mmol/l	1.08	Lipase/GPO-PAP no correction
	mg/dl	95.6	
	mmol/l	1.10	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	97.4	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Beckman Coulter AU Series® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Triglycerides	mmol/l	1.08	L/G Kinase EP. no correction
	mg/dl	95.6	
	mmol/l	1.06	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	93.8	
	mmol/l	1.08	Lipase/Glycerol Dehydrogenase
	mg/dl	95.6	
Urea	mmol/l	7.52	Beckman-Conductivity
	mg/dl	45.2	
	mmol/l	7.33	Urease end point
	mg/dl	44.1	
	mmol/l	7.38	Urease kinetic
	mg/dl	44.4	
	mmol/l	7.06	Urease hypochlorite
	mg/dl	42.4	
	mmol/l	7.38	BUN
	mg/dl	20.7	
Uric Acid (Urate)	mmol/l	0.341	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.73	
	mmol/l	0.341	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.73	
	mmol/l	0.343	Spectrophotometric at 280-290
	mg/dl	5.76	
	mmol/l	0.341	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.73	
Zinc	µmol/l	22.8	Colorimetric with deproteinisation
	µg/dl	149	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Beckman DxC600/800® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	41.4	Bromocresol Purple
	g/dl	4.14	
Alkaline Phosphatase	U/l	180	AMP optimised to IFCC 37°C
	U/l	189	AMP non-optimised 37°C
ALT (GPT)	U/l	40	Beckman Mod. IFCC Ref. without P5P 37°C
Amylase Total	U/l	90	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	31	Beckman Mod. IFCC Ref. without P5P 37°C
Bilirubin Total	µmol/l	30.0	Diazo with Sulphanilic Acid
	mg/dl	1.76	
Calcium	mmol/l	2.13	Ion selective electrode
	mg/dl	8.54	
Chloride	mmol/l	95.8	ISE indirect
Cholesterol	mmol/l	4.09	Cholesterol Oxidase - Abell Kendall
	mg/dl	158	
Cholinesterase	U/l	5626	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	180	CK-NAC (IFCC) 37°C
	U/l	188	Monothioglycerol 37°C
Creatinine	µmol/l	122	Alkaline picrate no deproteinization
	mg/dl	1.38	
	µmol/l	125	Jaffe rate blanked
	mg/dl	1.41	
	µmol/l	128	IDMS traceable
	mg/dl	1.44	
Glucose	mmol/l	5.73	Hexokinase
	mg/dl	103	
Iron	µmol/l	20.0	Colorimetric without ppt.
	µg/dl	112	
Lactate	mmol/l	1.53	Colorimetric Lactate Oxidase
	mg/dl	13.8	
LD (LDH)	U/l	198	L->P IFCC 37°C
Magnesium	mmol/l	0.939	Calmagite
	mg/dl	2.28	
Phosphate Inorganic	mmol/l	1.46	Phosphomolybdate UV
	mg/dl	4.53	
Potassium	mmol/l	3.93	ISE method - indirect
Protein Total	g/l	55.5	Biuret reaction CX4/5/7
	g/dl	5.55	
	g/l	59.1	Biuret reaction end point
	g/dl	5.91	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Beckman DxC600/800® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Protein Total	g/l	55.8	Biuret reaction kinetic
	g/dl	5.58	
Sodium	mmol/l	140	ISE method - indirect
Triglycerides	mmol/l	1.05	Lipase/GPO-PAP no correction
	mg/dl	92.9	
	mmol/l	1.08	L/G Kinase EP. no correction
	mg/dl	95.6	
Urea	mmol/l	7.61	Beckman-Conductivity
	mg/dl	45.7	
	mmol/l	7.48	Urease kinetic
	mg/dl	45.0	
	mmol/l	7.48	BUN
	mg/dl	21.0	
Uric Acid (Urate)	mmol/l	0.338	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.68	

CALIBRATION SERUM LEVEL 2 (CAL 2)

BIOSYSTEMS A15 Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	41.2	Bromocresol Green
	g/dl	4.12	
Alkaline Phosphatase	U/l	191	AMP optimised to IFCC 37°C
	U/l	149	AMP optimised to IFCC 30°C
	U/l	122	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	41	Tris buffer without P5P 37°C
	U/l	30	Tris buffer without P5P 30°C
	U/l	23	Tris buffer without P5P 25°C
Calcium	mmol/l	2.19	Arsenazo III
	mg/dl	8.78	
Cholesterol	mmol/l	4.21	Cholesterol Oxidase - Abell Kendall
	mg/dl	163	
	mmol/l	4.17	Cholesterol Oxidase - IDMS
	mg/dl	161	
Creatinine	µmol/l	125	Alkaline picrate no deproteinization
	mg/dl	1.41	
	µmol/l	128	Jaffe rate blanked
	mg/dl	1.44	
gamma-GT	U/l	54	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.02	Glucose oxidase
	mg/dl	108	
Iron	µmol/l	19.4	Colorimetric without ppt.
	µg/dl	108	
Protein Total	g/l	59.8	Biuret reaction end point
	g/dl	5.98	
Triglycerides	mmol/l	1.08	Lipase/GPO-PAP no correction
	mg/dl	95.6	
Urea	mmol/l	7.07	Urease kinetic
	mg/dl	42.5	
	mmol/l	7.07	BUN
	mg/dl	19.8	
Uric Acid (Urate)	mmol/l	0.372	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.25	
	mmol/l	0.346	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.81	
	mmol/l	0.358	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.01	

CALIBRATION SERUM LEVEL 2 (CAL 2)

BIOSYSTEMS A25 Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	42.2	Bromocresol Green
	g/dl	4.22	
ALT (GPT)	U/l	41	Tris buffer without P5P 37°C
	U/l	30	Tris buffer without P5P 30°C
	U/l	23	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	18.4	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.08	
Bilirubin Total	µmol/l	25.5	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.49	
Calcium	mmol/l	2.24	Arsenazo III
	mg/dl	8.98	
Cholesterol	mmol/l	4.14	Cholesterol Oxidase - Abell Kendall
	mg/dl	160	Cholesterol Oxidase - IDMS
	mmol/l	4.37	
	mg/dl	169	
Creatinine	µmol/l	120	Alkaline picrate no deproteinization
	mg/dl	1.36	
gamma-GT	U/l	56	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	44	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.13	Glucose oxidase
	mg/dl	110	
Phosphate Inorganic	mmol/l	1.37	Phosphomolybdate UV
	mg/dl	4.25	
Protein Total	g/l	60.4	Biuret reaction end point
	g/dl	6.04	
Triglycerides	mmol/l	1.08	Lipase/GPO-PAP no correction
	mg/dl	95.6	L/G Kinase EP. no correction
	mmol/l	1.05	
	mg/dl	92.9	Lipase/Glycerol Dehydrogenase
	mmol/l	1.08	
Urea	mg/dl	95.6	Urease end point
	mmol/l	7.21	
	mg/dl	43.3	Urease kinetic
	mmol/l	7.15	
	mg/dl	43.0	BUN
Uric Acid (Urate)	mmol/l	7.15	
	mg/dl	20.1	Uricase peroxidase with ascorbate oxidase
	mmol/l	0.373	
	mg/dl	6.27	

CALIBRATION SERUM LEVEL 2 (CAL 2)

BIOSYSTEMS A25 Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Uric Acid (Urate)	mmol/l	0.359	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.03	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Biotechnica/Wiener BT and CB Series Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	40.7	Bromocresol Green
	g/dl	4.07	
ALT (GPT)	U/l	38	Tris buffer without P5P 37°C
	U/l	28	Tris buffer without P5P 30°C
	U/l	21	Tris buffer without P5P 25°C
AST (GOT)	U/l	32	Tris buffer without P5P 37°C
	U/l	22	Tris buffer without P5P 30°C
	U/l	15	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	18.9	Diazo with Dichloroaniline (DCA)
	mg/dl	1.11	
Bilirubin Total	µmol/l	29.6	Diazo with Sulphanilic Acid
	mg/dl	1.73	
Calcium	mmol/l	2.07	Cresolphthalein complexone
	mg/dl	8.30	
	mmol/l	2.20	Arsenazo III
	mg/dl	8.82	
Chloride	mmol/l	96.8	Colorimetric
Cholesterol	mmol/l	4.20	Cholesterol Oxidase - Abell Kendall
	mg/dl	162	
	mmol/l	4.29	Cholesterol Oxidase - IDMS
	mg/dl	166	
Cholinesterase	U/l	5515	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	184	CK-NAC (IFCC) 37°C
	U/l	115	CK-NAC (IFCC) 30°C
	U/l	78	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	126	Alkaline picrate no deproteinization
	mg/dl	1.42	
	µmol/l	127	Jaffe rate blanked
	mg/dl	1.44	
gamma-GT	µmol/l	159	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.80	
	U/l	54	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	33	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	53	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	U/l	42	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	mmol/l	5.99	Glucose oxidase
	mg/dl	108	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Biotechnica/Wiener BT and CB Series Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Iron	μmol/l	19.1	Colorimetric with ppt.
	μg/dl	107	
	μmol/l	19.7	Colorimetric without ppt.
	μg/dl	110	
LD (LDH)	U/l	356	P->L Scandinavian & Dutch 37°C
	U/l	257	P->L Scandinavian & Dutch 30°C
	U/l	180	P->L Scandinavian & Dutch 25°C
	U/l	341	P->L German methods 37°C
	U/l	246	P->L German methods 30°C
	U/l	173	P->L German methods 25°C
	U/l	420	P->L SFBC 37°C
	U/l	303	P->L SFBC 30°C
Magnesium	mmol/l	0.930	Calmagite
	mg/dl	2.26	
	mmol/l	0.913	Xylidyl Blue
	mg/dl	2.22	
	mmol/l	1.02	Enzymatic
	mg/dl	2.48	
Phosphate Inorganic	mmol/l	1.56	Phosphomolybdate UV
	mg/dl	4.84	
Potassium	mmol/l	4.01	ISE method - direct
Protein Total	g/l	61.3	Biuret reaction end point
	g/dl	6.13	
	g/l	65.7	Biuret reaction kinetic
	g/dl	6.57	
Sodium	mmol/l	139	ISE method - direct
Triglycerides	mmol/l	1.05	Lipase/GPO-PAP no correction
	mg/dl	92.9	
Urea	mmol/l	7.46	Urease kinetic
	mg/dl	44.8	
	mmol/l	7.46	BUN
	mg/dl	20.9	
Uric Acid (Urate)	mmol/l	0.333	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.59	
	mmol/l	0.345	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.80	
	mmol/l	0.347	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.83	

CALIBRATION SERUM LEVEL 2 (CAL 2)

COBAS INTEGRA® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	42.7	Bromocresol Green
	g/dl	4.27	
	g/l	41.0	Bromocresol Purple
	g/dl	4.10	
	g/l	41.8	Turbidimetric Assays
	g/dl	4.18	
Alkaline Phosphatase	U/l	176	Roche Integra AMP buffer 37°C
	U/l	137	Roche Integra AMP buffer 30°C
	U/l	112	Roche Integra AMP buffer 25°C
	U/l	177	AMP optimised to IFCC 37°C
	U/l	138	AMP optimised to IFCC 30°C
	U/l	113	AMP optimised to IFCC 25°C
	U/l	174	Colorimetric 37°C
	U/l	136	Colorimetric 30°C
	U/l	111	Colorimetric 25°C
ALT (GPT)	U/l	34	Tris buffer without P5P 37°C
	U/l	25	Tris buffer without P5P 30°C
	U/l	19	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	59	Roche EPS Liquid 37°C
Amylase Total	U/l	86	Roche Integra 2-chloro-pNPG7 37°C
	U/l	86	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	28	Tris buffer without P5P 37°C
	U/l	19	Tris buffer without P5P 30°C
	U/l	13	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	19.1	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.12	
	µmol/l	18.8	Diazo with Sulphanilic Acid
	mg/dl	1.10	
	µmol/l	18.8	Roche DPD JG standardised
	mg/dl	1.10	
	µmol/l	17.9	Diazo with Dichloroaniline (DCA)
	mg/dl	1.05	
Bilirubin Total	µmol/l	26.3	Diazo with Dichloroaniline (DCA)
	mg/dl	1.54	
	µmol/l	25.9	Diazo with Sulphanilic Acid
	mg/dl	1.52	
	µmol/l	25.9	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.51	

CALIBRATION SERUM LEVEL 2 (CAL 2)

COBAS INTEGRA® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Bilirubin Total	µmol/l	25.5	Diazonium ion
	mg/dl	1.49	
Calcium	mmol/l	2.11	Cresolphthalein complexone
	mg/dl	8.46	
	mmol/l	2.10	Arsenazo III
	mg/dl	8.42	
	mmol/l	2.11	NM-BAPTA
	mg/dl	8.46	
Chloride	mmol/l	94.7	ISE indirect
Cholesterol	mmol/l	4.18	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	
	mmol/l	4.16	Cholesterol Oxidase - IDMS
	mg/dl	161	
CK Total	U/l	186	CK-NAC serum start (DGKC) 37°C
	U/l	116	CK-NAC serum start (DGKC) 30°C
	U/l	79	CK-NAC serum start (DGKC) 25°C
	U/l	178	CK-NAC substrate start (DGKC) 37°C
	U/l	111	CK-NAC substrate start (DGKC) 30°C
	U/l	76	CK-NAC substrate start (DGKC) 25°C
	U/l	175	CK-NAC (IFCC) 37°C
	U/l	110	CK-NAC (IFCC) 30°C
Creatinine	U/l	74	CK-NAC (IFCC) 25°C
	µmol/l	116	Alkaline picrate with deproteinization
	mg/dl	1.31	
	µmol/l	121	Alkaline picrate no deproteinization
	mg/dl	1.37	
	µmol/l	127	Roche Creatinine Plus
	mg/dl	1.44	
	µmol/l	120	Jaffe rate blanked
	mg/dl	1.36	
	µmol/l	145	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.64	
	µmol/l	139	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.57	
	µmol/l	122	IDMS traceable
	mg/dl	1.38	
gamma-GT	U/l	54	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	33	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	58	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	46	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	36	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	5.99	Hexokinase
	mg/dl	108	

CALIBRATION SERUM LEVEL 2 (CAL 2)

COBAS INTEGRA® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Glucose	mmol/l	6.07	Glucose oxidase
	mg/dl	109	
Iron	µmol/l	20.7	Colorimetric with ppt.
	µg/dl	116	
	µmol/l	20.7	Colorimetric without ppt.
	µg/dl	116	
LD (LDH)	U/l	210	L->P 37°C
	U/l	152	L->P 30°C
	U/l	106	L->P 25°C
	U/l	207	L->P IFCC 37°C
	U/l	149	L->P IFCC 30°C
	U/l	105	L->P IFCC 25°C
Lipase	U/l	33	Roche Colorimetric 37°C
	U/l	33	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	0.935	Ion selective electrode
	mg/dl	0.649	
Magnesium	mmol/l	0.926	Xylidyl Blue
	mg/dl	2.25	
	mmol/l	0.917	Chlorphosphonazo III
	mg/dl	2.23	
Phosphate Inorganic	mmol/l	1.48	Phosphomolybdate enzymatic
	mg/dl	4.59	
	mmol/l	1.48	Phosphomolybdate UV
	mg/dl	4.59	
Potassium	mmol/l	3.95	ISE method - indirect
Protein Total	g/l	55.7	Biuret reaction end point
	g/dl	5.57	
	g/l	57.1	Biuret reaction kinetic
	g/dl	5.71	
Sodium	mmol/l	139	ISE method - indirect
TIBC	µmol/l	42.8	FE+UIBC(saturation with iron)
	µg/dl	239	
Triglycerides	mmol/l	1.11	Lipase/GPO-PAP no correction
	mg/dl	98.2	
	mmol/l	1.10	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	97.4	
	mmol/l	1.10	L/G Kinase EP. no correction
	mg/dl	97.4	
	mmol/l	1.10	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	97.4	
	mmol/l	1.09	Lipase/Glycerol Dehydrogenase
	mg/dl	96.5	

CALIBRATION SERUM LEVEL 2 (CAL 2)

COBAS INTEGRA® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Urea	mmol/l	7.05	Urease end point
	mg/dl	42.4	
	mmol/l	7.05	Urease kinetic
	mg/dl	42.4	
	mmol/l	7.05	BUN
	mg/dl	19.8	
Uric Acid (Urate)	mmol/l	0.343	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.76	
	mmol/l	0.343	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.76	
	mmol/l	0.340	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.71	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Elitech/Vitalab Selectra Series Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	40.3	Bromocresol Green
	g/dl	4.03	
ALT (GPT)	U/l	40	Tris buffer without P5P 37°C
AST (GOT)	U/l	34	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	13.3	Diazo with Sulphanilic Acid
	mg/dl	0.779	
Calcium	mmol/l	2.17	Arsenazo III
	mg/dl	8.70	
Cholesterol	mmol/l	4.26	Cholesterol Oxidase - Abell Kendall
	mg/dl	164	
CK Total	U/l	180	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	124	Alkaline picrate no deproteinization
	mg/dl	1.40	
	µmol/l	123	Creatinine PAP method
	mg/dl	1.39	
	µmol/l	128	Jaffe rate blanked
	mg/dl	1.45	
gamma-GT	U/l	55	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	5.93	Hexokinase
	mg/dl	107	
	mmol/l	6.18	Glucose oxidase
	mg/dl	111	
Iron	µmol/l	18.8	Colorimetric without ppt.
	µg/dl	105	
LD (LDH)	U/l	200	L->P IFCC 37°C
Phosphate Inorganic	mmol/l	1.52	Phosphomolybdate UV
	mg/dl	4.71	
Protein Total	g/l	59.6	Biuret reaction end point
	g/dl	5.96	
Triglycerides	mmol/l	1.14	Lipase/GPO-PAP no correction
	mg/dl	101	
Urea	mmol/l	7.32	Urease end point
	mg/dl	44.0	
	mmol/l	7.47	Urease kinetic
	mg/dl	44.9	
	mmol/l	7.47	BUN
	mg/dl	21.0	
Uric Acid (Urate)	mmol/l	0.396	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.65	

CALIBRATION SERUM LEVEL 2 (CAL 2)

ILab 600®/650®/Aries/Taurus Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	40.8	Bromocresol Green
	g/dl	4.08	
Alkaline Phosphatase	U/l	196	Diethanolamine buffer DEA 37°C
	U/l	153	Diethanolamine buffer DEA 30°C
	U/l	125	Diethanolamine buffer DEA 25°C
	U/l	191	AMP optimised to IFCC 37°C
	U/l	149	AMP optimised to IFCC 30°C
	U/l	122	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	38	Tris buffer without P5P 37°C
	U/l	28	Tris buffer without P5P 30°C
	U/l	21	Tris buffer without P5P 25°C
Amylase Total	U/l	82	I.L. 2-chloro-pNPG3 37°C
AST (GOT)	U/l	32	Tris buffer without P5P 37°C
	U/l	22	Tris buffer without P5P 30°C
	U/l	15	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	12.9	Diazo with Sulphanilic Acid
	mg/dl	0.757	
Bilirubin Total	µmol/l	29.3	Diazo with Sulphanilic Acid
	mg/dl	1.71	
	µmol/l	28.0	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.64	
Calcium	mmol/l	2.07	Cresolphthalein complexone
	mg/dl	8.30	
	mmol/l	2.09	Arsenazo III
	mg/dl	8.38	
Chloride	mmol/l	92.5	ISE indirect
Cholesterol	mmol/l	4.22	Cholesterol Oxidase - Abell Kendall
	mg/dl	163	
	mmol/l	4.30	Cholesterol Oxidase - IDMS
	mg/dl	166	
Cholinesterase	U/l	5842	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	173	CK-NAC (IFCC) 37°C
	U/l	108	CK-NAC (IFCC) 30°C
	U/l	74	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	125	Alkaline picrate no deproteinization
	mg/dl	1.41	
	µmol/l	123	Enzymatic UV method
	mg/dl	1.39	
	µmol/l	121	Creatinine PAP method
	mg/dl	1.37	

CALIBRATION SERUM LEVEL 2 (CAL 2)

ILab 600®/650®/Aries/Taurus Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Creatinine	µmol/l	135	Jaffe rate blanked
	mg/dl	1.52	
	µmol/l	162	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.83	
gamma-GT	U/l	51	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	40	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	52	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	41	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	32	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.01	Glucose oxidase
	mg/dl	108	
Iron	µmol/l	20.1	Colorimetric without ppt.
	µg/dl	112	
LD (LDH)	U/l	377	P->L German methods 37°C
	U/l	272	P->L German methods 30°C
	U/l	191	P->L German methods 25°C
	U/l	410	P->L SFBC 37°C
	U/l	296	P->L SFBC 30°C
	U/l	208	P->L SFBC 25°C
Magnesium	mmol/l	0.916	Xylidyl Blue
	mg/dl	2.23	
	mmol/l	0.908	Enzymatic
Phosphate Inorganic	mmol/l	1.46	Phosphomolybdate UV
	mg/dl	4.53	
Potassium	mmol/l	4.05	ISE method - indirect
Protein Total	g/l	57.9	Biuret reaction end point
	g/dl	5.79	
Sodium	mmol/l	142	ISE method - indirect
Triglycerides	mmol/l	1.09	Lipase/GPO-PAP no correction
	mg/dl	96.5	
	mmol/l	1.11	L/G Kinase EP. no correction
Urea	mmol/l	7.55	Urease end point
	mg/dl	45.4	
	mmol/l	7.53	Urease kinetic
	mg/dl	45.3	
	mmol/l	7.53	BUN
	mg/dl	21.1	
Uric Acid (Urate)	mmol/l	0.322	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.41	

CALIBRATION SERUM LEVEL 2 (CAL 2)

ILab 600®/650®/Aries/Taurus Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Uric Acid (Urate)	mmol/l	0.341	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.73	

CALIBRATION SERUM LEVEL 2 (CAL 2)

HITACHI SERIES® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	40.7	Bromocresol Green
	g/dl	4.07	
Alkaline Phosphatase	U/l	173	AMP optimised to IFCC 37°C
	U/l	135	AMP optimised to IFCC 30°C
	U/l	111	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	40	Tris buffer without P5P 37°C
	U/l	30	Tris buffer without P5P 30°C
	U/l	23	Tris buffer without P5P 25°C
Amylase Total	U/l	82	Roche liquid stable pNPG7 37°C
Bilirubin Direct	µmol/l	18.1	Diazo with Sulphanilic Acid
	mg/dl	1.06	
	µmol/l	18.0	Diazo with Dichloroaniline (DCA)
	mg/dl	1.05	
Bilirubin Total	µmol/l	25.8	Diazo with Dichloroaniline (DCA)
	mg/dl	1.51	
	µmol/l	28.6	Diazo with Sulphanilic Acid
	mg/dl	1.67	
Calcium	mmol/l	2.13	Cresolphthalein complexone
	mg/dl	8.54	
	mmol/l	2.10	Arsenazo III
	mg/dl	8.42	
Chloride	mmol/l	92.2	ISE indirect
Cholesterol	mmol/l	4.22	Cholesterol Oxidase - Abell Kendall
	mg/dl	163	
	mmol/l	4.22	Cholesterol Oxidase - IDMS
	mg/dl	163	
	mmol/l	4.19	Cholesterol Dehydrogenase
	mg/dl	162	
Cholinesterase	U/l	5519	Colorimetric Butyrylthiocholine 37°C
Creatinine	µmol/l	129	Alkaline picrate with deproteinization
	mg/dl	1.46	
	µmol/l	126	Jaffe rate blanked
	mg/dl	1.42	
	µmol/l	153	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.73	
Glucose	mmol/l	6.14	Glucose oxidase
	mg/dl	111	
Iron	µmol/l	19.9	Colorimetric without ppt.
	µg/dl	111	

CALIBRATION SERUM LEVEL 2 (CAL 2)

HITACHI SERIES® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Lactate	mmol/l	1.56	Colorimetric Lactate Oxidase
	mg/dl	14.1	
LD (LDH)	U/l	390	P->L German methods 37°C
	U/l	282	P->L German methods 30°C
	U/l	198	P->L German methods 25°C
	U/l	205	L->P IFCC 37°C
	U/l	148	L->P IFCC 30°C
	U/l	104	L->P IFCC 25°C
Magnesium	mmol/l	0.950	Xylidyl Blue
	mg/dl	2.31	
Phosphate Inorganic	mmol/l	1.52	Phosphomolybdate UV
	mg/dl	4.71	
Potassium	mmol/l	4.01	ISE method - indirect
Protein Total	g/l	57.6	Biuret reaction end point
	g/dl	5.76	
Sodium	mmol/l	141	ISE method - indirect
Triglycerides	mmol/l	1.11	Lipase/GPO-PAP no correction
	mg/dl	98.2	
	mmol/l	1.08	Lipase/Glycerol Dehydrogenase
Urea	mmol/l	7.22	Urease end point
	mg/dl	43.4	
	mmol/l	7.25	Urease kinetic
	mg/dl	43.6	
	mmol/l	7.25	BUN
	mg/dl	20.3	
Uric Acid (Urate)	mmol/l	0.345	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.80	
	mmol/l	0.339	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.70	
	mmol/l	0.340	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.71	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Konelab 20/30/60®/Thermo Scientific Indiko Plus® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	39.6	Bromocresol Green
	g/dl	3.96	
Alkaline Phosphatase	U/l	179	AMP optimised to IFCC 37°C
	U/l	139	AMP optimised to IFCC 30°C
	U/l	114	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	39	Tris buffer without P5P 37°C
	U/l	29	Tris buffer without P5P 30°C
	U/l	22	Tris buffer without P5P 25°C
AST (GOT)	U/l	34	Tris buffer without P5P 37°C
	U/l	23	Tris buffer without P5P 30°C
	U/l	16	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	16.9	Diazo with Sulphanilic Acid
	mg/dl	0.986	
	µmol/l	16.6	Diazo with Dichloroaniline (DCA)
	mg/dl	0.969	
Bilirubin Total	µmol/l	25.4	Diazo with Dichloroaniline (DCA)
	mg/dl	1.48	
	µmol/l	25.7	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.50	
	µmol/l	24.0	Nitrobenzenediazonium salt
	mg/dl	1.40	
Calcium	mmol/l	2.24	Cresolphthalein complexone
	mg/dl	8.98	
	mmol/l	2.17	Arsenazo III
	mg/dl	8.70	
Chloride	mmol/l	99.5	ISE direct
Cholesterol	mmol/l	4.19	Cholesterol Oxidase - Abell Kendall
	mg/dl	162	
	mmol/l	4.28	Cholesterol Oxidase - IDMS
	mg/dl	165	
	mmol/l	4.32	Cholesterol Dehydrogenase
	mg/dl	167	
CK Total	U/l	176	CK-NAC (IFCC) 37°C
	U/l	110	CK-NAC (IFCC) 30°C
	U/l	75	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	132	Alkaline picrate no deproteinization
	mg/dl	1.49	
	µmol/l	125	Enzymatic UV method
	mg/dl	1.42	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Konelab 20/30/60®/Thermo Scientific Indiko Plus® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Creatinine	μmol/l	127	Creatinine PAP method
	mg/dl	1.43	
	μmol/l	119	Jaffe rate blanked
	mg/dl	1.35	
	μmol/l	163	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.84	
gamma-GT	μmol/l	141	IDMS traceable
	mg/dl	1.59	
	U/l	56	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	U/l	44	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Iron	mmol/l	5.94	Hexokinase
	mg/dl	107	
	mmol/l	5.98	Glucose oxidase
LD (LDH)	mg/dl	108	
	μmol/l	21.9	Colorimetric with ppt.
	μg/dl	122	
LD (LDH)	μmol/l	22.1	Colorimetric without ppt.
	μg/dl	124	
	U/l	210	L->P IFCC 37°C
Magnesium	U/l	152	L->P IFCC 30°C
	U/l	106	L->P IFCC 25°C
Phosphate Inorganic	mmol/l	0.903	Xylidyl Blue
	mg/dl	2.19	
Potassium	mmol/l	1.46	Phosphomolybdate enzymatic
	mg/dl	4.53	
	mmol/l	1.45	Phosphomolybdate UV
Protein Total	mg/dl	4.50	
	g/l	58.0	Biuret reaction end point
Sodium	g/dl	5.80	
	mmol/l	3.90	ISE method - direct
Triglycerides	mmol/l	1.10	Lipase/GPO-PAP no correction
	mg/dl	97.4	
	mmol/l	1.11	Lipase/Glycerol Dehydrogenase
Urea	mg/dl	98.2	
	mmol/l	7.39	Urease end point
	mg/dl	44.4	
Uric Acid (Urate)	mmol/l	7.36	Urease kinetic
	mg/dl	44.2	
	mmol/l	7.36	BUN
Uric Acid (Urate)	mg/dl	20.7	
	mmol/l	0.347	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.83	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Konelab 20/30/60®/Thermo Scientific Indiko Plus® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Uric Acid (Urate)	mmol/l	0.344	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.78	
	mmol/l	0.340	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.71	

CALIBRATION SERUM LEVEL 2 (CAL 2)

MINDRAY BS SERIES Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	40.2	Bromocresol Green
	g/dl	4.02	
Alkaline Phosphatase	U/l	196	AMP optimised to IFCC 37°C
	U/l	153	AMP optimised to IFCC 30°C
	U/l	125	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	41	Tris buffer without P5P 37°C
	U/l	30	Tris buffer without P5P 30°C
	U/l	23	Tris buffer without P5P 25°C
AST (GOT)	U/l	34	Tris buffer without P5P 37°C
	U/l	23	Tris buffer without P5P 30°C
	U/l	16	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	16.5	Oxidation to Biliverdin/Vanadate
	mg/dl	0.965	
Bilirubin Total	µmol/l	26.7	Diazo with Dichloroaniline (DCA)
	mg/dl	1.56	
	µmol/l	28.5	Diazo with Sulphanilic Acid
	mg/dl	1.67	
	µmol/l	27.5	Oxidation to Biliverdin/Vanadate
	mg/dl	1.61	
Calcium	mmol/l	2.22	Cresolphthalein complexone
	mg/dl	8.90	
	mmol/l	2.19	Arsenazo III
	mg/dl	8.78	
Chloride	mmol/l	96.5	ISE indirect
Cholesterol	mmol/l	4.18	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	
	mmol/l	4.19	Cholesterol Oxidase - IDMS
	mg/dl	162	
	mmol/l	4.18	Cholesterol Dehydrogenase
	mg/dl	161	
CK Total	U/l	179	CK-NAC (IFCC) 37°C
	U/l	112	CK-NAC (IFCC) 30°C
	U/l	76	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	130	Alkaline picrate with deproteinization
	mg/dl	1.47	
	µmol/l	125	Alkaline picrate no deproteinization
	mg/dl	1.41	
	µmol/l	125	Enzymatic UV method
	mg/dl	1.42	

CALIBRATION SERUM LEVEL 2 (CAL 2)

MINDRAY BS SERIES Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Creatinine	μmol/l	121	Creatinine PAP method
	mg/dl	1.37	
	μmol/l	126	Jaffe rate blanked
	mg/dl	1.43	
gamma-GT	U/l	55	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	34	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	56	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	44	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	5.97	Glucose dehydrogenase
	mg/dl	108	
	mmol/l	5.90	Hexokinase
	mg/dl	106	
Iron	mmol/l	6.04	Glucose oxidase
	mg/dl	109	
	μmol/l	19.3	Colorimetric with ppt.
	μg/dl	108	
LD (LDH)	μmol/l	20.0	Colorimetric without ppt.
	μg/dl	112	
	U/l	420	P->L German methods 37°C
	U/l	303	P->L German methods 30°C
LD (LDH)	U/l	213	P->L German methods 25°C
	U/l	199	L->P IFCC 37°C
	U/l	144	L->P IFCC 30°C
	U/l	101	L->P IFCC 25°C
Magnesium	mmol/l	0.970	Calmagite
	mg/dl	2.36	
	mmol/l	0.960	Xylidyl Blue
	mg/dl	2.33	
Phosphate Inorganic	mmol/l	0.907	Enzymatic
	mg/dl	2.20	
	mmol/l	1.45	Phosphomolybdate enzymatic
	mg/dl	4.50	
Phosphate Inorganic	mmol/l	1.45	Phosphomolybdate UV
	mg/dl	4.50	
Potassium	mmol/l	4.06	ISE method - indirect
Protein Total	g/l	59.1	Biuret reaction end point
	g/dl	5.91	
	g/l	60.2	Biuret reaction kinetic
	g/dl	6.02	
Sodium	mmol/l	142	ISE method - indirect

CALIBRATION SERUM LEVEL 2 (CAL 2)

MINDRAY BS SERIES Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Triglycerides	mmol/l	1.08	Lipase/GPO-PAP no correction
	mg/dl	95.6	
	mmol/l	1.09	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	96.5	
	mmol/l	1.07	L/G Kinase EP. no correction
	mg/dl	94.7	
	mmol/l	1.09	Lipase/Glycerol Dehydrogenase
	mg/dl	96.5	
Urea	mmol/l	7.44	Urease end point
	mg/dl	44.7	
	mmol/l	7.46	Urease kinetic
	mg/dl	44.8	
	mmol/l	7.34	Urease hypochlorite
	mg/dl	44.1	
	mmol/l	7.46	BUN
	mg/dl	20.9	
Uric Acid (Urate)	mmol/l	0.338	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.68	
	mmol/l	0.341	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.73	
	mmol/l	0.331	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.56	

CALIBRATION SERUM LEVEL 2 (CAL 2)

PRESTIGE 24i Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	40.8	Bromocresol Green
	g/dl	4.08	
ALT (GPT)	U/l	40	Tris buffer without P5P 37°C
	U/l	30	Tris buffer without P5P 30°C
	U/l	23	Tris buffer without P5P 25°C
AST (GOT)	U/l	34	Tris buffer without P5P 37°C
	U/l	23	Tris buffer without P5P 30°C
	U/l	16	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	29.2	Diazo with Sulphanilic Acid
	mg/dl	1.71	
Calcium	mmol/l	2.19	Arsenazo III
	mg/dl	8.78	
Cholesterol	mmol/l	4.22	Cholesterol Oxidase - Abell Kendall
	mg/dl	163	
	mmol/l	4.33	Cholesterol Oxidase - IDMS
	mg/dl	167	
Creatinine	µmol/l	127	Alkaline picrate no deproteinization
	mg/dl	1.44	
gamma-GT	U/l	52	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	41	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	32	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	55	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	34	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.08	Glucose oxidase
	mg/dl	110	
LD (LDH)	U/l	396	P->L German methods 37°C
	U/l	286	P->L German methods 30°C
	U/l	201	P->L German methods 25°C
Protein Total	g/l	57.7	Biuret reaction end point
	g/dl	5.77	
Triglycerides	mmol/l	1.08	Lipase/GPO-PAP no correction
	mg/dl	95.6	
Urea	mmol/l	7.32	Urease kinetic
	mg/dl	44.0	
	mmol/l	7.32	BUN
	mg/dl	20.5	
Uric Acid (Urate)	mmol/l	0.328	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.51	

CALIBRATION SERUM LEVEL 2 (CAL 2)

PRESTIGE 24i Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Uric Acid (Urate)	mmol/l	0.344	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.78	
	mmol/l	0.352	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.91	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas C111® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	42.7	Bromocresol Green
	g/dl	4.27	
Alkaline Phosphatase	U/l	174	Roche Integra AMP buffer 37°C
	U/l	136	Roche Integra AMP buffer 30°C
	U/l	111	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	34	Tris buffer without P5P 37°C
	U/l	25	Tris buffer without P5P 30°C
	U/l	19	Tris buffer without P5P 25°C
Amylase Total	U/l	84	Other Roche 2-chloro-pNPG7 37°C
	U/l	86	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	30	Tris buffer without P5P 37°C
	U/l	20	Tris buffer without P5P 30°C
	U/l	14	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	18.5	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.08	
	µmol/l	18.7	Diazo with Sulphanilic Acid
	mg/dl	1.09	
	µmol/l	18.5	Roche DPD JG standardised
	mg/dl	1.08	
	µmol/l	18.5	Diazo with Dichloroaniline (DCA)
	mg/dl	1.08	
Bilirubin Total	µmol/l	19.6	Roche DPD Doumas standardised
	mg/dl	1.15	
	µmol/l	25.8	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.51	
Calcium	µmol/l	24.9	Diazonium ion
	mg/dl	1.46	
	mmol/l	2.13	Cresolphthalein complexone
	mg/dl	8.54	
Chloride	mmol/l	2.10	Arsenazo III
	mg/dl	8.42	
	mmol/l	2.12	NM-BAPTA
	mg/dl	8.50	
Cholesterol	mmol/l	95.0	ISE indirect
Cholesterol	mmol/l	4.16	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	
	mmol/l	4.17	Cholesterol Oxidase - IDMS
	mg/dl	161	
	mmol/l	4.14	Cholesterol Dehydrogenase
	mg/dl	160	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas C111® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
CK Total	U/l	172	CK-NAC (IFCC) 37°C
	U/l	108	CK-NAC (IFCC) 30°C
	U/l	73	CK-NAC (IFCC) 25°C
	U/l	168	Creatinine phosphate substrate Start 37°C
	U/l	105	Creatinine phosphate substrate Start 30°C
	U/l	71	Creatinine phosphate substrate Start 25°C
Creatinine	µmol/l	123	Roche Creatinine Plus
	mg/dl	1.39	
	µmol/l	122	Jaffe rate blanked
	mg/dl	1.38	
	µmol/l	145	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.64	
gamma-GT	µmol/l	141	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.59	
	U/l	54	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	33	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	54	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	U/l	43	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	mmol/l	6.01	Hexokinase
	mg/dl	108	
	mmol/l	6.16	Glucose oxidase
	mg/dl	111	
Iron	µmol/l	20.7	Colorimetric without ppt.
	µg/dl	116	
LD (LDH)	U/l	207	L->P IFCC 37°C
	U/l	149	L->P IFCC 30°C
	U/l	105	L->P IFCC 25°C
Lipase	U/l	31	Roche Colorimetric 37°C
Magnesium	mmol/l	0.908	Xylidyl Blue
	mg/dl	2.21	
	mmol/l	0.923	Chlorphosphonazo III
	mg/dl	2.24	
Phosphate Inorganic	mmol/l	1.41	Phosphomolybdate enzymatic
	mg/dl	4.37	
	mmol/l	1.47	Phosphomolybdate UV
	mg/dl	4.56	
Potassium	mmol/l	3.92	ISE method - indirect
Protein Total	g/l	58.1	Biuret reaction end point
	g/dl	5.81	
Sodium	mmol/l	139	ISE method - Indirect

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas C111® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Triglycerides	mmol/l	1.11	Lipase/GPO-PAP no correction
	mg/dl	98.2	
	mmol/l	1.11	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	98.2	
	mmol/l	1.11	L/G Kinase EP. no correction
	mg/dl	98.2	
	mmol/l	1.09	Lipase/Glycerol Dehydrogenase
	mg/dl	96.5	
Urea	mmol/l	6.97	Urease kinetic
	mg/dl	41.9	
	mmol/l	6.97	BUN
	mg/dl	19.6	
Uric Acid (Urate)	mmol/l	0.340	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.71	
	mmol/l	0.337	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.66	
	mmol/l	0.337	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.66	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas c303/501/502/503 Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	42.1	Bromocresol Green
	g/dl	4.21	
	g/l	42.1	Bromocresol Purple
	g/dl	4.21	
	g/l	40.1	Turbidimetric Assays
	g/dl	4.01	
Alkaline Phosphatase	U/l	175	Roche Integra AMP buffer 37°C
	U/l	136	Roche Integra AMP buffer 30°C
	U/l	112	Roche Integra AMP buffer 25°C
	U/l	175	AMP optimised to IFCC 37°C
	U/l	136	AMP optimised to IFCC 30°C
	U/l	112	AMP optimised to IFCC 25°C
	U/l	176	Colorimetric 37°C
	U/l	137	Colorimetric 30°C
	U/l	112	Colorimetric 25°C
ALT (GPT)	U/l	37	Colorimetric 37°C
	U/l	27	Colorimetric 30°C
	U/l	21	Colorimetric 25°C
	U/l	36	Tris buffer without P5P 37°C
	U/l	27	Tris buffer without P5P 30°C
	U/l	20	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	59	Roche EPS Liquid 37°C
Amylase Total	U/l	85	Randox Liquid Ethylidene pNPG7 37°C
	U/l	85	Roche Integra 2-chloro-pNPG7 37°C
	U/l	85	Other Roche 2-chloro-pNPG7 37°C
	U/l	85	Roche liquid stable pNPG7 37°C
	U/l	85	BM/Roche Colorimetric pNPG7 37°C
AST (GOT)	U/l	29	Tris buffer without P5P 37°C
	U/l	20	Tris buffer without P5P 30°C
	U/l	14	Tris buffer without P5P 25°C
Bile Acids	µmol/l	28.2	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	19.0	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.11	
	µmol/l	19.0	Diazo with Sulphanilic Acid
	mg/dl	1.11	
	µmol/l	19.1	Roche DPD JG standardised
	mg/dl	1.12	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas c303/501/502/503 Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Bilirubin Direct	μmol/l	18.4	Diazo with Dichloroaniline (DCA)
	mg/dl	1.08	
Bilirubin Total	μmol/l	25.3	Diazo with Dichloroaniline (DCA)
	mg/dl	1.48	
	μmol/l	25.0	Diazo with Sulphanilic Acid
	mg/dl	1.46	
	μmol/l	25.2	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.47	
	μmol/l	25.1	Diazonium ion
	mg/dl	1.47	
Calcium	mmol/l	2.13	Cresolphthalein complexone
	mg/dl	8.54	
	mmol/l	2.15	Arsenazo III
	mg/dl	8.62	
	mmol/l	2.14	NM-BAPTA
	mg/dl	8.58	
Chloride	mmol/l	91.6	ISE indirect
Cholesterol	mmol/l	4.23	Cholesterol Oxidase - Abell Kendall
	mg/dl	163	
	mmol/l	4.22	Cholesterol Oxidase - IDMS
	mg/dl	163	
	mmol/l	4.19	Cholesterol Dehydrogenase
	mg/dl	162	
Cholinesterase	U/l	5428	Colorimetric Benzoylcholine 37°C
	U/l	5550	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	176	CK-NAC serum start (DGKC) 37°C
	U/l	110	CK-NAC serum start (DGKC) 30°C
	U/l	75	CK-NAC serum start (DGKC) 25°C
	U/l	173	CK-NAC substrate start (DGKC) 37°C
	U/l	108	CK-NAC substrate start (DGKC) 30°C
	U/l	74	CK-NAC substrate start (DGKC) 25°C
	U/l	173	CK-NAC (IFCC) 37°C
	U/l	108	CK-NAC (IFCC) 30°C
Creatinine	U/l	74	CK-NAC (IFCC) 25°C
	μmol/l	125	Alkaline picrate with deproteinization
	mg/dl	1.41	
	μmol/l	125	Alkaline picrate no deproteinization
	mg/dl	1.41	
	μmol/l	127	Enzymatic UV method
	mg/dl	1.44	
	μmol/l	127	Creatinine PAP method
	mg/dl	1.43	
	μmol/l	128	Roche Creatinine Plus
	mg/dl	1.45	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas c303/501/502/503 Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Creatinine	μmol/l	125	Jaffe rate blanked
	mg/dl	1.41	
	μmol/l	151	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.71	
	μmol/l	142	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.60	
gamma-GT	U/l	53	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	42	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	33	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	58	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	46	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	36	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	5.84	Glucose dehydrogenase
	mg/dl	105	
	mmol/l	5.89	Hexokinase
	mg/dl	106	
	mmol/l	5.93	Glucose oxidase
	mg/dl	107	
Iron	μmol/l	20.5	Colorimetric with ppt.
	μg/dl	115	
	μmol/l	20.6	Colorimetric without ppt.
	μg/dl	115	
Lactate	mmol/l	1.52	Colorimetric Lactate Oxidase
	mg/dl	13.7	
LD (LDH)	U/l	202	L->P 37°C
	U/l	146	L->P 30°C
	U/l	102	L->P 25°C
	U/l	202	L->P IFCC 37°C
	U/l	146	L->P IFCC 30°C
	U/l	102	L->P IFCC 25°C
Lipase	U/l	34	Other Colorimetric 37°C
	U/l	34	Roche Colorimetric 37°C
	U/l	33	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	0.948	Spectrophotometric
	mg/dl	0.658	
Magnesium	mmol/l	0.948	Arsenazo III
	mg/dl	2.30	
	mmol/l	0.926	Atomic absorption
	mg/dl	2.25	
	mmol/l	0.930	Xylidyl Blue
	mg/dl	2.26	
	mmol/l	0.886	Methylthymol blue
	mg/dl	2.15	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas c303/501/502/503 Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Magnesium	mmol/l	0.928	Chlorphosphonazo III
	mg/dl	2.26	
	mmol/l	0.926	Enzymatic
	mg/dl	2.25	
Phosphate Inorganic	mmol/l	1.43	Phosphomolybdate enzymatic
	mg/dl	4.43	
	mmol/l	1.44	Phosphomolybdate UV
	mg/dl	4.46	
Potassium	mmol/l	4.01	ISE method - indirect
Protein Total	g/l	57.8	Biuret reaction end point
	g/dl	5.78	
	g/l	57.9	Biuret reaction kinetic
	g/dl	5.79	
Sodium	mmol/l	141	ISE method - indirect
TIBC	μmol/l	42.5	FE+UIBC(saturation with iron)
	μg/dl	238	
	μmol/l	42.1	Direct Colorimetric
	μg/dl	235	
	μmol/l	44.2	Calculated from Transferrin
	μg/dl	247	
Triglycerides	mmol/l	1.11	Lipase/GPO-PAP no correction
	mg/dl	98.2	
	mmol/l	1.12	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	99.1	
	mmol/l	1.12	L/G Kinase EP. no correction
	mg/dl	99.1	
	mmol/l	1.12	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	99.1	
Urea	mmol/l	7.44	Urease end point
	mg/dl	44.7	
	mmol/l	7.31	Urease kinetic
	mg/dl	43.9	
	mmol/l	7.31	BUN
	mg/dl	20.5	
Uric Acid (Urate)	mmol/l	0.336	Uricase catalase 340nm
	mg/dl	5.64	
	mmol/l	0.333	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.59	
	mmol/l	0.334	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.61	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas c303/501/502/503 Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Uric Acid (Urate)	mmol/l	0.333	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.59	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas C311® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	42.0	Bromocresol Green
	g/dl	4.20	
	g/l	42.1	Bromocresol Purple
	g/dl	4.21	
Alkaline Phosphatase	U/l	172	Roche Integra AMP buffer 37°C
	U/l	134	Roche Integra AMP buffer 30°C
	U/l	110	Roche Integra AMP buffer 25°C
	U/l	173	AMP optimised to IFCC 37°C
	U/l	135	AMP optimised to IFCC 30°C
	U/l	111	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	37	Tris buffer without P5P 37°C
	U/l	27	Tris buffer without P5P 30°C
	U/l	21	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	86	Immunoinhibition EPS substrate 37°C
	U/l	60	Roche EPS Liquid 37°C
Amylase Total	U/l	86	Roche Integra 2-chloro-pNPG7 37°C
	U/l	86	Other Roche 2-chloro-pNPG7 37°C
	U/l	86	Roche liquid stable pNPG7 37°C
	U/l	85	BM/Roche Colorimetric pNPG7 37°C
AST (GOT)	U/l	30	Tris buffer without P5P 37°C
	U/l	20	Tris buffer without P5P 30°C
	U/l	14	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	18.9	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.11	
	µmol/l	18.9	Roche DPD JG standardised
	mg/dl	1.10	
	µmol/l	19.4	Diazo with Dichloroaniline (DCA)
	mg/dl	1.13	
Bilirubin Total	µmol/l	27.5	Diazo with Dichloroaniline (DCA)
	mg/dl	1.61	
	µmol/l	25.2	Diazo with Sulphanilic Acid
	mg/dl	1.47	
	µmol/l	25.2	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.47	
	µmol/l	25.5	Diazonium ion
	mg/dl	1.49	
Calcium	mmol/l	2.14	Cresolphthalein complexone
	mg/dl	8.58	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas C311® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Calcium	mmol/l	2.16	Arsenazo III
	mg/dl	8.66	
	mmol/l	2.14	NM-BAPTA
	mg/dl	8.58	
Chloride	mmol/l	91.8	ISE indirect
Cholesterol	mmol/l	4.25	Cholesterol Oxidase - Abell Kendall
	mg/dl	164	
	mmol/l	4.23	Cholesterol Oxidase - IDMS
	mg/dl	163	
	mmol/l	4.27	Cholesterol Dehydrogenase
	mg/dl	165	
Cholinesterase	U/l	5478	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	175	CK-NAC substrate start (DGKC) 37°C
	U/l	110	CK-NAC substrate start (DGKC) 30°C
	U/l	74	CK-NAC substrate start (DGKC) 25°C
	U/l	176	CK-NAC (IFCC) 37°C
	U/l	110	CK-NAC (IFCC) 30°C
	U/l	75	CK-NAC (IFCC) 25°C
	U/l	176	Creatinine phosphate substrate Start 37°C
	U/l	110	Creatinine phosphate substrate Start 30°C
	U/l	75	Creatinine phosphate substrate Start 25°C
Creatinine	µmol/l	126	Alkaline picrate no deproteinization
	mg/dl	1.43	
	µmol/l	128	Enzymatic UV method
	mg/dl	1.45	
	µmol/l	129	Roche Creatinine Plus
	mg/dl	1.46	
	µmol/l	128	Jaffe rate blanked
	mg/dl	1.45	
	µmol/l	152	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.72	
	µmol/l	145	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.64	
	µmol/l	129	IDMS traceable
	mg/dl	1.46	
gamma-GT	U/l	54	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	33	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	57	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	45	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.08	Glucose dehydrogenase
	mg/dl	109	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas C311® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Glucose	mmol/l	5.92	Hexokinase
	mg/dl	107	
	mmol/l	5.94	Glucose oxidase
	mg/dl	107	
Iron	µmol/l	20.3	Colorimetric with ppt.
	µg/dl	113	
	µmol/l	20.3	Colorimetric without ppt.
	µg/dl	113	
Lactate	mmol/l	1.54	Colorimetric Lactate Oxidase
	mg/dl	13.9	
LD (LDH)	U/l	200	L->P 37°C
	U/l	144	L->P 30°C
	U/l	101	L->P 25°C
	U/l	202	L->P IFCC 37°C
	U/l	146	L->P IFCC 30°C
	U/l	102	L->P IFCC 25°C
Lipase	U/l	32	Roche Colorimetric 37°C
	U/l	31	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	0.917	Spectrophotometric
	mg/dl	0.637	
Magnesium	mmol/l	0.930	Atomic absorption
	mg/dl	2.26	
	mmol/l	0.917	Xylidyl Blue
	mg/dl	2.23	
Phosphate Inorganic	mmol/l	0.926	Chlorphosphonazo III
	mg/dl	2.25	
	mmol/l	1.44	Phosphomolybdate enzymatic
	mg/dl	4.46	
Potassium	mmol/l	1.44	Phosphomolybdate UV
	mg/dl	4.46	
	mmol/l	4.01	ISE method - indirect
	g/l	57.8	
Protein Total	g/dl	5.78	Biuret reaction end point
	g/l	58.0	
	g/dl	5.80	Biuret reaction kinetic
	g/l	5.80	
Sodium	mmol/l	141	ISE method - indirect
TIBC	µmol/l	43.4	FE+UIBC(saturation with iron)
	µg/dl	243	
	µmol/l	43.5	Direct Colorimetric
	µg/dl	243	
Triglycerides	mmol/l	1.12	Lipase/GPO-PAP no correction
	mg/dl	99.1	
	mmol/l	1.11	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	98.2	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas C311® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Triglycerides	mmol/l	1.13	L/G Kinase EP. no correction
	mg/dl	100	
	mmol/l	1.12	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	99.1	
Urea	mmol/l	1.11	Lipase/Glycerol Dehydrogenase
	mg/dl	98.2	
	mmol/l	7.52	Urease end point
	mg/dl	45.2	
Uric Acid (Urate)	mmol/l	7.42	Urease kinetic
	mg/dl	44.6	
	mmol/l	7.42	BUN
	mg/dl	20.8	
Uric Acid (Urate)	mmol/l	0.339	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.70	
	mmol/l	0.339	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.70	
Uric Acid (Urate)	mmol/l	0.336	Spectrophotometric at 280-290
	mg/dl	5.64	
	mmol/l	0.337	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.66	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas c701 / c702 / c711 Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	41.7	Bromocresol Green
	g/dl	4.17	
Alkaline Phosphatase	U/l	171	Roche Integra AMP buffer 37°C
	U/l	133	Roche Integra AMP buffer 30°C
	U/l	109	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	37	Tris buffer without P5P 37°C
	U/l	27	Tris buffer without P5P 30°C
	U/l	21	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	58	Immunoinhibition EPS substrate 37°C
	U/l	60	Roche EPS Liquid 37°C
Amylase Total	U/l	86	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	30	Tris buffer without P5P 37°C
	U/l	20	Tris buffer without P5P 30°C
	U/l	14	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	18.9	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.11	
	µmol/l	19.5	Roche DPD JG standardised
	mg/dl	1.14	
Bilirubin Total	µmol/l	25.0	Diazo with Sulphanilic Acid
	mg/dl	1.46	
	µmol/l	25.2	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.47	
	µmol/l	25.1	Diazonium ion
	mg/dl	1.47	
Calcium	mmol/l	2.14	Cresolphthalein complexone
	mg/dl	8.58	
	mmol/l	2.12	NM-BAPTA
	mg/dl	8.50	
Chloride	mmol/l	93.1	ISE indirect
Cholesterol	mmol/l	4.21	Cholesterol Oxidase - Abell Kendall
	mg/dl	163	
	mmol/l	4.26	Cholesterol Oxidase - IDMS
	mg/dl	164	
Cholinesterase	U/l	5586	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	173	CK-NAC substrate start (DGKC) 37°C
	U/l	108	CK-NAC substrate start (DGKC) 30°C
	U/l	74	CK-NAC substrate start (DGKC) 25°C
	U/l	171	CK-NAC (IFCC) 37°C
	U/l	107	CK-NAC (IFCC) 30°C
	U/l	73	CK-NAC (IFCC) 25°C

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas c701 / c702 / c711 Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Creatinine	μmol/l	134	Enzymatic UV method
	mg/dl	1.51	
	μmol/l	130	Roche Creatinine Plus
	mg/dl	1.47	
	μmol/l	154	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.74	
	μmol/l	144	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.63	
	μmol/l	130	IDMS traceable
	mg/dl	1.46	
gamma-GT	U/l	58	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	46	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	36	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	5.87	Hexokinase
	mg/dl	106	
Iron	μmol/l	19.6	Colorimetric without ppt.
	μg/dl	110	
Lactate	mmol/l	1.50	Colorimetric Lactate Oxidase
	mg/dl	13.5	
LD (LDH)	U/l	202	L->P IFCC 37°C
	U/l	146	L->P IFCC 30°C
	U/l	102	L->P IFCC 25°C
Lipase	U/l	33	Roche Colorimetric 37°C
	U/l	32	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	0.987	Spectrophotometric
	mg/dl	0.685	
Magnesium	mmol/l	0.936	Xylidyl Blue
	mg/dl	2.27	
	mmol/l	0.943	Chlorphosphonazo III
	mg/dl	2.29	
Phosphate Inorganic	mmol/l	1.42	Phosphomolybdate UV
	mg/dl	4.40	
Potassium	mmol/l	4.04	ISE method - indirect
Protein Total	g/l	57.6	Biuret reaction end point
	g/dl	5.76	
Sodium	mmol/l	142	ISE method - indirect
TIBC	μmol/l	42.4	FE+UIBC(saturation with iron)
	μg/dl	237	
Triglycerides	mmol/l	1.10	Lipase/GPO-PAP no correction
	mg/dl	97.4	
	mmol/l	1.11	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	98.2	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Roche Cobas c701 / c702 / c711 Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Triglycerides	mmol/l	1.11	L/G Kinase EP. no correction
	mg/dl	98.2	
	mmol/l	1.10	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	97.4	
	mmol/l	1.09	Lipase/Glycerol Dehydrogenase
	mg/dl	96.5	
Urea	mmol/l	7.13	Urease kinetic
	mg/dl	42.9	
	mmol/l	7.13	BUN
	mg/dl	20.0	
Uric Acid (Urate)	mmol/l	0.328	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.51	
	mmol/l	0.327	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.49	
	mmol/l	0.328	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.51	

CALIBRATION SERUM LEVEL 2 (CAL 2)

RX SERIES® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Creatinine	μmol/l	128	Alkaline picrate no deproteinization
	mg/dl	1.45	

CALIBRATION SERUM LEVEL 2 (CAL 2)

SIEMENS ADVIA 1200/1650/1800/2400® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	40.2	Bromocresol Green
	g/dl	4.02	
Alkaline Phosphatase	U/l	168	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	43	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	63	Immuno-inhibition EPS substrate 37°C
Amylase Total	U/l	86	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	35	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	17.2	Oxidation to Biliverdin/Vanadate
	mg/dl	1.01	
Bilirubin Total	µmol/l	30.7	Oxidation to Biliverdin/Vanadate
	mg/dl	1.79	
Calcium	mmol/l	2.15	Arsenazo III
	mg/dl	8.62	
Chloride	mmol/l	96.1	ISE indirect
Cholesterol	mmol/l	4.21	Cholesterol Oxidase - Abell Kendall
	mg/dl	163	
Cholinesterase	U/l	7000	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	175	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	126	Alkaline picrate no deproteinization
	mg/dl	1.42	
	µmol/l	120	Enzymatic UV method
	mg/dl	1.36	
	µmol/l	154	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.74	
	µmol/l	145	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.64	
gamma-GT	U/l	53	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	54	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	5.82	Hexokinase
	mg/dl	105	
	mmol/l	5.97	Glucose oxidase
	mg/dl	108	
Iron	µmol/l	19.8	Colorimetric without ppt.
	µg/dl	111	
Lactate	mmol/l	1.37	Colorimetric Lactate Oxidase
	mg/dl	12.3	
LD (LDH)	U/l	200	L->P 37°C
	U/l	144	L->P 30°C
	U/l	101	L->P 25°C

CALIBRATION SERUM LEVEL 2 (CAL 2)

SIEMENS ADVIA 1200/1650/1800/2400® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
LD (LDH)	U/l	202	L->P IFCC 37°C
Lipase	U/l	38	Other Colorimetric 37°C
Lithium	mmol/l	0.950	Spectrophotometric
	mg/dl	0.660	
Magnesium	mmol/l	0.882	Xylidyl Blue
	mg/dl	2.14	
Phosphate Inorganic	mmol/l	1.47	Phosphomolybdate UV
	mg/dl	4.56	
Potassium	mmol/l	4.00	ISE method - indirect
Protein Total	g/l	56.8	Biuret reaction end point
	g/dl	5.68	
	g/l	57.6	Biuret reaction kinetic
	g/dl	5.76	
Sodium	mmol/l	141	ISE method - indirect
TIBC	µmol/l	47.5	FE+UIBC(saturation with iron)
	µg/dl	266	
Triglycerides	mmol/l	1.13	Lipase/GPO-PAP no correction
	mg/dl	100	
	mmol/l	1.12	L/G Kinase EP. no correction
	mg/dl	99.1	
Urea	mmol/l	7.46	Urease end point
	mg/dl	44.8	
	mmol/l	7.60	Urease kinetic
	mg/dl	45.7	
	mmol/l	7.60	BUN
	mg/dl	21.3	
Uric Acid (Urate)	mmol/l	0.342	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.75	
	mmol/l	0.340	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.71	
	mmol/l	0.335	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.63	

CALIBRATION SERUM LEVEL 2 (CAL 2)

SIEMENS DIMENSION EXL® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	44.0	Bromocresol Green
	g/dl	4.40	
	g/l	42.1	Bromocresol Purple
	g/dl	4.21	
Alkaline Phosphatase	U/l	171	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	46	Tris buffer with P5P 37°C
	U/l	46	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	88	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	41	Tris buffer with P5P 37°C
	U/l	42	Siemens Dade Standard Non IFCC Correlated 37°C
Bilirubin Direct	µmol/l	12.9	Diazo/Sulphanilic Siemens Dimension
	mg/dl	0.757	
Bilirubin Total	µmol/l	28.9	Diazo with Sulphanilic Acid
	mg/dl	1.69	
Calcium	mmol/l	2.05	Cresolphthalein complexone
	mg/dl	8.22	
Chloride	mmol/l	93.4	ISE indirect
Cholesterol	mmol/l	3.75	Cholesterol Oxidase - Abell Kendall
	mg/dl	145	
	mmol/l	3.82	Dimension-Siemens reagents
	mg/dl	147	
CK Total	U/l	172	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	130	Alkaline picrate no deproteinization
	mg/dl	1.47	
	µmol/l	126	Enzymatic UV method
	mg/dl	1.43	
	µmol/l	128	Creatinine PAP method
	mg/dl	1.45	
	µmol/l	129	Jaffe rate blanked
	mg/dl	1.45	
	µmol/l	128	IDMS traceable
	mg/dl	1.44	
gamma-GT	U/l	60	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.10	Hexokinase
	mg/dl	110	
Iron	µmol/l	19.1	Colorimetric with ppt.
	µg/dl	107	
	µmol/l	18.8	Colorimetric without ppt.
	µg/dl	105	

CALIBRATION SERUM LEVEL 2 (CAL 2)

SIEMENS DIMENSION EXL® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Lactate	mmol/l	1.49	UV LDH
	mg/dl	13.4	
LD (LDH)	U/l	192	Siemens Dimension L-P Non IFCC 37°C
	U/l	196	L->P IFCC 37°C
Lipase	U/l	38	Siemens Dimension Colorimetric (LIP Kit) 37°C
Magnesium	mmol/l	0.894	Methylthymol blue
	mg/dl	2.17	
Phosphate Inorganic	mmol/l	1.51	Phosphomolybdate enzymatic
	mg/dl	4.68	
	mmol/l	1.53	Phosphomolybdate UV
	mg/dl	4.74	
Potassium	mmol/l	3.90	ISE method - indirect
Protein Total	g/l	59.8	Biuret reaction end point
	g/dl	5.98	
Sodium	mmol/l	140	ISE method - indirect
TIBC	µmol/l	40.0	Removal of excess free iron
	µg/dl	223	
	µmol/l	39.4	FE+UIBC(saturation with iron)
	µg/dl	220	
	µmol/l	40.6	Direct Colorimetric
	µg/dl	227	
Triglycerides	mmol/l	1.03	Lipase/GPO-PAP no correction
	mg/dl	91.2	
	mmol/l	1.03	L/G Kinase EP. no correction
	mg/dl	91.2	
Urea	mmol/l	1.02	Lipase/Glycerol Dehydrogenase
	mg/dl	90.3	
	mmol/l	7.31	Urease end point
	mg/dl	43.9	
Urea	mmol/l	7.45	Urease kinetic
	mg/dl	44.8	
	mmol/l	7.45	BUN
	mg/dl	20.9	
Uric Acid (Urate)	mmol/l	0.337	Uricase catalase 340nm
	mg/dl	5.66	
	mmol/l	0.331	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.56	
	mmol/l	0.335	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.63	
Uric Acid (Urate)	mmol/l	0.336	Spectrophotometric at 280-290
	mg/dl	5.64	
	mmol/l	0.338	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.68	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Siemens Atellica Solution Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	40.2	Bromocresol Green
	g/dl	4.02	
	g/l	41.2	Bromocresol Purple
	g/dl	4.12	
Alkaline Phosphatase	U/l	166	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	41	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	69	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	96	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	33	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	17.8	Oxidation to Biliverdin/Vanadate
	mg/dl	1.04	
Bilirubin Total	µmol/l	30.4	Diazo with Sulphanilic Acid
	mg/dl	1.78	
	µmol/l	31.0	Oxidation to Biliverdin/Vanadate
	mg/dl	1.81	
Calcium	mmol/l	2.10	Cresolphthalein complexone
	mg/dl	8.42	
	mmol/l	2.15	Arsenazo III
	mg/dl	8.62	
Chloride	mmol/l	97.2	ISE indirect
Cholesterol	mmol/l	4.21	Cholesterol Oxidase - Abell Kendall
	mg/dl	163	
Cholinesterase	U/l	7426	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	173	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	127	Alkaline picrate no deproteinization
	mg/dl	1.43	
	µmol/l	125	Enzymatic UV method
	mg/dl	1.41	
	µmol/l	128	Creatinine PAP method
	mg/dl	1.45	
	µmol/l	126	Jaffe rate blanked
	mg/dl	1.43	
	µmol/l	150	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.70	
gamma-GT	µmol/l	123	IDMS traceable
	mg/dl	1.39	
gamma-GT	U/l	55	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	56	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C

CALIBRATION SERUM LEVEL 2 (CAL 2)

Siemens Atellica Solution Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Glucose	mmol/l	5.85	Hexokinase
	mg/dl	105	
	mmol/l	5.96	Glucose oxidase
	mg/dl	107	
Iron	µmol/l	19.9	Colorimetric with ppt.
	µg/dl	111	
	µmol/l	19.9	Colorimetric without ppt.
	µg/dl	111	
Lactate	mmol/l	1.39	Colorimetric Lactate Oxidase
	mg/dl	12.5	
LD (LDH)	U/l	203	L->P 37°C
	U/l	202	L->P IFCC 37°C
Lipase	U/l	37	Other Colorimetric 37°C
Lithium	mmol/l	0.927	Spectrophotometric
	mg/dl	0.644	
Magnesium	mmol/l	0.893	Xylidyl Blue
	mg/dl	2.17	
Phosphate Inorganic	mmol/l	1.47	Phosphomolybdate UV
	mg/dl	4.56	
Potassium	mmol/l	3.90	ISE method - indirect
Protein Total	g/l	57.9	Biuret reaction end point
	g/dl	5.79	
	g/l	56.5	Biuret reaction kinetic
	g/dl	5.65	
Sodium	mmol/l	140	ISE method - indirect
TIBC	µmol/l	48.9	FE+UIBC(saturation with iron)
	µg/dl	273	
	µmol/l	48.2	Direct Colorimetric
	µg/dl	269	
Triglycerides	mmol/l	1.16	Lipase/GPO-PAP no correction
	mg/dl	103	
	mmol/l	1.16	L/G Kinase EP. no correction
	mg/dl	103	
Urea	mmol/l	7.68	Urease end point
	mg/dl	46.2	
	mmol/l	7.56	Urease kinetic
	mg/dl	45.4	
	mmol/l	7.89	Urease hypochlorite
	mg/dl	47.4	
	mmol/l	7.56	BUN
	mg/dl	21.2	
Uric Acid (Urate)	mmol/l	0.346	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.81	

CALIBRATION SERUM LEVEL 2 (CAL 2)

Siemens Atellica Solution Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Uric Acid (Urate)	mmol/l	0.342	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.75	
	mmol/l	0.338	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.68	

CALIBRATION SERUM LEVEL 2 (CAL 2)

SIEMENS DIMENSION RxL/Max/Xpand® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
Albumin	g/l	42.2	Bromocresol Green
	g/dl	4.22	
	g/l	42.2	Bromocresol Purple
	g/dl	4.22	
Alkaline Phosphatase	U/l	170	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	45	Tris buffer with P5P 37°C
	U/l	46	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Pancreatic	U/l	57	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	90	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	43	Tris buffer with P5P 37°C
	U/l	43	Siemens Dade Standard Non IFCC Correlated 37°C
Bilirubin Direct	µmol/l	12.9	Diazo/Sulphanilic Siemens Dimension
	mg/dl	0.753	
Bilirubin Total	µmol/l	28.5	Diazo with Sulphanilic Acid
	mg/dl	1.67	
Calcium	mmol/l	2.07	Cresolphthalein complexone
	mg/dl	8.30	
Chloride	mmol/l	94.4	ISE indirect
Cholesterol	mmol/l	3.89	Cholesterol Oxidase - Abell Kendall
	mg/dl	150	
	mmol/l	3.79	Dimension-Siemens reagents
	mg/dl	146	
CK Total	U/l	174	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	130	Alkaline picrate no deproteinization
	mg/dl	1.47	
	µmol/l	129	Creatinine PAP method
	mg/dl	1.46	
	µmol/l	125	Jaffe rate blanked
	mg/dl	1.42	
	µmol/l	128	IDMS traceable
	mg/dl	1.45	
gamma-GT	U/l	60	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.11	Hexokinase
	mg/dl	110	
Iron	µmol/l	19.2	Colorimetric with ppt.
	µg/dl	107	
	µmol/l	19.0	Colorimetric without ppt.
	µg/dl	106	
Lactate	mmol/l	1.44	UV LDH
	mg/dl	13.0	

CALIBRATION SERUM LEVEL 2 (CAL 2)

SIEMENS DIMENSION RxL/Max/Xpand® Lot. No. 1668UN Cat. No. CAL2350

Size 20 x 5 ml Expiry 2025-11-28

Analyte	unit	Target	methods
LD (LDH)	U/l	190	Siemens Dimension L-P Non IFCC 37°C
	U/l	196	L->P IFCC 37°C
Lipase	U/l	38	Siemens Dimension Colorimetric (LIP Kit) 37°C
Magnesium	mmol/l	0.909	Methylthymol blue
	mg/dl	2.21	
Phosphate Inorganic	mmol/l	1.51	Phosphomolybdate enzymatic
	mg/dl	4.68	
	mmol/l	1.52	Phosphomolybdate UV
	mg/dl	4.71	
Potassium	mmol/l	3.90	ISE method - indirect
Protein Total	g/l	59.6	Biuret reaction end point
	g/dl	5.96	
Sodium	mmol/l	140	ISE method - indirect
TIBC	µmol/l	41.6	Removal of excess free iron
	µg/dl	233	
	µmol/l	40.6	FE+UIBC(saturation with iron)
	µg/dl	227	
	µmol/l	40.3	Direct Colorimetric
	µg/dl	225	
Triglycerides	mmol/l	1.04	Lipase/GPO-PAP no correction
	mg/dl	92.0	
	mmol/l	1.04	L/G Kinase EP. no correction
	mg/dl	92.0	
	mmol/l	1.05	Lipase/Glycerol Dehydrogenase
	mg/dl	92.9	
Urea	mmol/l	7.31	Urease end point
	mg/dl	43.9	
	mmol/l	7.45	Urease kinetic
	mg/dl	44.8	
	mmol/l	7.45	BUN
	mg/dl	20.9	
Uric Acid (Urate)	mmol/l	0.338	Uricase catalase 340nm
	mg/dl	5.68	
	mmol/l	0.331	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.56	
	mmol/l	0.335	Spectrophotometric at 280-290
	mg/dl	5.63	