CALIBRATION SERUM - LEVEL 2 (CAL 2)

CAT. NO. CAL 2350 **GTIN:** 05055273200959 **SIZE:** 20 x 5ml
LOT NO. 1371UN **EXPIRY:** 2021-07-28

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 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.
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.

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 Mean of all Instruments 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

04 Jun '19 ne

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Abbott Alinity/ Architect c/ci Systems® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	41.5	Bromocresol Green
	g/dl	4.15	
	g/l	42.5	Bromocresol Purple
	g/dl	4.25	
Alkaline Phosphatase	U/l	174	AMP optimised to IFCC 37°C
	U/l	171	AMP optimised to NVKC/SFBC 37°C
	U/l	174	AMP non-optimised 37°C
ALT (GPT)	U/l	37	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	63	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	93	Abbott Architect Non-IFCC Cal. 37°C
	U/l	104	Abbott Architect IFCC Cal. 37°C
AST (GOT)	U/l	35	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	12.9	Enzymatic
Bile Acids	µmol/l	25.6	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	19.4	Diazo with Sulphanilic Acid
	mg/dl	1.14	
	µmol/l	19.6	Diazo with Dichloroaniline (DCA)
	mg/dl	1.15	
Bilirubin Total	µmol/l	28.1	Diazo with Dichloroaniline (DCA)
	mg/dl	1.64	
	µmol/l	28.4	Diazo with Sulphanilic Acid
	mg/dl	1.66	
	µmol/l	27.7	Diazonium ion
	mg/dl	1.62	
Calcium	mmol/l	2.18	Arsenazo III
	mg/dl	8.74	
Chloride	mmol/l	100	ISE indirect
Cholesterol	mmol/l	3.93	Cholesterol Oxidase
	mg/dl	152	
Cholinesterase	U/l	6576	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	211	CK-NAC serum start (DGKC) 37°C
	U/l	213	CK-NAC (IFCC) 37°C
Copper	µmol/l	12.4	Colorimetric
	µg/dl	78.6	
Creatinine	µmol/l	128	Alkaline picrate no deproteinization
	mg/dl	1.45	
	µmol/l	130	Enzymatic UV method
	mg/dl	1.46	
	µmol/l	128	Jaffe rate blanked
	mg/dl	1.45	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Abbott Alinity/ Architect c/ci Systems® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Creatinine	µmol/l	129	IDMS traceable
	mg/dl	1.46	
gamma-GT	U/l	50	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	48	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.01	Hexokinase
	mg/dl	108	
	mmol/l	6.10	Glucose oxidase
	mg/dl	110	
Iron	µmol/l	18.8	Colorimetric with ppt.
	µg/dl	105	
	µmol/l	18.8	Colorimetric without ppt.
	µg/dl	105	
Lactate	mmol/l	1.57	Colorimetric Lactate Oxidase
	mg/dl	14.1	
LD (LDH)	U/l	203	L->P 37°C
	U/l	201	L->P IFCC 37°C
Lipase	U/l	33	Other Colorimetric 37°C
Lithium	mmol/l	1.04	Spectrophotometric
	mg/dl	0.722	
Magnesium	mmol/l	0.836	Arsenazo III
	mg/dl	2.03	
	mmol/l	0.848	Enzymatic
	mg/dl	2.06	
Phosphate Inorganic	mmol/l	1.33	Phosphomolybdate enzymatic
	mg/dl	4.12	
	mmol/l	1.36	Phosphomolybdate UV
	mg/dl	4.22	
Potassium	mmol/l	4.02	ISE method - indirect
Protein Total	g/l	58.4	Biuret reaction end point
	g/dl	5.84	
	g/l	57.4	Biuret reaction kinetic
	g/dl	5.74	
Sodium	mmol/l	141	ISE method - indirect
TIBC	µmol/l	37.9	FE+UIBC(saturation with iron)
	µg/dl	212	
	µmol/l	45.7	Calculated from Transferrin
	µg/dl	255	
Triglycerides	mmol/l	1.09	Lipase/GPO-PAP no correction
	mg/dl	96.5	
	mmol/l	1.07	L/G Kinase EP. no correction
	mg/dl	94.7	
	mmol/l	1.10	Lipase/Glycerol Dehydrogenase
	mg/dl	97.4	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Abbott Alinity/ Architect c/ci Systems® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
UIBC	µmol/l	18.9	Direct Colorimetric
	µg/dl	106	
Urea	mmol/l	7.28	Urease end point
	mg/dl	43.8	
	mmol/l	7.31	Urease kinetic
	mg/dl	43.9	
	mmol/l	7.31	BUN
	mg/dl	20.5	
Uric Acid (Urate)	mmol/l	0.339	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.70	
	mmol/l	0.340	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.71	
	mmol/l	0.339	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.70	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Beckman Coulter AU Series® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	40.0	Bromocresol Green
	g/dl	4.00	
	g/l	43.7	Bromocresol Purple
	g/dl	4.37	
Alkaline Phosphatase	U/l	299	Diethanolamine buffer DEA 37°C
	U/l	206	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	38	Tris buffer without P5P 37°C
	U/l	38	Beckman (Extinction Coefficient) 37°C
Amylase Total	U/l	87	pNP Maltotrioside substrates 37°C
	U/l	89	Beckman Coulter - blocked pNPG7 37°C
	U/l	83	Beckman CNPG3 (Extinction Coeff) 37°C
AST (GOT)	U/l	39	Tris buffer without P5P 37°C
	U/l	40	Beckman (Extinction Coefficient) 37°C
Bicarbonate	mmol/l	14.3	Enzymatic
Bilirubin Direct	µmol/l	19.5	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.14	
	µmol/l	19.7	Diazo with Dichloroaniline (DCA)
	mg/dl	1.15	
Bilirubin Total	µmol/l	29.3	Diazo with Dichloroaniline (DCA)
	mg/dl	1.71	
	µmol/l	30.6	DPD (Beckman AU)
	mg/dl	1.79	
Calcium	mmol/l	2.19	Cresolphthalein complexone
	mg/dl	8.78	
	mmol/l	2.20	Arsenazo III
	mg/dl	8.82	
Chloride	mmol/l	98.0	ISE indirect
Cholesterol	mmol/l	3.99	Cholesterol Oxidase
	mg/dl	154	
Cholinesterase	U/l	5264	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	215	CK-NAC (IFCC) 37°C
	U/l	209	Beckman CK-NAC (Extinction Coeff) 37°C
Creatinine	µmol/l	129	Alkaline picrate no deproteinization
	mg/dl	1.45	
	µmol/l	134	Enzymatic UV method
	mg/dl	1.51	
	µmol/l	135	Creatinine PAP method
	mg/dl	1.53	
	µmol/l	128	Jaffe rate blanked
	mg/dl	1.45	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Beckman Coulter AU Series® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Creatinine	µmol/l	141	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.59	
	µmol/l	126	IDMS traceable
	mg/dl	1.43	
gamma-GT	U/l	51	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	Gamma glutamyl-4-nitroanilide 37°C
	U/l	51	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	50	Beckman Szasz (Extinction Coeff) 37°C
GLDH	U/l	19	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	6.24	Glucose dehydrogenase
	mg/dl	112	
	mmol/l	6.24	Hexokinase
	mg/dl	112	
	mmol/l	6.20	Glucose oxidase
	mg/dl	112	
Iron	µmol/l	19.7	Colorimetric with ppt.
	µg/dl	110	
	µmol/l	19.2	Colorimetric without ppt.
	µg/dl	107	
Lactate	mmol/l	1.48	Colorimetric Lactate Oxidase
	mg/dl	13.3	
LD (LDH)	U/l	199	L->P 37°C
	U/l	436	P->L Scandinavian & Dutch 37°C
	U/l	205	L->P IFCC 37°C
	U/l	194	L to P Beckman (Extinction Coeff) 37°C
Lipase	U/l	29	Roche Colorimetric 37°C
	U/l	43	Randox Colorimetric 37°C
Lithium	mmol/l	1.00	Spectrophotometric
	mg/dl	0.694	
Magnesium	mmol/l	0.890	Xylidyl Blue
	mg/dl	2.16	
Phosphate Inorganic	mmol/l	1.37	Phosphomolybdate UV
	mg/dl	4.25	
Potassium	mmol/l	4.00	ISE method - indirect
Protein Total	g/l	58.0	Biuret reaction end point
	g/dl	5.80	
	g/l	58.7	Biuret reaction kinetic
	g/dl	5.87	
Sodium	mmol/l	140	ISE method - indirect
TIBC	µmol/l	42.5	FE+UIBC(saturation with iron)
	µg/dl	237	
Triglycerides	mmol/l	1.15	Lipase/GPO-PAP no correction
	mg/dl	102	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Beckman Coulter AU Series® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Triglycerides	mmol/l	1.15	L/G Kinase EP. no correction
	mg/dl	102	
UIBC	µmol/l	23.9	Direct Colorimetric
	µg/dl	134	
Urea	mmol/l	7.47	Urease end point
	mg/dl	44.9	
	mmol/l	7.46	Urease kinetic
	mg/dl	44.8	
	mmol/l	7.46	BUN
	mg/dl	20.9	
Uric Acid (Urate)	mmol/l	0.347	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.83	
	mmol/l	0.348	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.85	
	mmol/l	0.346	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.81	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Beckman CX4/5/7/9/LX20® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	43.0	Bromocresol Green
	g/dl	4.30	
	g/l	43.5	Bromocresol Purple
	g/dl	4.35	
Alkaline Phosphatase	U/l	185	p-Nitrophenylphosphate AMP 37°C
ALT (GPT)	U/l	37	Tris buffer without P5P 37°C
Amylase Total	U/l	89	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	35	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	13.2	Differential rate pH change
Bilirubin Total	µmol/l	30.8	Diazo with Sulphanilic Acid
	mg/dl	1.80	
Calcium	mmol/l	2.09	Ion selective electrode
	mg/dl	8.38	
Chloride	mmol/l	99.7	ISE indirect
Cholesterol	mmol/l	3.87	Cholesterol Oxidase
	mg/dl	149	
CK Total	U/l	219	Monothioglycerol 37°C
Creatinine	µmol/l	125	Alkaline picrate no deproteinization
	mg/dl	1.41	
	µmol/l	125	IDMS traceable
	mg/dl	1.41	
gamma-GT	U/l	41	Gamma glutamyl-4-nitroanilide 37°C
Glucose	mmol/l	6.01	Hexokinase
	mg/dl	108	
	mmol/l	5.99	Glucose oxidase
	mg/dl	108	
Iron	µmol/l	18.4	Colorimetric without ppt.
	µg/dl	103	
Lactate	mmol/l	1.49	Colorimetric Lactate Oxidase
	mg/dl	13.4	
LD (LDH)	U/l	169	L->P 37°C
Lipase	U/l	32	Other Colorimetric 37°C
Magnesium	mmol/l	0.857	Calmagite
	mg/dl	2.08	
Phosphate Inorganic	mmol/l	1.41	Phosphomolybdate UV
	mg/dl	4.37	
Potassium	mmol/l	3.94	ISE method - indirect
Protein Total	g/l	58.9	Biuret reaction end point
	g/dl	5.89	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Beckman CX4/5/7/9/LX20® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Protein Total	g/l	57.0	Biuret reaction kinetic
	g/dl	5.70	
Sodium	mmol/l	139	ISE method - indirect
Triglycerides	mmol/l	1.16	L/G Kinase EP. no correction
	mg/dl	103	
Urea	mmol/l	7.70	Urease kinetic
	mg/dl	46.3	
	mmol/l	7.70	BUN
	mg/dl	21.6	
Uric Acid (Urate)	mmol/l	0.336	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.64	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Beckman DxC600/800® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	43.0	Bromocresol Green
	g/dl	4.30	
	g/l	43.6	Bromocresol Purple
	g/dl	4.36	
Alkaline Phosphatase	U/l	181	AMP optimised to IFCC 37°C
	U/l	183	AMP non-optimised 37°C
ALT (GPT)	U/l	37	Tris buffer without P5P 37°C
	U/l	36	Tris buffer SCE 37°C
Amylase Total	U/l	89	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	35	Tris buffer without P5P 37°C
	U/l	34	Tris buffer SCE 37°C
Bicarbonate	mmol/l	13.3	Differential rate pH change
	mmol/l	12.9	Ion selective electrode
Bilirubin Total	µmol/l	30.8	Diazo with Sulphanilic Acid
	mg/dl	1.80	
Calcium	mmol/l	2.10	Ion selective electrode
	mg/dl	8.42	
	mmol/l	2.05	Arsenazo III
	mg/dl	8.22	
Chloride	mmol/l	99.1	ISE indirect
Cholesterol	mmol/l	3.88	Cholesterol Oxidase
	mg/dl	150	
Cholinesterase	U/l	5677	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	218	Monothioglycerol 37°C
	U/l	213	Creatinine phosphate substrate Start 37°C
Creatinine	µmol/l	124	Alkaline picrate no deproteinization
	mg/dl	1.40	
	µmol/l	127	Jaffe rate blanked
	mg/dl	1.44	
	µmol/l	125	IDMS traceable
	mg/dl	1.41	
gamma-GT	U/l	41	Gamma glutamyl-4-nitroanilide 37°C
Glucose	mmol/l	6.02	Hexokinase
	mg/dl	109	
	mmol/l	6.02	Oxygen electrode
	mg/dl	108	
	mmol/l	5.99	Glucose oxidase
	mg/dl	108	
Iron	µmol/l	19.0	Colorimetric without ppt.
	µg/dl	106	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Beckman DxC600/800® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Lactate	mmol/l	1.49	Colorimetric Lactate Oxidase
	mg/dl	13.4	
LD (LDH)	U/l	169	L->P 37°C
	U/l	532	Pyruvate 1.4 mM - Beckman LD-P 37°C
	U/l	169	L->P IFCC 37°C
Magnesium	mmol/l	0.862	Calmagite
	mg/dl	2.09	
Phosphate Inorganic	mmol/l	1.34	Phosphomolybdate enzymatic
	mg/dl	4.15	
	mmol/l	1.40	Phosphomolybdate UV
	mg/dl	4.34	
Potassium	mmol/l	3.94	ISE method - indirect
Protein Total	g/l	59.0	Biuret reaction end point
	g/dl	5.90	
	g/l	57.9	Biuret reaction kinetic
	g/dl	5.79	
Sodium	mmol/l	139	ISE method - indirect
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	7.62	Urease end point
	mg/dl	45.8	
	mmol/l	7.72	Urease kinetic
	mg/dl	46.4	
	mmol/l	7.72	BUN
	mg/dl	21.7	
Uric Acid (Urate)	mmol/l	0.335	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.63	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Biotechnica/Wiener BT and CB Series Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	39.6	Bromocresol Green
	g/dl	3.96	
Alkaline Phosphatase	U/l	168	AMP optimised to IFCC 37°C
	U/l	131	AMP optimised to IFCC 30°C
	U/l	107	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
AST (GOT)	U/l	39	Tris buffer without P5P 37°C
	U/l	26	Tris buffer without P5P 30°C
	U/l	19	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	23.8	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.39	
Calcium	mmol/l	2.13	Arsenazo III
	mg/dl	8.54	
Cholesterol	mmol/l	3.93	Cholesterol Oxidase
	mg/dl	152	
Creatinine	µmol/l	123	Creatinine PAP method
	mg/dl	1.40	
Glucose	mmol/l	6.02	Glucose oxidase
	mg/dl	108	
Phosphate Inorganic	mmol/l	1.37	Phosphomolybdate UV
	mg/dl	4.25	
Protein Total	g/l	61.5	Biuret reaction end point
	g/dl	6.15	
Triglycerides	mmol/l	1.07	Lipase/GPO-PAP no correction
	mg/dl	94.7	
Urea	mmol/l	7.26	Urease kinetic
	mg/dl	43.6	
	mmol/l	7.26	BUN
	mg/dl	20.4	
Uric Acid (Urate)	mmol/l	0.332	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.58	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

COBAS INTEGRA® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	43.2	Bromocresol Green
	g/dl	4.32	
	g/l	41.2	Bromocresol Purple
	g/dl	4.12	
	g/l	39.4	Turbidimetric Assays
	g/dl	3.94	
Alkaline Phosphatase	U/l	157	Roche Integra AMP buffer 37°C
	U/l	122	Roche Integra AMP buffer 30°C
	U/l	100	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 Pancreatic	U/l	66	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	35	Tris buffer without P5P 37°C
	U/l	24	Tris buffer without P5P 30°C
	U/l	17	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.0	Enzymatic
Bilirubin Direct	µmol/l	17.6	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.03	
	µmol/l	17.3	Diazo with Sulphanilic Acid
	mg/dl	1.01	
	µmol/l	17.3	Roche JG factored
	mg/dl	1.01	
Bilirubin Total	µmol/l	26.3	Diazo with Sulphanilic Acid
	mg/dl	1.54	
	µmol/l	25.9	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.52	
	µmol/l	26.1	Diazonium ion
	mg/dl	1.53	
Calcium	mmol/l	2.13	Cresolphthalein complexone
	mg/dl	8.54	
	mmol/l	2.13	NM-BAPTA
	mg/dl	8.54	
Chloride	mmol/l	99.1	ISE indirect
Cholesterol	mmol/l	3.84	Cholesterol Oxidase
	mg/dl	148	
CK Total	U/l	194	CK-NAC (IFCC) 37°C
	U/l	121	CK-NAC (IFCC) 30°C
	U/l	82	CK-NAC (IFCC) 25°C

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

COBAS INTEGRA® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Creatinine	µmol/l	127	Alkaline picrate no deproteinization
	mg/dl	1.43	
	µmol/l	127	Roche Creatinine Plus
	mg/dl	1.44	
	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	
gamma-GT	U/l	44	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	49	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.02	Glucose dehydrogenase
	mg/dl	108	
	mmol/l	6.23	Hexokinase
	mg/dl	112	
Iron	µmol/l	19.3	Colorimetric with ppt.
	µg/dl	108	
	µmol/l	19.1	Colorimetric without ppt.
	µg/dl	107	
Lactate	mmol/l	1.62	Colorimetric Lactate Oxidase
	mg/dl	14.6	
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	213	L->P IFCC 37°C
	U/l	154	L->P IFCC 30°C
	U/l	108	L->P IFCC 25°C
Lipase	U/l	29	Roche Colorimetric 37°C
Lithium	mmol/l	1.01	Ion selective electrode
	mg/dl	0.701	
Magnesium	mmol/l	0.894	Chlorphosphonazo III
	mg/dl	2.17	
Phosphate Inorganic	mmol/l	1.40	Phosphomolybdate enzymatic
	mg/dl	4.34	
	mmol/l	1.42	Phosphomolybdate UV
	mg/dl	4.40	
Potassium	mmol/l	4.03	ISE method - indirect
Protein Total	g/l	55.0	Biuret reaction end point
	g/dl	5.50	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

COBAS INTEGRA® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Protein Total	g/l	58.0	Biuret reaction kinetic
	g/dl	5.80	
Sodium	mmol/l	140	ISE method - indirect
TIBC	µmol/l	39.0	FE+UIBC(saturation with iron)
	µg/dl	218	
Triglycerides	mmol/l	1.16	Lipase/GPO-PAP no correction
	mg/dl	103	
	mmol/l	1.20	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	106	
Urea	mmol/l	7.08	Urease kinetic
	mg/dl	42.6	
	mmol/l	7.08	BUN
	mg/dl	19.9	
Uric Acid (Urate)	mmol/l	0.344	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.78	
	mmol/l	0.349	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.86	
	mmol/l	0.346	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.81	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Elitech/Vitalab Selectra Series Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	42.7	Bromocresol Green
	g/dl	4.27	
AST (GOT)	U/l	38	Tris buffer without P5P 37°C
Calcium	mmol/l	2.19	Arsenazo III
	mg/dl	8.78	
Cholesterol	mmol/l	3.98	Cholesterol Oxidase
	mg/dl	154	
CK Total	U/l	211	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	128	Alkaline picrate no deproteinization
	mg/dl	1.44	
Glucose	mmol/l	6.48	Glucose oxidase
	mg/dl	117	
Phosphate Inorganic	mmol/l	1.41	Phosphomolybdate UV
	mg/dl	4.37	
Protein Total	g/l	58.2	Biuret reaction end point
	g/dl	5.82	
Triglycerides	mmol/l	1.22	Lipase/GPO-PAP no correction
	mg/dl	108	
Urea	mmol/l	7.40	Urease kinetic
	mg/dl	44.5	
	mmol/l	7.40	BUN
	mg/dl	20.8	
Uric Acid (Urate)	mmol/l	0.336	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.64	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

HITACHI SERIES® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Acid Phosphatase (Total)	U/l	10.5	1-Naphthyl Phosphate substrate Kinetic 37°C
Albumin	g/l	42.6	Bromocresol Green
	g/dl	4.26	
Alkaline Phosphatase	U/l	151	Roche Integra AMP buffer 37°C
	U/l	118	Roche Integra AMP buffer 30°C
	U/l	96	Roche Integra AMP buffer 25°C
	U/l	176	Randox AMP 37°C
	U/l	137	Randox AMP 30°C
	U/l	112	Randox AMP 25°C
ALT (GPT)	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	72	Randox Liquid Ethylidene pNPG7 37°C
Amylase Total	U/l	83	Roche liquid stable pNPG7 37°C
	U/l	93	Randox Liquid Ethylidene pNPG7 37°C
AST (GOT)	U/l	38	Tris buffer without P5P 37°C
	U/l	26	Tris buffer without P5P 30°C
	U/l	18	Tris buffer without P5P 25°C
Bile Acids	µmol/l	23.4	5th Generation Colorimetric
Bilirubin Total	µmol/l	26.7	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.56	
Calcium	mmol/l	2.19	Cresolphthalein complexone
	mg/dl	8.78	
	mmol/l	2.16	NM-BAPTA
	mg/dl	8.66	
Chloride	mmol/l	95.8	ISE indirect
Cholesterol	mmol/l	3.87	Cholesterol Oxidase
	mg/dl	149	
CK Total	U/l	187	CK-NAC (IFCC) 37°C
	U/l	117	CK-NAC (IFCC) 30°C
	U/l	79	CK-NAC (IFCC) 25°C
gamma-GT	U/l	49	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	56	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	44	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	35	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
Glucose	mmol/l	6.21	Hexokinase
	mg/dl	112	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

HITACHI SERIES® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Magnesium	mmol/l	0.870	Xylidyl Blue
	mg/dl	2.11	
Phosphate Inorganic	mmol/l	1.38	Phosphomolybdate UV
	mg/dl	4.28	
Potassium	mmol/l	4.10	ISE method - indirect
Protein Total	g/l	59.3	Biuret reaction end point
	g/dl	5.93	
Sodium	mmol/l	142	ISE method - indirect
Triglycerides	mmol/l	1.16	Lipase/GPO-PAP no correction
	mg/dl	103	
Urea	mmol/l	7.42	Urease kinetic
	mg/dl	44.6	
	mmol/l	7.42	BUN
	mg/dl	20.8	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Konelab 20/30/60®/Thermo Scientific Indiko Plus® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	39.8	Bromocresol Green
	g/dl	3.98	
Alkaline Phosphatase	U/l	178	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	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	42	Tris buffer without P5P 37°C
	U/l	28	Tris buffer without P5P 30°C
	U/l	20	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	25.1	Nitrobenzenediazonium salt
	mg/dl	1.47	
Calcium	mmol/l	2.12	Arsenazo III
	mg/dl	8.50	
Chloride	mmol/l	101	ISE direct
Cholesterol	mmol/l	3.88	Cholesterol Oxidase
	mg/dl	150	
CK Total	U/l	208	CK-NAC (IFCC) 37°C
	U/l	130	CK-NAC (IFCC) 30°C
	U/l	88	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	133	Alkaline picrate no deproteinization
	mg/dl	1.50	
	µmol/l	133	Creatinine PAP method
	mg/dl	1.50	
gamma-GT	U/l	50	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.49	Hexokinase
	mg/dl	117	
	mmol/l	6.19	Glucose oxidase
	mg/dl	112	
Iron	µmol/l	19.3	Colorimetric without ppt.
	µg/dl	108	
LD (LDH)	U/l	418	P->L SFBC 37°C
	U/l	302	P->L SFBC 30°C
	U/l	212	P->L SFBC 25°C
Magnesium	mmol/l	0.873	Xylidyl Blue
	mg/dl	2.12	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Konelab 20/30/60®/Thermo Scientific Indiko Plus® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Phosphate Inorganic	mmol/l	1.42	Phosphomolybdate UV
	mg/dl	4.40	
Potassium	mmol/l	3.90	ISE method - direct
Protein Total	g/l	57.5	Biuret reaction end point
	g/dl	5.75	
Sodium	mmol/l	137	ISE method - direct
Triglycerides	mmol/l	1.15	Lipase/GPO-PAP no correction
	mg/dl	102	
Urea	mmol/l	7.15	Urease kinetic
	mg/dl	43.0	
	mmol/l	7.15	BUN
	mg/dl	20.1	
Uric Acid (Urate)	mmol/l	0.357	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.00	
	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	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

MEAN OF ALL INSTRUMENTS Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
a-HBDH	U/l	216	Oxobutyrate < 10 mmol/l 37°C
	U/l	163	Oxobutyrate < 10 mmol/l 30°C
	U/l	122	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (Total)	U/l	10.5	1-Naphthyl Phosphate substrate Kinetic 37°C
Albumin	g/l	41.9	Bromocresol Green
	g/dl	4.19	
	g/l	43.0	Bromocresol Purple
	g/dl	4.30	
	g/l	40.0	Turbidimetric Assays
	g/dl	4.00	
Alkaline Phosphatase	U/l	277	Diethanolamine buffer DEA 37°C
	U/l	216	Diethanolamine buffer DEA 30°C
	U/l	177	Diethanolamine buffer DEA 25°C
	U/l	182	AMP optimised to IFCC 37°C
	U/l	142	AMP optimised to IFCC 30°C
	U/l	116	AMP optimised to IFCC 25°C
	U/l	176	AMP non-optimised 37°C
	U/l	137	AMP non-optimised 30°C
	U/l	112	AMP non-optimised 25°C
ALT (GPT)	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	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
	U/l	36	Tris buffer SCE 37°C
	U/l	27	Tris buffer SCE 30°C
	U/l	20	Tris buffer SCE 25°C
Amylase Pancreatic	U/l	63	Immunoinhibition EPS substrate 37°C
	U/l	64	Roche EPS Liquid 37°C
	U/l	72	Randox Liquid Ethylidene pNPG7 37°C
Amylase Total	U/l	87	pNP Maltotrioside substrates 37°C
	U/l	87	Siemens - blocked pNPG7 37°C
	U/l	71	Randox Lyo. Ethylidene pNPG7 37°C
	U/l	95	Randox Liquid Ethylidene pNPG7 37°C
	U/l	84	BM/Roche Colorimetric pNPG7 37°C
	U/l	86	Roche Integra 2-chloro-pNPG7 37°C
	U/l	84	Roche liquid stable pNPG7 37°C
	U/l	95	Siemens 2-chloro-pNPG3 37°C

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

MEAN OF ALL INSTRUMENTS Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Amylase Total	U/l	89	Beckman Coulter - blocked pNPG7 37°C
	U/l	89	Beckman Synchron AMY7 37°C
	U/l	93	Abbott Architect Non-IFCC Cal. 37°C
	U/l	83	Beckman CNPG3 (Extinction Coeff) 37°C
AST (GOT)	U/l	55	Tris buffer with P5P 37°C
	U/l	37	Tris buffer with P5P 30°C
	U/l	26	Tris buffer with P5P 25°C
	U/l	36	Tris buffer without P5P 37°C
	U/l	24	Tris buffer without P5P 30°C
	U/l	17	Tris buffer without P5P 25°C
	U/l	34	Tris buffer SCE 37°C
	U/l	23	Tris buffer SCE 30°C
	U/l	16	Tris buffer SCE 25°C
Bicarbonate	mmol/l	14.3	Colorimetric
	mmol/l	13.3	Differential rate pH change
	mmol/l	14.1	Enzymatic
	mmol/l	14.1	Ion selective electrode
Bile Acids	µmol/l	26.6	4th Generation Colorimetric
	µmol/l	23.4	5th Generation Colorimetric
Bilirubin Direct	µmol/l	18.7	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.09	
	µmol/l	18.4	Diazo with Sulphanilic Acid
	mg/dl	1.08	
	µmol/l	19.6	Diazo with Dichloroaniline (DCA)
	mg/dl	1.15	
	µmol/l	17.2	Oxidation to Biliverdin/Vanadate
	mg/dl	1.01	
	µmol/l	13.8	Modified Jendrassik
	mg/dl	0.810	
Bilirubin Total	µmol/l	31.9	Diazo with Dichloroaniline (DCA)
	mg/dl	1.87	
	µmol/l	28.8	Diazo with Sulphanilic Acid
	mg/dl	1.68	
	µmol/l	26.6	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.56	
	µmol/l	25.1	Nitrobenzenediazonium salt
	mg/dl	1.47	
	µmol/l	27.0	Diazonium ion
	mg/dl	1.58	
	µmol/l	30.5	Oxidation to Biliverdin/Vanadate
	mg/dl	1.79	
	µmol/l	33.1	Modified Jendrassik
	mg/dl	1.94	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

MEAN OF ALL INSTRUMENTS Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Calcium	mmol/l	2.13	Cresolphthalein complexone
	mg/dl	8.54	
	mmol/l	2.10	Ion selective electrode
	mg/dl	8.42	
	mmol/l	2.18	Arsenazo III
	mg/dl	8.74	
	mmol/l	2.15	NM-BAPTA
	mg/dl	8.62	
Chloride	mmol/l	101	Colorimetric
	mmol/l	97.8	ISE indirect
	mmol/l	99.3	ISE direct
Cholesterol	mmol/l	3.90	Cholesterol Oxidase
	mg/dl	151	
Cholinesterase	U/l	5560	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	208	CK-NAC serum start (DGKC) 37°C
	U/l	130	CK-NAC serum start (DGKC) 30°C
	U/l	88	CK-NAC serum start (DGKC) 25°C
	U/l	202	CK-NAC substrate start (DGKC) 37°C
	U/l	126	CK-NAC substrate start (DGKC) 30°C
	U/l	86	CK-NAC substrate start (DGKC) 25°C
	U/l	200	CK-NAC (IFCC) 37°C
	U/l	125	CK-NAC (IFCC) 30°C
	U/l	85	CK-NAC (IFCC) 25°C
	U/l	218	Monothioglycerol 37°C
	U/l	136	Monothioglycerol 30°C
	U/l	93	Monothioglycerol 25°C
Copper	µmol/l	15.7	Colorimetric
	µg/dl	100	
Creatinine	µmol/l	128	Alkaline picrate no deproteinization
	mg/dl	1.45	
	µmol/l	130	Enzymatic UV method
	mg/dl	1.47	
	µmol/l	132	Creatinine PAP method
	mg/dl	1.49	
	µmol/l	128	Jaffe rate blanked
	mg/dl	1.45	
	µmol/l	156	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.76	
	µmol/l	144	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.63	
	µmol/l	126	IDMS traceable
	mg/dl	1.42	
gamma-GT	U/l	48	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	38	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

MEAN OF ALL INSTRUMENTS Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
gamma-GT	U/l	41	Gamma glutamyl-4-nitroanilide 37°C
	U/l	32	Gamma glutamyl-4-nitroanilide 30°C
	U/l	25	Gamma glutamyl-4-nitroanilide 25°C
	U/l	50	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	56	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	44	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	35	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	18	Triethanolamine buffer 50 mmol 37°C
	U/l	14	Triethanolamine buffer 50 mmol 30°C
	U/l	11	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	6.13	Glucose dehydrogenase
	mg/dl	110	
	mmol/l	6.17	Hexokinase
	mg/dl	111	
	mmol/l	6.19	Oxygen electrode
	mg/dl	112	
	mmol/l	6.17	Glucose oxidase
	mg/dl	111	
Iron	µmol/l	19.0	Colorimetric with ppt.
	µg/dl	106	
	µmol/l	18.9	Colorimetric without ppt.
	µg/dl	106	
Lactate	mmol/l	1.50	Ion selective electrode
	mg/dl	13.5	
	mmol/l	1.54	Colorimetric Lactate Oxidase
	mg/dl	13.9	
	mmol/l	1.58	Enzymatic Electrode
	mg/dl	14.2	
LAP	U/l	19	NAGEL 37°C
LD (LDH)	U/l	184	L->P 37°C
	U/l	133	L->P 30°C
	U/l	93	L->P 25°C
	U/l	435	P->L Scandinavian & Dutch 37°C
	U/l	314	P->L Scandinavian & Dutch 30°C
	U/l	221	P->L Scandinavian & Dutch 25°C
	U/l	395	P->L German methods 37°C
	U/l	285	P->L German methods 30°C
	U/l	200	P->L German methods 25°C
	U/l	403	P->L SFBC 37°C
	U/l	291	P->L SFBC 30°C
	U/l	204	P->L SFBC 25°C

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

MEAN OF ALL INSTRUMENTS Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
LD (LDH)	U/l	206	L->P IFCC 37°C
	U/l	149	L->P IFCC 30°C
	U/l	104	L->P IFCC 25°C
Lipase	U/l	33	Other Colorimetric 37°C
	U/l	29	Roche Colorimetric 37°C
	U/l	43	Randox Colorimetric 37°C
Lithium	mmol/l	1.03	Ion selective electrode
	mg/dl	0.717	
	mmol/l	1.03	Spectrophotometric
	mg/dl	0.718	
Magnesium	mmol/l	0.836	Arsenazo III
	mg/dl	2.03	
	mmol/l	0.863	Calmagite
	mg/dl	2.10	
	mmol/l	0.881	Xylidyl Blue
	mg/dl	2.14	
	mmol/l	0.858	Methylthymol blue
	mg/dl	2.08	
	mmol/l	0.888	Chlorphosphonazo III
	mg/dl	2.16	
	mmol/l	0.848	Enzymatic
	mg/dl	2.06	
Osmolality	mOsm/kg	287	Calculated
	mOsm/kg	301	Freezing point depression
Phosphate Inorganic	mmol/l	1.37	Phosphomolybdate enzymatic
	mg/dl	4.25	
	mmol/l	1.39	Phosphomolybdate UV
	mg/dl	4.31	
Potassium	mmol/l	4.15	Enzymatic
	mmol/l	3.98	ISE method - direct
	mmol/l	4.04	ISE method - indirect
Protein Total	g/l	58.1	Biuret reaction end point
	g/dl	5.81	
	g/l	58.2	Biuret reaction kinetic
	g/dl	5.82	
Sodium	mmol/l	142	Enzymatic
	mmol/l	139	ISE method - direct
	mmol/l	141	ISE method - indirect
TIBC	µmol/l	39.7	FE+UIBC(saturation with iron)
	µg/dl	222	
	µmol/l	44.7	Direct Colorimetric
	µg/dl	250	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

MEAN OF ALL INSTRUMENTS Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
TIBC	µmol/l	44.7	Calculated from Transferrin
	µg/dl	250	
	µmol/l	50.9	Randox Direct
	µg/dl	285	
Triglycerides	mmol/l	1.14	Lipase/GPO-PAP no correction
	mg/dl	101	
	mmol/l	1.15	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	102	
	mmol/l	1.15	L/G Kinase EP. no correction
	mg/dl	102	
	mmol/l	1.13	Lipase/Glycerol Dehydrogenase
	mg/dl	100	
UIBC	µmol/l	19.8	Direct Colorimetric
	µg/dl	110	
Urea	mmol/l	7.39	Urease end point
	mg/dl	44.4	
	mmol/l	7.32	Urease kinetic
	mg/dl	44.0	
	mmol/l	7.32	BUN
	mg/dl	20.5	
Uric Acid (Urate)	mmol/l	0.324	Uricase catalase 340nm
	mg/dl	5.44	
	mmol/l	0.341	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.73	
	mmol/l	0.340	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.71	
	mmol/l	0.337	Spectrophotometric at 280-290
	mg/dl	5.66	
	mmol/l	0.336	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.64	
Zinc	µmol/l	21.7	Colorimetric with deproteinisation
	µg/dl	142	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

MINDRAY BS-200/300/400 Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	42.2	Bromocresol Green
	g/dl	4.22	
Alkaline Phosphatase	U/l	180	AMP optimised to IFCC 37°C
	U/l	140	AMP optimised to IFCC 30°C
	U/l	115	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
AST (GOT)	U/l	38	Tris buffer without P5P 37°C
	U/l	26	Tris buffer without P5P 30°C
	U/l	18	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	29.6	Diazo with Sulphanilic Acid
	mg/dl	1.73	
	µmol/l	25.5	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.49	
Calcium	mmol/l	2.15	Arsenazo III
	mg/dl	8.62	
Chloride	mmol/l	98.6	ISE indirect
Cholesterol	mmol/l	3.98	Cholesterol Oxidase
	mg/dl	154	
CK Total	U/l	202	CK-NAC (IFCC) 37°C
	U/l	126	CK-NAC (IFCC) 30°C
	U/l	86	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	128	Alkaline picrate no deproteinization
	mg/dl	1.45	
	µmol/l	156	Jaffe rate blanked
	mg/dl	1.76	
Glucose	mmol/l	6.17	Hexokinase
	mg/dl	111	
	mmol/l	6.37	Glucose oxidase
	mg/dl	115	
Iron	µmol/l	19.2	Colorimetric without ppt.
	µg/dl	107	
LD (LDH)	U/l	423	P->L German methods 37°C
	U/l	305	P->L German methods 30°C
	U/l	214	P->L German methods 25°C
	U/l	406	P->L SFBC 37°C
	U/l	293	P->L SFBC 30°C
	U/l	206	P->L SFBC 25°C

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

MINDRAY BS-200/300/400 Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
LD (LDH)	U/l	209	L->P IFCC 37°C
	U/l	151	L->P IFCC 30°C
	U/l	106	L->P IFCC 25°C
Magnesium	mmol/l	0.944	Xylidyl Blue
	mg/dl	2.29	
Phosphate Inorganic	mmol/l	1.38	Phosphomolybdate UV
	mg/dl	4.28	
Potassium	mmol/l	3.98	ISE method - indirect
Protein Total	g/l	58.1	Biuret reaction end point
	g/dl	5.81	
Sodium	mmol/l	138	ISE method - indirect
Triglycerides	mmol/l	1.14	Lipase/GPO-PAP no correction
	mg/dl	101	
Urea	mmol/l	7.63	Urease kinetic
	mg/dl	45.9	
	mmol/l	7.63	BUN
	mg/dl	21.4	
Uric Acid (Urate)	mmol/l	0.357	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.00	
	mmol/l	0.346	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.81	
	mmol/l	0.338	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.68	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Roche Cobas 6000 c501 e601 Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	42.6	Bromocresol Green
	g/dl	4.26	
	g/l	42.4	Bromocresol Purple
	g/dl	4.24	
	g/l	40.3	Turbidimetric Assays
	g/dl	4.03	
Alkaline Phosphatase	U/l	151	Roche Integra AMP buffer 37°C
	U/l	118	Roche Integra AMP buffer 30°C
	U/l	96	Roche Integra AMP buffer 25°C
ALT (GPT)	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	63	Roche EPS Liquid 37°C
Amylase Total	U/l	83	BM/Roche Colorimetric pNPG7 37°C
	U/l	84	Roche Integra 2-chloro-pNPG7 37°C
	U/l	83	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	36	Tris buffer without P5P 37°C
	U/l	24	Tris buffer without P5P 30°C
	U/l	17	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.2	Colorimetric
	mmol/l	14.0	Enzymatic
Bile Acids	µmol/l	24.7	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	18.5	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.08	
	µmol/l	18.5	Diazo with Sulphanilic Acid
	mg/dl	1.08	
	µmol/l	18.4	Roche JG factored
	mg/dl	1.08	
Bilirubin Total	µmol/l	26.9	Diazo with Sulphanilic Acid
	mg/dl	1.57	
	µmol/l	26.9	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.58	
	µmol/l	26.9	Diazonium ion
	mg/dl	1.57	
Calcium	mmol/l	2.15	Cresolphthalein complexone
	mg/dl	8.62	
	mmol/l	2.15	NM-BAPTA
	mg/dl	8.62	
Chloride	mmol/l	94.6	ISE indirect

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Roche Cobas 6000 c501 e601 Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Cholesterol	mmol/l	3.84	Cholesterol Oxidase
	mg/dl	148	
Cholinesterase	U/l	5374	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	193	CK-NAC substrate start (DGKC) 37°C
	U/l	121	CK-NAC substrate start (DGKC) 30°C
	U/l	82	CK-NAC substrate start (DGKC) 25°C
	U/l	195	CK-NAC (IFCC) 37°C
	U/l	122	CK-NAC (IFCC) 30°C
	U/l	83	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	131	Alkaline picrate no deproteinization
	mg/dl	1.48	
	µmol/l	135	Enzymatic UV method
	mg/dl	1.53	
	µmol/l	133	Roche Creatinine Plus
	mg/dl	1.50	
	µmol/l	156	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.76	
	µmol/l	150	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.70	
gamma-GT	U/l	44	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	51	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 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	6.15	Glucose dehydrogenase
	mg/dl	111	
	mmol/l	6.20	Hexokinase
	mg/dl	112	
Iron	µmol/l	19.0	Colorimetric with ppt.
	µg/dl	106	
	µmol/l	18.9	Colorimetric without ppt.
	µg/dl	106	
Lactate	mmol/l	1.55	Colorimetric Lactate Oxidase
	mg/dl	14.0	
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
	U/l	206	L->P IFCC 37°C
	U/l	149	L->P IFCC 30°C
	U/l	104	L->P IFCC 25°C

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Roche Cobas 6000 c501 e601 Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Lipase	U/l	29	Roche Colorimetric 37°C
Lithium	mmol/l	1.03	Spectrophotometric
	mg/dl	0.715	
Magnesium	mmol/l	0.875	Xylidyl Blue
	mg/dl	2.13	
	mmol/l	0.876	Chlorphosphonazo III
	mg/dl	2.13	
Phosphate Inorganic	mmol/l	1.40	Phosphomolybdate enzymatic
	mg/dl	4.34	
	mmol/l	1.38	Phosphomolybdate UV
	mg/dl	4.28	
Potassium	mmol/l	4.09	ISE method - indirect
Protein Total	g/l	58.5	Biuret reaction end point
	g/dl	5.85	
	g/l	59.1	Biuret reaction kinetic
	g/dl	5.91	
Sodium	mmol/l	141	ISE method - indirect
TIBC	µmol/l	38.3	FE+UIBC(saturation with iron)
	µg/dl	214	
	µmol/l	46.8	Calculated from Transferrin
	µg/dl	262	
Triglycerides	mmol/l	1.15	Lipase/GPO-PAP no correction
	mg/dl	102	
	mmol/l	1.17	L/G Kinase EP. no correction
	mg/dl	104	
UIBC	µmol/l	19.0	Direct Colorimetric
	µg/dl	106	
Urea	mmol/l	7.25	Urease end point
	mg/dl	43.6	
	mmol/l	7.22	Urease kinetic
	mg/dl	43.4	
	mmol/l	7.22	BUN
	mg/dl	20.3	
Uric Acid (Urate)	mmol/l	0.334	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.61	
	mmol/l	0.334	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.61	
	mmol/l	0.331	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.56	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Roche Cobas C111® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	42.7	Bromocresol Green
	g/dl	4.27	
Alkaline Phosphatase	U/l	155	Roche Integra AMP buffer 37°C
	U/l	121	Roche Integra AMP buffer 30°C
	U/l	99	Roche Integra AMP buffer 25°C
	U/l	145	AMP optimised to IFCC 37°C
	U/l	113	AMP optimised to IFCC 30°C
	U/l	93	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	35	Tris buffer without P5P 37°C
	U/l	26	Tris buffer without P5P 30°C
	U/l	20	Tris buffer without P5P 25°C
Amylase Total	U/l	87	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	36	Tris buffer without P5P 37°C
	U/l	24	Tris buffer without P5P 30°C
	U/l	17	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	13.8	Enzymatic
Bilirubin Direct	µmol/l	17.4	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.02	
	µmol/l	17.1	Diazo with Sulphanilic Acid
	mg/dl	0.997	
Bilirubin Total	µmol/l	25.8	Diazo with Sulphanilic Acid
	mg/dl	1.51	
	µmol/l	26.2	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.53	
	µmol/l	26.2	Diazonium ion
	mg/dl	1.53	
Calcium	mmol/l	2.11	Cresolphthalein complexone
	mg/dl	8.46	
	mmol/l	2.14	NM-BAPTA
	mg/dl	8.58	
Chloride	mmol/l	100	ISE indirect
Cholesterol	mmol/l	3.85	Cholesterol Oxidase
	mg/dl	149	
CK Total	U/l	182	CK-NAC (IFCC) 37°C
	U/l	114	CK-NAC (IFCC) 30°C
	U/l	77	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	129	Alkaline picrate no deproteinization
	mg/dl	1.46	
	µmol/l	126	Roche Creatinine Plus
	mg/dl	1.43	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Roche Cobas C111® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Creatinine	µmol/l	150	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.70	
gamma-GT	U/l	47	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	37	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	29	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.27	Hexokinase
	mg/dl	113	
LD (LDH)	U/l	210	L->P IFCC 37°C
	U/l	152	L->P IFCC 30°C
	U/l	106	L->P IFCC 25°C
Magnesium	mmol/l	0.905	Chlorphosphonazo III
	mg/dl	2.20	
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	3.98	ISE method - indirect
Protein Total	g/l	60.0	Biuret reaction end point
	g/dl	6.00	
Sodium	mmol/l	138	ISE method - indirect
Triglycerides	mmol/l	1.16	Lipase/GPO-PAP no correction
	mg/dl	103	
	mmol/l	1.15	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	102	
Urea	mmol/l	7.15	Urease kinetic
	mg/dl	43.0	
	mmol/l	7.15	BUN
	mg/dl	20.1	
Uric Acid (Urate)	mmol/l	0.342	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.75	
	mmol/l	0.335	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.63	
	mmol/l	0.338	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.68	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Roche Cobas C311® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	42.8	Bromocresol Green
	g/dl	4.28	
	g/l	43.0	Bromocresol Purple
	g/dl	4.30	
Alkaline Phosphatase	U/l	150	Roche Integra AMP buffer 37°C
	U/l	117	Roche Integra AMP buffer 30°C
	U/l	96	Roche Integra AMP buffer 25°C
ALT (GPT)	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 Total	U/l	85	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	36	Tris buffer without P5P 37°C
	U/l	24	Tris buffer without P5P 30°C
	U/l	17	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	13.8	Enzymatic
Bilirubin Direct	µmol/l	18.7	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.09	
	µmol/l	18.5	Diazo with Sulphanilic Acid
	mg/dl	1.08	
	µmol/l	18.4	Roche JG factored
	mg/dl	1.08	
Bilirubin Total	µmol/l	27.1	Diazo with Sulphanilic Acid
	mg/dl	1.59	
	µmol/l	27.1	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.59	
	µmol/l	27.0	Diazonium ion
	mg/dl	1.58	
Calcium	mmol/l	2.13	Cresolphthalein complexone
	mg/dl	8.54	
	mmol/l	2.16	NM-BAPTA
	mg/dl	8.66	
Chloride	mmol/l	95.3	ISE indirect
Cholesterol	mmol/l	3.88	Cholesterol Oxidase
	mg/dl	150	
CK Total	U/l	198	CK-NAC (IFCC) 37°C
	U/l	124	CK-NAC (IFCC) 30°C
	U/l	84	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	136	Alkaline picrate no deproteinization
	mg/dl	1.54	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Roche Cobas C311® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Creatinine	µmol/l	134	Roche Creatinine Plus
	mg/dl	1.52	
	µmol/l	157	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.77	
gamma-GT	U/l	44	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	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	6.18	Hexokinase
	mg/dl	111	
	mmol/l	6.18	Glucose oxidase
	mg/dl	111	
Iron	µmol/l	19.2	Colorimetric without ppt.
	µg/dl	107	
Lactate	mmol/l	1.57	Colorimetric Lactate Oxidase
	mg/dl	14.1	
LD (LDH)	U/l	394	P->L German methods 37°C
	U/l	284	P->L German methods 30°C
	U/l	200	P->L German methods 25°C
	U/l	208	L->P IFCC 37°C
	U/l	150	L->P IFCC 30°C
	U/l	105	L->P IFCC 25°C
Lipase	U/l	29	Roche Colorimetric 37°C
Magnesium	mmol/l	0.877	Xylidyl Blue
	mg/dl	2.13	
	mmol/l	0.885	Chlorphosphonazo III
	mg/dl	2.15	
Phosphate Inorganic	mmol/l	1.39	Phosphomolybdate UV
	mg/dl	4.31	
Potassium	mmol/l	4.11	ISE method - indirect
Protein Total	g/l	58.5	Biuret reaction end point
	g/dl	5.85	
Sodium	mmol/l	142	ISE method - indirect
TIBC	µmol/l	39.2	FE+UIBC(saturation with iron)
	µg/dl	219	
Triglycerides	mmol/l	1.17	Lipase/GPO-PAP no correction
	mg/dl	104	
	mmol/l	1.17	L/G Kinase EP. no correction
	mg/dl	104	
UIBC	µmol/l	20.9	Direct Colorimetric
	µg/dl	117	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Roche Cobas C311® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Urea	mmol/l	7.41	Urease kinetic
	mg/dl	44.5	
	mmol/l	7.41	BUN
	mg/dl	20.8	
Uric Acid (Urate)	mmol/l	0.337	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.66	
	mmol/l	0.342	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.75	
	mmol/l	0.337	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.66	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Roche Cobas c701 / c702 / c711 Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	42.5	Bromocresol Green
	g/dl	4.25	
	g/l	41.7	Bromocresol Purple
	g/dl	4.17	
	g/l	44.7	Turbidimetric Assays
	g/dl	4.47	
Alkaline Phosphatase	U/l	143	Roche Integra AMP buffer 37°C
	U/l	111	Roche Integra AMP buffer 30°C
	U/l	91	Roche Integra AMP buffer 25°C
	U/l	150	AMP optimised to IFCC 37°C
	U/l	117	AMP optimised to IFCC 30°C
	U/l	96	AMP optimised to IFCC 25°C
ALT (GPT)	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	64	Roche EPS Liquid 37°C
Amylase Total	U/l	85	BM/Roche Colorimetric pNPG7 37°C
	U/l	85	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	36	Tris buffer without P5P 37°C
	U/l	24	Tris buffer without P5P 30°C
	U/l	17	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.3	Enzymatic
Bile Acids	µmol/l	23.7	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	18.2	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.06	
	µmol/l	18.3	Roche JG factored
	mg/dl	1.07	
	µmol/l	16.0	Oxidation to Biliverdin/Vanadate
	mg/dl	0.935	
Bilirubin Total	µmol/l	25.5	Diazo with Dichloroaniline (DCA)
	mg/dl	1.49	
	µmol/l	25.6	Diazo with Sulphanilic Acid
	mg/dl	1.50	
	µmol/l	26.2	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.53	
	µmol/l	26.5	Diazonium ion
	mg/dl	1.55	
Calcium	mmol/l	2.14	Cresolphthalein complexone
	mg/dl	8.58	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Roche Cobas c701 / c702 / c711 Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Calcium	mmol/l	2.16	NM-BAPTA
	mg/dl	8.66	
Chloride	mmol/l	96.2	ISE indirect
Cholesterol	mmol/l	3.83	Cholesterol Oxidase
	mg/dl	148	
Cholinesterase	U/l	5444	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	198	CK-NAC (IFCC) 37°C
	U/l	124	CK-NAC (IFCC) 30°C
	U/l	84	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	136	Roche Creatinine Plus
	mg/dl	1.54	
	µmol/l	129	Jaffe rate blanked
	mg/dl	1.45	
	µmol/l	157	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.77	
gamma-GT	U/l	43	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	34	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	50	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.17	Hexokinase
	mg/dl	111	
Iron	µmol/l	18.6	Colorimetric without ppt.
	µg/dl	104	
Lactate	mmol/l	1.55	Colorimetric Lactate Oxidase
	mg/dl	14.0	
LD (LDH)	U/l	205	L->P IFCC 37°C
	U/l	148	L->P IFCC 30°C
	U/l	104	L->P IFCC 25°C
Lipase	U/l	29	Roche Colorimetric 37°C
Lithium	mmol/l	1.07	Spectrophotometric
	mg/dl	0.742	
Magnesium	mmol/l	0.874	Xylidyl Blue
	mg/dl	2.12	
	mmol/l	0.891	Chlorphosphonazo III
	mg/dl	2.17	
Phosphate Inorganic	mmol/l	1.37	Phosphomolybdate UV
	mg/dl	4.25	
Potassium	mmol/l	4.12	ISE method - indirect
Protein Total	g/l	58.5	Biuret reaction end point
	g/dl	5.85	
Sodium	mmol/l	142	ISE method - indirect

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

Roche Cobas c701 / c702 / c711 Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
TIBC	µmol/l	40.3	FE+UIBC(saturation with iron)
	µg/dl	225	
	µmol/l	43.6	Calculated from Transferrin
	µg/dl	244	
Triglycerides	mmol/l	1.15	Lipase/GPO-PAP no correction
	mg/dl	102	
	mmol/l	1.16	L/G Kinase EP. no correction
	mg/dl	103	
UIBC	µmol/l	19.9	Direct Colorimetric
	µg/dl	111	
Urea	mmol/l	7.15	Urease kinetic
	mg/dl	43.0	
	mmol/l	7.15	BUN
	mg/dl	20.1	
Uric Acid (Urate)	mmol/l	0.331	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.56	
	mmol/l	0.329	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.53	
	mmol/l	0.328	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.51	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

RX SERIES® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Creatinine	µmol/l	129	Alkaline picrate no deproteinization
	mg/dl	1.46	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

SIEMENS ATELLICA / ADVIA 1200/1650/1800/2400® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	40.3	Bromocresol Green
	g/dl	4.03	
	g/l	42.0	Bromocresol Purple
	g/dl	4.20	
Alkaline Phosphatase	U/l	158	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	41	Tris buffer without P5P 37°C
Amylase Total	U/l	87	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	41	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	15.2	Enzymatic
Bile Acids	µmol/l	26.4	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	17.2	Oxidation to Biliverdin/Vanadate
	mg/dl	1.01	
Bilirubin Total	µmol/l	30.5	Oxidation to Biliverdin/Vanadate
	mg/dl	1.78	
Calcium	mmol/l	2.10	Cresolphthalein complexone
	mg/dl	8.42	
	mmol/l	2.14	Arsenazo III
	mg/dl	8.58	
Chloride	mmol/l	99.4	ISE indirect
Cholesterol	mmol/l	3.88	Cholesterol Oxidase
	mg/dl	150	
Cholinesterase	U/l	5897	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	206	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	126	Enzymatic UV method
	mg/dl	1.42	
	µmol/l	130	Jaffe rate blanked
	mg/dl	1.46	
	µmol/l	154	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.74	
gamma-GT	U/l	50	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	5.96	Hexokinase
	mg/dl	107	
	mmol/l	6.05	Glucose oxidase
	mg/dl	109	
Iron	µmol/l	18.6	Colorimetric without ppt.
	µg/dl	104	
Lactate	mmol/l	1.39	Colorimetric Lactate Oxidase
	mg/dl	12.5	
LD (LDH)	U/l	391	P->L German methods 37°C

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

SIEMENS ATELLICA / ADVIA 1200/1650/1800/2400® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
LD (LDH)	U/l	209	L->P IFCC 37°C
Lipase	U/l	37	Other Colorimetric 37°C
Lithium	mmol/l	1.07	Spectrophotometric
	mg/dl	0.743	
Magnesium	mmol/l	0.876	Xylidyl Blue
	mg/dl	2.13	
Phosphate Inorganic	mmol/l	1.40	Phosphomolybdate UV
	mg/dl	4.34	
Potassium	mmol/l	4.05	ISE method - indirect
Protein Total	g/l	56.8	Biuret reaction end point
	g/dl	5.68	
Sodium	mmol/l	141	ISE method - indirect
TIBC	µmol/l	44.1	FE+UIBC(saturation with iron)
	µg/dl	247	
	µmol/l	46.0	Direct Colorimetric
	µg/dl	257	
	µmol/l	42.8	Calculated from Transferrin
	µg/dl	239	
Triglycerides	mmol/l	1.18	Lipase/GPO-PAP no correction
	mg/dl	104	
Urea	mmol/l	7.59	Urease kinetic
	mg/dl	45.6	
	mmol/l	7.59	BUN
	mg/dl	21.3	
Uric Acid (Urate)	mmol/l	0.342	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.75	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

SIEMENS DIMENSION EXL® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	42.2	Bromocresol Purple
	g/dl	4.22	
Alkaline Phosphatase	U/l	164	Siemens Dimension AMP buffer 37°C
	U/l	164	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	45	Tris buffer with P5P 37°C
	U/l	45	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	95	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	53	Tris buffer with P5P 37°C
	U/l	55	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	15.1	Enzymatic
Bilirubin Total	µmol/l	28.5	Diazo with Sulphanilic Acid
	mg/dl	1.67	
Calcium	mmol/l	2.08	Cresolphthalein complexone
	mg/dl	8.34	
Chloride	mmol/l	96.9	ISE indirect
Cholesterol	mmol/l	3.55	Cholesterol Oxidase
	mg/dl	137	
	mmol/l	3.58	Dimension-Siemens reagents
	mg/dl	138	
CK Total	U/l	191	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	132	Alkaline picrate no deproteinization
	mg/dl	1.50	
	µmol/l	129	Enzymatic UV method
	mg/dl	1.45	
gamma-GT	U/l	55	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	60	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.23	Hexokinase
	mg/dl	112	
Iron	µmol/l	18.0	Colorimetric without ppt.
	µg/dl	101	
Lactate	mmol/l	1.53	UV LDH
	mg/dl	13.8	
LD (LDH)	U/l	196	L->P IFCC 37°C
Lipase	U/l	129	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.850	Methylthymol blue
	mg/dl	2.07	
Phosphate Inorganic	mmol/l	1.44	Phosphomolybdate UV
	mg/dl	4.46	
Potassium	mmol/l	4.00	ISE method - indirect

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

SIEMENS DIMENSION EXL® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Protein Total	g/l	59.9	Biuret reaction end point
	g/dl	5.99	
Sodium	mmol/l	141	ISE method - indirect
TIBC	µmol/l	37.2	FE+UIBC(saturation with iron)
	µg/dl	208	
Triglycerides	mmol/l	1.09	Lipase/GPO-PAP no correction
	mg/dl	96.5	
	mmol/l	1.08	L/G Kinase EP. no correction
	mg/dl	95.6	
Urea	mmol/l	7.43	Urease kinetic
	mg/dl	44.7	
	mmol/l	7.43	BUN
	mg/dl	20.9	
Uric Acid (Urate)	mmol/l	0.337	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.66	
	mmol/l	0.337	Spectrophotometric at 280-290
	mg/dl	5.66	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

SIEMENS DIMENSION RxL/Max/Xpand® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	41.8	Bromocresol Purple
	g/dl	4.18	
Alkaline Phosphatase	U/l	166	Siemens Dimension AMP buffer 37°C
	U/l	165	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	44	Tris buffer with P5P 37°C
	U/l	44	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	95	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	52	Tris buffer with P5P 37°C
	U/l	53	Siemens Dade Standard Non IFCC Correlated 37°C
Bilirubin Total	µmol/l	28.8	Diazo with Sulphanilic Acid
	mg/dl	1.68	
Calcium	mmol/l	2.11	Cresolphthalein complexone
	mg/dl	8.46	
Chloride	mmol/l	96.5	ISE indirect
Cholesterol	mmol/l	3.54	Dimension-Siemens reagents
	mg/dl	137	
CK Total	U/l	188	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	133	Alkaline picrate no deproteinization
	mg/dl	1.50	
	µmol/l	130	Enzymatic UV method
	mg/dl	1.46	
gamma-GT	U/l	56	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	65	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.29	Hexokinase
	mg/dl	113	
Iron	µmol/l	18.2	Colorimetric without ppt.
	µg/dl	102	
LD (LDH)	U/l	197	L->P IFCC 37°C
Lipase	U/l	132	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.850	Methylthymol blue
	mg/dl	2.07	
Phosphate Inorganic	mmol/l	1.43	Phosphomolybdate enzymatic
	mg/dl	4.43	
	mmol/l	1.43	Phosphomolybdate UV
	mg/dl	4.43	
Potassium	mmol/l	3.97	ISE method - indirect
Protein Total	g/l	59.8	Biuret reaction end point
	g/dl	5.98	
Sodium	mmol/l	140	ISE method - indirect

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

SIEMENS DIMENSION RxL/Max/Xpand® Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Triglycerides	mmol/l	1.10	Lipase/GPO-PAP no correction
	mg/dl	97.4	
	mmol/l	1.11	Lipase/Glycerol Dehydrogenase
	mg/dl	98.2	
Urea	mmol/l	7.42	Urease end point
	mg/dl	44.6	
	mmol/l	7.39	Urease kinetic
	mg/dl	44.4	
	mmol/l	7.39	BUN
	mg/dl	20.7	
Uric Acid (Urate)	mmol/l	0.339	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.70	
	mmol/l	0.335	Spectrophotometric at 280-290
	mg/dl	5.63	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

RANDOX

CALIBRATION SERUM - LEVEL 2 (CAL 2)

URIT 8000 Series Lot. No. 1371UN Cat. No. CAL2350

Size 20 x 5ml Expiry 2021-07-28

Analyte	unit	Target	methods
Albumin	g/l	41.0	Bromocresol Green
	g/dl	4.10	
ALT (GPT)	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
AST (GOT)	U/l	37	Tris buffer without P5P 37°C
	U/l	25	Tris buffer without P5P 30°C
	U/l	18	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	29.2	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.71	
Cholesterol	mmol/l	4.03	Cholesterol Oxidase
	mg/dl	156	
Glucose	mmol/l	6.19	Glucose oxidase
	mg/dl	112	
Phosphate Inorganic	mmol/l	1.42	Phosphomolybdate UV
	mg/dl	4.40	
Protein Total	g/l	58.8	Biuret reaction end point
	g/dl	5.88	
Triglycerides	mmol/l	1.10	Lipase/GPO-PAP no correction
	mg/dl	97.4	
Urea	mmol/l	7.31	Urease kinetic
	mg/dl	43.9	
	mmol/l	7.31	BUN
	mg/dl	20.5	

Randox Laboratories Ltd., 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com