RANDOX 0086 CE

HUMAN ASSAYED MULTI-SERA - LEVEL 2 (HUM ASY CONTROL 2)

CAT. NO. HN1530 **GTIN:** 05055273203783 **SIZE:** 20 x 5ml
CAT. NO. HS2611 **GTIN:** 05055273203813 **SIZE:** 5 x 5ml
LOT NO. 1225UN **EXPIRY:** 2021-05-28

INTENDED USE

This product is intended for *in vitro* diagnostic use, in the quality control of diagnostic assays. The Human Assayed Multi-sera is for the control of accuracy.

DEVICE DESCRIPTION

The Human Assayed Multi-sera is supplied at 2 levels, level 2 and 3. Target values and ranges are supplied for the analytes listed in the values section at both levels.

SAFETY PRECAUTIONS AND WARNINGS

For *in vitro* diagnostic use only. Do not pipette by mouth. Exercise the normal precautions required for handling laboratory reagents.

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.

Health and Safety Data Sheets are available on request.

STORAGE AND STABILITY

OPENED: Store refrigerated (+2°C to +8°C). Reconstituted serum is stable for 8 hours at +15°C to +25°C or 7 days at +2°C to +8°C, and 28 days when frozen once at –18°C to –24°C. (See Limitations)

UNOPENED: Store refrigerated (+2°C to +8°C). Stable to expiration date printed on individual vials.

LIMITATIONS

For Total & 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 and Prostatic Acid Phosphatase is 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 –18°C to –24°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 4 days at +2°C to +8°C. Do not store at +15°C to +25°C. Do not freeze.
NEFA is stable for 1 day at +2°C to +8°C.
Total PSA is stable for 4 days at +2°C to +8°C, or 28 days in aliquots frozen at –18°C to –24°C.
Bacterial contamination of the reconstituted serum will cause reductions in the stability of many components.
Different lot numbers of this control should not be interchanged, as the values assigned to the controls vary from lot to lot.
The control should not be used as a calibration material.

PREPARATION FOR USE

The Human Assayed Multi-sera is supplied lyophilised.

1. Carefully reconstitute each vial of lyophilised serum with exactly 5ml of distilled water at +15°C to +25°C. Close the bottle and allow to stand for 30 minutes before use. Ensure contents are completely dissolved by swirling gently. Avoid formation of foam. Do not shake.

2. Refer to the Control section of the individual analyser application.

3. Refrigerate any unused material. Prior to reuse, mix contents thoroughly.

MATERIALS PROVIDED

Human Assayed Multi-sera - Level 2 20 x 5ml / 5 x 5ml

MATERIALS REQUIRED BUT NOT PROVIDED

Volumetric pipette

ASSIGNED VALUES

Each batch of assayed human serum is submitted to reference laboratories for assignment against international Reference Standards. Where international Reference Standards are unavailable, Reference Methods are used. Values are also collected from approx. 3000 laboratories worldwide and using a unique statistical analysis, a value is assigned.

With each batch, a control range is provided for individual parameters and each parameter method. The control range is equivalent to the assigned mean ±2S.D. This results in an assayed serum with extremely accurate values, which may be confidently used by laboratories to ensure the accuracy of their methods.

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) Applies only in Germany. Ranges established according to the Guidelines of the Federal Chamber of Physicians in Germany.
(2) Values established by reference laboratories officially recognised by the Federal Chamber of Physicians in Germany.
(3) DGKC: German Society for Clinical Chemistry.
(4) IFCC: International Federation of Clinical Chemistry.
(5) SCE: Scandinavian Committee on Enzymes.

24 Oct '17 ne

Randox Laboratories Ltd, 55 Diamond Road, Crumlin, County Antrim, BT29 4QY, United Kingdom
T +44 (0) 28 9442 2413 **F** +44 (0) 28 9445 2912 **E** applications@randox.com **I** www.randox.com

RANDOX

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.5	34.5	46.5	3.00	6.00	Bromocresol Green
	g/dl	4.05	3.45	4.65	0.30	0.60	
	g/l	41.2	35.0	47.4	3.10	6.20	Bromocresol Purple
	g/dl	4.12	3.50	4.74	0.31	0.62	
Alkaline Phosphatase	U/l	182	155	209	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	178	151	205	13.50	27.00	AMP non-optimised 37°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	60	51	69	4.50	9.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	88	75	101	6.50	13.00	Abbott Architect Non-IFCC Cal. 37°C
	U/l	99	84	114	7.50	15.00	Abbott Architect IFCC Cal. 37°C
AST (GOT)	U/l	32	26	38	3.00	6.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	14.2	11.2	17.2	1.50	3.00	Enzymatic
Bile Acids	µmol/l	26.6	21.3	31.9	2.65	5.30	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	18.3	14.5	22.1	1.90	3.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.07	0.848	1.29	0.11	0.22	
	µmol/l	17.4	13.7	21.1	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.02	0.801	1.24	0.11	0.22	
	µmol/l	17.7	14.0	21.4	1.85	3.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.04	0.819	1.26	0.11	0.22	
Bilirubin Total	µmol/l	24.8	19.6	30.0	2.60	5.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.45	1.15	1.75	0.15	0.30	

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

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	24.9	19.7	30.1	2.60	5.20	Diazo with Sulphanilic Acid
	mg/dl	1.46	1.15	1.77	0.16	0.31	
	µmol/l	24.4	19.3	29.5	2.55	5.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.43	1.13	1.73	0.15	0.30	
	µmol/l	23.9	18.9	28.9	2.50	5.00	Diazonium ion
	mg/dl	1.40	1.11	1.69	0.15	0.29	
Calcium	mmol/l	2.11	1.90	2.32	0.11	0.21	Arsenazo III
	mg/dl	8.46	7.62	9.30	0.42	0.84	
Chloride	mmol/l	97.8	90.0	106	3.90	7.80	ISE indirect
Cholesterol	mmol/l	3.96	3.44	4.48	0.26	0.52	Cholesterol Oxidase
	mg/dl	153	133	173	10.00	20.00	
Cholinesterase	U/l	6684	5347	8021	668.50	1337.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	208	171	245	18.50	37.00	CK-NAC (IFCC) 37°C
Copper	µmol/l	12.6	10.1	15.1	1.25	2.50	Colorimetric
	µg/dl	80.1	64.2	96.0	7.95	15.90	
Creatinine	µmol/l	129	103	155	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	123	98.5	148	12.25	24.50	Enzymatic UV method (340nm)
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	123	98.1	148	12.45	24.90	Creatinine PAP method
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	130	104	156	13.00	26.00	Jaffe rate blanked
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	131	104	158	13.50	27.00	IDMS traceable
	mg/dl	1.48	1.18	1.78	0.15	0.30	

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

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	48	41	55	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.20	5.27	7.13	0.47	0.93	Hexokinase
	mg/dl	112	95.0	129	8.50	17.00	
	mmol/l	6.47	5.50	7.44	0.49	0.97	Glucose oxidase
	mg/dl	117	99.1	135	8.95	17.90	
HDL - Cholesterol	mmol/l	1.24	1.06	1.42	0.09	0.18	Direct HDL PPD
	mg/dl	47.9	40.9	54.9	3.50	7.00	
	mmol/l	1.20	1.02	1.38	0.09	0.18	Direct Clearance Method
	mg/dl	46.3	39.4	53.2	3.45	6.90	
	mmol/l	1.23	1.05	1.41	0.09	0.18	HDL - Ultra
	mg/dl	47.5	40.5	54.5	3.50	7.00	
Iron	µmol/l	19.0	15.6	22.4	1.70	3.40	Colorimetric with ppt.
	µg/dl	106	87.2	125	9.40	18.80	
	µmol/l	18.9	15.5	22.3	1.70	3.40	Colorimetric without ppt.
	µg/dl	106	86.6	125	9.70	19.40	
Lactate	mmol/l	1.57	1.29	1.85	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.1	11.6	16.6	1.25	2.50	
LD (LDH)	U/l	199	169	229	15.00	30.00	L->P 37°C
	U/l	201	171	231	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	35	28	42	3.50	7.00	Other Colorimetric 37°C
Lithium	mmol/l	1.10	0.97	1.23	0.07	0.13	Spectrophotometric
	mg/dl	0.764	0.672	0.856	0.05	0.09	
Magnesium	mmol/l	0.89	0.79	1.00	0.05	0.11	Arsenazo III
	mg/dl	2.17	1.91	2.43	0.13	0.26	

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

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Magnesium	mmol/l	0.89	0.78	1.00	0.05	0.11	Enzymatic
	mg/dl	2.17	1.91	2.43	0.13	0.26	
Osmolality	mOsm/kg	295	236	354	29.50	59.00	Calculated
Phosphate Inorganic	mmol/l	1.36	1.16	1.56	0.10	0.20	Phosphomolybdate enzymatic
	mg/dl	4.22	3.60	4.84	0.31	0.62	
	mmol/l	1.38	1.17	1.59	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.28	3.63	4.93	0.33	0.65	
Potassium	mmol/l	4.01	3.69	4.33	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.5	47.6	71.4	5.95	11.90	Biuret reaction end point
	g/dl	5.95	4.76	7.14	0.60	1.19	
Sodium	mmol/l	144	137	151	3.50	7.00	ISE method - indirect
TIBC	µmol/l	47.4	37.4	57.4	5.00	10.00	FE+UIBC(saturation with iron)
	µg/dl	265	209	321	28.00	56.00	
Triglycerides	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	78.9	109	7.45	14.90	
	mmol/l	1.07	0.90	1.24	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	94.7	79.6	110	7.55	15.10	
	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	94.7	79.3	110	7.70	15.40	
UIBC	µmol/l	26.4	21.7	31.1	2.35	4.70	Direct Colorimetric
	µg/dl	148	121	175	13.50	27.00	
Urea	mmol/l	7.82	6.64	9.00	0.59	1.18	Urease end point
	mg/dl	47.0	39.9	54.1	3.55	7.10	
	mmol/l	7.48	6.36	8.60	0.56	1.12	Urease kinetic
	mg/dl	45.0	38.2	51.8	3.40	6.80	

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

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.48	6.36	8.60	0.56	1.12	BUN
	mg/dl	21.0	17.9	24.1	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.95	5.17	6.73	0.39	0.78	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.95	5.17	6.73	0.39	0.78	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.90	5.14	6.66	0.38	0.76	

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

ABX Pentra 400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.2	35.0	47.4	3.10	6.20	Bromocresol Green
	g/dl	4.12	3.50	4.74	0.31	0.62	
Alkaline Phosphatase	U/l	185	157	213	14.00	28.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	42	33	51	4.50	9.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
Bilirubin Total	µmol/l	25.4	20.0	30.8	2.70	5.40	Diazo with Dichloroaniline (DCA)
	mg/dl	1.49	1.17	1.81	0.16	0.32	
Calcium	mmol/l	2.11	1.90	2.32	0.11	0.21	Arsenazo III
	mg/dl	8.46	7.62	9.30	0.42	0.84	
Cholesterol	mmol/l	4.09	3.55	4.63	0.27	0.54	Cholesterol Oxidase
	mg/dl	158	137	179	10.50	21.00	
Creatinine	µmol/l	134	107	161	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.51	1.21	1.81	0.15	0.30	
gamma-GT	U/l	46	39	53	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	6.33	5.38	7.28	0.48	0.95	Glucose oxidase
	mg/dl	114	96.9	131	8.55	17.10	
Iron	µmol/l	17.5	14.3	20.7	1.60	3.20	Colorimetric without ppt.
	µg/dl	97.8	79.9	116	8.95	17.90	
Protein Total	g/l	60.5	48.4	72.6	6.05	12.10	Biuret reaction end point
	g/dl	6.05	4.84	7.26	0.61	1.21	
Triglycerides	mmol/l	1.18	0.99	1.37	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	104	88.0	120	8.00	16.00	

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

ABX Pentra 400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.19	6.11	8.27	0.54	1.08	Urease kinetic
	mg/dl	43.2	36.7	49.7	3.25	6.50	
	mmol/l	7.19	6.11	8.27	0.54	1.08	BUN
	mg/dl	20.2	17.2	23.2	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.90	5.12	6.68	0.39	0.78	

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

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.1	34.1	46.1	3.00	6.00	Bromocresol Green
	g/dl	4.01	3.41	4.61	0.30	0.60	
	g/l	43.0	36.5	49.5	3.25	6.50	Bromocresol Purple
	g/dl	4.30	3.65	4.95	0.33	0.65	
Alkaline Phosphatase	U/l	217	185	249	16.00	32.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
Amylase Total	U/l	81	69	93	6.00	12.00	pNP Maltotrioside substrates 37°C
	U/l	80	68	92	6.00	12.00	Beckman Synchron CX4/CX5/CX7 37°C
	U/l	83	71	95	6.00	12.00	Beckman Coulter - blocked pNPG7 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	15.0	11.9	18.1	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	18.6	14.7	22.5	1.95	3.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.09	0.860	1.32	0.12	0.23	
Bilirubin Total	µmol/l	28.0	22.2	33.8	2.90	5.80	DPD (Beckman AU)
	mg/dl	1.64	1.30	1.98	0.17	0.34	
Calcium	mmol/l	2.16	1.94	2.38	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.66	7.78	9.54	0.44	0.88	
	mmol/l	2.15	1.94	2.36	0.11	0.21	Arsenazo III
	mg/dl	8.62	7.78	9.46	0.42	0.84	
Chloride	mmol/l	95.8	88.1	104	3.85	7.70	ISE indirect
Cholesterol	mmol/l	4.00	3.48	4.52	0.26	0.52	Cholesterol Oxidase
	mg/dl	154	134	174	10.00	20.00	

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

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

Analyte	unit	Target	Range low	Range high	1SD	2SD	methods
CK Total	U/l	217	178	256	19.50	39.00	CK-NAC substrate start (DGKC) 37°C
	U/l	211	173	249	19.00	38.00	CK-NAC (IFCC) 37°C
Copper	µmol/l	15.0	12.0	18.0	1.50	3.00	Colorimetric
	µg/dl	95.4	76.3	115	9.55	19.10	
Creatinine	µmol/l	125	100	150	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	127	102	152	12.50	25.00	Enzymatic UV method (340nm)
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	122	97.4	147	12.30	24.60	Creatinine PAP method
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	µmol/l	126	100	152	13.00	26.00	Jaffe rate blanked
	mg/dl	1.42	1.13	1.71	0.15	0.29	
	µmol/l	120	96.0	144	12.00	24.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	µmol/l	117	93.4	141	11.80	23.60	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.32	1.06	1.58	0.13	0.26	
	µmol/l	120	96.3	144	11.85	23.70	IDMS traceable
	mg/dl	1.36	1.09	1.63	0.14	0.27	
D-3-Hydroxybutyrate	mmol/l	0.29	0.25	0.34	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	51	44	58	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
GLDH	U/l	17	13	21	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	6.41	5.45	7.37	0.48	0.96	Hexokinase
	mg/dl	116	98.2	134	8.90	17.80	

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

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	6.57	5.58	7.56	0.50	0.99	Glucose oxidase
	mg/dl	118	101	135	8.50	17.00	
HDL - Cholesterol	mmol/l	1.21	1.03	1.39	0.09	0.18	Direct HDL Immunoseparation
	mg/dl	46.7	39.8	53.6	3.45	6.90	
	mmol/l	1.25	1.07	1.43	0.09	0.18	Direct Clearance Method
	mg/dl	48.3	41.3	55.3	3.50	7.00	
	mmol/l	1.24	1.05	1.43	0.10	0.19	HDL - Ultra
	mg/dl	47.9	40.5	55.3	3.70	7.40	
Iron	µmol/l	19.6	16.1	23.1	1.75	3.50	Colorimetric with ppt.
	µg/dl	110	90.0	130	10.00	20.00	
	µmol/l	19.0	15.6	22.4	1.70	3.40	Colorimetric without ppt.
	µg/dl	106	87.2	125	9.40	18.80	
Lactate	mmol/l	1.52	1.24	1.80	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	13.7	11.2	16.2	1.25	2.50	
LD (LDH)	U/l	199	169	229	15.00	30.00	L->P 37°C
	U/l	442	375	509	33.50	67.00	P->L Scandinavian & Dutch 37°C
	U/l	202	172	232	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	34	27	41	3.50	7.00	Other Colorimetric 37°C
	U/l	30	24	36	3.00	6.00	Roche Colorimetric 37°C
	U/l	40	32	48	4.00	8.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.08	0.95	1.21	0.07	0.13	Spectrophotometric
	mg/dl	0.750	0.658	0.842	0.05	0.09	
Magnesium	mmol/l	0.93	0.82	1.04	0.06	0.11	Xylidyl Blue
	mg/dl	2.26	1.99	2.53	0.14	0.27	
Osmolality	mOsm/kg	295	236	354	29.50	59.00	Calculated

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

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Phosphate Inorganic	mmol/l	1.38	1.17	1.59	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.28	3.63	4.93	0.33	0.65	
Potassium	mmol/l	4.00	3.68	4.32	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.2	46.6	69.8	5.80	11.60	Biuret reaction end point
	g/dl	5.82	4.66	6.98	0.58	1.16	
	g/l	58.5	46.8	70.2	5.85	11.70	Biuret reaction kinetic
	g/dl	5.85	4.68	7.02	0.59	1.17	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
TIBC	µmol/l	49.1	38.8	59.4	5.15	10.30	FE+UIBC(saturation with iron)
	µg/dl	274	217	331	28.50	57.00	
Triglycerides	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	99.1	83.2	115	7.95	15.90	
	mmol/l	1.15	0.96	1.34	0.09	0.19	L/G Kinase EP. no correction
	mg/dl	102	85.3	119	8.35	16.70	
UIBC	µmol/l	29.8	24.4	35.2	2.70	5.40	Direct Colorimetric
	µg/dl	167	136	198	15.50	31.00	
Urea	mmol/l	7.51	6.38	8.64	0.57	1.13	Urease end point
	mg/dl	45.1	38.3	51.9	3.40	6.80	
	mmol/l	7.54	6.40	8.68	0.57	1.14	Urease kinetic
	mg/dl	45.3	38.5	52.1	3.40	6.80	
	mmol/l	7.54	6.41	8.67	0.57	1.13	BUN
	mg/dl	21.2	18.0	24.4	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.18	5.38	6.98	0.40	0.80	
	mmol/l	0.37	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.15	5.36	6.94	0.40	0.79	

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

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.08	5.29	6.87	0.40	0.79	

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

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.9	35.6	48.2	3.15	6.30	Bromocresol Green
	g/dl	4.19	3.56	4.82	0.32	0.63	
	g/l	44.0	37.4	50.6	3.30	6.60	Bromocresol Purple
	g/dl	4.40	3.74	5.06	0.33	0.66	
Alkaline Phosphatase	U/l	192	163	221	14.50	29.00	AMP optimised to IFCC 37°C
	U/l	190	162	218	14.00	28.00	AMP non-optimised 37°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	34	27	41	3.50	7.00	Tris buffer SCE 37°C
Amylase Total	U/l	86	73	99	6.50	13.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	31	25	37	3.00	6.00	Tris buffer without P5P 37°C
	U/l	31	24	38	3.50	7.00	Tris buffer SCE 37°C
Bicarbonate	mmol/l	14.4	11.4	17.4	1.50	3.00	Differential rate pH change
	mmol/l	15.3	12.1	18.5	1.60	3.20	Ion selective electrode
Bilirubin Direct	µmol/l	12.5	9.91	15.1	1.30	2.59	Diazo with Sulphanilic Acid
	mg/dl	0.731	0.580	0.882	0.08	0.15	
Bilirubin Total	µmol/l	26.9	21.3	32.5	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.57	1.25	1.89	0.16	0.32	
Calcium	mmol/l	2.07	1.86	2.28	0.11	0.21	Ion selective electrode
	mg/dl	8.30	7.45	9.15	0.43	0.85	
	mmol/l	2.12	1.91	2.33	0.11	0.21	Arsenazo III
	mg/dl	8.50	7.66	9.34	0.42	0.84	

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

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Chloride	mmol/l	96.7	89.0	104	3.85	7.70	ISE indirect
Cholesterol	mmol/l	3.78	3.29	4.27	0.25	0.49	Cholesterol Oxidase
	mg/dl	146	127	165	9.50	19.00	
CK Total	U/l	206	169	243	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	212	174	250	19.00	38.00	Monothioglycerol 37°C
Creatinine	µmol/l	124	99.2	149	12.40	24.80	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	124	99.2	149	12.40	24.80	Jaffe rate blanked
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	124	99.0	149	12.50	25.00	IDMS traceable
	mg/dl	1.40	1.12	1.68	0.14	0.28	
gamma-GT	U/l	42	36	48	3.00	6.00	Gamma glutamyl-4-nitroanilide 37°C
Glucose	mmol/l	6.07	5.16	6.98	0.46	0.91	Hexokinase
	mg/dl	109	93.0	125	8.00	16.00	
	mmol/l	6.15	5.22	7.08	0.47	0.93	Oxygen electrode
	mg/dl	111	94.1	128	8.45	16.90	
	mmol/l	6.07	5.16	6.98	0.46	0.91	Glucose oxidase
	mg/dl	109	93.0	125	8.00	16.00	
HDL - Cholesterol	mmol/l	1.25	1.06	1.44	0.10	0.19	Direct HDL PPD
	mg/dl	48.3	40.9	55.7	3.70	7.40	
	mmol/l	1.24	1.06	1.42	0.09	0.18	HDL - Ultra
	mg/dl	47.9	40.9	54.9	3.50	7.00	
Iron	µmol/l	17.9	14.7	21.1	1.60	3.20	Colorimetric without ppt.
	µg/dl	100	82.2	118	8.90	17.80	
Lactate	mmol/l	1.46	1.20	1.72	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	13.2	10.8	15.6	1.20	2.40	

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

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	171	145	197	13.00	26.00	L->P 37°C
	U/l	512	435	589	38.50	77.00	Pyruvate 1.4 mM - Beckman LD-P 37°C
Lipase	U/l	33	26	40	3.50	7.00	Other Colorimetric 37°C
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Calmagite
	mg/dl	2.20	1.94	2.46	0.13	0.26	
Osmolality	mOsm/kg	286	229	343	28.50	57.00	Calculated
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	3.93	3.62	4.24	0.16	0.31	ISE method - indirect
Protein Total	g/l	59.6	47.7	71.5	5.95	11.90	Biuret reaction CX4/5/7
	g/dl	5.96	4.77	7.15	0.60	1.19	
	g/l	59.2	47.4	71.0	5.90	11.80	Biuret reaction end point
	g/dl	5.92	4.74	7.10	0.59	1.18	
	g/l	56.4	45.1	67.7	5.65	11.30	Biuret reaction kinetic
	g/dl	5.64	4.51	6.77	0.57	1.13	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.17	0.99	1.35	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	104	87.3	121	8.35	16.70	
	mmol/l	1.17	0.98	1.36	0.09	0.19	L/G Kinase EP. no correction
	mg/dl	104	87.1	121	8.45	16.90	
Urea	mmol/l	7.74	6.58	8.90	0.58	1.16	Urease end point
	mg/dl	46.5	39.5	53.5	3.50	7.00	
	mmol/l	7.84	6.66	9.02	0.59	1.18	Urease kinetic
	mg/dl	47.1	40.0	54.2	3.55	7.10	

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

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.84	6.66	9.02	0.59	1.18	BUN
	mg/dl	22.0	18.7	25.3	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.73	4.99	6.47	0.37	0.74	

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

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.0	34.9	47.1	3.05	6.10	Bromocresol Green
	g/dl	4.10	3.49	4.71	0.31	0.61	
Alkaline Phosphatase	U/l	184	157	211	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	143	122	164	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	118	100	136	9.00	18.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 25°C
Calcium	mmol/l	2.22	2.00	2.44	0.11	0.22	Arsenazo III
	mg/dl	8.90	8.02	9.78	0.44	0.88	
Cholesterol	mmol/l	4.01	3.48	4.54	0.27	0.53	Cholesterol Oxidase
	mg/dl	155	134	176	10.50	21.00	
Creatinine	µmol/l	131	105	157	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.48	1.19	1.77	0.15	0.29	
Glucose	mmol/l	6.48	5.51	7.45	0.49	0.97	Glucose oxidase
	mg/dl	117	99.3	135	8.85	17.70	
Protein Total	g/l	58.7	47.0	70.4	5.85	11.70	Biuret reaction end point
	g/dl	5.87	4.70	7.04	0.59	1.17	
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	100	84.0	116	8.00	16.00	
Urea	mmol/l	7.01	5.96	8.06	0.53	1.05	Urease kinetic
	mg/dl	42.1	35.8	48.4	3.15	6.30	

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

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.01	5.96	8.06	0.53	1.05	BUN
	mg/dl	19.7	16.7	22.7	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.85	5.09	6.61	0.38	0.76	

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

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.5	33.6	45.4	2.95	5.90	Bromocresol Green
	g/dl	3.95	3.36	4.54	0.30	0.59	
Alkaline Phosphatase	U/l	172	146	198	13.00	26.00	AMP optimised to IFCC 37°C
	U/l	134	114	154	10.00	20.00	AMP optimised to IFCC 30°C
	U/l	110	93	127	8.50	17.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	42	33	51	4.50	9.00	Tris buffer without P5P 37°C
	U/l	31	24	38	3.50	7.00	Tris buffer without P5P 30°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	32.3	25.5	39.1	3.40	6.80	Diazo with Sulphanilic Acid
	mg/dl	1.89	1.49	2.29	0.20	0.40	
Cholesterol	mmol/l	4.06	3.53	4.59	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	136	178	10.50	21.00	
CK Total	U/l	222	182	262	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	139	114	164	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	94	77	111	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	124	99.0	149	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
Glucose	mmol/l	6.64	5.65	7.63	0.50	0.99	Glucose oxidase
	mg/dl	120	102	138	9.00	18.00	

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

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	1.25	1.06	1.44	0.10	0.19	HDL - Ultra
	mg/dl	48.3	40.9	55.7	3.70	7.40	
Phosphate Inorganic	mmol/l	1.51	1.28	1.74	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.68	3.97	5.39	0.36	0.71	
Protein Total	g/l	57.5	46.0	69.0	5.75	11.50	Biuret reaction end point
	g/dl	5.75	4.60	6.90	0.58	1.15	
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.2	114	8.00	16.00	
Urea	mmol/l	7.12	6.06	8.18	0.53	1.06	Urease kinetic
	mg/dl	42.8	36.4	49.2	3.20	6.40	
	mmol/l	7.12	6.05	8.19	0.54	1.07	BUN
	mg/dl	20.0	17.0	23.0	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.39	0.34	0.44	0.03	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.55	5.70	7.40	0.43	0.85	
	mmol/l	0.40	0.35	0.45	0.03	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.70	5.83	7.57	0.44	0.87	

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

Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.1	33.2	45.0	2.95	5.90	Bromocresol Green
	g/dl	3.91	3.32	4.50	0.30	0.59	
Alkaline Phosphatase	U/l	257	218	296	19.50	39.00	Diethanolamine buffer DEA 37°C
	U/l	200	170	230	15.00	30.00	Diethanolamine buffer DEA 30°C
	U/l	164	139	189	12.50	25.00	Diethanolamine buffer DEA 25°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	17	14	20	1.50	3.00	Tris buffer without P5P 25°C
Calcium	mmol/l	2.28	2.06	2.50	0.11	0.22	Arsenazo III
	mg/dl	9.14	8.26	10.0	0.44	0.88	
Cholesterol	mmol/l	3.99	3.47	4.51	0.26	0.52	Cholesterol Oxidase
	mg/dl	154	134	174	10.00	20.00	
CK Total	U/l	205	168	242	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	128	105	151	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	87	71	103	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	113	90.2	136	11.40	22.80	Alkaline picrate no deproteinization
	mg/dl	1.28	1.02	1.54	0.13	0.26	
	µmol/l	124	99.5	149	12.25	24.50	Creatinine PAP method
	mg/dl	1.40	1.12	1.68	0.14	0.28	
Glucose	mmol/l	6.46	5.49	7.43	0.49	0.97	Glucose oxidase
	mg/dl	116	98.9	133	8.55	17.10	

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

Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct HDL Immunoseparation
	mg/dl	45.9	39.0	52.8	3.45	6.90	
Phosphate Inorganic	mmol/l	1.49	1.27	1.71	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.62	3.94	5.30	0.34	0.68	
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	100	84.2	116	7.90	15.80	
Urea	mmol/l	7.46	6.34	8.58	0.56	1.12	Urease kinetic
	mg/dl	44.8	38.1	51.5	3.35	6.70	
	mmol/l	7.46	6.34	8.58	0.56	1.12	BUN
	mg/dl	20.9	17.8	24.0	1.55	3.10	

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

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	43.0	36.5	49.5	3.25	6.50	Bromocresol Green
	g/dl	4.30	3.65	4.95	0.33	0.65	
	g/l	41.6	35.4	47.8	3.10	6.20	Bromocresol Purple
	g/dl	4.16	3.54	4.78	0.31	0.62	
	g/l	40.5	34.4	46.6	3.05	6.10	Turbidimetric Assays
	g/dl	4.05	3.44	4.66	0.31	0.61	
Alkaline Phosphatase	U/l	159	135	183	12.00	24.00	Roche Integra AMP buffer 37°C
	U/l	124	105	143	9.50	19.00	Roche Integra AMP buffer 30°C
	U/l	102	86	118	8.00	16.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	32	26	38	3.00	6.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	15	21	1.50	3.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	61	52	70	4.50	9.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/l	82	70	94	6.00	12.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	82	70	94	6.00	12.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 37°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 30°C
	U/l	14	11	17	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.8	11.7	17.9	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	17.2	13.6	20.8	1.80	3.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.01	0.796	1.22	0.11	0.21	

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

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Direct	µmol/l	17.2	13.5	20.9	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.01	0.790	1.23	0.11	0.22	
Bilirubin Total	µmol/l	23.7	18.7	28.7	2.50	5.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.39	1.09	1.69	0.15	0.30	
	µmol/l	23.7	18.7	28.7	2.50	5.00	Diazo with Sulphanilic Acid
	mg/dl	1.39	1.09	1.69	0.15	0.30	
	µmol/l	23.5	18.5	28.5	2.50	5.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.37	1.08	1.66	0.15	0.29	
	µmol/l	23.5	18.6	28.4	2.45	4.90	Diazonium ion
	mg/dl	1.37	1.09	1.65	0.14	0.28	
Calcium	mmol/l	2.12	1.91	2.33	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.50	7.66	9.34	0.42	0.84	
	mmol/l	2.09	1.88	2.30	0.11	0.21	NM-BAPTA
	mg/dl	8.38	7.54	9.22	0.42	0.84	
Chloride	mmol/l	96.6	88.9	104	3.85	7.70	ISE indirect
Cholesterol	mmol/l	4.00	3.48	4.52	0.26	0.52	Cholesterol Oxidase
	mg/dl	154	134	174	10.00	20.00	
CK Total	U/l	200	164	236	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	125	103	147	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	85	70	100	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	123	98.7	147	12.15	24.30	Alkaline picrate no deproteinization
	mg/dl	1.39	1.12	1.66	0.14	0.27	
	µmol/l	126	101	151	12.50	25.00	Roche Creatinine Plus
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	125	100	150	12.50	25.00	Jaffe rate blanked
	mg/dl	1.41	1.13	1.69	0.14	0.28	

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

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	127	102	152	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	123	98.5	148	12.25	24.50	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.39	1.11	1.67	0.14	0.28	
gamma-GT	U/l	46	39	53	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	36	31	41	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	24	32	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.36	5.41	7.31	0.48	0.95	Hexokinase
	mg/dl	115	97.5	133	8.75	17.50	
HDL - Cholesterol	mmol/l	1.14	0.97	1.31	0.09	0.17	Direct HDL PEGME
	mg/dl	44.0	37.4	50.6	3.30	6.60	
	mmol/l	1.12	0.95	1.29	0.08	0.17	Direct HDL Roche 3rd generation
	mg/dl	43.2	36.8	49.6	3.20	6.40	
Iron	µmol/l	19.2	15.7	22.7	1.75	3.50	Colorimetric with ppt.
	µg/dl	107	87.8	126	9.60	19.20	
	µmol/l	19.0	15.6	22.4	1.70	3.40	Colorimetric without ppt.
	µg/dl	106	87.2	125	9.40	18.80	
Lactate	mmol/l	1.62	1.33	1.91	0.15	0.29	Colorimetric Lactate Oxidase
	mg/dl	14.6	12.0	17.2	1.30	2.60	
LD (LDH)	U/l	211	179	243	16.00	32.00	L->P IFCC 37°C
	U/l	152	129	175	11.50	23.00	L->P IFCC 30°C
	U/l	107	91	123	8.00	16.00	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

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lipase	U/l	33	26	40	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.08	0.95	1.21	0.07	0.13	Ion selective electrode
	mg/dl	0.750	0.658	0.842	0.05	0.09	
Magnesium	mmol/l	0.92	0.81	1.04	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.25	1.98	2.52	0.14	0.27	
Phosphate Inorganic	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.37	3.72	5.02	0.33	0.65	
	mmol/l	1.43	1.22	1.64	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.43	3.78	5.08	0.33	0.65	
Potassium	mmol/l	4.00	3.68	4.32	0.16	0.32	ISE method - indirect
Protein Total	g/l	56.2	44.9	67.5	5.65	11.30	Biuret reaction end point
	g/dl	5.62	4.49	6.75	0.57	1.13	
	g/l	57.1	45.7	68.5	5.70	11.40	Biuret reaction kinetic
	g/dl	5.71	4.57	6.85	0.57	1.14	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
TIBC	µmol/l	45.6	36.0	55.2	4.80	9.60	FE+UIBC(saturation with iron)
	µg/dl	255	201	309	27.00	54.00	
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.7	113	7.85	15.70	
	mmol/l	1.09	0.92	1.26	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	96.5	81.1	112	7.70	15.40	
	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	95.6	80.3	111	7.65	15.30	
UIBC	µmol/l	26.8	22.0	31.6	2.40	4.80	Direct Colorimetric
	µg/dl	150	123	177	13.50	27.00	

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

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.03	5.97	8.09	0.53	1.06	Urease kinetic
	mg/dl	42.3	35.9	48.7	3.20	6.40	
	mmol/l	6.92	5.88	7.96	0.52	1.04	Urease hypochlorite
	mg/dl	41.6	35.3	47.9	3.15	6.30	
	mmol/l	7.03	5.98	8.08	0.53	1.05	BUN
	mg/dl	19.7	16.7	22.7	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.05	5.26	6.84	0.40	0.79	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.05	5.28	6.82	0.39	0.77	

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

Elitech/Vitalab Selectra Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	42.1	35.8	48.4	3.15	6.30	Bromocresol Green
	g/dl	4.21	3.58	4.84	0.32	0.63	
Alkaline Phosphatase	U/l	276	235	317	20.50	41.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	32	25	39	3.50	7.00	Tris buffer without P5P 37°C
Calcium	mmol/l	2.14	1.92	2.36	0.11	0.22	Arsenazo III
	mg/dl	8.58	7.70	9.46	0.44	0.88	
Cholesterol	mmol/l	3.99	3.47	4.51	0.26	0.52	Cholesterol Oxidase
	mg/dl	154	134	174	10.00	20.00	
CK Total	U/l	204	167	241	18.50	37.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	124	99.6	148	12.20	24.40	Alkaline picrate no deproteinization
	mg/dl	1.40	1.13	1.67	0.14	0.27	
Glucose	mmol/l	6.57	5.58	7.56	0.50	0.99	Glucose oxidase
	mg/dl	118	101	135	8.50	17.00	
HDL - Cholesterol	mmol/l	1.06	0.90	1.22	0.08	0.16	HDL - Ultra
	mg/dl	40.9	34.7	47.1	3.10	6.20	
Iron	µmol/l	18.8	15.4	22.2	1.70	3.40	Colorimetric without ppt.
	µg/dl	105	86.1	124	9.45	18.90	
Phosphate Inorganic	mmol/l	1.48	1.26	1.70	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.59	3.91	5.27	0.34	0.68	
Protein Total	g/l	60.0	48.0	72.0	6.00	12.00	Biuret reaction end point
	g/dl	6.00	4.80	7.20	0.60	1.20	

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

Elitech/Vitalab Selectra Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.17	0.98	1.36	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	104	87.1	121	8.45	16.90	
Urea	mmol/l	7.33	6.23	8.43	0.55	1.10	Urease kinetic
	mg/dl	44.1	37.4	50.8	3.35	6.70	
	mmol/l	7.33	6.23	8.43	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.37	0.33	0.42	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.28	5.46	7.10	0.41	0.82	

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

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Acid Phosphatase (non-prostatic)	U/l	6.02	4.03	8.01	1.00	1.99	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Prostatic)	U/l	8.28	5.55	11.0	1.37	2.73	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Total)	U/l	14.3	9.58	19.0	2.36	4.72	1-Naphthyl Phosphate substrate Kinetic 37°C
Albumin	g/l	42.4	36.0	48.8	3.20	6.40	Bromocresol Green
	g/dl	4.24	3.60	4.88	0.32	0.64	
Alkaline Phosphatase	U/l	147	125	169	11.00	22.00	Roche Integra AMP buffer 37°C
	U/l	115	97	133	9.00	18.00	Roche Integra AMP buffer 30°C
	U/l	94	80	108	7.00	14.00	Roche Integra AMP buffer 25°C
	U/l	194	165	223	14.50	29.00	Randox AMP 37°C
	U/l	151	129	173	11.00	22.00	Randox AMP 30°C
	U/l	124	105	143	9.50	19.00	Randox AMP 25°C
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	69	59	79	5.00	10.00	Randox Liquid Ethylidene pNPG7 37°C
Amylase Total	U/l	79	67	91	6.00	12.00	Roche liquid stable pNPG7 37°C
	U/l	92	78	106	7.00	14.00	Randox Liquid Ethylidene pNPG7 37°C
AST (GOT)	U/l	33	27	39	3.00	6.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.9	11.8	18.0	1.55	3.10	Enzymatic

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

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bile Acids	µmol/l	24.2	19.4	29.0	2.40	4.80	5th Generation Colorimetric
Bilirubin Direct	µmol/l	15.8	12.5	19.1	1.65	3.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.924	0.731	1.12	0.10	0.19	
	µmol/l	16.7	13.2	20.2	1.75	3.50	Diazo with Sulphanilic Acid
	mg/dl	0.977	0.772	1.18	0.10	0.21	
Bilirubin Total	µmol/l	25.3	20.0	30.6	2.65	5.30	Diazo with Sulphanilic Acid
	mg/dl	1.48	1.17	1.79	0.16	0.31	
	µmol/l	22.5	17.8	27.2	2.35	4.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.32	1.04	1.60	0.14	0.28	
	µmol/l	22.9	18.1	27.7	2.40	4.80	Diazonium ion
	mg/dl	1.34	1.06	1.62	0.14	0.28	
Calcium	mmol/l	2.13	1.92	2.34	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.54	7.70	9.38	0.42	0.84	
	mmol/l	2.11	1.90	2.32	0.11	0.21	NM-BAPTA
	mg/dl	8.46	7.62	9.30	0.42	0.84	
Chloride	mmol/l	93.3	85.8	101	3.75	7.50	ISE indirect
Cholesterol	mmol/l	3.95	3.44	4.46	0.26	0.51	Cholesterol Oxidase
	mg/dl	152	133	171	9.50	19.00	
CK Total	U/l	198	163	233	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	124	102	146	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	84	69	99	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	125	99.7	150	12.65	25.30	Enzymatic UV method (340nm)
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	127	101	153	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.44	1.14	1.74	0.15	0.30	

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

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	128	103	153	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.45	1.16	1.74	0.15	0.29	
gamma-GT	U/l	44	38	50	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	30	40	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	23	31	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	48	41	55	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	38	32	44	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	25	35	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	54	46	62	4.00	8.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	36	50	3.50	7.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	33	28	38	2.50	5.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
Glucose	mmol/l	6.33	5.38	7.28	0.48	0.95	Hexokinase
	mg/dl	114	96.9	131	8.55	17.10	
	mmol/l	6.36	5.41	7.31	0.48	0.95	Glucose oxidase
	mg/dl	115	97.5	133	8.75	17.50	
HDL - Cholesterol	mmol/l	1.11	0.94	1.28	0.09	0.17	Direct HDL Roche 3rd generation
	mg/dl	42.8	36.2	49.4	3.30	6.60	
Iron	µmol/l	18.5	15.1	21.9	1.70	3.40	Colorimetric without ppt.
	µg/dl	103	84.4	122	9.30	18.60	
Lactate	mmol/l	1.56	1.28	1.84	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.1	11.5	16.7	1.30	2.60	
LD (LDH)	U/l	395	336	454	29.50	59.00	P->L German methods 37°C
	U/l	285	243	327	21.00	42.00	P->L German methods 30°C
	U/l	200	170	230	15.00	30.00	P->L German methods 25°C
	U/l	202	172	232	15.00	30.00	L->P IFCC 37°C
	U/l	146	124	168	11.00	22.00	L->P IFCC 30°C
	U/l	102	87	117	7.50	15.00	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

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lipase	U/l	30	24	36	3.00	6.00	Roche Colorimetric 37°C
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Xylidyl Blue
	mg/dl	2.21	1.95	2.47	0.13	0.26	
Phosphate Inorganic	mmol/l	1.39	1.19	1.59	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.31	3.69	4.93	0.31	0.62	
Potassium	mmol/l	4.11	3.78	4.44	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.8	47.0	70.6	5.90	11.80	Biuret reaction end point
	g/dl	5.88	4.70	7.06	0.59	1.18	
Sodium	mmol/l	147	139	155	4.00	8.00	ISE method - indirect
TIBC	µmol/l	44.3	35.0	53.6	4.65	9.30	FE+UIBC(saturation with iron)
	µg/dl	248	196	300	26.00	52.00	
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	100	84.1	116	7.95	15.90	
Urea	mmol/l	7.57	6.44	8.70	0.57	1.13	Urease kinetic
	mg/dl	45.5	38.7	52.3	3.40	6.80	
	mmol/l	7.57	6.43	8.71	0.57	1.14	BUN
	mg/dl	21.2	18.0	24.4	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.96	5.19	6.73	0.39	0.77	
	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.86	5.09	6.63	0.39	0.77	

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

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.0	34.9	47.1	3.05	6.10	Bromocresol Green
	g/dl	4.10	3.49	4.71	0.31	0.61	
Alkaline Phosphatase	U/l	196	167	225	14.50	29.00	AMP optimised to IFCC 37°C
	U/l	153	130	176	11.50	23.00	AMP optimised to IFCC 30°C
	U/l	125	107	143	9.00	18.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	32	25	39	3.50	7.00	Tris buffer without P5P 37°C
	U/l	22	17	27	2.50	5.00	Tris buffer without P5P 30°C
	U/l	15	12	18	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	27.0	21.4	32.6	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.58	1.25	1.91	0.17	0.33	
Calcium	mmol/l	2.09	1.88	2.30	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.38	7.54	9.22	0.42	0.84	
Chloride	mmol/l	94.0	86.5	102	3.75	7.50	ISE indirect
Cholesterol	mmol/l	3.90	3.39	4.41	0.26	0.51	Cholesterol Oxidase
	mg/dl	151	131	171	10.00	20.00	
CK Total	U/l	184	151	217	16.50	33.00	CK-NAC (IFCC) 37°C
	U/l	115	95	135	10.00	20.00	CK-NAC (IFCC) 30°C
	U/l	78	64	92	7.00	14.00	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

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	131	105	157	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.48	1.19	1.77	0.15	0.29	
D-3-Hydroxybutyrate	mmol/l	0.29	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	47	40	54	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	37	32	42	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	29	25	33	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	44	38	50	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	27	23	31	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
GLDH	U/l	14	11	17	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
	U/l	11	8	14	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	9	7	11	1.00	2.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	6.39	5.43	7.35	0.48	0.96	Hexokinase
	mg/dl	115	97.8	132	8.60	17.20	
	mmol/l	6.32	5.38	7.26	0.47	0.94	Glucose oxidase
	mg/dl	114	96.9	131	8.55	17.10	
HDL - Cholesterol	mmol/l	1.11	0.94	1.28	0.08	0.17	Direct HDL Immunoseparation
	mg/dl	42.8	36.3	49.3	3.25	6.50	
LD (LDH)	U/l	391	332	450	29.50	59.00	P->L German methods 37°C
	U/l	282	240	324	21.00	42.00	P->L German methods 30°C
	U/l	198	168	228	15.00	30.00	P->L German methods 25°C
Lipase	U/l	43	35	51	4.00	8.00	Randox Colorimetric 37°C
Magnesium	mmol/l	0.97	0.85	1.08	0.06	0.12	Enzymatic
	mg/dl	2.35	2.07	2.63	0.14	0.28	
Phosphate Inorganic	mmol/l	1.43	1.22	1.64	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.43	3.78	5.08	0.33	0.65	

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

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	4.14	3.80	4.48	0.17	0.34	ISE method - indirect
Protein Total	g/l	58.8	47.0	70.6	5.90	11.80	Biuret reaction end point
	g/dl	5.88	4.70	7.06	0.59	1.18	
Sodium	mmol/l	146	139	153	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.3	114	7.95	15.90	
Urea	mmol/l	7.78	6.62	8.94	0.58	1.16	Urease end point
	mg/dl	46.8	39.8	53.8	3.50	7.00	
	mmol/l	7.78	6.61	8.95	0.59	1.17	BUN
	mg/dl	21.8	18.5	25.1	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.93	5.16	6.70	0.39	0.77	

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

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.2	34.1	46.3	3.05	6.10	Ortho Vitros Microslide Systems
	g/dl	4.02	3.41	4.63	0.31	0.61	
Alkaline Phosphatase	U/l	155	132	178	11.50	23.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	49	39	59	5.00	10.00	Ortho Vitros Microslide Systems 37°C
Amylase Total	U/l	61	52	70	4.50	9.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	49	39	59	5.00	10.00	Ortho Vitros Microslide visible slide 37°C
Bicarbonate	mmol/l	16.8	13.3	20.3	1.75	3.50	Ortho Vitros Microslide Systems
Bilirubin Total	µmol/l	22.6	17.9	27.3	2.35	4.70	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.32	1.05	1.59	0.14	0.27	
	µmol/l	22.5	17.8	27.2	2.35	4.70	Vitros 250/500/700/950 Total BUBC
	mg/dl	1.32	1.04	1.60	0.14	0.28	
Calcium	mmol/l	2.17	1.95	2.39	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	8.70	7.82	9.58	0.44	0.88	
Chloride	mmol/l	96.4	88.7	104	3.85	7.70	Ortho Vitros Microslide Systems
Cholesterol	mmol/l	3.82	3.33	4.31	0.25	0.49	Ortho Vitros Microslide Systems
	mg/dl	147	129	165	9.00	18.00	
Cholinesterase	U/l	5686	4549	6823	568.50	1137.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	194	159	229	17.50	35.00	Ortho Vitros Microslide Systems 37°C
Creatinine	µmol/l	119	95.4	143	11.80	23.60	Vitros IDMS Traceable
	mg/dl	1.34	1.08	1.60	0.13	0.26	
Free T4	pmol/l	35.8	26.8	44.8	4.50	9.00	Vitros ECi
	ng/dl	2.79	2.09	3.49	0.35	0.70	
	pg/ml	27.9	20.9	34.9	3.50	7.00	Vitros ECi

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

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	65	55	75	5.00	10.00	Ortho Vitros Microslide Systems 37°C
Glucose	mmol/l	6.11	5.20	7.02	0.46	0.91	Ortho Vitros Microslide Systems
	mg/dl	110	93.7	126	8.15	16.30	
HDL - Cholesterol	mmol/l	1.18	1.00	1.36	0.09	0.18	Vitros Magnetic HDL
	mg/dl	45.5	38.6	52.4	3.45	6.90	
	mmol/l	1.22	1.04	1.40	0.09	0.18	Vitros 5.1 FS microtip assay
	mg/dl	47.1	40.1	54.1	3.50	7.00	
	mmol/l	1.18	1.01	1.35	0.09	0.17	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	45.5	39.0	52.0	3.25	6.50	
Iron	µmol/l	19.4	15.9	22.9	1.75	3.50	Ortho Vitros Microslide Systems
	µg/dl	108	88.9	127	9.55	19.10	
Lactate	mmol/l	1.44	1.18	1.70	0.13	0.26	Ortho Vitros Microslide Systems
	mg/dl	13.0	10.6	15.4	1.20	2.40	
LD (LDH)	U/l	583	495	671	44.00	88.00	Ortho Vitros Microslide Systems 37°C
Lipase	U/l	223	179	267	22.00	44.00	Ortho Vitros Microslide Systems 37°C
Lithium	mmol/l	1.29	1.14	1.44	0.08	0.15	Ortho Vitros Microslide Systems
	mg/dl	0.896	0.792	1.00	0.05	0.10	
Magnesium	mmol/l	0.90	0.80	1.01	0.05	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.20	1.93	2.47	0.14	0.27	
Phosphate Inorganic	mmol/l	1.44	1.22	1.66	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.46	3.78	5.14	0.34	0.68	
Potassium	mmol/l	4.07	3.75	4.39	0.16	0.32	Ortho Vitros Microslide Systems
Protein Total	g/l	58.9	47.1	70.7	5.90	11.80	Ortho Vitros Microslide Systems
	g/dl	5.89	4.71	7.07	0.59	1.18	

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

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
PSA Total	ng/ml =	10.3	7.75	12.9	1.28	2.55	Ortho Vitros 3600/5600/ECi PSA II
Sodium	mmol/l	144	137	151	3.50	7.00	Ortho Vitros Microslide Systems
TIBC	µmol/l	50.7	40.1	61.3	5.30	10.60	Ortho Vitros Microslide Systems
	µg/dl	283	224	342	29.50	59.00	
Triglycerides	mmol/l	1.25	1.05	1.45	0.10	0.20	Ortho Vitros Microslide Systems
	mg/dl	111	92.9	129	9.05	18.10	
Urea	mmol/l	7.07	6.01	8.13	0.53	1.06	Ortho Vitros Microslide Systems
	mg/dl	42.5	36.1	48.9	3.20	6.40	
	mmol/l	7.07	6.01	8.13	0.53	1.06	BUN
	mg/dl	19.8	16.8	22.8	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.75	5.01	6.49	0.37	0.74	

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

Konelab 20/30/60®/Thermo Scientific Indiko Plus ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.2	34.2	46.2	3.00	6.00	Bromocresol Green
	g/dl	4.02	3.42	4.62	0.30	0.60	
Alkaline Phosphatase	U/l	293	249	337	22.00	44.00	Diethanolamine buffer DEA 37°C
	U/l	228	194	262	17.00	34.00	Diethanolamine buffer DEA 30°C
	U/l	187	159	215	14.00	28.00	Diethanolamine buffer DEA 25°C
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
	U/l	28	22	34	3.00	6.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	22.1	17.5	26.7	2.30	4.60	Nitrobenzenediazonium salt
	mg/dl	1.29	1.02	1.56	0.14	0.27	
Calcium	mmol/l	2.11	1.90	2.32	0.11	0.21	Arsenazo III
	mg/dl	8.46	7.62	9.30	0.42	0.84	
Chloride	mmol/l	101	92.8	109	4.10	8.20	ISE direct
Cholesterol	mmol/l	3.89	3.38	4.40	0.26	0.51	Cholesterol Oxidase
	mg/dl	150	130	170	10.00	20.00	
CK Total	U/l	212	174	250	19.00	38.00	CK-NAC (IFCC) 37°C
	U/l	133	109	157	12.00	24.00	CK-NAC (IFCC) 30°C
	U/l	90	74	106	8.00	16.00	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

Konelab 20/30/60®/Thermo Scientific Indiko Plus ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	124	99.4	149	12.30	24.60	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	124	99.0	149	12.50	25.00	Jaffe rate blanked
	mg/dl	1.40	1.12	1.68	0.14	0.28	
gamma-GT	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.58	5.59	7.57	0.50	0.99	Hexokinase
	mg/dl	119	101	137	9.00	18.00	
	mmol/l	6.45	5.48	7.42	0.49	0.97	Glucose oxidase
	mg/dl	116	98.7	133	8.65	17.30	
HDL - Cholesterol	mmol/l	1.10	0.94	1.27	0.08	0.17	Direct HDL PEGME
	mg/dl	42.5	36.1	48.9	3.20	6.40	
Iron	µmol/l	21.1	17.3	24.9	1.90	3.80	Colorimetric without ppt.
	µg/dl	118	96.7	139	10.65	21.30	
LD (LDH)	U/l	410	349	471	30.50	61.00	P->L Scandinavian & Dutch 37°C
	U/l	296	252	340	22.00	44.00	P->L Scandinavian & Dutch 30°C
	U/l	208	177	239	15.50	31.00	P->L Scandinavian & Dutch 25°C
Lithium	mmol/l	1.09	0.96	1.22	0.06	0.13	Ion selective electrode
	mg/dl	0.757	0.668	0.846	0.04	0.09	
Magnesium	mmol/l	0.93	0.82	1.04	0.06	0.11	Xylidyl Blue
	mg/dl	2.26	1.99	2.53	0.14	0.27	
Phosphate Inorganic	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.40	3.75	5.05	0.33	0.65	
Potassium	mmol/l	3.90	3.59	4.21	0.16	0.31	ISE method - direct

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

Konelab 20/30/60®/Thermo Scientific Indiko Plus ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Protein Total	g/l	59.7	47.8	71.6	5.95	11.90	Biuret reaction end point
	g/dl	5.97	4.78	7.16	0.60	1.19	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	99.1	83.3	115	7.90	15.80	
Urea	mmol/l	7.43	6.31	8.55	0.56	1.12	Urease kinetic
	mg/dl	44.7	37.9	51.5	3.40	6.80	
	mmol/l	7.43	6.32	8.54	0.56	1.11	BUN
	mg/dl	20.9	17.8	24.0	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.38	0.33	0.43	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.33	5.51	7.15	0.41	0.82	
	mmol/l	0.37	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.13	5.33	6.93	0.40	0.80	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.01	5.24	6.78	0.39	0.77	

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
alpha-HBDH	U/l	222	176	268	23.00	46.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	168	133	203	17.50	35.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	126	100	152	13.00	26.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	6.02	4.03	8.01	1.00	1.99	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Prostatic)	U/l	8.28	5.55	11.0	1.37	2.73	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Total)	U/l	14.3	9.58	19.0	2.36	4.72	1-Naphthyl Phosphate substrate Kinetic 37°C
Albumin	g/l	41.5	35.3	47.7	3.10	6.20	Bromocresol Green
	g/dl	4.15	3.53	4.77	0.31	0.62	
	g/l	42.8	36.4	49.2	3.20	6.40	Bromocresol Purple
	g/dl	4.28	3.64	4.92	0.32	0.64	
	g/l	40.2	34.1	46.3	3.05	6.10	Ortho Vitros Microslide Systems
	g/dl	4.02	3.41	4.63	0.31	0.61	
	g/l	40.7	34.6	46.8	3.05	6.10	Turbidimetric Assays
	g/dl	4.07	3.46	4.68	0.31	0.61	
Alkaline Phosphatase	U/l	155	132	178	11.50	23.00	Ortho Vitros Microslide Systems 37°C
	U/l	284	241	327	21.50	43.00	Diethanolamine buffer DEA 37°C
	U/l	221	188	254	16.50	33.00	Diethanolamine buffer DEA 30°C
	U/l	181	154	208	13.50	27.00	Diethanolamine buffer DEA 25°C
	U/l	193	164	222	14.50	29.00	AMP optimised to IFCC 37°C
	U/l	150	128	172	11.00	22.00	AMP optimised to IFCC 30°C
	U/l	123	105	141	9.00	18.00	AMP optimised to 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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Alkaline Phosphatase	U/l	182	155	209	13.50	27.00	AMP non-optimised 37°C
	U/l	142	121	163	10.50	21.00	AMP non-optimised 30°C
	U/l	116	99	133	8.50	17.00	AMP non-optimised 25°C
ALT (GPT)	U/l	33	26	40	3.50	7.00	Colorimetric 37°C
	U/l	24	19	29	2.50	5.00	Colorimetric 30°C
	U/l	19	15	23	2.00	4.00	Colorimetric 25°C
	U/l	49	39	59	5.00	10.00	Ortho Vitros Microslide Systems 37°C
	U/l	38	31	45	3.50	7.00	Tris buffer with P5P 37°C
	U/l	28	23	33	2.50	5.00	Tris buffer with P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer with P5P 25°C
	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
	U/l	34	27	41	3.50	7.00	Tris buffer SCE 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer SCE 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer SCE 25°C
Amylase Pancreatic	U/l	60	51	69	4.50	9.00	Immunoinhibition EPS substrate 37°C
	U/l	59	50	68	4.50	9.00	Roche liquid stable pNPG7 37°C
	U/l	69	59	79	5.00	10.00	Randox Liquid Ethylidene pNPG7 37°C
Amylase Total	U/l	82	69	95	6.50	13.00	pNP Maltotrioside substrates 37°C
	U/l	84	71	97	6.50	13.00	Siemens - blocked pNPG7 37°C
	U/l	67	57	77	5.00	10.00	Randox Lyo. Ethylidene pNPG7 37°C
	U/l	92	78	106	7.00	14.00	Randox Liquid Ethylidene pNPG7 37°C
	U/l	81	68	94	6.50	13.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	81	69	93	6.00	12.00	Beckman Synchron CX4/CX5/CX7 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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Amylase Total	U/l	89	75	103	7.00	14.00	Siemens - maltopenta/hexaoside 37°C
	U/l	81	69	93	6.00	12.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	61	52	70	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	79	67	91	6.00	12.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	81	69	93	6.00	12.00	Roche liquid stable pNPG7 37°C
	U/l	90	77	103	6.50	13.00	Siemens 2-chloro-pNPG3 37°C
	U/l	83	70	96	6.50	13.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	86	73	99	6.50	13.00	Beckman Synchron AMY7 37°C
	U/l	81	69	93	6.00	12.00	I.L. 2-chloro-pNPG3 37°C
	U/l	88	75	101	6.50	13.00	Abbott Architect Non-IFCC Cal. 37°C
	U/l	99	84	114	7.50	15.00	Abbott Architect IFCC Cal. 37°C
Apolipoprotein A-1	g/l	1.17	0.96	1.38	0.11	0.21	Immunoturbidimetric
	mg/dl	117	95.9	138	10.55	21.10	
Apolipoprotein B	g/l	0.58	0.48	0.68	0.05	0.10	Immunoturbidimetric
	mg/dl	58.0	47.6	68.4	5.20	10.40	
AST (GOT)	U/l	32	26	38	3.00	6.00	Colorimetric 37°C
	U/l	22	18	26	2.00	4.00	Colorimetric 30°C
	U/l	15	12	18	1.50	3.00	Colorimetric 25°C
	U/l	49	39	59	5.00	10.00	Ortho Vitros Microslide visible slide 37°C
	U/l	47	38	56	4.50	9.00	Tris buffer with P5P 37°C
	U/l	32	26	38	3.00	6.00	Tris buffer with P5P 30°C
	U/l	22	18	26	2.00	4.00	Tris buffer with P5P 25°C
	U/l	32	26	38	3.00	6.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	15	12	18	1.50	3.00	Tris buffer without P5P 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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
AST (GOT)	U/l	31	24	38	3.50	7.00	Tris buffer SCE 37°C
	U/l	21	16	26	2.50	5.00	Tris buffer SCE 30°C
	U/l	15	11	19	2.00	4.00	Tris buffer SCE 25°C
Bicarbonate	mmol/l	14.4	11.5	17.3	1.45	2.90	Colorimetric
	mmol/l	16.8	13.3	20.3	1.75	3.50	Ortho Vitros Microslide Systems
	mmol/l	14.3	11.3	17.3	1.50	3.00	Differential rate pH change
	mmol/l	15.0	11.9	18.1	1.55	3.10	Enzymatic
	mmol/l	16.0	12.7	19.3	1.65	3.30	Ion selective electrode
Bile Acids	µmol/l	25.9	20.7	31.1	2.60	5.20	4th Generation Colorimetric
	µmol/l	24.2	19.4	29.0	2.40	4.80	5th Generation Colorimetric
Bilirubin Direct	µmol/l	17.8	14.1	21.5	1.85	3.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.04	0.825	1.26	0.11	0.22	
	µmol/l	18.7	14.8	22.6	1.95	3.90	Diazo with Sulphanilic Acid
	mg/dl	1.09	0.866	1.31	0.11	0.22	
	µmol/l	17.9	14.1	21.7	1.90	3.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.05	0.825	1.28	0.11	0.23	
	µmol/l	15.1	11.9	18.3	1.60	3.20	Oxidation to Biliverdin/Vanadate
	mg/dl	0.883	0.696	1.07	0.09	0.19	
	µmol/l	16.5	13.0	20.0	1.75	3.50	Modified Jendrassik
	mg/dl	0.965	0.761	1.17	0.10	0.20	
Bilirubin Total	µmol/l	22.6	17.9	27.3	2.35	4.70	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.32	1.05	1.59	0.14	0.27	
	µmol/l	22.5	17.8	27.2	2.35	4.70	Vitros 250/500/700/950 Total BUBC
	mg/dl	1.32	1.04	1.60	0.14	0.28	
	µmol/l	33.4	26.4	40.4	3.50	7.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.95	1.54	2.36	0.21	0.41	

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	26.7	21.1	32.3	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.56	1.23	1.89	0.17	0.33	
	µmol/l	26.7	21.1	32.3	2.80	5.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.56	1.23	1.89	0.17	0.33	
	µmol/l	22.1	17.5	26.7	2.30	4.60	Nitrobenzenediazonium salt
	mg/dl	1.29	1.02	1.56	0.14	0.27	
	µmol/l	23.7	18.7	28.7	2.50	5.00	Diazonium ion
	mg/dl	1.39	1.09	1.69	0.15	0.30	
	µmol/l	26.8	21.1	32.5	2.85	5.70	Oxidation to Biliverdin/Vanadate
	mg/dl	1.57	1.23	1.91	0.17	0.34	
	µmol/l	33.1	26.1	40.1	3.50	7.00	Modified Jendrassik
	mg/dl	1.94	1.53	2.35	0.21	0.41	
Calcium	mmol/l	2.14	1.92	2.36	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.58	7.70	9.46	0.44	0.88	
	mmol/l	2.17	1.95	2.39	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	8.70	7.82	9.58	0.44	0.88	
	mmol/l	2.07	1.87	2.27	0.10	0.20	Ion selective electrode
	mg/dl	8.30	7.49	9.11	0.41	0.81	
	mmol/l	2.34	2.11	2.57	0.12	0.23	Methylthymol blue
	mg/dl	9.38	8.46	10.3	0.46	0.92	
	mmol/l	2.15	1.93	2.37	0.11	0.22	Arsenazo III
	mg/dl	8.62	7.74	9.50	0.44	0.88	
	mmol/l	2.12	1.91	2.33	0.11	0.21	NM-BAPTA
	mg/dl	8.50	7.66	9.34	0.42	0.84	

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Chloride	mmol/l	98.4	90.5	106	3.95	7.90	Colorimetric
	mmol/l	96.4	88.7	104	3.85	7.70	Ortho Vitros Microslide Systems
	mmol/l	94.9	87.3	103	3.80	7.60	ISE indirect
	mmol/l	97.4	89.6	105	3.90	7.80	ISE direct
Cholesterol	mmol/l	3.82	3.33	4.31	0.25	0.49	Ortho Vitros Microslide Systems
	mg/dl	147	129	165	9.00	18.00	
	mmol/l	4.00	3.48	4.52	0.26	0.52	Cholesterol Oxidase
	mg/dl	154	134	174	10.00	20.00	
Cholinesterase	U/l	5461	4369	6553	546.00	1092.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	194	159	229	17.50	35.00	Ortho Vitros Microslide Systems 37°C
	U/l	217	178	256	19.50	39.00	CK-NAC serum start (DGKC) 37°C
	U/l	136	111	161	12.50	25.00	CK-NAC serum start (DGKC) 30°C
	U/l	92	76	108	8.00	16.00	CK-NAC serum start (DGKC) 25°C
	U/l	209	172	246	18.50	37.00	CK-NAC substrate start (DGKC) 37°C
	U/l	131	108	154	11.50	23.00	CK-NAC substrate start (DGKC) 30°C
	U/l	89	73	105	8.00	16.00	CK-NAC substrate start (DGKC) 25°C
	U/l	204	167	241	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	128	105	151	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	87	71	103	8.00	16.00	CK-NAC (IFCC) 25°C
	U/l	212	174	250	19.00	38.00	Monothioglycerol 37°C
	U/l	133	109	157	12.00	24.00	Monothioglycerol 30°C
	U/l	90	74	106	8.00	16.00	Monothioglycerol 25°C
	U/l	194	159	229	17.50	35.00	Dithioerythritol (DTE) IFCC correlated 37°C
	U/l	121	100	142	10.50	21.00	Dithioerythritol (DTE) IFCC correlated 30°C
	U/l	82	68	96	7.00	14.00	Dithioerythritol (DTE) IFCC correlated 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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Copper	µmol/l	16.8	13.5	20.1	1.65	3.30	Atomic absorption
	µg/dl	107	85.9	128	10.55	21.10	
	µmol/l	16.4	13.1	19.7	1.65	3.30	Colorimetric
	µg/dl	104	83.3	125	10.35	20.70	
Cortisol	nmol/l	472	354	590	59.00	118.00	Roche Cobas E411
	µg/dl	17.0	12.7	21.3	2.15	4.30	
Creatinine	µmol/l	119	95.4	143	11.80	23.60	Alkaline picrate with deproteinization
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	µmol/l	126	100	152	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.42	1.13	1.71	0.15	0.29	
	µmol/l	126	101	151	12.50	25.00	Enzymatic UV method (340nm)
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	124	99.0	149	12.50	25.00	Creatinine PAP method
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	129	103	155	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	127	102	152	12.50	25.00	Jaffe rate blanked
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	127	102	152	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	122	97.5	147	12.25	24.50	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	µmol/l	119	95.4	143	11.80	23.60	Vitros IDMS Traceable
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	µmol/l	123	98.6	147	12.20	24.40	IDMS traceable
	mg/dl	1.39	1.11	1.67	0.14	0.28	

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
D-3-Hydroxybutyrate	mmol/l	0.29	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	2.23	1.78	2.68	0.23	0.45	Immunoturbidimetric
	ng/ml	1.74	1.39	2.09	0.18	0.35	
Folate	nmol/l	27.9	21.2	34.6	3.35	6.70	Roche Cobas E411
	ng/ml	12.3	9.35	15.3	1.48	2.95	
Free T4	pmol/l	17.4	13.1	21.7	2.15	4.30	Abbott Architect
	ng/dl	1.36	1.02	1.70	0.17	0.34	
	pg/ml	13.6	10.2	17.0	1.70	3.40	Abbott Architect
	pmol/l	19.1	14.3	23.9	2.40	4.80	Siemens Centaur XP/XPT/Classic
	ng/dl	1.49	1.12	1.86	0.19	0.37	
	pg/ml	14.9	11.2	18.6	1.85	3.70	Siemens Centaur XP/XPT/Classic
	pmol/l	19.1	14.3	23.9	2.40	4.80	Beckman Access
	ng/dl	1.49	1.12	1.86	0.19	0.37	
	pg/ml	14.9	11.2	18.6	1.85	3.70	Beckman Access
	pmol/l	18.1	13.6	22.6	2.25	4.50	Beckman DxI800
	ng/dl	1.41	1.06	1.76	0.18	0.35	
	pg/ml	14.1	10.6	17.6	1.75	3.50	Beckman DxI800
	pmol/l	21.0	15.7	26.3	2.65	5.30	Siemens Immulite 2000/2500
	ng/dl	1.64	1.22	2.06	0.21	0.42	
	pg/ml	16.4	12.2	20.6	2.10	4.20	Siemens Immulite 2000/2500
	pmol/l	35.8	26.8	44.8	4.50	9.00	Vitros ECi
	ng/dl	2.79	2.09	3.49	0.35	0.70	
	pg/ml	27.9	20.9	34.9	3.50	7.00	Vitros ECi
	pmol/l	22.4	16.8	28.0	2.80	5.60	Roche Elecsys
	ng/dl	1.75	1.31	2.19	0.22	0.44	
	pg/ml	17.5	13.1	21.9	2.20	4.40	Roche Elecsys

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Free T4	pmol/l	22.3	16.7	27.9	2.80	5.60	Roche Modular E170
	ng/dl	1.74	1.30	2.18	0.22	0.44	
	pg/ml	17.4	13.0	21.8	2.20	4.40	Roche Modular E170
	pmol/l	22.4	16.8	28.0	2.80	5.60	Roche Cobas E411
	ng/dl	1.75	1.31	2.19	0.22	0.44	
	pg/ml	17.5	13.1	21.9	2.20	4.40	Roche Cobas E411
	pmol/l	22.8	17.1	28.5	2.85	5.70	Roche Cobas 6000/8000
	ng/dl	1.78	1.33	2.23	0.23	0.45	
	pg/ml	17.8	13.3	22.3	2.25	4.50	Roche Cobas 6000/8000
	pmol/l	20.7	15.5	25.9	2.60	5.20	Biomerieux Vidas FT4N Kit
	ng/dl	1.61	1.21	2.01	0.20	0.40	
	pg/ml	16.1	12.1	20.1	2.00	4.00	Biomerieux Vidas FT4N Kit
Gentamicin	µmol/l	7.55	6.04	9.06	0.76	1.51	Immunoturbidimetric
	µg/ml	3.61	2.89	4.33	0.36	0.72	
gamma-GT	U/l	48	41	55	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	38	32	44	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	25	35	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	65	55	75	5.00	10.00	Ortho Vitros Microslide Systems 37°C
	U/l	42	36	48	3.00	6.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	33	28	38	2.50	5.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	26	22	30	2.00	4.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	54	46	62	4.00	8.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	36	50	3.50	7.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	33	28	38	2.50	5.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	15	12	18	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
	U/l	12	9	15	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	9	7	11	1.00	2.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	6.11	5.20	7.02	0.46	0.91	Ortho Vitros Microslide Systems
	mg/dl	110	93.7	126	8.15	16.30	
	mmol/l	6.48	5.51	7.45	0.49	0.97	Glucose dehydrogenase
	mg/dl	117	99.3	135	8.85	17.70	
	mmol/l	6.31	5.37	7.25	0.47	0.94	Hexokinase
	mg/dl	114	96.8	131	8.60	17.20	
	mmol/l	6.12	5.20	7.04	0.46	0.92	Oxygen electrode
	mg/dl	110	93.7	126	8.15	16.30	
	mmol/l	6.36	5.40	7.32	0.48	0.96	Glucose oxidase
	mg/dl	115	97.3	133	8.85	17.70	
HDL - Cholesterol	mmol/l	1.23	1.04	1.42	0.10	0.19	Direct HDL PPD
	mg/dl	47.5	40.1	54.9	3.70	7.40	
	mmol/l	1.21	1.03	1.39	0.09	0.18	Direct HDL Immunoseparation
	mg/dl	46.7	39.8	53.6	3.45	6.90	
	mmol/l	1.18	1.00	1.36	0.09	0.18	Vitros Magnetic HDL
	mg/dl	45.5	38.6	52.4	3.45	6.90	
	mmol/l	1.14	0.97	1.31	0.09	0.17	Direct HDL PEGME
	mg/dl	44.0	37.3	50.7	3.35	6.70	

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	1.18	1.00	1.36	0.09	0.18	Direct Clearance Method
	mg/dl	45.5	38.6	52.4	3.45	6.90	
	mmol/l	1.22	1.04	1.40	0.09	0.18	Vitros 5.1 FS microtip assay
	mg/dl	47.1	40.1	54.1	3.50	7.00	
	mmol/l	1.18	1.01	1.35	0.09	0.17	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	45.5	39.0	52.0	3.25	6.50	
	mmol/l	1.08	0.92	1.24	0.08	0.16	Direct HDL Roche 3rd generation
	mg/dl	41.7	35.4	48.0	3.15	6.30	
	mmol/l	1.24	1.05	1.43	0.10	0.19	HDL - Ultra
	mg/dl	47.9	40.5	55.3	3.70	7.40	
Immunoglobulin A	g/l	1.70	1.28	2.12	0.21	0.42	Immunoturbidimetric
	mg/dl	170	128	212	21.00	42.00	
Immunoglobulin G	g/l	6.09	4.99	7.19	0.55	1.10	Immunoturbidimetric
	mg/dl	609	499	719	55.00	110.00	
Immunoglobulin M	g/l	0.80	0.64	0.96	0.08	0.16	Immunoturbidimetric
	mg/dl	80.3	64.2	96.4	8.05	16.10	
Iron	µmol/l	18.6	15.2	22.0	1.70	3.40	Colorimetric with ppt.
	µg/dl	104	85.0	123	9.50	19.00	
	µmol/l	18.7	15.4	22.0	1.65	3.30	Colorimetric without ppt.
	µg/dl	105	86.1	124	9.45	18.90	
	µmol/l	19.4	15.9	22.9	1.75	3.50	Ortho Vitros Microslide Systems
	µg/dl	108	88.9	127	9.55	19.10	
Lactate	mmol/l	1.43	1.18	1.68	0.13	0.25	Ion selective electrode
	mg/dl	12.9	10.6	15.2	1.15	2.30	
	mmol/l	1.53	1.26	1.80	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.8	11.4	16.2	1.20	2.40	

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lactate	mmol/l	1.44	1.18	1.70	0.13	0.26	Ortho Vitros Microslide Systems
	mg/dl	13.0	10.6	15.4	1.20	2.40	
	mmol/l	1.59	1.30	1.88	0.15	0.29	Enzymatic Electrode
	mg/dl	14.3	11.7	16.9	1.30	2.60	
	mmol/l	1.52	1.25	1.79	0.14	0.27	UV LDH
	mg/dl	13.7	11.3	16.1	1.20	2.40	
LAP	U/l	17	14	20	1.50	3.00	NAGEL 37°C
LD (LDH)	U/l	583	495	671	44.00	88.00	Ortho Vitros Microslide Systems 37°C
	U/l	183	155	211	14.00	28.00	L->P 37°C
	U/l	132	112	152	10.00	20.00	L->P 30°C
	U/l	93	79	107	7.00	14.00	L->P 25°C
	U/l	435	370	500	32.50	65.00	P->L Scandinavian & Dutch 37°C
	U/l	314	267	361	23.50	47.00	P->L Scandinavian & Dutch 30°C
	U/l	221	188	254	16.50	33.00	P->L Scandinavian & Dutch 25°C
	U/l	397	338	456	29.50	59.00	P->L German methods 37°C
	U/l	287	244	330	21.50	43.00	P->L German methods 30°C
	U/l	201	171	231	15.00	30.00	P->L German methods 25°C
	U/l	417	354	480	31.50	63.00	P->L SFBC 37°C
	U/l	301	256	346	22.50	45.00	P->L SFBC 30°C
	U/l	211	179	243	16.00	32.00	P->L SFBC 25°C
	U/l	205	174	236	15.50	31.00	L->P IFCC 37°C
	U/l	148	126	170	11.00	22.00	L->P IFCC 30°C
	U/l	104	88	120	8.00	16.00	L->P IFCC 25°C
Lipase	U/l	35	28	42	3.50	7.00	Other Colorimetric 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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lipase	U/l	223	179	267	22.00	44.00	Ortho Vitros Microslide Systems 37°C
	U/l	30	24	36	3.00	6.00	Roche Colorimetric 37°C
	U/l	174	140	208	17.00	34.00	Randox Turbidimetric with colipase 37°C
	U/l	42	34	50	4.00	8.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.29	1.14	1.44	0.08	0.15	Ortho Vitros Microslide Systems
	mg/dl	0.896	0.792	1.00	0.05	0.10	
	mmol/l	1.07	0.94	1.20	0.07	0.13	Ion selective electrode
	mg/dl	0.743	0.652	0.834	0.05	0.09	
	mmol/l	1.09	0.96	1.22	0.07	0.13	Spectrophotometric
	mg/dl	0.757	0.665	0.849	0.05	0.09	
	mmol/l	1.02	0.90	1.14	0.06	0.12	Randox Colorimetric
	mg/dl	0.708	0.624	0.792	0.04	0.08	
Magnesium	mmol/l	0.90	0.79	1.00	0.05	0.11	Arsenazo III
	mg/dl	2.17	1.91	2.43	0.13	0.26	
	mmol/l	0.90	0.80	1.01	0.05	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.20	1.93	2.47	0.14	0.27	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Calmagite
	mg/dl	2.21	1.94	2.48	0.14	0.27	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Xylidyl Blue
	mg/dl	2.25	1.98	2.52	0.14	0.27	
	mmol/l	0.90	0.79	1.01	0.05	0.11	Methylthymol blue
	mg/dl	2.18	1.92	2.44	0.13	0.26	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.24	1.97	2.51	0.14	0.27	
	mmol/l	0.89	0.78	1.00	0.05	0.11	Enzymatic
	mg/dl	2.16	1.91	2.41	0.13	0.25	

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
NEFA	mmol/l	1.79	1.52	2.06	0.14	0.27	Colorimetric
Osmolality	mOsm/kg	293	234	352	29.50	59.00	Calculated
	mOsm/kg	307	246	368	30.50	61.00	Freezing point depression
Paracetamol	mmol/l	0.11	0.09	0.13	0.01	0.02	Colorimetric
	mg/l	16.4	13.2	19.6	1.60	3.20	
Phosphate Inorganic	mmol/l	1.44	1.22	1.66	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.46	3.78	5.14	0.34	0.68	
	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.37	3.72	5.02	0.33	0.65	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	4.07	3.75	4.39	0.16	0.32	Ortho Vitros Microslide Systems
	mmol/l	4.05	3.73	4.37	0.16	0.32	Enzymatic
	mmol/l	4.01	3.69	4.33	0.16	0.32	Flame photometry
	mmol/l	3.97	3.65	4.29	0.16	0.32	ISE method - direct
	mmol/l	4.02	3.70	4.34	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.9	47.1	70.7	5.90	11.80	Ortho Vitros Microslide Systems
	g/dl	5.89	4.71	7.07	0.59	1.18	
	g/l	58.7	47.0	70.4	5.85	11.70	Biuret reaction end point
	g/dl	5.87	4.70	7.04	0.59	1.17	
	g/l	57.5	46.0	69.0	5.75	11.50	Biuret reaction kinetic
	g/dl	5.75	4.60	6.90	0.58	1.15	
PSA Total	ng/ml =	12.2	9.18	15.2	1.51	3.02	Roche Elecsys Modular E170
	ng/ml =	11.7	8.78	14.6	1.46	2.92	bioMerieux VIDAS TPSA

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
PSA Total	ng/ml =	9.37	7.03	11.7	1.17	2.34	Siemens Centaur XP/XPT/Classic
	ng/ml =	10.0	7.50	12.5	1.25	2.50	Abbott Architect
	ng/ml =	12.4	9.31	15.5	1.55	3.09	Cobas E411
	ng/ml =	11.9	8.96	14.8	1.47	2.94	Roche Cobas 6000/8000
	ng/ml =	10.3	7.75	12.9	1.28	2.55	Ortho Vitros 3600/5600/ECi PSA II
Salicylate	mmol/l	0.41	0.33	0.49	0.04	0.08	Enzymatic
	mg/dl	5.66	4.53	6.79	0.57	1.13	
Sodium	mmol/l	144	137	151	3.50	7.00	Ortho Vitros Microslide Systems
	mmol/l	141	134	148	3.50	7.00	Enzymatic
	mmol/l	141	134	148	3.50	7.00	Flame photometry
	mmol/l	142	135	149	3.50	7.00	ISE method - direct
	mmol/l	144	137	151	3.50	7.00	ISE method - indirect
Theophylline	µmol/l	26.2	21.0	31.4	2.60	5.20	Immunoturbidimetric
	µg/ml	4.72	3.78	5.66	0.47	0.94	
Thyroid Stimulating Hormone	µU/ml =	1.16	0.93	1.39	0.11	0.23	Abbott Architect
	µU/ml =	1.45	1.16	1.74	0.15	0.29	Siemens Centaur XP/XPT/Classic
	µU/ml =	1.24	1.00	1.49	0.12	0.25	Beckman Access hyperTSH 3rd Generation
	µU/ml =	1.47	1.18	1.76	0.15	0.29	bioMerieux VIDAS TSH
	µU/ml =	1.50	1.20	1.80	0.15	0.30	bioMerieux VIDAS TSH3 Ultrasensitive
	µU/ml =	1.38	1.10	1.66	0.14	0.28	Siemens Immulite 2000/2500
	µU/ml =	1.40	1.12	1.68	0.14	0.28	Roche Elecsys
	µU/ml =	1.49	1.19	1.79	0.15	0.30	Roche Modular E170
	µU/ml =	1.47	1.18	1.76	0.15	0.29	Roche Cobas E411
	µU/ml =	1.46	1.17	1.75	0.15	0.29	Roche Cobas 6000/8000
	µU/ml =	1.36	1.09	1.63	0.14	0.27	Beckman DxI800 Hyper TSH

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Thyroid Stimulating Hormone	µU/ml =	1.24	1.00	1.49	0.12	0.25	Siemens Centaur XP/XPT/Classic TSH3-Ultra
TIBC	µmol/l	50.7	40.1	61.3	5.30	10.60	Ortho Vitros Microslide Systems
	µg/dl	283	224	342	29.50	59.00	
	µmol/l	44.2	34.9	53.5	4.65	9.30	Removal of excess free iron
	µg/dl	247	195	299	26.00	52.00	
	µmol/l	46.1	36.4	55.8	4.85	9.70	FE+UIBC(saturation with iron)
	µg/dl	258	203	313	27.50	55.00	
	µmol/l	48.0	37.9	58.1	5.05	10.10	Direct Colorimetric
	µg/dl	268	212	324	28.00	56.00	
	µmol/l	45.8	36.2	55.4	4.80	9.60	Calculated from Transferrin
	µg/dl	256	202	310	27.00	54.00	
	µmol/l	52.5	41.5	63.5	5.50	11.00	Randox Direct
	µg/dl	293	232	354	30.50	61.00	
Tobramycin	µmol/l	6.13	4.90	7.36	0.62	1.23	Immunoturbidimetric
	µg/ml	2.87	2.29	3.45	0.29	0.58	
Total T3	nmol/l	2.51	1.89	3.13	0.31	0.62	Abbott Architect
	ng/ml	1.63	1.23	2.03	0.20	0.40	
	ng/dl	163	123	203	20.00	40.00	Abbott Architect
	nmol/l	2.53	1.90	3.16	0.32	0.63	Beckman Access
	ng/ml	1.65	1.24	2.06	0.21	0.41	
	ng/dl	165	124	206	20.50	41.00	Beckman Access
	nmol/l	2.80	2.10	3.50	0.35	0.70	Siemens Centaur XP/XPT/Classic
	ng/ml	1.82	1.37	2.27	0.23	0.45	
	ng/dl	182	137	227	22.50	45.00	Siemens Centaur XP/XPT/Classic
	nmol/l	2.71	2.03	3.39	0.34	0.68	Roche Cobas E411
	ng/ml	1.76	1.32	2.20	0.22	0.44	
	ng/dl	176	132	220	22.00	44.00	Roche Cobas E411

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Total T3	nmol/l	2.76	2.07	3.45	0.35	0.69	Roche Cobas 6000/8000
	ng/ml	1.80	1.35	2.25	0.23	0.45	
	ng/dl	180	135	225	22.50	45.00	Roche Cobas 6000/8000
Total T4	nmol/l	91.1	68.3	114	11.40	22.80	Abbott Architect
	µg/dl	7.11	5.33	8.89	0.89	1.78	
	ng/ml	71.1	53.3	88.9	8.90	17.80	Abbott Architect
	nmol/l	86.1	64.6	108	10.75	21.50	Siemens Centaur XP/XPT/Classic
	µg/dl	6.72	5.04	8.40	0.84	1.68	
	ng/ml	67.2	50.4	84.0	8.40	16.80	Siemens Centaur XP/XPT/Classic
	nmol/l	85.4	64.0	107	10.70	21.40	BioMerieux Vidas
	µg/dl	6.66	4.99	8.33	0.84	1.67	
	ng/ml	66.6	49.9	83.3	8.35	16.70	BioMerieux Vidas
	nmol/l	86.0	64.5	108	10.75	21.50	Siemens Immulite 1000
	µg/dl	6.71	5.03	8.39	0.84	1.68	
	ng/ml	67.1	50.3	83.9	8.40	16.80	Siemens Immulite 1000
	nmol/l	89.6	67.2	112	11.20	22.40	Siemens Immulite 2000/2500
	µg/dl	6.99	5.24	8.74	0.88	1.75	
	ng/ml	69.9	52.4	87.4	8.75	17.50	Siemens Immulite 2000/2500
	nmol/l	90.3	67.8	113	11.25	22.50	Roche Cobas E411
	µg/dl	7.04	5.29	8.79	0.88	1.75	
	ng/ml	70.4	52.9	87.9	8.75	17.50	Roche Cobas E411
	nmol/l	88.7	66.5	111	11.10	22.20	Roche Cobas 6000/8000
	µg/dl	6.92	5.19	8.65	0.87	1.73	
	ng/ml	69.2	51.9	86.5	8.65	17.30	Roche Cobas 6000/8000

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Transferrin	g/l	2.02	1.62	2.42	0.20	0.40	Immunoturbidimetric
	mg/dl	202	162	242	20.00	40.00	
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.5	114	7.85	15.70	
	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	97.4	81.5	113	7.95	15.90	
	mmol/l	1.13	0.95	1.31	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	100	84.3	116	7.85	15.70	
	mmol/l	1.12	0.94	1.30	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	99.1	83.3	115	7.90	15.80	
	mmol/l	1.08	0.90	1.26	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	95.6	80.0	111	7.80	15.60	
	mmol/l	1.25	1.05	1.45	0.10	0.20	Ortho Vitros Microslide Systems
	mg/dl	111	92.9	129	9.05	18.10	
UIBC	µmol/l	26.5	21.7	31.3	2.40	4.80	Direct Colorimetric
	µg/dl	148	121	175	13.50	27.00	
Urea	mmol/l	7.07	6.01	8.13	0.53	1.06	Ortho Vitros Microslide Systems
	mg/dl	42.5	36.1	48.9	3.20	6.40	
	mmol/l	7.44	6.32	8.56	0.56	1.12	Urease end point
	mg/dl	44.7	38.0	51.4	3.35	6.70	
	mmol/l	7.41	6.30	8.52	0.56	1.11	Urease kinetic
	mg/dl	44.5	37.9	51.1	3.30	6.60	
	mmol/l	7.42	6.31	8.53	0.56	1.11	Urease hypochlorite
	mg/dl	44.6	37.9	51.3	3.35	6.70	

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.41	6.30	8.52	0.56	1.11	BUN
	mg/dl	20.8	17.7	23.9	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.75	5.01	6.49	0.37	0.74	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.00	5.22	6.78	0.39	0.78	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.95	5.17	6.73	0.39	0.78	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.95	5.17	6.73	0.39	0.78	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.96	5.19	6.73	0.39	0.77	
Vitamin B12	pmol/l	517	413	620	51.80	103.60	Roche Cobas E411
	pg/ml	700	560	840	70.00	140.00	
Zinc	µmol/l	21.5	17.2	25.8	2.15	4.30	Atomic absorption
	µg/dl	140	112	168	14.00	28.00	
	µmol/l	20.9	16.7	25.1	2.10	4.20	Colorimetric with deproteinisation
	µg/dl	136	109	163	13.50	27.00	

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

MEAN OF ALL INSTRUMENTS (Elec.)

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin (electrophoresis)		68.7	61.9	75.5	3.40	6.80	% of total Protein (Beckman Capillary)
alpha-1-globulin		5.4	4.1	6.7	0.65	1.30	% of total Protein (Beckman Capillary)
alpha-2-globulin		6.0	4.6	7.4	0.72	1.44	% of total Protein (Beckman Capillary)
beta-globulin		9.3	7.1	11.5	1.12	2.23	% of total Protein (Beckman Capillary)
gamma-globulin		10.6	8.1	13.1	1.27	2.54	% of total Protein (Beckman Capillary)

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

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.9	35.6	48.2	3.15	6.30	Bromocresol Green
	g/dl	4.19	3.56	4.82	0.32	0.63	
Alkaline Phosphatase	U/l	272	231	313	20.50	41.00	Diethanolamine buffer DEA 37°C
	U/l	212	180	244	16.00	32.00	Diethanolamine buffer DEA 30°C
	U/l	174	148	200	13.00	26.00	Diethanolamine buffer DEA 25°C
	U/l	202	172	232	15.00	30.00	AMP optimised to IFCC 37°C
	U/l	157	134	180	11.50	23.00	AMP optimised to IFCC 30°C
	U/l	129	110	148	9.50	19.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	17.0	13.5	20.5	1.75	3.50	Oxidation to Biliverdin/Vanadate
	mg/dl	0.995	0.790	1.20	0.10	0.21	
Bilirubin Total	µmol/l	25.7	20.3	31.1	2.70	5.40	Oxidation to Biliverdin/Vanadate
	mg/dl	1.50	1.19	1.81	0.16	0.31	
Calcium	mmol/l	2.27	2.04	2.50	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.10	8.18	10.0	0.46	0.92	
	mmol/l	2.23	2.01	2.45	0.11	0.22	Arsenazo III
	mg/dl	8.94	8.06	9.82	0.44	0.88	

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

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Cholesterol	mmol/l	4.05	3.52	4.58	0.27	0.53	Cholesterol Oxidase
	mg/dl	156	136	176	10.00	20.00	
CK Total	U/l	207	170	244	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	130	106	154	12.00	24.00	CK-NAC (IFCC) 30°C
	U/l	88	72	104	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	117	93.2	141	11.90	23.80	Alkaline picrate with deproteinization
	mg/dl	1.32	1.05	1.59	0.14	0.27	
	µmol/l	124	99.5	149	12.25	24.50	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	122	97.5	147	12.25	24.50	Enzymatic UV method (340nm)
	mg/dl	1.38	1.10	1.66	0.14	0.28	
gamma-GT	U/l	46	39	53	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	36	31	41	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	24	32	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.27	5.33	7.21	0.47	0.94	Hexokinase
	mg/dl	113	96.0	130	8.50	17.00	
	mmol/l	6.65	5.65	7.65	0.50	1.00	Glucose oxidase
	mg/dl	120	102	138	9.00	18.00	
HDL - Cholesterol	mmol/l	1.29	1.09	1.49	0.10	0.20	Direct HDL PPD
	mg/dl	49.8	42.1	57.5	3.85	7.70	
	mmol/l	1.24	1.06	1.42	0.09	0.18	Direct Clearance Method
	mg/dl	47.9	40.9	54.9	3.50	7.00	

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

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	18.2	14.9	21.5	1.65	3.30	Colorimetric without ppt.
	µg/dl	102	83.3	121	9.35	18.70	
LD (LDH)	U/l	411	349	473	31.00	62.00	P->L German methods 37°C
	U/l	297	252	342	22.50	45.00	P->L German methods 30°C
	U/l	208	177	239	15.50	31.00	P->L German methods 25°C
	U/l	418	355	481	31.50	63.00	P->L SFBC 37°C
	U/l	302	256	348	23.00	46.00	P->L SFBC 30°C
	U/l	212	180	244	16.00	32.00	P->L SFBC 25°C
	U/l	201	171	231	15.00	30.00	L->P IFCC 37°C
	U/l	145	123	167	11.00	22.00	L->P IFCC 30°C
	U/l	102	87	117	7.50	15.00	L->P IFCC 25°C
Magnesium	mmol/l	0.96	0.85	1.08	0.06	0.12	Xylidyl Blue
	mg/dl	2.34	2.06	2.62	0.14	0.28	
Phosphate Inorganic	mmol/l	1.38	1.17	1.59	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.28	3.63	4.93	0.33	0.65	
	mmol/l	1.45	1.23	1.67	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.50	3.81	5.19	0.35	0.69	
Protein Total	g/l	59.7	47.7	71.7	6.00	12.00	Biuret reaction end point
	g/dl	5.97	4.77	7.17	0.60	1.20	
	g/l	59.2	47.4	71.0	5.90	11.80	Biuret reaction kinetic
	g/dl	5.92	4.74	7.10	0.59	1.18	
TIBC	µmol/l	46.6	36.8	56.4	4.90	9.80	FE+UIBC(saturation with iron)
	µg/dl	260	206	314	27.00	54.00	
Triglycerides	mmol/l	1.13	0.95	1.32	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	100	83.6	116	8.20	16.40	

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

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.66	6.51	8.81	0.58	1.15	Urease end point
	mg/dl	46.0	39.1	52.9	3.45	6.90	
	mmol/l	7.49	6.37	8.61	0.56	1.12	Urease kinetic
	mg/dl	45.0	38.3	51.7	3.35	6.70	
	mmol/l	7.35	6.25	8.45	0.55	1.10	Urease hypochlorite
	mg/dl	44.2	37.6	50.8	3.30	6.60	
	mmol/l	7.49	6.37	8.61	0.56	1.12	BUN
	mg/dl	21.0	17.9	24.1	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.17	5.36	6.98	0.41	0.81	
	mmol/l	0.37	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.13	5.34	6.92	0.40	0.79	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.98	5.21	6.75	0.39	0.77	

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

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	42.6	36.2	49.0	3.20	6.40	Bromocresol Green
	g/dl	4.26	3.62	4.90	0.32	0.64	
	g/l	41.9	35.6	48.2	3.15	6.30	Bromocresol Purple
	g/dl	4.19	3.56	4.82	0.32	0.63	
	g/l	41.3	35.1	47.5	3.10	6.20	Turbidimetric Assays
	g/dl	4.13	3.51	4.75	0.31	0.62	
Alkaline Phosphatase	U/l	154	131	177	11.50	23.00	Roche Integra AMP buffer 37°C
	U/l	120	102	138	9.00	18.00	Roche Integra AMP buffer 30°C
	U/l	98	84	112	7.00	14.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	59	50	68	4.50	9.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/l	78	67	89	5.50	11.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	80	68	92	6.00	12.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	80	68	92	6.00	12.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 37°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 30°C
	U/l	14	11	17	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.6	11.6	17.6	1.50	3.00	Colorimetric
	mmol/l	14.9	11.8	18.0	1.55	3.10	Enzymatic

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

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bile Acids	µmol/l	24.3	19.4	29.2	2.45	4.90	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	17.5	13.8	21.2	1.85	3.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.02	0.807	1.23	0.11	0.21	
	µmol/l	17.7	14.0	21.4	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.04	0.819	1.26	0.11	0.22	
	µmol/l	16.8	13.2	20.4	1.80	3.60	Roche JG factored
	mg/dl	0.983	0.772	1.19	0.11	0.21	
Bilirubin Total	µmol/l	23.4	18.5	28.3	2.45	4.90	Diazo with Sulphanilic Acid
	mg/dl	1.37	1.08	1.66	0.15	0.29	
	µmol/l	23.5	18.6	28.4	2.45	4.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	µmol/l	23.6	18.7	28.5	2.45	4.90	Diazonium ion
	mg/dl	1.38	1.09	1.67	0.15	0.29	
Calcium	mmol/l	2.13	1.92	2.34	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.54	7.70	9.38	0.42	0.84	
	mmol/l	2.13	1.91	2.35	0.11	0.22	NM-BAPTA
	mg/dl	8.54	7.66	9.42	0.44	0.88	
Chloride	mmol/l	90.9	83.6	98.2	3.65	7.30	ISE indirect
Cholesterol	mmol/l	3.97	3.45	4.49	0.26	0.52	Cholesterol Oxidase
	mg/dl	153	133	173	10.00	20.00	
Cholinesterase	U/l	5343	4275	6411	534.00	1068.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	209	171	247	19.00	38.00	CK-NAC substrate start (DGKC) 37°C
	U/l	131	107	155	12.00	24.00	CK-NAC substrate start (DGKC) 30°C
	U/l	89	73	105	8.00	16.00	CK-NAC substrate start (DGKC) 25°C
	U/l	200	164	236	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	125	103	147	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	85	70	100	7.50	15.00	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

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	129	103	155	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	129	103	155	13.00	26.00	Enzymatic UV method (340nm)
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	129	103	155	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	133	106	160	13.50	27.00	Jaffe rate blanked
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	µmol/l	127	101	153	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.42	1.14	1.70	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.28	0.23	0.32	0.02	0.04	Tris buffer 100mmol pH 8.5
Free T4	pmol/l	22.8	17.1	28.5	2.85	5.70	Roche Cobas 6000/8000
	ng/dl	1.78	1.33	2.23	0.23	0.45	
	pg/ml	17.8	13.3	22.3	2.25	4.50	Roche Cobas 6000/8000
gamma-GT	U/l	45	38	52	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	30	40	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	23	33	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
GLDH	U/l	15	12	18	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
	U/l	12	9	15	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	9	7	11	1.00	2.00	Triethanolamine buffer 50 mmol 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

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	6.44	5.47	7.41	0.49	0.97	Glucose dehydrogenase
	mg/dl	116	98.6	133	8.70	17.40	
	mmol/l	6.30	5.35	7.25	0.48	0.95	Hexokinase
	mg/dl	114	96.4	132	8.80	17.60	
	mmol/l	6.24	5.30	7.18	0.47	0.94	Glucose oxidase
	mg/dl	112	95.5	129	8.25	16.50	
HDL - Cholesterol	mmol/l	1.09	0.92	1.26	0.08	0.17	Direct HDL PEGME
	mg/dl	42.1	35.6	48.6	3.25	6.50	
	mmol/l	1.07	0.91	1.23	0.08	0.16	Direct HDL Roche 3rd generation
	mg/dl	41.3	35.1	47.5	3.10	6.20	
Iron	µmol/l	18.4	15.1	21.7	1.65	3.30	Colorimetric with ppt.
	µg/dl	103	84.4	122	9.30	18.60	
	µmol/l	18.8	15.4	22.2	1.70	3.40	Colorimetric without ppt.
	µg/dl	105	86.1	124	9.45	18.90	
Lactate	mmol/l	1.51	1.24	1.78	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.6	11.2	16.0	1.20	2.40	
LD (LDH)	U/l	395	336	454	29.50	59.00	P->L German methods 37°C
	U/l	285	243	327	21.00	42.00	P->L German methods 30°C
	U/l	200	170	230	15.00	30.00	P->L German methods 25°C
	U/l	205	174	236	15.50	31.00	L->P IFCC 37°C
	U/l	148	126	170	11.00	22.00	L->P IFCC 30°C
	U/l	104	88	120	8.00	16.00	L->P IFCC 25°C
Lipase	U/l	30	24	36	3.00	6.00	Roche Colorimetric 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

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lipase	U/l	30	24	36	3.00	6.00	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	1.10	0.97	1.24	0.07	0.14	Spectrophotometric
	mg/dl	0.764	0.670	0.858	0.05	0.09	
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Xylidyl Blue
	mg/dl	2.23	1.97	2.49	0.13	0.26	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.23	1.96	2.50	0.14	0.27	
Osmolality	mOsm/kg	297	237	357	30.00	60.00	Calculated
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.34	3.69	4.99	0.33	0.65	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.31	3.66	4.96	0.33	0.65	
Potassium	mmol/l	4.07	3.75	4.39	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.4	46.7	70.1	5.85	11.70	Biuret reaction end point
	g/dl	5.84	4.67	7.01	0.59	1.17	
	g/l	58.7	47.0	70.4	5.85	11.70	Biuret reaction kinetic
	g/dl	5.87	4.70	7.04	0.59	1.17	
PSA Total	ng/ml =	11.9	8.96	14.8	1.47	2.94	Roche Cobas 6000/8000
Sodium	mmol/l	144	137	151	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.46	1.17	1.75	0.15	0.29	Roche Cobas 6000/8000
TIBC	µmol/l	44.5	35.2	53.8	4.65	9.30	FE+UIBC(saturation with iron)
	µg/dl	249	197	301	26.00	52.00	
	µmol/l	48.2	38.1	58.3	5.05	10.10	Calculated from Transferrin
	µg/dl	269	213	325	28.00	56.00	
Total T3	nmol/l	2.76	2.07	3.45	0.35	0.69	Roche Cobas 6000/8000
	ng/ml	1.80	1.35	2.25	0.23	0.45	
	ng/dl	180	135	225	22.50	45.00	Roche Cobas 6000/8000

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

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Total T4	nmol/l	88.7	66.5	111	11.10	22.20	Roche Cobas 6000/8000
	µg/dl	6.92	5.19	8.65	0.87	1.73	
	ng/ml	69.2	51.9	86.5	8.65	17.30	Roche Cobas 6000/8000
Triglycerides	mmol/l	1.11	0.94	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.7	114	7.75	15.50	
	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	94.7	79.3	110	7.70	15.40	
	mmol/l	1.10	0.92	1.28	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	97.4	81.8	113	7.80	15.60	
UIBC	µmol/l	25.2	20.7	29.7	2.25	4.50	Direct Colorimetric
	µg/dl	141	116	166	12.50	25.00	
Urea	mmol/l	7.34	6.24	8.44	0.55	1.10	Urease kinetic
	mg/dl	44.1	37.5	50.7	3.30	6.60	
	mmol/l	7.34	6.24	8.44	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.85	5.09	6.61	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.86	5.11	6.61	0.38	0.75	

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

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	42.4	36.0	48.8	3.20	6.40	Bromocresol Green
	g/dl	4.24	3.60	4.88	0.32	0.64	
Alkaline Phosphatase	U/l	156	132	180	12.00	24.00	Roche Integra AMP buffer 37°C
	U/l	122	103	141	9.50	19.00	Roche Integra AMP buffer 30°C
	U/l	100	84	116	8.00	16.00	Roche Integra AMP buffer 25°C
	U/l	170	145	195	12.50	25.00	AMP optimised to IFCC 37°C
	U/l	132	113	151	9.50	19.00	AMP optimised to IFCC 30°C
	U/l	109	93	125	8.00	16.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	33	27	39	3.00	6.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	82	69	95	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	32	25	39	3.50	7.00	Tris buffer without P5P 37°C
	U/l	22	17	27	2.50	5.00	Tris buffer without P5P 30°C
	U/l	15	12	18	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	17.1	13.5	20.7	1.80	3.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.00	0.790	1.21	0.11	0.21	
	µmol/l	17.3	13.7	20.9	1.80	3.60	Diazo with Sulphanilic Acid
	mg/dl	1.01	0.801	1.22	0.10	0.21	
	µmol/l	17.4	13.7	21.1	1.85	3.70	Roche JG factored
	mg/dl	1.02	0.801	1.24	0.11	0.22	

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

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	25.0	19.7	30.3	2.65	5.30	Diazo with Sulphanilic Acid
	mg/dl	1.46	1.15	1.77	0.16	0.31	
	µmol/l	22.8	18.0	27.6	2.40	4.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.33	1.05	1.61	0.14	0.28	
	µmol/l	24.3	19.2	29.4	2.55	5.10	Diazonium ion
	mg/dl	1.42	1.12	1.72	0.15	0.30	
Calcium	mmol/l	2.17	1.95	2.39	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.70	7.82	9.58	0.44	0.88	
	mmol/l	2.19	1.97	2.41	0.11	0.22	Arsenazo III
	mg/dl	8.78	7.90	9.66	0.44	0.88	
	mmol/l	2.08	1.87	2.29	0.11	0.21	NM-BAPTA
	mg/dl	8.34	7.49	9.19	0.43	0.85	
Chloride	mmol/l	97.8	90.0	106	3.90	7.80	ISE indirect
Cholesterol	mmol/l	4.06	3.53	4.59	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	136	178	10.50	21.00	
CK Total	U/l	199	163	235	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	125	102	148	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	85	69	101	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	115	92.3	138	11.35	22.70	Alkaline picrate with deproteinization
	mg/dl	1.30	1.04	1.56	0.13	0.26	
	µmol/l	120	95.7	144	12.15	24.30	Alkaline picrate no deproteinization
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	µmol/l	125	99.9	150	12.55	25.10	Roche Creatinine Plus
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	129	103	155	13.00	26.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.46	1.16	1.76	0.15	0.30	

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

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	50	43	57	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	34	44	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	26	34	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.40	5.44	7.36	0.48	0.96	Hexokinase
	mg/dl	115	98.0	132	8.50	17.00	
	mmol/l	6.35	5.40	7.30	0.48	0.95	Glucose oxidase
	mg/dl	114	97.3	131	8.35	16.70	
HDL - Cholesterol	mmol/l	1.11	0.94	1.28	0.08	0.17	Direct HDL Roche 3rd generation
	mg/dl	42.8	36.3	49.3	3.25	6.50	
Iron	µmol/l	18.0	14.8	21.2	1.60	3.20	Colorimetric without ppt.
	µg/dl	101	82.7	119	9.15	18.30	
LD (LDH)	U/l	210	179	241	15.50	31.00	L->P IFCC 37°C
	U/l	152	129	175	11.50	23.00	L->P IFCC 30°C
	U/l	106	91	121	7.50	15.00	L->P IFCC 25°C
Magnesium	mmol/l	0.94	0.83	1.05	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.28	2.01	2.55	0.14	0.27	
Phosphate Inorganic	mmol/l	1.45	1.23	1.67	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.50	3.81	5.19	0.35	0.69	
Potassium	mmol/l	3.97	3.66	4.28	0.16	0.31	ISE method - indirect
Protein Total	g/l	58.7	47.0	70.4	5.85	11.70	Biuret reaction end point
	g/dl	5.87	4.70	7.04	0.59	1.17	

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

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.7	113	7.85	15.70	
	mmol/l	1.06	0.89	1.23	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	93.8	78.6	109	7.60	15.20	
Urea	mmol/l	7.16	6.09	8.23	0.54	1.07	Urease kinetic
	mg/dl	43.0	36.6	49.4	3.20	6.40	
	mmol/l	7.26	6.17	8.35	0.55	1.09	Urease hypochlorite
	mg/dl	43.6	37.1	50.1	3.25	6.50	
	mmol/l	7.16	6.09	8.23	0.54	1.07	BUN
	mg/dl	20.1	17.1	23.1	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.95	5.17	6.73	0.39	0.78	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.01	5.22	6.80	0.40	0.79	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.96	5.19	6.73	0.39	0.77	

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

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	42.7	36.3	49.1	3.20	6.40	Bromocresol Green
	g/dl	4.27	3.63	4.91	0.32	0.64	
	g/l	42.0	35.7	48.3	3.15	6.30	Bromocresol Purple
	g/dl	4.20	3.57	4.83	0.32	0.63	
Alkaline Phosphatase	U/l	151	128	174	11.50	23.00	Roche Integra AMP buffer 37°C
	U/l	118	100	136	9.00	18.00	Roche Integra AMP buffer 30°C
	U/l	96	82	110	7.00	14.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	81	69	93	6.00	12.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	31	25	37	3.00	6.00	Tris buffer without P5P 37°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 30°C
	U/l	15	12	18	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.9	11.8	18.0	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	17.9	14.1	21.7	1.90	3.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.05	0.825	1.28	0.11	0.23	
	µmol/l	17.5	13.8	21.2	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.02	0.807	1.23	0.11	0.21	
Bilirubin Total	µmol/l	23.7	18.8	28.6	2.45	4.90	Diazo with Sulphanilic Acid
	mg/dl	1.39	1.10	1.68	0.15	0.29	

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

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	23.4	18.5	28.3	2.45	4.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.37	1.08	1.66	0.15	0.29	
	µmol/l	23.7	18.7	28.7	2.50	5.00	Diazonium ion
	mg/dl	1.39	1.09	1.69	0.15	0.30	
Calcium	mmol/l	2.13	1.91	2.35	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.54	7.66	9.42	0.44	0.88	
	mmol/l	2.14	1.93	2.35	0.11	0.21	NM-BAPTA
	mg/dl	8.58	7.74	9.42	0.42	0.84	
Chloride	mmol/l	91.4	84.0	98.8	3.70	7.40	ISE indirect
Cholesterol	mmol/l	4.00	3.48	4.52	0.26	0.52	Cholesterol Oxidase
	mg/dl	154	134	174	10.00	20.00	
CK Total	U/l	206	169	243	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	129	106	152	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	88	72	104	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	125	100	150	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	130	104	156	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	130	104	156	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.47	1.18	1.76	0.15	0.29	
gamma-GT	U/l	45	39	51	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	31	39	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	24	32	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (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

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	6.27	5.33	7.21	0.47	0.94	Hexokinase
	mg/dl	113	96.0	130	8.50	17.00	
	mmol/l	6.36	5.40	7.32	0.48	0.96	Glucose oxidase
	mg/dl	115	97.3	133	8.85	17.70	
HDL - Cholesterol	mmol/l	1.07	0.91	1.23	0.08	0.16	Direct HDL Roche 3rd generation
	mg/dl	41.3	35.0	47.6	3.15	6.30	
Iron	µmol/l	18.9	15.5	22.3	1.70	3.40	Colorimetric without ppt.
	µg/dl	106	86.6	125	9.70	19.40	
Lactate	mmol/l	1.53	1.26	1.80	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.8	11.4	16.2	1.20	2.40	
LD (LDH)	U/l	400	340	460	30.00	60.00	P->L German methods 37°C
	U/l	289	245	333	22.00	44.00	P->L German methods 30°C
	U/l	203	172	234	15.50	31.00	P->L German methods 25°C
	U/l	204	174	234	15.00	30.00	L->P IFCC 37°C
	U/l	147	126	168	10.50	21.00	L->P IFCC 30°C
	U/l	103	88	118	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	30	24	36	3.00	6.00	Roche Colorimetric 37°C
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Xylidyl Blue
	mg/dl	2.24	1.97	2.51	0.14	0.27	
	mmol/l	0.91	0.80	1.01	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.20	1.94	2.46	0.13	0.26	
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	4.10	3.77	4.43	0.17	0.33	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

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Protein Total	g/l	58.7	46.9	70.5	5.90	11.80	Biuret reaction end point
	g/dl	5.87	4.69	7.05	0.59	1.18	
Sodium	mmol/l	145	138	152	3.50	7.00	ISE method - indirect
TIBC	µmol/l	45.2	35.7	54.7	4.75	9.50	FE+UIBC(saturation with iron)
	µg/dl	253	200	306	26.50	53.00	
Triglycerides	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	99.1	83.0	115	8.05	16.10	
	mmol/l	1.13	0.95	1.31	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	100	83.7	116	8.15	16.30	
Urea	mmol/l	7.51	6.39	8.63	0.56	1.12	Urease kinetic
	mg/dl	45.1	38.4	51.8	3.35	6.70	
	mmol/l	7.51	6.38	8.64	0.57	1.13	BUN
	mg/dl	21.1	17.9	24.3	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.96	5.19	6.73	0.39	0.77	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.01	5.24	6.78	0.39	0.77	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.96	5.19	6.73	0.39	0.77	

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

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	42.7	36.3	49.1	3.20	6.40	Bromocresol Green
	g/dl	4.27	3.63	4.91	0.32	0.64	
Alkaline Phosphatase	U/l	147	125	169	11.00	22.00	Roche Integra AMP buffer 37°C
	U/l	115	97	133	9.00	18.00	Roche Integra AMP buffer 30°C
	U/l	94	80	108	7.00	14.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	57	48	66	4.50	9.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/l	81	69	93	6.00	12.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	31	24	38	3.50	7.00	Tris buffer without P5P 37°C
	U/l	21	16	26	2.50	5.00	Tris buffer without P5P 30°C
	U/l	15	11	19	2.00	4.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	15.2	12.0	18.4	1.60	3.20	Enzymatic
Bile Acids	µmol/l	24.8	19.9	29.7	2.45	4.90	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	17.6	13.9	21.3	1.85	3.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.03	0.813	1.25	0.11	0.22	
Bilirubin Total	µmol/l	23.2	18.3	28.1	2.45	4.90	Diazo with Sulphanilic Acid
	mg/dl	1.36	1.07	1.65	0.15	0.29	
	µmol/l	23.3	18.4	28.2	2.45	4.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.36	1.08	1.64	0.14	0.28	

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

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	23.1	18.3	27.9	2.40	4.80	Diazonium ion
	mg/dl	1.35	1.07	1.63	0.14	0.28	
Calcium	mmol/l	2.11	1.90	2.32	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.46	7.62	9.30	0.42	0.84	
	mmol/l	2.11	1.90	2.32	0.11	0.21	NM-BAPTA
	mg/dl	8.46	7.62	9.30	0.42	0.84	
Chloride	mmol/l	92.0	84.7	99.3	3.65	7.30	ISE indirect
Cholesterol	mmol/l	3.94	3.43	4.45	0.26	0.51	Cholesterol Oxidase
	mg/dl	152	132	172	10.00	20.00	
CK Total	U/l	196	161	231	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	123	101	145	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	83	68	98	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	133	106	160	13.50	27.00	Roche Creatinine Plus
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	µmol/l	129	103	155	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.46	1.16	1.76	0.15	0.30	
gamma-GT	U/l	45	38	52	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	30	40	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	23	33	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.26	5.32	7.20	0.47	0.94	Hexokinase
	mg/dl	113	95.9	130	8.55	17.10	
HDL - Cholesterol	mmol/l	1.02	0.87	1.17	0.08	0.15	Direct HDL Roche 3rd generation
	mg/dl	39.4	33.4	45.4	3.00	6.00	

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

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	18.0	14.8	21.2	1.60	3.20	Colorimetric without ppt.
	µg/dl	101	82.7	119	9.15	18.30	
Lactate	mmol/l	1.50	1.23	1.77	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.5	11.1	15.9	1.20	2.40	
LD (LDH)	U/l	393	334	452	29.50	59.00	P->L German methods 37°C
	U/l	284	241	327	21.50	43.00	P->L German methods 30°C
	U/l	199	169	229	15.00	30.00	P->L German methods 25°C
	U/l	206	175	237	15.50	31.00	L->P IFCC 37°C
	U/l	149	126	172	11.50	23.00	L->P IFCC 30°C
	U/l	104	89	119	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	29	23	35	3.00	6.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.08	0.95	1.21	0.07	0.13	Spectrophotometric
	mg/dl	0.750	0.658	0.842	0.05	0.09	
Magnesium	mmol/l	0.91	0.80	1.02	0.06	0.11	Xylidyl Blue
	mg/dl	2.22	1.95	2.49	0.14	0.27	
Phosphate Inorganic	mmol/l	1.37	1.16	1.58	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.25	3.60	4.90	0.33	0.65	
Potassium	mmol/l	4.08	3.76	4.40	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.5	46.8	70.2	5.85	11.70	Biuret reaction end point
	g/dl	5.85	4.68	7.02	0.59	1.17	
Sodium	mmol/l	145	138	152	3.50	7.00	ISE method - indirect
TIBC	µmol/l	43.7	34.5	52.9	4.60	9.20	FE+UIBC(saturation with iron)
	µg/dl	244	193	295	25.50	51.00	
	µmol/l	45.1	35.6	54.6	4.75	9.50	Calculated from Transferrin
	µg/dl	252	199	305	26.50	53.00	

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

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.10	0.93	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.9	113	7.75	15.50	
	mmol/l	1.10	0.93	1.27	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	97.4	82.0	113	7.70	15.40	
UIBC	µmol/l	26.2	21.5	30.9	2.35	4.70	Direct Colorimetric
	µg/dl	146	120	172	13.00	26.00	
Urea	mmol/l	7.23	6.14	8.32	0.55	1.09	Urease kinetic
	mg/dl	43.5	36.9	50.1	3.30	6.60	
	mmol/l	7.23	6.15	8.31	0.54	1.08	BUN
	mg/dl	20.3	17.3	23.3	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.83	5.07	6.59	0.38	0.76	
	mmol/l	0.37	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.17	5.38	6.96	0.40	0.79	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.85	5.09	6.61	0.38	0.76	

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

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.9	34.8	47.0	3.05	6.10	Bromocresol Green
	g/dl	4.09	3.48	4.70	0.31	0.61	
Alkaline Phosphatase	U/l	320	272	368	24.00	48.00	Diethanolamine buffer DEA 37°C
	U/l	194	165	223	14.50	29.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	69	59	79	5.00	10.00	Randox Liquid Ethylidene pNPG7 37°C
Amylase Total	U/l	92	78	106	7.00	14.00	Randox Liquid Ethylidene pNPG7 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	15.5	12.3	18.7	1.60	3.20	Enzymatic
Bile Acids	µmol/l	24.2	19.4	29.0	2.40	4.80	5th Generation Colorimetric
Bilirubin Direct	µmol/l	17.8	14.1	21.5	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.04	0.825	1.26	0.11	0.22	
	µmol/l	14.4	11.4	17.4	1.50	3.00	Oxidation to Biliverdin/Vanadate
	mg/dl	0.842	0.667	1.02	0.09	0.18	
Bilirubin Total	µmol/l	29.2	23.1	35.3	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.71	1.35	2.07	0.18	0.36	
	µmol/l	26.4	20.9	31.9	2.75	5.50	Oxidation to Biliverdin/Vanadate
	mg/dl	1.54	1.22	1.86	0.16	0.32	
Calcium	mmol/l	2.23	2.00	2.46	0.12	0.23	Arsenazo III
	mg/dl	8.94	8.02	9.86	0.46	0.92	
Chloride	mmol/l	94.7	87.1	102	3.80	7.60	ISE direct

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

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Cholesterol	mmol/l	4.12	3.59	4.65	0.27	0.53	Cholesterol Oxidase
	mg/dl	159	139	179	10.00	20.00	
CK Total	U/l	223	183	263	20.00	40.00	CK-NAC substrate start (DGKC) 37°C
	U/l	224	184	264	20.00	40.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	121	96.7	145	12.15	24.30	Alkaline picrate no deproteinization
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	µmol/l	127	101	153	13.00	26.00	Enzymatic UV method (340nm)
	mg/dl	1.44	1.14	1.74	0.15	0.30	
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.53	5.55	7.51	0.49	0.98	Hexokinase
	mg/dl	118	100	136	9.00	18.00	
	mmol/l	6.61	5.62	7.60	0.50	0.99	Glucose oxidase
	mg/dl	119	101	137	9.00	18.00	
Iron	µmol/l	19.2	15.7	22.7	1.75	3.50	Colorimetric without ppt.
	µg/dl	107	87.8	126	9.60	19.20	
Lactate	mmol/l	1.49	1.22	1.76	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.4	11.0	15.8	1.20	2.40	
LD (LDH)	U/l	396	337	455	29.50	59.00	P->L German methods 37°C
	U/l	201	171	231	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	41	33	49	4.00	8.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.02	0.90	1.14	0.06	0.12	Colorimetric
	mg/dl	0.708	0.624	0.792	0.04	0.08	
Magnesium	mmol/l	0.94	0.83	1.06	0.06	0.11	Xylidyl Blue
	mg/dl	2.29	2.02	2.56	0.14	0.27	
Phosphate Inorganic	mmol/l	1.44	1.23	1.65	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.46	3.81	5.11	0.33	0.65	

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

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	4.05	3.73	4.37	0.16	0.32	Enzymatic
	mmol/l	4.04	3.72	4.36	0.16	0.32	ISE method - direct
Protein Total	g/l	59.1	47.3	70.9	5.90	11.80	Biuret reaction end point
	g/dl	5.91	4.73	7.09	0.59	1.18	
Sodium	mmol/l	141	134	148	3.50	7.00	Enzymatic
	mmol/l	143	136	150	3.50	7.00	ISE method - direct
TIBC	µmol/l	52.5	41.5	63.5	5.50	11.00	Direct Colorimetric
	µg/dl	293	232	354	30.50	61.00	
Triglycerides	mmol/l	1.10	0.93	1.27	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	97.4	82.0	113	7.70	15.40	
Urea	mmol/l	7.38	6.27	8.49	0.56	1.11	Urease kinetic
	mg/dl	44.4	37.7	51.1	3.35	6.70	
	mmol/l	7.38	6.27	8.49	0.56	1.11	BUN
	mg/dl	20.7	17.6	23.8	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.90	5.12	6.68	0.39	0.78	
	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.10	5.31	6.89	0.40	0.79	

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

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.2	34.2	46.2	3.00	6.00	Bromocresol Green
	g/dl	4.02	3.42	4.62	0.30	0.60	
	g/l	42.4	36.0	48.8	3.20	6.40	Bromocresol Purple
	g/dl	4.24	3.60	4.88	0.32	0.64	
Alkaline Phosphatase	U/l	170	145	195	12.50	25.00	AMP optimised to IFCC 37°C
	U/l	164	139	189	12.50	25.00	AMP non-optimised 37°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	59	50	68	4.50	9.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	84	71	97	6.50	13.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	34	28	40	3.00	6.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	16.8	13.3	20.3	1.75	3.50	Enzymatic
Bile Acids	µmol/l	26.3	21.0	31.6	2.65	5.30	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	14.8	11.7	17.9	1.55	3.10	Oxidation to Biliverdin/Vanadate
	mg/dl	0.866	0.684	1.05	0.09	0.18	
Bilirubin Total	µmol/l	26.6	21.0	32.2	2.80	5.60	Oxidation to Biliverdin/Vanadate
	mg/dl	1.56	1.23	1.89	0.17	0.33	
Calcium	mmol/l	2.08	1.87	2.29	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.34	7.49	9.19	0.43	0.85	
	mmol/l	2.18	1.96	2.40	0.11	0.22	Arsenazo III
	mg/dl	8.74	7.86	9.62	0.44	0.88	
Chloride	mmol/l	97.0	89.2	105	3.90	7.80	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

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Cholesterol	mmol/l	4.06	3.53	4.59	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	136	178	10.50	21.00	
CK Total	U/l	205	168	242	18.50	37.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	125	100	150	12.50	25.00	Enzymatic UV method (340nm)
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.42	1.14	1.70	0.14	0.28	
gamma-GT	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.26	5.32	7.20	0.47	0.94	Hexokinase
	mg/dl	113	95.9	130	8.55	17.10	
	mmol/l	6.33	5.38	7.28	0.48	0.95	Glucose oxidase
	mg/dl	114	96.9	131	8.55	17.10	
HDL - Cholesterol	mmol/l	1.06	0.90	1.22	0.08	0.16	Direct Clearance Method
	mg/dl	40.9	34.8	47.0	3.05	6.10	
Iron	µmol/l	18.9	15.5	22.3	1.70	3.40	Colorimetric without ppt.
	µg/dl	106	86.6	125	9.70	19.40	
Lactate	mmol/l	1.39	1.14	1.64	0.13	0.25	Colorimetric Lactate Oxidase
	mg/dl	12.5	10.3	14.7	1.10	2.20	
LD (LDH)	U/l	395	335	455	30.00	60.00	P->L German methods 37°C
	U/l	209	178	240	15.50	31.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	207	176	238	15.50	31.00	L->P IFCC 37°C
Lipase	U/l	37	30	44	3.50	7.00	Other Colorimetric 37°C
Lithium	mmol/l	1.05	0.93	1.17	0.06	0.12	Spectrophotometric
	mg/dl	0.729	0.643	0.815	0.04	0.09	

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

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Magnesium	mmol/l	0.93	0.81	1.04	0.06	0.11	Xylidyl Blue
	mg/dl	2.25	1.98	2.52	0.14	0.27	
Phosphate Inorganic	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.37	3.72	5.02	0.33	0.65	
Potassium	mmol/l	4.05	3.72	4.38	0.17	0.33	ISE method - indirect
Protein Total	g/l	59.5	47.6	71.4	5.95	11.90	Biuret reaction end point
	g/dl	5.95	4.76	7.14	0.60	1.19	
Sodium	mmol/l	145	138	152	3.50	7.00	ISE method - indirect
TIBC	µmol/l	50.6	40.0	61.2	5.30	10.60	Direct Colorimetric
	µg/dl	283	224	342	29.50	59.00	
Triglycerides	mmol/l	1.18	0.99	1.37	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	104	88.0	120	8.00	16.00	
	mmol/l	1.13	0.95	1.31	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	100	84.3	116	7.85	15.70	
Urea	mmol/l	7.57	6.44	8.70	0.57	1.13	Urease kinetic
	mg/dl	45.5	38.7	52.3	3.40	6.80	
	mmol/l	7.57	6.43	8.71	0.57	1.14	BUN
	mg/dl	21.2	18.0	24.4	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.00	5.21	6.79	0.40	0.79	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.01	5.24	6.78	0.39	0.77	

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

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	43.4	36.9	49.9	3.25	6.50	Bromocresol Purple
	g/dl	4.34	3.69	4.99	0.33	0.65	
Alkaline Phosphatase	U/l	172	146	198	13.00	26.00	Siemens Dimension AMP buffer 37°C
	U/l	172	146	198	13.00	26.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	42	34	50	4.00	8.00	Tris buffer with P5P 37°C
	U/l	41	33	49	4.00	8.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	90	77	103	6.50	13.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	48	38	58	5.00	10.00	Tris buffer with P5P 37°C
	U/l	50	40	60	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	16.7	13.2	20.2	1.75	3.50	Enzymatic
Bilirubin Direct	µmol/l	11.8	9.29	14.3	1.26	2.51	Diazo with Sulphanilic Acid
	mg/dl	0.690	0.543	0.837	0.07	0.15	
Bilirubin Total	µmol/l	25.9	20.5	31.3	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.52	1.20	1.84	0.16	0.32	
Calcium	mmol/l	2.05	1.84	2.26	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.22	7.37	9.07	0.43	0.85	
Chloride	mmol/l	96.8	89.1	105	3.85	7.70	ISE indirect
Cholesterol	mmol/l	3.43	2.99	3.87	0.22	0.44	Dimension-Siemens reagents
	mg/dl	132	115	149	8.50	17.00	
CK Total	U/l	194	159	229	17.50	35.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	131	105	157	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.48	1.19	1.77	0.15	0.29	

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

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	124	99.0	149	12.50	25.00	Enzymatic UV method (340nm)
	mg/dl	1.40	1.12	1.68	0.14	0.28	
gamma-GT	U/l	56	47	65	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	65	55	75	5.00	10.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.48	5.51	7.45	0.49	0.97	Hexokinase
	mg/dl	117	99.3	135	8.85	17.70	
HDL - Cholesterol	mmol/l	1.16	0.99	1.33	0.09	0.17	Direct HDL PPD
	mg/dl	44.8	38.1	51.5	3.35	6.70	
	mmol/l	1.13	0.96	1.30	0.09	0.17	Direct HDL PEGME
	mg/dl	43.6	37.1	50.1	3.25	6.50	
Iron	µmol/l	17.9	14.7	21.1	1.60	3.20	Colorimetric with ppt.
	µg/dl	100	82.2	118	8.90	17.80	
	µmol/l	18.1	14.8	21.4	1.65	3.30	Colorimetric without ppt.
	µg/dl	101	82.7	119	9.15	18.30	
Lactate	mmol/l	1.48	1.21	1.75	0.14	0.27	UV LDH
	mg/dl	13.3	10.9	15.7	1.20	2.40	
LD (LDH)	U/l	199	169	229	15.00	30.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	196	167	225	14.50	29.00	L->P IFCC 37°C
Lipase	U/l	132	106	158	13.00	26.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.88	0.78	0.99	0.05	0.11	Methylthymol blue
	mg/dl	2.14	1.88	2.40	0.13	0.26	
Phosphate Inorganic	mmol/l	1.43	1.22	1.64	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.43	3.78	5.08	0.33	0.65	
Potassium	mmol/l	3.97	3.66	4.28	0.16	0.31	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

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Protein Total	g/l	60.6	48.5	72.7	6.05	12.10	Biuret reaction end point
	g/dl	6.06	4.85	7.27	0.61	1.21	
Sodium	mmol/l	144	137	151	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	78.9	109	7.45	14.90	
	mmol/l	1.06	0.89	1.23	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	93.8	78.5	109	7.65	15.30	
Urea	mmol/l	7.60	6.46	8.74	0.57	1.14	Urease kinetic
	mg/dl	45.7	38.8	52.6	3.45	6.90	
	mmol/l	7.60	6.46	8.74	0.57	1.14	BUN
	mg/dl	21.3	18.1	24.5	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.00	5.22	6.78	0.39	0.78	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.96	5.19	6.73	0.39	0.77	

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

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.1	35.0	47.2	3.05	6.10	Bromocresol Green
	g/dl	4.11	3.50	4.72	0.31	0.61	
	g/l	43.1	36.6	49.6	3.25	6.50	Bromocresol Purple
	g/dl	4.31	3.66	4.96	0.33	0.65	
Alkaline Phosphatase	U/l	166	141	191	12.50	25.00	Siemens Dimension AMP buffer 37°C
	U/l	173	147	199	13.00	26.00	AMP optimised to IFCC 37°C
	U/l	160	136	184	12.00	24.00	Randox AMP 37°C
ALT (GPT)	U/l	43	34	52	4.50	9.00	Tris buffer with P5P 37°C
	U/l	43	35	51	4.00	8.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	90	76	104	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	48	38	58	5.00	10.00	Tris buffer with P5P 37°C
	U/l	49	39	59	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	16.8	13.3	20.3	1.75	3.50	Enzymatic
Bilirubin Direct	µmol/l	11.7	9.26	14.1	1.22	2.44	Diazo with Sulphanilic Acid
	mg/dl	0.684	0.542	0.826	0.07	0.14	
Bilirubin Total	µmol/l	26.0	20.6	31.4	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.52	1.21	1.83	0.16	0.31	
Calcium	mmol/l	2.04	1.84	2.24	0.10	0.20	Cresolphthalein complexone
	mg/dl	8.18	7.37	8.99	0.41	0.81	
Chloride	mmol/l	96.2	88.5	104	3.85	7.70	ISE indirect
Cholesterol	mmol/l	3.41	2.97	3.85	0.22	0.44	Dimension-Siemens reagents
	mg/dl	132	115	149	8.50	17.00	

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

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	200	164	236	18.00	36.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	131	104	158	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.48	1.18	1.78	0.15	0.30	
	µmol/l	125	100	150	12.50	25.00	Enzymatic UV method (340nm)
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	131	105	157	13.00	26.00	Jaffe rate blanked
	mg/dl	1.48	1.19	1.77	0.15	0.29	
gamma-GT	U/l	56	47	65	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	64	54	74	5.00	10.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.49	5.52	7.46	0.49	0.97	Hexokinase
	mg/dl	117	99.5	135	8.75	17.50	
	mmol/l	6.66	5.66	7.66	0.50	1.00	Glucose oxidase
	mg/dl	120	102	138	9.00	18.00	
HDL - Cholesterol	mmol/l	1.16	0.99	1.33	0.09	0.17	Direct HDL PPD
	mg/dl	44.8	38.1	51.5	3.35	6.70	
	mmol/l	1.17	0.99	1.35	0.09	0.18	Direct HDL PEGME
	mg/dl	45.2	38.3	52.1	3.45	6.90	
	mmol/l	1.23	1.05	1.41	0.09	0.18	Direct Clearance Method
	mg/dl	47.5	40.5	54.5	3.50	7.00	
Iron	µmol/l	17.5	14.3	20.7	1.60	3.20	Colorimetric with ppt.
	µg/dl	97.8	79.9	116	8.95	17.90	
	µmol/l	17.8	14.6	21.0	1.60	3.20	Colorimetric without ppt.
	µg/dl	99.5	81.6	117	8.95	17.90	
LD (LDH)	U/l	199	169	229	15.00	30.00	Siemens Dimension L-P Non IFCC 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

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	195	166	224	14.50	29.00	L->P IFCC 37°C
Lipase	U/l	134	107	161	13.50	27.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.89	0.79	1.00	0.05	0.11	Methylthymol blue
	mg/dl	2.17	1.91	2.43	0.13	0.26	
Phosphate Inorganic	mmol/l	1.49	1.27	1.71	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.62	3.94	5.30	0.34	0.68	
	mmol/l	1.46	1.24	1.68	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.53	3.84	5.22	0.35	0.69	
Potassium	mmol/l	3.93	3.62	4.24	0.16	0.31	ISE method - indirect
Protein Total	g/l	60.5	48.4	72.6	6.05	12.10	Biuret reaction end point
	g/dl	6.05	4.84	7.26	0.61	1.21	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
TIBC	µmol/l	42.8	33.8	51.8	4.50	9.00	Removal of excess free iron
	µg/dl	239	189	289	25.00	50.00	
Triglycerides	mmol/l	1.05	0.89	1.21	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.4	107	7.25	14.50	
	mmol/l	1.06	0.89	1.23	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	93.8	78.4	109	7.70	15.40	
	mmol/l	1.06	0.89	1.23	0.09	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	93.8	78.6	109	7.60	15.20	
Urea	mmol/l	7.48	6.36	8.60	0.56	1.12	Urease end point
	mg/dl	45.0	38.2	51.8	3.40	6.80	
	mmol/l	7.49	6.36	8.62	0.57	1.13	Urease kinetic
	mg/dl	45.0	38.2	51.8	3.40	6.80	
	mmol/l	7.49	6.37	8.61	0.56	1.12	BUN
	mg/dl	21.0	17.9	24.1	1.55	3.10	

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

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.91	5.14	6.68	0.39	0.77	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.96	5.19	6.73	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.93	5.17	6.69	0.38	0.76	

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

SIEMENS DIMENSION Vista®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	43.1	36.6	49.6	3.25	6.50	Bromocresol Purple
	g/dl	4.31	3.66	4.96	0.33	0.65	
Alkaline Phosphatase	U/l	174	148	200	13.00	26.00	Siemens Dimension AMP buffer 37°C
ALT (GPT)	U/l	41	33	49	4.00	8.00	Tris buffer with P5P 37°C
AST (GOT)	U/l	49	39	59	5.00	10.00	Tris buffer with P5P 37°C
Bilirubin Direct	µmol/l	12.0	9.45	14.6	1.28	2.55	Diazo with Sulphanilic Acid
	mg/dl	0.702	0.553	0.851	0.07	0.15	
Bilirubin Total	µmol/l	25.9	20.4	31.4	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.52	1.19	1.85	0.17	0.33	
Calcium	mmol/l	2.05	1.85	2.25	0.10	0.20	Cresolphthalein complexone
	mg/dl	8.22	7.41	9.03	0.41	0.81	
Chloride	mmol/l	96.8	89.1	105	3.85	7.70	ISE indirect
Cholesterol	mmol/l	3.59	3.12	4.06	0.24	0.47	Dimension-Siemens reagents
	mg/dl	139	120	158	9.50	19.00	
CK Total	U/l	200	164	236	18.00	36.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	133	107	159	13.00	26.00	Jaffe rate blanked
	mg/dl	1.50	1.21	1.79	0.15	0.29	
Glucose	mmol/l	6.31	5.36	7.26	0.48	0.95	Hexokinase
	mg/dl	114	96.6	131	8.70	17.40	
HDL - Cholesterol	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct HDL PEGME
	mg/dl	45.9	39.0	52.8	3.45	6.90	

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

SIEMENS DIMENSION Vista®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	18.0	14.8	21.2	1.60	3.20	Colorimetric without ppt.
	µg/dl	101	82.7	119	9.15	18.30	
LD (LDH)	U/l	201	171	231	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	152	122	182	15.00	30.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Methylthymol blue
	mg/dl	2.22	1.95	2.49	0.14	0.27	
Phosphate Inorganic	mmol/l	1.31	1.11	1.51	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.06	3.44	4.68	0.31	0.62	
Potassium	mmol/l	3.90	3.59	4.21	0.16	0.31	ISE method - indirect
Protein Total	g/l	61.0	48.8	73.2	6.10	12.20	Biuret reaction end point
	g/dl	6.10	4.88	7.32	0.61	1.22	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
Urea	mmol/l	7.57	6.44	8.70	0.57	1.13	Urease kinetic
	mg/dl	45.5	38.7	52.3	3.40	6.80	
	mmol/l	7.57	6.43	8.71	0.57	1.14	BUN
	mg/dl	21.2	18.0	24.4	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.93	5.16	6.70	0.39	0.77	

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

VITALAB FLEXOR®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1225UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2021-05-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.3	34.2	46.4	3.05	6.10	Bromocresol Green
	g/dl	4.03	3.42	4.64	0.31	0.61	
Alkaline Phosphatase	U/l	291	248	334	21.50	43.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	34	28	40	3.00	6.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	32	26	38	3.00	6.00	Tris buffer without P5P 37°C
Cholesterol	mmol/l	4.04	3.52	4.56	0.26	0.52	Cholesterol Oxidase
	mg/dl	156	136	176	10.00	20.00	
Creatinine	µmol/l	124	99.3	149	12.35	24.70	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
Glucose	mmol/l	6.26	5.32	7.20	0.47	0.94	Glucose oxidase
	mg/dl	113	95.9	130	8.55	17.10	
Protein Total	g/l	58.6	46.9	70.3	5.85	11.70	Biuret reaction end point
	g/dl	5.86	4.69	7.03	0.59	1.17	
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	85.0	117	8.00	16.00	
Urea	mmol/l	7.37	6.27	8.47	0.55	1.10	Urease kinetic
	mg/dl	44.3	37.7	50.9	3.30	6.60	
	mmol/l	7.37	6.26	8.48	0.56	1.11	BUN
	mg/dl	20.7	17.6	23.8	1.55	3.10	

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