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. 1395UN **EXPIRY:** 2023-03-28

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.
GLDH is stable for 2 days at 2-8°C.
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.
Due to the zinc content in some batches of rubber stoppers, the QC and calibrator material should be aliquoted into polypropylene tubes and stored at +2°C to +8°C to ensure stable zinc levels throughout the stability period.

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
Due to the variation caused by test equipment, test reagents and laboratory technique, the quoted ranges are provided for guidance. It is recommended that these ranges are used until each laboratory has established its own ranges, based on individual laboratory requirements.

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.

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.

The presence of a vertical bar in the margin indicates a technical update from the previous revision.

EC REP Randox Teoranta, Meenmore,
Dungloe, Donegal,
F94 TV06, Ireland

Rev. 24 Jan 23 ld

RANDOX

Abbott Alinity/ Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.8	34.7	46.9	3.05	6.10	Bromocresol Green
	g/dl	4.08	3.47	4.69	0.31	0.61	
	g/l	42.3	35.9	48.7	3.20	6.40	Bromocresol Purple
	g/dl	4.23	3.59	4.87	0.32	0.64	
Alkaline Phosphatase	U/l	168	143	193	12.50	25.00	AMP optimised to IFCC 37℃
	U/l	167	142	192	12.50	25.00	AMP non-optimised 37℃
	U/l	165	141	189	12.00	24.00	Colorimetric 37℃
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37℃
Amylase Pancreatic	U/l	64	55	73	4.50	9.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	100	85	115	7.50	15.00	Abbott Architect IFCC Cal. 37℃
	U/l	95	81	109	7.00	14.00	Abbott Architect Non-IFCC Cal. 37℃
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37℃
Bicarbonate	mmol/l	13.3	10.5	16.1	1.40	2.80	Enzymatic
Bile Acids	µmol/l	24.9	19.9	29.9	2.50	5.00	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	20.4	16.1	24.7	2.15	4.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.19	0.942	1.44	0.12	0.25	
	µmol/l	20.5	16.2	24.8	2.15	4.30	Diazo with Sulphanilic Acid
	mg/dl	1.20	0.948	1.45	0.13	0.25	
	µmol/l	20.6	16.3	24.9	2.15	4.30	Diazo with Dichloroaniline (DCA)
	mg/dl	1.21	0.954	1.47	0.13	0.26	
Bilirubin Total	µmol/l	26.8	21.2	32.4	2.80	5.60	Diazo with Dichloroaniline (DCA)
	mg/dl	1.57	1.24	1.90	0.17	0.33	

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 Alinity/ Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

Analyte	unit	Target	Range low	Range high	1SD	2SD	methods
Bilirubin Total	µmol/l	26.8	21.2	32.4	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.57	1.24	1.90	0.17	0.33	
	µmol/l	28.2	22.3	34.1	2.95	5.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.65	1.30	2.00	0.18	0.35	
	µmol/l	26.2	20.7	31.7	2.75	5.50	Diazonium ion
	mg/dl	1.53	1.21	1.85	0.16	0.32	
Calcium	mmol/l	2.15	1.93	2.37	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.62	7.74	9.50	0.44	0.88	
	mmol/l	2.16	1.95	2.37	0.11	0.21	Arsenazo III
	mg/dl	8.66	7.82	9.50	0.42	0.84	
Chloride	mmol/l	100	92.3	108	3.85	7.70	ISE indirect
Cholesterol	mmol/l	4.17	3.62	4.72	0.28	0.55	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	140	182	10.50	21.00	
	mmol/l	4.13	3.59	4.67	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	159	139	179	10.00	20.00	
	mmol/l	4.20	3.65	4.75	0.28	0.55	Cholesterol Dehydrogenase
	mg/dl	162	141	183	10.50	21.00	
Cholinesterase	U/l	6790	5432	8148	679.00	1358.00	Colorimetric Butyrylthiocholine 37℃
CK Total	U/l	178	146	210	16.00	32.00	CK-NAC serum start (DGKC) 37℃
	U/l	184	151	217	16.50	33.00	CK-NAC substrate start (DGKC) 37℃
	U/l	177	145	209	16.00	32.00	CK-NAC (IFCC) 37℃
	U/l	185	152	218	16.50	33.00	Monothioglycerol 37℃
	U/l	182	149	215	16.50	33.00	Abbott CK-NAC (IFCC) 37℃
Copper	µmol/l	11.8	9.43	14.2	1.19	2.37	Colorimetric
	µg/dl	75.0	60.0	90.0	7.50	15.00	

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

Abbott Alinity/ Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

Analyte	unit	Target	Range low	Range high	1SD	2SD	methods
Creatinine	µmol/l	127	101	153	13.00	26.00	Alkaline picrate with deproteinization
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	126	101	151	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	124	99.0	149	12.50	25.00	Enzymatic UV method
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	128	102	154	13.00	26.00	Jaffe rate blanked
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	122	97.6	146	12.20	24.40	IDMS traceable
	mg/dl	1.38	1.10	1.66	0.14	0.28	
Free T4	pmol/l	18.1	13.6	22.6	2.25	4.50	Abbott Architect
	ng/dl	1.41	1.06	1.76	0.18	0.35	
	pg/ml	14.1	10.6	17.6	1.75	3.50	Abbott Architect
gamma-GT	U/l	51	43	59	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	51	43	59	4.00	8.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37℃
Glucose	mmol/l	5.99	5.09	6.89	0.45	0.90	Hexokinase
	mg/dl	108	91.7	124	8.15	16.30	
	mmol/l	6.19	5.26	7.12	0.47	0.93	Glucose oxidase
	mg/dl	112	94.8	129	8.60	17.20	
HDL - Cholesterol	mmol/l	1.49	1.26	1.72	0.12	0.23	Direct HDL PPD
	mg/dl	57.5	48.6	66.4	4.45	8.90	
	mmol/l	1.46	1.24	1.68	0.11	0.22	Direct HDL Immunoseparation
	mg/dl	56.4	47.9	64.9	4.25	8.50	

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

RANDOX

Abbott Alinity/ Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

Analyte	unit	Target	Range low	Range high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.48	1.26	1.70	0.11	0.22	Direct Clearance Method
	mg/dl	57.1	48.6	65.6	4.25	8.50	
	mmol/l	1.48	1.26	1.70	0.11	0.22	HDL - Ultra
	mg/dl	57.1	48.6	65.6	4.25	8.50	
Iron	µmol/l	21.2	17.4	25.0	1.90	3.80	Colorimetric with ppt.
	µg/dl	119	97.3	141	10.85	21.70	
	µmol/l	21.0	17.2	24.8	1.90	3.80	Colorimetric without ppt.
	µg/dl	117	96.1	138	10.45	20.90	
Lactate	mmol/l	1.54	1.26	1.82	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	13.9	11.4	16.4	1.25	2.50	
LD (LDH)	U/l	194	165	223	14.50	29.00	L->P 37℃
	U/l	195	166	224	14.50	29.00	L->P IFCC 37℃
Lipase	U/l	30	24	36	3.00	6.00	Other Colorimetric 37℃
Lithium	mmol/l	1.03	0.91	1.15	0.06	0.12	Spectrophotometric
	mg/dl	0.715	0.629	0.801	0.04	0.09	
Magnesium	mmol/l	0.82	0.73	0.92	0.05	0.10	Arsenazo III
	mg/dl	2.00	1.76	2.24	0.12	0.24	
	mmol/l	0.84	0.74	0.94	0.05	0.10	Xylidyl Blue
	mg/dl	2.03	1.79	2.27	0.12	0.24	
	mmol/l	0.83	0.73	0.92	0.05	0.10	Enzymatic
	mg/dl	2.00	1.76	2.24	0.12	0.24	
Osmolality	mOsm/kg	296	237	355	29.50	59.00	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	

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 Alinity/ Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	4.00	3.68	4.32	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.0	47.2	70.8	5.90	11.80	Biuret reaction end point
	g/dl	5.90	4.72	7.08	0.59	1.18	
	g/l	59.0	47.2	70.8	5.90	11.80	Biuret reaction kinetic
	g/dl	5.90	4.72	7.08	0.59	1.18	
PSA Total	ng/ml =	9.38	7.04	11.7	1.17	2.34	Abbott Architect
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.09	0.87	1.31	0.11	0.22	Abbott Architect
TIBC	µmol/l	39.7	31.3	48.1	4.20	8.40	FE+UIBC(saturation with iron)
	µg/dl	222	175	269	23.50	47.00	
	µmol/l	42.0	33.2	50.8	4.40	8.80	Calculated from Transferrin
	µg/dl	235	186	284	24.50	49.00	
Triglycerides	mmol/l	1.00	0.84	1.16	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	88.3	74.2	102	7.05	14.10	
	mmol/l	1.01	0.85	1.18	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	89.4	74.8	104	7.30	14.60	
	mmol/l	1.00	0.84	1.16	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	88.5	74.5	103	7.00	14.00	
	mmol/l	1.00	0.84	1.16	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	88.5	74.6	102	6.95	13.90	
UIBC	µmol/l	18.6	15.3	21.9	1.65	3.30	Direct Colorimetric
	µg/dl	104	85.5	123	9.25	18.50	
Urea	mmol/l	7.14	6.07	8.21	0.54	1.07	Urease end point
	mg/dl	42.9	36.5	49.3	3.20	6.40	

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

Abbott Alinity/ Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.20	6.12	8.28	0.54	1.08	Urease kinetic
	mg/dl	43.3	36.8	49.8	3.25	6.50	
	mmol/l	7.20	6.12	8.28	0.54	1.08	BUN
	mg/dl	20.2	17.2	23.2	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.86	5.09	6.63	0.39	0.77	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no 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 with ascorbate oxidase @ 546nm
	mg/dl	5.91	5.14	6.68	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

ABX Pentra 400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.2	33.3	45.1	2.95	5.90	Bromocresol Green
	g/dl	3.92	3.33	4.51	0.30	0.59	
Alkaline Phosphatase	U/l	174	148	200	13.00	26.00	AMP optimised to IFCC 37℃
ALT (GPT)	U/l	42	34	50	4.00	8.00	Tris buffer without P5P 37℃
AST (GOT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37℃
Bilirubin Direct	µmol/l	22.2	17.5	26.9	2.35	4.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.30	1.02	1.58	0.14	0.28	
Bilirubin Total	µmol/l	27.8	22.0	33.6	2.90	5.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.63	1.29	1.97	0.17	0.34	
Calcium	mmol/l	2.17	1.95	2.39	0.11	0.22	Arsenazo III
	mg/dl	8.70	7.82	9.58	0.44	0.88	
Chloride	mmol/l	97.9	90.0	106	3.95	7.90	ISE direct
Cholesterol	mmol/l	4.17	3.63	4.71	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	140	182	10.50	21.00	
CK Total	U/l	180	148	212	16.00	32.00	CK-NAC (IFCC) 37℃
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	
gamma-GT	U/l	49	41	57	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
Glucose	mmol/l	6.21	5.28	7.14	0.47	0.93	Hexokinase
	mg/dl	112	95.1	129	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	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

Analyte	unit	Target	Range low	Range high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.48	1.26	1.70	0.11	0.22	HDL - Ultra
	mg/dl	57.1	48.6	65.6	4.25	8.50	
Iron	µmol/l	19.1	15.7	22.5	1.70	3.40	Colorimetric without ppt.
	µg/dl	107	87.8	126	9.60	19.20	
LD (LDH)	U/l	374	318	430	28.00	56.00	P->L German methods 37℃
	U/l	206	175	237	15.50	31.00	L->P IFCC 37℃
Lipase	U/l	27	22	32	2.50	5.00	Other Colorimetric 37℃
Magnesium	mmol/l	0.85	0.75	0.96	0.05	0.10	Xylidyl Blue
	mg/dl	2.07	1.82	2.32	0.13	0.25	
Phosphate Inorganic	mmol/l	1.59	1.35	1.83	0.12	0.24	Phosphomolybdate UV
	mg/dl	4.93	4.19	5.67	0.37	0.74	
Potassium	mmol/l	3.90	3.59	4.21	0.16	0.31	ISE method - direct
Protein Total	g/l	58.4	46.8	70.0	5.80	11.60	Biuret reaction end point
	g/dl	5.84	4.68	7.00	0.58	1.16	
Sodium	mmol/l	138	131	145	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.0	108	7.45	14.90	
Urea	mmol/l	6.77	5.76	7.78	0.51	1.01	Urease kinetic
	mg/dl	40.7	34.6	46.8	3.05	6.10	
	mmol/l	6.77	5.75	7.79	0.51	1.02	BUN
	mg/dl	19.0	16.2	21.8	1.40	2.80	
Uric Acid (Urate)	mmol/l	0.32	0.28	0.37	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.43	4.72	6.14	0.36	0.71	
	mmol/l	0.33	0.28	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.49	4.77	6.21	0.36	0.72	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			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	
	g/l	39.8	33.9	45.7	2.95	5.90	Bromocresol Purple
	g/dl	3.98	3.39	4.57	0.30	0.59	
Alkaline Phosphatase	U/l	207	176	238	15.50	31.00	Diethanolamine buffer DEA 37°C
	U/l	196	167	225	14.50	29.00	AMP optimised to IFCC 37℃
	U/l	184	156	212	14.00	28.00	AMP non-optimised 37℃
ALT (GPT)	U/l	38	30	46	4.00	8.00	Colorimetric 37℃
	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37℃
	U/l	41	32	50	4.50	9.00	Beckman (Extinction Coefficient) 37℃
Amylase Pancreatic	U/l	61	52	70	4.50	9.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	87	74	100	6.50	13.00	pNP Maltotrioside substrates 37°C
	U/l	93	79	107	7.00	14.00	Randox Liquid Ethylidene pNPG7 37℃
	U/l	86	73	99	6.50	13.00	Beckman Synchron CX4/CX5/CX7 37℃
	U/l	85	72	98	6.50	13.00	Roche liquid stable pNPG7 37℃
	U/l	90	77	103	6.50	13.00	Beckman Coulter - blocked pNPG7 37℃
	U/l	90	76	104	7.00	14.00	Beckman Synchron AMY7 37℃
	U/l	85	72	98	6.50	13.00	Beckman CNPG3 (Extinction Coeff) 37℃
AST (GOT)	U/l	36	29	43	3.50	7.00	Colorimetric 37℃
	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37℃
	U/l	40	32	48	4.00	8.00	Beckman (Extinction Coefficient) 37℃

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bicarbonate	mmol/l	13.8	10.9	16.7	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	20.7	16.4	25.0	2.15	4.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.21	0.959	1.46	0.13	0.25	
	µmol/l	20.1	15.9	24.3	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.18	0.930	1.43	0.13	0.25	
	µmol/l	20.8	16.4	25.2	2.20	4.40	Diazo with Dichloroaniline (DCA)
	mg/dl	1.22	0.959	1.48	0.13	0.26	
	µmol/l	20.6	16.3	24.9	2.15	4.30	Diazo/ Sulphanilic Beckman DxC
	mg/dl	1.21	0.954	1.47	0.13	0.26	
Bilirubin Total	µmol/l	28.9	22.8	35.0	3.05	6.10	Diazo with Dichloroaniline (DCA)
	mg/dl	1.69	1.33	2.05	0.18	0.36	
	µmol/l	29.8	23.6	36.0	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.74	1.38	2.10	0.18	0.36	
	µmol/l	30.2	23.9	36.5	3.15	6.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.77	1.40	2.14	0.19	0.37	
	µmol/l	29.7	23.4	36.0	3.15	6.30	Diazonium ion
	mg/dl	1.74	1.37	2.11	0.19	0.37	
	µmol/l	30.6	24.1	37.1	3.25	6.50	Oxidation to Biliverdin/Vanadate
	mg/dl	1.79	1.41	2.17	0.19	0.38	
	µmol/l	30.2	23.9	36.5	3.15	6.30	DPD (Beckman AU)
	mg/dl	1.77	1.40	2.14	0.19	0.37	
Calcium	mmol/l	2.16	1.95	2.37	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.66	7.82	9.50	0.42	0.84	
	mmol/l	2.22	2.00	2.44	0.11	0.22	Ion selective electrode
	mg/dl	8.90	8.02	9.78	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

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	2.20	1.98	2.42	0.11	0.22	Arsenazo III
	mg/dl	8.82	7.94	9.70	0.44	0.88	
	mmol/l	2.17	1.96	2.38	0.11	0.21	NM-BAPTA
	mg/dl	8.70	7.86	9.54	0.42	0.84	
Chloride	mmol/l	103	95.0	111	4.00	8.00	Colorimetric
	mmol/l	98.3	90.5	106	3.90	7.80	ISE indirect
Cholesterol	mmol/l	4.21	3.66	4.76	0.28	0.55	Cholesterol Oxidase - Abell Kendall
	mg/dl	163	141	185	11.00	22.00	
	mmol/l	4.31	3.75	4.87	0.28	0.56	Cholesterol Oxidase - IDMS
	mg/dl	166	145	187	10.50	21.00	
	mmol/l	4.11	3.57	4.65	0.27	0.54	Cholesterol Dehydrogenase
	mg/dl	159	138	180	10.50	21.00	
Cholinesterase	U/l	5518	4415	6621	551.50	1103.00	Colorimetric Butyrylthiocholine 37℃
CK Total	U/l	187	154	220	16.50	33.00	CK-NAC (IFCC) 37℃
	U/l	189	155	223	17.00	34.00	Beckman CK-NAC (Extinction Coeff) 37℃
Creatinine	µmol/l	119	95.2	143	11.90	23.80	Alkaline picrate with deproteinization
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	µmol/l	121	97.1	145	11.95	23.90	Alkaline picrate no deproteinization
	mg/dl	1.37	1.10	1.64	0.14	0.27	
	µmol/l	127	102	152	12.50	25.00	Enzymatic UV method
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	127	102	152	12.50	25.00	Creatinine PAP method
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	121	97.1	145	11.95	23.90	Jaffe rate blanked
	mg/dl	1.37	1.10	1.64	0.14	0.27	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	123	98.3	148	12.35	24.70	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	114	91.1	137	11.45	22.90	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.29	1.03	1.55	0.13	0.26	
	µmol/l	118	94.5	142	11.75	23.50	IDMS traceable
	mg/dl	1.33	1.07	1.59	0.13	0.26	
D-3-Hydroxybutyrate	mmol/l	0.28	0.24	0.32	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	52	44	60	4.00	8.00	Gamma glutamyl-4-nitroanilide 37℃
	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	51	44	58	3.50	7.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37℃
	U/l	51	43	59	4.00	8.00	Beckman Szasz (Extinction Coeff) 37℃
GLDH	U/l	19	15	23	2.00	4.00	Triethanolamine buffer 50 mmol 37℃
Glucose	mmol/l	6.21	5.28	7.14	0.47	0.93	GOD/02-Beckman method
	mg/dl	112	95.1	129	8.45	16.90	
	mmol/l	6.14	5.22	7.06	0.46	0.92	Glucose dehydrogenase
	mg/dl	111	94.1	128	8.45	16.90	
	mmol/l	6.18	5.25	7.11	0.47	0.93	Hexokinase
	mg/dl	111	94.6	127	8.20	16.40	
	mmol/l	6.26	5.32	7.20	0.47	0.94	Glucose oxidase
	mg/dl	113	95.9	130	8.55	17.10	
HDL - Cholesterol	mmol/l	1.36	1.15	1.57	0.11	0.21	Direct HDL PPD
	mg/dl	52.5	44.4	60.6	4.05	8.10	
	mmol/l	1.35	1.15	1.55	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	52.1	44.4	59.8	3.85	7.70	

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

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	1.34	1.14	1.54	0.10	0.20	Direct HDL PEGME
	mg/dl	51.7	44.0	59.4	3.85	7.70	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Direct Clearance Method
	mg/dl	53.7	45.5	61.9	4.10	8.20	
	mmol/l	1.31	1.11	1.51	0.10	0.20	HDL - Ultra
	mg/dl	50.6	42.8	58.4	3.90	7.80	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Direct HDL Roche 4th Generation
	mg/dl	54.0	45.9	62.1	4.05	8.10	
Iron	µmol/l	21.0	17.2	24.8	1.90	3.80	Colorimetric with ppt.
	µg/dl	117	96.1	138	10.45	20.90	
	µmol/l	20.6	16.9	24.3	1.85	3.70	Colorimetric without ppt.
	µg/dl	115	94.5	136	10.25	20.50	
Lactate	mmol/l	1.47	1.20	1.74	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.2	10.8	15.6	1.20	2.40	
LD (LDH)	U/l	196	167	225	14.50	29.00	L->P 37℃
	U/l	424	361	487	31.50	63.00	P->L Scandinavian & Dutch 37°C
	U/l	382	325	439	28.50	57.00	P->L German methods 37℃
	U/l	199	169	229	15.00	30.00	L->P IFCC 37℃
	U/l	202	172	232	15.00	30.00	L to P Beckman (Extinction Coeff) 37℃
Lipase	U/l	28	22	34	3.00	6.00	Other Colorimetric 37℃
	U/l	40	32	48	4.00	8.00	Randox Colorimetric 37℃
Lithium	mmol/l	1.09	0.96	1.22	0.06	0.13	Ion selective electrode
	mg/dl	0.757	0.667	0.847	0.05	0.09	
	mmol/l	1.05	0.92	1.18	0.06	0.13	Spectrophotometric
	mg/dl	0.729	0.641	0.817	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

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Magnesium	mmol/l	0.87	0.77	0.98	0.05	0.11	Xylidyl Blue
	mg/dl	2.11	1.86	2.36	0.13	0.25	
	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	
Osmolality	mOsm/kg	297	238	356	29.50	59.00	Calculated
Phosphate Inorganic	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.31	3.66	4.96	0.33	0.65	
	mmol/l	1.38	1.18	1.58	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.28	3.66	4.90	0.31	0.62	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Beckman PHOSm (365nm)
	mg/dl	4.31	3.66	4.96	0.33	0.65	
Potassium	mmol/l	3.99	3.67	4.31	0.16	0.32	ISE method - indirect
Protein Total	g/l	57.3	45.8	68.8	5.75	11.50	Biuret reaction end point
	g/dl	5.73	4.58	6.88	0.58	1.15	
	g/l	57.3	45.9	68.7	5.70	11.40	Biuret reaction kinetic
	g/dl	5.73	4.59	6.87	0.57	1.14	
Sodium	mmol/l	142	134	150	4.00	8.00	ISE method - indirect
TIBC	µmol/l	42.6	33.7	51.5	4.45	8.90	FE+UIBC(saturation with iron)
	µg/dl	238	188	288	25.00	50.00	
	µmol/l	43.4	34.3	52.5	4.55	9.10	Direct Colorimetric
	µg/dl	243	192	294	25.50	51.00	
	µmol/l	39.4	31.1	47.7	4.15	8.30	Calculated from Transferrin
	µg/dl	220	174	266	23.00	46.00	
Total T4	nmol/l	120	89.7	150	15.15	30.30	Microgenics DRI assay
	µg/dl	9.36	7.00	11.7	1.18	2.36	
	ng/ml	93.6	70.0	117	11.80	23.60	Microgenics DRI assay

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.03	0.87	1.19	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	91.2	76.8	106	7.20	14.40	
	mmol/l	1.03	0.87	1.19	0.08	0.16	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	91.2	76.8	106	7.20	14.40	
	mmol/l	1.02	0.85	1.19	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	90.3	75.5	105	7.40	14.80	
	mmol/l	1.02	0.86	1.18	0.08	0.16	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	90.3	76.0	105	7.15	14.30	
	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	
UIBC	µmol/l	22.0	18.1	25.9	1.95	3.90	Direct Colorimetric
	µg/dl	123	101	145	11.00	22.00	
Urea	mmol/l	7.37	6.27	8.47	0.55	1.10	Beckman-Conductivity
	mg/dl	44.3	37.7	50.9	3.30	6.60	
	mmol/l	7.56	6.43	8.69	0.57	1.13	Urease end point
	mg/dl	45.4	38.6	52.2	3.40	6.80	
	mmol/l	7.42	6.31	8.53	0.56	1.11	Urease kinetic
	mg/dl	44.6	37.9	51.3	3.35	6.70	
	mmol/l	6.86	5.83	7.89	0.52	1.03	Urease hypochlorite
	mg/dl	41.2	35.0	47.4	3.10	6.20	
	mmol/l	7.42	6.31	8.53	0.56	1.11	BUN
	mg/dl	20.8	17.7	23.9	1.55	3.10	
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	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			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	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

Beckman DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	42.3	35.9	48.7	3.20	6.40	Bromocresol Green
	g/dl	4.23	3.59	4.87	0.32	0.64	
	g/l	43.2	36.7	49.7	3.25	6.50	Bromocresol Purple
	g/dl	4.32	3.67	4.97	0.33	0.65	
Alkaline Phosphatase	U/l	176	149	203	13.50	27.00	AMP optimised to IFCC 37℃
	U/l	175	149	201	13.00	26.00	AMP non-optimised 37℃
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37℃
Amylase Total	U/l	94	79	109	7.50	15.00	Beckman Coulter - blocked pNPG7 37℃
	U/l	93	79	107	7.00	14.00	Beckman Synchron AMY7 37℃
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37℃
Bicarbonate	mmol/l	14.2	11.3	17.1	1.45	2.90	Differential rate pH change
Bilirubin Direct	µmol/l	14.7	11.6	17.8	1.55	3.10	Diazo/ Sulphanilic Beckman DxC
	mg/dl	0.860	0.679	1.04	0.09	0.18	
Bilirubin Total	µmol/l	29.8	23.5	36.1	3.15	6.30	Diazo with Sulphanilic Acid
	mg/dl	1.74	1.37	2.11	0.19	0.37	
Calcium	mmol/l	2.12	1.91	2.33	0.11	0.21	Ion selective electrode
	mg/dl	8.50	7.66	9.34	0.42	0.84	
	mmol/l	2.08	1.87	2.29	0.11	0.21	Arsenazo III
	mg/dl	8.34	7.49	9.19	0.43	0.85	
Chloride	mmol/l	99.2	91.3	107	3.95	7.90	ISE indirect
Cholesterol	mmol/l	3.97	3.46	4.48	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	153	134	172	9.50	19.00	

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 DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Cholesterol	mmol/l	3.96	3.45	4.47	0.26	0.51	Cholesterol Oxidase - IDMS
	mg/dl	153	133	173	10.00	20.00	
CK Total	U/l	187	154	220	16.50	33.00	CK-NAC (IFCC) 37℃
	U/l	186	153	219	16.50	33.00	Monothioglycerol 37℃
	U/l	188	154	222	17.00	34.00	Creatinine phosphate substrate Start 37℃
Creatinine	µmol/l	123	98.3	148	12.35	24.70	Alkaline picrate no deproteinization
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	121	96.8	145	12.10	24.20	Jaffe rate blanked
	mg/dl	1.37	1.09	1.65	0.14	0.28	
gamma-GT	U/l	41	35	47	3.00	6.00	Gamma glutamyl-4-nitroanilide 37℃
	U/l	41	35	47	3.00	6.00	Beckman Szasz (Extinction Coeff) 37℃
Glucose	mmol/l	6.11	5.19	7.03	0.46	0.92	GOD/02-Beckman method
	mg/dl	110	93.5	127	8.25	16.50	
	mmol/l	5.95	5.05	6.85	0.45	0.90	Hexokinase
	mg/dl	107	91.0	123	8.00	16.00	
	mmol/l	5.95	5.06	6.84	0.45	0.89	Oxygen electrode
	mg/dl	107	91.2	123	7.90	15.80	
	mmol/l	5.94	5.05	6.83	0.45	0.89	Glucose oxidase
	mg/dl	107	91.0	123	8.00	16.00	
HDL - Cholesterol	mmol/l	1.51	1.28	1.74	0.12	0.23	Direct HDL PPD
	mg/dl	58.3	49.4	67.2	4.45	8.90	
	mmol/l	1.47	1.25	1.69	0.11	0.22	Direct HDL Immunoseparation
	mg/dl	56.7	48.3	65.1	4.20	8.40	
	mmol/l	1.55	1.32	1.78	0.12	0.23	HDL - Ultra
	mg/dl	59.8	51.0	68.6	4.40	8.80	

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 DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric with ppt.
	µg/dl	108	88.9	127	9.55	19.10	
	µmol/l	19.6	16.1	23.1	1.75	3.50	Colorimetric without ppt.
	µg/dl	110	90.0	130	10.00	20.00	
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	
LD (LDH)	U/l	159	135	183	12.00	24.00	L->P 37℃
	U/l	246	209	283	18.50	37.00	L->P IFCC 37℃
	U/l	159	135	183	12.00	24.00	L to P Beckman (Extinction Coeff) 37℃
Lipase	U/l	36	29	43	3.50	7.00	Other Colorimetric 37℃
Lithium	mmol/l	1.04	0.92	1.16	0.06	0.12	Spectrophotometric
	mg/dl	0.722	0.638	0.806	0.04	0.08	
Magnesium	mmol/l	0.86	0.75	0.96	0.05	0.10	Calmagite
	mg/dl	2.08	1.83	2.33	0.13	0.25	
Osmolality	mOsm/kg	302	241	363	30.50	61.00	Calculated
Phosphate Inorganic	mmol/l	1.38	1.18	1.58	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.28	3.66	4.90	0.31	0.62	
	mmol/l	1.49	1.27	1.71	0.11	0.22	Beckman PHOSm (365nm)
	mg/dl	4.62	3.94	5.30	0.34	0.68	
Potassium	mmol/l	3.94	3.62	4.26	0.16	0.32	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	
	g/l	56.7	45.3	68.1	5.70	11.40	Biuret reaction kinetic
	g/dl	5.67	4.53	6.81	0.57	1.14	

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 DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	µmol/l	39.2	31.0	47.4	4.10	8.20	Removal of excess free iron
	µg/dl	219	173	265	23.00	46.00	
Triglycerides	mmol/l	1.07	0.90	1.24	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.8	110	7.45	14.90	
	mmol/l	1.08	0.91	1.26	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	95.6	80.1	111	7.75	15.50	
Urea	mmol/l	7.35	6.25	8.45	0.55	1.10	Beckman-Conductivity
	mg/dl	44.2	37.6	50.8	3.30	6.60	
	mmol/l	7.57	6.43	8.71	0.57	1.14	Urease kinetic
	mg/dl	45.5	38.6	52.4	3.45	6.90	
	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	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.71	4.97	6.45	0.37	0.74	
	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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.9	34.7	47.1	3.10	6.20	Bromocresol Green
	g/dl	4.09	3.47	4.71	0.31	0.62	
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37℃
	U/l	29	23	35	3.00	6.00	Tris buffer without P5P 30℃
	U/l	22	17	27	2.50	5.00	Tris buffer without P5P 25℃
AST (GOT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37℃
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30℃
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25℃
Calcium	mmol/l	2.29	2.06	2.52	0.12	0.23	Arsenazo III
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Cholesterol	mmol/l	4.12	3.58	4.66	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	159	138	180	10.50	21.00	
Creatinine	µmol/l	126	101	151	12.50	25.00	Alkaline picrate no deproteinization
	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	
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
Glucose	mmol/l	6.17	5.24	7.10	0.47	0.93	Glucose oxidase
	mg/dl	111	94.4	128	8.30	16.60	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	20.3	16.6	24.0	1.85	3.70	Colorimetric without ppt.
	µg/dl	113	92.8	133	10.10	20.20	
LD (LDH)	U/l	391	332	450	29.50	59.00	P->L German methods 37℃
	U/l	282	240	324	21.00	42.00	P->L German methods 30℃
	U/l	198	168	228	15.00	30.00	P->L German methods 25℃
Phosphate Inorganic	mmol/l	1.52	1.29	1.75	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.71	4.00	5.42	0.36	0.71	
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	
Urea	mmol/l	7.03	5.97	8.09	0.53	1.06	Urease end point
	mg/dl	42.3	35.9	48.7	3.20	6.40	
	mmol/l	7.13	6.06	8.20	0.54	1.07	Urease kinetic
	mg/dl	42.9	36.4	49.4	3.25	6.50	
	mmol/l	7.13	6.06	8.20	0.54	1.07	BUN
	mg/dl	20.0	17.0	23.0	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	6.03	5.24	6.82	0.40	0.79	
	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	0.32	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.12	5.33	6.91	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

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			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	244	207	281	18.50	37.00	Diethanolamine buffer DEA 37°C
	U/l	190	161	219	14.50	29.00	Diethanolamine buffer DEA 30°C
	U/l	156	132	180	12.00	24.00	Diethanolamine buffer DEA 25°C
	U/l	165	140	190	12.50	25.00	AMP optimised to IFCC 37℃
	U/l	129	109	149	10.00	20.00	AMP optimised to IFCC 30℃
	U/l	105	89	121	8.00	16.00	AMP optimised to IFCC 25℃
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37℃
	U/l	29	23	35	3.00	6.00	Tris buffer without P5P 30℃
	U/l	22	17	27	2.50	5.00	Tris buffer without P5P 25℃
AST (GOT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37℃
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30℃
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25℃
Calcium	mmol/l	2.26	2.03	2.49	0.12	0.23	Arsenazo III
	mg/dl	9.06	8.14	9.98	0.46	0.92	
Cholesterol	mmol/l	4.25	3.70	4.80	0.28	0.55	Cholesterol Oxidase - Abell Kendall
	mg/dl	164	143	185	10.50	21.00	
Cholinesterase	U/l	5257	4205	6309	526.00	1052.00	Colorimetric Butyrylthiocholine 37℃
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	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	51	44	58	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	40	35	45	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
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	
HDL - Cholesterol	mmol/l	1.61	1.37	1.85	0.12	0.24	Direct HDL PPD
	mg/dl	62.1	52.9	71.3	4.60	9.20	
Protein Total	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	
Urea	mmol/l	7.05	5.99	8.11	0.53	1.06	Urease end point
	mg/dl	42.4	36.0	48.8	3.20	6.40	
	mmol/l	7.07	6.01	8.13	0.53	1.06	Urease kinetic
	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	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.23	5.43	7.03	0.40	0.80	
	mmol/l	0.40	0.35	0.45	0.03	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.72	5.85	7.59	0.44	0.87	
	mmol/l	0.37	0.33	0.42	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	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

Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			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	
Alkaline Phosphatase	U/l	270	229	311	20.50	41.00	Diethanolamine buffer DEA 37°C
	U/l	210	178	242	16.00	32.00	Diethanolamine buffer DEA 30°C
	U/l	173	146	200	13.50	27.00	Diethanolamine buffer DEA 25°C
ALT (GPT)	U/l	37	29	45	4.00	8.00	Tris buffer without P5P 37℃
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30℃
	U/l	21	16	26	2.50	5.00	Tris buffer without P5P 25℃
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37℃
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30℃
	U/l	17	14	20	1.50	3.00	Tris buffer without P5P 25℃
Bilirubin Direct	µmol/l	16.3	12.9	19.7	1.70	3.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.954	0.755	1.15	0.10	0.20	
Bilirubin Total	µmol/l	23.2	18.4	28.0	2.40	4.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.36	1.08	1.64	0.14	0.28	
Calcium	mmol/l	2.14	1.93	2.35	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.58	7.74	9.42	0.42	0.84	
	mmol/l	2.26	2.03	2.49	0.12	0.23	Arsenazo III
	mg/dl	9.06	8.14	9.98	0.46	0.92	
Chloride	mmol/l	104	95.7	112	4.15	8.30	Colorimetric
Cholesterol	mmol/l	4.20	3.65	4.75	0.28	0.55	Cholesterol Oxidase - Abell Kendall
	mg/dl	162	141	183	10.50	21.00	

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

Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Cholesterol	mmol/l	4.13	3.59	4.67	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	159	139	179	10.00	20.00	
Cholinesterase	U/l	5455	4364	6546	545.50	1091.00	Colorimetric Butyrylthiocholine 37℃
CK Total	U/l	189	155	223	17.00	34.00	CK-NAC (IFCC) 37℃
	U/l	118	97	139	10.50	21.00	CK-NAC (IFCC) 30℃
	U/l	80	66	94	7.00	14.00	CK-NAC (IFCC) 25℃
Creatinine	µmol/l	124	98.8	149	12.60	25.20	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	129	103	155	13.00	26.00	Jaffe rate blanked
	mg/dl	1.46	1.16	1.76	0.15	0.30	
gamma-GT	U/l	48	41	55	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	38	32	44	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	30	25	35	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
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	
HDL - Cholesterol	mmol/l	1.56	1.32	1.80	0.12	0.24	Direct HDL PPD
	mg/dl	60.2	51.0	69.4	4.60	9.20	
	mmol/l	1.23	1.05	1.41	0.09	0.18	Direct HDL Immunoseparation
	mg/dl	47.5	40.5	54.5	3.50	7.00	
	mmol/l	1.30	1.10	1.50	0.10	0.20	Direct Clearance Method
	mg/dl	50.2	42.5	57.9	3.85	7.70	
LD (LDH)	U/l	361	307	415	27.00	54.00	P->L Scandinavian & Dutch 37℃
	U/l	261	222	300	19.50	39.00	P->L Scandinavian & Dutch 30°C
	U/l	183	156	210	13.50	27.00	P->L Scandinavian & Dutch 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

Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	372	316	428	28.00	56.00	P->L German methods 37℃
	U/l	269	228	310	20.50	41.00	P->L German methods 30℃
	U/l	189	160	218	14.50	29.00	P->L German methods 25℃
	U/l	395	336	454	29.50	59.00	P->L SFBC 37℃
	U/l	285	243	327	21.00	42.00	P->L SFBC 30℃
	U/l	200	170	230	15.00	30.00	P->L SFBC 25℃
Magnesium	mmol/l	0.84	0.74	0.94	0.05	0.10	Xylidyl Blue
	mg/dl	2.03	1.79	2.27	0.12	0.24	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.21	1.95	2.47	0.13	0.26	
Phosphate Inorganic	mmol/l	1.60	1.36	1.84	0.12	0.24	Phosphomolybdate UV
	mg/dl	4.96	4.22	5.70	0.37	0.74	
Potassium	mmol/l	3.96	3.64	4.28	0.16	0.32	ISE method - direct
Protein Total	g/l	62.6	50.1	75.1	6.25	12.50	Biuret reaction end point
	g/dl	6.26	5.01	7.51	0.63	1.25	
Sodium	mmol/l	138	131	145	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.01	0.85	1.17	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	89.4	75.3	104	7.05	14.10	
Urea	mmol/l	6.97	5.92	8.02	0.53	1.05	Urease end point
	mg/dl	41.9	35.6	48.2	3.15	6.30	
	mmol/l	7.73	6.57	8.89	0.58	1.16	Urease kinetic
	mg/dl	46.5	39.5	53.5	3.50	7.00	
	mmol/l	7.73	6.57	8.89	0.58	1.16	BUN
	mg/dl	21.7	18.4	25.0	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	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

Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			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	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.90	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

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			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	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	41.0	34.8	47.2	3.10	6.20	Turbidimetric Assays
	g/dl	4.10	3.48	4.72	0.31	0.62	
Alkaline Phosphatase	U/l	147	125	169	11.00	22.00	Roche Integra AMP buffer 37℃
	U/l	115	97	133	9.00	18.00	Roche Integra AMP buffer 30℃
	U/l	94	80	108	7.00	14.00	Roche Integra AMP buffer 25℃
	U/l	152	129	175	11.50	23.00	AMP optimised to IFCC 37℃
	U/l	118	100	136	9.00	18.00	AMP optimised to IFCC 30℃
	U/l	97	82	112	7.50	15.00	AMP optimised to IFCC 25℃
	U/l	145	123	167	11.00	22.00	Colorimetric 37℃
	U/l	113	96	130	8.50	17.00	Colorimetric 30℃
	U/l	93	79	107	7.00	14.00	Colorimetric 25℃
ALT (GPT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37℃
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30℃
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25℃
Amylase Pancreatic	U/l	67	57	77	5.00	10.00	Roche EPS Liquid 37℃
Amylase Total	U/l	90	76	104	7.00	14.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	89	76	102	6.50	13.00	Roche liquid stable pNPG7 37℃

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
AST (GOT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37℃
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30℃
	U/l	16	12	20	2.00	4.00	Tris buffer without P5P 25℃
Bicarbonate	mmol/l	13.8	10.9	16.7	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	20.1	15.9	24.3	2.10	4.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.18	0.930	1.43	0.13	0.25	
	µmol/l	20.1	15.9	24.3	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.18	0.930	1.43	0.13	0.25	
	µmol/l	19.9	15.7	24.1	2.10	4.20	Roche JG factored
	mg/dl	1.16	0.918	1.40	0.12	0.24	
	µmol/l	20.2	16.0	24.4	2.10	4.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.18	0.936	1.42	0.12	0.24	
Bilirubin Total	µmol/l	24.0	18.9	29.1	2.55	5.10	Diazo with Dichloroaniline (DCA)
	mg/dl	1.40	1.11	1.69	0.15	0.29	
	µmol/l	25.6	20.2	31.0	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.50	1.18	1.82	0.16	0.32	
	µmol/l	25.4	20.1	30.7	2.65	5.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.49	1.18	1.80	0.16	0.31	
	µmol/l	25.5	20.1	30.9	2.70	5.40	Diazonium ion
	mg/dl	1.49	1.18	1.80	0.16	0.31	
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	2.13	1.91	2.35	0.11	0.22	Arsenazo III
	mg/dl	8.54	7.66	9.42	0.44	0.88	
	mmol/l	2.16	1.94	2.38	0.11	0.22	NM-BAPTA
	mg/dl	8.66	7.78	9.54	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

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Chloride	mmol/l	98.4	90.6	106	3.90	7.80	ISE indirect
Cholesterol	mmol/l	4.12	3.59	4.65	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	159	139	179	10.00	20.00	
	mmol/l	4.10	3.56	4.64	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	158	137	179	10.50	21.00	
Cholinesterase	U/l	5531	4425	6637	553.00	1106.00	Colorimetric Butyrylthiocholine 37℃
CK Total	U/l	178	146	210	16.00	32.00	CK-NAC serum start (DGKC) 37℃
	U/l	111	91	131	10.00	20.00	CK-NAC serum start (DGKC) 30℃
	U/l	76	62	90	7.00	14.00	CK-NAC serum start (DGKC) 25℃
	U/l	182	149	215	16.50	33.00	CK-NAC substrate start (DGKC) 37℃
	U/l	114	93	135	10.50	21.00	CK-NAC substrate start (DGKC) 30℃
	U/l	77	63	91	7.00	14.00	CK-NAC substrate start (DGKC) 25°C
	U/l	177	145	209	16.00	32.00	CK-NAC (IFCC) 37℃
	U/l	111	91	131	10.00	20.00	CK-NAC (IFCC) 30℃
	U/l	75	62	88	6.50	13.00	CK-NAC (IFCC) 25℃
Creatinine	µmol/l	118	94.8	141	11.60	23.20	Alkaline picrate with deproteinization
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	122	97.9	146	12.05	24.10	Alkaline picrate no deproteinization
	mg/dl	1.38	1.11	1.65	0.14	0.27	
	µmol/l	124	99.0	149	12.50	25.00	Enzymatic UV method
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	124	99.5	149	12.25	24.50	Roche Creatinine Plus
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	122	98.0	146	12.00	24.00	Jaffe rate blanked
	mg/dl	1.38	1.11	1.65	0.14	0.27	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	124	98.9	149	12.55	25.10	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	120	96.0	144	12.00	24.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	µmol/l	119	95.4	143	11.80	23.60	IDMS traceable
	mg/dl	1.34	1.08	1.60	0.13	0.26	
gamma-GT	U/l	48	41	55	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	38	32	44	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30℃
	U/l	30	25	35	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25℃
	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
Glucose	mmol/l	6.24	5.30	7.18	0.47	0.94	Hexokinase
	mg/dl	112	95.5	129	8.25	16.50	
	mmol/l	6.26	5.32	7.20	0.47	0.94	Glucose oxidase
	mg/dl	113	95.9	130	8.55	17.10	
HDL - Cholesterol	mmol/l	1.47	1.25	1.69	0.11	0.22	Direct HDL Roche 4th Generation
	mg/dl	56.7	48.3	65.1	4.20	8.40	
Iron	µmol/l	21.0	17.2	24.8	1.90	3.80	Colorimetric with ppt.
	µg/dl	117	96.1	138	10.45	20.90	
	µmol/l	21.0	17.2	24.8	1.90	3.80	Colorimetric without ppt.
	µg/dl	117	96.1	138	10.45	20.90	
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	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	208	177	239	15.50	31.00	L->P 37℃
	U/l	150	128	172	11.00	22.00	L->P 30℃
	U/l	105	90	120	7.50	15.00	L->P 25℃
	U/l	374	318	430	28.00	56.00	P->L German methods 37℃
	U/l	270	230	310	20.00	40.00	P->L German methods 30℃
	U/l	190	161	219	14.50	29.00	P->L German methods 25℃
	U/l	210	178	242	16.00	32.00	L->P IFCC 37℃
	U/l	152	129	175	11.50	23.00	L->P IFCC 30℃
	U/l	106	90	122	8.00	16.00	L->P IFCC 25℃
Lipase	U/l	30	24	36	3.00	6.00	Roche Colorimetric 37℃
	U/l	29	23	35	3.00	6.00	Roche Turbidimetric with colipase 37℃
Lithium	mmol/l	1.03	0.90	1.16	0.06	0.13	Ion selective electrode
	mg/dl	0.715	0.627	0.803	0.04	0.09	
Magnesium	mmol/l	0.90	0.79	1.00	0.05	0.11	Calmagite
	mg/dl	2.17	1.91	2.43	0.13	0.26	
	mmol/l	0.87	0.76	0.97	0.05	0.11	Xylidyl Blue
	mg/dl	2.11	1.86	2.36	0.13	0.25	
	mmol/l	0.88	0.77	0.98	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.13	1.88	2.38	0.13	0.25	
Phosphate Inorganic	mmol/l	1.46	1.24	1.68	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.53	3.84	5.22	0.35	0.69	
	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	4.00	3.68	4.32	0.16	0.32	ISE method - indirect
Protein Total	g/l	55.2	44.1	66.3	5.55	11.10	Biuret reaction end point
	g/dl	5.52	4.41	6.63	0.56	1.11	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Protein Total	g/l	55.5	44.4	66.6	5.55	11.10	Biuret reaction kinetic
	g/dl	5.55	4.44	6.66	0.56	1.11	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	µmol/l	38.5	30.4	46.6	4.05	8.10	FE+UIBC(saturation with iron)
	µg/dl	215	170	260	22.50	45.00	
Triglycerides	mmol/l	1.06	0.89	1.23	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	78.6	109	7.60	15.20	
	mmol/l	1.04	0.87	1.21	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	92.0	77.1	107	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	1.04	0.88	1.21	0.08	0.17	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	92.0	77.4	107	7.30	14.60	
	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	93.8	79.0	109	7.40	14.80	
Urea	mmol/l	6.98	5.94	8.02	0.52	1.04	Urease end point
	mg/dl	41.9	35.7	48.1	3.10	6.20	
	mmol/l	6.98	5.93	8.03	0.53	1.05	Urease kinetic
	mg/dl	41.9	35.6	48.2	3.15	6.30	
	mmol/l	6.98	5.93	8.03	0.53	1.05	BUN
	mg/dl	19.6	16.7	22.5	1.45	2.90	
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	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			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 with ascorbate oxidase @ 546nm
	mg/dl	5.91	5.14	6.68	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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			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	251	213	289	19.00	38.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37℃
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37℃
Calcium	mmol/l	2.24	2.02	2.46	0.11	0.22	Arsenazo III
	mg/dl	8.98	8.10	9.86	0.44	0.88	
Cholesterol	mmol/l	4.18	3.64	4.72	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	141	181	10.00	20.00	
CK Total	U/l	183	150	216	16.50	33.00	CK-NAC (IFCC) 37℃
Creatinine	µmol/l	126	101	151	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	116	93.2	139	11.40	22.80	Creatinine PAP method
	mg/dl	1.31	1.05	1.57	0.13	0.26	
	µmol/l	124	98.8	149	12.60	25.20	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℃
Glucose	mmol/l	6.25	5.31	7.19	0.47	0.94	Hexokinase
	mg/dl	113	95.7	130	8.65	17.30	
	mmol/l	6.38	5.43	7.33	0.48	0.95	Glucose oxidase
	mg/dl	115	97.8	132	8.60	17.20	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	1.33	1.13	1.53	0.10	0.20	HDL - Ultra
	mg/dl	51.3	43.6	59.0	3.85	7.70	
Iron	µmol/l	21.6	17.7	25.5	1.95	3.90	Colorimetric without ppt.
	µg/dl	121	98.9	143	11.05	22.10	
Phosphate Inorganic	mmol/l	1.58	1.34	1.82	0.12	0.24	Phosphomolybdate UV
	mg/dl	4.90	4.15	5.65	0.38	0.75	
Protein Total	g/l	60.3	48.2	72.4	6.05	12.10	Biuret reaction end point
	g/dl	6.03	4.82	7.24	0.61	1.21	
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	1.08	0.91	1.25	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	95.6	80.5	111	7.55	15.10	
	mmol/l	1.05	0.89	1.22	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	92.9	78.3	108	7.30	14.60	
Urea	mmol/l	7.46	6.34	8.58	0.56	1.12	Urease end point
	mg/dl	44.8	38.1	51.5	3.35	6.70	
	mmol/l	7.27	6.18	8.36	0.55	1.09	Urease kinetic
	mg/dl	43.7	37.1	50.3	3.30	6.60	
	mmol/l	7.27	6.18	8.36	0.55	1.09	BUN
	mg/dl	20.4	17.3	23.5	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	6.18	5.38	6.98	0.40	0.80	
	mmol/l	0.41	0.35	0.46	0.03	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.80	5.91	7.69	0.45	0.89	
	mmol/l	0.40	0.35	0.45	0.03	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.74	5.86	7.62	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

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Acid Phosphatase (Total)	U/l	11.8	7.91	15.7	1.95	3.89	1-Naphthyl Phosphate substrate Kinetic 37℃
Albumin	g/l	40.8	34.7	46.9	3.05	6.10	Bromocresol Green
	g/dl	4.08	3.47	4.69	0.31	0.61	
Alkaline Phosphatase	U/l	158	135	181	11.50	23.00	AMP optimised to IFCC 37℃
	U/l	123	105	141	9.00	18.00	AMP optimised to IFCC 30℃
	U/l	101	86	116	7.50	15.00	AMP optimised to IFCC 25℃
	U/l	183	156	210	13.50	27.00	Randox AMP 37℃
	U/l	143	122	164	10.50	21.00	Randox AMP 30℃
	U/l	117	100	134	8.50	17.00	Randox AMP 25℃
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37℃
	U/l	28	22	34	3.00	6.00	Tris buffer without P5P 30℃
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25℃
Amylase Pancreatic	U/l	78	66	90	6.00	12.00	Randox Liquid Ethylidene pNPG7 37℃
Amylase Total	U/l	97	82	112	7.50	15.00	Randox Liquid Ethylidene pNPG7 37℃
	U/l	85	72	98	6.50	13.00	Roche liquid stable pNPG7 37℃
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37℃
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30℃
	U/l	17	14	20	1.50	3.00	Tris buffer without P5P 25℃
Bile Acids	µmol/l	25.7	20.6	30.8	2.55	5.10	5th Generation Colorimetric
Bilirubin Direct	µmol/l	18.8	14.8	22.8	2.00	4.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.10	0.866	1.33	0.12	0.23	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Direct	µmol/l	20.3	16.0	24.6	2.15	4.30	Diazo with Sulphanilic Acid
	mg/dl	1.19	0.936	1.44	0.13	0.25	
	µmol/l	19.9	15.7	24.1	2.10	4.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.16	0.918	1.40	0.12	0.24	
Bilirubin Total	µmol/l	28.4	22.4	34.4	3.00	6.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.66	1.31	2.01	0.18	0.35	
	µmol/l	30.1	23.8	36.4	3.15	6.30	Diazo with Sulphanilic Acid
	mg/dl	1.76	1.39	2.13	0.19	0.37	
	µmol/l	25.8	20.4	31.2	2.70	5.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.51	1.19	1.83	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	
	mmol/l	2.17	1.95	2.39	0.11	0.22	Arsenazo III
	mg/dl	8.70	7.82	9.58	0.44	0.88	
Chloride	mmol/l	104	95.5	113	4.25	8.50	Colorimetric
	mmol/l	95.4	87.8	103	3.80	7.60	ISE indirect
Cholesterol	mmol/l	4.11	3.57	4.65	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	159	138	180	10.50	21.00	
Cholinesterase	U/l	5703	4562	6844	570.50	1141.00	Colorimetric Butyrylthiocholine 37℃
CK Total	U/l	188	154	222	17.00	34.00	CK-NAC (IFCC) 37℃
	U/l	118	96	140	11.00	22.00	CK-NAC (IFCC) 30℃
	U/l	80	65	95	7.50	15.00	CK-NAC (IFCC) 25℃
Creatinine	µmol/l	123	98.6	147	12.20	24.40	Alkaline picrate no deproteinization
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	128	102	154	13.00	26.00	Creatinine PAP method
	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

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	124	99.1	149	12.45	24.90	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.40	1.12	1.68	0.14	0.28	
gamma-GT	U/l	47	40	54	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	37	32	42	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30℃
	U/l	29	25	33	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25℃
	U/l	50	42	58	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	31	26	36	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
	U/l	55	47	63	4.00	8.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	43	37	49	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30℃
	U/l	34	29	39	2.50	5.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25℃
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	
HDL - Cholesterol	mmol/l	1.41	1.20	1.62	0.11	0.21	Direct HDL PEGME
	mg/dl	54.4	46.3	62.5	4.05	8.10	
Iron	µmol/l	20.3	16.6	24.0	1.85	3.70	Colorimetric without ppt.
	µg/dl	113	92.8	133	10.10	20.20	
LD (LDH)	U/l	203	172	234	15.50	31.00	L->P IFCC 37℃
	U/l	147	124	170	11.50	23.00	L->P IFCC 30℃
	U/l	103	87	119	8.00	16.00	L->P IFCC 25℃
Lipase	U/l	27	22	32	2.50	5.00	Other Colorimetric 37℃
Phosphate Inorganic	mmol/l	1.50	1.28	1.72	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.65	3.97	5.33	0.34	0.68	
Potassium	mmol/l	4.04	3.72	4.36	0.16	0.32	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

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Protein Total	g/l	58.0	46.4	69.6	5.80	11.60	Biuret reaction end point
	g/dl	5.80	4.64	6.96	0.58	1.16	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.2	108	7.35	14.70	
	mmol/l	1.02	0.86	1.18	0.08	0.16	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	90.3	76.0	105	7.15	14.30	
	mmol/l	1.03	0.87	1.19	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	91.2	76.8	106	7.20	14.40	
	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	92.9	78.1	108	7.40	14.80	
Urea	mmol/l	7.76	6.60	8.92	0.58	1.16	Urease end point
	mg/dl	46.6	39.7	53.5	3.45	6.90	
	mmol/l	7.35	6.25	8.45	0.55	1.10	Urease kinetic
	mg/dl	44.2	37.6	50.8	3.30	6.60	
	mmol/l	7.35	6.25	8.45	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.01	5.22	6.80	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	5.17	6.69	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.91	5.14	6.68	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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			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	267	227	307	20.00	40.00	Diethanolamine buffer DEA 37°C
	U/l	208	177	239	15.50	31.00	Diethanolamine buffer DEA 30°C
	U/l	171	145	197	13.00	26.00	Diethanolamine buffer DEA 25°C
	U/l	175	149	201	13.00	26.00	AMP optimised to IFCC 37℃
	U/l	136	116	156	10.00	20.00	AMP optimised to IFCC 30℃
	U/l	112	95	129	8.50	17.00	AMP optimised to IFCC 25℃
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37℃
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30℃
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25℃
Amylase Total	U/l	89	76	102	6.50	13.00	I.L. 2-chloro-pNPG3 37℃
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37℃
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30℃
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25℃
Bilirubin Total	µmol/l	30.6	24.2	37.0	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.79	1.42	2.16	0.19	0.37	
	µmol/l	28.2	22.2	34.2	3.00	6.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.65	1.30	2.00	0.18	0.35	
Calcium	mmol/l	2.12	1.90	2.34	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.50	7.62	9.38	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

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	97.0	89.2	105	3.90	7.80	ISE indirect
Cholesterol	mmol/l	4.06	3.53	4.59	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	157	136	178	10.50	21.00	
Cholinesterase	U/l	5911	4729	7093	591.00	1182.00	Colorimetric Butyrylthiocholine 37℃
CK Total	U/l	165	135	195	15.00	30.00	CK-NAC (IFCC) 37℃
	U/l	103	85	121	9.00	18.00	CK-NAC (IFCC) 30℃
	U/l	70	57	83	6.50	13.00	CK-NAC (IFCC) 25℃
Creatinine	µmol/l	127	101	153	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	127	101	153	13.00	26.00	Creatinine PAP method
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	135	108	162	13.50	27.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.53	1.22	1.84	0.16	0.31	
gamma-GT	U/l	47	40	54	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	37	32	42	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30℃
	U/l	29	25	33	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25℃
	U/l	47	40	54	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	37	32	42	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	29	25	33	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
Glucose	mmol/l	6.17	5.25	7.09	0.46	0.92	Glucose oxidase
	mg/dl	111	94.6	127	8.20	16.40	
HDL - Cholesterol	mmol/l	1.27	1.08	1.46	0.10	0.19	Direct HDL Immunoseparation
	mg/dl	49.0	41.7	56.3	3.65	7.30	

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

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	1.25	1.06	1.44	0.10	0.19	Direct Clearance Method
	mg/dl	48.3	40.9	55.7	3.70	7.40	
	mmol/l	1.18	1.00	1.36	0.09	0.18	HDL - Ultra
	mg/dl	45.5	38.6	52.4	3.45	6.90	
Iron	µmol/l	20.9	17.1	24.7	1.90	3.80	Colorimetric without ppt.
	µg/dl	117	95.6	138	10.70	21.40	
LD (LDH)	U/l	387	329	445	29.00	58.00	P->L German methods 37℃
	U/l	279	238	320	20.50	41.00	P->L German methods 30℃
	U/l	196	167	225	14.50	29.00	P->L German methods 25℃
	U/l	395	336	454	29.50	59.00	P->L SFBC 37℃
	U/l	285	243	327	21.00	42.00	P->L SFBC 30℃
	U/l	200	170	230	15.00	30.00	P->L SFBC 25℃
Magnesium	mmol/l	0.88	0.77	0.98	0.05	0.11	Xylidyl Blue
	mg/dl	2.13	1.88	2.38	0.13	0.25	
	mmol/l	0.85	0.75	0.95	0.05	0.10	Enzymatic
	mg/dl	2.06	1.81	2.31	0.13	0.25	
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	3.99	3.67	4.31	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.3	46.7	69.9	5.80	11.60	Biuret reaction end point
	g/dl	5.83	4.67	6.99	0.58	1.16	
Sodium	mmol/l	141	134	148	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	79.1	109	7.35	14.70	
	mmol/l	1.08	0.91	1.25	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	95.6	80.2	111	7.70	15.40	

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

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	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	7.41	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	0.33	0.29	0.37	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.54	4.82	6.26	0.36	0.72	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no 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

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

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28 **Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	39.4	33.5	45.3	2.95	5.90	Bromocresol Green
	g/dl	3.94	3.35	4.53	0.30	0.59	
Alkaline Phosphatase	U/l	169	143	195	13.00	26.00	AMP optimised to IFCC 37℃
	U/l	132	111	153	10.50	21.00	AMP optimised to IFCC 30℃
	U/l	108	91	125	8.50	17.00	AMP optimised to IFCC 25℃
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37℃
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30℃
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 25℃
AST (GOT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37℃
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30℃
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25℃
Bilirubin Direct	µmol/l	18.2	14.4	22.0	1.90	3.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.06	0.842	1.28	0.11	0.22	
Bilirubin Total	µmol/l	25.6	20.2	31.0	2.70	5.40	Nitrobenzenediazonium salt
	mg/dl	1.50	1.18	1.82	0.16	0.32	
Calcium	mmol/l	2.16	1.95	2.37	0.11	0.21	Arsenazo III
	mg/dl	8.66	7.82	9.50	0.42	0.84	
Chloride	mmol/l	101	92.9	109	4.05	8.10	ISE direct
Cholesterol	mmol/l	4.12	3.59	4.65	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	159	139	179	10.00	20.00	
	mmol/l	4.04	3.51	4.57	0.27	0.53	Cholesterol Oxidase - IDMS
	mg/dl	156	135	177	10.50	21.00	

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

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

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	198	163	233	17.50	35.00	CK-NAC (IFCC) 37℃
	U/l	124	102	146	11.00	22.00	CK-NAC (IFCC) 30℃
	U/l	84	69	99	7.50	15.00	CK-NAC (IFCC) 25℃
Creatinine	µmol/l	132	106	158	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	µmol/l	130	104	156	13.00	26.00	Enzymatic UV method
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	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	114	91.5	137	11.25	22.50	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.29	1.03	1.55	0.13	0.26	
gamma-GT	U/l	50	42	58	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	31	26	36	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
Glucose	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	6.35	5.40	7.30	0.48	0.95	Glucose oxidase
	mg/dl	114	97.3	131	8.35	16.70	
HDL - Cholesterol	mmol/l	1.46	1.24	1.68	0.11	0.22	Direct HDL PPD
	mg/dl	56.4	47.9	64.9	4.25	8.50	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Direct HDL PEGME
	mg/dl	53.7	45.5	61.9	4.10	8.20	
	mmol/l	1.34	1.14	1.54	0.10	0.20	Direct Clearance Method
	mg/dl	51.7	44.0	59.4	3.85	7.70	

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

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

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	22.9	18.7	27.1	2.10	4.20	Colorimetric without ppt.
	µg/dl	128	105	151	11.50	23.00	
LD (LDH)	U/l	471	400	542	35.50	71.00	P->L Scandinavian & Dutch 37℃
	U/l	340	289	391	25.50	51.00	P->L Scandinavian & Dutch 30°C
	U/l	239	203	275	18.00	36.00	P->L Scandinavian & Dutch 25°C
	U/l	205	174	236	15.50	31.00	L->P IFCC 37℃
	U/l	148	126	170	11.00	22.00	L->P IFCC 30℃
	U/l	104	88	120	8.00	16.00	L->P IFCC 25℃
Magnesium	mmol/l	0.90	0.79	1.01	0.05	0.11	Xylidyl Blue
	mg/dl	2.19	1.93	2.45	0.13	0.26	
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	
Potassium	mmol/l	3.89	3.58	4.20	0.16	0.31	ISE method - direct
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	139	132	146	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.05	0.88	1.22	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	77.7	108	7.60	15.20	
	mmol/l	0.99	0.83	1.15	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	87.4	73.5	101	6.95	13.90	
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	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.12	5.33	6.91	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

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

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.37	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.15	5.34	6.96	0.41	0.81	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.98	5.19	6.77	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

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.7	34.6	46.8	3.05	6.10	Bromocresol Green
	g/dl	4.07	3.46	4.68	0.31	0.61	
Alkaline Phosphatase	U/l	252	214	290	19.00	38.00	Diethanolamine buffer DEA 37°C
	U/l	196	167	225	14.50	29.00	Diethanolamine buffer DEA 30°C
	U/l	161	137	185	12.00	24.00	Diethanolamine buffer DEA 25°C
	U/l	184	156	212	14.00	28.00	AMP optimised to IFCC 37℃
	U/l	143	122	164	10.50	21.00	AMP optimised to IFCC 30℃
	U/l	118	100	136	9.00	18.00	AMP optimised to IFCC 25℃
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37℃
	U/l	29	23	35	3.00	6.00	Tris buffer without P5P 30℃
	U/l	22	17	27	2.50	5.00	Tris buffer without P5P 25℃
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37℃
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30℃
	U/l	17	14	20	1.50	3.00	Tris buffer without P5P 25℃
Bicarbonate	mmol/l	13.5	10.7	16.3	1.40	2.80	Enzymatic
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	
Bilirubin Total	µmol/l	27.9	22.0	33.8	2.95	5.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.63	1.29	1.97	0.17	0.34	
	µmol/l	29.1	23.0	35.2	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.70	1.35	2.05	0.18	0.35	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	28.3	22.3	34.3	3.00	6.00	Oxidation to Biliverdin/Vanadate
	mg/dl	1.66	1.30	2.02	0.18	0.36	
Calcium	mmol/l	2.22	1.99	2.45	0.12	0.23	Cresolphthalein complexone
	mg/dl	8.90	7.98	9.82	0.46	0.92	
	mmol/l	2.09	1.88	2.30	0.11	0.21	Ion selective electrode
	mg/dl	8.38	7.54	9.22	0.42	0.84	
	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	
Cholesterol	mmol/l	4.16	3.62	4.70	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	140	182	10.50	21.00	
	mmol/l	4.11	3.58	4.64	0.27	0.53	Cholesterol Oxidase - IDMS
	mg/dl	159	138	180	10.50	21.00	
CK Total	U/l	184	151	217	16.50	33.00	CK-NAC (IFCC) 37℃
	U/l	115	95	135	10.00	20.00	CK-NAC (IFCC) 30℃
	U/l	78	64	92	7.00	14.00	CK-NAC (IFCC) 25℃
Creatinine	µmol/l	123	98.4	148	12.30	24.60	Alkaline picrate no deproteinization
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	129	103	155	13.00	26.00	Enzymatic UV method
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	124	99.4	149	12.30	24.60	Creatinine PAP method
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	123	98.0	148	12.50	25.00	Jaffe rate blanked
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	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	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	41	35	47	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30℃
	U/l	32	27	37	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25℃
	U/l	51	44	58	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	40	35	45	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
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	6.31	5.36	7.26	0.48	0.95	Glucose oxidase
	mg/dl	114	96.6	131	8.70	17.40	
HDL - Cholesterol	mmol/l	1.41	1.20	1.62	0.11	0.21	Direct HDL PPD
	mg/dl	54.4	46.3	62.5	4.05	8.10	
	mmol/l	1.33	1.13	1.53	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	51.3	43.6	59.0	3.85	7.70	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Direct Clearance Method
	mg/dl	53.7	45.5	61.9	4.10	8.20	
	mmol/l	1.39	1.18	1.60	0.11	0.21	HDL - Ultra
	mg/dl	53.7	45.5	61.9	4.10	8.20	
Iron	µmol/l	19.7	16.2	23.2	1.75	3.50	Colorimetric with ppt.
	µg/dl	110	90.6	129	9.70	19.40	
	µmol/l	20.3	16.6	24.0	1.85	3.70	Colorimetric without ppt.
	µg/dl	113	92.8	133	10.10	20.20	
LD (LDH)	U/l	381	324	438	28.50	57.00	P->L German methods 37℃
	U/l	275	234	316	20.50	41.00	P->L German methods 30℃
	U/l	193	164	222	14.50	29.00	P->L German methods 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

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	398	338	458	30.00	60.00	P->L SFBC 37℃
	U/l	287	244	330	21.50	43.00	P->L SFBC 30℃
	U/l	202	171	233	15.50	31.00	P->L SFBC 25℃
	U/l	206	175	237	15.50	31.00	L->P IFCC 37℃
	U/l	149	126	172	11.50	23.00	L->P IFCC 30℃
	U/l	104	89	119	7.50	15.00	L->P IFCC 25℃
Magnesium	mmol/l	0.89	0.78	0.99	0.05	0.11	Xylidyl Blue
	mg/dl	2.15	1.90	2.40	0.13	0.25	
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	1.47	1.25	1.69	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.56	3.88	5.24	0.34	0.68	
Protein Total	g/l	59.4	47.5	71.3	5.95	11.90	Biuret reaction end point
	g/dl	5.94	4.75	7.13	0.60	1.19	
	g/l	59.8	47.8	71.8	6.00	12.00	Biuret reaction kinetic
	g/dl	5.98	4.78	7.18	0.60	1.20	
Triglycerides	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.1	108	7.40	14.80	
	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	97.4	81.4	113	8.00	16.00	
	mmol/l	1.04	0.88	1.20	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	92.0	77.7	106	7.15	14.30	
	mmol/l	1.02	0.86	1.18	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	90.3	75.8	105	7.25	14.50	
Urea	mmol/l	7.40	6.29	8.51	0.56	1.11	Urease end point
	mg/dl	44.5	37.8	51.2	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

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.42	6.31	8.53	0.56	1.11	Urease kinetic
	mg/dl	44.6	37.9	51.3	3.35	6.70	
	mmol/l	7.46	6.34	8.58	0.56	1.12	Urease hypochlorite
	mg/dl	44.8	38.1	51.5	3.35	6.70	
	mmol/l	7.42	6.31	8.53	0.56	1.11	BUN
	mg/dl	20.8	17.7	23.9	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.08	5.29	6.87	0.40	0.79	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.05	5.28	6.82	0.39	0.77	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.80	5.04	6.56	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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
alpha-HBDH	U/l	209	165	253	22.00	44.00	Oxobutyrate < 10 mmol/l 37℃
	U/l	158	125	191	16.50	33.00	Oxobutyrate < 10 mmol/l 30℃
	U/l	118	93	143	12.50	25.00	Oxobutyrate < 10 mmol/l 25℃
Acid Phosphatase (Total)	U/l	11.8	7.91	15.7	1.95	3.89	1-Naphthyl Phosphate substrate Kinetic 37℃
Albumin	g/l	40.5	34.4	46.6	3.05	6.10	Bromocresol Green
	g/dl	4.05	3.44	4.66	0.31	0.61	
	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	39.4	33.5	45.3	2.95	5.90	Ortho Vitros Microslide Systems
	g/dl	3.94	3.35	4.53	0.30	0.59	
	g/l	40.2	34.2	46.2	3.00	6.00	Turbidimetric Assays
	g/dl	4.02	3.42	4.62	0.30	0.60	
Alkaline Phosphatase	U/l	151	128	174	11.50	23.00	Ortho Vitros Microslide Systems 37℃
	U/l	248	211	285	18.50	37.00	Diethanolamine buffer DEA 37°C
	U/l	193	164	222	14.50	29.00	Diethanolamine buffer DEA 30°C
	U/l	158	135	181	11.50	23.00	Diethanolamine buffer DEA 25°C
	U/l	177	150	204	13.50	27.00	AMP optimised to IFCC 37℃
	U/l	138	117	159	10.50	21.00	AMP optimised to IFCC 30℃
	U/l	113	96	130	8.50	17.00	AMP optimised to IFCC 25℃
	U/l	199	169	229	15.00	30.00	AMP optimised to NVKC/SFBC 37℃
	U/l	155	132	178	11.50	23.00	AMP optimised to NVKC/SFBC 30℃
	U/l	127	108	146	9.50	19.00	AMP optimised to NVKC/SFBC 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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Alkaline Phosphatase	U/l	179	152	206	13.50	27.00	AMP non-optimised 37℃
	U/l	139	118	160	10.50	21.00	AMP non-optimised 30℃
	U/l	114	97	131	8.50	17.00	AMP non-optimised 25℃
ALT (GPT)	U/l	36	29	43	3.50	7.00	Colorimetric 37℃
	U/l	27	21	33	3.00	6.00	Colorimetric 30℃
	U/l	20	16	24	2.00	4.00	Colorimetric 25℃
	U/l	42	34	50	4.00	8.00	Ortho Vitros Microslide Systems 37℃
	U/l	41	32	50	4.50	9.00	Tris buffer with P5P 37℃
	U/l	30	24	36	3.00	6.00	Tris buffer with P5P 30℃
	U/l	23	18	28	2.50	5.00	Tris buffer with P5P 25℃
	U/l	37	29	45	4.00	8.00	Tris buffer without P5P 37℃
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30℃
	U/l	21	16	26	2.50	5.00	Tris buffer without P5P 25℃
	U/l	37	30	44	3.50	7.00	Phosphate buffer DGKC 37℃
	U/l	27	22	32	2.50	5.00	Phosphate buffer DGKC 30℃
	U/l	21	17	25	2.00	4.00	Phosphate buffer DGKC 25℃
	U/l	37	29	45	4.00	8.00	Tris buffer with P5P NVKC 37℃
	U/l	27	21	33	3.00	6.00	Tris buffer with P5P NVKC 30℃
	U/l	21	16	26	2.50	5.00	Tris buffer with P5P NVKC 25℃
	U/l	37	29	45	4.00	8.00	Tris buffer SCE 37℃
	U/l	27	21	33	3.00	6.00	Tris buffer SCE 30℃
	U/l	21	16	26	2.50	5.00	Tris buffer SCE 25℃
	U/l	39	31	47	4.00	8.00	Ortho Vitros MicroSlide visible 37℃
Amylase Pancreatic	U/l	67	57	77	5.00	10.00	Immunoinhibition EPS substrate 37℃

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28 **Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Pancreatic	U/l	65	55	75	5.00	10.00	Roche EPS Liquid 37℃
	U/l	78	66	90	6.00	12.00	Randox Liquid Ethylidene pNPG7 37℃
Amylase Total	U/l	90	77	103	6.50	13.00	pNP Maltotrioside substrates 37°C
	U/l	92	78	106	7.00	14.00	Siemens - blocked pNPG7 37℃
	U/l	72	61	83	5.50	11.00	Randox Lyo. Ethylidene pNPG7 37℃
	U/l	97	82	112	7.50	15.00	Randox Liquid Ethylidene pNPG7 37℃
	U/l	86	73	99	6.50	13.00	Siemens 2-chloro-pNP linked substrate 37℃
	U/l	88	75	101	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	67	57	77	5.00	10.00	Ortho Vitros Microslide Systems 37℃
	U/l	88	75	101	6.50	13.00	Other Roche 2-chloro-pNPG7 37℃
	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37℃
	U/l	97	82	112	7.50	15.00	Siemens 2-chloro-pNPG3 37℃
	U/l	91	77	105	7.00	14.00	Beckman Coulter - blocked pNPG7 37℃
	U/l	93	79	107	7.00	14.00	Beckman Synchron AMY7 37℃
	U/l	90	76	104	7.00	14.00	I.L. 2-chloro-pNPG3 37℃
	U/l	100	85	115	7.50	15.00	Abbott Architect IFCC Cal. 37℃
	U/l	95	81	109	7.00	14.00	Abbott Architect Non-IFCC Cal. 37℃
	U/l	87	74	100	6.50	13.00	Beckman CNPG3 (Extinction Coeff) 37℃
	U/l	88	74	102	7.00	14.00	BM/Roche Colorimetric pNPG7 37℃
Apolipoprotein A-1	g/l	1.16	0.95	1.37	0.10	0.21	Immunoturbidimetric
	mg/dl	116	95.1	137	10.45	20.90	
Apolipoprotein B	g/l	0.64	0.52	0.75	0.06	0.11	Immunoturbidimetric
	mg/dl	63.5	52.1	74.9	5.70	11.40	
AST (GOT)	U/l	35	28	42	3.50	7.00	Colorimetric 37℃
	U/l	24	19	29	2.50	5.00	Colorimetric 30℃
	U/l	17	13	21	2.00	4.00	Colorimetric 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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
AST (GOT)	U/l	50	40	60	5.00	10.00	Ortho Vitros Microslide visible slide 37℃
	U/l	48	39	57	4.50	9.00	Tris buffer with P5P 37℃
	U/l	32	26	38	3.00	6.00	Tris buffer with P5P 30℃
	U/l	23	19	27	2.00	4.00	Tris buffer with P5P 25℃
	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37℃
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30℃
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25℃
	U/l	36	29	43	3.50	7.00	Phosphate buffer DGKC 37℃
	U/l	24	20	28	2.00	4.00	Phosphate buffer DGKC 30℃
	U/l	17	14	20	1.50	3.00	Phosphate buffer DGKC 25℃
	U/l	34	27	41	3.50	7.00	Tris buffer with P5P NVKC 37℃
	U/l	23	18	28	2.50	5.00	Tris buffer with P5P NVKC 30℃
	U/l	16	13	19	1.50	3.00	Tris buffer with P5P NVKC 25℃
	U/l	36	28	43	3.80	7.60	Tris buffer SCE 37℃
	U/l	24	19	29	2.50	5.00	Tris buffer SCE 30℃
	U/l	17	13	21	2.00	4.00	Tris buffer SCE 25℃
Bicarbonate	mmol/l	13.1	10.4	15.8	1.35	2.70	Colorimetric
	mmol/l	14.6	11.6	17.6	1.50	3.00	Ortho Vitros Microslide Systems
	mmol/l	14.0	11.1	16.9	1.45	2.90	Differential rate pH change
	mmol/l	13.7	10.9	16.5	1.40	2.80	Enzymatic
	mmol/l	13.5	10.7	16.3	1.40	2.80	Ion selective electrode
Bile Acids	µmol/l	24.9	19.9	29.9	2.50	5.00	4th Generation Colorimetric
	µmol/l	25.7	20.6	30.8	2.55	5.10	5th Generation Colorimetric
Bilirubin Direct	µmol/l	20.5	16.2	24.8	2.15	4.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.20	0.948	1.45	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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Direct	µmol/l	19.9	15.7	24.1	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.16	0.918	1.40	0.12	0.24	
	µmol/l	20.4	16.1	24.7	2.15	4.30	Diazo with Dichloroaniline (DCA)
	mg/dl	1.19	0.942	1.44	0.12	0.25	
	µmol/l	18.0	14.2	21.8	1.90	3.80	Oxidation to Biliverdin/Vanadate
	mg/dl	1.05	0.831	1.27	0.11	0.22	
	µmol/l	18.0	14.2	21.8	1.90	3.80	Modified Jendrassik
	mg/dl	1.05	0.831	1.27	0.11	0.22	
Bilirubin Total	µmol/l	24.5	19.4	29.6	2.55	5.10	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.43	1.13	1.73	0.15	0.30	
	µmol/l	35.6	28.1	43.1	3.75	7.50	Diazo with Dichloroaniline (DCA)
	mg/dl	2.08	1.64	2.52	0.22	0.44	
	µmol/l	29.1	23.0	35.2	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.70	1.35	2.05	0.18	0.35	
	µmol/l	27.1	21.4	32.8	2.85	5.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.59	1.25	1.93	0.17	0.34	
	µmol/l	26.3	20.8	31.8	2.75	5.50	Nitrobenzenediazonium salt
	mg/dl	1.54	1.22	1.86	0.16	0.32	
	µmol/l	26.3	20.8	31.8	2.75	5.50	Diazonium ion
	mg/dl	1.54	1.22	1.86	0.16	0.32	
	µmol/l	30.5	24.1	36.9	3.20	6.40	Oxidation to Biliverdin/Vanadate
	mg/dl	1.78	1.41	2.15	0.19	0.37	
	µmol/l	35.9	28.4	43.4	3.75	7.50	Modified Jendrassik
	mg/dl	2.10	1.66	2.54	0.22	0.44	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	2.14	1.93	2.35	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.58	7.74	9.42	0.42	0.84	
	mmol/l	2.20	1.98	2.42	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	8.82	7.94	9.70	0.44	0.88	
	mmol/l	2.13	1.92	2.34	0.11	0.21	Ion selective electrode
	mg/dl	8.54	7.70	9.38	0.42	0.84	
	mmol/l	2.22	2.00	2.44	0.11	0.22	Methylthymol blue
	mg/dl	8.90	8.02	9.78	0.44	0.88	
	mmol/l	2.20	1.98	2.42	0.11	0.22	Arsenazo III
	mg/dl	8.82	7.94	9.70	0.44	0.88	
	mmol/l	2.13	1.91	2.35	0.11	0.22	Phosphonazo
	mg/dl	8.54	7.66	9.42	0.44	0.88	
	mmol/l	2.17	1.95	2.39	0.11	0.22	NM-BAPTA
	mg/dl	8.70	7.82	9.58	0.44	0.88	
	mmol/l	0.93	0.84	1.03	0.05	0.09	Ionised calcium
	mg/dl	3.74	3.37	4.11	0.19	0.37	
Chloride	mmol/l	102	93.8	110	4.10	8.20	Colorimetric
	mmol/l	99.5	91.5	108	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	97.8	90.0	106	3.90	7.80	ISE indirect
	mmol/l	99.6	91.6	108	4.00	8.00	ISE direct
	mmol/l	109	99.9	118	4.55	9.10	Optical Fluorescence
Cholesterol	mmol/l	3.99	3.47	4.51	0.26	0.52	Ortho Vitros Microslide Systems
	mg/dl	154	134	174	10.00	20.00	
	mmol/l	4.14	3.60	4.68	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	160	139	181	10.50	21.00	

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

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Cholesterol	mmol/l	4.15	3.61	4.69	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	160	139	181	10.50	21.00	
	mmol/l	4.15	3.61	4.69	0.27	0.54	Cholesterol Dehydrogenase
	mg/dl	160	139	181	10.50	21.00	
Cholinesterase	U/l	5413	4331	6495	541.00	1082.00	Colorimetric Benzoylcholine 37℃
	U/l	5705	4564	6846	570.50	1141.00	Colorimetric Butyrylthiocholine 37℃
	U/l	5444	4355	6533	544.50	1089.00	Ortho Vitros Microslide Systems 37℃
CK Total	U/l	166	136	196	15.00	30.00	Ortho Vitros Microslide Systems 37℃
	U/l	183	150	216	16.50	33.00	CK-NAC serum start (DGKC) 37°C
	U/l	115	94	136	10.50	21.00	CK-NAC serum start (DGKC) 30℃
	U/l	78	64	92	7.00	14.00	CK-NAC serum start (DGKC) 25℃
	U/l	181	149	213	16.00	32.00	CK-NAC substrate start (DGKC) 37℃
	U/l	113	93	133	10.00	20.00	CK-NAC substrate start (DGKC) 30℃
	U/l	77	63	91	7.00	14.00	CK-NAC substrate start (DGKC) 25°C
	U/l	180	147	213	16.50	33.00	CK-NAC (IFCC) 37℃
	U/l	113	92	134	10.50	21.00	CK-NAC (IFCC) 30℃
	U/l	77	62	92	7.50	15.00	CK-NAC (IFCC) 25℃
	U/l	186	152	220	17.00	34.00	Monothioglycerol 37℃
	U/l	116	95	137	10.50	21.00	Monothioglycerol 30℃
	U/l	79	65	93	7.00	14.00	Monothioglycerol 25℃
	U/l	174	143	205	15.50	31.00	Dithioerythritol (DTE) IFCC correlated 37℃
	U/l	109	90	128	9.50	19.00	Dithioerythritol (DTE) IFCC correlated 30℃
	U/l	74	61	87	6.50	13.00	Dithioerythritol (DTE) IFCC correlated 25℃
Copper	µmol/l	15.1	12.1	18.1	1.50	3.00	Atomic absorption
	µg/dl	96.0	77.0	115	9.50	19.00	

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

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Copper	µmol/l	15.4	12.3	18.5	1.55	3.10	Colorimetric
	µg/dl	97.9	78.2	118	9.85	19.70	
Cortisol	nmol/l	533	400	666	66.50	133.00	Roche Cobas E411
	µg/dl	19.2	14.4	24.0	2.40	4.80	
Creatinine	µmol/l	124	99.3	149	12.35	24.70	Alkaline picrate with deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	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	126	100	152	13.00	26.00	Enzymatic UV method
	mg/dl	1.42	1.13	1.71	0.15	0.29	
	µmol/l	124	99.4	149	12.30	24.60	Creatinine PAP method
	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	
	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	
	µmol/l	118	94.7	141	11.65	23.30	Vitros DT60/DT60 II/DTSC II
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	118	94.5	142	11.75	23.50	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	121	97.0	145	12.00	24.00	Vitros IDMS Traceable
	mg/dl	1.37	1.10	1.64	0.14	0.27	
	µmol/l	125	99.9	150	12.55	25.10	IDMS traceable
	mg/dl	1.41	1.13	1.69	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.29	0.25	0.34	0.02	0.04	Tris buffer 100mmol pH 8.5

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

RANDOX

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Digoxin	nmol/l	2.14	1.71	2.57	0.22	0.43	Immunoturbidimetric
	ng/ml	1.67	1.34	2.00	0.17	0.33	
Folate	nmol/l	47.0	35.7	58.3	5.65	11.30	Roche Cobas 6000/8000
	ng/ml	20.7	15.7	25.7	2.50	5.00	
Free T4	pmol/l	18.2	13.6	22.8	2.30	4.60	Abbott Architect
	ng/dl	1.42	1.06	1.78	0.18	0.36	
	pg/ml	14.2	10.6	17.8	1.80	3.60	Abbott Architect
	pmol/l	21.5	16.1	26.9	2.70	5.40	Siemens Centaur XP/XPT/Classic
	ng/dl	1.68	1.26	2.10	0.21	0.42	
	pg/ml	16.8	12.6	21.0	2.10	4.20	Siemens Centaur XP/XPT/Classic
	pmol/l	21.8	16.4	27.2	2.70	5.40	Siemens Immulite 2000/2500
	ng/dl	1.70	1.28	2.12	0.21	0.42	
	pg/ml	17.0	12.8	21.2	2.10	4.20	Siemens Immulite 2000/2500
	pmol/l	23.1	17.3	28.9	2.90	5.80	Siemens Immulite 1000
	ng/dl	1.80	1.35	2.25	0.23	0.45	
	pg/ml	18.0	13.5	22.5	2.25	4.50	Siemens Immulite 1000
	pmol/l	19.0	14.2	23.8	2.40	4.80	Beckman DxI800
	ng/dl	1.48	1.11	1.85	0.19	0.37	
	pg/ml	14.8	11.1	18.5	1.85	3.70	Beckman DxI800
	pmol/l	24.4	18.3	30.5	3.05	6.10	Roche Elecsys
	ng/dl	1.90	1.43	2.37	0.24	0.47	
	pg/ml	19.0	14.3	23.7	2.35	4.70	Roche Elecsys
	pmol/l	25.9	19.4	32.4	3.25	6.50	Tosoh Series
	ng/dl	2.02	1.51	2.53	0.26	0.51	
	pg/ml	20.2	15.1	25.3	2.55	5.10	Tosoh Series

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Free T4	pmol/l	36.8	27.6	46.0	4.60	9.20	Vitros ECi
	ng/dl	2.87	2.15	3.59	0.36	0.72	
	pg/ml	28.7	21.5	35.9	3.60	7.20	Vitros ECi
	pmol/l	24.0	18.0	30.0	3.00	6.00	Roche Cobas E411
	ng/dl	1.87	1.40	2.34	0.24	0.47	
	pg/ml	18.7	14.0	23.4	2.35	4.70	Roche Cobas E411
	pmol/l	23.5	17.6	29.4	2.95	5.90	Roche Cobas 6000/8000
	ng/dl	1.83	1.37	2.29	0.23	0.46	
	pg/ml	18.3	13.7	22.9	2.30	4.60	Roche Cobas 6000/8000
	pmol/l	16.2	12.1	20.3	2.05	4.10	Monobind Inc. ELISA / CLIA
	ng/dl	1.26	0.944	1.58	0.16	0.32	
	pg/ml	12.6	9.44	15.8	1.58	3.16	Monobind Inc. ELISA / CLIA
	pmol/l	23.0	17.3	28.7	2.85	5.70	Biomerieux Vidas FT4N Kit
	ng/dl	1.79	1.35	2.23	0.22	0.44	
	pg/ml	17.9	13.5	22.3	2.20	4.40	Biomerieux Vidas FT4N Kit
	pmol/l	21.6	16.2	27.0	2.70	5.40	Siemens Centaur CP
	ng/dl	1.68	1.26	2.10	0.21	0.42	
	pg/ml	16.8	12.6	21.0	2.10	4.20	Siemens Centaur CP
Gentamicin	µmol/l	7.32	5.86	8.78	0.73	1.46	Immunoturbidimetric
	µg/ml	3.50	2.80	4.20	0.35	0.70	
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	39	33	45	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30℃
	U/l	30	26	34	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25℃
	U/l	64	54	74	5.00	10.00	Ortho Vitros Microslide Systems 37℃
	U/l	46	39	53	3.50	7.00	Gamma glutamyl-4-nitroanilide 37℃
	U/l	36	31	41	2.50	5.00	Gamma glutamyl-4-nitroanilide 30℃
	U/l	28	24	32	2.00	4.00	Gamma glutamyl-4-nitroanilide 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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
	U/l	55	47	63	4.00	8.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	43	37	49	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30℃
	U/l	34	29	39	2.50	5.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25℃
GLDH	U/l	19	15	23	2.00	4.00	Triethanolamine buffer 50 mmol 37℃
	U/l	15	12	18	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	12	9	15	1.50	3.00	Triethanolamine buffer 50 mmol 25℃
Glucose	mmol/l	6.02	5.12	6.92	0.45	0.90	Ortho Vitros Microslide Systems
	mg/dl	108	92.3	124	7.85	15.70	
	mmol/l	6.18	5.26	7.10	0.46	0.92	Glucose dehydrogenase
	mg/dl	111	94.8	127	8.10	16.20	
	mmol/l	6.15	5.23	7.07	0.46	0.92	Hexokinase
	mg/dl	111	94.2	128	8.40	16.80	
	mmol/l	6.10	5.18	7.02	0.46	0.92	Oxygen electrode
	mg/dl	110	93.3	127	8.35	16.70	
	mmol/l	6.23	5.30	7.16	0.47	0.93	Glucose oxidase
	mg/dl	112	95.5	129	8.25	16.50	
HDL - Cholesterol	mmol/l	1.42	1.21	1.63	0.11	0.21	Direct HDL PPD
	mg/dl	54.8	46.7	62.9	4.05	8.10	
	mmol/l	1.33	1.13	1.53	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	51.3	43.6	59.0	3.85	7.70	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	1.31	1.11	1.51	0.10	0.20	Vitros Magnetic HDL
	mg/dl	50.6	42.8	58.4	3.90	7.80	
	mmol/l	1.34	1.14	1.54	0.10	0.20	Direct HDL PEGME
	mg/dl	51.7	44.0	59.4	3.85	7.70	
	mmol/l	1.27	1.08	1.46	0.10	0.19	Direct Clearance Method
	mg/dl	49.0	41.7	56.3	3.65	7.30	
	mmol/l	1.30	1.10	1.50	0.10	0.20	Vitros 5.1 FS microtip assay
	mg/dl	50.2	42.5	57.9	3.85	7.70	
	mmol/l	1.29	1.09	1.49	0.10	0.20	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	49.8	42.1	57.5	3.85	7.70	
	mmol/l	1.45	1.24	1.66	0.11	0.21	HDL - Ultra
	mg/dl	56.0	47.9	64.1	4.05	8.10	
	mmol/l	1.46	1.24	1.68	0.11	0.22	Direct HDL Roche 4th Generation
	mg/dl	56.4	47.9	64.9	4.25	8.50	
Immunoglobulin A	g/l	1.85	1.39	2.31	0.23	0.46	Immunoturbidimetric
	mg/dl	185	139	231	23.00	46.00	
Immunoglobulin G	g/l	7.32	6.00	8.64	0.66	1.32	Immunoturbidimetric
	mg/dl	732	600	864	66.00	132.00	
Immunoglobulin M	g/l	0.84	0.67	1.01	0.08	0.17	Immunoturbidimetric
	mg/dl	84.0	67.2	101	8.40	16.80	
Iron	µmol/l	20.2	16.6	23.8	1.80	3.60	Colorimetric with ppt.
	µg/dl	113	92.8	133	10.10	20.20	
	µmol/l	20.5	16.8	24.2	1.85	3.70	Colorimetric without ppt.
	µg/dl	115	93.9	136	10.55	21.10	
	µmol/l	20.4	16.7	24.1	1.85	3.70	Ortho Vitros Microslide Systems
	µg/dl	114	93.4	135	10.30	20.60	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	
	mmol/l	1.41	1.15	1.67	0.13	0.26	Ortho Vitros Microslide Systems
	mg/dl	12.7	10.4	15.0	1.15	2.30	
	mmol/l	1.47	1.20	1.74	0.14	0.27	Enzymatic Electrode
	mg/dl	13.2	10.8	15.6	1.20	2.40	
	mmol/l	1.46	1.20	1.72	0.13	0.26	Ion selective electrode
	mg/dl	13.2	10.8	15.6	1.20	2.40	
	mmol/l	1.50	1.23	1.77	0.14	0.27	UV LDH
	mg/dl	13.5	11.1	15.9	1.20	2.40	
LAP	U/l	17	14	20	1.50	3.00	NAGEL 37℃
LD (LDH)	U/l	567	482	652	42.50	85.00	Ortho Vitros Microslide Systems 37℃
	U/l	402	342	462	30.00	60.00	P->L Scandinavian & Dutch 37°C
	U/l	290	247	333	21.50	43.00	P->L Scandinavian & Dutch 30°C
	U/l	204	173	235	15.50	31.00	P->L Scandinavian & Dutch 25°C
	U/l	388	330	446	29.00	58.00	P->L German methods 37℃
	U/l	280	238	322	21.00	42.00	P->L German methods 30℃
	U/l	197	167	227	15.00	30.00	P->L German methods 25℃
	U/l	386	328	444	29.00	58.00	P->L SFBC 37℃
	U/l	279	237	321	21.00	42.00	P->L SFBC 30℃
	U/l	196	166	226	15.00	30.00	P->L SFBC 25℃
	U/l	200	170	230	15.00	30.00	L->P IFCC 37℃
	U/l	144	123	165	10.50	21.00	L->P IFCC 30℃
	U/l	101	86	116	7.50	15.00	L->P IFCC 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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	226	192	260	17.00	34.00	Ortho Vitros IFCC Traceable 37℃
Lipase	U/l	188	151	225	18.50	37.00	Ortho Vitros Microslide Systems 37℃
	U/l	29	23	35	3.00	6.00	Roche Colorimetric 37℃
	U/l	29	23	35	3.00	6.00	Roche Turbidimetric with colipase 37℃
	U/l	40	32	48	4.00	8.00	Randox Colorimetric 37℃
Lithium	mmol/l	1.06	0.93	1.19	0.06	0.13	Atomic absorption
	mg/dl	0.736	0.646	0.826	0.05	0.09	
	mmol/l	1.25	1.10	1.40	0.08	0.15	Ortho Vitros Microslide Systems
	mg/dl	0.868	0.764	0.972	0.05	0.10	
	mmol/l	0.99	0.87	1.11	0.06	0.12	Flame photometry
	mg/dl	0.690	0.607	0.773	0.04	0.08	
	mmol/l	1.04	0.92	1.16	0.06	0.12	Ion selective electrode
	mg/dl	0.722	0.638	0.806	0.04	0.08	
	mmol/l	1.06	0.93	1.19	0.06	0.13	Spectrophotometric
	mg/dl	0.736	0.647	0.825	0.04	0.09	
	mmol/l	1.03	0.91	1.15	0.06	0.12	Randox Colorimetric
	mg/dl	0.715	0.629	0.801	0.04	0.09	
Magnesium	mmol/l	0.83	0.73	0.93	0.05	0.10	Arsenazo III
	mg/dl	2.01	1.77	2.25	0.12	0.24	
	mmol/l	0.85	0.75	0.95	0.05	0.10	Ortho Vitros Microslide Systems
	mg/dl	2.06	1.81	2.31	0.13	0.25	
	mmol/l	0.86	0.76	0.96	0.05	0.10	Atomic absorption
	mg/dl	2.08	1.83	2.33	0.13	0.25	
	mmol/l	0.86	0.75	0.96	0.05	0.10	Calmagite
	mg/dl	2.08	1.83	2.33	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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Magnesium	mmol/l	0.86	0.76	0.96	0.05	0.10	Xylidyl Blue
	mg/dl	2.09	1.84	2.34	0.13	0.25	
	mmol/l	0.82	0.73	0.92	0.05	0.10	Methylthymol blue
	mg/dl	2.00	1.76	2.24	0.12	0.24	
	mmol/l	0.87	0.76	0.97	0.05	0.10	Chlorphosphonazo III
	mg/dl	2.10	1.85	2.35	0.13	0.25	
	mmol/l	0.83	0.73	0.93	0.05	0.10	Enzymatic
	mg/dl	2.01	1.77	2.25	0.12	0.24	
NEFA	mmol/l	1.29	1.10	1.48	0.10	0.19	Colorimetric
Osmolality	mOsm/kg	292	233	351	29.50	59.00	Calculated
	mOsm/kg	301	240	362	30.50	61.00	Freezing point depression
Paracetamol	mmol/l	0.08	0.06	0.09	0.01	0.02	Colorimetric
	mg/l	11.5	9.23	13.8	1.14	2.27	
Phosphate Inorganic	mmol/l	1.47	1.25	1.69	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.56	3.88	5.24	0.34	0.68	
	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.40	3.75	5.05	0.33	0.65	
	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	4.05	3.72	4.38	0.17	0.33	Ortho Vitros Microslide Systems
	mmol/l	4.02	3.70	4.34	0.16	0.32	Enzymatic
	mmol/l	3.91	3.60	4.22	0.16	0.31	Flame photometry
	mmol/l	3.95	3.63	4.27	0.16	0.32	ISE method - direct
	mmol/l	4.00	3.68	4.32	0.16	0.32	ISE method - indirect
	mmol/l	4.07	3.75	4.39	0.16	0.32	Optical Fluorescence

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	3.87	3.56	4.18	0.16	0.31	Colorimetric
Protein Total	g/l	58.2	46.5	69.9	5.85	11.70	Ortho Vitros Microslide Systems
	g/dl	5.82	4.65	6.99	0.59	1.17	
	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	57.7	46.1	69.3	5.80	11.60	Biuret reaction kinetic
	g/dl	5.77	4.61	6.93	0.58	1.16	
PSA Total	ng/ml =	7.68	5.76	9.60	0.96	1.92	Tosoh Series
	ng/ml =	5.31	3.98	6.64	0.67	1.33	Siemens Immulite 1000
	ng/ml =	12.1	9.10	15.1	1.50	3.00	Roche Elecsys Modular E170
	ng/ml =	12.8	9.56	16.0	1.62	3.24	Beckman Access standardised to Hybritech
	ng/ml =	10.2	7.62	12.8	1.29	2.58	bioMerieux VIDAS TPSA
	ng/ml =	13.0	9.75	16.3	1.63	3.25	Beckman Access standardised to WHO IRP96/670
	ng/ml =	9.74	7.31	12.2	1.22	2.43	Siemens Centaur XP/XPT/Classic
	ng/ml =	4.98	3.74	6.22	0.62	1.24	Siemens Immulite 2000 1st Generation
	ng/ml =	9.40	7.05	11.8	1.18	2.35	Abbott Architect
	ng/ml =	11.5	8.64	14.4	1.43	2.86	Ortho Vitros ECi
	ng/ml =	8.34	6.26	10.4	1.04	2.08	Siemens Dimension
	ng/ml =	12.4	9.29	15.5	1.56	3.11	Cobas E411
	ng/ml =	12.3	9.22	15.4	1.54	3.08	Roche Cobas 6000/8000
	ng/ml =	11.8	8.86	14.7	1.47	2.94	Ortho Vitros 3600/5600/ECi PSA II
	ng/ml =	12.8	9.61	16.0	1.60	3.19	Beckman DXI standardised to Hybritech
	ng/ml =	9.61	7.21	12.0	1.20	2.40	Siemens Centaur CP
Salicylate	mmol/l	0.43	0.35	0.52	0.04	0.09	Gravimetric
	mg/dl	5.99	4.80	7.18	0.60	1.19	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Sodium	mmol/l	140	133	147	3.50	7.00	Ortho Vitros Microslide Systems
	mmol/l	143	136	150	3.50	7.00	Enzymatic
	mmol/l	140	133	147	3.50	7.00	Flame photometry
	mmol/l	139	132	146	3.50	7.00	ISE method - direct
	mmol/l	142	134	150	4.00	8.00	ISE method - indirect
	mmol/l	137	130	144	3.50	7.00	Optical Fluorescence
	mmol/l	142	135	149	3.50	7.00	Colorimetric
Theophylline	µmol/l	28.3	22.6	34.0	2.85	5.70	Gravimetric
	µg/ml	5.10	4.07	6.13	0.52	1.03	
Thyroid Stimulating Hormone	µU/ml =	1.12	0.89	1.35	0.11	0.23	Abbott Architect
	µU/ml =	1.48	1.18	1.78	0.15	0.30	bioMerieux VIDAS TSH
	µU/ml =	1.45	1.16	1.74	0.15	0.29	bioMerieux VIDAS TSH3 Ultrasensitive
	µU/ml =	1.35	1.08	1.62	0.14	0.27	Siemens Centaur XP/XPT/Classic
	µU/ml =	1.46	1.16	1.76	0.15	0.30	Siemens Immulite 2000/2500
	µU/ml =	1.29	1.03	1.55	0.13	0.26	Siemens Immulite 1000
	µU/ml =	1.55	1.24	1.86	0.16	0.31	Roche Elecsys
	µU/ml =	1.51	1.20	1.82	0.16	0.31	Diasorin Liaison
	µU/ml =	1.28	1.03	1.53	0.13	0.25	Beckman Access Fast TSH
	µU/ml =	1.30	1.04	1.56	0.13	0.26	Beckman Access hyperTSH 3rd Generation
	µU/ml =	1.37	1.09	1.65	0.14	0.28	Tosoh Series
	µU/ml =	1.38	1.10	1.66	0.14	0.28	Vitros ECi
	µU/ml =	1.58	1.27	1.89	0.16	0.31	Roche Cobas E411
	µU/ml =	1.59	1.27	1.91	0.16	0.32	Roche Cobas 6000/8000
	µU/ml =	1.28	1.02	1.54	0.13	0.26	Beckman DxI800 Hyper TSH
	µU/ml =	1.33	1.06	1.60	0.14	0.27	Monobind Inc. ELISA / CLIA

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Thyroid Stimulating Hormone	µU/ml =	1.25	1.00	1.50	0.13	0.25	Siemens Centaur XP/XPT/Classic TSH3-Ultra
	µU/ml =	1.49	1.19	1.79	0.15	0.30	SNIBE Maglumi Analysers
	µU/ml =	1.39	1.11	1.67	0.14	0.28	Siemens Centaur CP
	µU/ml =	1.28	1.03	1.53	0.13	0.25	Siemens Centaur CP TSH3-Ultra
	µU/ml =	1.25	1.00	1.50	0.13	0.25	Beckman DxI 600/800 Access (3rd IS)
	µU/ml =	1.67	1.34	2.00	0.17	0.33	Mindray CL-2000i
TIBC	µmol/l	44.0	34.8	53.2	4.60	9.20	Ortho Vitros Microslide Systems
	µg/dl	246	195	297	25.50	51.00	
	µmol/l	37.4	29.5	45.3	3.95	7.90	Removal of excess free iron
	µg/dl	209	165	253	22.00	44.00	
	µmol/l	39.7	31.4	48.0	4.15	8.30	FE+UIBC(saturation with iron)
	µg/dl	222	176	268	23.00	46.00	
	µmol/l	39.5	31.2	47.8	4.15	8.30	Direct Colorimetric
	µg/dl	221	174	268	23.50	47.00	
	µmol/l	41.0	32.4	49.6	4.30	8.60	Calculated from Transferrin
	µg/dl	229	181	277	24.00	48.00	
	µmol/l	47.1	37.2	57.0	4.95	9.90	Randox Direct
	µg/dl	263	208	318	27.50	55.00	
Tobramycin	µmol/l	6.30	5.04	7.56	0.63	1.26	Gravimetric
	µg/ml	2.95	2.36	3.54	0.30	0.59	
Total T3	nmol/l	1.90	1.43	2.37	0.24	0.47	Abbott Architect
	ng/ml	1.24	0.931	1.55	0.15	0.31	
	ng/dl	124	93.1	155	15.45	30.90	Abbott Architect
	nmol/l	2.02	1.51	2.53	0.26	0.51	BioMerieux Vidas
	ng/ml	1.32	0.983	1.66	0.17	0.34	
	ng/dl	132	98.3	166	16.85	33.70	BioMerieux Vidas

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Total T3	nmol/l	2.26	1.69	2.83	0.29	0.57	Siemens Centaur XP/XPT/Classic
	ng/ml	1.47	1.10	1.84	0.19	0.37	
	ng/dl	147	110	184	18.50	37.00	Siemens Centaur XP/XPT/Classic
	nmol/l	1.75	1.32	2.18	0.22	0.43	Siemens Immulite 2000/2500
	ng/ml	1.14	0.859	1.42	0.14	0.28	
	ng/dl	114	85.9	142	14.05	28.10	Siemens Immulite 2000/2500
	nmol/l	2.06	1.55	2.57	0.26	0.51	Siemens Immulite 1000
	ng/ml	1.34	1.01	1.67	0.17	0.33	
	ng/dl	134	101	167	16.50	33.00	Siemens Immulite 1000
	nmol/l	2.20	1.65	2.75	0.28	0.55	Beckman DxI800
	ng/ml	1.43	1.07	1.79	0.18	0.36	
	ng/dl	143	107	179	18.00	36.00	Beckman DxI800
	nmol/l	2.22	1.67	2.77	0.28	0.55	Beckman Access
	ng/ml	1.45	1.09	1.81	0.18	0.36	
	ng/dl	145	109	181	18.00	36.00	Beckman Access
	nmol/l	2.12	1.59	2.65	0.27	0.53	Tosoh Series
	ng/ml	1.38	1.04	1.72	0.17	0.34	
	ng/dl	138	104	172	17.00	34.00	Tosoh Series
	nmol/l	2.53	1.90	3.16	0.32	0.63	Vitros ECi
	ng/ml	1.65	1.24	2.06	0.21	0.41	
	ng/dl	165	124	206	20.50	41.00	Vitros ECi
	nmol/l	2.27	1.70	2.84	0.29	0.57	Roche Cobas E411
	ng/ml	1.48	1.11	1.85	0.19	0.37	
	ng/dl	148	111	185	18.50	37.00	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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Total T3	nmol/l	2.25	1.69	2.81	0.28	0.56	Roche Cobas 6000/8000
	ng/ml	1.46	1.10	1.82	0.18	0.36	
	ng/dl	146	110	182	18.00	36.00	Roche Cobas 6000/8000
	nmol/l	2.26	1.69	2.83	0.29	0.57	Monobind Inc. ELISA / CLIA
	ng/ml	1.47	1.10	1.84	0.19	0.37	
	ng/dl	147	110	184	18.50	37.00	Monobind Inc. ELISA / CLIA
	nmol/l	2.48	1.86	3.10	0.31	0.62	SNIBE Maglumi Analysers
	ng/ml	1.61	1.21	2.01	0.20	0.40	
	ng/dl	161	121	201	20.00	40.00	SNIBE Maglumi Analysers
	nmol/l	2.35	1.76	2.94	0.30	0.59	Siemens Centaur CP
	ng/ml	1.53	1.15	1.91	0.19	0.38	
	ng/dl	153	115	191	19.00	38.00	Siemens Centaur CP
Total T4	nmol/l	98.9	74.1	124	12.40	24.80	Abbott Architect
	µg/dl	7.71	5.78	9.64	0.97	1.93	
	ng/ml	77.1	57.8	96.4	9.65	19.30	Abbott Architect
	nmol/l	94.9	71.2	119	11.85	23.70	BioMerieux Vidas
	µg/dl	7.40	5.55	9.25	0.93	1.85	
	ng/ml	74.0	55.5	92.5	9.25	18.50	BioMerieux Vidas
	nmol/l	94.0	70.5	118	11.75	23.50	Siemens Centaur XP/XPT/Classic
	µg/dl	7.33	5.50	9.16	0.92	1.83	
	ng/ml	73.3	55.0	91.6	9.15	18.30	Siemens Centaur XP/XPT/Classic
	nmol/l	99.5	74.6	124	12.45	24.90	Siemens Immulite 2000/2500
	µg/dl	7.76	5.82	9.70	0.97	1.94	
	ng/ml	77.6	58.2	97.0	9.70	19.40	Siemens Immulite 2000/2500
	nmol/l	102	76.2	128	12.90	25.80	Siemens Immulite 1000
	µg/dl	7.96	5.94	9.98	1.01	2.02	
	ng/ml	79.6	59.4	99.8	10.10	20.20	Siemens Immulite 1000

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Total T4	nmol/l	97.9	73.4	122	12.25	24.50	Beckman DxI800
	µg/dl	7.64	5.73	9.55	0.96	1.91	
	ng/ml	76.4	57.3	95.5	9.55	19.10	Beckman DxI800
	nmol/l	96.8	72.6	121	12.10	24.20	Roche Elecsys
	µg/dl	7.55	5.66	9.44	0.95	1.89	
	ng/ml	75.5	56.6	94.4	9.45	18.90	Roche Elecsys
	nmol/l	106	79.2	133	13.40	26.80	Beckman Access
	µg/dl	8.27	6.18	10.4	1.05	2.09	
	ng/ml	82.7	61.8	104	10.45	20.90	Beckman Access
	nmol/l	91.6	68.7	115	11.45	22.90	Tosoh Series
	µg/dl	7.14	5.36	8.92	0.89	1.78	
	ng/ml	71.4	53.6	89.2	8.90	17.80	Tosoh Series
	nmol/l	92.3	69.2	115	11.55	23.10	Vitros ECi
	µg/dl	7.20	5.40	9.00	0.90	1.80	
	ng/ml	72.0	54.0	90.0	9.00	18.00	Vitros ECi
	nmol/l	95.5	71.6	119	11.95	23.90	Roche Cobas E411
	µg/dl	7.45	5.58	9.32	0.94	1.87	
	ng/ml	74.5	55.8	93.2	9.35	18.70	Roche Cobas E411
	nmol/l	92.8	69.6	116	11.60	23.20	Roche Cobas 6000/8000
	µg/dl	7.24	5.43	9.05	0.91	1.81	
	ng/ml	72.4	54.3	90.5	9.05	18.10	Roche Cobas 6000/8000
	nmol/l	120	89.7	150	15.15	30.30	Microgenics DRI assay
	µg/dl	9.36	7.00	11.7	1.18	2.36	
	ng/ml	93.6	70.0	117	11.80	23.60	Microgenics DRI assay

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Total T4	nmol/l	95.4	71.6	119	11.90	23.80	Monobind Inc. ELISA / CLIA
	µg/dl	7.44	5.58	9.30	0.93	1.86	
	ng/ml	74.4	55.8	93.0	9.30	18.60	Monobind Inc. ELISA / CLIA
	nmol/l	106	79.2	133	13.40	26.80	SNIBE Maglumi Analysers
	µg/dl	8.27	6.18	10.4	1.05	2.09	
	ng/ml	82.7	61.8	104	10.45	20.90	SNIBE Maglumi Analysers
	nmol/l	116	87.0	145	14.50	29.00	Thermo Scientific - DRI
	µg/dl	9.05	6.79	11.3	1.13	2.26	
	ng/ml	90.5	67.9	113	11.30	22.60	Thermo Scientific - DRI
	nmol/l	105	78.7	131	13.15	26.30	Siemens Centaur CP
	µg/dl	8.19	6.14	10.2	1.03	2.05	
	ng/ml	81.9	61.4	102	10.25	20.50	Siemens Centaur CP
Transferrin	g/l	1.91	1.53	2.29	0.19	0.38	Immunoturbidimetric
	mg/dl	191	153	229	19.00	38.00	
Triglycerides	mmol/l	1.04	0.88	1.20	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	92.0	77.6	106	7.20	14.40	
	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	93.8	79.0	109	7.40	14.80	
	mmol/l	1.03	0.87	1.19	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	91.2	76.9	106	7.15	14.30	
	mmol/l	1.05	0.89	1.21	0.08	0.16	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	92.9	78.4	107	7.25	14.50	
	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	92.9	78.1	108	7.40	14.80	

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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.24	1.04	1.44	0.10	0.20	Ortho Vitros Microslide Systems
	mg/dl	110	92.0	128	9.00	18.00	
UIBC	µmol/l	19.2	15.7	22.7	1.75	3.50	Direct Colorimetric
	µg/dl	107	87.8	126	9.60	19.20	
Urea	mmol/l	6.96	5.92	8.00	0.52	1.04	Ortho Vitros Microslide Systems
	mg/dl	41.8	35.6	48.0	3.10	6.20	
	mmol/l	7.26	6.17	8.35	0.55	1.09	Urease end point
	mg/dl	43.6	37.1	50.1	3.25	6.50	
	mmol/l	7.31	6.21	8.41	0.55	1.10	Urease kinetic
	mg/dl	43.9	37.3	50.5	3.30	6.60	
	mmol/l	7.34	6.24	8.44	0.55	1.10	Urease hypochlorite
	mg/dl	44.1	37.5	50.7	3.30	6.60	
	mmol/l	7.31	6.21	8.41	0.55	1.10	BUN
	mg/dl	20.5	17.4	23.6	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.66	4.92	6.40	0.37	0.74	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.86	5.11	6.61	0.38	0.75	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Reduction methods
	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 with ascorbate oxidase
	mg/dl	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.88	5.11	6.65	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.88	5.12	6.64	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

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			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 with ascorbate oxidase @ 546nm
	mg/dl	5.90	5.12	6.68	0.39	0.78	
Vitamin B12	pmol/l	566	453	678	56.33	112.65	Roche Cobas E411
	pg/ml	766	614	918	76.00	152.00	
Zinc	µmol/l	23.5	18.8	28.2	2.35	4.70	Atomic absorption
	µg/dl	153	123	183	15.00	30.00	
	µmol/l	23.7	19.0	28.4	2.35	4.70	Colorimetric with deproteinisation
	µg/dl	155	124	186	15.50	31.00	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin (electrophoresis)		67.3	60.6	74.0	3.35	6.70	% of total Protein (Beckman Capillary)
alpha-1-globulin		6.2	4.7	7.7	0.75	1.49	% of total Protein (Beckman Capillary)
alpha-2-globulin		6.4	4.9	7.9	0.77	1.54	% of total Protein (Beckman Capillary)
beta-globulin		10.1	7.7	12.5	1.21	2.42	% of total Protein (Beckman Capillary)
gamma-globulin		10.0	7.6	12.4	1.20	2.40	% 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

Ortho VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.4	33.5	45.3	2.95	5.90	Ortho Vitros Microslide Systems
	g/dl	3.94	3.35	4.53	0.30	0.59	
Alkaline Phosphatase	U/l	151	128	174	11.50	23.00	Ortho Vitros Microslide Systems 37℃
ALT (GPT)	U/l	39	31	47	4.00	8.00	Ortho Vitros MicroSlide visible 37℃
Amylase Total	U/l	67	57	77	5.00	10.00	Ortho Vitros Microslide Systems 37℃
AST (GOT)	U/l	50	40	60	5.00	10.00	Ortho Vitros Microslide visible slide 37℃
Bicarbonate	mmol/l	14.6	11.6	17.6	1.50	3.00	Ortho Vitros Microslide Systems
Bilirubin Total	µmol/l	24.5	19.4	29.6	2.55	5.10	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.43	1.13	1.73	0.15	0.30	
Bilirubin, Unconjugated Vitros BU	µmol/l	13.6	10.7	16.5	1.45	2.90	BuBc Vitros Slide
	mg/dl	0.796	0.626	0.966	0.09	0.17	
Calcium	mmol/l	2.20	1.98	2.42	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	8.82	7.94	9.70	0.44	0.88	
Chloride	mmol/l	99.5	91.5	108	4.00	8.00	Ortho Vitros Microslide Systems
Cholesterol	mmol/l	3.99	3.47	4.51	0.26	0.52	Ortho Vitros Microslide Systems
	mg/dl	154	134	174	10.00	20.00	
Cholinesterase	U/l	5444	4355	6533	544.50	1089.00	Ortho Vitros Microslide Systems 37℃
CK Total	U/l	166	136	196	15.00	30.00	Ortho Vitros Microslide Systems 37℃
Creatinine	µmol/l	118	94.7	141	11.65	23.30	Vitros DT60/DT60 II/DTSC II
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	121	97.0	145	12.00	24.00	Vitros IDMS Traceable
	mg/dl	1.37	1.10	1.64	0.14	0.27	

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

Ortho VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Free T4	pmol/l	36.8	27.6	46.0	4.60	9.20	Vitros ECi
	ng/dl	2.87	2.15	3.59	0.36	0.72	
	pg/ml	28.7	21.5	35.9	3.60	7.20	Vitros ECi
gamma-GT	U/l	64	54	74	5.00	10.00	Ortho Vitros Microslide Systems 37℃
Glucose	mmol/l	6.02	5.12	6.92	0.45	0.90	Ortho Vitros Microslide Systems
	mg/dl	108	92.3	124	7.85	15.70	
HDL - Cholesterol	mmol/l	1.31	1.11	1.51	0.10	0.20	Vitros Magnetic HDL
	mg/dl	50.6	42.8	58.4	3.90	7.80	
	mmol/l	1.30	1.10	1.50	0.10	0.20	Vitros 5.1 FS microtip assay
	mg/dl	50.2	42.5	57.9	3.85	7.70	
	mmol/l	1.29	1.09	1.49	0.10	0.20	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	49.8	42.1	57.5	3.85	7.70	
Iron	µmol/l	20.4	16.7	24.1	1.85	3.70	Ortho Vitros Microslide Systems
	µg/dl	114	93.4	135	10.30	20.60	
Lactate	mmol/l	1.41	1.15	1.67	0.13	0.26	Ortho Vitros Microslide Systems
	mg/dl	12.7	10.4	15.0	1.15	2.30	
LD (LDH)	U/l	567	482	652	42.50	85.00	Ortho Vitros Microslide Systems 37℃
	U/l	226	192	260	17.00	34.00	Ortho Vitros IFCC Traceable 37℃
Lipase	U/l	188	151	225	18.50	37.00	Ortho Vitros Microslide Systems 37℃
Lithium	mmol/l	1.25	1.10	1.40	0.08	0.15	Ortho Vitros Microslide Systems
	mg/dl	0.868	0.764	0.972	0.05	0.10	
Magnesium	mmol/l	0.85	0.75	0.95	0.05	0.10	Ortho Vitros Microslide Systems
	mg/dl	2.06	1.81	2.31	0.13	0.25	
Phosphate Inorganic	mmol/l	1.47	1.25	1.69	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.56	3.88	5.24	0.34	0.68	

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

RANDOX

Ortho VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	4.05	3.72	4.38	0.17	0.33	Ortho Vitros Microslide Systems
Protein Total	g/l	58.2	46.5	69.9	5.85	11.70	Ortho Vitros Microslide Systems
	g/dl	5.82	4.65	6.99	0.59	1.17	
PSA Total	ng/ml =	11.5	8.64	14.4	1.43	2.86	Ortho Vitros ECi
	ng/ml =	11.8	8.86	14.7	1.47	2.94	Ortho Vitros 3600/5600/ECi PSA II
Sodium	mmol/l	140	133	147	3.50	7.00	Ortho Vitros Microslide Systems
Thyroid Stimulating Hormone	µU/ml =	1.38	1.10	1.66	0.14	0.28	Vitros ECi
TIBC	µmol/l	44.0	34.8	53.2	4.60	9.20	Ortho Vitros Microslide Systems
	µg/dl	246	195	297	25.50	51.00	
Total T3	nmol/l	2.53	1.90	3.16	0.32	0.63	Vitros ECi
	ng/ml	1.65	1.24	2.06	0.21	0.41	
	ng/dl	165	124	206	20.50	41.00	Vitros ECi
Total T4	nmol/l	92.3	69.2	115	11.55	23.10	Vitros ECi
	µg/dl	7.20	5.40	9.00	0.90	1.80	
	ng/ml	72.0	54.0	90.0	9.00	18.00	Vitros ECi
Triglycerides	mmol/l	1.24	1.04	1.44	0.10	0.20	Ortho Vitros Microslide Systems
	mg/dl	110	92.0	128	9.00	18.00	
Urea	mmol/l	6.96	5.92	8.00	0.52	1.04	Ortho Vitros Microslide Systems
	mg/dl	41.8	35.6	48.0	3.10	6.20	
	mmol/l	6.96	5.92	8.00	0.52	1.04	BUN
	mg/dl	19.5	16.6	22.4	1.45	2.90	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.66	4.92	6.40	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

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.7	34.6	46.8	3.05	6.10	Bromocresol Green
	g/dl	4.07	3.46	4.68	0.31	0.61	
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37℃
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30℃
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 25℃
Amylase Total	U/l	98	84	112	7.00	14.00	Randox Liquid Ethylidene pNPG7 37℃
AST (GOT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37℃
	U/l	26	20	32	3.00	6.00	Tris buffer without P5P 30℃
	U/l	18	14	22	2.00	4.00	Tris buffer without P5P 25℃
Bilirubin Direct	µmol/l	19.2	15.2	23.2	2.00	4.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.12	0.889	1.35	0.12	0.23	
Bilirubin Total	µmol/l	28.9	22.8	35.0	3.05	6.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.69	1.33	2.05	0.18	0.36	
	µmol/l	30.1	23.8	36.4	3.15	6.30	Oxidation to Biliverdin/Vanadate
	mg/dl	1.76	1.39	2.13	0.19	0.37	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Arsenazo III
	mg/dl	8.86	7.98	9.74	0.44	0.88	
Cholesterol	mmol/l	4.26	3.70	4.82	0.28	0.56	Cholesterol Oxidase - Abell Kendall
	mg/dl	164	143	185	10.50	21.00	
CK Total	U/l	195	160	230	17.50	35.00	CK-NAC (IFCC) 37℃
	U/l	122	100	144	11.00	22.00	CK-NAC (IFCC) 30℃
	U/l	83	68	98	7.50	15.00	CK-NAC (IFCC) 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

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	126	101	151	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	124	99.5	149	12.25	24.50	Jaffe rate blanked
	mg/dl	1.40	1.12	1.68	0.14	0.28	
gamma-GT	U/l	50	43	57	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	39	34	44	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30℃
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25℃
	U/l	51	44	58	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	40	35	45	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
Glucose	mmol/l	6.29	5.34	7.24	0.48	0.95	Glucose oxidase
	mg/dl	113	96.2	130	8.40	16.80	
HDL - Cholesterol	mmol/l	1.31	1.11	1.51	0.10	0.20	Direct Clearance Method
	mg/dl	50.6	42.8	58.4	3.90	7.80	
Iron	µmol/l	20.3	16.6	24.0	1.85	3.70	Colorimetric without ppt.
	µg/dl	113	92.8	133	10.10	20.20	
LD (LDH)	U/l	395	336	454	29.50	59.00	P->L German methods 37℃
	U/l	285	243	327	21.00	42.00	P->L German methods 30℃
	U/l	200	170	230	15.00	30.00	P->L German methods 25℃
Lipase	U/l	35	28	42	3.50	7.00	Other Colorimetric 37℃
Magnesium	mmol/l	0.87	0.76	0.97	0.05	0.10	Xylidyl Blue
	mg/dl	2.10	1.85	2.35	0.13	0.25	
Phosphate Inorganic	mmol/l	1.44	1.22	1.66	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.46	3.78	5.14	0.34	0.68	

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

RANDOX

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	1.05	0.88	1.22	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.1	108	7.40	14.80	
	mmol/l	1.09	0.92	1.26	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	96.5	81.2	112	7.65	15.30	
Urea	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	7.41	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	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.06	5.28	6.84	0.39	0.78	
	mmol/l	0.37	0.32	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.13	5.34	6.92	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

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Acid Phosphatase (Total)	U/l	8.23	5.51	11.0	1.36	2.72	1-Naphthyl Phosphate substrate Kinetic 37℃
	U/l	8.27	5.54	11.0	1.37	2.73	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37℃
Albumin	g/l	41.8	35.6	48.0	3.10	6.20	Bromocresol Green
	g/dl	4.18	3.56	4.80	0.31	0.62	
	g/l	42.2	35.9	48.5	3.15	6.30	Bromocresol Purple
	g/dl	4.22	3.59	4.85	0.32	0.63	
	g/l	39.9	33.9	45.9	3.00	6.00	Turbidimetric Assays
	g/dl	3.99	3.39	4.59	0.30	0.60	
Alkaline Phosphatase	U/l	143	122	164	10.50	21.00	Roche Integra AMP buffer 37℃
	U/l	111	95	127	8.00	16.00	Roche Integra AMP buffer 30℃
	U/l	91	78	104	6.50	13.00	Roche Integra AMP buffer 25℃
	U/l	143	121	165	11.00	22.00	AMP optimised to IFCC 37℃
	U/l	111	94	128	8.50	17.00	AMP optimised to IFCC 30℃
	U/l	91	77	105	7.00	14.00	AMP optimised to IFCC 25℃
	U/l	143	122	164	10.50	21.00	Colorimetric 37℃
	U/l	111	95	127	8.00	16.00	Colorimetric 30℃
	U/l	91	78	104	6.50	13.00	Colorimetric 25℃
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37℃
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30℃
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25℃
Amylase Pancreatic	U/l	64	54	74	5.00	10.00	Roche EPS Liquid 37℃

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Amylase Total	U/l	86	73	99	6.50	13.00	Randox Liquid Ethylidene pNPG7 37℃
	U/l	86	73	99	6.50	13.00	Roche Integra 2-chloro-pNPG7 37℃
	U/l	87	74	100	6.50	13.00	Other Roche 2-chloro-pNPG7 37℃
	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37℃
	U/l	86	73	99	6.50	13.00	BM/Roche Colorimetric pNPG7 37℃
AST (GOT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37℃
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30℃
	U/l	16	12	20	2.00	4.00	Tris buffer without P5P 25℃
Bicarbonate	mmol/l	13.2	10.5	15.9	1.35	2.70	Colorimetric
	mmol/l	13.3	10.5	16.1	1.40	2.80	Enzymatic
Bile Acids	µmol/l	24.8	19.9	29.7	2.45	4.90	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	20.5	16.2	24.8	2.15	4.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.20	0.948	1.45	0.13	0.25	
	µmol/l	20.5	16.2	24.8	2.15	4.30	Diazo with Sulphanilic Acid
	mg/dl	1.20	0.948	1.45	0.13	0.25	
	µmol/l	20.2	16.0	24.4	2.10	4.20	Roche JG factored
	mg/dl	1.18	0.936	1.42	0.12	0.24	
	µmol/l	20.0	15.8	24.2	2.10	4.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.17	0.924	1.42	0.12	0.25	
Bilirubin Total	µmol/l	27.3	21.5	33.1	2.90	5.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.60	1.26	1.94	0.17	0.34	
	µmol/l	26.3	20.8	31.8	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.54	1.22	1.86	0.16	0.32	
	µmol/l	26.4	20.8	32.0	2.80	5.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.54	1.22	1.86	0.16	0.32	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	26.0	20.6	31.4	2.70	5.40	Nitrobenzenediazonium salt
	mg/dl	1.52	1.21	1.83	0.16	0.31	
	µmol/l	26.4	20.9	31.9	2.75	5.50	Diazonium ion
	mg/dl	1.54	1.22	1.86	0.16	0.32	
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	2.18	1.96	2.40	0.11	0.22	Arsenazo III
	mg/dl	8.74	7.86	9.62	0.44	0.88	
	mmol/l	2.17	1.95	2.39	0.11	0.22	NM-BAPTA
	mg/dl	8.70	7.82	9.58	0.44	0.88	
Chloride	mmol/l	94.9	87.3	103	3.80	7.60	ISE indirect
Cholesterol	mmol/l	4.09	3.55	4.63	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	158	137	179	10.50	21.00	
	mmol/l	4.07	3.54	4.60	0.27	0.53	Cholesterol Oxidase - IDMS
	mg/dl	157	137	177	10.00	20.00	
Cholinesterase	U/l	5428	4342	6514	543.00	1086.00	Colorimetric Benzoylcholine 37℃
	U/l	5448	4358	6538	545.00	1090.00	Colorimetric Butyrylthiocholine 37℃
CK Total	U/l	173	142	204	15.50	31.00	CK-NAC serum start (DGKC) 37℃
	U/l	108	89	127	9.50	19.00	CK-NAC serum start (DGKC) 30℃
	U/l	74	60	88	7.00	14.00	CK-NAC serum start (DGKC) 25℃
	U/l	179	147	211	16.00	32.00	CK-NAC substrate start (DGKC) 37℃
	U/l	112	92	132	10.00	20.00	CK-NAC substrate start (DGKC) 30℃
	U/l	76	62	90	7.00	14.00	CK-NAC substrate start (DGKC) 25°C
	U/l	176	144	208	16.00	32.00	CK-NAC (IFCC) 37℃
	U/l	110	90	130	10.00	20.00	CK-NAC (IFCC) 30℃
	U/l	75	61	89	7.00	14.00	CK-NAC (IFCC) 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

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	122	97.4	147	12.30	24.60	Alkaline picrate with deproteinization
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	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	129	103	155	13.00	26.00	Enzymatic UV method
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	129	104	154	12.50	25.00	Roche Creatinine Plus
	mg/dl	1.46	1.18	1.74	0.14	0.28	
	µmol/l	125	99.6	150	12.70	25.40	Jaffe rate blanked
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	125	100	150	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	123	98.7	147	12.15	24.30	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.39	1.12	1.66	0.14	0.27	
	µmol/l	124	99.2	149	12.40	24.80	IDMS traceable
	mg/dl	1.40	1.12	1.68	0.14	0.28	
Free T4	pmol/l	23.5	17.6	29.4	2.95	5.90	Roche Cobas 6000/8000
	ng/dl	1.83	1.37	2.29	0.23	0.46	
	pg/ml	18.3	13.7	22.9	2.30	4.60	Roche Cobas 6000/8000
gamma-GT	U/l	47	40	54	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	37	32	42	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30℃
	U/l	29	25	33	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25℃
	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 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

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	6.14	5.22	7.06	0.46	0.92	Glucose dehydrogenase
	mg/dl	111	94.1	128	8.45	16.90	
	mmol/l	6.17	5.25	7.09	0.46	0.92	Hexokinase
	mg/dl	111	94.6	127	8.20	16.40	
	mmol/l	6.17	5.24	7.10	0.47	0.93	Glucose oxidase
	mg/dl	111	94.4	128	8.30	16.60	
HDL - Cholesterol	mmol/l	1.46	1.24	1.68	0.11	0.22	Direct HDL PEGME
	mg/dl	56.4	47.9	64.9	4.25	8.50	
	mmol/l	1.38	1.17	1.59	0.11	0.21	HDL - Ultra
	mg/dl	53.3	45.2	61.4	4.05	8.10	
	mmol/l	1.47	1.25	1.69	0.11	0.22	Direct HDL Roche 4th Generation
	mg/dl	56.7	48.3	65.1	4.20	8.40	
Iron	µmol/l	20.7	17.0	24.4	1.85	3.70	Colorimetric with ppt.
	µg/dl	116	95.0	137	10.50	21.00	
	µmol/l	20.8	17.1	24.5	1.85	3.70	Colorimetric without ppt.
	µg/dl	116	95.6	136	10.20	20.40	
Lactate	mmol/l	1.49	1.23	1.75	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	13.4	11.1	15.7	1.15	2.30	
LD (LDH)	U/l	203	172	234	15.50	31.00	L->P 37℃
	U/l	147	124	170	11.50	23.00	L->P 30℃
	U/l	103	87	119	8.00	16.00	L->P 25℃
	U/l	386	328	444	29.00	58.00	P->L Scandinavian & Dutch 37°C
	U/l	279	237	321	21.00	42.00	P->L Scandinavian & Dutch 30°C
	U/l	196	166	226	15.00	30.00	P->L Scandinavian & Dutch 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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	386	328	444	29.00	58.00	P->L German methods 37℃
	U/l	279	237	321	21.00	42.00	P->L German methods 30℃
	U/l	196	166	226	15.00	30.00	P->L German methods 25℃
	U/l	202	172	232	15.00	30.00	L->P IFCC 37℃
	U/l	146	124	168	11.00	22.00	L->P IFCC 30℃
	U/l	102	87	117	7.50	15.00	L->P IFCC 25℃
Lipase	U/l	29	23	35	3.00	6.00	Other Colorimetric 37℃
	U/l	29	23	35	3.00	6.00	Roche Colorimetric 37℃
	U/l	30	24	36	3.00	6.00	Roche Turbidimetric with colipase 37℃
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	
	mmol/l	1.05	0.93	1.18	0.06	0.13	Spectrophotometric
	mg/dl	0.729	0.642	0.816	0.04	0.09	
Magnesium	mmol/l	0.84	0.74	0.94	0.05	0.10	Arsenazo III
	mg/dl	2.03	1.79	2.27	0.12	0.24	
	mmol/l	0.86	0.75	0.96	0.05	0.10	Atomic absorption
	mg/dl	2.08	1.83	2.33	0.13	0.25	
	mmol/l	0.85	0.75	0.96	0.05	0.10	Xylidyl Blue
	mg/dl	2.07	1.82	2.32	0.13	0.25	
	mmol/l	0.86	0.76	0.96	0.05	0.10	Chlorphosphonazo III
	mg/dl	2.08	1.83	2.33	0.13	0.25	
	mmol/l	0.83	0.73	0.93	0.05	0.10	Enzymatic
	mg/dl	2.02	1.78	2.26	0.12	0.24	
Osmolality	mOsm/kg	294	235	353	29.50	59.00	Calculated
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	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	4.06	3.73	4.39	0.17	0.33	ISE method - indirect
Protein Total	g/l	57.7	46.2	69.2	5.75	11.50	Biuret reaction end point
	g/dl	5.77	4.62	6.92	0.58	1.15	
	g/l	58.3	46.6	70.0	5.85	11.70	Biuret reaction kinetic
	g/dl	5.83	4.66	7.00	0.59	1.17	
PSA Total	ng/ml =	12.3	9.22	15.4	1.54	3.08	Roche Cobas 6000/8000
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.59	1.27	1.91	0.16	0.32	Roche Cobas 6000/8000
TIBC	µmol/l	38.5	30.4	46.6	4.05	8.10	FE+UIBC(saturation with iron)
	µg/dl	215	170	260	22.50	45.00	
	µmol/l	43.4	34.3	52.5	4.55	9.10	Calculated from Transferrin
	µg/dl	243	192	294	25.50	51.00	
Total T3	nmol/l	2.25	1.69	2.81	0.28	0.56	Roche Cobas 6000/8000
	ng/ml	1.46	1.10	1.82	0.18	0.36	
	ng/dl	146	110	182	18.00	36.00	Roche Cobas 6000/8000
Total T4	nmol/l	92.8	69.6	116	11.60	23.20	Roche Cobas 6000/8000
	µg/dl	7.24	5.43	9.05	0.91	1.81	
	ng/ml	72.4	54.3	90.5	9.05	18.10	Roche Cobas 6000/8000
Triglycerides	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	79.0	109	7.40	14.80	
	mmol/l	1.07	0.90	1.24	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	94.7	79.8	110	7.45	14.90	

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

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.06	0.89	1.23	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	93.8	78.9	109	7.45	14.90	
	mmol/l	1.06	0.89	1.23	0.08	0.17	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	93.8	78.9	109	7.45	14.90	
	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	17.9	14.7	21.1	1.60	3.20	Direct Colorimetric
	µg/dl	100	82.2	118	8.90	17.80	
Urea	mmol/l	7.22	6.14	8.30	0.54	1.08	Urease end point
	mg/dl	43.4	36.9	49.9	3.25	6.50	
	mmol/l	7.23	6.15	8.31	0.54	1.08	Urease kinetic
	mg/dl	43.5	37.0	50.0	3.25	6.50	
	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	0.34	0.30	0.39	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.76	5.02	6.50	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.76	5.01	6.51	0.38	0.75	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.76	5.02	6.50	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.76	5.02	6.50	0.37	0.74	
Zinc	µmol/l	24.3	19.4	29.2	2.45	4.90	Colorimetric with deproteinisation
	µg/dl	159	127	191	16.00	32.00	

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 C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.6	35.4	47.8	3.10	6.20	Bromocresol Green
	g/dl	4.16	3.54	4.78	0.31	0.62	
	g/l	41.3	35.1	47.5	3.10	6.20	Bromocresol Purple
	g/dl	4.13	3.51	4.75	0.31	0.62	
Alkaline Phosphatase	U/l	145	123	167	11.00	22.00	Roche Integra AMP buffer 37℃
	U/l	113	96	130	8.50	17.00	Roche Integra AMP buffer 30℃
	U/l	93	79	107	7.00	14.00	Roche Integra AMP buffer 25℃
ALT (GPT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37℃
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30℃
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25℃
Amylase Total	U/l	90	77	103	6.50	13.00	Other Roche 2-chloro-pNPG7 37℃
	U/l	90	76	104	7.00	14.00	Roche liquid stable pNPG7 37℃
AST (GOT)	U/l	33	27	39	3.00	6.00	Tris buffer without P5P 37℃
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30℃
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25℃
Bilirubin Direct	µmol/l	20.2	15.9	24.5	2.15	4.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.18	0.930	1.43	0.13	0.25	
	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	18.9	15.0	22.8	1.95	3.90	Roche JG factored
	mg/dl	1.11	0.878	1.34	0.12	0.23	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Direct	µmol/l	18.6	14.7	22.5	1.95	3.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.09	0.860	1.32	0.12	0.23	
Bilirubin Total	µmol/l	24.2	19.1	29.3	2.55	5.10	Diazo with Sulphanilic Acid
	mg/dl	1.42	1.12	1.72	0.15	0.30	
	µmol/l	25.3	20.0	30.6	2.65	5.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.48	1.17	1.79	0.16	0.31	
	µmol/l	25.8	20.3	31.3	2.75	5.50	Diazonium ion
	mg/dl	1.51	1.19	1.83	0.16	0.32	
Calcium	mmol/l	2.19	1.97	2.41	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.78	7.90	9.66	0.44	0.88	
	mmol/l	2.15	1.94	2.36	0.11	0.21	NM-BAPTA
	mg/dl	8.62	7.78	9.46	0.42	0.84	
Chloride	mmol/l	98.7	90.8	107	3.95	7.90	ISE indirect
Cholesterol	mmol/l	4.08	3.55	4.61	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	157	137	177	10.00	20.00	
	mmol/l	4.13	3.59	4.67	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	159	139	179	10.00	20.00	
CK Total	U/l	174	143	205	15.50	31.00	CK-NAC (IFCC) 37℃
	U/l	109	90	128	9.50	19.00	CK-NAC (IFCC) 30℃
	U/l	74	61	87	6.50	13.00	CK-NAC (IFCC) 25℃
Creatinine	µmol/l	121	96.9	145	12.05	24.10	Alkaline picrate no deproteinization
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	µmol/l	122	97.4	147	12.30	24.60	Roche Creatinine Plus
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	µmol/l	122	97.6	146	12.20	24.40	Jaffe rate blanked
	mg/dl	1.38	1.10	1.66	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 C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	123	98.6	147	12.20	24.40	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	121	97.1	145	11.95	23.90	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.37	1.10	1.64	0.14	0.27	
gamma-GT	U/l	53	45	61	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	42	35	49	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30℃
	U/l	33	28	38	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25℃
	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	30	26	34	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
Glucose	mmol/l	6.19	5.27	7.11	0.46	0.92	Hexokinase
	mg/dl	112	95.0	129	8.50	17.00	
	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	1.47	1.25	1.69	0.11	0.22	Direct HDL Roche 4th Generation
	mg/dl	56.7	48.3	65.1	4.20	8.40	
Iron	µmol/l	21.0	17.2	24.8	1.90	3.80	Colorimetric without ppt.
	µg/dl	117	96.1	138	10.45	20.90	
LD (LDH)	U/l	206	175	237	15.50	31.00	L->P IFCC 37℃
	U/l	149	126	172	11.50	23.00	L->P IFCC 30℃
	U/l	104	89	119	7.50	15.00	L->P IFCC 25℃
Lipase	U/l	27	22	32	2.50	5.00	Roche Colorimetric 37℃
Magnesium	mmol/l	0.90	0.79	1.01	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.19	1.93	2.45	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

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Phosphate Inorganic	mmol/l	1.50	1.28	1.72	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.65	3.97	5.33	0.34	0.68	
	mmol/l	1.47	1.25	1.69	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.56	3.88	5.24	0.34	0.68	
Potassium	mmol/l	3.98	3.66	4.30	0.16	0.32	ISE method - indirect
Protein Total	g/l	57.7	46.2	69.2	5.75	11.50	Biuret reaction end point
	g/dl	5.77	4.62	6.92	0.58	1.15	
Sodium	mmol/l	139	133	145	3.00	6.00	ISE method - indirect
Triglycerides	mmol/l	1.05	0.89	1.22	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.3	108	7.30	14.60	
	mmol/l	1.03	0.86	1.20	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	91.2	76.5	106	7.35	14.70	
	mmol/l	1.08	0.91	1.25	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	95.6	80.3	111	7.65	15.30	
	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	94.7	79.7	110	7.50	15.00	
Urea	mmol/l	6.93	5.89	7.97	0.52	1.04	Urease kinetic
	mg/dl	41.6	35.4	47.8	3.10	6.20	
	mmol/l	6.93	5.89	7.97	0.52	1.04	BUN
	mg/dl	19.5	16.6	22.4	1.45	2.90	
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	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.86	5.11	6.61	0.38	0.75	
	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 C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.7	35.5	47.9	3.10	6.20	Bromocresol Green
	g/dl	4.17	3.55	4.79	0.31	0.62	
	g/l	41.5	35.3	47.7	3.10	6.20	Bromocresol Purple
	g/dl	4.15	3.53	4.77	0.31	0.62	
Alkaline Phosphatase	U/l	142	121	163	10.50	21.00	Roche Integra AMP buffer 37℃
	U/l	111	94	128	8.50	17.00	Roche Integra AMP buffer 30℃
	U/l	91	77	105	7.00	14.00	Roche Integra AMP buffer 25℃
	U/l	143	121	165	11.00	22.00	AMP optimised to IFCC 37℃
	U/l	111	94	128	8.50	17.00	AMP optimised to IFCC 30℃
	U/l	91	77	105	7.00	14.00	AMP optimised to IFCC 25℃
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37℃
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30℃
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25℃
Amylase Pancreatic	U/l	86	73	99	6.50	13.00	Immunoinhibition EPS substrate 37℃
	U/l	66	56	76	5.00	10.00	Roche EPS Liquid 37℃
Amylase Total	U/l	85	72	98	6.50	13.00	Roche Integra 2-chloro-pNPG7 37℃
	U/l	92	79	105	6.50	13.00	Other Roche 2-chloro-pNPG7 37℃
	U/l	88	75	101	6.50	13.00	Roche liquid stable pNPG7 37℃
	U/l	88	75	101	6.50	13.00	BM/Roche Colorimetric pNPG7 37℃
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37℃
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30℃
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 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

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bicarbonate	mmol/l	12.6	9.99	15.2	1.31	2.61	Enzymatic
Bilirubin Direct	µmol/l	20.7	16.3	25.1	2.20	4.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.21	0.954	1.47	0.13	0.26	
	µmol/l	20.4	16.1	24.7	2.15	4.30	Diazo with Sulphanilic Acid
	mg/dl	1.19	0.942	1.44	0.12	0.25	
	µmol/l	20.7	16.4	25.0	2.15	4.30	Roche JG factored
	mg/dl	1.21	0.959	1.46	0.13	0.25	
	µmol/l	20.7	16.3	25.1	2.20	4.40	Diazo with Dichloroaniline (DCA)
	mg/dl	1.21	0.954	1.47	0.13	0.26	
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	26.4	20.8	32.0	2.80	5.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.54	1.22	1.86	0.16	0.32	
	µmol/l	26.6	21.0	32.2	2.80	5.60	Diazonium ion
	mg/dl	1.56	1.23	1.89	0.17	0.33	
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	2.14	1.92	2.36	0.11	0.22	Arsenazo III
	mg/dl	8.58	7.70	9.46	0.44	0.88	
	mmol/l	2.18	1.96	2.40	0.11	0.22	NM-BAPTA
	mg/dl	8.74	7.86	9.62	0.44	0.88	
Chloride	mmol/l	95.0	87.4	103	3.80	7.60	ISE indirect
Cholesterol	mmol/l	4.11	3.58	4.64	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	159	138	180	10.50	21.00	

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 C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Cholesterol	mmol/l	4.08	3.55	4.61	0.27	0.53	Cholesterol Oxidase - IDMS
	mg/dl	157	137	177	10.00	20.00	
Cholinesterase	U/l	5457	4365	6549	546.00	1092.00	Colorimetric Butyrylthiocholine 37℃
CK Total	U/l	177	145	209	16.00	32.00	CK-NAC substrate start (DGKC) 37℃
	U/l	111	91	131	10.00	20.00	CK-NAC substrate start (DGKC) 30℃
	U/l	75	62	88	6.50	13.00	CK-NAC substrate start (DGKC) 25°C
	U/l	178	146	210	16.00	32.00	CK-NAC (IFCC) 37℃
	U/l	111	91	131	10.00	20.00	CK-NAC (IFCC) 30℃
	U/l	76	62	90	7.00	14.00	CK-NAC (IFCC) 25℃
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	128	103	153	12.50	25.00	Roche Creatinine Plus
	mg/dl	1.45	1.16	1.74	0.15	0.29	
	µmol/l	128	103	153	12.50	25.00	Jaffe rate blanked
	mg/dl	1.45	1.16	1.74	0.15	0.29	
	µmol/l	128	102	154	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	132	105	159	13.50	27.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.49	1.19	1.79	0.15	0.30	
gamma-GT	U/l	47	40	54	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	37	32	42	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30℃
	U/l	29	25	33	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25℃
	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 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

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	6.16	5.24	7.08	0.46	0.92	Hexokinase
	mg/dl	111	94.4	128	8.30	16.60	
	mmol/l	6.18	5.26	7.10	0.46	0.92	Glucose oxidase
	mg/dl	111	94.8	127	8.10	16.20	
HDL - Cholesterol	mmol/l	1.40	1.19	1.61	0.11	0.21	Direct HDL PEGME
	mg/dl	54.0	45.9	62.1	4.05	8.10	
	mmol/l	1.45	1.23	1.67	0.11	0.22	Direct HDL Roche 4th Generation
	mg/dl	56.0	47.5	64.5	4.25	8.50	
Iron	µmol/l	20.2	16.6	23.8	1.80	3.60	Colorimetric with ppt.
	µg/dl	113	92.8	133	10.10	20.20	
	µmol/l	20.4	16.7	24.1	1.85	3.70	Colorimetric without ppt.
	µg/dl	114	93.4	135	10.30	20.60	
Lactate	mmol/l	1.52	1.25	1.79	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.7	11.3	16.1	1.20	2.40	
LD (LDH)	U/l	201	171	231	15.00	30.00	L->P 37℃
	U/l	145	123	167	11.00	22.00	L->P 30℃
	U/l	102	87	117	7.50	15.00	L->P 25℃
	U/l	379	322	436	28.50	57.00	P->L German methods 37℃
	U/l	274	232	316	21.00	42.00	P->L German methods 30℃
	U/l	192	163	221	14.50	29.00	P->L German methods 25℃
	U/l	202	172	232	15.00	30.00	L->P IFCC 37℃
	U/l	146	124	168	11.00	22.00	L->P IFCC 30℃
	U/l	102	87	117	7.50	15.00	L->P IFCC 25℃
Lipase	U/l	29	23	35	3.00	6.00	Roche Colorimetric 37℃
	U/l	28	23	33	2.50	5.00	Roche Turbidimetric with colipase 37℃

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Magnesium	mmol/l	0.86	0.76	0.96	0.05	0.10	Atomic absorption
	mg/dl	2.09	1.84	2.34	0.13	0.25	
	mmol/l	0.85	0.75	0.95	0.05	0.10	Xylidyl Blue
	mg/dl	2.06	1.82	2.30	0.12	0.24	
	mmol/l	0.85	0.75	0.95	0.05	0.10	Chlorphosphonazo III
	mg/dl	2.07	1.82	2.32	0.13	0.25	
Phosphate Inorganic	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.40	3.75	5.05	0.33	0.65	
	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	4.06	3.74	4.38	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.0	46.4	69.6	5.80	11.60	Biuret reaction end point
	g/dl	5.80	4.64	6.96	0.58	1.16	
	g/l	58.3	46.6	70.0	5.85	11.70	Biuret reaction kinetic
	g/dl	5.83	4.66	7.00	0.59	1.17	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
TIBC	µmol/l	39.1	30.9	47.3	4.10	8.20	FE+UIBC(saturation with iron)
	µg/dl	219	173	265	23.00	46.00	
	µmol/l	40.7	32.2	49.2	4.25	8.50	Direct Colorimetric
	µg/dl	228	180	276	24.00	48.00	
Triglycerides	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.7	110	7.50	15.00	
	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	95.6	80.5	111	7.55	15.10	
	mmol/l	1.07	0.90	1.24	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	94.7	79.7	110	7.50	15.00	

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 C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.07	0.90	1.24	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	94.7	79.7	110	7.50	15.00	
UIBC	µmol/l	18.5	15.2	21.8	1.65	3.30	Direct Colorimetric
	µg/dl	103	85.0	121	9.00	18.00	
Urea	mmol/l	7.36	6.25	8.47	0.56	1.11	Urease end point
	mg/dl	44.2	37.6	50.8	3.30	6.60	
	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	5.83	5.07	6.59	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.88	5.12	6.64	0.38	0.76	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.85	5.07	6.63	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

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.7	35.4	48.0	3.15	6.30	Bromocresol Green
	g/dl	4.17	3.54	4.80	0.32	0.63	
	g/l	38.7	32.9	44.5	2.90	5.80	Turbidimetric Assays
	g/dl	3.87	3.29	4.45	0.29	0.58	
Alkaline Phosphatase	U/l	137	117	157	10.00	20.00	Roche Integra AMP buffer 37℃
	U/l	107	91	123	8.00	16.00	Roche Integra AMP buffer 30℃
	U/l	88	75	101	6.50	13.00	Roche Integra AMP buffer 25℃
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37℃
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30℃
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25℃
Amylase Pancreatic	U/l	62	53	71	4.50	9.00	Immunoinhibition EPS substrate 37°C
	U/l	63	54	72	4.50	9.00	Roche EPS Liquid 37℃
Amylase Total	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37℃
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37℃
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30℃
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25℃
Bicarbonate	mmol/l	14.0	11.1	16.9	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	20.4	16.1	24.7	2.15	4.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.19	0.942	1.44	0.12	0.25	
	µmol/l	20.2	15.9	24.5	2.15	4.30	Roche JG factored
	mg/dl	1.18	0.930	1.43	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

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	25.6	20.3	30.9	2.65	5.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	µmol/l	25.7	20.3	31.1	2.70	5.40	Diazonium ion
	mg/dl	1.50	1.19	1.81	0.16	0.31	
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	2.16	1.94	2.38	0.11	0.22	NM-BAPTA
	mg/dl	8.66	7.78	9.54	0.44	0.88	
Chloride	mmol/l	95.8	88.2	103	3.80	7.60	ISE indirect
Cholesterol	mmol/l	4.07	3.54	4.60	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	157	137	177	10.00	20.00	
	mmol/l	4.09	3.56	4.62	0.27	0.53	Cholesterol Oxidase - IDMS
	mg/dl	158	137	179	10.50	21.00	
Cholinesterase	U/l	5466	4373	6559	546.50	1093.00	Colorimetric Butyrylthiocholine 37℃
CK Total	U/l	173	142	204	15.50	31.00	CK-NAC substrate start (DGKC) 37℃
	U/l	108	89	127	9.50	19.00	CK-NAC substrate start (DGKC) 30℃
	U/l	74	60	88	7.00	14.00	CK-NAC substrate start (DGKC) 25°C
	U/l	176	144	208	16.00	32.00	CK-NAC (IFCC) 37℃
	U/l	110	90	130	10.00	20.00	CK-NAC (IFCC) 30℃
	U/l	75	61	89	7.00	14.00	CK-NAC (IFCC) 25℃
Creatinine	µmol/l	130	104	156	13.00	26.00	Enzymatic UV method
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	132	106	158	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	µmol/l	128	102	154	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	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

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	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	
	µmol/l	125	99.7	150	12.65	25.30	IDMS traceable
	mg/dl	1.41	1.13	1.69	0.14	0.28	
gamma-GT	U/l	47	40	54	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	37	32	42	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30℃
	U/l	29	25	33	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25℃
	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
Glucose	mmol/l	6.19	5.26	7.12	0.47	0.93	Hexokinase
	mg/dl	112	94.8	129	8.60	17.20	
HDL - Cholesterol	mmol/l	1.47	1.25	1.69	0.11	0.22	Direct HDL Roche 4th Generation
	mg/dl	56.7	48.3	65.1	4.20	8.40	
Iron	µmol/l	19.8	16.3	23.3	1.75	3.50	Colorimetric without ppt.
	µg/dl	111	91.1	131	9.95	19.90	
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	204	173	235	15.50	31.00	L->P IFCC 37℃
	U/l	147	125	169	11.00	22.00	L->P IFCC 30℃
	U/l	103	88	118	7.50	15.00	L->P IFCC 25℃
Lipase	U/l	29	23	35	3.00	6.00	Roche Colorimetric 37℃
Lithium	mmol/l	1.07	0.94	1.20	0.06	0.13	Spectrophotometric
	mg/dl	0.743	0.654	0.832	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

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Magnesium	mmol/l	0.85	0.75	0.95	0.05	0.10	Xylidyl Blue
	mg/dl	2.07	1.82	2.32	0.13	0.25	
	mmol/l	0.86	0.76	0.96	0.05	0.10	Chlorphosphonazo III
	mg/dl	2.09	1.84	2.34	0.13	0.25	
Osmolality	mOsm/kg	289	231	347	29.00	58.00	Calculated
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	4.06	3.73	4.39	0.17	0.33	ISE method - indirect
Protein Total	g/l	57.6	46.1	69.1	5.75	11.50	Biuret reaction end point
	g/dl	5.76	4.61	6.91	0.58	1.15	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
TIBC	µmol/l	39.5	31.2	47.8	4.15	8.30	FE+UIBC(saturation with iron)
	µg/dl	221	174	268	23.50	47.00	
Triglycerides	mmol/l	1.06	0.89	1.23	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	78.7	109	7.55	15.10	
	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l 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. 0.11 mmol/l correction
	mg/dl	93.8	78.5	109	7.65	15.30	
UIBC	µmol/l	19.5	16.0	23.0	1.75	3.50	Direct Colorimetric
	µg/dl	109	89.4	129	9.80	19.60	
Urea	mmol/l	7.10	6.03	8.17	0.54	1.07	Urease kinetic
	mg/dl	42.7	36.2	49.2	3.25	6.50	
	mmol/l	7.10	6.04	8.16	0.53	1.06	BUN
	mg/dl	19.9	16.9	22.9	1.50	3.00	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.76	5.01	6.51	0.38	0.75	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.71	4.97	6.45	0.37	0.74	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.70	4.96	6.44	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

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.7	34.6	46.8	3.05	6.10	Bromocresol Green
	g/dl	4.07	3.46	4.68	0.31	0.61	
Alkaline Phosphatase	U/l	283	241	325	21.00	42.00	Diethanolamine buffer DEA 37°C
	U/l	183	156	210	13.50	27.00	AMP optimised to IFCC 37℃
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37℃
Amylase Pancreatic	U/l	78	66	90	6.00	12.00	Randox Liquid Ethylidene pNPG7 37℃
Amylase Total	U/l	97	82	112	7.50	15.00	Randox Liquid Ethylidene pNPG7 37℃
AST (GOT)	U/l	37	29	45	4.00	8.00	Tris buffer without P5P 37℃
Bicarbonate	mmol/l	15.2	12.0	18.3	1.58	3.15	Enzymatic
Bile Acids	µmol/l	25.7	20.6	30.8	2.55	5.10	5th Generation Colorimetric
Bilirubin Direct	µmol/l	20.2	16.0	24.4	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.18	0.936	1.42	0.12	0.24	
	µmol/l	17.4	13.8	21.0	1.80	3.60	Oxidation to Biliverdin/Vanadate
	mg/dl	1.02	0.807	1.23	0.11	0.21	
Bilirubin Total	µmol/l	32.8	25.9	39.7	3.45	6.90	Diazo with Sulphanilic Acid
	mg/dl	1.92	1.52	2.32	0.20	0.40	
	µmol/l	29.9	23.7	36.1	3.10	6.20	Oxidation to Biliverdin/Vanadate
	mg/dl	1.75	1.39	2.11	0.18	0.36	
Calcium	mmol/l	2.27	2.04	2.50	0.12	0.23	Arsenazo III
	mg/dl	9.10	8.18	10.0	0.46	0.92	
Chloride	mmol/l	98.8	90.9	107	3.95	7.90	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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Cholesterol	mmol/l	4.54	3.95	5.13	0.30	0.59	Cholesterol Oxidase - Abell Kendall
	mg/dl	175	152	198	11.50	23.00	
CK Total	U/l	211	173	249	19.00	38.00	CK-NAC substrate start (DGKC) 37℃
	U/l	220	180	260	20.00	40.00	CK-NAC (IFCC) 37℃
Creatinine	µmol/l	118	94.3	142	11.85	23.70	Alkaline picrate no deproteinization
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	130	104	156	13.00	26.00	Enzymatic UV method
	mg/dl	1.47	1.18	1.76	0.15	0.29	
gamma-GT	U/l	54	45	63	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
Glucose	mmol/l	6.71	5.70	7.72	0.51	1.01	Hexokinase
	mg/dl	121	103	139	9.00	18.00	
	mmol/l	6.58	5.60	7.56	0.49	0.98	Glucose oxidase
	mg/dl	119	101	137	9.00	18.00	
Iron	µmol/l	21.3	17.5	25.1	1.90	3.80	Colorimetric without ppt.
	µg/dl	119	97.8	140	10.60	21.20	
Lactate	mmol/l	1.45	1.19	1.71	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	13.1	10.7	15.5	1.20	2.40	
LD (LDH)	U/l	406	345	467	30.50	61.00	P->L German methods 37℃
	U/l	198	169	227	14.50	29.00	L->P IFCC 37℃
Lipase	U/l	40	32	48	4.00	8.00	Randox Colorimetric 37℃
Lithium	mmol/l	1.03	0.91	1.15	0.06	0.12	Colorimetric
	mg/dl	0.715	0.629	0.801	0.04	0.09	
Magnesium	mmol/l	0.89	0.78	1.00	0.05	0.11	Xylidyl Blue
	mg/dl	2.16	1.90	2.42	0.13	0.26	
Phosphate Inorganic	mmol/l	1.45	1.24	1.66	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.50	3.84	5.16	0.33	0.66	

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

RANDOX

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	4.02	3.70	4.34	0.16	0.32	Enzymatic
	mmol/l	4.00	3.68	4.32	0.16	0.32	ISE method - direct
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	140	133	147	3.50	7.00	ISE method - direct
	mmol/l	143	136	150	3.50	7.00	Enzymatic
TIBC	µmol/l	47.1	37.2	57.0	4.95	9.90	Direct Colorimetric
	µg/dl	263	208	318	27.50	55.00	
Triglycerides	mmol/l	1.07	0.90	1.25	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.2	110	7.75	15.50	
Urea	mmol/l	7.29	6.19	8.39	0.55	1.10	Urease kinetic
	mg/dl	43.8	37.2	50.4	3.30	6.60	
	mmol/l	7.29	6.20	8.38	0.55	1.09	BUN
	mg/dl	20.5	17.4	23.6	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.25	5.44	7.06	0.41	0.81	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.05	5.26	6.84	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 ATELLICA / ADVIA 1200/1650/1800/240 | ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.6	33.7	45.5	2.95	5.90	Bromocresol Green
	g/dl	3.96	3.37	4.55	0.30	0.59	
	g/l	41.6	35.3	47.9	3.15	6.30	Bromocresol Purple
	g/dl	4.16	3.53	4.79	0.32	0.63	
Alkaline Phosphatase	U/l	216	184	248	16.00	32.00	Diethanolamine buffer DEA 37°C
	U/l	156	132	180	12.00	24.00	AMP optimised to IFCC 37℃
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37℃
Amylase Pancreatic	U/l	66	56	76	5.00	10.00	Immunoinhibition EPS substrate 37℃
Amylase Total	U/l	91	78	104	6.50	13.00	Siemens - blocked pNPG7 37℃
AST (GOT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37℃
Bicarbonate	mmol/l	14.5	11.5	17.5	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	17.8	14.1	21.5	1.85	3.70	Oxidation to Biliverdin/Vanadate
	mg/dl	1.04	0.825	1.26	0.11	0.22	
Bilirubin Total	µmol/l	30.2	23.8	36.6	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.77	1.39	2.15	0.19	0.38	
	µmol/l	30.9	24.4	37.4	3.25	6.50	Oxidation to Biliverdin/Vanadate
	mg/dl	1.81	1.43	2.19	0.19	0.38	
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	2.18	1.96	2.40	0.11	0.22	Arsenazo III
	mg/dl	8.74	7.86	9.62	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

SIEMENS ATELLICA / ADVIA 1200/1650/1800/240 | ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28 **Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	99.8	91.8	108	4.00	8.00	ISE indirect
Cholesterol	mmol/l	4.11	3.58	4.64	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	159	138	180	10.50	21.00	
Cholinesterase	U/l	6599	5279	7919	660.00	1320.00	Colorimetric Butyrylthiocholine 37℃
CK Total	U/l	169	139	199	15.00	30.00	CK-NAC substrate start (DGKC) 37℃
	U/l	180	148	212	16.00	32.00	CK-NAC (IFCC) 37℃
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	
	µmol/l	120	96.4	144	11.80	23.60	Enzymatic UV method
	mg/dl	1.36	1.09	1.63	0.14	0.27	
	µmol/l	118	94.3	142	11.85	23.70	Creatinine PAP method
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	125	100	150	12.50	25.00	Jaffe rate blanked
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	123	98.4	148	12.30	24.60	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	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	
	µmol/l	121	97.0	145	12.00	24.00	IDMS traceable
	mg/dl	1.37	1.10	1.64	0.14	0.27	
gamma-GT	U/l	51	44	58	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37℃
	U/l	53	45	61	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
Glucose	mmol/l	5.95	5.06	6.84	0.45	0.89	Hexokinase
	mg/dl	107	91.2	123	7.90	15.80	
	mmol/l	6.05	5.15	6.95	0.45	0.90	Glucose oxidase
	mg/dl	109	92.8	125	8.10	16.20	

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

SIEMENS ATELLICA / ADVIA 1200/1650/1800/240 | ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	1.23	1.04	1.42	0.10	0.19	Direct Clearance Method
	mg/dl	47.5	40.1	54.9	3.70	7.40	
Iron	µmol/l	20.3	16.6	24.0	1.85	3.70	Colorimetric with ppt.
	µg/dl	113	92.8	133	10.10	20.20	
	µmol/l	20.2	16.5	23.9	1.85	3.70	Colorimetric without ppt.
	µg/dl	113	92.2	134	10.40	20.80	
Lactate	mmol/l	1.37	1.12	1.62	0.13	0.25	Colorimetric Lactate Oxidase
	mg/dl	12.3	10.1	14.5	1.10	2.20	
LD (LDH)	U/l	202	172	232	15.00	30.00	L->P 37℃
	U/l	376	320	432	28.00	56.00	P->L German methods 37℃
	U/l	201	170	232	15.50	31.00	Siemens Dimension L-P Non IFCC 37℃
	U/l	203	173	233	15.00	30.00	L->P IFCC 37℃
Lipase	U/l	38	31	45	3.50	7.00	Other Colorimetric 37℃
Lithium	mmol/l	1.08	0.95	1.21	0.07	0.13	Spectrophotometric
	mg/dl	0.750	0.660	0.840	0.05	0.09	
Magnesium	mmol/l	0.84	0.74	0.94	0.05	0.10	Xylidyl Blue
	mg/dl	2.04	1.80	2.28	0.12	0.24	
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	4.04	3.72	4.36	0.16	0.32	ISE method - indirect
Protein Total	g/l	55.3	44.2	66.4	5.55	11.10	Biuret reaction end point
	g/dl	5.53	4.42	6.64	0.56	1.11	

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 ATELLICA / ADVIA 1200/1650/1800/240 | ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Protein Total	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	135	151	4.00	8.00	ISE method - indirect
TIBC	µmol/l	47.8	37.8	57.8	5.00	10.00	Removal of excess free iron
	µg/dl	267	211	323	28.00	56.00	
	µmol/l	45.9	36.3	55.5	4.80	9.60	FE+UIBC(saturation with iron)
	µg/dl	257	203	311	27.00	54.00	
	µmol/l	46.1	36.4	55.8	4.85	9.70	Direct Colorimetric
	µg/dl	258	203	313	27.50	55.00	
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.4	111	7.60	15.20	
	mmol/l	1.08	0.91	1.25	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	95.6	80.2	111	7.70	15.40	
Urea	mmol/l	7.61	6.47	8.75	0.57	1.14	Urease end point
	mg/dl	45.7	38.9	52.5	3.40	6.80	
	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	7.49	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	0.36	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	5.91	5.14	6.68	0.39	0.77	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.03	5.26	6.80	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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.8	35.5	48.1	3.15	6.30	Bromocresol Purple
	g/dl	4.18	3.55	4.81	0.32	0.63	
Alkaline Phosphatase	U/l	159	135	183	12.00	24.00	Siemens Dimension AMP buffer 37℃
	U/l	160	136	184	12.00	24.00	AMP optimised to IFCC 37℃
ALT (GPT)	U/l	43	34	52	4.50	9.00	Tris buffer with P5P 37℃
	U/l	44	35	53	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37℃
Amylase Total	U/l	97	82	112	7.50	15.00	Siemens 2-chloro-pNPG3 37℃
AST (GOT)	U/l	48	39	57	4.50	9.00	Tris buffer with P5P 37℃
	U/l	48	39	57	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37℃
Bicarbonate	mmol/l	15.2	12.1	18.3	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	14.1	11.1	17.1	1.50	3.00	Diazo with Sulphanilic Acid
	mg/dl	0.825	0.649	1.00	0.09	0.18	
	µmol/l	13.7	10.8	16.6	1.45	2.90	Diazo/Sulphanilic Siemens Dimension
	mg/dl	0.801	0.632	0.970	0.08	0.17	
Bilirubin Total	µmol/l	28.5	22.5	34.5	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.67	1.32	2.02	0.18	0.35	
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	
Chloride	mmol/l	97.2	89.4	105	3.90	7.80	ISE indirect
Cholesterol	mmol/l	3.64	3.17	4.11	0.24	0.47	Cholesterol Oxidase - Abell Kendall
	mg/dl	141	122	160	9.50	19.00	

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 EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Cholesterol	mmol/l	3.61	3.14	4.08	0.24	0.47	Dimension-Siemens reagents
	mg/dl	139	121	157	9.00	18.00	
Cholinesterase	U/l	9602	7681	11522	960.50	1921.00	Colorimetric - Butyrythiochol. Dimension 37℃
CK Total	U/l	178	146	210	16.00	32.00	CK-NAC (IFCC) 37℃
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	128	103	153	12.50	25.00	Enzymatic UV method
	mg/dl	1.45	1.16	1.74	0.15	0.29	
	µmol/l	129	103	155	13.00	26.00	Creatinine PAP method
	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	130	104	156	13.00	26.00	IDMS traceable
	mg/dl	1.47	1.18	1.76	0.15	0.29	
gamma-GT	U/l	56	48	64	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	65	56	74	4.50	9.00	Siemens Dimension (non IFCC) 37℃
Glucose	mmol/l	6.22	5.29	7.15	0.47	0.93	Hexokinase
	mg/dl	112	95.3	129	8.35	16.70	
	mmol/l	6.17	5.24	7.10	0.47	0.93	Oxygen electrode
	mg/dl	111	94.4	128	8.30	16.60	
HDL - Cholesterol	mmol/l	1.38	1.18	1.58	0.10	0.20	Direct HDL PPD
	mg/dl	53.3	45.5	61.1	3.90	7.80	
	mmol/l	1.35	1.15	1.55	0.10	0.20	Direct HDL PEGME
	mg/dl	52.1	44.4	59.8	3.85	7.70	
	mmol/l	1.35	1.15	1.55	0.10	0.20	Direct Clearance Method
	mg/dl	52.1	44.4	59.8	3.85	7.70	

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

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric with ppt.
	µg/dl	108	88.9	127	9.55	19.10	
	µmol/l	19.5	16.0	23.0	1.75	3.50	Colorimetric without ppt.
	µg/dl	109	89.4	129	9.80	19.60	
Lactate	mmol/l	1.51	1.24	1.78	0.14	0.27	UV LDH
	mg/dl	13.6	11.2	16.0	1.20	2.40	
LD (LDH)	U/l	191	162	220	14.50	29.00	L->P 37℃
	U/l	191	162	220	14.50	29.00	Siemens Dimension L-P Non IFCC 37℃
	U/l	191	163	219	14.00	28.00	L->P IFCC 37℃
Lipase	U/l	130	104	156	13.00	26.00	Colorimetric Siemens Dimension (LIPL Kit) 37℃
Magnesium	mmol/l	0.81	0.72	0.91	0.05	0.10	Methylthymol blue
	mg/dl	1.98	1.74	2.22	0.12	0.24	
Osmolality	mOsm/kg	289	231	347	29.00	58.00	Calculated
Phosphate Inorganic	mmol/l	1.47	1.25	1.69	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.56	3.88	5.24	0.34	0.68	
	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	3.95	3.64	4.26	0.16	0.31	ISE method - indirect
Protein Total	g/l	59.8	47.8	71.8	6.00	12.00	Biuret reaction end point
	g/dl	5.98	4.78	7.18	0.60	1.20	
PSA Total	ng/ml =	8.46	6.34	10.6	1.06	2.12	Siemens Dimension
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
TIBC	µmol/l	37.0	29.2	44.8	3.90	7.80	FE+UIBC(saturation with iron)
	µg/dl	207	163	251	22.00	44.00	

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 EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
TIBC	µmol/l	35.7	28.2	43.2	3.75	7.50	Direct Colorimetric
	µg/dl	200	158	242	21.00	42.00	
Triglycerides	mmol/l	0.99	0.83	1.14	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	87.2	73.2	101	7.00	14.00	
	mmol/l	0.97	0.82	1.13	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	86.0	72.3	99.7	6.85	13.70	
	mmol/l	0.94	0.79	1.09	0.08	0.15	Lipase/Glycerol Dehydrogenase
	mg/dl	83.3	69.9	96.7	6.70	13.40	
Urea	mmol/l	7.59	6.45	8.73	0.57	1.14	Urease end point
	mg/dl	45.6	38.8	52.4	3.40	6.80	
	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	0.35	0.31	0.40	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.91	5.14	6.68	0.39	0.77	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.83	5.07	6.59	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.88	5.12	6.64	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 RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.6	35.3	47.9	3.15	6.30	Bromocresol Green
	g/dl	4.16	3.53	4.79	0.32	0.63	
	g/l	41.7	35.5	47.9	3.10	6.20	Bromocresol Purple
	g/dl	4.17	3.55	4.79	0.31	0.62	
Alkaline Phosphatase	U/l	158	134	182	12.00	24.00	Siemens Dimension AMP buffer 37℃
	U/l	160	136	184	12.00	24.00	AMP optimised to IFCC 37℃
ALT (GPT)	U/l	44	35	53	4.50	9.00	Tris buffer with P5P 37℃
	U/l	44	35	53	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37℃
Amylase Pancreatic	U/l	65	55	75	5.00	10.00	Immunoinhibition EPS substrate 37℃
Amylase Total	U/l	98	83	113	7.50	15.00	Siemens - maltopenta/hexaoside 37℃
	U/l	97	83	111	7.00	14.00	Siemens 2-chloro-pNPG3 37℃
AST (GOT)	U/l	49	39	59	5.00	10.00	Tris buffer with P5P 37℃
	U/l	48	39	57	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37℃
Bicarbonate	mmol/l	15.1	11.9	18.3	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	13.9	11.0	16.8	1.45	2.90	Diazo/Sulphanilic Siemens Dimension
	mg/dl	0.813	0.644	0.982	0.08	0.17	
Bilirubin Total	µmol/l	28.8	22.8	34.8	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.68	1.33	2.03	0.18	0.35	
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	
	mmol/l	1.99	1.79	2.19	0.10	0.20	Arsenazo III
	mg/dl	7.98	7.17	8.79	0.41	0.81	

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

RANDOX

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Chloride	mmol/l	96.9	89.1	105	3.90	7.80	ISE indirect
Cholesterol	mmol/l	3.66	3.18	4.14	0.24	0.48	Cholesterol Oxidase - Abell Kendall
	mg/dl	141	123	159	9.00	18.00	
	mmol/l	3.63	3.15	4.11	0.24	0.48	Dimension-Siemens reagents
	mg/dl	140	122	158	9.00	18.00	
Cholinesterase	U/l	9612	7689	11534	961.50	1923.00	Colorimetric - Butyrythiochol. Dimension 37℃
CK Total	U/l	178	146	210	16.00	32.00	CK-NAC (IFCC) 37℃
	U/l	174	143	205	15.50	31.00	Dithioerythritol (DTE) IFCC correlated 37℃
Creatinine	µmol/l	131	105	157	13.00	26.00	Alkaline picrate with deproteinization
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	128	102	154	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	129	103	155	13.00	26.00	Enzymatic UV method
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	127	102	152	12.50	25.00	Creatinine PAP method
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	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	135	108	162	13.50	27.00	IDMS traceable
	mg/dl	1.53	1.22	1.84	0.16	0.31	
gamma-GT	U/l	58	50	66	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	65	55	75	5.00	10.00	Siemens Dimension (non IFCC) 37℃
Glucose	mmol/l	6.09	5.18	7.00	0.46	0.91	Glucose dehydrogenase
	mg/dl	110	93.3	127	8.35	16.70	

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

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	1.38	1.17	1.59	0.11	0.21	Direct HDL PPD
	mg/dl	53.3	45.2	61.4	4.05	8.10	
	mmol/l	1.44	1.23	1.65	0.11	0.21	Direct HDL Immunoseparation
	mg/dl	55.6	47.5	63.7	4.05	8.10	
	mmol/l	1.36	1.16	1.56	0.10	0.20	Direct HDL PEGME
	mg/dl	52.5	44.8	60.2	3.85	7.70	
Iron	µmol/l	19.7	16.2	23.2	1.75	3.50	Colorimetric with ppt.
	µg/dl	110	90.6	129	9.70	19.40	
	µmol/l	19.6	16.1	23.1	1.75	3.50	Colorimetric without ppt.
	µg/dl	110	90.0	130	10.00	20.00	
Lactate	mmol/l	1.48	1.22	1.74	0.13	0.26	UV LDH
	mg/dl	13.3	11.0	15.6	1.15	2.30	
LD (LDH)	U/l	191	163	219	14.00	28.00	Siemens Dimension L-P Non IFCC 37℃
	U/l	194	165	223	14.50	29.00	L->P IFCC 37℃
Lipase	U/l	131	105	157	13.00	26.00	Colorimetric Siemens Dimension (LIPL Kit) 37℃
Lithium	mmol/l	1.11	0.97	1.25	0.07	0.14	Spectrophotometric
	mg/dl	0.771	0.676	0.866	0.05	0.10	
Magnesium	mmol/l	0.82	0.73	0.92	0.05	0.10	Methylthymol blue
	mg/dl	2.00	1.76	2.24	0.12	0.24	
Phosphate Inorganic	mmol/l	1.44	1.22	1.66	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.46	3.78	5.14	0.34	0.68	
	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	

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. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	3.95	3.63	4.27	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.6	47.7	71.5	5.95	11.90	Biuret reaction end point
	g/dl	5.96	4.77	7.15	0.60	1.19	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
TIBC	µmol/l	36.1	28.5	43.7	3.80	7.60	Removal of excess free iron
	µg/dl	202	159	245	21.50	43.00	
	µmol/l	36.3	28.7	43.9	3.80	7.60	FE+UIBC(saturation with iron)
	µg/dl	203	160	246	21.50	43.00	
	µmol/l	36.3	28.7	43.9	3.80	7.60	Direct Colorimetric
	µg/dl	203	160	246	21.50	43.00	
Triglycerides	mmol/l	0.98	0.83	1.14	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	87.0	73.1	101	6.95	13.90	
	mmol/l	0.98	0.83	1.14	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	87.0	73.1	101	6.95	13.90	
	mmol/l	0.97	0.82	1.13	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	85.8	72.1	99.5	6.85	13.70	
Urea	mmol/l	7.14	6.07	8.21	0.54	1.07	Urease end point
	mg/dl	42.9	36.5	49.3	3.20	6.40	
	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	7.41	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	0.35	0.30	0.39	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.86	5.11	6.61	0.38	0.75	
	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

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.76	5.02	6.50	0.37	0.74	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.88	5.12	6.64	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.91	5.16	6.66	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

SIEMENS DIMENSION Vista®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.8	35.6	48.0	3.10	6.20	Bromocresol Purple
	g/dl	4.18	3.56	4.80	0.31	0.62	
Alkaline Phosphatase	U/l	165	140	190	12.50	25.00	AMP optimised to IFCC 37℃
ALT (GPT)	U/l	42	33	51	4.50	9.00	Tris buffer with P5P 37℃
Amylase Total	U/l	95	81	109	7.00	14.00	Siemens 2-chloro-pNPG3 37℃
AST (GOT)	U/l	47	38	56	4.50	9.00	Tris buffer with P5P 37℃
Bilirubin Direct	µmol/l	14.0	11.1	16.9	1.45	2.90	Diazo/Sulphanilic Siemens Dimension
	mg/dl	0.819	0.649	0.989	0.09	0.17	
Bilirubin Total	µmol/l	28.9	22.8	35.0	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.69	1.33	2.05	0.18	0.36	
Calcium	mmol/l	2.07	1.86	2.28	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.30	7.45	9.15	0.43	0.85	
Chloride	mmol/l	101	93.1	109	3.95	7.90	ISE indirect
Cholesterol	mmol/l	3.79	3.30	4.28	0.25	0.49	Cholesterol Oxidase - Abell Kendall
	mg/dl	146	127	165	9.50	19.00	
CK Total	U/l	174	143	205	15.50	31.00	CK-NAC (IFCC) 37℃
gamma-GT	U/l	62	53	71	4.50	9.00	Siemens Dimension (non IFCC) 37℃
Glucose	mmol/l	6.15	5.23	7.07	0.46	0.92	Hexokinase
	mg/dl	111	94.2	128	8.40	16.80	
HDL - Cholesterol	mmol/l	1.40	1.19	1.61	0.11	0.21	Direct HDL PEGME
	mg/dl	54.0	45.9	62.1	4.05	8.10	

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 Vista®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	20.7	17.0	24.4	1.85	3.70	Colorimetric without ppt.
	µg/dl	116	95.0	137	10.50	21.00	
LD (LDH)	U/l	197	167	227	15.00	30.00	L->P IFCC 37℃
Lipase	U/l	145	116	174	14.50	29.00	Colorimetric Siemens Dimension (LIPL Kit) 37℃
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Methylthymol blue
	mg/dl	2.23	1.96	2.50	0.14	0.27	
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	3.92	3.60	4.24	0.16	0.32	ISE method - indirect
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	ISE method - indirect
Triglycerides	mmol/l	1.15	0.97	1.33	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	102	85.7	118	8.15	16.30	
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

URIT 8000 Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	38.0	32.3	43.7	2.85	5.70	Bromocresol Green
	g/dl	3.80	3.23	4.37	0.29	0.57	
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37℃
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30℃
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25℃
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37℃
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30℃
	U/l	17	14	20	1.50	3.00	Tris buffer without P5P 25℃
Cholesterol	mmol/l	4.08	3.55	4.61	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	157	137	177	10.00	20.00	
Creatinine	µmol/l	113	90.0	136	11.50	23.00	Alkaline picrate no deproteinization
	mg/dl	1.28	1.02	1.54	0.13	0.26	
gamma-GT	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37℃
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30℃
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25℃
Glucose	mmol/l	6.23	5.30	7.16	0.47	0.93	Glucose oxidase
	mg/dl	112	95.5	129	8.25	16.50	
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	
Triglycerides	mmol/l	0.99	0.83	1.15	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	87.5	73.5	102	7.00	14.00	

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

URIT 8000 Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1395UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-03-28

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.21	6.13	8.29	0.54	1.08	Urease kinetic
	mg/dl	43.3	36.8	49.8	3.25	6.50	
	mmol/l	7.21	6.13	8.29	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 no ascorbate oxidase
	mg/dl	5.95	5.17	6.73	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