RANDOX 0843 CE

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

CAT. NO. HN1530/ HS2611 **LOT NO.** 844UN
SIZE: 20 x 5ml / 5 x 5ml **EXPIRY:** 2017-06

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 -20°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 (25-30 µl) 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 -20°C.
Alkaline Phosphatase levels in the reconstituted serum will rise over the stability period. It is recommended that the reconstituted serum be 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 be stored in the dark. Stored in the dark it is stable for 4 days at +2°C to +8°C. Do not store at +15°C to +25°C. Do not freeze.
NEFA is stable for 1 day at +2°C to +8°C.
Total PSA is stable for 4 days at +2°C to +8°C, or 28 days in aliquots frozen at -20°C.
Bacterial contamination of the reconstituted serum will cause reductions in the stability of many components.
Different lot numbers of this control should not be interchanged, as the values assigned to the controls vary from lot to lot.
The control should not be used as a calibration material.

PREPARATION FOR USE
The Human Assayed Multi-sera is supplied lyophilised.

1. Carefully reconstitute each vial of lyophilised serum with exactly 5ml of distilled water at +15°C to +25°C. Close the bottle and allow to stand for 30 minutes before use. Ensure contents are completely dissolved by swirling gently. Avoid formation of foam. Do not shake.
2. Refer to the Control section of the individual analyser application.
3. Refrigerate any unused material. Prior to reuse, mix contents thoroughly.

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

MATERIALS REQUIRED BUT NOT PROVIDED

Volumetric pipette

ASSIGNED VALUES

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

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

If an instrument specific value is not available, refer to the Mean of all Instruments section. If necessary, contact Randox Laboratories - Technical Support, Northern Ireland, tel: +44 (0) 28 9442 2413 or email Technical.Support@randox.com

NOTES

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(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.

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ABBOTT AEROSET®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	18.2	14.4	22.0	1.90	3.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.06	0.842	1.28	0.11	0.22	
Bilirubin Total	µmol/l	25.5	20.2	30.8	2.65	5.30	Diazo with Dichloroaniline (DCA)
	mg/dl	1.49	1.18	1.80	0.16	0.31	
	µmol/l	26.3	20.7	31.9	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.54	1.21	1.87	0.17	0.33	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.86	7.98	9.74	0.44	0.88	
	mmol/l	2.26	2.04	2.48	0.11	0.22	Arsenazo III
	mg/dl	9.06	8.18	9.94	0.44	0.88	
Chloride	mmol/l	93.8	86.3	101	3.75	7.50	ISE direct
Cholesterol	mmol/l	4.11	3.58	4.64	0.27	0.53	Cholesterol Oxidase
	mg/dl	159	138	180	10.50	21.00	
CK Total	U/l	219	180	258	19.50	39.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	118	94.6	141	11.70	23.40	Alkaline picrate no deproteinization
	mg/dl	1.33	1.07	1.59	0.13	0.26	
Glucose	mmol/l	6.26	5.32	7.20	0.47	0.94	Hexokinase
	mg/dl	113	95.9	130	8.55	17.10	

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

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Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	5.99	5.09	6.89	0.45	0.90	Glucose oxidase
	mg/dl	108	91.7	124	8.15	16.30	
HDL - Cholesterol	mmol/l	1.26	1.07	1.45	0.10	0.19	HDL - Ultra
	mg/dl	48.6	41.3	55.9	3.65	7.30	
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	213	181	245	16.00	32.00	L->P IFCC 37°C
Phosphate Inorganic	mmol/l	1.37	1.16	1.58	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.25	3.60	4.90	0.33	0.65	
Potassium	mmol/l	3.87	3.56	4.18	0.16	0.31	ISE method - direct
Protein Total	g/l	60.2	48.1	72.3	6.05	12.10	Biuret reaction end point
	g/dl	6.02	4.81	7.23	0.61	1.21	
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	100	84.3	116	7.85	15.70	
Urea	mmol/l	7.71	6.55	8.87	0.58	1.16	Urease kinetic
	mg/dl	46.3	39.4	53.2	3.45	6.90	
	mmol/l	7.84	6.67	9.01	0.59	1.17	Urease hypochlorite
	mg/dl	47.1	40.1	54.1	3.50	7.00	
	mmol/l	7.71	6.55	8.87	0.58	1.16	BUN
	mg/dl	21.6	18.4	24.8	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.00	5.22	6.78	0.39	0.78	
	mmol/l	0.36	0.31	0.41	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, Co. Antrim, United Kingdom, BT29 4QY
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
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			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.5	35.3	47.7	3.10	6.20	Bromocresol Green
	g/dl	4.15	3.53	4.77	0.31	0.62	
	g/l	42.5	36.1	48.9	3.20	6.40	Bromocresol Purple
	g/dl	4.25	3.61	4.89	0.32	0.64	
Alkaline Phosphatase	U/l	158	135	181	11.50	23.00	AMP optimised to IFCC 37°C
	U/l	162	137	187	12.50	25.00	AMP optimised to NVKC/SFBC 37°C
	U/l	158	135	181	11.50	23.00	AMP non-optimsed 37°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	66	56	76	5.00	10.00	Immunoinhibition EPS substrate 37°C
AST (GOT)	U/l	34	28	40	3.00	6.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	12.4	9.81	15.0	1.30	2.59	Enzymatic
Bile Acids	µmol/l	27.6	22.1	33.1	2.75	5.50	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	18.0	14.2	21.8	1.90	3.80	Diazo with Sulphanilic Acid
	mg/dl	1.05	0.831	1.27	0.11	0.22	
	µmol/l	18.3	14.4	22.2	1.95	3.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.07	0.842	1.30	0.11	0.23	
Bilirubin Total	µmol/l	25.7	20.3	31.1	2.70	5.40	Diazo with Dichloroaniline (DCA)
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	µmol/l	24.7	19.5	29.9	2.60	5.20	Diazo with Sulphanilic Acid
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	24.2	19.1	29.3	2.55	5.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.42	1.12	1.72	0.15	0.30	

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Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
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Analyte	unit	target	Range low	Range high	1SD	2SD	methods
Bilirubin Total	µmol/l	24.7	19.5	29.9	2.60	5.20	Nitrobenzenediazonium salt
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	24.6	19.4	29.8	2.60	5.20	Diazonium ion
	mg/dl	1.44	1.13	1.75	0.16	0.31	
Calcium	mmol/l	2.31	2.08	2.54	0.12	0.23	Arsenazo III
	mg/dl	9.26	8.34	10.2	0.46	0.92	
Chloride	mmol/l	97.8	90.0	106	3.90	7.80	ISE indirect
Cholesterol	mmol/l	4.00	3.48	4.52	0.26	0.52	Cholesterol Oxidase
	mg/dl	154	134	174	10.00	20.00	
CK Total	U/l	209	171	247	19.00	38.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	130	104	156	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	131	105	157	13.00	26.00	Randox Enzymatic UV method
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	132	106	158	13.00	26.00	Jaffe rate blanked
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	µmol/l	129	103	155	13.00	26.00	IDMS traceable
	mg/dl	1.46	1.16	1.76	0.15	0.30	
Free T4	pmol/l	17.2	12.9	21.5	2.15	4.30	Abbott Architect
	ng/dl	1.34	1.01	1.67	0.17	0.33	
	pg/ml	13.4	10.1	16.7	1.65	3.30	Abbott Architect
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	55	47	63	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	51	44	58	3.50	7.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C

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Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	6.09	5.18	7.00	0.46	0.91	Hexokinase
	mg/dl	110	93.3	127	8.35	16.70	
	mmol/l	6.09	5.17	7.01	0.46	0.92	Glucose oxidase
	mg/dl	110	93.2	127	8.40	16.80	
HDL - Cholesterol	mmol/l	1.28	1.09	1.47	0.10	0.19	Direct HDL PPD
	mg/dl	49.4	42.1	56.7	3.65	7.30	
	mmol/l	1.31	1.12	1.50	0.10	0.19	Direct Clearance Method
	mg/dl	50.6	43.2	58.0	3.70	7.40	
	mmol/l	1.30	1.11	1.49	0.10	0.19	HDL - Ultra
	mg/dl	50.2	42.8	57.6	3.70	7.40	
Iron	µmol/l	18.9	15.5	22.3	1.70	3.40	Colorimetric with ppt.
	µg/dl	106	86.6	125	9.70	19.40	
	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	
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	219	186	252	16.50	33.00	L->P 37°C
	U/l	219	186	252	16.50	33.00	L->P IFCC 37°C
Lipase	U/l	37	30	44	3.50	7.00	Other Colorimetric 37°C
Lithium	mmol/l	1.12	0.99	1.25	0.07	0.13	Spectrophotometric
	mg/dl	0.778	0.686	0.870	0.05	0.09	
Magnesium	mmol/l	0.95	0.84	1.06	0.06	0.11	Arsenazo III
	mg/dl	2.31	2.03	2.59	0.14	0.28	
	mmol/l	0.94	0.83	1.05	0.06	0.11	Enzymatic
	mg/dl	2.28	2.00	2.56	0.14	0.28	

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Size 20 x 5ml/5 x 5ml Expiry 2017-06

Analyte	unit	target	Range low	Range high	1SD	2SD	methods
Osmolality	mOsm/kg	300	240	360	30.00	60.00	Calculated
Phosphate Inorganic	mmol/l	1.37	1.17	1.57	0.10	0.20	Phosphomolybdate enzymatic
	mg/dl	4.25	3.63	4.87	0.31	0.62	
	mmol/l	1.37	1.16	1.58	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.25	3.60	4.90	0.33	0.65	
Potassium	mmol/l	3.88	3.57	4.19	0.16	0.31	ISE method - indirect
Protein Total	g/l	60.2	48.2	72.2	6.00	12.00	Biuret reaction end point
	g/dl	6.02	4.82	7.22	0.60	1.20	
	g/l	60.5	48.4	72.6	6.05	12.10	Biuret reaction kinetic
	g/dl	6.05	4.84	7.26	0.61	1.21	
PSA Total	ng/ml =	15.3	11.5	19.1	1.90	3.80	Abbott Architect
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.20	0.96	1.44	0.12	0.24	Abbott Architect
TIBC	µmol/l	43.2	34.1	52.3	4.55	9.10	FE+UIBC(saturation with iron)
	µg/dl	241	191	291	25.00	50.00	
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.4	113	8.00	16.00	
	mmol/l	1.09	0.92	1.26	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	96.5	81.1	112	7.70	15.40	
	mmol/l	1.09	0.91	1.27	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	96.5	80.9	112	7.80	15.60	
Urea	mmol/l	8.12	6.90	9.34	0.61	1.22	Urease end point
	mg/dl	48.8	41.5	56.1	3.65	7.30	
	mmol/l	7.78	6.61	8.95	0.59	1.17	Urease kinetic
	mg/dl	46.8	39.7	53.9	3.55	7.10	

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Analyte	unit	target	Range low	Range high	1SD	2SD	methods
Urea	mmol/l	7.78	6.61	8.95	0.59	1.17	BUN
	mg/dl	21.8	18.5	25.1	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.36	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	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.03	5.24	6.82	0.40	0.79	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.88	5.12	6.64	0.38	0.76	

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Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.4	35.2	47.6	3.10	6.20	Bromocresol Green
	g/dl	4.14	3.52	4.76	0.31	0.62	
	g/l	46.0	39.1	52.9	3.45	6.90	Bromocresol Purple
	g/dl	4.60	3.91	5.29	0.35	0.69	
Alkaline Phosphatase	U/l	195	165	225	15.00	30.00	p-Nitrophenylphosphate AMP 37°C
	U/l	286	243	329	21.50	43.00	Diethanolamine buffer DEA 37°C
	U/l	195	166	224	14.50	29.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
Amylase Total	U/l	87	74	100	6.50	13.00	pNP Maltotrioside substrates 37°C
	U/l	86	73	99	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	86	73	99	6.50	13.00	Beckman Coulter - blocked pNPG7 37°C
AST (GOT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	14.0	11.1	16.9	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	17.3	13.7	20.9	1.80	3.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.01	0.801	1.22	0.10	0.21	
Bilirubin Total	µmol/l	28.0	22.1	33.9	2.95	5.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.64	1.29	1.99	0.18	0.35	
	µmol/l	28.2	22.2	34.2	3.00	6.00	Oxidation to Biliverdin
	mg/dl	1.65	1.30	2.00	0.18	0.35	
Calcium	mmol/l	2.30	2.07	2.53	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.22	8.30	10.1	0.46	0.92	

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Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	2.31	2.08	2.54	0.12	0.23	Arsenazo III
	mg/dl	9.26	8.34	10.2	0.46	0.92	
Chloride	mmol/l	96.5	88.8	104	3.85	7.70	ISE indirect
Cholesterol	mmol/l	4.09	3.56	4.62	0.27	0.53	Cholesterol Oxidase
	mg/dl	158	137	179	10.50	21.00	
CK Total	U/l	217	178	256	19.50	39.00	CK-NAC serum start (DGKC) 37°C
	U/l	215	176	254	19.50	39.00	CK-NAC substrate start (DGKC) 37°C
	U/l	216	177	255	19.50	39.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	131	105	157	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	125	100	150	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	133	106	160	13.50	27.00	Roche Creatinine Plus
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	µmol/l	130	104	156	13.00	26.00	Jaffe rate blanked
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	129	103	155	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	119	95.5	143	11.75	23.50	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	µmol/l	117	93.6	140	11.70	23.40	IDMS traceable
	mg/dl	1.32	1.06	1.58	0.13	0.26	
D-3-Hydroxybutyrate	mmol/l	0.29	0.25	0.34	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	57	49	65	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	57	48	66	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C

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

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Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

Analyte	unit	target	Range low	Range high	1SD	2SD	methods
GLDH	U/l	16	12	20	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	6.17	5.24	7.10	0.47	0.93	Hexokinase
	mg/dl	111	94.4	128	8.30	16.60	
	mmol/l	6.39	5.43	7.35	0.48	0.96	Glucose oxidase
	mg/dl	115	97.8	132	8.60	17.20	
HDL - Cholesterol	mmol/l	1.19	1.02	1.36	0.09	0.17	Direct HDL Immunoseparation
	mg/dl	45.9	39.4	52.4	3.25	6.50	
	mmol/l	1.29	1.10	1.48	0.10	0.19	Direct Clearance Method
	mg/dl	49.8	42.5	57.1	3.65	7.30	
	mmol/l	1.22	1.04	1.40	0.09	0.18	Direct HDL Roche 3rd generation
	mg/dl	47.1	40.1	54.1	3.50	7.00	
Iron	µmol/l	19.7	16.1	23.3	1.80	3.60	Colorimetric with ppt.
	µg/dl	110	90.0	130	10.00	20.00	
	µmol/l	19.3	15.8	22.8	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.3	128	9.85	19.70	
Lactate	mmol/l	1.48	1.21	1.75	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.3	10.9	15.7	1.20	2.40	
LD (LDH)	U/l	222	188	256	17.00	34.00	L->P 37°C
	U/l	486	413	559	36.50	73.00	P->L Scandinavian & Dutch 37°C
	U/l	446	379	513	33.50	67.00	P->L German methods 37°C
	U/l	222	189	255	16.50	33.00	L->P IFCC 37°C
Lipase	U/l	37	30	44	3.50	7.00	Other Colorimetric 37°C
	U/l	33	27	39	3.00	6.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.07	0.94	1.20	0.07	0.13	Spectrophotometric
	mg/dl	0.743	0.652	0.834	0.05	0.09	

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Analyte	unit	target	Range low	Range high	1SD	2SD	methods
Magnesium	mmol/l	0.97	0.86	1.09	0.06	0.12	Xylidyl Blue
	mg/dl	2.36	2.08	2.64	0.14	0.28	
Phosphate Inorganic	mmol/l	1.37	1.16	1.58	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.25	3.60	4.90	0.33	0.65	
Potassium	mmol/l	3.96	3.64	4.28	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	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	µmol/l	44.8	35.4	54.2	4.70	9.40	FE+UIBC(saturation with iron)
	µg/dl	250	198	302	26.00	52.00	
Triglycerides	mmol/l	1.17	0.99	1.35	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	104	87.3	121	8.35	16.70	
	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	101	85.0	117	8.00	16.00	
	mmol/l	1.18	0.99	1.37	0.09	0.19	L/G Kinase EP. no correction
	mg/dl	104	87.9	120	8.05	16.10	
Urea	mmol/l	8.13	6.91	9.35	0.61	1.22	Urease end point
	mg/dl	48.9	41.5	56.3	3.70	7.40	
	mmol/l	7.85	6.68	9.02	0.59	1.17	Urease kinetic
	mg/dl	47.2	40.1	54.3	3.55	7.10	
	mmol/l	7.85	6.67	9.03	0.59	1.18	BUN
	mg/dl	22.0	18.7	25.3	1.65	3.30	
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	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.12	5.33	6.91	0.40	0.79	

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Uric Acid (Urate)	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	

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Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.8	35.5	48.1	3.15	6.30	Bromocresol Green
	g/dl	4.18	3.55	4.81	0.32	0.63	
	g/l	43.8	37.3	50.3	3.25	6.50	Bromocresol Purple
	g/dl	4.38	3.73	5.03	0.33	0.65	
Alkaline Phosphatase	U/l	167	142	192	12.50	25.00	p-Nitrophenylphosphate AMP 37°C
	U/l	170	144	196	13.00	26.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	35	28	42	3.50	7.00	Tris buffer SCE 37°C
Amylase Pancreatic	U/l	54	46	62	4.00	8.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	91	77	105	7.00	14.00	Beckman maltotetraose 37°C
	U/l	92	78	106	7.00	14.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	34	28	40	3.00	6.00	Tris buffer without P5P 37°C
	U/l	35	28	42	3.50	7.00	Tris buffer SCE 37°C
Bicarbonate	mmol/l	13.7	10.9	16.5	1.40	2.80	Differential rate pH change
	mmol/l	14.1	11.2	17.0	1.45	2.90	Ion selective electrode
Bilirubin Direct	µmol/l	11.7	9.24	14.2	1.23	2.46	Diazo with Sulphanilic Acid
	mg/dl	0.684	0.541	0.827	0.07	0.14	
Bilirubin Total	µmol/l	26.8	21.1	32.5	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.57	1.23	1.91	0.17	0.34	
Calcium	mmol/l	2.23	2.01	2.45	0.11	0.22	Ion selective electrode
	mg/dl	8.94	8.06	9.82	0.44	0.88	

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			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	2.28	2.06	2.50	0.11	0.22	Arsenazo III
	mg/dl	9.14	8.26	10.0	0.44	0.88	
Chloride	mmol/l	98.0	90.1	106	3.95	7.90	ISE indirect
Cholesterol	mmol/l	3.83	3.33	4.33	0.25	0.50	Cholesterol Oxidase
	mg/dl	148	129	167	9.50	19.00	
Cholinesterase	U/l	5484	4387	6581	548.50	1097.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	204	167	241	18.50	37.00	CK-NAC serum start (DGKC) 37°C
	U/l	211	173	249	19.00	38.00	CK-NAC (IFCC) 37°C
	U/l	210	172	248	19.00	38.00	Monothioglycerol 37°C
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	125	100	150	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.41	1.13	1.69	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	123	98.8	147	12.10	24.20	IDMS traceable
	mg/dl	1.39	1.12	1.66	0.14	0.27	
gamma-GT	U/l	44	38	50	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	45	38	52	3.50	7.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	48	41	55	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.03	5.12	6.94	0.46	0.91	Hexokinase
	mg/dl	109	92.3	126	8.35	16.70	
	mmol/l	6.08	5.17	6.99	0.46	0.91	Oxygen electrode
	mg/dl	110	93.2	127	8.40	16.80	
	mmol/l	5.95	5.06	6.84	0.45	0.89	Glucose oxidase
	mg/dl	107	91.2	123	7.90	15.80	

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			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	1.57	1.33	1.81	0.12	0.24	Direct HDL PPD
	mg/dl	60.6	51.3	69.9	4.65	9.30	
Iron	µmol/l	19.2	15.7	22.7	1.75	3.50	Colorimetric without ppt.
	µg/dl	107	87.8	126	9.60	19.20	
Lactate	mmol/l	1.53	1.25	1.81	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	13.8	11.3	16.3	1.25	2.50	
LD (LDH)	U/l	182	155	209	13.50	27.00	L->P 37°C
	U/l	580	493	667	43.50	87.00	Pyruvate 1.4 mM - Beckman LD-P 37°C
	U/l	216	184	248	16.00	32.00	L->P IFCC 37°C
Lipase	U/l	33	27	39	3.00	6.00	Other Colorimetric 37°C
Lithium	mmol/l	1.09	0.96	1.22	0.06	0.13	Spectrophotometric
	mg/dl	0.757	0.667	0.847	0.05	0.09	
Magnesium	mmol/l	0.98	0.86	1.10	0.06	0.12	Calmagite
	mg/dl	2.38	2.09	2.67	0.15	0.29	
	mmol/l	0.98	0.86	1.09	0.06	0.12	Xylidyl Blue
	mg/dl	2.37	2.09	2.65	0.14	0.28	
Osmolality	mOsm/kg	282	226	338	28.00	56.00	Calculated
Phosphate Inorganic	mmol/l	1.39	1.19	1.59	0.10	0.20	Phosphomolybdate enzymatic
	mg/dl	4.31	3.69	4.93	0.31	0.62	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.31	3.66	4.96	0.33	0.65	
Potassium	mmol/l	3.90	3.59	4.21	0.16	0.31	ISE method - indirect
Protein Total	g/l	59.3	47.4	71.2	5.95	11.90	Biuret reaction CX4/5/7
	g/dl	5.93	4.74	7.12	0.60	1.19	

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			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Protein Total	g/l	60.0	48.0	72.0	6.00	12.00	Biuret reaction end point
	g/dl	6.00	4.80	7.20	0.60	1.20	
	g/l	57.4	45.9	68.9	5.75	11.50	Biuret reaction kinetic
	g/dl	5.74	4.59	6.89	0.58	1.15	
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - indirect
TIBC	µmol/l	44.0	34.7	53.3	4.65	9.30	Removal of excess free iron
	µg/dl	246	194	298	26.00	52.00	
	µmol/l	44.4	35.1	53.7	4.65	9.30	FE+UIBC(saturation with iron)
	µg/dl	248	196	300	26.00	52.00	
Triglycerides	mmol/l	1.20	1.01	1.39	0.10	0.19	Lipase/GPO-PAP no correction
	mg/dl	106	89.4	123	8.30	16.60	
	mmol/l	1.23	1.03	1.43	0.10	0.20	L/G Kinase EP. no correction
	mg/dl	109	91.2	127	8.90	17.80	
Urea	mmol/l	8.12	6.90	9.34	0.61	1.22	Urease end point
	mg/dl	48.8	41.5	56.1	3.65	7.30	
	mmol/l	8.03	6.82	9.24	0.61	1.21	Urease kinetic
	mg/dl	48.3	41.0	55.6	3.65	7.30	
	mmol/l	8.03	6.83	9.23	0.60	1.20	BUN
	mg/dl	22.5	19.1	25.9	1.70	3.40	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.66	4.92	6.40	0.37	0.74	

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BIOSYSTEMS A15

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Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.1	33.2	45.0	2.95	5.90	Bromocresol Green
	g/dl	3.91	3.32	4.50	0.30	0.59	
Alkaline Phosphatase	U/l	158	135	181	11.50	23.00	AMP optimised to IFCC 37°C
	U/l	123	105	141	9.00	18.00	AMP optimised to IFCC 30°C
	U/l	101	86	116	7.50	15.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	31.4	24.8	38.0	3.30	6.60	Diazo with Sulphanilic Acid
	mg/dl	1.84	1.45	2.23	0.20	0.39	
Cholesterol	mmol/l	4.02	3.50	4.54	0.26	0.52	Cholesterol Oxidase
	mg/dl	155	135	175	10.00	20.00	
CK Total	U/l	202	165	239	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	126	103	149	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	86	70	102	8.00	16.00	CK-NAC (IFCC) 25°C
Glucose	mmol/l	6.33	5.38	7.28	0.48	0.95	Glucose oxidase
	mg/dl	114	96.9	131	8.55	17.10	
LD (LDH)	U/l	405	344	466	30.50	61.00	P->L SFBC 37°C
	U/l	292	248	336	22.00	44.00	P->L SFBC 30°C
	U/l	205	174	236	15.50	31.00	P->L SFBC 25°C

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BIOSYSTEMS A15

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Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Protein Total	g/l	59.3	47.4	71.2	5.95	11.90	Biuret reaction end point
	g/dl	5.93	4.74	7.12	0.60	1.19	
Uric Acid (Urate)	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.25	5.44	7.06	0.41	0.81	

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BIOSYSTEMS A25

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Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	38.3	32.6	44.0	2.85	5.70	Bromocresol Green
	g/dl	3.83	3.26	4.40	0.29	0.57	
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	30.7	24.2	37.2	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.80	1.42	2.18	0.19	0.38	
Cholesterol	mmol/l	4.11	3.58	4.64	0.27	0.53	Cholesterol Oxidase
	mg/dl	159	138	180	10.50	21.00	
CK Total	U/l	217	178	256	19.50	39.00	CK-NAC (IFCC) 37°C
	U/l	136	111	161	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	92	76	108	8.00	16.00	CK-NAC (IFCC) 25°C
Glucose	mmol/l	6.09	5.18	7.00	0.46	0.91	Glucose oxidase
	mg/dl	110	93.3	127	8.35	16.70	
HDL - Cholesterol	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct Clearance Method
	mg/dl	45.9	39.0	52.8	3.45	6.90	
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	

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

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BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.18	0.99	1.37	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	104	88.0	120	8.00	16.00	
Urea	mmol/l	7.93	6.74	9.12	0.60	1.19	Urease kinetic
	mg/dl	47.7	40.5	54.9	3.60	7.20	
	mmol/l	7.93	6.74	9.12	0.60	1.19	BUN
	mg/dl	22.3	19.0	25.6	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.20	5.39	7.01	0.41	0.81	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.98	5.21	6.75	0.39	0.77	

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	43.8	37.2	50.4	3.30	6.60	Bromocresol Green
	g/dl	4.38	3.72	5.04	0.33	0.66	
Alkaline Phosphatase	U/l	127	108	146	9.50	19.00	Roche Integra AMP buffer 37°C
	U/l	99	84	114	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	81	69	93	6.00	12.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	33	27	39	3.00	6.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	66	56	76	5.00	10.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	88	75	101	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	13.7	10.8	16.6	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	16.4	13.0	19.8	1.70	3.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.959	0.761	1.16	0.10	0.20	
	µmol/l	15.7	12.4	19.0	1.65	3.30	Diazo with Sulphanilic Acid
	mg/dl	0.918	0.725	1.11	0.10	0.19	
Bilirubin Total	µmol/l	22.5	17.8	27.2	2.35	4.70	Diazo with Sulphanilic Acid
	mg/dl	1.32	1.04	1.60	0.14	0.28	

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Email: applications@randox.com W ebsite: www.randox.com

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Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	22.5	17.8	27.2	2.35	4.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.32	1.04	1.60	0.14	0.28	
	µmol/l	22.4	17.7	27.1	2.35	4.70	Diazonium ion
	mg/dl	1.31	1.04	1.58	0.14	0.27	
Calcium	mmol/l	2.29	2.06	2.52	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.18	8.26	10.1	0.46	0.92	
	mmol/l	2.29	2.06	2.52	0.12	0.23	NM-BAPTA
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Chloride	mmol/l	97.6	89.8	105	3.90	7.80	ISE indirect
Cholesterol	mmol/l	4.11	3.57	4.65	0.27	0.54	Cholesterol Oxidase
	mg/dl	159	138	180	10.50	21.00	
CK Total	U/l	208	170	246	19.00	38.00	CK-NAC substrate start (DGKC) 37°C
	U/l	130	106	154	12.00	24.00	CK-NAC substrate start (DGKC) 30°C
	U/l	88	72	104	8.00	16.00	CK-NAC substrate start (DGKC) 25°C
	U/l	221	181	261	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	138	113	163	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	94	77	111	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	122	97.3	147	12.35	24.70	Alkaline picrate no deproteinization
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	µmol/l	121	96.6	145	12.20	24.40	Roche Creatinine Plus
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.42	1.14	1.70	0.14	0.28	

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	122	97.6	146	12.20	24.40	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.38	1.10	1.66	0.14	0.28	
gamma-GT	U/l	51	43	59	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	40	34	46	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	57	48	66	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	45	38	52	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.04	5.13	6.95	0.46	0.91	Glucose dehydrogenase
	mg/dl	109	92.4	126	8.30	16.60	
	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	6.31	5.36	7.26	0.48	0.95	Glucose oxidase
	mg/dl	114	96.6	131	8.70	17.40	
HDL - Cholesterol	mmol/l	1.30	1.11	1.49	0.10	0.19	Direct HDL PEGME
	mg/dl	50.2	42.8	57.6	3.70	7.40	
	mmol/l	1.30	1.10	1.50	0.10	0.20	Direct HDL Roche 3rd generation
	mg/dl	50.2	42.5	57.9	3.85	7.70	
Iron	µmol/l	19.3	15.8	22.8	1.75	3.50	Colorimetric with ppt.
	µg/dl	108	88.3	128	9.85	19.70	
	µmol/l	19.7	16.2	23.2	1.75	3.50	Colorimetric without ppt.
	µg/dl	110	90.6	129	9.70	19.40	
Lactate	mmol/l	1.60	1.31	1.89	0.15	0.29	Colorimetric Lactate Oxidase
	mg/dl	14.4	11.8	17.0	1.30	2.60	
LD (LDH)	U/l	234	199	269	17.50	35.00	L->P IFCC 37°C
	U/l	169	144	194	12.50	25.00	L->P IFCC 30°C
	U/l	119	101	137	9.00	18.00	L->P IFCC 25°C

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lipase	U/l	36	29	43	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.07	0.95	1.19	0.06	0.12	Ion selective electrode
	mg/dl	0.743	0.657	0.829	0.04	0.09	
Magnesium	mmol/l	0.96	0.85	1.08	0.06	0.12	Chlorphosphonazo III
	mg/dl	2.34	2.06	2.62	0.14	0.28	
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	1.42	1.20	1.64	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.40	3.72	5.08	0.34	0.68	
Potassium	mmol/l	3.95	3.63	4.27	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.2	46.5	69.9	5.85	11.70	Biuret reaction end point
	g/dl	5.82	4.65	6.99	0.59	1.17	
	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	139	132	146	3.50	7.00	ISE method - indirect
TIBC	µmol/l	42.4	33.5	51.3	4.45	8.90	FE+UIBC(saturation with iron)
	µg/dl	237	187	287	25.00	50.00	
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	100	84.0	116	8.00	16.00	
	mmol/l	1.15	0.97	1.34	0.09	0.19	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	102	85.4	119	8.30	16.60	
	mmol/l	1.14	0.95	1.33	0.09	0.19	L/G Kinase EP. no correction
	mg/dl	101	84.4	118	8.30	16.60	

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	99.1	83.3	115	7.90	15.80	
Urea	mmol/l	7.19	6.11	8.27	0.54	1.08	Urease end point
	mg/dl	43.2	36.7	49.7	3.25	6.50	
	mmol/l	7.49	6.36	8.62	0.57	1.13	Urease kinetic
	mg/dl	45.0	38.2	51.8	3.40	6.80	
	mmol/l	7.49	6.37	8.61	0.56	1.12	BUN
	mg/dl	21.0	17.9	24.1	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.96	5.19	6.73	0.39	0.77	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.00	5.21	6.79	0.40	0.79	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.86	5.11	6.61	0.38	0.75	

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
alpha-HBDH	U/l	272	215	329	28.50	57.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	205	162	248	21.50	43.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	154	122	186	16.00	32.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	4.70	3.15	6.25	0.78	1.55	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	5.65	3.79	7.51	0.93	1.86	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Prostatic)	U/l	18.6	12.5	24.7	3.05	6.10	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	11.3	7.54	15.0	1.86	3.71	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Total)	U/l	23.3	15.6	31.0	3.85	7.70	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	16.9	11.3	22.5	2.80	5.60	1-Naphthyl Phosphate substrate Kinetic 37°C
Albumin	g/l	43.0	36.6	49.4	3.20	6.40	Bromocresol Green
	g/dl	4.30	3.66	4.94	0.32	0.64	
	g/l	42.4	36.0	48.8	3.20	6.40	Bromocresol Purple
	g/dl	4.24	3.60	4.88	0.32	0.64	
Alkaline Phosphatase	U/l	117	100	134	8.50	17.00	Roche Integra AMP buffer 37°C
	U/l	91	78	104	6.50	13.00	Roche Integra AMP buffer 30°C
	U/l	75	64	86	5.50	11.00	Roche Integra AMP buffer 25°C
	U/l	158	134	182	12.00	24.00	AMP non-optimsed 37°C
	U/l	123	104	142	9.50	19.00	AMP non-optimsed 30°C
	U/l	101	86	116	7.50	15.00	AMP non-optimsed 25°C
	U/l	171	145	197	13.00	26.00	Randox AMP 37°C
	U/l	133	113	153	10.00	20.00	Randox AMP 30°C
	U/l	109	93	125	8.00	16.00	Randox AMP 25°C

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Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
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Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	72	61	83	5.50	11.00	Randox liquid pNPG7 37°C
	U/l	63	54	72	4.50	9.00	Roche liquid pNPG7 37°C
Amylase Total	U/l	85	72	98	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	85	72	98	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	100	85	115	7.50	15.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	17	14	20	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.0	11.1	16.9	1.45	2.90	Colorimetric
	mmol/l	13.6	10.8	16.4	1.40	2.80	Enzymatic
Bile Acids	µmol/l	24.8	19.8	29.8	2.50	5.00	5th Generation Colorimetric
Bilirubin Direct	µmol/l	15.6	12.3	18.9	1.65	3.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.913	0.720	1.11	0.10	0.19	
	µmol/l	16.4	12.9	19.9	1.75	3.50	Diazo with Sulphanilic Acid
	mg/dl	0.959	0.755	1.16	0.10	0.20	
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	23.5	18.5	28.5	2.50	5.00	Diazo with Sulphanilic Acid
	mg/dl	1.37	1.08	1.66	0.15	0.29	
	µmol/l	22.3	17.6	27.0	2.35	4.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.30	1.03	1.57	0.14	0.27	

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
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Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	23.1	18.2	28.0	2.45	4.90	Diazonium ion
	mg/dl	1.35	1.06	1.64	0.15	0.29	
Calcium	mmol/l	2.27	2.04	2.50	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.10	8.18	10.0	0.46	0.92	
	mmol/l	2.30	2.07	2.53	0.12	0.23	Arsenazo III
	mg/dl	9.22	8.30	10.1	0.46	0.92	
	mmol/l	2.30	2.07	2.53	0.12	0.23	NM-BAPTA
	mg/dl	9.22	8.30	10.1	0.46	0.92	
Chloride	mmol/l	94.2	86.6	102	3.80	7.60	ISE indirect
Cholesterol	mmol/l	4.04	3.51	4.57	0.27	0.53	Cholesterol Oxidase
	mg/dl	156	135	177	10.50	21.00	
Cholinesterase	U/l	5212	4169	6255	521.50	1043.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	191	157	225	17.00	34.00	CK-NAC substrate start (DGKC) 37°C
	U/l	120	98	142	11.00	22.00	CK-NAC substrate start (DGKC) 30°C
	U/l	81	67	95	7.00	14.00	CK-NAC substrate start (DGKC) 25°C
	U/l	205	168	242	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	128	105	151	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	87	71	103	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	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	130	104	156	13.00	26.00	Randox Enzymatic UV method
	mg/dl	1.47	1.18	1.76	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	130	104	156	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.47	1.18	1.76	0.15	0.29	

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

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HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	132	106	158	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.49	1.20	1.78	0.15	0.29	
D-3-Hydroxybutyrate	mmol/l	0.29	0.25	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	48	41	55	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	38	32	44	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	25	35	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	60	51	69	4.50	9.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	47	40	54	3.50	7.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	37	31	43	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	20	16	24	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
	U/l	15	12	18	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	12	10	14	1.00	2.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	6.13	5.21	7.05	0.46	0.92	Hexokinase
	mg/dl	110	93.9	126	8.05	16.10	
	mmol/l	6.37	5.42	7.32	0.48	0.95	Glucose oxidase
	mg/dl	115	97.7	132	8.65	17.30	
HDL - Cholesterol	mmol/l	1.21	1.02	1.40	0.10	0.19	Direct HDL Immunoseparation
	mg/dl	46.7	39.4	54.0	3.65	7.30	
	mmol/l	1.25	1.06	1.44	0.10	0.19	Direct HDL PEGME
	mg/dl	48.3	40.9	55.7	3.70	7.40	
	mmol/l	1.17	0.99	1.35	0.09	0.18	Direct Clearance Method
	mg/dl	45.2	38.4	52.0	3.40	6.80	

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	1.24	1.06	1.42	0.09	0.18	Direct HDL Roche 3rd generation
	mg/dl	47.9	40.9	54.9	3.50	7.00	
	mmol/l	1.29	1.10	1.48	0.10	0.19	HDL - Ultra
	mg/dl	49.8	42.5	57.1	3.65	7.30	
Iron	µmol/l	18.9	15.5	22.3	1.70	3.40	Colorimetric without ppt.
	µg/dl	106	86.6	125	9.70	19.40	
Lactate	mmol/l	1.53	1.25	1.81	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	13.8	11.3	16.3	1.25	2.50	
LD (LDH)	U/l	436	371	501	32.50	65.00	P->L German methods 37°C
	U/l	315	268	362	23.50	47.00	P->L German methods 30°C
	U/l	221	188	254	16.50	33.00	P->L German methods 25°C
	U/l	217	184	250	16.50	33.00	L->P IFCC 37°C
	U/l	157	133	181	12.00	24.00	L->P IFCC 30°C
	U/l	110	93	127	8.50	17.00	L->P IFCC 25°C
Lipase	U/l	33	27	39	3.00	6.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.09	0.96	1.22	0.07	0.13	Spectrophotometric
	mg/dl	0.757	0.664	0.850	0.05	0.09	
Magnesium	mmol/l	0.96	0.84	1.07	0.06	0.12	Xylidyl Blue
	mg/dl	2.32	2.04	2.60	0.14	0.28	
	mmol/l	0.96	0.84	1.07	0.06	0.12	Chlorphosphonazo III
	mg/dl	2.33	2.05	2.61	0.14	0.28	
	mmol/l	0.93	0.82	1.04	0.06	0.11	Enzymatic
	mg/dl	2.26	1.99	2.53	0.14	0.27	
Phosphate Inorganic	mmol/l	1.36	1.16	1.56	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.22	3.60	4.84	0.31	0.62	

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Email: applications@randox.com Website: www.randox.com

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	3.98	3.66	4.30	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.3	47.4	71.2	5.95	11.90	Biuret reaction end point
	g/dl	5.93	4.74	7.12	0.60	1.19	
	g/l	58.2	46.6	69.8	5.80	11.60	Biuret reaction kinetic
	g/dl	5.82	4.66	6.98	0.58	1.16	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
TIBC	µmol/l	42.1	33.2	51.0	4.45	8.90	FE+UIBC(saturation with iron)
	µg/dl	235	186	284	24.50	49.00	
	µmol/l	43.1	34.0	52.2	4.55	9.10	Direct Colorimetric
	µg/dl	241	190	292	25.50	51.00	
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.7	114	7.75	15.50	
	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	97.4	81.8	113	7.80	15.60	
	mmol/l	1.10	0.93	1.27	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	97.4	82.0	113	7.70	15.40	
Urea	mmol/l	7.82	6.64	9.00	0.59	1.18	Urease kinetic
	mg/dl	47.0	39.9	54.1	3.55	7.10	
	mmol/l	7.82	6.65	8.99	0.59	1.17	BUN
	mg/dl	21.9	18.6	25.2	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.90	5.14	6.66	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.93	5.16	6.70	0.39	0.77	

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

Analyte	unit	target	Range low	Range high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.85	5.09	6.61	0.38	0.76	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	42.0	35.7	48.3	3.15	6.30	Bromocresol Green
	g/dl	4.20	3.57	4.83	0.32	0.63	
Alkaline Phosphatase	U/l	182	155	209	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	142	121	163	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	116	99	133	8.50	17.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
	U/l	28	22	34	3.00	6.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	14	22	2.00	4.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	25.2	20.1	30.3	2.55	5.10	Enzymatic Colorimetric
Bilirubin Total	µmol/l	27.1	21.4	32.8	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.59	1.25	1.93	0.17	0.34	
Calcium	mmol/l	2.26	2.03	2.49	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.06	8.14	9.98	0.46	0.92	
Chloride	mmol/l	96.1	88.4	104	3.85	7.70	ISE indirect
Cholesterol	mmol/l	3.95	3.43	4.47	0.26	0.52	Cholesterol Oxidase
	mg/dl	152	132	172	10.00	20.00	
CK Total	U/l	195	160	230	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	122	100	144	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	83	68	98	7.50	15.00	CK-NAC (IFCC) 25°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	133	106	160	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.50	1.20	1.80	0.15	0.30	
gamma-GT	U/l	49	41	57	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	32	46	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	25	35	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.34	5.39	7.29	0.48	0.95	Hexokinase
	mg/dl	114	97.1	131	8.45	16.90	
	mmol/l	6.15	5.23	7.07	0.46	0.92	Glucose oxidase
	mg/dl	111	94.2	128	8.40	16.80	
Iron	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	
LD (LDH)	U/l	422	359	485	31.50	63.00	P->L German methods 37°C
	U/l	305	259	351	23.00	46.00	P->L German methods 30°C
	U/l	214	182	246	16.00	32.00	P->L German methods 25°C
Magnesium	mmol/l	0.97	0.85	1.08	0.06	0.12	Xylidyl Blue
	mg/dl	2.35	2.07	2.63	0.14	0.28	
	mmol/l	1.00	0.88	1.12	0.06	0.12	Enzymatic
	mg/dl	2.43	2.15	2.71	0.14	0.28	
Phosphate Inorganic	mmol/l	1.41	1.19	1.63	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.37	3.69	5.05	0.34	0.68	
Potassium	mmol/l	4.09	3.76	4.42	0.17	0.33	ISE method - indirect
Protein Total	g/l	59.7	47.8	71.6	5.95	11.90	Biuret reaction end point
	g/dl	5.97	4.78	7.16	0.60	1.19	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.16	0.97	1.35	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	103	85.9	120	8.55	17.10	
	mmol/l	1.16	0.98	1.34	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	103	86.5	120	8.25	16.50	
Urea	mmol/l	8.19	6.96	9.42	0.62	1.23	Urease end point
	mg/dl	49.2	41.8	56.6	3.70	7.40	
	mmol/l	8.19	6.96	9.42	0.62	1.23	BUN
	mg/dl	23.0	19.6	26.4	1.70	3.40	
Uric Acid (Urate)	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.18	5.38	6.98	0.40	0.80	

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Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.5	33.6	45.4	2.95	5.90	Ortho Vitros Microslide Systems
	g/dl	3.95	3.36	4.54	0.30	0.59	
Alkaline Phosphatase	U/l	140	119	161	10.50	21.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	46	37	55	4.50	9.00	Ortho Vitros Microslide Systems 37°C
Amylase Total	U/l	61	52	70	4.50	9.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	51	41	61	5.00	10.00	Ortho Vitros Microslide visible slide 37°C
Bicarbonate	mmol/l	15.2	12.0	18.4	1.60	3.20	Ortho Vitros Microslide Systems
Bilirubin Total	µmol/l	21.8	17.2	26.4	2.30	4.60	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.28	1.01	1.55	0.14	0.27	
Calcium	mmol/l	2.32	2.09	2.55	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	9.30	8.38	10.2	0.46	0.92	
	mmol/l	2.32	2.09	2.55	0.12	0.23	Vitros DT60/DT60 II/DTSC II
	mg/dl	9.30	8.38	10.2	0.46	0.92	
Chloride	mmol/l	97.4	89.7	105	3.85	7.70	Ortho Vitros Microslide Systems
	mmol/l	97.3	89.5	105	3.90	7.80	Vitros DT60/DT60 II/DTE II
Cholesterol	mmol/l	3.89	3.38	4.40	0.26	0.51	Ortho Vitros Microslide Systems
	mg/dl	150	130	170	10.00	20.00	
	mmol/l	4.14	3.61	4.67	0.27	0.53	Vitros DT60/DT60 II
	mg/dl	160	139	181	10.50	21.00	
Cholinesterase	U/l	5230	4184	6276	523.00	1046.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	196	161	231	17.50	35.00	Ortho Vitros Microslide Systems 37°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	183	150	216	16.50	33.00	Vitros DT60/DT60 II/DTSC II 37°C
Creatinine	µmol/l	126	101	151	12.50	25.00	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	132	105	159	13.50	27.00	Vitros 250/500/700/950 double slide
	mg/dl	1.49	1.19	1.79	0.15	0.30	
	µmol/l	129	103	155	13.00	26.00	Vitros IDMS Traceable
	mg/dl	1.46	1.16	1.76	0.15	0.30	
Free T4	pmol/l	31.0	23.2	38.8	3.90	7.80	Vitros ECi
	ng/dl	2.42	1.81	3.03	0.31	0.61	
	pg/ml	24.2	18.1	30.3	3.05	6.10	Vitros ECi
gamma-GT	U/l	68	58	78	5.00	10.00	Ortho Vitros Microslide Systems 37°C
Glucose	mmol/l	5.91	5.03	6.79	0.44	0.88	Ortho Vitros Microslide Systems
	mg/dl	106	90.6	121	7.70	15.40	
	mmol/l	5.82	4.95	6.69	0.44	0.87	Vitros DT60/DT60 II
	mg/dl	105	89.2	121	7.90	15.80	
HDL - Cholesterol	mmol/l	1.33	1.13	1.53	0.10	0.20	Vitros Magnetic HDL
	mg/dl	51.3	43.6	59.0	3.85	7.70	
	mmol/l	1.33	1.13	1.53	0.10	0.20	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	51.3	43.6	59.0	3.85	7.70	
Iron	µmol/l	19.3	15.8	22.8	1.75	3.50	Ortho Vitros Microslide Systems
	µg/dl	108	88.3	128	9.85	19.70	
Lactate	mmol/l	1.40	1.15	1.65	0.13	0.25	Ortho Vitros Microslide Systems
	mg/dl	12.6	10.4	14.8	1.10	2.20	
LD (LDH)	U/l	643	546	740	48.50	97.00	Ortho Vitros Microslide Systems 37°C
Lipase	U/l	281	226	336	27.50	55.00	Ortho Vitros Microslide Systems 37°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

Analyte	unit	target	Range low	Range high	1SD	2SD	methods
Lithium	mmol/l	1.19	1.05	1.33	0.07	0.14	Ortho Vitros Microslide Systems
	mg/dl	0.826	0.729	0.923	0.05	0.10	
Magnesium	mmol/l	0.96	0.84	1.08	0.06	0.12	Ortho Vitros Microslide Systems
	mg/dl	2.33	2.05	2.61	0.14	0.28	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Vitros DT60/DT60 II
	mg/dl	2.22	1.96	2.48	0.13	0.26	
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	1.20	1.64	0.11	0.22	Vitros DT60/DT60 II
	mg/dl	4.40	3.72	5.08	0.34	0.68	
Potassium	mmol/l	4.04	3.71	4.37	0.17	0.33	Ortho Vitros Microslide Systems
	mmol/l	4.00	3.68	4.32	0.16	0.32	Vitros DT60/DT60 II/DTE II
Protein Total	g/l	59.7	47.8	71.6	5.95	11.90	Ortho Vitros Microslide Systems
	g/dl	5.97	4.78	7.16	0.60	1.19	
	g/l	57.9	46.3	69.5	5.80	11.60	Vitros DT60/DT60 II
	g/dl	5.79	4.63	6.95	0.58	1.16	
PSA Total	ng/ml =	18.9	14.2	23.6	2.35	4.70	Ortho Vitros 3600/5600/ECi PSA II
Sodium	mmol/l	142	135	149	3.50	7.00	Ortho Vitros Microslide Systems
	mmol/l	144	137	151	3.50	7.00	Vitros DT60/DT60 II/DTE II
Thyroid Stimulating Hormone	µU/ml =	1.33	1.07	1.59	0.13	0.26	Vitros ECi
TIBC	µmol/l	46.4	36.6	56.2	4.90	9.80	Ortho Vitros Microslide Systems
	µg/dl	259	205	313	27.00	54.00	
Triglycerides	mmol/l	1.37	1.15	1.59	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	121	102	140	9.50	19.00	
Urea	mmol/l	7.15	6.08	8.22	0.54	1.07	Ortho Vitros Microslide Systems
	mg/dl	43.0	36.5	49.5	3.25	6.50	

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

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JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.39	6.28	8.50	0.56	1.11	Vitros DT60/DT60 II
	mg/dl	44.4	37.7	51.1	3.35	6.70	
	mmol/l	7.15	6.08	8.22	0.54	1.07	BUN
	mg/dl	20.1	17.1	23.1	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.71	4.97	6.45	0.37	0.74	

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

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Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.3	33.4	45.2	2.95	5.90	Bromocresol Green
	g/dl	3.93	3.34	4.52	0.30	0.59	
Alkaline Phosphatase	U/l	266	226	306	20.00	40.00	Diethanolamine buffer DEA 37°C
	U/l	207	176	238	15.50	31.00	Diethanolamine buffer DEA 30°C
	U/l	170	144	196	13.00	26.00	Diethanolamine buffer DEA 25°C
	U/l	171	145	197	13.00	26.00	AMP optimised to IFCC 37°C
	U/l	133	113	153	10.00	20.00	AMP optimised to IFCC 30°C
	U/l	109	93	125	8.00	16.00	AMP optimised to IFCC 25°C
	U/l	169	143	195	13.00	26.00	AMP optimised to NVKC/SFBC 37°C
	U/l	132	111	153	10.50	21.00	AMP optimised to NVKC/SFBC 30°C
	U/l	108	91	125	8.50	17.00	AMP optimised to NVKC/SFBC 25°C
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
	U/l	29	23	35	3.00	6.00	Tris buffer without P5P 30°C
	U/l	22	17	27	2.50	5.00	Tris buffer without P5P 25°C
Amylase Total	U/l	99	84	114	7.50	15.00	Randox - Ethylidene pNPG7 37°C
	U/l	82	70	94	6.00	12.00	bioMerieux 2-chloro-pNPG3 37°C
AST (GOT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	24.7	19.8	29.6	2.45	4.90	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	16.0	12.6	19.4	1.70	3.40	Diazo with Sulphanilic Acid
	mg/dl	0.936	0.737	1.14	0.10	0.20	

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	22.5	17.8	27.2	2.35	4.70	Diazo with Sulphanilic Acid
	mg/dl	1.32	1.04	1.60	0.14	0.28	
	µmol/l	22.0	17.4	26.6	2.30	4.60	Nitrobenzenediazonium salt
	mg/dl	1.29	1.02	1.56	0.14	0.27	
Calcium	mmol/l	2.34	2.10	2.58	0.12	0.24	Arsenazo III
	mg/dl	9.38	8.42	10.3	0.48	0.96	
Chloride	mmol/l	100	92.0	108	4.00	8.00	ISE direct
Cholesterol	mmol/l	3.91	3.40	4.42	0.26	0.51	Cholesterol Oxidase
	mg/dl	151	131	171	10.00	20.00	
CK Total	U/l	219	179	259	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	137	112	162	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	93	76	110	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	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	127	102	152	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	125	99.8	150	12.60	25.20	Creatinine PAP method
	mg/dl	1.41	1.13	1.69	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	55	46	64	4.50	9.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	36	50	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	34	28	40	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	57	48	66	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	45	38	52	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

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

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Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	6.20	5.27	7.13	0.47	0.93	Glucose oxidase
	mg/dl	112	95.0	129	8.50	17.00	
HDL - Cholesterol	mmol/l	1.32	1.12	1.52	0.10	0.20	Direct HDL PPD
	mg/dl	51.0	43.2	58.8	3.90	7.80	
	mmol/l	1.20	1.02	1.38	0.09	0.18	Direct HDL Immunoseparation
	mg/dl	46.3	39.4	53.2	3.45	6.90	
	mmol/l	1.21	1.03	1.39	0.09	0.18	Direct HDL PEGME
	mg/dl	46.7	39.8	53.6	3.45	6.90	
Iron	µmol/l	22.2	18.2	26.2	2.00	4.00	Colorimetric without ppt.
	µg/dl	124	102	146	11.00	22.00	
LD (LDH)	U/l	447	380	514	33.50	67.00	P->L Scandinavian & Dutch 37°C
	U/l	323	274	372	24.50	49.00	P->L Scandinavian & Dutch 30°C
	U/l	227	193	261	17.00	34.00	P->L Scandinavian & Dutch 25°C
Magnesium	mmol/l	0.99	0.87	1.11	0.06	0.12	Calmagite
	mg/dl	2.41	2.12	2.70	0.15	0.29	
	mmol/l	0.95	0.83	1.06	0.06	0.11	Xylidyl Blue
	mg/dl	2.30	2.02	2.58	0.14	0.28	
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	3.87	3.56	4.18	0.16	0.31	ISE method - direct
Protein Total	g/l	60.1	48.1	72.1	6.00	12.00	Biuret reaction end point
	g/dl	6.01	4.81	7.21	0.60	1.20	

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
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Email: applications@randox.com Website: www.randox.com

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Sodium	mmol/l	137	130	144	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.17	0.99	1.36	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	104	87.2	121	8.40	16.80	
	mmol/l	1.17	0.98	1.36	0.09	0.19	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	104	86.8	121	8.60	17.20	
Urea	mmol/l	7.62	6.48	8.76	0.57	1.14	Urease kinetic
	mg/dl	45.8	38.9	52.7	3.45	6.90	
	mmol/l	7.62	6.48	8.76	0.57	1.14	BUN
	mg/dl	21.4	18.2	24.6	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.23	5.43	7.03	0.40	0.80	
	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.18	5.38	6.98	0.40	0.80	
	mmol/l	0.38	0.33	0.43	0.03	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.42	5.58	7.26	0.42	0.84	

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

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
alpha-HBDH	U/l	272	215	329	28.50	57.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	205	162	248	21.50	43.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	154	122	186	16.00	32.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	5.65	3.79	7.51	0.93	1.86	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	4.70	3.15	6.25	0.78	1.55	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	11.3	7.57	15.0	1.87	3.73	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	18.6	12.5	24.7	3.05	6.10	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Total)	U/l	16.9	11.3	22.5	2.80	5.60	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	23.3	15.6	31.0	3.85	7.70	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Albumin	g/l	42.1	35.8	48.4	3.15	6.30	Bromocresol Green
	g/dl	4.21	3.58	4.84	0.32	0.63	
	g/l	43.7	37.2	50.2	3.25	6.50	Bromocresol Purple
	g/dl	4.37	3.72	5.02	0.33	0.65	
	g/l	39.5	33.6	45.4	2.95	5.90	Ortho Vitros Microslide Systems
	g/dl	3.95	3.36	4.54	0.30	0.59	
	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	169	144	194	12.50	25.00	p-Nitrophenylphosphate AMP 37°C
	U/l	132	112	152	10.00	20.00	p-Nitrophenylphosphate AMP 30°C
	U/l	108	92	124	8.00	16.00	p-Nitrophenylphosphate AMP 25°C
	U/l	140	119	161	10.50	21.00	Ortho Vitros Microslide Systems 37°C

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

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Alkaline Phosphatase	U/l	266	226	306	20.00	40.00	Diethanolamine buffer DEA 37°C
	U/l	207	176	238	15.50	31.00	Diethanolamine buffer DEA 30°C
	U/l	170	144	196	13.00	26.00	Diethanolamine buffer DEA 25°C
	U/l	174	148	200	13.00	26.00	AMP optimised to IFCC 37°C
	U/l	136	115	157	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	111	95	127	8.00	16.00	AMP optimised to IFCC 25°C
	U/l	165	140	190	12.50	25.00	AMP optimised to NVKC/SFBC 37°C
	U/l	129	109	149	10.00	20.00	AMP optimised to NVKC/SFBC 30°C
	U/l	105	89	121	8.00	16.00	AMP optimised to NVKC/SFBC 25°C
ALT (GPT)	U/l	46	37	55	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	39	31	47	4.00	8.00	Tris buffer with P5P 37°C
	U/l	29	23	35	3.00	6.00	Tris buffer with P5P 30°C
	U/l	22	17	27	2.50	5.00	Tris buffer with P5P 25°C
	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
	U/l	39	31	47	4.00	8.00	Phosphate buffer DGKC 37°C
	U/l	29	23	35	3.00	6.00	Phosphate buffer DGKC 30°C
	U/l	22	17	27	2.50	5.00	Phosphate buffer DGKC 25°C
	U/l	35	28	42	3.50	7.00	Tris buffer SCE 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer SCE 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer SCE 25°C
Amylase Pancreatic	U/l	62	53	71	4.50	9.00	Immunoinhibition EPS substrate 37°C
	U/l	74	63	85	5.50	11.00	Randox liquid stable pNPG7 37°C
	U/l	65	55	75	5.00	10.00	Roche liquid stable pNPG7 37°C

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Amylase Total	U/l	87	74	100	6.50	13.00	pNP Maltotrioside substrates 37°C
	U/l	86	73	99	6.50	13.00	Siemens - blocked pNPG7 37°C
	U/l	90	76	104	7.00	14.00	I.L. - blocked pNPG7 37°C
	U/l	71	60	82	5.50	11.00	Randox - Ethylidene pNPG7 37°C
	U/l	97	83	111	7.00	14.00	Randox liquid stable pNPG7 37°C
	U/l	91	77	105	7.00	14.00	Beckman maltotetraose 37°C
	U/l	92	78	106	7.00	14.00	Siemens - maltopenta/hexaoside 37°C
	U/l	87	74	100	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	61	52	70	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	85	72	98	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	86	73	99	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	92	78	106	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
	U/l	86	73	99	6.50	13.00	bioMerieux 2-chloro-pNPG3 37°C
	U/l	86	73	99	6.50	13.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	92	78	106	7.00	14.00	Beckman Synchron AMY7 37°C
Apolipoprotein A-1	g/l	1.11	0.91	1.31	0.10	0.20	Immunoturbidimetric
	mg/dl	111	91.0	131	10.00	20.00	
Apolipoprotein B	g/l	0.58	0.48	0.69	0.05	0.11	Immunoturbidimetric
	mg/dl	58.1	47.6	68.6	5.25	10.50	
AST (GOT)	U/l	51	41	61	5.00	10.00	Ortho Vitros Microslide visible slide 37°C
	U/l	51	41	61	5.00	10.00	Tris buffer with P5P 37°C
	U/l	34	28	40	3.00	6.00	Tris buffer with P5P 30°C
	U/l	24	20	28	2.00	4.00	Tris buffer with P5P 25°C
	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
AST (GOT)	U/l	38	30	46	4.00	8.00	Phosphate buffer DGKC 37°C
	U/l	26	20	32	3.00	6.00	Phosphate buffer DGKC 30°C
	U/l	18	14	22	2.00	4.00	Phosphate buffer DGKC 25°C
	U/l	35	28	42	3.50	7.00	Tris buffer SCE 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer SCE 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer SCE 25°C
Bicarbonate	mmol/l	14.1	11.2	17.0	1.45	2.90	Colorimetric
	mmol/l	15.2	12.0	18.4	1.60	3.20	Ortho Vitros Microslide Systems
	mmol/l	13.7	10.9	16.5	1.40	2.80	Differential rate pH change
	mmol/l	14.0	11.1	16.9	1.45	2.90	Enzymatic
	mmol/l	14.1	11.2	17.0	1.45	2.90	Ion selective electrode
Bile Acids	µmol/l	27.2	21.8	32.6	2.70	5.40	4th Generation Colorimetric
	µmol/l	24.8	19.8	29.8	2.50	5.00	5th Generation Colorimetric
Bilirubin Direct	µmol/l	16.7	13.2	20.2	1.75	3.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.977	0.772	1.18	0.10	0.21	
	µmol/l	17.2	13.6	20.8	1.80	3.60	Diazo with Sulphanilic Acid
	mg/dl	1.01	0.796	1.22	0.11	0.21	
	µmol/l	17.6	13.9	21.3	1.85	3.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.03	0.813	1.25	0.11	0.22	
	µmol/l	15.4	12.1	18.7	1.65	3.30	Oxidation to Biliverdin
	mg/dl	0.901	0.708	1.09	0.10	0.19	
	µmol/l	15.7	12.4	19.0	1.65	3.30	Modified Jendrassik
	mg/dl	0.918	0.725	1.11	0.10	0.19	
Bilirubin Total	µmol/l	21.8	17.2	26.4	2.30	4.60	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.28	1.01	1.55	0.14	0.27	

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
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. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	31.7	25.0	38.4	3.35	6.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.85	1.46	2.24	0.20	0.39	
	µmol/l	26.1	20.6	31.6	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.53	1.21	1.85	0.16	0.32	
	µmol/l	25.7	20.3	31.1	2.70	5.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	µmol/l	22.5	17.8	27.2	2.35	4.70	Nitrobenzenediazonium salt
	mg/dl	1.32	1.04	1.60	0.14	0.28	
	µmol/l	22.1	17.4	26.8	2.35	4.70	Diazonium ion
	mg/dl	1.29	1.02	1.56	0.14	0.27	
	µmol/l	26.7	21.1	32.3	2.80	5.60	Oxidation to Biliverdin
	mg/dl	1.56	1.23	1.89	0.17	0.33	
	µmol/l	31.6	25.0	38.2	3.30	6.60	Modified Jendrassik
	mg/dl	1.85	1.46	2.24	0.20	0.39	
Calcium	mmol/l	2.25	2.02	2.48	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.02	8.10	9.94	0.46	0.92	
	mmol/l	2.32	2.09	2.55	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	9.30	8.38	10.2	0.46	0.92	
	mmol/l	2.23	2.01	2.45	0.11	0.22	Ion selective electrode
	mg/dl	8.94	8.06	9.82	0.44	0.88	
	mmol/l	2.34	2.11	2.57	0.12	0.23	Methylthymol blue
	mg/dl	9.38	8.46	10.3	0.46	0.92	
	mmol/l	2.31	2.08	2.54	0.12	0.23	Arsenazo III
	mg/dl	9.26	8.34	10.2	0.46	0.92	

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	2.27	2.05	2.49	0.11	0.22	NM-BAPTA
	mg/dl	9.10	8.22	9.98	0.44	0.88	
Chloride	mmol/l	99.7	91.8	108	3.95	7.90	Colorimetric
	mmol/l	97.4	89.7	105	3.85	7.70	Ortho Vitros Microslide Systems
	mmol/l	95.8	88.2	103	3.80	7.60	ISE indirect
	mmol/l	98.1	90.3	106	3.90	7.80	ISE direct
Cholesterol	mmol/l	3.89	3.38	4.40	0.26	0.51	Ortho Vitros Microslide Systems
	mg/dl	150	130	170	10.00	20.00	
	mmol/l	4.02	3.50	4.54	0.26	0.52	Cholesterol Oxidase
	mg/dl	155	135	175	10.00	20.00	
Cholinesterase	U/l	5252	4201	6303	525.50	1051.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	196	161	231	17.50	35.00	Ortho Vitros Microslide Systems 37°C
	U/l	210	172	248	19.00	38.00	CK-NAC serum start (DGKC) 37°C
	U/l	131	108	154	11.50	23.00	CK-NAC serum start (DGKC) 30°C
	U/l	89	73	105	8.00	16.00	CK-NAC serum start (DGKC) 25°C
	U/l	210	172	248	19.00	38.00	CK-NAC substrate start (DGKC) 37°C
	U/l	131	108	154	11.50	23.00	CK-NAC substrate start (DGKC) 30°C
	U/l	89	73	105	8.00	16.00	CK-NAC substrate start (DGKC) 25°C
	U/l	213	174	252	19.50	39.00	CK-NAC (IFCC) 37°C
	U/l	133	109	157	12.00	24.00	CK-NAC (IFCC) 30°C
	U/l	91	74	108	8.50	17.00	CK-NAC (IFCC) 25°C
	U/l	210	172	248	19.00	38.00	Monothioglycerol 37°C
	U/l	131	108	154	11.50	23.00	Monothioglycerol 30°C
	U/l	89	73	105	8.00	16.00	Monothioglycerol 25°C
	U/l	200	164	236	18.00	36.00	Dithioerythritol 37°C
	U/l	125	103	147	11.00	22.00	Dithioerythritol 30°C
	U/l	85	70	100	7.50	15.00	Dithioerythritol 25°C

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

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	199	163	235	18.00	36.00	Dithioerythritol (DTE) IFCC correlated 37°C
	U/l	125	102	148	11.50	23.00	Dithioerythritol (DTE) IFCC correlated 30°C
	U/l	85	69	101	8.00	16.00	Dithioerythritol (DTE) IFCC correlated 25°C
Copper	µmol/l	18.6	14.9	22.3	1.85	3.70	Atomic absorption
	µg/dl	118	94.8	141	11.60	23.20	
	µmol/l	18.5	14.8	22.2	1.85	3.70	Colorimetric
	µg/dl	118	94.1	142	11.95	23.90	
Cortisol	nmol/l	547	410	684	68.50	137.00	Roche Cobas E411
	µg/dl	19.7	14.8	24.6	2.45	4.90	
Creatinine	µmol/l	121	97.2	145	11.90	23.80	Alkaline picrate with deproteinization
	mg/dl	1.37	1.10	1.64	0.14	0.27	
	µmol/l	128	103	153	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.45	1.16	1.74	0.15	0.29	
	µmol/l	126	101	151	12.50	25.00	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	127	101	153	13.00	26.00	Randox Enzymatic UV method
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	129	104	154	12.50	25.00	Creatinine PAP method
	mg/dl	1.46	1.18	1.74	0.14	0.28	
	µmol/l	129	103	155	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	129	103	155	13.00	26.00	Jaffe rate blanked
	mg/dl	1.46	1.16	1.76	0.15	0.30	

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	129	104	154	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.46	1.18	1.74	0.14	0.28	
	µmol/l	123	98.4	148	12.30	24.60	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	129	103	155	13.00	26.00	Vitros IDMS Traceable
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	122	97.7	146	12.15	24.30	IDMS traceable
	mg/dl	1.38	1.10	1.66	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.29	0.25	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	2.09	1.67	2.51	0.21	0.42	Immunoturbidimetric
	ng/ml	1.63	1.30	1.96	0.17	0.33	
Folate	nmol/l	41.3	31.4	51.2	4.95	9.90	Roche Cobas E411
	ng/ml	18.2	13.8	22.6	2.20	4.40	
Free T4	pmol/l	17.0	12.8	21.2	2.10	4.20	Abbott Architect
	ng/dl	1.33	0.998	1.66	0.17	0.33	
	pg/ml	13.3	9.98	16.6	1.66	3.32	Abbott Architect
	pmol/l	18.1	13.6	22.6	2.25	4.50	Siemens Advia Centaur
	ng/dl	1.41	1.06	1.76	0.18	0.35	
	pg/ml	14.1	10.6	17.6	1.75	3.50	Siemens Advia Centaur
	pmol/l	16.8	12.6	21.0	2.10	4.20	Beckman Access
	ng/dl	1.31	0.983	1.64	0.16	0.33	
	pg/ml	13.1	9.83	16.4	1.64	3.27	Beckman Access
	pmol/l	18.5	13.8	23.2	2.35	4.70	BioMerieux Vidas
	ng/dl	1.44	1.08	1.80	0.18	0.36	
	pg/ml	14.4	10.8	18.0	1.80	3.60	BioMerieux Vidas

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Free T4	pmol/l	19.1	14.3	23.9	2.40	4.80	Siemens Immulite 1000
	ng/dl	1.49	1.12	1.86	0.19	0.37	
	pg/ml	14.9	11.2	18.6	1.85	3.70	Siemens Immulite 1000
	pmol/l	19.3	14.5	24.1	2.40	4.80	Siemens Immulite 2000/2500
	ng/dl	1.51	1.13	1.89	0.19	0.38	
	pg/ml	15.1	11.3	18.9	1.90	3.80	Siemens Immulite 2000/2500
	pmol/l	31.0	23.2	38.8	3.90	7.80	Vitros ECi
	ng/dl	2.42	1.81	3.03	0.31	0.61	
	pg/ml	24.2	18.1	30.3	3.05	6.10	Vitros ECi
	pmol/l	19.7	14.8	24.6	2.45	4.90	Roche Elecsys
	ng/dl	1.54	1.15	1.93	0.20	0.39	
	pg/ml	15.4	11.5	19.3	1.95	3.90	Roche Elecsys
	pmol/l	20.2	15.2	25.2	2.50	5.00	Roche Modular E170
	ng/dl	1.58	1.19	1.97	0.20	0.39	
	pg/ml	15.8	11.9	19.7	1.95	3.90	Roche Modular E170
	pmol/l	20.1	15.1	25.1	2.50	5.00	Tosoh AIA360
	ng/dl	1.57	1.18	1.96	0.20	0.39	
	pg/ml	15.7	11.8	19.6	1.95	3.90	Tosoh AIA360
	pmol/l	20.3	15.2	25.4	2.55	5.10	Roche Cobas E411
	ng/dl	1.58	1.19	1.97	0.20	0.39	
	pg/ml	15.8	11.9	19.7	1.95	3.90	Roche Cobas E411
	pmol/l	19.8	14.9	24.7	2.45	4.90	Roche Cobas 6000/8000
	ng/dl	1.54	1.16	1.92	0.19	0.38	
	pg/ml	15.4	11.6	19.2	1.90	3.80	Roche Cobas 6000/8000
Gentamicin	µmol/l	6.42	5.14	7.70	0.64	1.28	Immunoturbidimetric
	µg/ml	3.07	2.46	3.68	0.31	0.61	

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

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	51	43	59	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	40	34	46	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	68	58	78	5.00	10.00	Ortho Vitros Microslide Systems 37°C
	U/l	45	38	52	3.50	7.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	35	30	40	2.50	5.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	28	23	33	2.50	5.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	56	48	64	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	44	38	50	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	60	51	69	4.50	9.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	47	40	54	3.50	7.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	37	31	43	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	15	12	18	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
	U/l	12	9	15	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	9	7	11	1.00	2.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	5.91	5.03	6.79	0.44	0.88	Ortho Vitros Microslide Systems
	mg/dl	106	90.6	121	7.70	15.40	
	mmol/l	6.17	5.24	7.10	0.47	0.93	Glucose dehydrogenase
	mg/dl	111	94.4	128	8.30	16.60	
	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	6.06	5.15	6.97	0.46	0.91	Oxygen electrode
	mg/dl	109	92.8	125	8.10	16.20	

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	6.28	5.33	7.23	0.48	0.95	Glucose oxidase
	mg/dl	113	96.0	130	8.50	17.00	
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	1.19	1.01	1.37	0.09	0.18	Direct HDL Immunoseparation
	mg/dl	45.9	39.0	52.8	3.45	6.90	
	mmol/l	1.33	1.13	1.53	0.10	0.20	Vitros Magnetic HDL
	mg/dl	51.3	43.6	59.0	3.85	7.70	
	mmol/l	1.23	1.04	1.42	0.10	0.19	Direct HDL PEGME
	mg/dl	47.5	40.1	54.9	3.70	7.40	
	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct Clearance Method
	mg/dl	45.9	39.0	52.8	3.45	6.90	
	mmol/l	1.39	1.19	1.59	0.10	0.20	Vitros 5.1 FS microtip assay
	mg/dl	53.7	45.9	61.5	3.90	7.80	
	mmol/l	1.33	1.13	1.53	0.10	0.20	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	51.3	43.6	59.0	3.85	7.70	
	mmol/l	1.25	1.06	1.44	0.10	0.19	Direct HDL Roche 3rd generation
	mg/dl	48.3	40.9	55.7	3.70	7.40	
	mmol/l	1.30	1.11	1.49	0.10	0.19	HDL - Ultra
	mg/dl	50.2	42.8	57.6	3.70	7.40	
Immunoglobulin A	g/l	1.93	1.45	2.41	0.24	0.48	Immunoturbidimetric
	mg/dl	193	145	241	24.00	48.00	
Immunoglobulin G	g/l	6.04	4.95	7.13	0.55	1.09	Immunoturbidimetric
	mg/dl	604	495	713	54.50	109.00	
Immunoglobulin M	g/l	0.72	0.58	0.87	0.07	0.15	Immunoturbidimetric
	mg/dl	72.4	57.9	86.9	7.25	14.50	

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	19.2	15.7	22.7	1.75	3.50	Colorimetric with ppt.
	µg/dl	107	87.8	126	9.60	19.20	
	µmol/l	19.3	15.8	22.8	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.3	128	9.85	19.70	
	µmol/l	19.3	15.8	22.8	1.75	3.50	Ortho Vitros Microslide Systems
	µg/dl	108	88.3	128	9.85	19.70	
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	
	mmol/l	1.40	1.15	1.65	0.13	0.25	Ortho Vitros Microslide Systems
	mg/dl	12.6	10.4	14.8	1.10	2.20	
	mmol/l	1.42	1.17	1.67	0.13	0.25	UV LDH
	mg/dl	12.8	10.5	15.1	1.15	2.30	
LAP	U/l	18	15	21	1.50	3.00	NAGEL 37°C
LD (LDH)	U/l	643	546	740	48.50	97.00	Ortho Vitros Microslide Systems 37°C
	U/l	195	166	224	14.50	29.00	L->P 37°C
	U/l	141	120	162	10.50	21.00	L->P 30°C
	U/l	99	84	114	7.50	15.00	L->P 25°C
	U/l	480	408	552	36.00	72.00	P->L Scandinavian & Dutch 37°C
	U/l	347	295	399	26.00	52.00	P->L Scandinavian & Dutch 30°C
	U/l	243	207	279	18.00	36.00	P->L Scandinavian & Dutch 25°C
	U/l	437	371	503	33.00	66.00	P->L German methods 37°C
	U/l	316	268	364	24.00	48.00	P->L German methods 30°C
	U/l	222	188	256	17.00	34.00	P->L German methods 25°C
	U/l	443	377	509	33.00	66.00	P->L SFBC 37°C
	U/l	320	272	368	24.00	48.00	P->L SFBC 30°C
	U/l	225	191	259	17.00	34.00	P->L SFBC 25°C

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
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. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	221	188	254	16.50	33.00	L->P IFCC 37°C
	U/l	160	136	184	12.00	24.00	L->P IFCC 30°C
	U/l	112	95	129	8.50	17.00	L->P IFCC 25°C
Lipase	U/l	36	29	43	3.50	7.00	Other Colorimetric 37°C
	U/l	281	226	336	27.50	55.00	Ortho Vitros Microslide Systems 37°C
	U/l	34	27	41	3.50	7.00	Roche Colorimetric 37°C
	U/l	185	148	222	18.50	37.00	Randox Turbidimetric with colipase 37°C
	U/l	42	34	50	4.00	8.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.19	1.05	1.33	0.07	0.14	Ortho Vitros Microslide Systems
	mg/dl	0.826	0.729	0.923	0.05	0.10	
	mmol/l	1.12	0.98	1.26	0.07	0.14	Flame photometry
	mg/dl	0.778	0.682	0.874	0.05	0.10	
	mmol/l	1.09	0.96	1.22	0.07	0.13	Ion selective electrode
	mg/dl	0.757	0.666	0.848	0.05	0.09	
	mmol/l	1.10	0.97	1.23	0.07	0.13	Spectrophotometric
	mg/dl	0.764	0.671	0.857	0.05	0.09	
	mmol/l	1.16	1.02	1.30	0.07	0.14	Randox Colorimetric
	mg/dl	0.806	0.708	0.904	0.05	0.10	
Magnesium	mmol/l	0.95	0.84	1.07	0.06	0.11	Arsenazo III
	mg/dl	2.32	2.04	2.60	0.14	0.28	
	mmol/l	0.96	0.84	1.08	0.06	0.12	Ortho Vitros Microslide Systems
	mg/dl	2.33	2.05	2.61	0.14	0.28	
	mmol/l	0.98	0.86	1.10	0.06	0.12	Calmagite
	mg/dl	2.38	2.09	2.67	0.15	0.29	

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

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Magnesium	mmol/l	0.97	0.85	1.08	0.06	0.12	Xylidyl Blue
	mg/dl	2.35	2.07	2.63	0.14	0.28	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Methylthymol blue
	mg/dl	2.24	1.98	2.50	0.13	0.26	
	mmol/l	0.96	0.84	1.07	0.06	0.12	Chlorphosphonazo III
	mg/dl	2.33	2.05	2.61	0.14	0.28	
	mmol/l	0.94	0.83	1.06	0.06	0.11	Enzymatic
	mg/dl	2.29	2.01	2.57	0.14	0.28	
NEFA	mmol/l	1.89	1.61	2.17	0.14	0.28	Colorimetric
Osmolality	mOsm/kg	285	228	342	28.50	57.00	Calculated
	mOsm/kg	304	243	365	30.50	61.00	Freezing point depression
	mOsm/kg	309	247	371	31.00	62.00	Vapour pressure
Paracetamol	mmol/l	0.07	0.06	0.09	0.01	0.02	Colorimetric
	mg/l	11.0	8.78	13.2	1.11	2.22	
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	1.38	1.17	1.59	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.28	3.63	4.93	0.33	0.65	
	mmol/l	1.37	1.17	1.57	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.25	3.63	4.87	0.31	0.62	
Potassium	mmol/l	4.04	3.71	4.37	0.17	0.33	Ortho Vitros Microslide Systems
	mmol/l	4.00	3.68	4.32	0.16	0.32	Enzymatic
	mmol/l	3.98	3.66	4.30	0.16	0.32	Flame photometry
	mmol/l	3.94	3.62	4.26	0.16	0.32	ISE method - direct

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

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	3.94	3.62	4.26	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.7	47.8	71.6	5.95	11.90	Ortho Vitros Microslide Systems
	g/dl	5.97	4.78	7.16	0.60	1.19	
	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	
	g/l	58.0	46.4	69.6	5.80	11.60	Biuret reaction kinetic
	g/dl	5.80	4.64	6.96	0.58	1.16	
PSA Total	ng/ml =	13.0	9.72	16.3	1.64	3.28	Tosoh AIA360
	ng/ml =	14.6	11.0	18.2	1.80	3.60	Siemens Immulite 1000
	ng/ml =	18.3	13.7	22.9	2.30	4.60	Roche Elecsys Modular E170
	ng/ml =	18.8	14.1	23.5	2.35	4.70	Beckman Access Hybritech TPSA
	ng/ml =	16.0	12.0	20.0	2.00	4.00	Siemens ADVIA Centaur (equimolar)
	ng/ml =	17.1	12.8	21.4	2.15	4.30	bioMerieux VIDAS TPSA
	ng/ml =	15.5	11.6	19.4	1.95	3.90	Siemens Advia Centaur
	ng/ml =	15.5	11.6	19.4	1.95	3.90	Abbott Architect
	ng/ml =	19.1	14.4	23.8	2.35	4.70	Cobas E411
	ng/ml =	18.6	13.9	23.3	2.35	4.70	Roche Cobas 6000/8000
	ng/ml =	18.9	14.2	23.6	2.35	4.70	Ortho Vitros 3600/5600/ECi PSA II
Salicylate	mmol/l	0.42	0.33	0.50	0.04	0.08	Enzymatic
	mg/dl	5.73	4.58	6.88	0.58	1.15	
Sodium	mmol/l	142	135	149	3.50	7.00	Ortho Vitros Microslide Systems
	mmol/l	143	136	150	3.50	7.00	Enzymatic
	mmol/l	141	134	148	3.50	7.00	Flame photometry
	mmol/l	140	133	147	3.50	7.00	ISE method - direct
	mmol/l	140	133	147	3.50	7.00	ISE method - indirect

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

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Theophylline	µmol/l	25.1	20.1	30.1	2.50	5.00	Immunoturbidimetric
	µg/ml	4.52	3.62	5.42	0.45	0.90	
Thyroid Stimulating Hormone	µU/ml =	1.19	0.95	1.43	0.12	0.24	Abbott Architect
	µU/ml =	1.48	1.18	1.78	0.15	0.30	Siemens Advia Centaur
	µU/ml =	1.31	1.04	1.58	0.14	0.27	Siemens ADVIA Centaur 3rd Generation
	µU/ml =	1.52	1.21	1.83	0.16	0.31	bioMerieux VIDAS TSH
	µU/ml =	1.25	1.00	1.50	0.13	0.25	Siemens Immulite 1000
	µU/ml =	1.33	1.07	1.59	0.13	0.26	Vitros ECi
	µU/ml =	1.51	1.21	1.81	0.15	0.30	Roche Elecsys
	µU/ml =	1.55	1.24	1.86	0.16	0.31	Roche Modular E170
	µU/ml =	1.54	1.23	1.85	0.16	0.31	Roche Cobas E411
	µU/ml =	1.53	1.23	1.83	0.15	0.30	Roche Cobas 6000/8000
	µU/ml =	1.29	1.03	1.55	0.13	0.26	Siemens ADVIA Centaur TSH3-Ultra
TIBC	µmol/l	46.4	36.6	56.2	4.90	9.80	Ortho Vitros Microslide Systems
	µg/dl	259	205	313	27.00	54.00	
	µmol/l	43.7	34.5	52.9	4.60	9.20	Removal of excess free iron
	µg/dl	244	193	295	25.50	51.00	
	µmol/l	43.2	34.1	52.3	4.55	9.10	FE+UIBC(saturation with iron)
	µg/dl	241	191	291	25.00	50.00	
	µmol/l	44.5	35.1	53.9	4.70	9.40	Direct Colorimetric
	µg/dl	249	196	302	26.50	53.00	
	µmol/l	47.5	37.5	57.5	5.00	10.00	Randox Direct
	µg/dl	266	210	322	28.00	56.00	
Tobramycin	µmol/l	4.92	3.94	5.90	0.49	0.98	Immunoturbidimetric
	µg/ml	2.30	1.84	2.76	0.23	0.46	

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

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Total T3	nmol/l	2.57	1.93	3.21	0.32	0.64	Abbott Architect
	ng/ml	1.67	1.26	2.08	0.21	0.41	
	ng/dl	167	126	208	20.50	41.00	Abbott Architect
	nmol/l	2.74	2.05	3.43	0.35	0.69	BioMerieux Vidas
	ng/ml	1.78	1.33	2.23	0.23	0.45	
	ng/dl	178	133	223	22.50	45.00	BioMerieux Vidas
	nmol/l	3.06	2.29	3.83	0.39	0.77	Roche Elecsys
	ng/ml	1.99	1.49	2.49	0.25	0.50	
	ng/dl	199	149	249	25.00	50.00	Roche Elecsys
	nmol/l	2.93	2.20	3.66	0.37	0.73	Roche Cobas E411
	ng/ml	1.91	1.43	2.39	0.24	0.48	
	ng/dl	191	143	239	24.00	48.00	Roche Cobas E411
Total T4	nmol/l	76.9	57.6	96.2	9.65	19.30	Abbott Architect
	µg/dl	6.00	4.49	7.51	0.76	1.51	
	ng/ml	60.0	44.9	75.1	7.55	15.10	Abbott Architect
	nmol/l	83.1	62.4	104	10.35	20.70	Siemens Advia Centaur
	µg/dl	6.48	4.87	8.09	0.81	1.61	
	ng/ml	64.8	48.7	80.9	8.05	16.10	Siemens Advia Centaur
	nmol/l	75.1	56.3	93.9	9.40	18.80	BioMerieux Vidas
	µg/dl	5.86	4.39	7.33	0.74	1.47	
	ng/ml	58.6	43.9	73.3	7.35	14.70	BioMerieux Vidas
	nmol/l	75.3	56.5	94.1	9.40	18.80	Siemens Immulite 1000
	µg/dl	5.87	4.41	7.33	0.73	1.46	
	ng/ml	58.7	44.1	73.3	7.30	14.60	Siemens Immulite 1000
	nmol/l	86.3	64.7	108	10.80	21.60	Roche Cobas E411
	µg/dl	6.73	5.05	8.41	0.84	1.68	
	ng/ml	67.3	50.5	84.1	8.40	16.80	Roche Cobas E411

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

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Transferrin	g/l	2.05	1.64	2.46	0.21	0.41	Immunoturbidimetric
	mg/dl	205	164	246	20.50	41.00	
Triglycerides	mmol/l	1.14	0.96	1.33	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	101	84.5	118	8.25	16.50	
	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	99.1	83.5	115	7.80	15.60	
	mmol/l	1.16	0.97	1.35	0.09	0.19	L/G Kinase EP. no correction
	mg/dl	103	85.9	120	8.55	17.10	
	mmol/l	1.19	1.00	1.38	0.10	0.19	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	105	88.1	122	8.45	16.90	
	mmol/l	1.11	0.94	1.28	0.09	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	98.2	82.8	114	7.70	15.40	
	mmol/l	1.37	1.15	1.59	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	121	102	140	9.50	19.00	
Urea	mmol/l	7.15	6.08	8.22	0.54	1.07	Ortho Vitros Microslide Systems
	mg/dl	43.0	36.5	49.5	3.25	6.50	
	mmol/l	7.93	6.74	9.12	0.60	1.19	Urease end point
	mg/dl	47.7	40.5	54.9	3.60	7.20	
	mmol/l	7.75	6.58	8.92	0.59	1.17	Urease kinetic
	mg/dl	46.6	39.5	53.7	3.55	7.10	
	mmol/l	7.47	6.35	8.59	0.56	1.12	Urease hypochlorite
	mg/dl	44.9	38.2	51.6	3.35	6.70	
	mmol/l	7.61	6.47	8.75	0.57	1.14	Urease Berthelot
	mg/dl	45.7	38.9	52.5	3.40	6.80	

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.75	6.59	8.91	0.58	1.16	BUN
	mg/dl	21.8	18.5	25.1	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.71	4.97	6.45	0.37	0.74	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.96	5.19	6.73	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	0.30	0.39	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.83	5.07	6.59	0.38	0.76	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.00	5.22	6.78	0.39	0.78	
Vitamin B12	pmol/l	444	355	533	44.50	89.00	Roche Cobas E411
	pg/ml	602	481	723	60.50	121.00	
Zinc	µmol/l	23.7	19.0	28.4	2.35	4.70	Atomic absorption
	µg/dl	155	124	186	15.50	31.00	
	µmol/l	23.1	18.5	27.7	2.30	4.60	Colorimetric with deproteinisation
	µg/dl	151	121	181	15.00	30.00	

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

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MEAN OF ALL INSTRUMENTS (Elec.)

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin (electrophoresis)		67.8	61.1	74.5	3.35	6.70	% of total Protein (Beckman Capillary)
alpha-1-globulin		2.6	2.0	3.2	0.31	0.61	% of total Protein (Beckman Capillary)
alpha-2-globulin		3.5	2.7	4.4	0.43	0.85	% of total Protein (Beckman Capillary)
beta-globulin		12.3	9.4	15.3	1.48	2.95	% of total Protein (Beckman Capillary)
gamma-globulin		13.8	10.5	17.1	1.65	3.30	% of total Protein (Beckman Capillary)

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
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MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			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	265	225	305	20.00	40.00	Diethanolamine buffer DEA 37°C
	U/l	206	175	237	15.50	31.00	Diethanolamine buffer DEA 30°C
	U/l	169	144	194	12.50	25.00	Diethanolamine buffer DEA 25°C
	U/l	165	140	190	12.50	25.00	AMP optimised to IFCC 37°C
	U/l	129	109	149	10.00	20.00	AMP optimised to IFCC 30°C
	U/l	105	89	121	8.00	16.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
	U/l	28	22	34	3.00	6.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	17	14	20	1.50	3.00	Tris buffer without P5P 25°C
Calcium	mmol/l	2.40	2.16	2.64	0.12	0.24	Cresolphthalein complexone
	mg/dl	9.62	8.66	10.6	0.48	0.96	
	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	
Chloride	mmol/l	97.4	89.6	105	3.90	7.80	ISE direct
Cholesterol	mmol/l	4.09	3.56	4.62	0.27	0.53	Cholesterol Oxidase
	mg/dl	158	137	179	10.50	21.00	

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
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. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	201	165	237	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	126	103	149	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	85	70	100	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	122	97.5	147	12.25	24.50	Alkaline picrate with deproteinization
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	µmol/l	123	98.2	148	12.40	24.80	Alkaline picrate no deproteinization
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	118	94.1	142	11.95	23.90	Jaffe rate blanked
	mg/dl	1.33	1.06	1.60	0.14	0.27	
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.55	5.57	7.53	0.49	0.98	Glucose oxidase
	mg/dl	118	100	136	9.00	18.00	
Magnesium	mmol/l	0.95	0.84	1.07	0.06	0.12	Xylidyl Blue
	mg/dl	2.32	2.04	2.60	0.14	0.28	
Phosphate Inorganic	mmol/l	1.51	1.29	1.73	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.68	4.00	5.36	0.34	0.68	
Potassium	mmol/l	3.90	3.58	4.22	0.16	0.32	ISE method - direct
Protein Total	g/l	60.7	48.6	72.8	6.05	12.10	Biuret reaction end point
	g/dl	6.07	4.86	7.28	0.61	1.21	
Sodium	mmol/l	134	128	140	3.00	6.00	ISE method - direct
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	84.7	117	8.15	16.30	
Urea	mmol/l	8.10	6.88	9.32	0.61	1.22	Urease end point
	mg/dl	48.7	41.3	56.1	3.70	7.40	

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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. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.92	6.74	9.10	0.59	1.18	Urease kinetic
	mg/dl	47.6	40.5	54.7	3.55	7.10	
	mmol/l	7.51	6.39	8.63	0.56	1.12	Urease hypochlorite
	mg/dl	45.1	38.4	51.8	3.35	6.70	
	mmol/l	7.92	6.73	9.11	0.60	1.19	BUN
	mg/dl	22.2	18.9	25.5	1.65	3.30	
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	0.39	0.34	0.44	0.03	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.52	5.68	7.36	0.42	0.84	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.00	5.21	6.79	0.40	0.79	

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PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	44.3	37.6	51.0	3.35	6.70	Bromocresol Green
	g/dl	4.43	3.76	5.10	0.34	0.67	
Alkaline Phosphatase	U/l	256	217	295	19.50	39.00	Diethanolamine buffer DEA 37°C
	U/l	199	169	229	15.00	30.00	Diethanolamine buffer DEA 30°C
	U/l	164	139	189	12.50	25.00	Diethanolamine buffer DEA 25°C
AST (GOT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	23.7	18.8	28.6	2.45	4.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.39	1.10	1.68	0.15	0.29	
	µmol/l	26.4	20.9	31.9	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.54	1.22	1.86	0.16	0.32	
Calcium	mmol/l	2.22	2.00	2.44	0.11	0.22	Arsenazo III
	mg/dl	8.90	8.02	9.78	0.44	0.88	
Cholesterol	mmol/l	4.07	3.54	4.60	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	137	177	10.00	20.00	
CK Total	U/l	224	184	264	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	140	115	165	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	95	78	112	8.50	17.00	CK-NAC (IFCC) 25°C
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	

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PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	6.49	5.52	7.46	0.49	0.97	Glucose oxidase
	mg/dl	117	99.5	135	8.75	17.50	
HDL - Cholesterol	mmol/l	1.17	1.00	1.34	0.09	0.17	Direct HDL Immunoseparation
	mg/dl	45.2	38.5	51.9	3.35	6.70	
	mmol/l	1.18	1.00	1.36	0.09	0.18	Direct Clearance Method
	mg/dl	45.5	38.6	52.4	3.45	6.90	
Iron	µmol/l	19.3	15.9	22.7	1.70	3.40	Colorimetric without ppt.
	µg/dl	108	88.9	127	9.55	19.10	
LD (LDH)	U/l	414	352	476	31.00	62.00	P->L German methods 37°C
	U/l	299	254	344	22.50	45.00	P->L German methods 30°C
	U/l	210	178	242	16.00	32.00	P->L German methods 25°C
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Xylidyl Blue
	mg/dl	2.23	1.96	2.50	0.14	0.27	
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	
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.4	114	7.90	15.80	
Urea	mmol/l	8.05	6.84	9.26	0.61	1.21	Urease kinetic
	mg/dl	48.4	41.1	55.7	3.65	7.30	
	mmol/l	8.05	6.84	9.26	0.61	1.21	BUN
	mg/dl	22.6	19.2	26.0	1.70	3.40	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	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	5.81	5.06	6.56	0.38	0.75	

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

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Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	43.3	36.8	49.8	3.25	6.50	Bromocresol Green
	g/dl	4.33	3.68	4.98	0.33	0.65	
	g/l	43.6	37.1	50.1	3.25	6.50	Bromocresol Purple
	g/dl	4.36	3.71	5.01	0.33	0.65	
	g/l	39.6	33.7	45.5	2.95	5.90	Turbidimetric Assays
	g/dl	3.96	3.37	4.55	0.30	0.59	
Alkaline Phosphatase	U/l	130	110	150	10.00	20.00	Roche Integra AMP buffer 37°C
	U/l	101	86	116	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	83	70	96	6.50	13.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	64	54	74	5.00	10.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	86	73	99	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	86	73	99	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	86	73	99	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	16	12	20	2.00	4.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	13.9	11.0	16.8	1.45	2.90	Colorimetric
	mmol/l	13.9	11.0	16.8	1.45	2.90	Enzymatic

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bile Acids	µmol/l	27.4	21.9	32.9	2.75	5.50	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	16.5	13.1	19.9	1.70	3.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.965	0.766	1.16	0.10	0.20	
	µmol/l	16.9	13.4	20.4	1.75	3.50	Diazo with Sulphanilic Acid
	mg/dl	0.989	0.784	1.19	0.10	0.21	
Bilirubin Total	µmol/l	21.8	17.2	26.4	2.30	4.60	Diazo with Sulphanilic Acid
	mg/dl	1.28	1.01	1.55	0.14	0.27	
	µmol/l	21.4	16.9	25.9	2.25	4.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.25	0.989	1.51	0.13	0.26	
	µmol/l	21.6	17.1	26.1	2.25	4.50	Diazonium ion
	mg/dl	1.26	1.00	1.52	0.13	0.26	
Calcium	mmol/l	2.28	2.06	2.50	0.11	0.22	Cresolphthalein complexone
	mg/dl	9.14	8.26	10.0	0.44	0.88	
	mmol/l	2.27	2.05	2.49	0.11	0.22	NM-BAPTA
	mg/dl	9.10	8.22	9.98	0.44	0.88	
Chloride	mmol/l	91.4	84.0	98.8	3.70	7.40	ISE indirect
Cholesterol	mmol/l	4.02	3.50	4.54	0.26	0.52	Cholesterol Oxidase
	mg/dl	155	135	175	10.00	20.00	
Cholinesterase	U/l	5249	4199	6299	525.00	1050.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	216	177	255	19.50	39.00	CK-NAC serum start (DGKC) 37°C
	U/l	135	111	159	12.00	24.00	CK-NAC serum start (DGKC) 30°C
	U/l	92	75	109	8.50	17.00	CK-NAC serum start (DGKC) 25°C
	U/l	225	184	266	20.50	41.00	CK-NAC substrate start (DGKC) 37°C
	U/l	141	115	167	13.00	26.00	CK-NAC substrate start (DGKC) 30°C
	U/l	96	78	114	9.00	18.00	CK-NAC substrate start (DGKC) 25°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	220	181	259	19.50	39.00	CK-NAC (IFCC) 37°C
	U/l	138	113	163	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	94	77	111	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	133	106	160	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	µmol/l	134	107	161	13.50	27.00	Randox Enzymatic UV method
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	µmol/l	130	104	156	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	128	102	154	13.00	26.00	Jaffe rate blanked
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	127	102	152	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	130	104	156	13.00	26.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.47	1.18	1.76	0.15	0.29	
D-3-Hydroxybutyrate	mmol/l	0.29	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
Free T4	pmol/l	19.8	14.9	24.7	2.45	4.90	Roche Cobas 6000/8000
	ng/dl	1.54	1.16	1.92	0.19	0.38	
	pg/ml	15.4	11.6	19.2	1.90	3.80	Roche Cobas 6000/8000
gamma-GT	U/l	50	43	57	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	34	44	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	56	48	64	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	44	38	50	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	50	43	57	3.50	7.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
	U/l	39	34	44	2.50	5.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 25°C
Glucose	mmol/l	6.14	5.22	7.06	0.46	0.92	Hexokinase
	mg/dl	111	94.1	128	8.45	16.90	
	mmol/l	6.25	5.32	7.18	0.47	0.93	Glucose oxidase
	mg/dl	113	95.9	130	8.55	17.10	
HDL - Cholesterol	mmol/l	1.25	1.06	1.44	0.10	0.19	Direct HDL PEGME
	mg/dl	48.3	40.9	55.7	3.70	7.40	
	mmol/l	1.24	1.05	1.43	0.10	0.19	Direct HDL Roche 3rd generation
	mg/dl	47.9	40.5	55.3	3.70	7.40	
Iron	µmol/l	19.5	16.0	23.0	1.75	3.50	Colorimetric with ppt.
	µg/dl	109	89.4	129	9.80	19.60	
	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	1.50	1.23	1.77	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.5	11.1	15.9	1.20	2.40	
LD (LDH)	U/l	435	370	500	32.50	65.00	P->L German methods 37°C
	U/l	314	267	361	23.50	47.00	P->L German methods 30°C
	U/l	221	188	254	16.50	33.00	P->L German methods 25°C
	U/l	435	370	500	32.50	65.00	P->L SFBC 37°C
	U/l	314	267	361	23.50	47.00	P->L SFBC 30°C
	U/l	221	188	254	16.50	33.00	P->L SFBC 25°C
	U/l	219	186	252	16.50	33.00	L->P IFCC 37°C
	U/l	158	134	182	12.00	24.00	L->P IFCC 30°C
	U/l	111	94	128	8.50	17.00	L->P IFCC 25°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lipase	U/l	34	27	41	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.11	0.98	1.24	0.07	0.13	Ion selective electrode
	mg/dl	0.771	0.681	0.861	0.05	0.09	
	mmol/l	1.10	0.97	1.23	0.07	0.13	Spectrophotometric
	mg/dl	0.764	0.673	0.855	0.05	0.09	
Magnesium	mmol/l	0.96	0.85	1.08	0.06	0.12	Xylidyl Blue
	mg/dl	2.34	2.06	2.62	0.14	0.28	
	mmol/l	0.96	0.84	1.07	0.06	0.12	Chlorphosphonazo III
	mg/dl	2.32	2.04	2.60	0.14	0.28	
Osmolality	mOsm/kg	282	225	339	28.50	57.00	Calculated
Phosphate Inorganic	mmol/l	1.34	1.14	1.54	0.10	0.20	Phosphomolybdate enzymatic
	mg/dl	4.15	3.53	4.77	0.31	0.62	
	mmol/l	1.36	1.16	1.56	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.22	3.60	4.84	0.31	0.62	
Potassium	mmol/l	3.95	3.64	4.26	0.16	0.31	ISE method - indirect
Protein Total	g/l	58.9	47.1	70.7	5.90	11.80	Biuret reaction end point
	g/dl	5.89	4.71	7.07	0.59	1.18	
	g/l	58.5	46.8	70.2	5.85	11.70	Biuret reaction kinetic
	g/dl	5.85	4.68	7.02	0.59	1.17	
PSA Total	ng/ml =	18.6	14.0	23.2	2.30	4.60	Roche Cobas 6000/8000
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.53	1.23	1.83	0.15	0.30	Roche Cobas 6000/8000
TIBC	µmol/l	42.8	33.8	51.8	4.50	9.00	FE+UIBC(saturation with iron)
	µg/dl	239	189	289	25.00	50.00	

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

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Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
TIBC	µmol/l	44.7	35.3	54.1	4.70	9.40	Direct Colorimetric
	µg/dl	250	197	303	26.50	53.00	
Triglycerides	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	99.1	83.3	115	7.90	15.80	
	mmol/l	1.11	0.94	1.29	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	98.2	82.7	114	7.75	15.50	
	mmol/l	1.12	0.94	1.30	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	99.1	83.4	115	7.85	15.70	
Urea	mmol/l	7.58	6.45	8.71	0.57	1.13	Urease kinetic
	mg/dl	45.6	38.8	52.4	3.40	6.80	
	mmol/l	7.58	6.44	8.72	0.57	1.14	BUN
	mg/dl	21.3	18.1	24.5	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.80	5.04	6.56	0.38	0.76	
	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	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.86	5.11	6.61	0.38	0.75	

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Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	43.0	36.5	49.5	3.25	6.50	Bromocresol Green
	g/dl	4.30	3.65	4.95	0.33	0.65	
Alkaline Phosphatase	U/l	122	103	141	9.50	19.00	Roche Integra AMP buffer 37°C
	U/l	95	80	110	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	78	66	90	6.00	12.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	16.4	12.9	19.9	1.75	3.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.959	0.755	1.16	0.10	0.20	
	µmol/l	16.7	13.2	20.2	1.75	3.50	Diazo with Sulphanilic Acid
	mg/dl	0.977	0.772	1.18	0.10	0.21	
Bilirubin Total	µmol/l	22.5	17.8	27.2	2.35	4.70	Diazo with Sulphanilic Acid
	mg/dl	1.32	1.04	1.60	0.14	0.28	
	µmol/l	22.1	17.4	26.8	2.35	4.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.29	1.02	1.56	0.14	0.27	
	µmol/l	22.2	17.5	26.9	2.35	4.70	Diazonium ion
	mg/dl	1.30	1.02	1.58	0.14	0.28	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	2.28	2.06	2.50	0.11	0.22	Cresolphthalein complexone
	mg/dl	9.14	8.26	10.0	0.44	0.88	
Chloride	mmol/l	96.9	89.1	105	3.90	7.80	ISE indirect
Cholesterol	mmol/l	4.10	3.57	4.63	0.27	0.53	Cholesterol Oxidase
	mg/dl	158	138	178	10.00	20.00	
CK Total	U/l	218	179	257	19.50	39.00	CK-NAC (IFCC) 37°C
	U/l	136	112	160	12.00	24.00	CK-NAC (IFCC) 30°C
	U/l	93	76	110	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	119	95.3	143	11.85	23.70	Alkaline picrate no deproteinization
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	µmol/l	121	96.8	145	12.10	24.20	Roche Creatinine Plus
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	µmol/l	116	93.1	139	11.45	22.90	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.31	1.05	1.57	0.13	0.26	
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	41	35	47	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	32	27	37	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	55	47	63	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	37	49	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	34	29	39	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.31	5.36	7.26	0.48	0.95	Hexokinase
	mg/dl	114	96.6	131	8.70	17.40	
	mmol/l	6.20	5.27	7.13	0.47	0.93	Glucose oxidase
	mg/dl	112	95.0	129	8.50	17.00	

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

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Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	1.24	1.05	1.43	0.10	0.19	Direct HDL Roche 3rd generation
	mg/dl	47.9	40.5	55.3	3.70	7.40	
Iron	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	
LD (LDH)	U/l	226	192	260	17.00	34.00	L->P IFCC 37°C
	U/l	163	139	187	12.00	24.00	L->P IFCC 30°C
	U/l	115	97	133	9.00	18.00	L->P IFCC 25°C
Magnesium	mmol/l	0.93	0.82	1.05	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.27	2.00	2.54	0.14	0.27	
Phosphate Inorganic	mmol/l	1.43	1.21	1.65	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.43	3.75	5.11	0.34	0.68	
	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	3.90	3.59	4.21	0.16	0.31	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	138	131	145	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	100	84.2	116	7.90	15.80	
	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	99.1	83.5	115	7.80	15.60	
Urea	mmol/l	7.49	6.36	8.62	0.57	1.13	Urease kinetic
	mg/dl	45.0	38.2	51.8	3.40	6.80	
	mmol/l	7.87	6.69	9.05	0.59	1.18	Urease hypochlorite
	mg/dl	47.3	40.2	54.4	3.55	7.10	

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	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	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.98	5.21	6.75	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	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.93	5.16	6.70	0.39	0.77	

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	42.8	36.4	49.2	3.20	6.40	Bromocresol Green
	g/dl	4.28	3.64	4.92	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	128	109	147	9.50	19.00	Roche Integra AMP buffer 37°C
	U/l	100	85	115	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	82	70	94	6.00	12.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	34	28	40	3.00	6.00	Tris buffer without P5P 37°C
	U/l	25	21	29	2.00	4.00	Tris buffer without P5P 30°C
	U/l	19	16	22	1.50	3.00	Tris buffer without P5P 25°C
Amylase Total	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.1	11.2	17.0	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	17.4	13.8	21.0	1.80	3.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.02	0.807	1.23	0.11	0.21	
	µmol/l	17.5	13.9	21.1	1.80	3.60	Diazo with Sulphanilic Acid
	mg/dl	1.02	0.813	1.23	0.10	0.21	
Bilirubin Total	µmol/l	22.3	17.7	26.9	2.30	4.60	Diazo with Sulphanilic Acid
	mg/dl	1.30	1.04	1.56	0.13	0.26	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	21.3	16.8	25.8	2.25	4.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.25	0.983	1.52	0.13	0.27	
	µmol/l	21.8	17.2	26.4	2.30	4.60	Diazonium ion
	mg/dl	1.28	1.01	1.55	0.14	0.27	
Calcium	mmol/l	2.29	2.06	2.52	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.18	8.26	10.1	0.46	0.92	
	mmol/l	2.29	2.06	2.52	0.12	0.23	NM-BAPTA
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Chloride	mmol/l	91.8	84.5	99.1	3.65	7.30	ISE indirect
Cholesterol	mmol/l	4.06	3.53	4.59	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	136	178	10.50	21.00	
CK Total	U/l	221	181	261	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	138	113	163	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	94	77	111	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	126	101	151	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	131	105	157	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	129	104	154	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.46	1.18	1.74	0.14	0.28	
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	36	50	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	33	28	38	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	56	48	64	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	44	38	50	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			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	6.15	5.23	7.07	0.46	0.92	Glucose oxidase
	mg/dl	111	94.2	128	8.40	16.80	
HDL - Cholesterol	mmol/l	1.23	1.04	1.42	0.10	0.19	Direct HDL Roche 3rd generation
	mg/dl	47.5	40.1	54.9	3.70	7.40	
Iron	µmol/l	19.9	16.3	23.5	1.80	3.60	Colorimetric without ppt.
	µg/dl	111	91.1	131	9.95	19.90	
Lactate	mmol/l	1.53	1.25	1.81	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	13.8	11.3	16.3	1.25	2.50	
LD (LDH)	U/l	218	185	251	16.50	33.00	L->P IFCC 37°C
	U/l	157	134	180	11.50	23.00	L->P IFCC 30°C
	U/l	111	94	128	8.50	17.00	L->P IFCC 25°C
Lipase	U/l	34	27	41	3.50	7.00	Roche Colorimetric 37°C
Magnesium	mmol/l	0.96	0.84	1.07	0.06	0.12	Xylidyl Blue
	mg/dl	2.33	2.05	2.61	0.14	0.28	
	mmol/l	0.97	0.86	1.09	0.06	0.12	Chlorphosphonazo III
	mg/dl	2.36	2.08	2.64	0.14	0.28	
Phosphate Inorganic	mmol/l	1.37	1.17	1.57	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.25	3.63	4.87	0.31	0.62	
Potassium	mmol/l	3.95	3.64	4.26	0.16	0.31	ISE method - indirect
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	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
TIBC	µmol/l	42.6	33.6	51.6	4.50	9.00	FE+UIBC(saturation with iron)
	µg/dl	238	188	288	25.00	50.00	
Triglycerides	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	99.1	83.5	115	7.80	15.60	
	mmol/l	1.08	0.91	1.25	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	95.6	80.6	111	7.50	15.00	
Urea	mmol/l	7.63	6.49	8.77	0.57	1.14	Urease kinetic
	mg/dl	45.9	39.0	52.8	3.45	6.90	
	mmol/l	7.63	6.49	8.77	0.57	1.14	BUN
	mg/dl	21.4	18.2	24.6	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with 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	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.96	5.19	6.73	0.39	0.77	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.96	5.19	6.73	0.39	0.77	

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	42.6	36.2	49.0	3.20	6.40	Bromocresol Green
	g/dl	4.26	3.62	4.90	0.32	0.64	
Alkaline Phosphatase	U/l	117	100	134	8.50	17.00	Roche Integra AMP buffer 37°C
	U/l	91	78	104	6.50	13.00	Roche Integra AMP buffer 30°C
	U/l	75	64	86	5.50	11.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	36	28	44	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	64	55	73	4.50	9.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	86	73	99	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.4	11.4	17.4	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	16.6	13.1	20.1	1.75	3.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.971	0.766	1.18	0.10	0.21	
Bilirubin Total	µmol/l	20.9	16.5	25.3	2.20	4.40	Diazo with Sulphanilic Acid
	mg/dl	1.22	0.965	1.48	0.13	0.26	
	µmol/l	21.0	16.6	25.4	2.20	4.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.23	0.971	1.49	0.13	0.26	
	µmol/l	20.5	16.2	24.8	2.15	4.30	Diazonium ion
	mg/dl	1.20	0.948	1.45	0.13	0.25	

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
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. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	2.26	2.04	2.48	0.11	0.22	Cresolphthalein complexone
	mg/dl	9.06	8.18	9.94	0.44	0.88	
	mmol/l	2.25	2.03	2.47	0.11	0.22	NM-BAPTA
	mg/dl	9.02	8.14	9.90	0.44	0.88	
Chloride	mmol/l	93.2	85.7	101	3.75	7.50	ISE indirect
Cholesterol	mmol/l	3.95	3.44	4.46	0.26	0.51	Cholesterol Oxidase
	mg/dl	152	133	171	9.50	19.00	
Cholinesterase	U/l	5055	4044	6066	505.50	1011.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	202	165	239	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	126	103	149	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	86	70	102	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	135	108	162	13.50	27.00	Roche Creatinine Plus
	mg/dl	1.53	1.22	1.84	0.16	0.31	
	µmol/l	133	107	159	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.50	1.21	1.79	0.15	0.29	
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	26	34	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.09	5.18	7.00	0.46	0.91	Hexokinase
	mg/dl	110	93.3	127	8.35	16.70	
HDL - Cholesterol	mmol/l	1.16	0.98	1.34	0.09	0.18	Direct HDL Roche 3rd generation
	mg/dl	44.8	37.9	51.7	3.45	6.90	

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

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Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	18.9	15.5	22.3	1.70	3.40	Colorimetric without ppt.
	µg/dl	106	86.6	125	9.70	19.40	
Lactate	mmol/l	1.47	1.21	1.73	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	13.2	10.9	15.5	1.15	2.30	
LD (LDH)	U/l	216	184	248	16.00	32.00	L->P IFCC 37°C
	U/l	156	133	179	11.50	23.00	L->P IFCC 30°C
	U/l	110	93	127	8.50	17.00	L->P IFCC 25°C
Lipase	U/l	34	27	41	3.50	7.00	Roche Colorimetric 37°C
Magnesium	mmol/l	0.94	0.83	1.06	0.06	0.11	Xylidyl Blue
	mg/dl	2.29	2.02	2.56	0.14	0.27	
Phosphate Inorganic	mmol/l	1.34	1.14	1.54	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.15	3.53	4.77	0.31	0.62	
Potassium	mmol/l	3.99	3.67	4.31	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	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
TIBC	µmol/l	43.3	34.2	52.4	4.55	9.10	FE+UIBC(saturation with iron)
	µg/dl	242	191	293	25.50	51.00	
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.6	113	7.90	15.80	
Urea	mmol/l	7.48	6.35	8.61	0.57	1.13	Urease kinetic
	mg/dl	45.0	38.2	51.8	3.40	6.80	
	mmol/l	7.48	6.36	8.60	0.56	1.12	BUN
	mg/dl	21.0	17.9	24.1	1.55	3.10	

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.88	5.11	6.65	0.39	0.77	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.70	4.96	6.44	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.73	4.99	6.47	0.37	0.74	

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

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.1	35.0	47.2	3.05	6.10	Bromocresol Green
	g/dl	4.11	3.50	4.72	0.31	0.61	
Alkaline Phosphatase	U/l	283	241	325	21.00	42.00	Diethanolamine buffer DEA 37°C
	U/l	171	146	196	12.50	25.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	72	61	83	5.50	11.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	100	85	115	7.50	15.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	13.3	10.5	16.1	1.40	2.80	Enzymatic
Bile Acids	µmol/l	24.8	19.8	29.8	2.50	5.00	5th Generation Colorimetric
Bilirubin Direct	µmol/l	16.7	13.2	20.2	1.75	3.50	Diazo with Sulphanilic Acid
	mg/dl	0.977	0.772	1.18	0.10	0.21	
	µmol/l	13.6	10.7	16.5	1.45	2.90	Vanadate Oxidation
	mg/dl	0.796	0.626	0.966	0.09	0.17	
Bilirubin Total	µmol/l	27.8	22.0	33.6	2.90	5.80	Diazo with Sulphanilic Acid
	mg/dl	1.63	1.29	1.97	0.17	0.34	
	µmol/l	30.1	23.8	36.4	3.15	6.30	Vanadate Oxidation
	mg/dl	1.76	1.39	2.13	0.19	0.37	
Calcium	mmol/l	2.32	2.09	2.55	0.12	0.23	Arsenazo III
	mg/dl	9.30	8.38	10.2	0.46	0.92	
Chloride	mmol/l	95.9	88.2	104	3.85	7.70	ISE direct

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Cholesterol	mmol/l	3.99	3.47	4.51	0.26	0.52	Cholesterol Oxidase
	mg/dl	154	134	174	10.00	20.00	
CK Total	U/l	208	171	245	18.50	37.00	CK-NAC substrate start (DGKC) 37°C
	U/l	234	192	276	21.00	42.00	CK-NAC (IFCC) 37°C
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	
gamma-GT	U/l	60	51	69	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.27	5.33	7.21	0.47	0.94	Hexokinase
	mg/dl	113	96.0	130	8.50	17.00	
	mmol/l	6.39	5.43	7.35	0.48	0.96	Glucose oxidase
	mg/dl	115	97.8	132	8.60	17.20	
Iron	µmol/l	20.2	16.6	23.8	1.80	3.60	Colorimetric without ppt.
	µg/dl	113	92.8	133	10.10	20.20	
Lactate	mmol/l	1.44	1.18	1.70	0.13	0.26	Enzymatic Colorimetric
	mg/dl	13.0	10.6	15.4	1.20	2.40	
LD (LDH)	U/l	431	366	496	32.50	65.00	P->L German methods 37°C
	U/l	237	201	273	18.00	36.00	L->P IFCC 37°C
Lipase	U/l	43	34	52	4.50	9.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.11	0.98	1.24	0.07	0.13	Colorimetric
	mg/dl	0.771	0.678	0.864	0.05	0.09	
Magnesium	mmol/l	0.97	0.85	1.09	0.06	0.12	Xylidyl Blue
	mg/dl	2.35	2.07	2.63	0.14	0.28	
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	3.84	3.53	4.15	0.16	0.31	Enzymatic

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

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RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	3.95	3.63	4.27	0.16	0.32	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	142	135	149	3.50	7.00	Enzymatic
	mmol/l	140	133	147	3.50	7.00	ISE method - direct
TIBC	µmol/l	48.9	38.6	59.2	5.15	10.30	Direct Colorimetric
	µg/dl	273	216	330	28.50	57.00	
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	7.73	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 no ascorbate oxidase
	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 @ 546nm
	mg/dl	5.93	5.16	6.70	0.39	0.77	

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

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SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.3	34.3	46.3	3.00	6.00	Bromocresol Green
	g/dl	4.03	3.43	4.63	0.30	0.60	
Alkaline Phosphatase	U/l	168	143	193	12.50	25.00	AMP optimised to IFCC 37°C
	U/l	170	144	196	13.00	26.00	AMP non-optimsed 37°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	67	57	77	5.00	10.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	86	73	99	6.50	13.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	37	29	45	4.00	8.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	16.5	13.1	19.9	1.70	3.40	Enzymatic
Bilirubin Direct	µmol/l	15.3	12.1	18.5	1.60	3.20	Diazo with Sulphanilic Acid
	mg/dl	0.895	0.708	1.08	0.09	0.19	
	µmol/l	15.3	12.1	18.5	1.60	3.20	Oxidation to Biliverdin
	mg/dl	0.895	0.708	1.08	0.09	0.19	
Bilirubin Total	µmol/l	28.1	22.2	34.0	2.95	5.90	Diazo with Sulphanilic Acid
	mg/dl	1.64	1.30	1.98	0.17	0.34	
	µmol/l	26.6	21.0	32.2	2.80	5.60	Oxidation to Biliverdin
	mg/dl	1.56	1.23	1.89	0.17	0.33	
Calcium	mmol/l	2.25	2.03	2.47	0.11	0.22	Cresolphthalein complexone
	mg/dl	9.02	8.14	9.90	0.44	0.88	
	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	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Chloride	mmol/l	97.7	89.9	106	3.90	7.80	ISE indirect
Cholesterol	mmol/l	3.97	3.46	4.48	0.26	0.51	Cholesterol Oxidase
	mg/dl	153	134	172	9.50	19.00	
CK Total	U/l	204	167	241	18.50	37.00	CK-NAC substrate start (DGKC) 37°C
	U/l	204	167	241	18.50	37.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	133	107	159	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.50	1.21	1.79	0.15	0.29	
	µmol/l	123	98.6	147	12.20	24.40	Randox Enzymatic UV method
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	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	129	103	155	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.46	1.16	1.76	0.15	0.30	
gamma-GT	U/l	56	48	64	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.13	5.21	7.05	0.46	0.92	Hexokinase
	mg/dl	110	93.9	126	8.05	16.10	
	mmol/l	6.27	5.33	7.21	0.47	0.94	Glucose oxidase
	mg/dl	113	96.0	130	8.50	17.00	
HDL - Cholesterol	mmol/l	1.10	0.93	1.27	0.08	0.17	Direct HDL Immunoseparation
	mg/dl	42.5	36.1	48.9	3.20	6.40	
	mmol/l	1.05	0.90	1.21	0.08	0.16	Direct Clearance Method
	mg/dl	40.5	34.5	46.5	3.00	6.00	
Iron	µmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.9	127	9.55	19.10	
Lactate	mmol/l	1.38	1.13	1.63	0.13	0.25	Colorimetric Lactate Oxidase
	mg/dl	12.4	10.2	14.6	1.10	2.20	

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

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SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	218	185	251	16.50	33.00	L->P 37°C
	U/l	440	374	506	33.00	66.00	P->L German methods 37°C
	U/l	219	187	251	16.00	32.00	L->P IFCC 37°C
Lipase	U/l	42	34	50	4.00	8.00	Other Colorimetric 37°C
Lithium	mmol/l	1.12	0.98	1.26	0.07	0.14	Spectrophotometric
	mg/dl	0.778	0.683	0.873	0.05	0.10	
Magnesium	mmol/l	0.99	0.87	1.11	0.06	0.12	Xylidyl Blue
	mg/dl	2.40	2.11	2.69	0.15	0.29	
Phosphate Inorganic	mmol/l	1.37	1.16	1.58	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.25	3.60	4.90	0.33	0.65	
Potassium	mmol/l	4.00	3.68	4.32	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.5	47.6	71.4	5.95	11.90	Biuret reaction end point
	g/dl	5.95	4.76	7.14	0.60	1.19	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
TIBC	µmol/l	48.7	38.5	58.9	5.10	10.20	Removal of excess free iron
	µg/dl	272	215	329	28.50	57.00	
	µmol/l	43.3	34.2	52.4	4.55	9.10	FE+UIBC(saturation with iron)
	µg/dl	242	191	293	25.50	51.00	
Triglycerides	mmol/l	1.15	0.97	1.33	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	102	85.8	118	8.10	16.20	
	mmol/l	1.13	0.95	1.31	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	100	84.2	116	7.90	15.80	
Urea	mmol/l	7.98	6.79	9.17	0.60	1.19	Urease kinetic
	mg/dl	48.0	40.8	55.2	3.60	7.20	

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

RANDOX

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.98	6.78	9.18	0.60	1.20	BUN
	mg/dl	22.4	19.0	25.8	1.70	3.40	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.96	5.19	6.73	0.39	0.77	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.03	5.24	6.82	0.40	0.79	

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Tel: +44 (0) 28 9442 2413 Fax: +44 (0) 28 9445 2912
Email: applications@randox.com Website: www.randox.com

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Siemens/Dade Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	44.4	37.7	51.1	3.35	6.70	Bromocresol Purple
	g/dl	4.44	3.77	5.11	0.34	0.67	
Alkaline Phosphatase	U/l	139	118	160	10.50	21.00	Siemens Dimension AMP buffer 37°C
ALT (GPT)	U/l	43	34	52	4.50	9.00	Tris buffer with P5P 37°C
Amylase Total	U/l	94	80	108	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	50	40	60	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	15.2	12.1	18.3	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	10.3	8.12	12.5	1.09	2.18	Diazo with Sulphanilic Acid
	mg/dl	0.603	0.475	0.731	0.06	0.13	
Bilirubin Total	µmol/l	24.7	19.5	29.9	2.60	5.20	Diazo with Sulphanilic Acid
	mg/dl	1.44	1.14	1.74	0.15	0.30	
Calcium	mmol/l	2.17	1.95	2.39	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.70	7.82	9.58	0.44	0.88	
Chloride	mmol/l	96.0	88.3	104	3.85	7.70	ISE indirect
Cholesterol	mmol/l	3.38	2.94	3.82	0.22	0.44	Cholesterol Oxidase
	mg/dl	130	113	147	8.50	17.00	
CK Total	U/l	197	162	232	17.50	35.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	137	110	164	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.55	1.24	1.86	0.16	0.31	
gamma-GT	U/l	71	61	81	5.00	10.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.25	5.31	7.19	0.47	0.94	Hexokinase
	mg/dl	113	95.7	130	8.65	17.30	

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

RANDOX

Siemens/Dade Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	225	191	259	17.00	34.00	L->P IFCC 37°C
Lipase	U/l	151	121	181	15.00	30.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Methylthymol blue
	mg/dl	2.24	1.97	2.51	0.14	0.27	
Phosphate Inorganic	mmol/l	1.34	1.14	1.54	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.15	3.53	4.77	0.31	0.62	
Potassium	mmol/l	3.91	3.60	4.22	0.16	0.31	ISE method - indirect
Protein Total	g/l	61.9	49.5	74.3	6.20	12.40	Biuret reaction end point
	g/dl	6.19	4.95	7.43	0.62	1.24	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.09	0.91	1.27	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	96.5	80.9	112	7.80	15.60	
	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	97.4	81.4	113	8.00	16.00	
Urea	mmol/l	7.89	6.71	9.07	0.59	1.18	Urease kinetic
	mg/dl	47.4	40.3	54.5	3.55	7.10	
	mmol/l	7.89	6.71	9.07	0.59	1.18	BUN
	mg/dl	22.1	18.8	25.4	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.85	5.09	6.61	0.38	0.76	

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SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	43.9	37.3	50.5	3.30	6.60	Bromocresol Green
	g/dl	4.39	3.73	5.05	0.33	0.66	
	g/l	43.8	37.2	50.4	3.30	6.60	Bromocresol Purple
	g/dl	4.38	3.72	5.04	0.33	0.66	
Alkaline Phosphatase	U/l	127	108	146	9.50	19.00	Siemens Dimension AMP buffer 37°C
	U/l	174	148	200	13.00	26.00	Randox AMP 37°C
ALT (GPT)	U/l	42	33	51	4.50	9.00	Tris buffer with P5P 37°C
	U/l	50	40	60	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	91	77	105	7.00	14.00	Siemens - maltopenta/hexaoside 37°C
	U/l	92	78	106	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	51	41	61	5.00	10.00	Tris buffer with P5P 37°C
	U/l	50	40	60	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	15.3	12.2	18.4	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	10.7	8.48	12.9	1.11	2.22	Diazo with Sulphanilic Acid
	mg/dl	0.626	0.496	0.756	0.07	0.13	
Bilirubin Total	µmol/l	25.4	20.0	30.8	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.49	1.17	1.81	0.16	0.32	
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	
Chloride	mmol/l	95.5	87.8	103	3.85	7.70	ISE indirect
Cholesterol	mmol/l	3.41	2.97	3.85	0.22	0.44	Dimension-Siemens reagents
	mg/dl	132	115	149	8.50	17.00	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	198	162	234	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	202	165	239	18.50	37.00	Dithioerythritol 37°C
	U/l	206	169	243	18.50	37.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	µmol/l	138	110	166	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.56	1.24	1.88	0.16	0.32	
	µmol/l	132	105	159	13.50	27.00	Creatinine PAP method
	mg/dl	1.49	1.19	1.79	0.15	0.30	
	µmol/l	136	109	163	13.50	27.00	Jaffe rate blanked
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	µmol/l	141	113	169	14.00	28.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.59	1.28	1.90	0.16	0.31	
gamma-GT	U/l	61	52	70	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	71	60	82	5.50	11.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.29	5.35	7.23	0.47	0.94	Hexokinase
	mg/dl	113	96.4	130	8.30	16.60	
	mmol/l	6.27	5.33	7.21	0.47	0.94	Glucose oxidase
	mg/dl	113	96.0	130	8.50	17.00	
HDL - Cholesterol	mmol/l	1.21	1.03	1.39	0.09	0.18	Direct HDL PPD
	mg/dl	46.7	39.8	53.6	3.45	6.90	
	mmol/l	1.18	1.01	1.35	0.09	0.17	Direct HDL PEGME
	mg/dl	45.5	39.0	52.0	3.25	6.50	
	mmol/l	1.21	1.03	1.39	0.09	0.18	Direct Clearance Method
	mg/dl	46.7	39.8	53.6	3.45	6.90	
Iron	µmol/l	18.0	14.8	21.2	1.60	3.20	Colorimetric with ppt.
	µg/dl	101	82.7	119	9.15	18.30	

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

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SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	18.5	15.2	21.8	1.65	3.30	Colorimetric without ppt.
	µg/dl	103	85.0	121	9.00	18.00	
Lactate	mmol/l	1.45	1.19	1.71	0.13	0.26	UV LDH
	mg/dl	13.1	10.7	15.5	1.20	2.40	
LD (LDH)	U/l	222	189	255	16.50	33.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	223	189	257	17.00	34.00	L->P IFCC 37°C
Lipase	U/l	150	120	180	15.00	30.00	Siemens Dimension Colorimetric (LIP Kit) 37°C
	U/l	152	122	182	15.00	30.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	1.08	0.95	1.21	0.06	0.13	Spectrophotometric
	mg/dl	0.750	0.662	0.838	0.04	0.09	
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Methylthymol blue
	mg/dl	2.24	1.97	2.51	0.14	0.27	
Phosphate Inorganic	mmol/l	1.35	1.14	1.56	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.19	3.53	4.85	0.33	0.66	
	mmol/l	1.36	1.15	1.57	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.22	3.57	4.87	0.33	0.65	
Potassium	mmol/l	3.91	3.60	4.22	0.16	0.31	ISE method - indirect
Protein Total	g/l	61.3	49.0	73.6	6.15	12.30	Biuret reaction end point
	g/dl	6.13	4.90	7.36	0.62	1.23	
	g/l	60.1	48.1	72.1	6.00	12.00	Biuret reaction kinetic
	g/dl	6.01	4.81	7.21	0.60	1.20	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	µmol/l	42.0	33.2	50.8	4.40	8.80	Removal of excess free iron
	µg/dl	235	186	284	24.50	49.00	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
TIBC	µmol/l	42.7	33.8	51.6	4.45	8.90	FE+UIBC(saturation with iron)
	µg/dl	239	189	289	25.00	50.00	
	µmol/l	38.8	30.6	47.0	4.10	8.20	Direct Colorimetric
	µg/dl	217	171	263	23.00	46.00	
Triglycerides	mmol/l	1.09	0.91	1.27	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	96.5	80.8	112	7.85	15.70	
	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	
	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	99.1	83.0	115	8.05	16.10	
Urea	mmol/l	7.84	6.66	9.02	0.59	1.18	Urease end point
	mg/dl	47.1	40.0	54.2	3.55	7.10	
	mmol/l	7.77	6.61	8.93	0.58	1.16	Urease kinetic
	mg/dl	46.7	39.7	53.7	3.50	7.00	
	mmol/l	7.77	6.60	8.94	0.59	1.17	BUN
	mg/dl	21.8	18.5	25.1	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.90	5.12	6.68	0.39	0.78	
	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	0.30	0.39	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.83	5.07	6.59	0.38	0.76	

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RANDOX

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	44.2	37.5	50.9	3.35	6.70	Bromocresol Purple
	g/dl	4.42	3.75	5.09	0.34	0.67	
Alkaline Phosphatase	U/l	157	134	180	11.50	23.00	Siemens Dimension AMP buffer 37°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer with P5P 37°C
	U/l	42	34	50	4.00	8.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	91	78	104	6.50	13.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	48	39	57	4.50	9.00	Tris buffer with P5P 37°C
	U/l	50	40	60	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	14.4	11.4	17.4	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	10.8	8.52	13.1	1.14	2.28	Diazo with Sulphanilic Acid
	mg/dl	0.632	0.498	0.766	0.07	0.13	
Bilirubin Total	µmol/l	25.1	19.8	30.4	2.65	5.30	Diazo with Sulphanilic Acid
	mg/dl	1.47	1.16	1.78	0.16	0.31	
Calcium	mmol/l	2.18	1.96	2.40	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.74	7.86	9.62	0.44	0.88	
Chloride	mmol/l	98.7	90.8	107	3.95	7.90	ISE indirect
Cholesterol	mmol/l	3.43	2.99	3.87	0.22	0.44	Cholesterol Oxidase
	mg/dl	132	115	149	8.50	17.00	
	mmol/l	3.48	3.03	3.93	0.23	0.45	Dimension-Siemens reagents
	mg/dl	134	117	151	8.50	17.00	
CK Total	U/l	200	164	236	18.00	36.00	CK-NAC (IFCC) 37°C

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RANDOX

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	196	161	231	17.50	35.00	Dithioerythritol 37°C
	U/l	193	158	228	17.50	35.00	Dithioerythritol (DTE) IFCC correlated 37°C
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	132	105	159	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.49	1.19	1.79	0.15	0.30	
	µmol/l	128	102	154	13.00	26.00	Randox Enzymatic UV method
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	124	99.1	149	12.45	24.90	IDMS traceable
	mg/dl	1.40	1.12	1.68	0.14	0.28	
gamma-GT	U/l	66	56	76	5.00	10.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	68	58	78	5.00	10.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.06	5.15	6.97	0.46	0.91	Hexokinase
	mg/dl	109	92.8	125	8.10	16.20	
HDL - Cholesterol	mmol/l	1.18	1.00	1.36	0.09	0.18	Direct HDL PEGME
	mg/dl	45.5	38.6	52.4	3.45	6.90	
Iron	µmol/l	19.0	15.5	22.5	1.75	3.50	Colorimetric without ppt.
	µg/dl	106	86.6	125	9.70	19.40	
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	
	mmol/l	1.42	1.17	1.67	0.13	0.25	UV LDH
	mg/dl	12.8	10.5	15.1	1.15	2.30	
LD (LDH)	U/l	232	197	267	17.50	35.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	229	195	263	17.00	34.00	L->P IFCC 37°C
Lipase	U/l	166	133	199	16.50	33.00	Siemens Dimension Colorimetric (LIP Kit) 37°C

RANDOX Laboratories Ltd., 55 Diamond Road, Crumlin, Co. Antrim, United Kingdom, BT29 4QY
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RANDOX

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lipase	U/l	161	129	193	16.00	32.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	1.09	0.96	1.22	0.07	0.13	Spectrophotometric
	mg/dl	0.757	0.665	0.849	0.05	0.09	
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Methylthymol blue
	mg/dl	2.23	1.97	2.49	0.13	0.26	
Phosphate Inorganic	mmol/l	1.30	1.10	1.50	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.03	3.41	4.65	0.31	0.62	
Potassium	mmol/l	3.89	3.58	4.20	0.16	0.31	ISE method - indirect
Protein Total	g/l	61.5	49.2	73.8	6.15	12.30	Biuret reaction end point
	g/dl	6.15	4.92	7.38	0.62	1.23	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	µmol/l	41.1	32.5	49.7	4.30	8.60	Removal of excess free iron
	µg/dl	230	182	278	24.00	48.00	
Triglycerides	mmol/l	1.20	1.01	1.39	0.10	0.19	Lipase/GPO-PAP no correction
	mg/dl	106	89.4	123	8.30	16.60	
Urea	mmol/l	7.96	6.77	9.15	0.60	1.19	Urease kinetic
	mg/dl	47.8	40.7	54.9	3.55	7.10	
	mmol/l	7.96	6.77	9.15	0.60	1.19	BUN
	mg/dl	22.3	19.0	25.6	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.61	4.87	6.35	0.37	0.74	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.59	4.87	6.31	0.36	0.72	

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

RANDOX

VITALAB FLEXOR®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	36	28	44	4.00	8.00	Tris buffer without P5P 37°C
Calcium	mmol/l	2.24	2.02	2.46	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.98	8.10	9.86	0.44	0.88	
	mmol/l	2.39	2.15	2.63	0.12	0.24	Arsenazo III
	mg/dl	9.58	8.62	10.5	0.48	0.96	
Cholesterol	mmol/l	4.08	3.55	4.61	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	137	177	10.00	20.00	
Creatinine	µmol/l	119	95.3	143	11.85	23.70	Alkaline picrate no deproteinization
	mg/dl	1.34	1.08	1.60	0.13	0.26	
Glucose	mmol/l	6.40	5.44	7.36	0.48	0.96	Glucose oxidase
	mg/dl	115	98.0	132	8.50	17.00	
Protein Total	g/l	60.2	48.2	72.2	6.00	12.00	Biuret reaction end point
	g/dl	6.02	4.82	7.22	0.60	1.20	
Triglycerides	mmol/l	1.09	0.92	1.26	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	96.5	81.2	112	7.65	15.30	
Urea	mmol/l	7.74	6.58	8.90	0.58	1.16	Urease kinetic
	mg/dl	46.5	39.5	53.5	3.50	7.00	
	mmol/l	7.74	6.58	8.90	0.58	1.16	BUN
	mg/dl	21.7	18.4	25.0	1.65	3.30	

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Analyte	unit	target	Range low	Range high	1SD	2SD	methods
Uric Acid (Urate)	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	

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RANDOX

VITALAB SELECTRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 844UN Cat. No. HN1530/HS2611

Size 20 x 5ml/5 x 5ml Expiry 2017-06

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	42.5	36.2	48.8	3.15	6.30	Bromocresol Green
	g/dl	4.25	3.62	4.88	0.32	0.63	
Alkaline Phosphatase	U/l	268	228	308	20.00	40.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
Bilirubin Total	µmol/l	26.2	20.7	31.7	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.53	1.21	1.85	0.16	0.32	
	µmol/l	28.1	22.2	34.0	2.95	5.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.64	1.30	1.98	0.17	0.34	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.86	7.98	9.74	0.44	0.88	
	mmol/l	2.34	2.11	2.57	0.12	0.23	Arsenazo III
	mg/dl	9.38	8.46	10.3	0.46	0.92	
Cholesterol	mmol/l	4.02	3.50	4.54	0.26	0.52	Cholesterol Oxidase
	mg/dl	155	135	175	10.00	20.00	
CK Total	U/l	214	175	253	19.50	39.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	125	100	150	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	127	101	153	13.00	26.00	Creatinine PAP method
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	128	102	154	13.00	26.00	Jaffe rate blanked
	mg/dl	1.45	1.15	1.75	0.15	0.30	

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			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	56	47	65	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.48	5.51	7.45	0.49	0.97	Glucose oxidase
	mg/dl	117	99.3	135	8.85	17.70	
HDL - Cholesterol	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct Clearance Method
	mg/dl	45.9	39.0	52.8	3.45	6.90	
Iron	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	
LD (LDH)	U/l	218	185	251	16.50	33.00	L->P IFCC 37°C
Phosphate Inorganic	mmol/l	1.51	1.29	1.73	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.68	4.00	5.36	0.34	0.68	
Protein Total	g/l	63.5	50.8	76.2	6.35	12.70	Biuret reaction end point
	g/dl	6.35	5.08	7.62	0.64	1.27	
Triglycerides	mmol/l	1.19	1.00	1.38	0.10	0.19	Lipase/GPO-PAP no correction
	mg/dl	105	88.1	122	8.45	16.90	
Urea	mmol/l	7.79	6.62	8.96	0.59	1.17	Urease kinetic
	mg/dl	46.8	39.8	53.8	3.50	7.00	
	mmol/l	7.79	6.62	8.96	0.59	1.17	BUN
	mg/dl	21.9	18.6	25.2	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.08	5.29	6.87	0.40	0.79	

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