

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

CAT. NO. HNI530 / HS2611
SIZE: 20 x 5ml / 5 x 5ml

LOT NO. 857UN
EXPIRY: 2017-07

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 is allowed to stand for 1 hour at +15°C to +25°C before measurement.

Bilirubin in the serum is light sensitive and it is recommended that the serum is stored in the dark. Stored in the dark, it is stable for 4 days at +2°C to +8°C. Do not store at +15°C to +25°C. Do not freeze.

NEFA is stable for 1 day at +2°C to +8°C.

Total PSA is stable for 4 days at +2°C to +8°C, or 28 days in aliquots frozen at -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 approx. 3000 laboratories worldwide and using a unique statistical analysis, a value is assigned.

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

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

NOTES

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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. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	40.6	34.5	46.7	3.05	6.10	Bromocresol Green
	g/dl	4.06	3.45	4.67	0.31	0.61	
ALT (GPT)	U/l	35	28	42	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	18.3	14.5	22.1	1.90	3.80	Diazo with Sulphanilic Acid
	mg/dl	1.07	0.848	1.29	0.11	0.22	
Bilirubin Total	µmol/l	28.0	22.2	33.8	2.90	5.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.64	1.30	1.98	0.17	0.34	
Calcium	mmol/l	2.22	2.00	2.44	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.90	8.02	9.78	0.44	0.88	
	mmol/l	2.37	2.13	2.61	0.12	0.24	Arsenazo III
	mg/dl	9.50	8.54	10.5	0.48	0.96	
Chloride	mmol/l	98.2	90.3	106	3.95	7.90	ISE direct
Cholesterol	mmol/l	4.79	4.17	5.41	0.31	0.62	Cholesterol Oxidase
	mg/dl	185	161	209	12.00	24.00	
CK Total	U/l	231	190	272	20.50	41.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	113	90.2	136	11.40	22.80	Alkaline picrate no deproteinization
	mg/dl	1.28	1.02	1.54	0.13	0.26	
Glucose	mmol/l	6.81	5.79	7.83	0.51	1.02	Hexokinase
	mg/dl	123	104	142	9.50	19.00	
	mmol/l	6.92	5.89	7.95	0.52	1.03	Glucose oxidase
	mg/dl	125	106	144	9.50	19.00	

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Range

Analyte	unit	target	low	high	1SD	2SD	methods
Iron	µmol/l	18.7	15.4	22.0	1.65	3.30	Colorimetric without ppt.
	µg/dl	105	86.1	124	9.45	18.90	
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	3.95	3.64	4.26	0.16	0.31	ISE method - direct
Protein Total	g/l	59.9	48.0	71.8	5.95	11.90	Biuret reaction end point
	g/dl	5.99	4.80	7.18	0.60	1.19	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	79.0	109	7.40	14.80	
Urea	mmol/l	7.49	6.37	8.61	0.56	1.12	Urease kinetic
	mg/dl	45.0	38.3	51.7	3.35	6.70	
	mmol/l	7.55	6.41	8.69	0.57	1.14	Urease hypochlorite
	mg/dl	45.4	38.5	52.3	3.45	6.90	
	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	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.90	5.12	6.68	0.39	0.78	
	mmol/l	0.35	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	

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		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	41.2	35.0	47.4	3.10	6.20	Bromocresol Green
	g/dl	4.12	3.50	4.74	0.31	0.62	
	g/l	41.9	35.7	48.1	3.10	6.20	Bromocresol Purple
	g/dl	4.19	3.57	4.81	0.31	0.62	
Alkaline Phosphatase	U/l	164	139	189	12.50	25.00	AMP optimised to IFCC 37°C
	U/l	167	142	192	12.50	25.00	AMP non-optimised 37°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	66	56	76	5.00	10.00	Immunoinhibition EPS substrate 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	13.6	10.8	16.4	1.40	2.80	Enzymatic
Bile Acids	µmol/l	26.2	21.0	31.4	2.60	5.20	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	20.4	16.1	24.7	2.15	4.30	Diazo with Sulphanilic Acid
	mg/dl	1.19	0.942	1.44	0.12	0.25	
	µmol/l	20.6	16.3	24.9	2.15	4.30	Diazo with Dichloroaniline (DCA)
	mg/dl	1.21	0.954	1.47	0.13	0.26	
Bilirubin Total	µmol/l	28.1	22.2	34.0	2.95	5.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.64	1.30	1.98	0.17	0.34	
	µmol/l	27.5	21.8	33.2	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.61	1.28	1.94	0.17	0.33	
	µmol/l	28.2	22.3	34.1	2.95	5.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.65	1.30	2.00	0.18	0.35	

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Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	µmol/l	28.4	22.5	34.3	2.95	5.90	Diazonium ion
	mg/dl	1.66	1.32	2.00	0.17	0.34	
Calcium	mmol/l	2.37	2.13	2.61	0.12	0.24	Arsenazo III
	mg/dl	9.50	8.54	10.5	0.48	0.96	
Chloride	mmol/l	98.2	90.3	106	3.95	7.90	ISE indirect
Cholesterol	mmol/l	4.96	4.31	5.61	0.33	0.65	Cholesterol Oxidase
	mg/dl	191	166	216	12.50	25.00	
CK Total	U/l	220	180	260	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	232	190	274	21.00	42.00	Monothioglycerol 37°C
Creatinine	µmol/l	124	99.3	149	12.35	24.70	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	120	96.3	144	11.85	23.70	Randox Enzymatic UV method
	mg/dl	1.36	1.09	1.63	0.14	0.27	
	µmol/l	127	102	152	12.50	25.00	Jaffe rate blanked
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	123	98.6	147	12.20	24.40	IDMS traceable
	mg/dl	1.39	1.11	1.67	0.14	0.28	
Free T4	pmol/l	19.7	14.7	24.7	2.50	5.00	Abbott Architect
	ng/dl	1.54	1.15	1.93	0.20	0.39	
	pg/ml	15.4	11.5	19.3	1.95	3.90	Abbott Architect
gamma-GT	U/l	49	41	57	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	48	41	55	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	46	39	53	3.50	7.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	7.00	5.95	8.05	0.53	1.05	Hexokinase
	mg/dl	126	107	145	9.50	19.00	

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			low	high			
Glucose	mmol/l	7.21	6.13	8.29	0.54	1.08	Glucose oxidase
	mg/dl	130	110	150	10.00	20.00	
HDL - Cholesterol	mmol/l	1.74	1.48	2.00	0.13	0.26	Direct HDL PPD
	mg/dl	67.2	57.1	77.3	5.05	10.10	
	mmol/l	1.70	1.44	1.96	0.13	0.26	Direct Clearance Method
	mg/dl	65.6	55.6	75.6	5.00	10.00	
	mmol/l	1.71	1.45	1.97	0.13	0.26	HDL - Ultra
	mg/dl	66.0	56.0	76.0	5.00	10.00	
Iron	µmol/l	18.8	15.4	22.2	1.70	3.40	Colorimetric with ppt.
	µg/dl	105	86.1	124	9.45	18.90	
	µmol/l	18.6	15.3	21.9	1.65	3.30	Colorimetric without ppt.
	µg/dl	104	85.5	123	9.25	18.50	
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	210	179	241	15.50	31.00	L->P 37°C
	U/l	209	178	240	15.50	31.00	L->P IFCC 37°C
Lipase	U/l	34	27	41	3.50	7.00	Other Colorimetric 37°C
Lithium	mmol/l	1.02	0.90	1.15	0.06	0.13	Spectrophotometric
	mg/dl	0.708	0.621	0.795	0.04	0.09	
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Arsenazo III
	mg/dl	2.21	1.94	2.48	0.14	0.27	
	mmol/l	0.89	0.78	1.00	0.05	0.11	Enzymatic
	mg/dl	2.16	1.90	2.42	0.13	0.26	
Phosphate Inorganic	mmol/l	1.36	1.16	1.56	0.10	0.20	Phosphomolybdate enzymatic
	mg/dl	4.22	3.60	4.84	0.31	0.62	

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Analyte	unit	target	low	high	1SD	2SD	methods
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	3.94	3.63	4.25	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	58.4	46.7	70.1	5.85	11.70	Biuret reaction kinetic
	g/dl	5.84	4.67	7.01	0.59	1.17	
PSA Total	ng/ml =	14.2	10.7	17.7	1.75	3.50	Abbott Architect
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.11	0.89	1.33	0.11	0.22	Abbott Architect
TIBC	µmol/l	46.4	36.7	56.1	4.85	9.70	Removal of excess free iron
	µg/dl	259	205	313	27.00	54.00	
	µmol/l	43.6	34.5	52.7	4.55	9.10	FE+UIBC(saturation with iron)
	µg/dl	244	193	295	25.50	51.00	
Total T3	nmol/l	2.26	1.70	2.82	0.28	0.56	Abbott Architect
	ng/ml	1.47	1.11	1.83	0.18	0.36	
	ng/dl	147	111	183	18.00	36.00	Abbott Architect
Total T4	nmol/l	92.1	69.1	115	11.50	23.00	Abbott Architect
	µg/dl	7.18	5.39	8.97	0.90	1.79	
	ng/ml	71.8	53.9	89.7	8.95	17.90	Abbott Architect
Triglycerides	mmol/l	1.01	0.85	1.18	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	89.4	74.8	104	7.30	14.60	
	mmol/l	1.01	0.85	1.17	0.08	0.16	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	89.4	75.1	104	7.15	14.30	
	mmol/l	0.97	0.81	1.12	0.08	0.15	L/G Kinase EP. no correction
	mg/dl	85.4	71.8	99.0	6.80	13.60	

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Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Triglycerides	mmol/l	1.02	0.86	1.19	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	90.3	75.7	105	7.30	14.60	
Urea	mmol/l	7.69	6.54	8.84	0.58	1.15	Urease end point
	mg/dl	46.2	39.3	53.1	3.45	6.90	
	mmol/l	7.39	6.28	8.50	0.56	1.11	Urease kinetic
	mg/dl	44.4	37.7	51.1	3.35	6.70	
	mmol/l	7.39	6.28	8.50	0.56	1.11	BUN
	mg/dl	20.7	17.6	23.8	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.75	5.01	6.49	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.75	5.01	6.49	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	

Beckman Coulter AU400/500/600/800®

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		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	40.9	34.8	47.0	3.05	6.10	Bromocresol Green
	g/dl	4.09	3.48	4.70	0.31	0.61	
	g/l	46.2	39.3	53.1	3.45	6.90	Bromocresol Purple
	g/dl	4.62	3.93	5.31	0.35	0.69	
Alkaline Phosphatase	U/l	204	173	235	15.50	31.00	p-Nitrophenylphosphate AMP 37°C
	U/l	291	247	335	22.00	44.00	Diethanolamine buffer DEA 37°C
	U/l	201	171	231	15.00	30.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
Amylase Total	U/l	84	71	97	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	31	45	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	15.0	11.9	18.1	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	19.4	15.4	23.4	2.00	4.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.13	0.901	1.36	0.11	0.23	
	µmol/l	19.4	15.3	23.5	2.05	4.10	Diazo with Sulphanilic Acid
	mg/dl	1.13	0.895	1.37	0.12	0.24	
Bilirubin Total	µmol/l	30.6	24.2	37.0	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.79	1.42	2.16	0.19	0.37	
	µmol/l	30.8	24.3	37.3	3.25	6.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.80	1.42	2.18	0.19	0.38	
	µmol/l	31.8	25.1	38.5	3.35	6.70	Oxidation to Biliverdin
	mg/dl	1.86	1.47	2.25	0.20	0.39	

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Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Calcium	mmol/l	2.34	2.11	2.57	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.38	8.46	10.3	0.46	0.92	
	mmol/l	2.37	2.14	2.60	0.12	0.23	Arsenazo III
	mg/dl	9.50	8.58	10.4	0.46	0.92	
Chloride	mmol/l	97.0	89.3	105	3.85	7.70	ISE indirect
Cholesterol	mmol/l	5.04	4.38	5.70	0.33	0.66	Cholesterol Oxidase
	mg/dl	195	169	221	13.00	26.00	
Cholinesterase	U/l	4521	3617	5425	452.00	904.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	230	189	271	20.50	41.00	CK-NAC substrate start (DGKC) 37°C
	U/l	232	190	274	21.00	42.00	CK-NAC (IFCC) 37°C
Copper	µmol/l	17.4	14.0	20.8	1.70	3.40	Colorimetric
	µg/dl	111	89.0	133	11.00	22.00	
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	119	95.6	142	11.70	23.40	Randox Enzymatic UV method
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	µmol/l	117	94.0	140	11.50	23.00	Creatinine PAP method
	mg/dl	1.32	1.06	1.58	0.13	0.26	
	µmol/l	119	95.0	143	12.00	24.00	Roche Creatinine Plus
	mg/dl	1.34	1.07	1.61	0.14	0.27	
	µmol/l	125	100	150	12.50	25.00	Jaffe rate blanked
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	123	98.0	148	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.39	1.11	1.67	0.14	0.28	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	114	91.5	137	11.25	22.50	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.29	1.03	1.55	0.13	0.26	
	μmol/l	114	91.1	137	11.45	22.90	IDMS traceable
	mg/dl	1.29	1.03	1.55	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	50	43	57	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	50	42	58	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
GLDH	U/l	16	13	19	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	7.17	6.09	8.25	0.54	1.08	Hexokinase
	mg/dl	129	110	148	9.50	19.00	
	mmol/l	7.27	6.18	8.36	0.55	1.09	Glucose oxidase
	mg/dl	131	111	151	10.00	20.00	
HDL - Cholesterol	mmol/l	1.74	1.48	2.00	0.13	0.26	Direct HDL Immunoseparation
	mg/dl	67.2	57.1	77.3	5.05	10.10	
	mmol/l	1.76	1.50	2.02	0.13	0.26	Direct Clearance Method
	mg/dl	67.9	57.9	77.9	5.00	10.00	
	mmol/l	1.99	1.70	2.28	0.15	0.29	Direct HDL Roche 3rd generation
	mg/dl	76.8	65.6	88.0	5.60	11.20	
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	19.0	15.6	22.4	1.70	3.40	Colorimetric without ppt.
	μg/dl	106	87.2	125	9.40	18.80	
Lactate	mmol/l	1.47	1.20	1.74	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.2	10.8	15.6	1.20	2.40	
LD (LDH)	U/l	212	180	244	16.00	32.00	L->P 37°C

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
LD (LDH)	U/l	462	393	531	34.50	69.00	P->L Scandinavian & Dutch 37°C
	U/l	402	342	462	30.00	60.00	P->L German methods 37°C
	U/l	402	341	463	30.50	61.00	P->L SFBC 37°C
	U/l	211	179	243	16.00	32.00	L->P IFCC 37°C
Lipase	U/l	34	27	41	3.50	7.00	Other Colorimetric 37°C
	U/l	33	26	40	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	0.98	0.86	1.09	0.06	0.12	Spectrophotometric
	mg/dl	0.678	0.597	0.759	0.04	0.08	
Magnesium	mmol/l	0.93	0.82	1.04	0.06	0.11	Xylidyl Blue
	mg/dl	2.26	1.99	2.53	0.14	0.27	
Phosphate Inorganic	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.31	3.66	4.96	0.33	0.65	
	mmol/l	1.36	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	4.01	3.69	4.33	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.6	46.9	70.3	5.85	11.70	Biuret reaction end point
	g/dl	5.86	4.69	7.03	0.59	1.17	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	µmol/l	43.4	34.3	52.5	4.55	9.10	Removal of excess free iron
	µg/dl	243	192	294	25.50	51.00	
	µmol/l	44.7	35.3	54.1	4.70	9.40	FE+UIBC(saturation with iron)
	µg/dl	250	197	303	26.50	53.00	
Triglycerides	mmol/l	1.08	0.91	1.25	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.6	111	7.50	15.00	
	mmol/l	1.01	0.85	1.17	0.08	0.16	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	89.4	75.2	104	7.10	14.20	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	97.4	81.8	113	7.80	15.60	
Urea	mmol/l	7.73	6.57	8.89	0.58	1.16	Urease end point
	mg/dl	46.5	39.5	53.5	3.50	7.00	
	mmol/l	7.53	6.40	8.66	0.57	1.13	Urease kinetic
	mg/dl	45.3	38.5	52.1	3.40	6.80	
	mmol/l	7.53	6.40	8.66	0.57	1.13	BUN
	mg/dl	21.1	17.9	24.3	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	5.81	5.06	6.56	0.38	0.75	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.83	5.07	6.59	0.38	0.76	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.86	5.11	6.61	0.38	0.75	
Zinc	µmol/l	23.5	18.8	28.2	2.35	4.70	Colorimetric with deproteinisation
	µg/dl	153	123	183	15.00	30.00	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	41.2	35.1	47.3	3.05	6.10	Bromocresol Green
	g/dl	4.12	3.51	4.73	0.31	0.61	
	g/l	43.4	36.9	49.9	3.25	6.50	Bromocresol Purple
	g/dl	4.34	3.69	4.99	0.33	0.65	
Alkaline Phosphatase	U/l	181	154	208	13.50	27.00	p-Nitrophenylphosphate AMP 37°C
	U/l	181	154	208	13.50	27.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	36	28	44	4.00	8.00	Tris buffer without P5P 37°C
	U/l	35	28	42	3.50	7.00	Tris buffer SCE 37°C
Amylase Pancreatic	U/l	53	45	61	4.00	8.00	Immunoinhibition EPS substrate 37°C
	U/l	55	47	63	4.00	8.00	Beckman Synchron/CX/LXi/DxC 37°C
Amylase Total	U/l	92	78	106	7.00	14.00	Beckman maltotetraose 37°C
	U/l	90	77	103	6.50	13.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	36	29	43	3.50	7.00	Tris buffer SCE 37°C
Bicarbonate	mmol/l	14.5	11.5	17.5	1.50	3.00	Differential rate pH change
	mmol/l	15.3	12.1	18.5	1.60	3.20	Ion selective electrode
Bilirubin Direct	µmol/l	13.8	10.9	16.7	1.45	2.90	Diazo with Sulphanilic Acid
	mg/dl	0.807	0.638	0.976	0.08	0.17	
Bilirubin Total	µmol/l	30.4	24.0	36.8	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.78	1.40	2.16	0.19	0.38	
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	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.29	2.06	2.52	0.12	0.23	Ion selective electrode
	mg/dl	9.18	8.26	10.1	0.46	0.92	
	mmol/l	2.35	2.12	2.58	0.12	0.23	Arsenazo III
	mg/dl	9.42	8.50	10.3	0.46	0.92	
Chloride	mmol/l	97.9	90.1	106	3.90	7.80	ISE indirect
Cholesterol	mmol/l	4.90	4.26	5.54	0.32	0.64	Cholesterol Oxidase
	mg/dl	189	164	214	12.50	25.00	
Cholinesterase	U/l	4827	3861	5793	483.00	966.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	222	182	262	20.00	40.00	CK-NAC serum start (DGKC) 37°C
	U/l	224	184	264	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	225	185	265	20.00	40.00	Monothioglycerol 37°C
Creatinine	µmol/l	118	94.5	142	11.75	23.50	Alkaline picrate no deproteinization
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	118	94.6	141	11.70	23.40	Randox Enzymatic UV method
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	121	96.9	145	12.05	24.10	Jaffe rate blanked
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	µmol/l	116	92.8	139	11.60	23.20	IDMS traceable
	mg/dl	1.31	1.05	1.57	0.13	0.26	
gamma-GT	U/l	41	35	47	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	40	34	46	3.00	6.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	44	37	51	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.99	5.94	8.04	0.53	1.05	Hexokinase
	mg/dl	126	107	145	9.50	19.00	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Glucose	mmol/l	7.03	5.97	8.09	0.53	1.06	Oxygen electrode
	mg/dl	127	108	146	9.50	19.00	
	mmol/l	6.90	5.87	7.93	0.52	1.03	Glucose oxidase
	mg/dl	124	106	142	9.00	18.00	
HDL - Cholesterol	mmol/l	2.40	2.04	2.76	0.18	0.36	Direct HDL PPD
	mg/dl	92.6	78.7	107	6.95	13.90	
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	
Lactate	mmol/l	1.49	1.22	1.76	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.4	11.0	15.8	1.20	2.40	
LD (LDH)	U/l	175	149	201	13.00	26.00	L->P 37°C
	U/l	543	462	624	40.50	81.00	Pyruvate 1.4 mM - Beckman LD-P 37°C
	U/l	201	171	231	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	31	25	37	3.00	6.00	Other Colorimetric 37°C
Lithium	mmol/l	1.02	0.90	1.14	0.06	0.12	Spectrophotometric
	mg/dl	0.708	0.623	0.793	0.04	0.09	
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Calmagite
	mg/dl	2.24	1.97	2.51	0.14	0.27	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Xylidyl Blue
	mg/dl	2.21	1.94	2.48	0.14	0.27	
Osmolality	mOsm/kg	282	226	338	28.00	56.00	Calculated
Phosphate Inorganic	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.31	3.66	4.96	0.33	0.65	
	mmol/l	1.38	1.18	1.58	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.28	3.66	4.90	0.31	0.62	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Potassium	mmol/l	3.96	3.65	4.27	0.16	0.31	ISE method - indirect
Protein Total	g/l	58.8	47.0	70.6	5.90	11.80	Biuret reaction CX4/5/7
	g/dl	5.88	4.70	7.06	0.59	1.18	
	g/l	59.1	47.3	70.9	5.90	11.80	Biuret reaction end point
	g/dl	5.91	4.73	7.09	0.59	1.18	
	g/l	56.8	45.5	68.1	5.65	11.30	Biuret reaction kinetic
	g/dl	5.68	4.55	6.81	0.57	1.13	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	μmol/l	47.0	37.2	56.8	4.90	9.80	Removal of excess free iron
	μg/dl	263	208	318	27.50	55.00	
	μmol/l	44.2	34.9	53.5	4.65	9.30	FE+UIBC(saturation with iron)
	μg/dl	247	195	299	26.00	52.00	
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.5	111	7.55	15.10	
	mmol/l	1.09	0.92	1.26	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	96.5	81.2	112	7.65	15.30	
Urea	mmol/l	7.77	6.61	8.93	0.58	1.16	Urease end point
	mg/dl	46.7	39.7	53.7	3.50	7.00	
	mmol/l	7.68	6.53	8.83	0.58	1.15	Urease kinetic
	mg/dl	46.2	39.2	53.2	3.50	7.00	
	mmol/l	7.68	6.53	8.83	0.58	1.15	BUN
	mg/dl	21.6	18.4	24.8	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.32	0.28	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.43	4.72	6.14	0.36	0.71	

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Alkaline Phosphatase	U/l	180	153	207	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	140	119	161	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	115	98	132	8.50	17.00	AMP optimised to IFCC 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
AST (GOT)	U/l	42	33	51	4.50	9.00	Tris buffer without P5P 37°C
	U/l	28	22	34	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
Bilirubin Total	µmol/l	32.3	25.5	39.1	3.40	6.80	Diazo with Sulphanilic Acid
	mg/dl	1.89	1.49	2.29	0.20	0.40	
Cholesterol	mmol/l	5.21	4.53	5.89	0.34	0.68	Cholesterol Oxidase
	mg/dl	201	175	227	13.00	26.00	
Creatinine	µmol/l	119	95.2	143	11.90	23.80	Alkaline picrate no deproteinization
	mg/dl	1.34	1.08	1.60	0.13	0.26	
Glucose	mmol/l	7.18	6.11	8.25	0.54	1.07	Glucose oxidase
	mg/dl	129	110	148	9.50	19.00	
HDL - Cholesterol	mmol/l	1.87	1.59	2.15	0.14	0.28	Direct Clearance Method
	mg/dl	72.2	61.4	83.0	5.40	10.80	
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	

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.6	114	7.80	15.60	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.75	4.99	6.51	0.38	0.76	

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	37.7	32.1	43.3	2.80	5.60	Bromocresol Green
	g/dl	3.77	3.21	4.33	0.28	0.56	
Alkaline Phosphatase	U/l	165	141	189	12.00	24.00	AMP optimised to IFCC 37°C
	U/l	129	110	148	9.50	19.00	AMP optimised to IFCC 30°C
	U/l	105	90	120	7.50	15.00	AMP optimised to IFCC 25°C
Bilirubin Direct	µmol/l	20.5	16.2	24.8	2.15	4.30	Diazo with Sulphanilic Acid
	mg/dl	1.20	0.948	1.45	0.13	0.25	
Bilirubin Total	µmol/l	32.6	25.8	39.4	3.40	6.80	Diazo with Sulphanilic Acid
	mg/dl	1.91	1.51	2.31	0.20	0.40	
Calcium	mmol/l	2.33	2.10	2.56	0.12	0.23	Arsenazo III
	mg/dl	9.34	8.42	10.3	0.46	0.92	
Cholesterol	mmol/l	4.97	4.32	5.62	0.33	0.65	Cholesterol Oxidase
	mg/dl	192	167	217	12.50	25.00	
CK Total	U/l	231	190	272	20.50	41.00	CK-NAC (IFCC) 37°C
	U/l	145	119	171	13.00	26.00	CK-NAC (IFCC) 30°C
	U/l	98	81	115	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	116	92.6	139	11.70	23.40	Alkaline picrate no deproteinization
	mg/dl	1.31	1.05	1.57	0.13	0.26	
Glucose	mmol/l	7.12	6.05	8.19	0.54	1.07	Glucose oxidase
	mg/dl	128	109	147	9.50	19.00	
LD (LDH)	U/l	431	367	495	32.00	64.00	P->L German methods 37°C
	U/l	311	265	357	23.00	46.00	P->L German methods 30°C
	U/l	219	186	252	16.50	33.00	P->L German methods 25°C

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Protein Total	g/l	58.7	47.0	70.4	5.85	11.70	Biuret reaction end point
	g/dl	5.87	4.70	7.04	0.59	1.17	
Triglycerides	mmol/l	1.07	0.90	1.24	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.8	110	7.45	14.90	
Urea	mmol/l	7.35	6.24	8.46	0.56	1.11	Urease kinetic
	mg/dl	44.2	37.5	50.9	3.35	6.70	
	mmol/l	7.35	6.25	8.45	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.83	5.07	6.59	0.38	0.76	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.59	4.87	6.31	0.36	0.72	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	43.7	37.1	50.3	3.30	6.60	Bromocresol Green
	g/dl	4.37	3.71	5.03	0.33	0.66	
Alkaline Phosphatase	U/l	132	112	152	10.00	20.00	Roche Integra AMP buffer 37°C
	U/l	103	87	119	8.00	16.00	Roche Integra AMP buffer 30°C
	U/l	84	72	96	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	65	55	75	5.00	10.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	87	74	100	6.50	13.00	Saccharogenic 37°C
	U/l	87	74	100	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	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	14.2	11.3	17.1	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	18.4	14.5	22.3	1.95	3.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.08	0.848	1.31	0.12	0.23	
	µmol/l	17.6	13.9	21.3	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.03	0.813	1.25	0.11	0.22	
Bilirubin Total	µmol/l	25.6	20.2	31.0	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.50	1.18	1.82	0.16	0.32	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	µmol/l	25.5	20.2	30.8	2.65	5.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.49	1.18	1.80	0.16	0.31	
	µmol/l	25.8	20.4	31.2	2.70	5.40	Diazonium ion
	mg/dl	1.51	1.19	1.83	0.16	0.32	
Calcium	mmol/l	2.34	2.11	2.57	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.38	8.46	10.3	0.46	0.92	
	mmol/l	2.34	2.10	2.58	0.12	0.24	NM-BAPTA
	mg/dl	9.38	8.42	10.3	0.48	0.96	
Chloride	mmol/l	97.1	89.3	105	3.90	7.80	ISE indirect
Cholesterol	mmol/l	5.04	4.38	5.70	0.33	0.66	Cholesterol Oxidase
	mg/dl	195	169	221	13.00	26.00	
CK Total	U/l	221	181	261	20.00	40.00	CK-NAC substrate start (DGKC) 37°C
	U/l	138	113	163	12.50	25.00	CK-NAC substrate start (DGKC) 30°C
	U/l	94	77	111	8.50	17.00	CK-NAC substrate start (DGKC) 25°C
	U/l	236	194	278	21.00	42.00	CK-NAC (IFCC) 37°C
	U/l	148	121	175	13.50	27.00	CK-NAC (IFCC) 30°C
	U/l	100	82	118	9.00	18.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	112	89.4	135	11.30	22.60	Alkaline picrate no deproteinization
	mg/dl	1.27	1.01	1.53	0.13	0.26	
	µmol/l	114	91.5	137	11.25	22.50	Roche Creatinine Plus
	mg/dl	1.29	1.03	1.55	0.13	0.26	
	µmol/l	114	91.3	137	11.35	22.70	Jaffe rate blanked
	mg/dl	1.29	1.03	1.55	0.13	0.26	
	µmol/l	114	90.8	137	11.60	23.20	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.29	1.03	1.55	0.13	0.26	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	115	91.8	138	11.60	23.20	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.30	1.04	1.56	0.13	0.26	
gamma-GT	U/l	45	38	52	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	30	40	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	23	33	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	50	42	58	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	26	36	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	7.21	6.13	8.29	0.54	1.08	Glucose dehydrogenase
	mg/dl	130	110	150	10.00	20.00	
	mmol/l	7.21	6.13	8.29	0.54	1.08	Hexokinase
	mg/dl	130	110	150	10.00	20.00	
	mmol/l	7.26	6.17	8.35	0.55	1.09	Glucose oxidase
	mg/dl	131	111	151	10.00	20.00	
HDL - Cholesterol	mmol/l	2.09	1.78	2.40	0.16	0.31	Direct HDL Roche 3rd generation
	mg/dl	80.7	68.7	92.7	6.00	12.00	
Iron	μmol/l	19.9	16.3	23.5	1.80	3.60	Colorimetric with ppt.
	μg/dl	111	91.1	131	9.95	19.90	
	μmol/l	19.6	16.1	23.1	1.75	3.50	Colorimetric without ppt.
	μg/dl	110	90.0	130	10.00	20.00	
Lactate	mmol/l	1.57	1.29	1.85	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.1	11.6	16.6	1.25	2.50	
LD (LDH)	U/l	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

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

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	1.02	0.90	1.14	0.06	0.12	Ion selective electrode
	mg/dl	0.708	0.624	0.792	0.04	0.08	
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Methylthymol blue
	mg/dl	2.20	1.94	2.46	0.13	0.26	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.24	1.97	2.51	0.14	0.27	
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	3.99	3.67	4.31	0.16	0.32	ISE method - indirect
Protein Total	g/l	57.4	45.9	68.9	5.75	11.50	Biuret reaction end point
	g/dl	5.74	4.59	6.89	0.58	1.15	
	g/l	56.8	45.4	68.2	5.70	11.40	Biuret reaction kinetic
	g/dl	5.68	4.54	6.82	0.57	1.14	
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - indirect
TIBC	µmol/l	44.9	35.5	54.3	4.70	9.40	FE+UIBC(saturation with iron)
	µg/dl	251	198	304	26.50	53.00	
Triglycerides	mmol/l	1.04	0.87	1.21	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.0	77.3	107	7.35	14.70	
	mmol/l	1.04	0.88	1.21	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	92.0	77.4	107	7.30	14.60	
	mmol/l	1.05	0.88	1.22	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	92.9	77.7	108	7.60	15.20	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.02	0.86	1.18	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	90.3	76.1	105	7.10	14.20	
Urea	mmol/l	7.23	6.15	8.31	0.54	1.08	Urease end point
	mg/dl	43.5	37.0	50.0	3.25	6.50	
	mmol/l	7.11	6.05	8.17	0.53	1.06	Urease kinetic
	mg/dl	42.7	36.4	49.0	3.15	6.30	
	mmol/l	7.11	6.04	8.18	0.54	1.07	BUN
	mg/dl	20.0	17.0	23.0	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase with 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 no ascorbate oxidase
	mg/dl	5.73	4.99	6.47	0.37	0.74	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.70	4.96	6.44	0.37	0.74	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
alpha-HBDH	U/l	255	201	309	27.00	54.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	193	152	234	20.50	41.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	144	114	174	15.00	30.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	4.44	2.97	5.91	0.74	1.47	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	5.64	3.78	7.50	0.93	1.86	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Prostatic)	U/l	17.4	11.7	23.1	2.85	5.70	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	10.7	7.17	14.2	1.77	3.53	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Total)	U/l	21.8	14.6	29.0	3.60	7.20	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	16.3	10.9	21.7	2.70	5.40	1-Naphthyl Phosphate substrate Kinetic 37°C
Albumin	g/l	42.9	36.5	49.3	3.20	6.40	Bromocresol Green
	g/dl	4.29	3.65	4.93	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	275	234	316	20.50	41.00	Diethanolamine buffer DEA 37°C
	U/l	214	182	246	16.00	32.00	Diethanolamine buffer DEA 30°C
	U/l	176	150	202	13.00	26.00	Diethanolamine buffer DEA 25°C
	U/l	122	104	140	9.00	18.00	Roche Integra AMP buffer 37°C
	U/l	95	81	109	7.00	14.00	Roche Integra AMP buffer 30°C
	U/l	78	66	90	6.00	12.00	Roche Integra AMP buffer 25°C
	U/l	170	144	196	13.00	26.00	AMP non-optimised 37°C
	U/l	132	112	152	10.00	20.00	AMP non-optimised 30°C
	U/l	109	92	126	8.50	17.00	AMP non-optimised 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Alkaline Phosphatase	U/l	181	154	208	13.50	27.00	Randox AMP 37°C
	U/l	141	120	162	10.50	21.00	Randox AMP 30°C
	U/l	116	98	134	9.00	18.00	Randox AMP 25°C
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	65	55	75	5.00	10.00	Roche liquid stable pNPG7 37°C
	U/l	73	62	84	5.50	11.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	84	72	96	6.00	12.00	Roche liquid stable pNPG7 37°C
	U/l	94	80	108	7.00	14.00	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	15.4	12.2	18.6	1.60	3.20	Colorimetric
	mmol/l	14.3	11.4	17.2	1.45	2.90	Enzymatic
Bile Acids	µmol/l	24.5	19.6	29.4	2.45	4.90	5th Generation Colorimetric
Bilirubin Direct	µmol/l	18.4	14.5	22.3	1.95	3.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.08	0.848	1.31	0.12	0.23	
	µmol/l	18.7	14.8	22.6	1.95	3.90	Diazo with Sulphanilic Acid
	mg/dl	1.09	0.866	1.31	0.11	0.22	
Bilirubin Total	µmol/l	27.9	22.0	33.8	2.95	5.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.63	1.29	1.97	0.17	0.34	
	µmol/l	25.6	20.2	31.0	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.50	1.18	1.82	0.16	0.32	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Bilirubin Total	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	26.3	20.8	31.8	2.75	5.50	Diazonium ion
	mg/dl	1.54	1.22	1.86	0.16	0.32	
Calcium	mmol/l	2.34	2.10	2.58	0.12	0.24	Cresolphthalein complexone
	mg/dl	9.38	8.42	10.3	0.48	0.96	
	mmol/l	2.33	2.10	2.56	0.12	0.23	Arsenazo III
	mg/dl	9.34	8.42	10.3	0.46	0.92	
	mmol/l	2.35	2.11	2.59	0.12	0.24	NM-BAPTA
	mg/dl	9.42	8.46	10.4	0.48	0.96	
Chloride	mmol/l	94.4	86.8	102	3.80	7.60	ISE indirect
Cholesterol	mmol/l	4.94	4.30	5.58	0.32	0.64	Cholesterol Oxidase
	mg/dl	191	166	216	12.50	25.00	
Cholinesterase	U/l	4566	3653	5479	456.50	913.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	215	176	254	19.50	39.00	CK-NAC substrate start (DGKC) 37°C
	U/l	135	110	160	12.50	25.00	CK-NAC substrate start (DGKC) 30°C
	U/l	91	75	107	8.00	16.00	CK-NAC substrate start (DGKC) 25°C
	U/l	222	182	262	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	139	114	164	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	94	77	111	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	124	99.0	149	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	μmol/l	120	95.7	144	12.15	24.30	Randox Enzymatic UV method
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	μmol/l	122	97.4	147	12.30	24.60	Creatinine PAP method
	mg/dl	1.38	1.10	1.66	0.14	0.28	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	µmol/l	120	96.1	144	11.95	23.90	Roche Creatinine Plus
	mg/dl	1.36	1.09	1.63	0.14	0.27	
	µmol/l	125	99.6	150	12.70	25.40	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.41	1.13	1.69	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.28	0.24	0.32	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	43	36	50	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	34	28	40	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	22	32	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	47	40	54	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	37	32	42	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	29	25	33	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	49	42	56	3.50	7.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
GLDH	U/l	18	14	22	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
	U/l	14	11	17	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	11	9	13	1.00	2.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	7.16	6.08	8.24	0.54	1.08	Hexokinase
	mg/dl	129	110	148	9.50	19.00	
	mmol/l	7.28	6.19	8.37	0.55	1.09	Glucose oxidase
	mg/dl	131	112	150	9.50	19.00	
HDL - Cholesterol	mmol/l	1.69	1.44	1.94	0.13	0.25	Direct HDL Immunoseparation
	mg/dl	65.2	55.6	74.8	4.80	9.60	
	mmol/l	2.03	1.73	2.33	0.15	0.30	Direct HDL PEGME
	mg/dl	78.4	66.8	90.0	5.80	11.60	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	1.71	1.45	1.97	0.13	0.26	Direct Clearance Method
	mg/dl	66.0	56.0	76.0	5.00	10.00	
	mmol/l	2.04	1.73	2.35	0.16	0.31	Direct HDL Roche 3rd generation
	mg/dl	78.7	66.8	90.6	5.95	11.90	
Iron	µmol/l	18.8	15.4	22.2	1.70	3.40	Colorimetric with ppt.
	µg/dl	105	86.1	124	9.45	18.90	
	µmol/l	18.8	15.4	22.2	1.70	3.40	Colorimetric without ppt.
	µg/dl	105	86.1	124	9.45	18.90	
Lactate	mmol/l	1.49	1.22	1.76	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.4	11.0	15.8	1.20	2.40	
LD (LDH)	U/l	416	353	479	31.50	63.00	P->L German methods 37°C
	U/l	300	255	345	22.50	45.00	P->L German methods 30°C
	U/l	211	179	243	16.00	32.00	P->L German methods 25°C
	U/l	205	175	235	15.00	30.00	L->P IFCC 37°C
	U/l	148	126	170	11.00	22.00	L->P IFCC 30°C
	U/l	104	89	119	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	33	27	39	3.00	6.00	Other Colorimetric 37°C
	U/l	32	26	38	3.00	6.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.01	0.89	1.13	0.06	0.12	Spectrophotometric
	mg/dl	0.701	0.619	0.783	0.04	0.08	
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Xylidyl Blue
	mg/dl	2.22	1.95	2.49	0.14	0.27	
	mmol/l	0.88	0.78	0.99	0.05	0.11	Enzymatic
	mg/dl	2.15	1.89	2.41	0.13	0.26	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Phosphate Inorganic	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	4.01	3.69	4.33	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.6	46.9	70.3	5.85	11.70	Biuret reaction end point
	g/dl	5.86	4.69	7.03	0.59	1.17	
	g/l	58.7	47.0	70.4	5.85	11.70	Biuret reaction kinetic
	g/dl	5.87	4.70	7.04	0.59	1.17	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
TIBC	µmol/l	42.0	33.2	50.8	4.40	8.80	FE+UIBC(saturation with iron)
	µg/dl	235	186	284	24.50	49.00	
Triglycerides	mmol/l	1.03	0.87	1.19	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	91.2	76.9	106	7.15	14.30	
	mmol/l	1.04	0.87	1.21	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	92.0	77.1	107	7.45	14.90	
Urea	mmol/l	7.44	6.32	8.56	0.56	1.12	Urease kinetic
	mg/dl	44.7	38.0	51.4	3.35	6.70	
	mmol/l	7.44	6.32	8.56	0.56	1.12	BUN
	mg/dl	20.9	17.8	24.0	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.54	4.82	6.26	0.36	0.72	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.63	4.91	6.35	0.36	0.72	
	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.53	4.82	6.24	0.36	0.71	
	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.56	4.84	6.28	0.36	0.72	

ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.2	35.9	48.5	3.15	6.30	Bromocresol Green
	g/dl	4.22	3.59	4.85	0.32	0.63	
Alkaline Phosphatase	U/l	193	164	222	14.50	29.00	AMP optimised to IFCC 37°C
	U/l	150	128	172	11.00	22.00	AMP optimised to IFCC 30°C
	U/l	123	105	141	9.00	18.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	90	77	103	6.50	13.00	I.L. - blocked 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
Bile Acids	µmol/l	26.9	21.5	32.3	2.70	5.40	Enzymatic Colorimetric
Bilirubin Total	µmol/l	30.6	24.2	37.0	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.79	1.42	2.16	0.19	0.37	
Calcium	mmol/l	2.37	2.13	2.61	0.12	0.24	Cresolphthalein complexone
	mg/dl	9.50	8.54	10.5	0.48	0.96	
Chloride	mmol/l	95.5	87.8	103	3.85	7.70	ISE indirect
Cholesterol	mmol/l	5.03	4.38	5.68	0.33	0.65	Cholesterol Oxidase
	mg/dl	194	169	219	12.50	25.00	
CK Total	U/l	210	172	248	19.00	38.00	CK-NAC (IFCC) 37°C
	U/l	131	108	154	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	89	73	105	8.00	16.00	CK-NAC (IFCC) 25°C

ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	µmol/l	126	101	151	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.42	1.14	1.70	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.30	0.25	0.34	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	45	38	52	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	28	23	33	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	7.40	6.29	8.51	0.56	1.11	Hexokinase
	mg/dl	133	113	153	10.00	20.00	
	mmol/l	7.16	6.08	8.24	0.54	1.08	Glucose oxidase
	mg/dl	129	110	148	9.50	19.00	
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	437	372	502	32.50	65.00	P->L German methods 37°C
	U/l	316	269	363	23.50	47.00	P->L German methods 30°C
	U/l	222	189	255	16.50	33.00	P->L German methods 25°C
Magnesium	mmol/l	0.93	0.82	1.04	0.06	0.11	Xylidyl Blue
	mg/dl	2.25	1.98	2.52	0.14	0.27	
	mmol/l	1.00	0.88	1.12	0.06	0.12	Enzymatic
	mg/dl	2.43	2.13	2.73	0.15	0.30	
Phosphate Inorganic	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.31	3.66	4.96	0.33	0.65	
Potassium	mmol/l	4.15	3.82	4.48	0.17	0.33	ISE method - indirect
Protein Total	g/l	59.1	47.3	70.9	5.90	11.80	Biuret reaction end point
	g/dl	5.91	4.73	7.09	0.59	1.18	

ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Sodium	mmol/l	144	137	151	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.0	108	7.45	14.90	
	mmol/l	1.09	0.92	1.26	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	96.5	81.3	112	7.60	15.20	
Urea	mmol/l	7.65	6.50	8.80	0.58	1.15	Urease end point
	mg/dl	46.0	39.1	52.9	3.45	6.90	
	mmol/l	7.65	6.50	8.80	0.58	1.15	BUN
	mg/dl	21.5	18.3	24.7	1.60	3.20	
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	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	38.8	33.0	44.6	2.90	5.80	Ortho Vitros Microslide Systems
	g/dl	3.88	3.30	4.46	0.29	0.58	
Alkaline Phosphatase	U/l	145	123	167	11.00	22.00	Ortho Vitros Microslide Systems 37°C
	U/l	130	111	149	9.50	19.00	Vitros DT60/DT60 II/DTSC II 37°C
ALT (GPT)	U/l	45	36	54	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	41	33	49	4.00	8.00	Vitros DT60/DT60 II/DTSC II 37°C
Amylase Total	U/l	61	52	70	4.50	9.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	49	40	58	4.50	9.00	Ortho Vitros Microslide visible slide 37°C
Bicarbonate	mmol/l	16.2	12.9	19.5	1.65	3.30	Ortho Vitros Microslide Systems
Bilirubin Total	µmol/l	24.7	19.5	29.9	2.60	5.20	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	25.6	20.2	31.0	2.70	5.40	Vitros 250/500/700/950 Total BUBC
	mg/dl	1.50	1.18	1.82	0.16	0.32	
Calcium	mmol/l	2.40	2.16	2.64	0.12	0.24	Ortho Vitros Microslide Systems
	mg/dl	9.62	8.66	10.6	0.48	0.96	
	mmol/l	2.29	2.06	2.52	0.12	0.23	Vitros DT60/DT60 II/DTSC II
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Chloride	mmol/l	97.9	90.0	106	3.95	7.90	Ortho Vitros Microslide Systems
Cholesterol	mmol/l	4.81	4.19	5.43	0.31	0.62	Ortho Vitros Microslide Systems
	mg/dl	186	162	210	12.00	24.00	
	mmol/l	4.47	3.89	5.05	0.29	0.58	Vitros DT60/DT60 II
	mg/dl	173	150	196	11.50	23.00	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Cholinesterase	U/l	4679	3743	5615	468.00	936.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	206	169	243	18.50	37.00	Ortho Vitros Microslide Systems 37°C
Creatinine	µmol/l	120	95.7	144	12.15	24.30	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	µmol/l	123	98.3	148	12.35	24.70	Vitros 250/500/700/950 double slide
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	122	97.5	147	12.25	24.50	Vitros IDMS Traceable
	mg/dl	1.38	1.10	1.66	0.14	0.28	
Free T4	pmol/l	35.7	26.8	44.6	4.45	8.90	Vitros ECI
	ng/dl	2.78	2.09	3.47	0.35	0.69	
	pg/ml	27.8	20.9	34.7	3.45	6.90	Vitros ECI
gamma-GT	U/l	61	52	70	4.50	9.00	Ortho Vitros Microslide Systems 37°C
Glucose	mmol/l	6.91	5.87	7.95	0.52	1.04	Ortho Vitros Microslide Systems
	mg/dl	125	106	144	9.50	19.00	
	mmol/l	6.88	5.85	7.91	0.52	1.03	Vitros DT60/DT60 II
	mg/dl	124	105	143	9.50	19.00	
HDL - Cholesterol	mmol/l	1.97	1.68	2.26	0.15	0.29	Vitros Magnetic HDL
	mg/dl	76.0	64.8	87.2	5.60	11.20	
	mmol/l	1.91	1.62	2.20	0.15	0.29	Vitros 5.1 FS microtip assay
	mg/dl	73.7	62.5	84.9	5.60	11.20	
	mmol/l	1.92	1.63	2.21	0.15	0.29	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	74.1	62.9	85.3	5.60	11.20	
Iron	µmol/l	19.7	16.2	23.2	1.75	3.50	Ortho Vitros Microslide Systems
	µg/dl	110	90.6	129	9.70	19.40	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Lactate	mmol/l	1.43	1.17	1.69	0.13	0.26	Ortho Vitros Microslide Systems
	mg/dl	12.9	10.5	15.3	1.20	2.40	
LD (LDH)	U/l	605	514	696	45.50	91.00	Ortho Vitros Microslide Systems 37°C
Lipase	U/l	260	209	311	25.50	51.00	Ortho Vitros Microslide Systems 37°C
Lithium	mmol/l	1.12	0.99	1.25	0.07	0.13	Ortho Vitros Microslide Systems
	mg/dl	0.778	0.686	0.870	0.05	0.09	
Magnesium	mmol/l	0.91	0.80	1.02	0.06	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.22	1.95	2.49	0.14	0.27	
	mmol/l	0.86	0.76	0.97	0.05	0.10	Vitros DT60/DT60 II
	mg/dl	2.10	1.85	2.35	0.13	0.25	
Phosphate Inorganic	mmol/l	1.46	1.24	1.68	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.53	3.84	5.22	0.35	0.69	
Potassium	mmol/l	4.09	3.77	4.41	0.16	0.32	Ortho Vitros Microslide Systems
	mmol/l	4.03	3.71	4.35	0.16	0.32	Vitros DT60/DT60 II/DTE II
Protein Total	g/l	59.1	47.3	70.9	5.90	11.80	Ortho Vitros Microslide Systems
	g/dl	5.91	4.73	7.09	0.59	1.18	
PSA Total	ng/ml =	17.0	12.7	21.3	2.15	4.30	Ortho Vitros 3600/5600/ECi PSA II
Sodium	mmol/l	141	134	148	3.50	7.00	Ortho Vitros Microslide Systems
	mmol/l	142	135	149	3.50	7.00	Vitros DT60/DT60 II/DTE II
Thyroid Stimulating Hormone	µU/ml =	1.19	0.95	1.43	0.12	0.24	Vitros ECi
TIBC	µmol/l	46.7	36.9	56.5	4.90	9.80	Ortho Vitros Microslide Systems
	µg/dl	261	206	316	27.50	55.00	
Triglycerides	mmol/l	1.28	1.08	1.48	0.10	0.20	Ortho Vitros Microslide Systems
	mg/dl	113	95.6	130	8.70	17.40	
	mmol/l	1.29	1.08	1.50	0.11	0.21	Vitros DT60/DT60 II
	mg/dl	114	95.6	132	9.20	18.40	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	6.84	5.81	7.87	0.52	1.03	Ortho Vitros Microslide Systems
	mg/dl	41.1	34.9	47.3	3.10	6.20	
	mmol/l	6.93	5.89	7.97	0.52	1.04	Vitros DT60/DT60 II
	mg/dl	41.6	35.4	47.8	3.10	6.20	
	mmol/l	6.84	5.81	7.87	0.52	1.03	BUN
	mg/dl	19.2	16.3	22.1	1.45	2.90	
Uric Acid (Urate)	mmol/l	0.33	0.28	0.37	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.49	4.77	6.21	0.36	0.72	
	mmol/l	0.32	0.28	0.36	0.02	0.04	Vitros DT60/DT60 II
	mg/dl	5.36	4.65	6.07	0.36	0.71	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	39.4	33.5	45.3	2.95	5.90	Bromocresol Green
	g/dl	3.94	3.35	4.53	0.30	0.59	
Alkaline Phosphatase	U/l	285	242	328	21.50	43.00	Diethanolamine buffer DEA 37°C
	U/l	222	189	255	16.50	33.00	Diethanolamine buffer DEA 30°C
	U/l	182	155	209	13.50	27.00	Diethanolamine buffer DEA 25°C
	U/l	183	155	211	14.00	28.00	AMP optimised to IFCC 37°C
	U/l	143	121	165	11.00	22.00	AMP optimised to IFCC 30°C
	U/l	117	99	135	9.00	18.00	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
Amylase Total	U/l	87	74	100	6.50	13.00	bioMerieux - blocked pNPG7 37°C
	U/l	95	81	109	7.00	14.00	Randox - Ethylidene pNPG7 37°C
	U/l	80	68	92	6.00	12.00	bioMerieux 2-chloro-pNPG3 37°C
AST (GOT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	15	21	1.50	3.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	27.1	21.7	32.5	2.70	5.40	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	17.0	13.5	20.5	1.75	3.50	Diazo with Sulphanilic Acid
	mg/dl	0.995	0.790	1.20	0.10	0.21	
Bilirubin Total	µmol/l	24.6	19.4	29.8	2.60	5.20	Diazo with Sulphanilic Acid
	mg/dl	1.44	1.13	1.75	0.16	0.31	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	µmol/l	25.2	19.9	30.5	2.65	5.30	Nitrobenzenediazonium salt
	mg/dl	1.47	1.16	1.78	0.16	0.31	
Calcium	mmol/l	2.38	2.14	2.62	0.12	0.24	Arsenazo III
	mg/dl	9.54	8.58	10.5	0.48	0.96	
Chloride	mmol/l	99.7	91.8	108	3.95	7.90	ISE direct
Cholesterol	mmol/l	4.84	4.21	5.47	0.32	0.63	Cholesterol Oxidase
	mg/dl	187	163	211	12.00	24.00	
CK Total	U/l	225	184	266	20.50	41.00	CK-NAC (IFCC) 37°C
	U/l	141	115	167	13.00	26.00	CK-NAC (IFCC) 30°C
	U/l	96	78	114	9.00	18.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	122	97.4	147	12.30	24.60	Alkaline picrate no deproteinization
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	µmol/l	119	95.6	142	11.70	23.40	Randox Enzymatic UV method
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	µmol/l	117	93.7	140	11.65	23.30	Creatinine PAP method
	mg/dl	1.32	1.06	1.58	0.13	0.26	
	µmol/l	122	97.4	147	12.30	24.60	Jaffe rate blanked
	mg/dl	1.38	1.10	1.66	0.14	0.28	
gamma-GT	U/l	46	39	53	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	36	31	41	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	24	32	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Glucose	mmol/l	7.18	6.10	8.26	0.54	1.08	Hexokinase
	mg/dl	129	110	148	9.50	19.00	
	mmol/l	7.17	6.09	8.25	0.54	1.08	Glucose oxidase
	mg/dl	129	110	148	9.50	19.00	
HDL - Cholesterol	mmol/l	1.89	1.60	2.18	0.15	0.29	Direct HDL PEGME
	mg/dl	73.0	61.8	84.2	5.60	11.20	
Iron	µmol/l	20.6	16.9	24.3	1.85	3.70	Colorimetric without ppt.
	µg/dl	115	94.5	136	10.25	20.50	
LD (LDH)	U/l	436	371	501	32.50	65.00	P->L Scandinavian & Dutch 37°C
	U/l	315	268	362	23.50	47.00	P->L Scandinavian & Dutch 30°C
	U/l	221	188	254	16.50	33.00	P->L Scandinavian & Dutch 25°C
Magnesium	mmol/l	0.95	0.84	1.06	0.06	0.11	Calmagite
	mg/dl	2.31	2.03	2.59	0.14	0.28	
	mmol/l	0.89	0.78	0.99	0.05	0.11	Xylidyl Blue
	mg/dl	2.16	1.90	2.42	0.13	0.26	
Phosphate Inorganic	mmol/l	1.36	1.15	1.57	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.22	3.57	4.87	0.33	0.65	
	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.37	3.72	5.02	0.33	0.65	
Potassium	mmol/l	3.88	3.57	4.19	0.16	0.31	ISE method - direct
Protein Total	g/l	58.7	46.9	70.5	5.90	11.80	Biuret reaction end point
	g/dl	5.87	4.69	7.05	0.59	1.18	
Sodium	mmol/l	138	131	145	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	79.1	109	7.35	14.70	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Triglycerides	mmol/l	1.07	0.90	1.24	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	94.7	79.8	110	7.45	14.90	
	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	93.8	78.9	109	7.45	14.90	
Urea	mmol/l	7.34	6.24	8.44	0.55	1.10	Urease kinetic
	mg/dl	44.1	37.5	50.7	3.30	6.60	
	mmol/l	7.34	6.24	8.44	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.86	5.11	6.61	0.38	0.75	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.81	5.06	6.56	0.38	0.75	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
alpha-HBDH	U/l	255	201	309	27.00	54.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	193	152	234	20.50	41.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	144	114	174	15.00	30.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	5.64	3.78	7.50	0.93	1.86	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	4.44	2.97	5.91	0.74	1.47	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	10.7	7.17	14.2	1.77	3.53	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	17.4	11.7	23.1	2.85	5.70	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Total)	U/l	16.3	10.9	21.7	2.70	5.40	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	21.8	14.6	29.0	3.60	7.20	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Albumin	g/l	41.9	35.7	48.1	3.10	6.20	Bromocresol Green
	g/dl	4.19	3.57	4.81	0.31	0.62	
	g/l	43.4	36.9	49.9	3.25	6.50	Bromocresol Purple
	g/dl	4.34	3.69	4.99	0.33	0.65	
	g/l	38.8	33.0	44.6	2.90	5.80	Ortho Vitros Microslide Systems
	g/dl	3.88	3.30	4.46	0.29	0.58	
	g/l	40.3	34.3	46.3	3.00	6.00	Turbidimetric Assays
	g/dl	4.03	3.43	4.63	0.30	0.60	
Alkaline Phosphatase	U/l	181	154	208	13.50	27.00	p-Nitrophenylphosphate AMP 37°C
	U/l	141	120	162	10.50	21.00	p-Nitrophenylphosphate AMP 30°C
	U/l	116	98	134	9.00	18.00	p-Nitrophenylphosphate AMP 25°C
	U/l	145	123	167	11.00	22.00	Ortho Vitros Microslide Systems 37°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Alkaline Phosphatase	U/l	272	232	312	20.00	40.00	Diethanolamine buffer DEA 37°C
	U/l	212	181	243	15.50	31.00	Diethanolamine buffer DEA 30°C
	U/l	174	148	200	13.00	26.00	Diethanolamine buffer DEA 25°C
	U/l	184	157	211	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	143	122	164	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	118	100	136	9.00	18.00	AMP optimised to IFCC 25°C
	U/l	175	149	201	13.00	26.00	AMP reduced interference 37°C
	U/l	136	116	156	10.00	20.00	AMP reduced interference 30°C
	U/l	112	95	129	8.50	17.00	AMP reduced interference 25°C
ALT (GPT)	U/l	45	36	54	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	37	30	44	3.50	7.00	Tris buffer with P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer with P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer with P5P 25°C
	U/l	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
	U/l	35	28	42	3.50	7.00	Phosphate buffer DGKC 37°C
	U/l	26	21	31	2.50	5.00	Phosphate buffer DGKC 30°C
	U/l	20	16	24	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	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	60	51	69	4.50	9.00	Immunoinhibition EPS substrate 37°C
	U/l	65	55	75	5.00	10.00	Roche liquid stable pNPG7 37°C
	U/l	73	62	84	5.50	11.00	Randox liquid stable pNPG7 37°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Amylase Total	U/l	85	72	98	6.50	13.00	pNP Maltotriose substrates 37°C
	U/l	84	72	96	6.00	12.00	Siemens - blocked pNPG7 37°C
	U/l	87	74	100	6.50	13.00	bioMerieux - blocked pNPG7 37°C
	U/l	89	76	102	6.50	13.00	I.L. - blocked pNPG7 37°C
	U/l	71	60	82	5.50	11.00	Randox - Ethylidene pNPG7 37°C
	U/l	94	80	108	7.00	14.00	Randox liquid stable pNPG7 37°C
	U/l	83	71	95	6.00	12.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	92	78	106	7.00	14.00	Beckman maltotetraose 37°C
	U/l	87	74	100	6.50	13.00	Saccharogenic 37°C
	U/l	86	73	99	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	85	72	98	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	90	77	103	6.50	13.00	Siemens 2-chloro-pNPG3 37°C
	U/l	82	69	95	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	90	77	103	6.50	13.00	Beckman Synchron AMY7 37°C
Apolipoprotein A-1	g/l	1.10	0.90	1.30	0.10	0.20	Immunoturbidimetric
	mg/dl	110	90.2	130	9.90	19.80	
Apolipoprotein B	g/l	0.53	0.43	0.62	0.05	0.10	Immunoturbidimetric
	mg/dl	52.9	43.4	62.4	4.75	9.50	
AST (GOT)	U/l	49	40	58	4.50	9.00	Ortho Vitros Microslide visible slide 37°C
	U/l	47	38	56	4.50	9.00	Tris buffer with P5P 37°C
	U/l	32	26	38	3.00	6.00	Tris buffer with P5P 30°C
	U/l	22	18	26	2.00	4.00	Tris buffer with P5P 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
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
	U/l	39	31	47	4.00	8.00	Phosphate buffer DGKC 37°C
	U/l	26	21	31	2.50	5.00	Phosphate buffer DGKC 30°C
	U/l	19	15	23	2.00	4.00	Phosphate buffer DGKC 25°C
	U/l	36	29	43	3.50	7.00	Tris buffer SCE 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer SCE 30°C
	U/l	17	14	20	1.50	3.00	Tris buffer SCE 25°C
Bicarbonate	mmol/l	14.2	11.3	17.1	1.45	2.90	Colorimetric
	mmol/l	16.2	12.9	19.5	1.65	3.30	Ortho Vitros Microslide Systems
	mmol/l	14.5	11.5	17.5	1.50	3.00	Differential rate pH change
	mmol/l	14.9	11.8	18.0	1.55	3.10	Enzymatic
	mmol/l	15.3	12.1	18.5	1.60	3.20	Ion selective electrode
Bile Acids	μmol/l	28.8	23.0	34.6	2.90	5.80	4th Generation Colorimetric
	μmol/l	24.5	19.6	29.4	2.45	4.90	5th Generation Colorimetric
Bilirubin Direct	μmol/l	19.0	15.0	23.0	2.00	4.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.11	0.878	1.34	0.12	0.23	
	μmol/l	19.9	15.7	24.1	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.16	0.918	1.40	0.12	0.24	
	μmol/l	19.8	15.6	24.0	2.10	4.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.16	0.913	1.41	0.12	0.25	
	μmol/l	17.5	13.8	21.2	1.85	3.70	Oxidation to Biliverdin
	mg/dl	1.02	0.807	1.23	0.11	0.21	
	μmol/l	15.1	11.9	18.3	1.60	3.20	Modified Jendrassik
	mg/dl	0.883	0.696	1.07	0.09	0.19	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	μmol/l	24.7	19.5	29.9	2.60	5.20	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	μmol/l	25.6	20.2	31.0	2.70	5.40	Vitros 250/500/700/950 Total BUBC
	mg/dl	1.50	1.18	1.82	0.16	0.32	
	μmol/l	33.5	26.5	40.5	3.50	7.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.96	1.55	2.37	0.21	0.41	
	μmol/l	28.6	22.6	34.6	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.67	1.32	2.02	0.18	0.35	
	μmol/l	29.6	23.4	35.8	3.10	6.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.73	1.37	2.09	0.18	0.36	
	μmol/l	25.2	19.9	30.5	2.65	5.30	Nitrobenzenediazonium salt
	mg/dl	1.47	1.16	1.78	0.16	0.31	
	μmol/l	25.7	20.3	31.1	2.70	5.40	Diazonium ion
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	μmol/l	30.5	24.1	36.9	3.20	6.40	Oxidation to Biliverdin
	mg/dl	1.78	1.41	2.15	0.19	0.37	
	μmol/l	33.7	26.6	40.8	3.55	7.10	Modified Jendrassik
	mg/dl	1.97	1.56	2.38	0.21	0.41	
Calcium	mmol/l	2.41	2.17	2.65	0.12	0.24	Atomic absorption
	mg/dl	9.66	8.70	10.6	0.48	0.96	
	mmol/l	2.31	2.08	2.54	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.26	8.34	10.2	0.46	0.92	
	mmol/l	2.40	2.16	2.64	0.12	0.24	Ortho Vitros Microslide Systems
	mg/dl	9.62	8.66	10.6	0.48	0.96	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.29	2.06	2.52	0.12	0.23	Ion selective electrode
	mg/dl	9.18	8.26	10.1	0.46	0.92	
	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	2.37	2.13	2.61	0.12	0.24	Arsenazo III
	mg/dl	9.50	8.54	10.5	0.48	0.96	
Chloride	mmol/l	2.35	2.12	2.58	0.12	0.23	NM-BAPTA
	mg/dl	9.42	8.50	10.3	0.46	0.92	
	mmol/l	98.4	90.5	106	3.95	7.90	Colorimetric
	mmol/l	97.9	90.0	106	3.95	7.90	Ortho Vitros Microslide Systems
Cholesterol	mmol/l	95.8	88.2	103	3.80	7.60	ISE indirect
	mmol/l	98.2	90.3	106	3.95	7.90	ISE direct
	mmol/l	4.81	4.19	5.43	0.31	0.62	Ortho Vitros Microslide Systems
	mg/dl	186	162	210	12.00	24.00	
Cholinesterase	mmol/l	4.95	4.30	5.60	0.33	0.65	Cholesterol Oxidase
	mg/dl	191	166	216	12.50	25.00	
CK Total	U/l	4755	3804	5706	475.50	951.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	206	169	243	18.50	37.00	Ortho Vitros Microslide Systems 37°C
	U/l	221	181	261	20.00	40.00	CK-NAC serum start (DGKC) 37°C
	U/l	138	113	163	12.50	25.00	CK-NAC serum start (DGKC) 30°C
	U/l	94	77	111	8.50	17.00	CK-NAC serum start (DGKC) 25°C
	U/l	222	182	262	20.00	40.00	CK-NAC substrate start (DGKC) 37°C
	U/l	139	114	164	12.50	25.00	CK-NAC substrate start (DGKC) 30°C
	U/l	94	77	111	8.50	17.00	CK-NAC substrate start (DGKC) 25°C
	U/l	227	186	268	20.50	41.00	CK-NAC (IFCC) 37°C
	U/l	142	116	168	13.00	26.00	CK-NAC (IFCC) 30°C
	U/l	96	79	113	8.50	17.00	CK-NAC (IFCC) 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
CK Total	U/l	225	184	266	20.50	41.00	Monothioglycerol 37°C
	U/l	141	115	167	13.00	26.00	Monothioglycerol 30°C
	U/l	96	78	114	9.00	18.00	Monothioglycerol 25°C
	U/l	210	172	248	19.00	38.00	Dithioerythritol 37°C
	U/l	131	108	154	11.50	23.00	Dithioerythritol 30°C
	U/l	89	73	105	8.00	16.00	Dithioerythritol 25°C
	U/l	215	176	254	19.50	39.00	Dithioerythritol (DTE) IFCC correlated 37°C
	U/l	135	110	160	12.50	25.00	Dithioerythritol (DTE) IFCC correlated 30°C
	U/l	91	75	107	8.00	16.00	Dithioerythritol (DTE) IFCC correlated 25°C
Copper	µmol/l	18.3	14.6	22.0	1.85	3.70	Atomic absorption
	µg/dl	116	92.9	139	11.55	23.10	
	µmol/l	17.6	14.1	21.1	1.75	3.50	Colorimetric
	µg/dl	112	89.7	134	11.15	22.30	
Cortisol	nmol/l	552	414	690	69.00	138.00	Roche Cobas E411
	µg/dl	19.9	14.9	24.9	2.50	5.00	
Creatinine	µmol/l	118	94.3	142	11.85	23.70	Alkaline picrate with deproteinization
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	121	96.9	145	12.05	24.10	Alkaline picrate no deproteinization
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	µmol/l	120	95.7	144	12.15	24.30	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	µmol/l	124	99.2	149	12.40	24.80	Randox Enzymatic UV method
	mg/dl	1.40	1.12	1.68	0.14	0.28	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	121	96.7	145	12.15	24.30	Creatinine PAP method
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	μmol/l	120	95.7	144	12.15	24.30	Roche Creatinine Plus
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	μmol/l	124	99.1	149	12.45	24.90	Jaffe rate blanked
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	μmol/l	122	97.7	146	12.15	24.30	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	μmol/l	116	93.2	139	11.40	22.80	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.31	1.05	1.57	0.13	0.26	
	μmol/l	122	97.5	147	12.25	24.50	Vitros IDMS Traceable
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	μmol/l	116	92.9	139	11.55	23.10	IDMS traceable
	mg/dl	1.31	1.05	1.57	0.13	0.26	
D-3-Hydroxybutyrate	mmol/l	0.29	0.25	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	1.97	1.58	2.36	0.20	0.39	Immunoturbidimetric
	ng/ml	1.54	1.23	1.85	0.16	0.31	
Folate	nmol/l	44.9	34.1	55.7	5.40	10.80	Roche Cobas E411
	ng/ml	19.8	15.0	24.6	2.40	4.80	
Free T4	pmol/l	19.7	14.8	24.6	2.45	4.90	Abbott Architect
	ng/dl	1.54	1.15	1.93	0.20	0.39	
	pg/ml	15.4	11.5	19.3	1.95	3.90	Abbott Architect
	pmol/l	23.3	17.4	29.2	2.95	5.90	
	ng/dl	1.82	1.36	2.28	0.23	0.46	Siemens Advia Centaur
	pg/ml	18.2	13.6	22.8	2.30	4.60	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Free T4	pmol/l	19.9	14.9	24.9	2.50	5.00	Beckman Access
	ng/dl	1.55	1.16	1.94	0.20	0.39	
	pg/ml	15.5	11.6	19.4	1.95	3.90	Beckman Access
	pmol/l	21.9	16.4	27.4	2.75	5.50	BioMerieux Vidas
	ng/dl	1.71	1.28	2.14	0.22	0.43	
	pg/ml	17.1	12.8	21.4	2.15	4.30	BioMerieux Vidas
	pmol/l	20.5	15.4	25.6	2.55	5.10	Siemens Immulite 1000
	ng/dl	1.60	1.20	2.00	0.20	0.40	
	pg/ml	16.0	12.0	20.0	2.00	4.00	Siemens Immulite 1000
	pmol/l	19.1	14.3	23.9	2.40	4.80	Siemens Immulite 2000/2500
	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 2000/2500
	pmol/l	35.7	26.8	44.6	4.45	8.90	Vitros Eci
	ng/dl	2.78	2.09	3.47	0.35	0.69	
	pg/ml	27.8	20.9	34.7	3.45	6.90	Vitros Eci
	pmol/l	22.5	16.9	28.1	2.80	5.60	Roche Elecsys
	ng/dl	1.76	1.32	2.20	0.22	0.44	
	pg/ml	17.6	13.2	22.0	2.20	4.40	Roche Elecsys
	pmol/l	22.7	17.0	28.4	2.85	5.70	Roche Modular E170
	ng/dl	1.77	1.33	2.21	0.22	0.44	
	pg/ml	17.7	13.3	22.1	2.20	4.40	Roche Modular E170
	pmol/l	25.0	18.7	31.3	3.15	6.30	Tosoh AIA360
	ng/dl	1.95	1.46	2.44	0.25	0.49	
	pg/ml	19.5	14.6	24.4	2.45	4.90	Tosoh AIA360
	pmol/l	23.1	17.3	28.9	2.90	5.80	Roche Cobas E411
	ng/dl	1.80	1.35	2.25	0.23	0.45	
	pg/ml	18.0	13.5	22.5	2.25	4.50	Roche Cobas E411

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Free T4	pmol/l	22.5	16.9	28.1	2.80	5.60	Roche Cobas 6000/8000
	ng/dl	1.76	1.32	2.20	0.22	0.44	
	pg/ml	17.6	13.2	22.0	2.20	4.40	Roche Cobas 6000/8000
Gentamicin	µmol/l	6.38	5.10	7.66	0.64	1.28	Immunoturbidimetric
	µg/ml	3.05	2.44	3.66	0.31	0.61	
gamma-GT	U/l	45	38	52	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	30	40	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	23	33	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	61	52	70	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	40	34	46	3.00	6.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	32	27	37	2.50	5.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	25	21	29	2.00	4.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	50	42	58	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	26	36	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	49	42	56	3.50	7.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	26	34	2.00	4.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	16	12	20	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
	U/l	12	9	15	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	10	7	13	1.50	3.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	6.91	5.87	7.95	0.52	1.04	Ortho Vitros Microslide Systems
	mg/dl	125	106	144	9.50	19.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Glucose	mmol/l	7.14	6.07	8.21	0.54	1.07	Glucose dehydrogenase
	mg/dl	129	109	149	10.00	20.00	
	mmol/l	7.12	6.05	8.19	0.54	1.07	Hexokinase
	mg/dl	128	109	147	9.50	19.00	
	mmol/l	7.03	5.97	8.09	0.53	1.06	Oxygen electrode
	mg/dl	127	108	146	9.50	19.00	
	mmol/l	7.03	5.98	8.08	0.53	1.05	Glucose oxidase
	mg/dl	127	108	146	9.50	19.00	
HDL - Cholesterol	mmol/l	1.72	1.46	1.98	0.13	0.26	Direct HDL Immunoseparation
	mg/dl	66.4	56.4	76.4	5.00	10.00	
	mmol/l	1.97	1.68	2.26	0.15	0.29	Vitros Magnetic HDL
	mg/dl	76.0	64.8	87.2	5.60	11.20	
	mmol/l	1.96	1.67	2.25	0.15	0.29	Direct HDL PEGME
	mg/dl	75.7	64.5	86.9	5.60	11.20	
	mmol/l	1.75	1.49	2.01	0.13	0.26	Direct Clearance Method
	mg/dl	67.6	57.5	77.7	5.05	10.10	
	mmol/l	1.92	1.63	2.21	0.15	0.29	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	74.1	62.9	85.3	5.60	11.20	
	mmol/l	2.03	1.73	2.33	0.15	0.30	Direct HDL Roche 3rd generation
	mg/dl	78.4	66.8	90.0	5.80	11.60	
Immunoglobulin A	mmol/l	1.70	1.45	1.95	0.13	0.25	HDL - Ultra
	mg/dl	65.6	56.0	75.2	4.80	9.60	
Immunoglobulin A	g/l	1.64	1.23	2.05	0.21	0.41	Immunoturbidimetric
	mg/dl	164	123	205	20.50	41.00	
Immunoglobulin G	g/l	5.61	4.60	6.62	0.51	1.01	Immunoturbidimetric
	mg/dl	561	460	662	50.50	101.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Immunoglobulin M	g/l	0.68	0.54	0.81	0.07	0.14	Immunoturbidimetric
	mg/dl	67.6	54.1	81.1	6.75	13.50	
Iron	μmol/l	19.0	15.5	22.5	1.75	3.50	Colorimetric with ppt.
	μg/dl	106	86.6	125	9.70	19.40	
	μmol/l	19.0	15.6	22.4	1.70	3.40	Colorimetric without ppt.
	μg/dl	106	87.2	125	9.40	18.80	
	μmol/l	19.7	16.2	23.2	1.75	3.50	Ortho Vitros Microslide Systems
	μg/dl	110	90.6	129	9.70	19.40	
Lactate	mmol/l	1.49	1.22	1.76	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.4	11.0	15.8	1.20	2.40	
	mmol/l	1.43	1.17	1.69	0.13	0.26	Ortho Vitros Microslide Systems
	mg/dl	12.9	10.5	15.3	1.20	2.40	
	mmol/l	1.47	1.21	1.73	0.13	0.26	Enzymatic Electrode
	mg/dl	13.2	10.9	15.5	1.15	2.30	
	mmol/l	1.37	1.12	1.62	0.13	0.25	UV LDH
	mg/dl	12.3	10.1	14.5	1.10	2.20	
LAP	U/l	17	14	20	1.50	3.00	NAGEL 37°C
LD (LDH)	U/l	605	514	696	45.50	91.00	Ortho Vitros Microslide Systems 37°C
	U/l	188	160	216	14.00	28.00	L->P 37°C
	U/l	136	116	156	10.00	20.00	L->P 30°C
	U/l	95	81	109	7.00	14.00	L->P 25°C
	U/l	455	386	524	34.50	69.00	P->L Scandinavian & Dutch 37°C
	U/l	329	279	379	25.00	50.00	P->L Scandinavian & Dutch 30°C
	U/l	231	196	266	17.50	35.00	P->L Scandinavian & Dutch 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
LD (LDH)	U/l	416	353	479	31.50	63.00	P->L German methods 37°C
	U/l	300	255	345	22.50	45.00	P->L German methods 30°C
	U/l	211	179	243	16.00	32.00	P->L German methods 25°C
	U/l	420	357	483	31.50	63.00	P->L SFBC 37°C
	U/l	303	258	348	22.50	45.00	P->L SFBC 30°C
	U/l	213	181	245	16.00	32.00	P->L SFBC 25°C
	U/l	209	178	240	15.50	31.00	L->P IFCC 37°C
	U/l	151	129	173	11.00	22.00	L->P IFCC 30°C
Lipase	U/l	106	90	122	8.00	16.00	L->P IFCC 25°C
	U/l	34	27	41	3.50	7.00	Other Colorimetric 37°C
	U/l	260	209	311	25.50	51.00	Ortho Vitros Microslide Systems 37°C
	U/l	33	27	39	3.00	6.00	Roche Colorimetric 37°C
	U/l	185	148	222	18.50	37.00	Randox Turbidimetric with colipase 37°C
Lithium	U/l	41	33	49	4.00	8.00	Randox Colorimetric 37°C
	mmol/l	1.12	0.99	1.25	0.07	0.13	Ortho Vitros Microslide Systems
	mg/dl	0.778	0.686	0.870	0.05	0.09	
	mmol/l	1.04	0.91	1.17	0.06	0.13	Flame photometry
	mg/dl	0.722	0.633	0.811	0.04	0.09	
	mmol/l	1.01	0.89	1.13	0.06	0.12	Ion selective electrode
	mg/dl	0.701	0.618	0.784	0.04	0.08	
	mmol/l	1.01	0.89	1.14	0.06	0.13	Spectrophotometric
Magnesium	mg/dl	0.701	0.615	0.787	0.04	0.09	
	mmol/l	1.04	0.92	1.17	0.06	0.13	Randox Colorimetric
	mg/dl	0.722	0.635	0.809	0.04	0.09	
Magnesium	mmol/l	0.90	0.79	1.01	0.05	0.11	Arsenazo III
	mg/dl	2.19	1.93	2.45	0.13	0.26	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Magnesium	mmol/l	0.91	0.80	1.02	0.06	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.22	1.95	2.49	0.14	0.27	
	mmol/l	0.90	0.79	1.00	0.05	0.11	Atomic absorption
	mg/dl	2.17	1.91	2.43	0.13	0.26	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Calmagite
	mg/dl	2.24	1.97	2.51	0.14	0.27	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Xylidyl Blue
	mg/dl	2.24	1.97	2.51	0.14	0.27	
	mmol/l	0.88	0.77	0.99	0.05	0.11	Methylthymol blue
	mg/dl	2.14	1.88	2.40	0.13	0.26	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.23	1.96	2.50	0.14	0.27	
	mmol/l	0.89	0.79	1.00	0.05	0.11	Enzymatic
	mg/dl	2.17	1.91	2.43	0.13	0.26	
NEFA	mmol/l	2.03	1.73	2.33	0.15	0.30	Colorimetric
Osmolality	mOsm/kg	286	229	343	28.50	57.00	Calculated
	mOsm/kg	310	248	372	31.00	62.00	Freezing point depression
	mOsm/kg	306	245	367	30.50	61.00	Vapour pressure
Paracetamol	mmol/l	0.08	0.06	0.09	0.01	0.02	Colorimetric
	mg/l	11.5	9.23	13.8	1.14	2.27	
Phosphate Inorganic	mmol/l	1.46	1.24	1.68	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.53	3.84	5.22	0.35	0.69	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.31	3.66	4.96	0.33	0.65	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
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	4.09	3.77	4.41	0.16	0.32	Ortho Vitros Microslide Systems
	mmol/l	4.13	3.80	4.46	0.17	0.33	Enzymatic
	mmol/l	4.00	3.68	4.32	0.16	0.32	Flame photometry
	mmol/l	3.97	3.65	4.29	0.16	0.32	ISE method - direct
	mmol/l	3.99	3.67	4.31	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.1	47.3	70.9	5.90	11.80	Ortho Vitros Microslide Systems
	g/dl	5.91	4.73	7.09	0.59	1.18	
	g/l	59.0	47.2	70.8	5.90	11.80	Biuret reaction end point
	g/dl	5.90	4.72	7.08	0.59	1.18	
	g/l	57.4	46.0	68.8	5.70	11.40	Biuret reaction kinetic
	g/dl	5.74	4.60	6.88	0.57	1.14	
PSA Total	ng/ml =	11.6	8.68	14.5	1.46	2.92	Tosoh AIA360
	ng/ml =	16.5	12.4	20.6	2.05	4.10	Roche Cobas Core EIA
	ng/ml =	17.0	12.7	21.3	2.15	4.30	Roche Elecsys Modular E170
	ng/ml =	15.7	11.8	19.6	1.95	3.90	Beckman Access Hybritech TPSA
	ng/ml =	14.4	10.8	18.0	1.80	3.60	Siemens ADVIA Centaur (equimolar)
	ng/ml =	17.2	12.9	21.5	2.15	4.30	bioMerieux VIDAS TPSA
	ng/ml =	15.0	11.2	18.8	1.90	3.80	Siemens Advia Centaur
	ng/ml =	13.9	10.4	17.4	1.75	3.50	Abbott Architect
	ng/ml =	17.5	13.1	21.9	2.20	4.40	Cobas E411
	ng/ml =	17.4	13.0	21.8	2.20	4.40	Roche Cobas 6000/8000
Salicylate	mmol/l	0.42	0.34	0.50	0.04	0.08	Enzymatic
	mg/dl	5.80	4.64	6.96	0.58	1.16	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Sodium	mmol/l	141	134	148	3.50	7.00	Ortho Vitros Microslide Systems
	mmol/l	144	137	151	3.50	7.00	Enzymatic
	mmol/l	141	134	148	3.50	7.00	Flame photometry
	mmol/l	139	132	146	3.50	7.00	ISE method - direct
	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
Theophylline	µmol/l	24.8	19.8	29.8	2.50	5.00	Immunoturbidimetric
	µg/ml	4.47	3.57	5.37	0.45	0.90	
Thyroid Stimulating Hormone	µU/ml =	1.13	0.91	1.35	0.11	0.22	Abbott Architect
	µU/ml =	1.51	1.21	1.81	0.15	0.30	Siemens Advia Centaur
	µU/ml =	1.16	0.93	1.39	0.11	0.23	Siemens ADVIA Centaur 3rd Generation
	µU/ml =	1.23	0.98	1.48	0.12	0.25	Beckman Access hyperTSH 3rd Generation
	µU/ml =	1.42	1.14	1.70	0.14	0.28	bioMerieux VIDAS TSH
	µU/ml =	1.27	1.01	1.53	0.13	0.26	Siemens Immulite 1000
	µU/ml =	1.38	1.10	1.66	0.14	0.28	Siemens Immulite 2000/2500
	µU/ml =	1.19	0.95	1.43	0.12	0.24	Vitros Eci
	µU/ml =	1.37	1.10	1.64	0.14	0.27	Roche Elecsys
	µU/ml =	1.43	1.15	1.71	0.14	0.28	Roche Modular E170
	µU/ml =	1.24	0.99	1.49	0.13	0.25	Tosoh AIA360
	µU/ml =	1.41	1.13	1.69	0.14	0.28	Roche Cobas E411
	µU/ml =	1.40	1.12	1.68	0.14	0.28	Roche Cobas 6000/8000
TIBC	µmol/l	46.7	36.9	56.5	4.90	9.80	Ortho Vitros Microslide Systems
	µg/dl	261	206	316	27.50	55.00	
	µmol/l	44.2	34.9	53.5	4.65	9.30	Removal of excess free iron
	µg/dl	247	195	299	26.00	52.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
TIBC	μmol/l	43.8	34.6	53.0	4.60	9.20	FE+UIBC(saturation with iron)
	μg/dl	245	193	297	26.00	52.00	
	μmol/l	45.5	35.9	55.1	4.80	9.60	Direct Colorimetric
	μg/dl	254	201	307	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	5.07	4.06	6.08	0.51	1.01	Immunoturbidimetric
	μg/ml	2.37	1.90	2.84	0.24	0.47	
Total T3	nmol/l	2.24	1.68	2.80	0.28	0.56	Abbott Architect
	ng/ml	1.46	1.09	1.83	0.19	0.37	
	ng/dl	146	109	183	18.50	37.00	Abbott Architect
	nmol/l	2.51	1.88	3.14	0.32	0.63	Siemens Advia Centaur
	ng/ml	1.63	1.22	2.04	0.21	0.41	
	ng/dl	163	122	204	20.50	41.00	Siemens Advia Centaur
	nmol/l	2.33	1.75	2.91	0.29	0.58	BioMerieux Vidas
	ng/ml	1.52	1.14	1.90	0.19	0.38	
	ng/dl	152	114	190	19.00	38.00	BioMerieux Vidas
	nmol/l	2.43	1.82	3.04	0.31	0.61	Roche Modular E170
	ng/ml	1.58	1.18	1.98	0.20	0.40	
	ng/dl	158	118	198	20.00	40.00	Roche Modular E170
	nmol/l	2.72	2.04	3.40	0.34	0.68	Roche Cobas E411
	ng/ml	1.77	1.33	2.21	0.22	0.44	
	ng/dl	177	133	221	22.00	44.00	Roche Cobas E411
Total T4	nmol/l	92.2	69.1	115	11.55	23.10	Abbott Architect
	μg/dl	7.19	5.39	8.99	0.90	1.80	
	ng/ml	71.9	53.9	89.9	9.00	18.00	Abbott Architect

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Total T4	nmol/l	95.4	71.6	119	11.90	23.80	Siemens Advia Centaur
	µg/dl	7.44	5.58	9.30	0.93	1.86	
	ng/ml	74.4	55.8	93.0	9.30	18.60	Siemens Advia Centaur
	nmol/l	82.0	61.5	103	10.25	20.50	BioMerieux Vidas
	µg/dl	6.40	4.80	8.00	0.80	1.60	
	ng/ml	64.0	48.0	80.0	8.00	16.00	BioMerieux Vidas
	nmol/l	81.9	61.4	102	10.25	20.50	Siemens Immulite 1000
	µg/dl	6.39	4.79	7.99	0.80	1.60	
	ng/ml	63.9	47.9	79.9	8.00	16.00	Siemens Immulite 1000
	nmol/l	82.7	62.0	103	10.35	20.70	Siemens Immulite 2000/2500
	µg/dl	6.45	4.84	8.06	0.81	1.61	
	nmol/l	90.3	67.7	113	11.30	22.60	Roche Modular E170
	µg/dl	7.04	5.28	8.80	0.88	1.76	
	ng/ml	70.4	52.8	88.0	8.80	17.60	Roche Modular E170
	nmol/l	93.1	69.9	116	11.60	23.20	Roche Cobas E411
	µg/dl	7.26	5.45	9.07	0.91	1.81	
	ng/ml	72.6	54.5	90.7	9.05	18.10	Roche Cobas E411
	nmol/l	87.8	65.9	110	10.95	21.90	Roche Cobas 6000/8000
	µg/dl	6.85	5.14	8.56	0.86	1.71	
	ng/ml	68.5	51.4	85.6	8.55	17.10	Roche Cobas 6000/8000
Transferrin	g/l	2.01	1.61	2.41	0.20	0.40	Immunoturbidimetric
	mg/dl	201	161	241	20.00	40.00	
Triglycerides	mmol/l	1.06	0.89	1.23	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	78.7	109	7.55	15.10	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.03	0.87	1.19	0.08	0.16	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	91.2	76.8	106	7.20	14.40	
	mmol/l	1.06	0.89	1.23	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	93.8	78.9	109	7.45	14.90	
	mmol/l	1.08	0.91	1.26	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	95.6	80.1	111	7.75	15.50	
	mmol/l	1.02	0.86	1.18	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	90.3	75.9	105	7.20	14.40	
Urea	mmol/l	1.28	1.08	1.48	0.10	0.20	Ortho Vitros Microslide Systems
	mg/dl	113	95.6	130	8.70	17.40	
	mmol/l	6.84	5.81	7.87	0.52	1.03	Ortho Vitros Microslide Systems
	mg/dl	41.1	34.9	47.3	3.10	6.20	
	mmol/l	7.53	6.40	8.66	0.57	1.13	Urease end point
	mg/dl	45.3	38.5	52.1	3.40	6.80	
	mmol/l	7.37	6.27	8.47	0.55	1.10	Urease kinetic
	mg/dl	44.3	37.7	50.9	3.30	6.60	
	mmol/l	7.05	5.99	8.11	0.53	1.06	Urease hypochlorite
	mg/dl	42.4	36.0	48.8	3.20	6.40	
Uric Acid (Urate)	mmol/l	7.69	6.54	8.84	0.58	1.15	Urease Berthelot
	mg/dl	46.2	39.3	53.1	3.45	6.90	
	mmol/l	7.37	6.26	8.48	0.56	1.11	BUN
	mg/dl	20.7	17.6	23.8	1.55	3.10	
	mmol/l	0.33	0.28	0.37	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.49	4.77	6.21	0.36	0.72	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.61	4.89	6.33	0.36	0.72	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.70	4.96	6.44	0.37	0.74	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.63	4.89	6.37	0.37	0.74	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.61	4.89	6.33	0.36	0.72	
Vitamin B12	pmol/l	429	343	515	43.00	86.00	Roche Cobas E411
	pg/ml	581	465	697	58.00	116.00	
Zinc	µmol/l	25.1	20.0	30.2	2.55	5.10	Atomic absorption
	µg/dl	164	131	197	16.50	33.00	
	µmol/l	26.1	20.9	31.3	2.60	5.20	Colorimetric with deproteinisation
	µg/dl	170	136	204	17.00	34.00	

MEAN OF ALL INSTRUMENTS (Elec.)

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Albumin (electrophoresis)		68.5	61.7	75.3	3.40	6.80	% of total Protein (Beckman Capillary)
alpha-1-globulin		2.7	2.1	3.4	0.33	0.65	% of total Protein (Beckman Capillary)
alpha-2-globulin		3.5	2.7	4.3	0.42	0.84	% of total Protein (Beckman Capillary)
beta-globulin		12.6	9.6	15.6	1.51	3.02	% of total Protein (Beckman Capillary)
gamma-globulin		12.7	9.7	15.8	1.53	3.05	% of total Protein (Beckman Capillary)

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.2	35.8	48.6	3.20	6.40	Bromocresol Green
	g/dl	4.22	3.58	4.86	0.32	0.64	
Alkaline Phosphatase	U/l	176	149	203	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	137	116	158	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	112	95	129	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	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	2.31	2.08	2.54	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.26	8.34	10.2	0.46	0.92	
	mmol/l	2.42	2.18	2.66	0.12	0.24	Arsenazo III
	mg/dl	9.70	8.74	10.7	0.48	0.96	
Cholesterol	mmol/l	4.95	4.31	5.59	0.32	0.64	Cholesterol Oxidase
	mg/dl	191	166	216	12.50	25.00	
CK Total	U/l	220	180	260	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	115	91.9	138	11.55	23.10	Alkaline picrate no deproteinization
	mg/dl	1.30	1.04	1.56	0.13	0.26	

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	123	98.1	148	12.45	24.90	Jaffe rate blanked
	mg/dl	1.39	1.11	1.67	0.14	0.28	
gamma-GT	U/l	46	39	53	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	36	31	41	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	28	24	32	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	7.15	6.08	8.22	0.54	1.07	Glucose oxidase
	mg/dl	129	110	148	9.50	19.00	
LD (LDH)	U/l	419	356	482	31.50	63.00	P->L SFBC 37°C
	U/l	303	257	349	23.00	46.00	P->L SFBC 30°C
	U/l	212	180	244	16.00	32.00	P->L SFBC 25°C
	U/l	214	182	246	16.00	32.00	L->P IFCC 37°C
	U/l	155	131	179	12.00	24.00	L->P IFCC 30°C
	U/l	108	92	124	8.00	16.00	L->P IFCC 25°C
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Xylidyl Blue
	mg/dl	2.20	1.94	2.46	0.13	0.26	
Phosphate Inorganic	mmol/l	1.46	1.24	1.68	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.53	3.84	5.22	0.35	0.69	
Potassium	mmol/l	3.87	3.56	4.18	0.16	0.31	ISE method - direct
Protein Total	g/l	59.1	47.3	70.9	5.90	11.80	Biuret reaction end point
	g/dl	5.91	4.73	7.09	0.59	1.18	
Sodium	mmol/l	136	130	142	3.00	6.00	ISE method - direct
Triglycerides	mmol/l	1.06	0.89	1.23	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	78.5	109	7.65	15.30	
Urea	mmol/l	7.03	5.98	8.08	0.53	1.05	Urease end point
	mg/dl	42.3	35.9	48.7	3.20	6.40	

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	7.41	6.30	8.52	0.56	1.11	Urease kinetic
	mg/dl	44.5	37.9	51.1	3.30	6.60	
	mmol/l	7.41	6.30	8.52	0.56	1.11	BUN
	mg/dl	20.8	17.7	23.9	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.36	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	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.81	5.06	6.56	0.38	0.75	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
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	
Alkaline Phosphatase	U/l	253	215	291	19.00	38.00	Diethanolamine buffer DEA 37°C
	U/l	197	167	227	15.00	30.00	Diethanolamine buffer DEA 30°C
	U/l	162	137	187	12.50	25.00	Diethanolamine buffer DEA 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
Bilirubin Direct	μmol/l	17.8	14.1	21.5	1.85	3.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.04	0.825	1.26	0.11	0.22	
Cholesterol	mmol/l	4.95	4.30	5.60	0.33	0.65	Cholesterol Oxidase
	mg/dl	191	166	216	12.50	25.00	
Creatinine	μmol/l	126	101	151	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.42	1.14	1.70	0.14	0.28	
Glucose	mmol/l	7.20	6.12	8.28	0.54	1.08	Glucose oxidase
	mg/dl	130	110	150	10.00	20.00	
HDL - Cholesterol	mmol/l	1.61	1.37	1.85	0.12	0.24	Direct HDL Immunoseparation
	mg/dl	62.1	52.9	71.3	4.60	9.20	
Protein Total	g/l	58.6	46.9	70.3	5.85	11.70	Biuret reaction end point
	g/dl	5.86	4.69	7.03	0.59	1.17	
Triglycerides	mmol/l	1.05	0.88	1.22	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	77.8	108	7.55	15.10	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	7.18	6.10	8.26	0.54	1.08	Urease kinetic
	mg/dl	43.2	36.7	49.7	3.25	6.50	
	mmol/l	7.18	6.10	8.26	0.54	1.08	BUN
	mg/dl	20.2	17.2	23.2	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.32	0.28	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.43	4.72	6.14	0.36	0.71	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	43.1	36.7	49.5	3.20	6.40	Bromocresol Green
	g/dl	4.31	3.67	4.95	0.32	0.64	
	g/l	43.1	36.6	49.6	3.25	6.50	Bromocresol Purple
	g/dl	4.31	3.66	4.96	0.33	0.65	
	g/l	40.2	34.2	46.2	3.00	6.00	Turbidimetric Assays
	g/dl	4.02	3.42	4.62	0.30	0.60	
Alkaline Phosphatase	U/l	135	115	155	10.00	20.00	Roche Integra AMP buffer 37°C
	U/l	105	90	120	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	86	73	99	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	62	53	71	4.50	9.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	83	71	95	6.00	12.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	85	72	98	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	84	71	97	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
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	Colorimetric

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Bicarbonate	mmol/l	14.7	11.7	17.7	1.50	3.00	Enzymatic
Bile Acids	μmol/l	26.9	21.5	32.3	2.70	5.40	Enzymatic Colorimetric
Bilirubin Direct	μmol/l	18.9	14.9	22.9	2.00	4.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.11	0.872	1.35	0.12	0.24	
	μmol/l	18.9	14.9	22.9	2.00	4.00	Diazo with Sulphanilic Acid
	mg/dl	1.11	0.872	1.35	0.12	0.24	
Bilirubin Total	μmol/l	25.0	19.8	30.2	2.60	5.20	Diazo with Sulphanilic Acid
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	μmol/l	24.7	19.5	29.9	2.60	5.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	μmol/l	25.3	20.0	30.6	2.65	5.30	Diazonium ion
	mg/dl	1.48	1.17	1.79	0.16	0.31	
Calcium	mmol/l	2.34	2.11	2.57	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.38	8.46	10.3	0.46	0.92	
	mmol/l	2.35	2.11	2.59	0.12	0.24	NM-BAPTA
	mg/dl	9.42	8.46	10.4	0.48	0.96	
Chloride	mmol/l	91.4	84.1	98.7	3.65	7.30	ISE indirect
Cholesterol	mmol/l	4.95	4.30	5.60	0.33	0.65	Cholesterol Oxidase
	mg/dl	191	166	216	12.50	25.00	
Cholinesterase	U/l	4544	3635	5453	454.50	909.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	242	199	285	21.50	43.00	CK-NAC substrate start (DGKC) 37°C
	U/l	151	125	177	13.00	26.00	CK-NAC substrate start (DGKC) 30°C
	U/l	103	85	121	9.00	18.00	CK-NAC substrate start (DGKC) 25°C
	U/l	236	194	278	21.00	42.00	CK-NAC (IFCC) 37°C
	U/l	148	121	175	13.50	27.00	CK-NAC (IFCC) 30°C
	U/l	100	82	118	9.00	18.00	CK-NAC (IFCC) 25°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	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	123	98.4	148	12.30	24.60	Randox Enzymatic UV method
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	μmol/l	121	96.4	146	12.30	24.60	Creatinine PAP method
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	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	123	98.6	147	12.20	24.40	Jaffe rate blanked
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	μmol/l	122	97.5	147	12.25	24.50	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	μmol/l	121	96.5	146	12.25	24.50	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.37	1.09	1.65	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.29	0.25	0.34	0.02	0.04	Tris buffer 100mmol pH 8.5
Free T4	pmol/l	22.5	16.9	28.1	2.80	5.60	Roche Cobas 6000/8000
	ng/dl	1.76	1.32	2.20	0.22	0.44	
	pg/ml	17.6	13.2	22.0	2.20	4.40	Roche Cobas 6000/8000
gamma-GT	U/l	44	37	51	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	29	41	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	23	31	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	50	43	57	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	34	44	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
GLDH	U/l	14	11	17	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
	U/l	11	8	14	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	9	7	11	1.00	2.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	7.11	6.04	8.18	0.54	1.07	Hexokinase
	mg/dl	128	109	147	9.50	19.00	
	mmol/l	7.23	6.14	8.32	0.55	1.09	Glucose oxidase
	mg/dl	130	111	149	9.50	19.00	
HDL - Cholesterol	mmol/l	2.03	1.73	2.33	0.15	0.30	Direct HDL PEGME
	mg/dl	78.4	66.8	90.0	5.80	11.60	
	mmol/l	2.03	1.72	2.34	0.16	0.31	Direct HDL Roche 3rd generation
	mg/dl	78.4	66.4	90.4	6.00	12.00	
Iron	µmol/l	18.8	15.4	22.2	1.70	3.40	Colorimetric with ppt.
	µg/dl	105	86.1	124	9.45	18.90	
	µmol/l	19.0	15.6	22.4	1.70	3.40	Colorimetric without ppt.
	µg/dl	106	87.2	125	9.40	18.80	
Lactate	mmol/l	1.49	1.22	1.76	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.4	11.0	15.8	1.20	2.40	
LD (LDH)	U/l	416	354	478	31.00	62.00	P->L German methods 37°C
	U/l	300	256	344	22.00	44.00	P->L German methods 30°C
	U/l	211	179	243	16.00	32.00	P->L German methods 25°C
	U/l	420	357	483	31.50	63.00	P->L SFBC 37°C
	U/l	303	258	348	22.50	45.00	P->L SFBC 30°C
	U/l	213	181	245	16.00	32.00	P->L SFBC 25°C
	U/l	207	176	238	15.50	31.00	L->P IFCC 37°C
	U/l	149	127	171	11.00	22.00	L->P IFCC 30°C
	U/l	105	89	121	8.00	16.00	L->P IFCC 25°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Lipase	U/l	33	26	40	3.50	7.00	Roche Colorimetric 37°C
	U/l	33	27	39	3.00	6.00	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	1.00	0.88	1.12	0.06	0.12	Spectrophotometric
	mg/dl	0.694	0.612	0.776	0.04	0.08	
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Xylidyl Blue
	mg/dl	2.22	1.96	2.48	0.13	0.26	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.22	1.95	2.49	0.14	0.27	
Osmolality	mOsm/kg	282	226	338	28.00	56.00	Calculated
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	1.16	1.56	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.22	3.60	4.84	0.31	0.62	
Potassium	mmol/l	3.99	3.67	4.31	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.4	46.7	70.1	5.85	11.70	Biuret reaction end point
	g/dl	5.84	4.67	7.01	0.59	1.17	
	g/l	57.7	46.1	69.3	5.80	11.60	Biuret reaction kinetic
	g/dl	5.77	4.61	6.93	0.58	1.16	
PSA Total	ng/ml =	17.4	13.1	21.7	2.15	4.30	Roche Cobas 6000/8000
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.40	1.12	1.68	0.14	0.28	Roche Cobas 6000/8000
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	
	µmol/l	43.7	34.5	52.9	4.60	9.20	Direct Colorimetric
	µg/dl	244	193	295	25.50	51.00	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Total T4	nmol/l	87.8	65.9	110	10.95	21.90	Roche Cobas 6000/8000
	µg/dl	6.85	5.14	8.56	0.86	1.71	
	ng/ml	68.5	51.4	85.6	8.55	17.10	Roche Cobas 6000/8000
Triglycerides	mmol/l	1.03	0.87	1.19	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	91.2	76.8	106	7.20	14.40	
	mmol/l	1.02	0.86	1.18	0.08	0.16	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	90.3	75.9	105	7.20	14.40	
	mmol/l	1.04	0.88	1.20	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	92.0	77.5	107	7.25	14.50	
Urea	mmol/l	7.17	6.09	8.25	0.54	1.08	Urease kinetic
	mg/dl	43.1	36.6	49.6	3.25	6.50	
	mmol/l	7.17	6.09	8.25	0.54	1.08	BUN
	mg/dl	20.1	17.1	23.1	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.56	4.84	6.28	0.36	0.72	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.58	4.86	6.30	0.36	0.72	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.58	4.84	6.32	0.37	0.74	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	43.2	36.8	49.6	3.20	6.40	Bromocresol Green
	g/dl	4.32	3.68	4.96	0.32	0.64	
Alkaline Phosphatase	U/l	132	112	152	10.00	20.00	Roche Integra AMP buffer 37°C
	U/l	103	87	119	8.00	16.00	Roche Integra AMP buffer 30°C
	U/l	84	72	96	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	90	77	103	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	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
Bilirubin Direct	µmol/l	18.4	14.6	22.2	1.90	3.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.08	0.854	1.31	0.11	0.23	
	µmol/l	18.5	14.6	22.4	1.95	3.90	Diazo with Sulphanilic Acid
	mg/dl	1.08	0.854	1.31	0.11	0.23	
Bilirubin Total	µmol/l	25.8	20.4	31.2	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.51	1.19	1.83	0.16	0.32	
	µmol/l	25.9	20.4	31.4	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.52	1.19	1.85	0.17	0.33	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	µmol/l	25.9	20.4	31.4	2.75	5.50	Diazonium ion
	mg/dl	1.52	1.19	1.85	0.17	0.33	
Calcium	mmol/l	2.33	2.10	2.56	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.34	8.42	10.3	0.46	0.92	
	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	95.8	88.2	103	3.80	7.60	ISE indirect
Cholesterol	mmol/l	5.03	4.37	5.69	0.33	0.66	Cholesterol Oxidase
	mg/dl	194	169	219	12.50	25.00	
CK Total	U/l	234	192	276	21.00	42.00	CK-NAC (IFCC) 37°C
	U/l	146	120	172	13.00	26.00	CK-NAC (IFCC) 30°C
	U/l	99	82	116	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	112	89.8	134	11.10	22.20	Alkaline picrate no deproteinization
	mg/dl	1.27	1.01	1.53	0.13	0.26	
	µmol/l	112	89.7	134	11.15	22.30	Roche Creatinine Plus
	mg/dl	1.27	1.01	1.53	0.13	0.26	
	µmol/l	114	91.4	137	11.30	22.60	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.29	1.03	1.55	0.13	0.26	
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	7.34	6.24	8.44	0.55	1.10	Hexokinase
	mg/dl	132	112	152	10.00	20.00	
	mmol/l	7.05	5.99	8.11	0.53	1.06	Glucose oxidase
	mg/dl	127	108	146	9.50	19.00	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	2.02	1.72	2.32	0.15	0.30	Direct HDL Roche 3rd generation
	mg/dl	78.0	66.4	89.6	5.80	11.60	
Iron	µmol/l	19.6	16.1	23.1	1.75	3.50	Colorimetric without ppt.
	µg/dl	110	90.0	130	10.00	20.00	
LD (LDH)	U/l	406	345	467	30.50	61.00	P->L German methods 37°C
	U/l	293	249	337	22.00	44.00	P->L German methods 30°C
	U/l	206	175	237	15.50	31.00	P->L German methods 25°C
	U/l	222	189	255	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	113	96	130	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	0.93	0.81	1.04	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.25	1.98	2.52	0.14	0.27	
Phosphate Inorganic	mmol/l	1.42	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	3.91	3.60	4.22	0.16	0.31	ISE method - indirect
Protein Total	g/l	59.1	47.3	70.9	5.90	11.80	Biuret reaction end point
	g/dl	5.91	4.73	7.09	0.59	1.18	
Sodium	mmol/l	137	130	144	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	79.0	109	7.40	14.80	
	mmol/l	1.03	0.87	1.19	0.08	0.16	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	91.2	76.7	106	7.25	14.50	
Urea	mmol/l	7.19	6.11	8.27	0.54	1.08	Urease kinetic
	mg/dl	43.2	36.7	49.7	3.25	6.50	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	7.13	6.06	8.20	0.54	1.07	Urease hypochlorite
	mg/dl	42.9	36.4	49.4	3.25	6.50	
	mmol/l	7.19	6.11	8.27	0.54	1.08	BUN
	mg/dl	20.2	17.2	23.2	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.71	4.96	6.46	0.38	0.75	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.76	5.02	6.50	0.37	0.74	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.70	4.96	6.44	0.37	0.74	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	43.1	36.6	49.6	3.25	6.50	Bromocresol Green
	g/dl	4.31	3.66	4.96	0.33	0.65	
	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	279	237	321	21.00	42.00	Diethanolamine buffer DEA 37°C
	U/l	217	185	249	16.00	32.00	Diethanolamine buffer DEA 30°C
	U/l	178	151	205	13.50	27.00	Diethanolamine buffer DEA 25°C
	U/l	131	111	151	10.00	20.00	Roche Integra AMP buffer 37°C
	U/l	102	86	118	8.00	16.00	Roche Integra AMP buffer 30°C
	U/l	84	71	97	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 Total	U/l	85	73	97	6.00	12.00	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	14.7	11.7	17.7	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	19.5	15.4	23.6	2.05	4.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.14	0.901	1.38	0.12	0.24	
	µmol/l	19.3	15.2	23.4	2.05	4.10	Diazo with Sulphanilic Acid
	mg/dl	1.13	0.889	1.37	0.12	0.24	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	µmol/l	24.3	19.2	29.4	2.55	5.10	Diazo with Sulphanilic Acid
	mg/dl	1.42	1.12	1.72	0.15	0.30	
	µmol/l	24.7	19.5	29.9	2.60	5.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	26.0	20.5	31.5	2.75	5.50	Diazonium ion
	mg/dl	1.52	1.20	1.84	0.16	0.32	
Calcium	mmol/l	2.39	2.15	2.63	0.12	0.24	Cresolphthalein complexone
	mg/dl	9.58	8.62	10.5	0.48	0.96	
	mmol/l	2.37	2.13	2.61	0.12	0.24	NM-BAPTA
	mg/dl	9.50	8.54	10.5	0.48	0.96	
Chloride	mmol/l	92.2	84.9	99.5	3.65	7.30	ISE indirect
Cholesterol	mmol/l	4.98	4.33	5.63	0.33	0.65	Cholesterol Oxidase
	mg/dl	192	167	217	12.50	25.00	
CK Total	U/l	236	194	278	21.00	42.00	CK-NAC (IFCC) 37°C
	U/l	148	121	175	13.50	27.00	CK-NAC (IFCC) 30°C
	U/l	100	82	118	9.00	18.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	124	99.6	148	12.20	24.40	Alkaline picrate no deproteinization
	mg/dl	1.40	1.13	1.67	0.14	0.27	
	µmol/l	122	97.7	146	12.15	24.30	Randox Enzymatic UV method
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	µmol/l	121	97.0	145	12.00	24.00	Roche Creatinine Plus
	mg/dl	1.37	1.10	1.64	0.14	0.27	
	µmol/l	123	98.7	147	12.15	24.30	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.39	1.12	1.66	0.14	0.27	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
gamma-GT	U/l	47	40	54	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	37	32	42	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	29	25	33	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	26	34	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	7.16	6.08	8.24	0.54	1.08	Hexokinase
	mg/dl	129	110	148	9.50	19.00	
	mmol/l	7.18	6.10	8.26	0.54	1.08	Glucose oxidase
	mg/dl	129	110	148	9.50	19.00	
HDL - Cholesterol	mmol/l	2.02	1.72	2.32	0.15	0.30	Direct HDL Roche 3rd generation
	mg/dl	78.0	66.4	89.6	5.80	11.60	
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	
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	416	354	478	31.00	62.00	P->L German methods 37°C
	U/l	300	256	344	22.00	44.00	P->L German methods 30°C
	U/l	211	179	243	16.00	32.00	P->L German methods 25°C
	U/l	208	177	239	15.50	31.00	L->P IFCC 37°C
	U/l	150	128	172	11.00	22.00	L->P IFCC 30°C
	U/l	105	90	120	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	33	26	40	3.50	7.00	Roche Colorimetric 37°C
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Xylidyl Blue
	mg/dl	2.24	1.97	2.51	0.14	0.27	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Magnesium	mmol/l	0.91	0.80	1.02	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.22	1.95	2.49	0.14	0.27	
Phosphate Inorganic	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.31	3.66	4.96	0.33	0.65	
Potassium	mmol/l	4.00	3.68	4.32	0.16	0.32	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	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
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	
Triglycerides	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.1	108	7.40	14.80	
	mmol/l	1.03	0.87	1.19	0.08	0.16	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	91.2	76.9	106	7.15	14.30	
Urea	mmol/l	7.26	6.17	8.35	0.55	1.09	Urease kinetic
	mg/dl	43.6	37.1	50.1	3.25	6.50	
	mmol/l	7.26	6.17	8.35	0.55	1.09	BUN
	mg/dl	20.4	17.3	23.5	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.71	4.97	6.45	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.73	4.97	6.49	0.38	0.76	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.64	4.91	6.37	0.37	0.73	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
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	
Alkaline Phosphatase	U/l	120	102	138	9.00	18.00	Roche Integra AMP buffer 37°C
	U/l	93	79	107	7.00	14.00	Roche Integra AMP buffer 30°C
	U/l	77	65	89	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 Pancreatic	U/l	64	54	74	5.00	10.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	85	72	98	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	14.9	11.8	18.0	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	18.8	14.8	22.8	2.00	4.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.10	0.866	1.33	0.12	0.23	
Bilirubin Total	µmol/l	24.4	19.3	29.5	2.55	5.10	Diazo with Sulphanilic Acid
	mg/dl	1.43	1.13	1.73	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	
	µmol/l	24.7	19.5	29.9	2.60	5.20	Diazonium ion
	mg/dl	1.44	1.14	1.74	0.15	0.30	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Calcium	mmol/l	2.33	2.09	2.57	0.12	0.24	Cresolphthalein complexone
	mg/dl	9.34	8.38	10.3	0.48	0.96	
	mmol/l	2.34	2.10	2.58	0.12	0.24	NM-BAPTA
	mg/dl	9.38	8.42	10.3	0.48	0.96	
Chloride	mmol/l	93.6	86.1	101	3.75	7.50	ISE indirect
Cholesterol	mmol/l	4.90	4.26	5.54	0.32	0.64	Cholesterol Oxidase
	mg/dl	189	164	214	12.50	25.00	
CK Total	U/l	213	175	251	19.00	38.00	CK-NAC (IFCC) 37°C
	U/l	133	110	156	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	91	74	108	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	125	100	150	12.50	25.00	Roche Creatinine Plus
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	μmol/l	124	99.1	149	12.45	24.90	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.40	1.12	1.68	0.14	0.28	
gamma-GT	U/l	43	36	50	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	34	28	40	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	22	32	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	26	34	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	7.10	6.04	8.16	0.53	1.06	Hexokinase
	mg/dl	128	109	147	9.50	19.00	
HDL - Cholesterol	mmol/l	1.90	1.61	2.19	0.15	0.29	Direct HDL Roche 3rd generation
	mg/dl	73.3	62.1	84.5	5.60	11.20	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Iron	μmol/l	18.7	15.4	22.0	1.65	3.30	Colorimetric without ppt.
	μg/dl	105	86.1	124	9.45	18.90	
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	205	174	236	15.50	31.00	L->P IFCC 37°C
	U/l	148	126	170	11.00	22.00	L->P IFCC 30°C
	U/l	104	88	120	8.00	16.00	L->P IFCC 25°C
Lipase	U/l	33	27	39	3.00	6.00	Roche Colorimetric 37°C
Magnesium	mmol/l	0.91	0.80	1.02	0.06	0.11	Xylidyl Blue
	mg/dl	2.22	1.95	2.49	0.14	0.27	
Phosphate Inorganic	mmol/l	1.34	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	58.4	46.7	70.1	5.85	11.70	Biuret reaction end point
	g/dl	5.84	4.67	7.01	0.59	1.17	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
TIBC	μmol/l	44.1	34.9	53.3	4.60	9.20	FE+UIBC(saturation with iron)
	μg/dl	247	195	299	26.00	52.00	
Triglycerides	mmol/l	1.04	0.87	1.21	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.0	77.3	107	7.35	14.70	
Urea	mmol/l	7.10	6.04	8.16	0.53	1.06	Urease kinetic
	mg/dl	42.7	36.3	49.1	3.20	6.40	
	mmol/l	7.10	6.04	8.16	0.53	1.06	BUN
	mg/dl	19.9	16.9	22.9	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.66	4.92	6.40	0.37	0.74	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.32	0.28	0.36	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.41	4.70	6.12	0.36	0.71	
	mmol/l	0.33	0.28	0.37	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.48	4.75	6.21	0.37	0.73	

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	40.2	34.2	46.2	3.00	6.00	Bromocresol Green
	g/dl	4.02	3.42	4.62	0.30	0.60	
Alkaline Phosphatase	U/l	294	250	338	22.00	44.00	Diethanolamine buffer DEA 37°C
	U/l	181	154	208	13.50	27.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	70	60	80	5.00	10.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	97	82	112	7.50	15.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	14.6	11.6	17.6	1.50	3.00	Enzymatic
Bile Acids	µmol/l	24.5	19.6	29.4	2.45	4.90	5th Generation Colorimetric
Bilirubin Direct	µmol/l	20.4	16.1	24.7	2.15	4.30	Diazo with Sulphanilic Acid
	mg/dl	1.19	0.942	1.44	0.12	0.25	
	µmol/l	14.8	11.7	17.9	1.55	3.10	Vanadate Oxidation
	mg/dl	0.866	0.684	1.05	0.09	0.18	
Bilirubin Total	µmol/l	31.0	24.5	37.5	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.81	1.43	2.19	0.19	0.38	
	µmol/l	34.5	27.3	41.7	3.60	7.20	Vanadate Oxidation
	mg/dl	2.02	1.60	2.44	0.21	0.42	
Calcium	mmol/l	2.43	2.19	2.67	0.12	0.24	Arsenazo III
	mg/dl	9.74	8.78	10.7	0.48	0.96	
Chloride	mmol/l	95.3	87.7	103	3.80	7.60	ISE direct

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Cholesterol	mmol/l	5.07	4.41	5.73	0.33	0.66	Cholesterol Oxidase
	mg/dl	196	170	222	13.00	26.00	
CK Total	U/l	222	182	262	20.00	40.00	CK-NAC substrate start (DGKC) 37°C
	U/l	246	202	290	22.00	44.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	123	98.4	148	12.30	24.60	Alkaline picrate no deproteinization
	mg/dl	1.39	1.11	1.67	0.14	0.28	
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	7.43	6.32	8.54	0.56	1.11	Hexokinase
	mg/dl	134	114	154	10.00	20.00	
	mmol/l	7.47	6.35	8.59	0.56	1.12	Glucose oxidase
	mg/dl	135	114	156	10.50	21.00	
Iron	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	1.44	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	412	350	474	31.00	62.00	P->L German methods 37°C
	U/l	219	186	252	16.50	33.00	L->P IFCC 37°C
Lipase	U/l	42	34	50	4.00	8.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.00	0.88	1.11	0.06	0.12	Colorimetric
	mg/dl	0.691	0.608	0.774	0.04	0.08	
Magnesium	mmol/l	0.94	0.83	1.06	0.06	0.11	Xylidyl Blue
	mg/dl	2.29	2.02	2.56	0.14	0.27	
Phosphate Inorganic	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.31	3.66	4.96	0.33	0.65	
Potassium	mmol/l	4.00	3.68	4.32	0.16	0.32	Enzymatic

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Potassium	mmol/l	4.02	3.70	4.34	0.16	0.32	ISE method - direct
Protein Total	g/l	60.6	48.5	72.7	6.05	12.10	Biuret reaction end point
	g/dl	6.06	4.85	7.27	0.61	1.21	
Sodium	mmol/l	142	135	149	3.50	7.00	Enzymatic
	mmol/l	141	134	148	3.50	7.00	ISE method - direct
TIBC	μmol/l	48.7	38.5	58.9	5.10	10.20	Direct Colorimetric
	μg/dl	272	215	329	28.50	57.00	
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.3	111	7.65	15.30	
Urea	mmol/l	7.51	6.38	8.64	0.57	1.13	Urease kinetic
	mg/dl	45.1	38.3	51.9	3.40	6.80	
	mmol/l	7.51	6.38	8.64	0.57	1.13	BUN
	mg/dl	21.1	17.9	24.3	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.58	4.86	6.30	0.36	0.72	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.63	4.89	6.37	0.37	0.74	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	39.9	33.9	45.9	3.00	6.00	Bromocresol Green
	g/dl	3.99	3.39	4.59	0.30	0.60	
Alkaline Phosphatase	U/l	275	234	316	20.50	41.00	Diethanolamine buffer DEA 37°C
	U/l	179	152	206	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	179	152	206	13.50	27.00	AMP non-optimised 37°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	63	54	72	4.50	9.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	85	72	98	6.50	13.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	17.1	13.6	20.6	1.75	3.50	Enzymatic
Bilirubin Direct	µmol/l	16.9	13.3	20.5	1.80	3.60	Diazo with Sulphanilic Acid
	mg/dl	0.989	0.778	1.20	0.11	0.21	
	µmol/l	17.5	13.8	21.2	1.85	3.70	Oxidation to Biliverdin
	mg/dl	1.02	0.807	1.23	0.11	0.21	
Bilirubin Total	µmol/l	30.2	23.9	36.5	3.15	6.30	Diazo with Sulphanilic Acid
	mg/dl	1.77	1.40	2.14	0.19	0.37	
	µmol/l	30.3	23.9	36.7	3.20	6.40	Oxidation to Biliverdin
	mg/dl	1.77	1.40	2.14	0.19	0.37	
Calcium	mmol/l	2.31	2.08	2.54	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.26	8.34	10.2	0.46	0.92	
	mmol/l	2.35	2.11	2.59	0.12	0.24	Arsenazo III
	mg/dl	9.42	8.46	10.4	0.48	0.96	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Chloride	mmol/l	98.3	90.4	106	3.95	7.90	ISE indirect
Cholesterol	mmol/l	4.87	4.23	5.51	0.32	0.64	Cholesterol Oxidase
	mg/dl	188	163	213	12.50	25.00	
Cholinesterase	U/l	4873	3899	5847	487.00	974.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	219	180	258	19.50	39.00	CK-NAC substrate start (DGKC) 37°C
	U/l	219	180	258	19.50	39.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	124	99.2	149	12.40	24.80	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	μmol/l	114	90.9	137	11.55	23.10	Randox Enzymatic UV method
	mg/dl	1.29	1.03	1.55	0.13	0.26	
	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	117	94.0	140	11.50	23.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.32	1.06	1.58	0.13	0.26	
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	7.00	5.95	8.05	0.53	1.05	Hexokinase
	mg/dl	126	107	145	9.50	19.00	
	mmol/l	7.16	6.09	8.23	0.54	1.07	Glucose oxidase
	mg/dl	129	110	148	9.50	19.00	
HDL - Cholesterol	mmol/l	1.37	1.17	1.57	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	52.9	45.2	60.6	3.85	7.70	
	mmol/l	1.46	1.24	1.68	0.11	0.22	Direct Clearance Method
	mg/dl	56.4	47.9	64.9	4.25	8.50	
Iron	μmol/l	19.0	15.6	22.4	1.70	3.40	Colorimetric without ppt.
	μg/dl	106	87.2	125	9.40	18.80	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Lactate	mmol/l	1.36	1.12	1.60	0.12	0.24	Colorimetric Lactate Oxidase
	mg/dl	12.3	10.1	14.5	1.10	2.20	
LD (LDH)	U/l	210	178	242	16.00	32.00	L->P 37°C
	U/l	412	350	474	31.00	62.00	P->L German methods 37°C
	U/l	212	180	244	16.00	32.00	L->P IFCC 37°C
Lipase	U/l	41	33	49	4.00	8.00	Other Colorimetric 37°C
Lithium	mmol/l	1.02	0.90	1.14	0.06	0.12	Spectrophotometric
	mg/dl	0.708	0.624	0.792	0.04	0.08	
Magnesium	mmol/l	0.94	0.83	1.06	0.06	0.11	Xylidyl Blue
	mg/dl	2.29	2.02	2.56	0.14	0.27	
Phosphate Inorganic	mmol/l	1.37	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	4.05	3.72	4.38	0.17	0.33	ISE method - indirect
Protein Total	g/l	59.3	47.5	71.1	5.90	11.80	Biuret reaction end point
	g/dl	5.93	4.75	7.11	0.59	1.18	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
TIBC	µmol/l	47.6	37.6	57.6	5.00	10.00	Removal of excess free iron
	µg/dl	266	210	322	28.00	56.00	
	µmol/l	47.2	37.3	57.1	4.95	9.90	FE+UIBC(saturation with iron)
	µg/dl	264	209	319	27.50	55.00	
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	1.25	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	95.6	80.5	111	7.55	15.10	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	7.68	6.53	8.83	0.58	1.15	Urease kinetic
	mg/dl	46.2	39.2	53.2	3.50	7.00	
	mmol/l	7.68	6.53	8.83	0.58	1.15	BUN
	mg/dl	21.6	18.4	24.8	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.73	4.99	6.47	0.37	0.74	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.70	4.96	6.44	0.37	0.74	

Siemens/Dade Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	43.1	36.7	49.5	3.20	6.40	Bromocresol Purple
	g/dl	4.31	3.67	4.95	0.32	0.64	
Alkaline Phosphatase	U/l	140	119	161	10.50	21.00	Siemens Dimension AMP buffer 37°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer with P5P 37°C
Amylase Total	U/l	90	77	103	6.50	13.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	44	35	53	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	16.1	12.7	19.5	1.70	3.40	Enzymatic
Bilirubin Direct	µmol/l	12.4	9.76	15.0	1.32	2.64	Diazo with Sulphanilic Acid
	mg/dl	0.725	0.571	0.879	0.08	0.15	
Bilirubin Total	µmol/l	28.3	22.3	34.3	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.66	1.30	2.02	0.18	0.36	
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	
Chloride	mmol/l	95.7	88.0	103	3.85	7.70	ISE indirect
Cholesterol	mmol/l	4.48	3.90	5.06	0.29	0.58	Dimension-Siemens reagents
	mg/dl	173	151	195	11.00	22.00	
CK Total	U/l	210	173	247	18.50	37.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	129	104	154	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.46	1.18	1.74	0.14	0.28	
	µmol/l	131	105	157	13.00	26.00	IDMS traceable
	mg/dl	1.48	1.19	1.77	0.15	0.29	

Siemens/Dade Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
gamma-GT	U/l	63	54	72	4.50	9.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	7.07	6.01	8.13	0.53	1.06	Hexokinase
	mg/dl	127	108	146	9.50	19.00	
Lactate	mmol/l	1.35	1.11	1.59	0.12	0.24	Colorimetric Lactate Oxidase
	mg/dl	12.2	10.0	14.4	1.10	2.20	
LD (LDH)	U/l	204	173	235	15.50	31.00	L->P IFCC 37°C
Lipase	U/l	148	119	177	14.50	29.00	Siemens Dimension Colorimetric (LIP Kit) 37°C
	U/l	143	115	171	14.00	28.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.88	0.78	0.99	0.05	0.11	Methylthymol blue
	mg/dl	2.14	1.89	2.39	0.13	0.25	
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	3.93	3.61	4.25	0.16	0.32	ISE method - indirect
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	140	133	147	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	0.99	0.83	1.15	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	87.9	73.8	102	7.05	14.10	
	mmol/l	1.00	0.84	1.16	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	88.5	74.4	103	7.05	14.10	
Urea	mmol/l	7.34	6.24	8.44	0.55	1.10	Urease kinetic
	mg/dl	44.1	37.5	50.7	3.30	6.60	
	mmol/l	7.34	6.24	8.44	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.64	4.91	6.37	0.37	0.73	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	44.3	37.7	50.9	3.30	6.60	Bromocresol Green
	g/dl	4.43	3.77	5.09	0.33	0.66	
	g/l	43.7	37.1	50.3	3.30	6.60	Bromocresol Purple
	g/dl	4.37	3.71	5.03	0.33	0.66	
Alkaline Phosphatase	U/l	127	108	146	9.50	19.00	Siemens Dimension AMP buffer 37°C
	U/l	178	151	205	13.50	27.00	Randox AMP 37°C
ALT (GPT)	U/l	41	32	50	4.50	9.00	Tris buffer with P5P 37°C
	U/l	48	39	57	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	90	76	104	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	45	36	54	4.50	9.00	Tris buffer with P5P 37°C
	U/l	46	37	55	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	15.8	12.5	19.1	1.65	3.30	Enzymatic
Bilirubin Direct	µmol/l	12.5	9.87	15.1	1.32	2.63	Diazo with Sulphanilic Acid
	mg/dl	0.731	0.577	0.885	0.08	0.15	
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	
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	
Chloride	mmol/l	95.8	88.1	104	3.85	7.70	ISE indirect
Cholesterol	mmol/l	4.54	3.95	5.13	0.30	0.59	Dimension-Siemens reagents
	mg/dl	175	152	198	11.50	23.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
CK Total	U/l	208	171	245	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	211	173	249	19.00	38.00	Dithioerythritol 37°C
	U/l	224	184	264	20.00	40.00	Dithioerythritol (DTE) IFCC correlated 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	
	µmol/l	124	99.2	149	12.40	24.80	Creatinine PAP method
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	128	102	154	13.00	26.00	Jaffe rate blanked
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	135	108	162	13.50	27.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.53	1.22	1.84	0.16	0.31	
gamma-GT	µmol/l	129	103	155	13.00	26.00	IDMS traceable
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	U/l	55	47	63	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	U/l	64	54	74	5.00	10.00	Siemens Dimension (non IFCC) 37°C
	mmol/l	7.16	6.09	8.23	0.54	1.07	Hexokinase
	mg/dl	129	110	148	9.50	19.00	
	mmol/l	7.07	6.01	8.13	0.53	1.06	Glucose oxidase
	mg/dl	127	108	146	9.50	19.00	
HDL - Cholesterol	mmol/l	1.92	1.63	2.21	0.15	0.29	Direct HDL PPD
	mg/dl	74.1	62.9	85.3	5.60	11.20	
	mmol/l	1.89	1.61	2.17	0.14	0.28	Direct HDL PEGME
	mg/dl	73.0	62.1	83.9	5.45	10.90	
	mmol/l	1.95	1.65	2.25	0.15	0.30	Direct Clearance Method
	mg/dl	75.3	63.7	86.9	5.80	11.60	

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Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Iron	μmol/l	17.9	14.7	21.1	1.60	3.20	Colorimetric with ppt.
	μg/dl	100	82.2	118	8.90	17.80	
	μmol/l	18.2	14.9	21.5	1.65	3.30	Colorimetric without ppt.
	μg/dl	102	83.3	121	9.35	18.70	
LD (LDH)	U/l	213	181	245	16.00	32.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	210	178	242	16.00	32.00	L->P IFCC 37°C
Lipase	U/l	145	116	174	14.50	29.00	Siemens Dimension Colorimetric (LIP Kit) 37°C
	U/l	141	113	169	14.00	28.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	1.02	0.90	1.14	0.06	0.12	Spectrophotometric
	mg/dl	0.708	0.626	0.790	0.04	0.08	
Magnesium	mmol/l	0.89	0.78	0.99	0.05	0.11	Methylthymol blue
	mg/dl	2.15	1.90	2.40	0.13	0.25	
Phosphate Inorganic	mmol/l	1.36	1.16	1.56	0.10	0.20	Phosphomolybdate enzymatic
	mg/dl	4.22	3.60	4.84	0.31	0.62	
	mmol/l	1.37	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	3.97	3.66	4.28	0.16	0.31	ISE method - indirect
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	
	g/l	59.9	47.9	71.9	6.00	12.00	Biuret reaction kinetic
	g/dl	5.99	4.79	7.19	0.60	1.20	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
TIBC	μmol/l	41.0	32.4	49.6	4.30	8.60	Removal of excess free iron
	μg/dl	229	181	277	24.00	48.00	
	μmol/l	40.4	31.9	48.9	4.25	8.50	Direct Colorimetric
	μg/dl	226	178	274	24.00	48.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.01	0.85	1.17	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	89.4	75.4	103	7.00	14.00	
	mmol/l	1.01	0.85	1.17	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	89.4	75.0	104	7.20	14.40	
	mmol/l	1.02	0.86	1.18	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	90.3	76.0	105	7.15	14.30	
	mmol/l	7.49	6.37	8.61	0.56	1.12	Urease end point
	mg/dl	45.0	38.3	51.7	3.35	6.70	
Urea	mmol/l	7.35	6.25	8.45	0.55	1.10	Urease kinetic
	mg/dl	44.2	37.6	50.8	3.30	6.60	
	mmol/l	7.35	6.25	8.45	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.58	4.86	6.30	0.36	0.72	
	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.56	4.84	6.28	0.36	0.72	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.38	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.61	4.87	6.35	0.37	0.74	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.63	4.91	6.35	0.36	0.72	

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	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	167	142	192	12.50	25.00	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	40	32	48	4.00	8.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	90	76	104	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	44	35	53	4.50	9.00	Tris buffer with P5P 37°C
	U/l	44	35	53	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	15.0	11.9	18.1	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	12.6	9.98	15.2	1.31	2.62	Diazo with Sulphanilic Acid
	mg/dl	0.737	0.584	0.890	0.08	0.15	
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	
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	99.4	91.4	107	4.00	8.00	ISE indirect
Cholesterol	mmol/l	4.48	3.90	5.06	0.29	0.58	Dimension-Siemens reagents
	mg/dl	173	151	195	11.00	22.00	
CK Total	U/l	209	171	247	19.00	38.00	CK-NAC (IFCC) 37°C
	U/l	208	171	245	18.50	37.00	Dithioerythritol 37°C
	U/l	211	173	249	19.00	38.00	Dithioerythritol (DTE) IFCC correlated 37°C

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
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	116	92.6	139	11.70	23.40	Randox Enzymatic UV method
	mg/dl	1.31	1.05	1.57	0.13	0.26	
	μmol/l	120	96.2	144	11.90	23.80	IDMS traceable
	mg/dl	1.36	1.09	1.63	0.14	0.27	
gamma-GT	U/l	60	51	69	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	60	51	69	4.50	9.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	7.06	6.00	8.12	0.53	1.06	Hexokinase
	mg/dl	127	108	146	9.50	19.00	
HDL - Cholesterol	mmol/l	1.86	1.58	2.14	0.14	0.28	Direct HDL PEGME
	mg/dl	71.8	61.0	82.6	5.40	10.80	
Iron	μmol/l	19.0	15.6	22.4	1.70	3.40	Colorimetric without ppt.
	μg/dl	106	87.2	125	9.40	18.80	
Lactate	mmol/l	1.34	1.10	1.58	0.12	0.24	Colorimetric Lactate Oxidase
	mg/dl	12.1	9.91	14.3	1.10	2.19	
	mmol/l	1.32	1.08	1.56	0.12	0.24	UV LDH
	mg/dl	11.9	9.73	14.1	1.09	2.17	
LD (LDH)	U/l	214	182	246	16.00	32.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	216	184	248	16.00	32.00	L->P IFCC 37°C
Lipase	U/l	154	123	185	15.50	31.00	Siemens Dimension Colorimetric (LIP Kit) 37°C
	U/l	151	121	181	15.00	30.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	1.03	0.90	1.16	0.06	0.13	Spectrophotometric
	mg/dl	0.715	0.628	0.802	0.04	0.09	
Magnesium	mmol/l	0.82	0.72	0.92	0.05	0.10	Methylthymol blue
	mg/dl	2.00	1.76	2.24	0.12	0.24	

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Phosphate Inorganic	mmol/l	1.32	1.12	1.52	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.09	3.47	4.71	0.31	0.62	
Potassium	mmol/l	3.94	3.62	4.26	0.16	0.32	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	
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	Lipase/GPO-PAP no correction
	mg/dl	96.5	80.9	112	7.80	15.60	
Urea	mmol/l	7.62	6.47	8.77	0.58	1.15	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	0.31	0.27	0.36	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.28	4.59	5.97	0.35	0.69	
	mmol/l	0.32	0.28	0.36	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.36	4.67	6.05	0.35	0.69	

VITALAB FLEXOR®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	41.1	34.9	47.3	3.10	6.20	Bromocresol Green
	g/dl	4.11	3.49	4.73	0.31	0.62	
Alkaline Phosphatase	U/l	186	158	214	14.00	28.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Bilirubin Total	µmol/l	29.4	23.2	35.6	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.72	1.36	2.08	0.18	0.36	
Calcium	mmol/l	2.28	2.05	2.51	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.14	8.22	10.1	0.46	0.92	
Glucose	mmol/l	6.92	5.88	7.96	0.52	1.04	Glucose oxidase
	mg/dl	125	106	144	9.50	19.00	
Protein Total	g/l	61.0	48.8	73.2	6.10	12.20	Biuret reaction end point
	g/dl	6.10	4.88	7.32	0.61	1.22	
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	7.43	6.31	8.55	0.56	1.12	Urease kinetic
	mg/dl	44.7	37.9	51.5	3.40	6.80	
	mmol/l	7.43	6.32	8.54	0.56	1.11	BUN
	mg/dl	20.9	17.8	24.0	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.51	4.80	6.22	0.36	0.71	

VITALAB SELECTRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	43.2	36.7	49.7	3.25	6.50	Bromocresol Green
	g/dl	4.32	3.67	4.97	0.33	0.65	
Alkaline Phosphatase	U/l	262	223	301	19.50	39.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
Bilirubin Total	µmol/l	29.7	23.5	35.9	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.74	1.37	2.11	0.19	0.37	
	µmol/l	28.2	22.3	34.1	2.95	5.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.65	1.30	2.00	0.18	0.35	
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	
	mmol/l	2.40	2.16	2.64	0.12	0.24	Arsenazo III
	mg/dl	9.62	8.66	10.6	0.48	0.96	
Cholesterol	mmol/l	4.98	4.34	5.62	0.32	0.64	Cholesterol Oxidase
	mg/dl	192	168	216	12.00	24.00	
CK Total	U/l	230	188	272	21.00	42.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	113	90.4	136	11.30	22.60	Alkaline picrate no deproteinization
	mg/dl	1.28	1.02	1.54	0.13	0.26	
	µmol/l	119	95.1	143	11.95	23.90	Creatinine PAP method
	mg/dl	1.34	1.07	1.61	0.14	0.27	
	µmol/l	119	94.9	143	12.05	24.10	Jaffe rate blanked
	mg/dl	1.34	1.07	1.61	0.14	0.27	

VITALAB SELECTRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	7.18	6.11	8.25	0.54	1.07	Glucose oxidase
	mg/dl	129	110	148	9.50	19.00	
Iron	µmol/l	19.8	16.2	23.4	1.80	3.60	Colorimetric without ppt.
	µg/dl	111	90.6	131	10.20	20.40	
LD (LDH)	U/l	209	178	240	15.50	31.00	L->P IFCC 37°C
Phosphate Inorganic	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.37	3.72	5.02	0.33	0.65	
Protein Total	g/l	60.9	48.7	73.1	6.10	12.20	Biuret reaction end point
	g/dl	6.09	4.87	7.31	0.61	1.22	
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	85.0	117	8.00	16.00	
Urea	mmol/l	7.40	6.29	8.51	0.56	1.11	Urease kinetic
	mg/dl	44.5	37.8	51.2	3.35	6.70	
	mmol/l	7.40	6.29	8.51	0.56	1.11	BUN
	mg/dl	20.8	17.7	23.9	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.81	5.06	6.56	0.38	0.75	

Weiner Lab BT 3000 Plus/CB 350i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	39.7	33.7	45.7	3.00	6.00	Bromocresol Green
	g/dl	3.97	3.37	4.57	0.30	0.60	
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
Bilirubin Direct	µmol/l	17.1	13.5	20.7	1.80	3.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.00	0.790	1.21	0.11	0.21	
Bilirubin Total	µmol/l	29.6	23.4	35.8	3.10	6.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.73	1.37	2.09	0.18	0.36	
Calcium	mmol/l	2.35	2.12	2.58	0.12	0.23	Arsenazo III
	mg/dl	9.42	8.50	10.3	0.46	0.92	
Cholesterol	mmol/l	4.96	4.31	5.61	0.33	0.65	Cholesterol Oxidase
	mg/dl	191	166	216	12.50	25.00	
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	114	91.3	137	11.35	22.70	Alkaline picrate no deproteinization
	mg/dl	1.29	1.03	1.55	0.13	0.26	
gamma-GT	U/l	50	43	57	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	34	44	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

Weiner Lab BT 3000 Plus/CB 350i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 857UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2017-07

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Glucose	mmol/l	7.12	6.05	8.19	0.54	1.07	Glucose oxidase
	mg/dl	128	109	147	9.50	19.00	
LD (LDH)	U/l	440	374	506	33.00	66.00	P->L SFBC 37°C
	U/l	318	270	366	24.00	48.00	P->L SFBC 30°C
	U/l	223	190	256	16.50	33.00	P->L SFBC 25°C
Phosphate Inorganic	mmol/l	1.43	1.22	1.64	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.43	3.78	5.08	0.33	0.65	
Protein Total	g/l	55.7	44.6	66.8	5.55	11.10	Biuret reaction end point
	g/dl	5.57	4.46	6.68	0.56	1.11	
Urea	mmol/l	7.82	6.65	8.99	0.59	1.17	Urease kinetic
	mg/dl	47.0	40.0	54.0	3.50	7.00	
	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	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.68	4.94	6.42	0.37	0.74	