

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

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

LOT NO. 1011UN
EXP: 2019-01

INTENDED USE

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

DEVICE DESCRIPTION

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

SAFETY PRECAUTIONS AND WARNINGS

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

Human source material from which this product has been derived has been tested at donor level for the Human Immunodeficiency Virus (HIV 1, HIV 2) antibody, Hepatitis B Surface Antigen (HbsAg), and Hepatitis C Virus (HCV) antibody and found to be NON-REACTIVE. FDA approved methods have been used to conduct these tests.

However, since no method can offer complete assurance as to the absence of infectious agents, this material and all patient samples should be handled as though capable of transmitting infectious diseases and disposed of accordingly.

Health and Safety Data Sheets are available on request.

STORAGE AND STABILITY

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

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

LIMITATIONS

For Total & Prostatic Acid Phosphatase, the material should be stabilised by adding 1 drop (25-30µl) of 0.7M Acetic acid solution to 1ml of the serum exactly 30 minutes after reconstitution. After stabilisation Total and Prostatic Acid Phosphatase is stable for 2 hours at +15°C to +25°C, 2 days at +2°C to +8°C, and 28 days when frozen once at -18°C to -24°C.

Alkaline Phosphatase levels in the reconstituted serum will rise over the stability period. It is recommended that the reconstituted serum is allowed to stand for 1 hour at +15°C to +25°C before measurement.

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

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

Total PSA is stable for 4 days at +2°C to +8°C, or 28 days in aliquots frozen at -18°C to -24°C.

Bacterial contamination of the reconstituted serum will cause reductions in the stability of many components.

Different lot numbers of this control should not be interchanged, as the values assigned to the controls vary from lot to lot.

The control should not be used as a calibration material.

PREPARATION FOR USE

The Human Assayed Multi-sera is supplied lyophilised.

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

MATERIALS PROVIDED

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

MATERIALS REQUIRED BUT NOT PROVIDED

Volumetric pipette

ASSIGNED VALUES

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

With each batch, a control range is provided for individual parameters and each parameter method. The control range is equivalent to the assigned mean $\pm 2S.D.$ 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

® All trademarks recognised.

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

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ABBOTT AEROSET®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	40.3	34.2	46.4	3.05	6.10	Bromocresol Green
	g/dl	4.03	3.42	4.64	0.31	0.61	
Alkaline Phosphatase	U/l	159	135	183	12.00	24.00	AMP optimised to IFCC 37°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	18.0	14.2	21.8	1.90	3.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.05	0.831	1.27	0.11	0.22	
Bilirubin Total	µmol/l	27.2	21.5	32.9	2.85	5.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.59	1.26	1.92	0.17	0.33	
Calcium	mmol/l	2.23	2.00	2.46	0.12	0.23	Cresolphthalein complexone
	mg/dl	8.94	8.02	9.86	0.46	0.92	
	mmol/l	2.16	1.95	2.37	0.11	0.21	Arsenazo III
	mg/dl	8.66	7.82	9.50	0.42	0.84	
Cholesterol	mmol/l	4.09	3.56	4.62	0.27	0.53	Cholesterol Oxidase
	mg/dl	158	137	179	10.50	21.00	
Chloride	mmol/l	98.1	90.3	106	3.90	7.80	ISE direct
CK Total	U/l	194	159	229	17.50	35.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	116	92.5	140	11.75	23.50	Alkaline picrate no deproteinization
	mg/dl	1.31	1.05	1.57	0.13	0.26	
Glucose	mmol/l	6.38	5.42	7.34	0.48	0.96	Hexokinase
	mg/dl	115	97.7	132	8.65	17.30	
HDL - Cholesterol	mmol/l	1.47	1.25	1.69	0.11	0.22	HDL - Ultra
	mg/dl	56.7	48.3	65.1	4.20	8.40	

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Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Iron	μmol/l	18.5	15.2	21.8	1.65	3.30	Colorimetric without ppt.
	μg/dl	103	85.0	121	9.00	18.00	
Phosphate Inorganic	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.37	3.72	5.02	0.33	0.65	
Potassium	mmol/l	4.01	3.69	4.33	0.16	0.32	ISE method - direct
Protein Total	g/l	59.9	47.9	71.9	6.00	12.00	Biuret reaction end point
	g/dl	5.99	4.79	7.19	0.60	1.20	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.11	0.94	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.7	114	7.75	15.50	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.88	5.11	6.65	0.39	0.77	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.96	5.19	6.73	0.39	0.77	
Urea	mmol/l	6.98	5.93	8.03	0.53	1.05	Urease kinetic
	mg/dl	41.9	35.6	48.2	3.15	6.30	
	mmol/l	7.17	6.10	8.24	0.54	1.07	Urease hypochlorite
	mg/dl	43.1	36.7	49.5	3.20	6.40	
	mmol/l	6.98	5.93	8.03	0.53	1.05	BUN
	mg/dl	19.6	16.7	22.5	1.45	2.90	

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	41.4	35.2	47.6	3.10	6.20	Bromocresol Green
	g/dl	4.14	3.52	4.76	0.31	0.62	
	g/l	42.1	35.8	48.4	3.15	6.30	Bromocresol Purple
	g/dl	4.21	3.58	4.84	0.32	0.63	
Alkaline Phosphatase	U/l	155	132	178	11.50	23.00	AMP optimised to IFCC 37°C
	U/l	157	134	180	11.50	23.00	AMP non-optimised 37°C
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	65	55	75	5.00	10.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	92	78	106	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
Bile Acids	µmol/l	27.4	21.9	32.9	2.75	5.50	Enzymatic Colorimetric
Bicarbonate	mmol/l	14.2	11.3	17.1	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	19.0	15.0	23.0	2.00	4.00	Diazo with Sulphanilic Acid
	mg/dl	1.11	0.878	1.34	0.12	0.23	
	µmol/l	18.8	14.9	22.7	1.95	3.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.10	0.872	1.33	0.11	0.23	
Bilirubin Total	µmol/l	26.5	21.0	32.0	2.75	5.50	Diazo with Dichloroaniline (DCA)
	mg/dl	1.55	1.23	1.87	0.16	0.32	
	µmol/l	26.9	21.3	32.5	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.57	1.25	1.89	0.16	0.32	
	µmol/l	26.0	20.5	31.5	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.52	1.20	1.84	0.16	0.32	

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Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	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	2.28	2.05	2.51	0.12	0.23	Arsenazo III
	mg/dl	9.14	8.22	10.1	0.46	0.92	
Cholesterol	mmol/l	4.05	3.52	4.58	0.27	0.53	Cholesterol Oxidase
	mg/dl	156	136	176	10.00	20.00	
Chloride	mmol/l	97.2	89.4	105	3.90	7.80	ISE indirect
Cholinesterase	U/l	7094	5675	8513	709.50	1419.00	Colorimetric Butyrylthiocholine 37°C
	U/l	7020	5616	8424	702.00	1404.00	Agappe - DGKC/Butyrylthiocholine 37°C
CK Total	U/l	202	165	239	18.50	37.00	CK-NAC serum start (DGKC) 37°C
	U/l	206	169	243	18.50	37.00	CK-NAC substrate start (DGKC) 37°C
	U/l	194	159	229	17.50	35.00	CK-NAC (IFCC) 37°C
Copper	µmol/l	14.6	11.7	17.5	1.45	2.90	Colorimetric
	µg/dl	92.9	74.4	111	9.25	18.50	
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	128	102	154	13.00	26.00	Randox Enzymatic UV method
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	131	105	157	13.00	26.00	Creatinine PAP method
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	120	96.1	144	11.95	23.90	Jaffe rate blanked
	mg/dl	1.36	1.09	1.63	0.14	0.27	
	µmol/l	121	96.5	146	12.25	24.50	IDMS traceable
	mg/dl	1.37	1.09	1.65	0.14	0.28	

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Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Free T4	pmol/l	18.7	14.0	23.4	2.35	4.70	Abbott Architect
	ng/dl	1.46	1.09	1.83	0.19	0.37	
	pg/ml	14.6	10.9	18.3	1.85	3.70	Abbott Architect
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	51	43	59	4.00	8.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	6.10	5.18	7.02	0.46	0.92	Hexokinase
	mg/dl	110	93.3	127	8.35	16.70	
	mmol/l	6.24	5.30	7.18	0.47	0.94	Glucose oxidase
	mg/dl	112	95.5	129	8.25	16.50	
HDL - Cholesterol	mmol/l	1.54	1.31	1.77	0.12	0.23	Direct HDL PPD
	mg/dl	59.4	50.6	68.2	4.40	8.80	
	mmol/l	1.48	1.26	1.70	0.11	0.22	Direct Clearance Method
	mg/dl	57.1	48.6	65.6	4.25	8.50	
	mmol/l	1.50	1.28	1.72	0.11	0.22	HDL - Ultra
Iron	mg/dl	57.9	49.4	66.4	4.25	8.50	
	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	19.5	16.0	23.0	1.75	3.50	Colorimetric without ppt.
Lactate	µg/dl	109	89.4	129	9.80	19.60	
	mmol/l	1.58	1.29	1.87	0.15	0.29	Colorimetric Lactate Oxidase
LD (LDH)	mg/dl	14.2	11.6	16.8	1.30	2.60	
	U/l	205	174	236	15.50	31.00	L->P 37°C
Lipase	U/l	202	172	232	15.00	30.00	L->P IFCC 37°C
	U/l	34	27	41	3.50	7.00	Other Colorimetric 37°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Lithium	mmol/l	1.06	0.93	1.19	0.06	0.13	Spectrophotometric
	mg/dl	0.736	0.648	0.824	0.04	0.09	
Magnesium	mmol/l	0.87	0.77	0.98	0.05	0.10	Arsenazo III
	mg/dl	2.12	1.86	2.38	0.13	0.26	
	mmol/l	0.86	0.76	0.97	0.05	0.10	Methylthymol blue
	mg/dl	2.10	1.85	2.35	0.13	0.25	
	mmol/l	0.88	0.77	0.98	0.05	0.11	Enzymatic
	mg/dl	2.13	1.87	2.39	0.13	0.26	
Osmolality	mOsm/kg	304	243	365	30.50	61.00	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	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	4.05	3.72	4.38	0.17	0.33	ISE method - indirect
Protein Total	g/l	59.4	47.5	71.3	5.95	11.90	Biuret reaction end point
	g/dl	5.94	4.75	7.13	0.60	1.19	
	g/l	60.1	48.1	72.1	6.00	12.00	Biuret reaction kinetic
	g/dl	6.01	4.81	7.21	0.60	1.20	
PSA Total	ng/ml =	14.1	10.6	17.6	1.75	3.50	Abbott Architect
Sodium	mmol/l	144	137	151	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.17	0.94	1.40	0.12	0.23	Abbott Architect
TIBC	µmol/l	44.7	35.3	54.1	4.70	9.40	Removal of excess free iron
	µg/dl	250	197	303	26.50	53.00	
	µmol/l	44.4	35.1	53.7	4.65	9.30	FE+UIBC(saturation with iron)
	µg/dl	248	196	300	26.00	52.00	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.4	111	7.60	15.20	
	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	95.6	80.3	111	7.65	15.30	
	mmol/l	1.09	0.91	1.27	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	96.5	80.9	112	7.80	15.60	
Uric Acid (Urate)	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	97.4	81.8	113	7.80	15.60	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.95	5.17	6.73	0.39	0.78	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.81	5.06	6.56	0.38	0.75	
Urea	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.80	5.04	6.56	0.38	0.76	
	mmol/l	6.95	5.91	7.99	0.52	1.04	Urease kinetic
	mg/dl	41.8	35.5	48.1	3.15	6.30	
	mmol/l	6.95	5.91	7.99	0.52	1.04	BUN
	mg/dl	19.5	16.6	22.4	1.45	2.90	

ABX Pentra 400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

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Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	40.7	34.6	46.8	3.05	6.10	Bromocresol Green
	g/dl	4.07	3.46	4.68	0.31	0.61	
Alkaline Phosphatase	U/l	174	148	200	13.00	26.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	44	35	53	4.50	9.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	45	36	54	4.50	9.00	Tris buffer without P5P 37°C
Bilirubin Total	µmol/l	25.6	20.2	31.0	2.70	5.40	Diazo with Dichloroaniline (DCA)
	mg/dl	1.50	1.18	1.82	0.16	0.32	
Calcium	mmol/l	2.19	1.97	2.41	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.78	7.90	9.66	0.44	0.88	
Cholesterol	mmol/l	4.15	3.61	4.69	0.27	0.54	Cholesterol Oxidase
	mg/dl	160	139	181	10.50	21.00	
CK Total	U/l	203	167	239	18.00	36.00	CK-NAC (IFCC) 37°C
Glucose	mmol/l	6.43	5.47	7.39	0.48	0.96	Glucose oxidase
	mg/dl	116	98.6	133	8.70	17.40	
Magnesium	mmol/l	0.87	0.76	0.97	0.05	0.10	Xylidyl Blue
	mg/dl	2.11	1.86	2.36	0.13	0.25	
Protein Total	g/l	62.2	49.7	74.7	6.25	12.50	Biuret reaction end point
	g/dl	6.22	4.97	7.47	0.63	1.25	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.78	5.02	6.54	0.38	0.76	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.68	4.94	6.42	0.37	0.74	

Alfa Wassermann Alfa 600/Analyticon Biolyzer 600 ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.3	36.0	48.6	3.15	6.30	Bromocresol Green
	g/dl	4.23	3.60	4.86	0.32	0.63	
Alkaline Phosphatase	U/l	162	137	187	12.50	25.00	AMP optimised to IFCC 37°C
	U/l	126	107	145	9.50	19.00	AMP optimised to IFCC 30°C
	U/l	104	88	120	8.00	16.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	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	2.36	2.12	2.60	0.12	0.24	Arsenazo III
	mg/dl	9.46	8.50	10.4	0.48	0.96	
Cholesterol	mmol/l	4.08	3.55	4.61	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	137	177	10.00	20.00	
Creatinine	µmol/l	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	6.37	5.41	7.33	0.48	0.96	Hexokinase
	mg/dl	115	97.5	133	8.75	17.50	
Protein Total	g/l	60.5	48.4	72.6	6.05	12.10	Biuret reaction end point
	g/dl	6.05	4.84	7.26	0.61	1.21	

Alfa Wassermann Alfa 600/Analyticon Biolyzer 600 ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.75	5.01	6.49	0.37	0.74	
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	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
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	
Alkaline Phosphatase	U/l	199	169	229	15.00	30.00	p-Nitrophenylphosphate AMP 37°C
	U/l	191	163	219	14.00	28.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
Amylase Total	U/l	85	72	98	6.50	13.00	pNP Maltotriose substrates 37°C
	U/l	87	74	100	6.50	13.00	Biotrol - blocked pNPG7 37°C
	U/l	85	72	98	6.50	13.00	Beckman maltotetraose 37°C
	U/l	84	71	97	6.50	13.00	Beckman Coulter - blocked pNPG7 37°C
AST (GOT)	U/l	39	32	46	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	15.3	12.1	18.5	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	19.9	15.7	24.1	2.10	4.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.16	0.918	1.40	0.12	0.24	
	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	29.7	23.4	36.0	3.15	6.30	Diazo with Sulphanilic Acid
	mg/dl	1.74	1.37	2.11	0.19	0.37	
	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	29.5	23.3	35.7	3.10	6.20	Oxidation to Biliverdin
	mg/dl	1.73	1.36	2.10	0.19	0.37	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Calcium	mmol/l	2.27	2.04	2.50	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.10	8.18	10.0	0.46	0.92	
	mmol/l	2.26	2.04	2.48	0.11	0.22	Arsenazo III
	mg/dl	9.06	8.18	9.94	0.44	0.88	
Cholesterol	mmol/l	4.07	3.54	4.60	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	137	177	10.00	20.00	
Chloride	mmol/l	95.0	87.4	103	3.80	7.60	ISE indirect
Cholinesterase	U/l	5423	4339	6507	542.00	1084.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	201	165	237	18.00	36.00	CK-NAC (IFCC) 37°C
Copper	µmol/l	18.2	14.5	21.9	1.85	3.70	Colorimetric
	µg/dl	116	92.2	140	11.90	23.80	
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	126	101	151	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	124	99.4	149	12.30	24.60	Creatinine PAP method
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	121	97.0	145	12.00	24.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.37	1.10	1.64	0.14	0.27	
	µmol/l	120	95.8	144	12.10	24.20	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	µmol/l	122	97.7	146	12.15	24.30	IDMS traceable
	mg/dl	1.38	1.10	1.66	0.14	0.28	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
D-3-Hydroxybutyrate	mmol/l	0.29	0.25	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	55	47	63	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
GLDH	U/l	17	13	21	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	6.16	5.24	7.08	0.46	0.92	Hexokinase
	mg/dl	111	94.4	128	8.30	16.60	
	mmol/l	6.14	5.22	7.06	0.46	0.92	Glucose oxidase
	mg/dl	111	94.1	128	8.45	16.90	
HDL - Cholesterol	mmol/l	1.34	1.14	1.54	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	51.7	44.0	59.4	3.85	7.70	
	mmol/l	1.51	1.29	1.73	0.11	0.22	Direct Clearance Method
	mg/dl	58.3	49.8	66.8	4.25	8.50	
Iron	µmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric with ppt.
	µg/dl	108	88.9	127	9.55	19.10	
	µmol/l	19.7	16.2	23.2	1.75	3.50	Colorimetric without ppt.
	µg/dl	110	90.6	129	9.70	19.40	
Lactate	mmol/l	1.53	1.25	1.81	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	13.8	11.3	16.3	1.25	2.50	
LD (LDH)	U/l	200	170	230	15.00	30.00	L->P 37°C
	U/l	443	377	509	33.00	66.00	P->L Scandinavian & Dutch 37°C
	U/l	396	337	455	29.50	59.00	P->L German methods 37°C
	U/l	203	173	233	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	32	25	39	3.50	7.00	Other Colorimetric 37°C
	U/l	40	32	48	4.00	8.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.00	0.88	1.12	0.06	0.12	Spectrophotometric
	mg/dl	0.691	0.608	0.774	0.04	0.08	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Magnesium	mmol/l	0.90	0.80	1.01	0.05	0.11	Xylidyl Blue
	mg/dl	2.20	1.93	2.47	0.14	0.27	
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.34	3.69	4.99	0.33	0.65	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.31	3.66	4.96	0.33	0.65	
Potassium	mmol/l	4.03	3.71	4.35	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.2	46.6	69.8	5.80	11.60	Biuret reaction end point
	g/dl	5.82	4.66	6.98	0.58	1.16	
	g/l	58.6	46.9	70.3	5.85	11.70	Biuret reaction kinetic
	g/dl	5.86	4.69	7.03	0.59	1.17	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
TIBC	μmol/l	46.0	36.4	55.6	4.80	9.60	FE+UIBC(saturation with iron)
	μg/dl	257	203	311	27.00	54.00	
Total T4	nmol/l	91.7	68.8	115	11.45	22.90	Microgenics DRI assay
	μg/dl	7.15	5.37	8.93	0.89	1.78	
	ng/ml	71.5	53.7	89.3	8.90	17.80	Microgenics DRI assay
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	
	mmol/l	1.18	0.99	1.37	0.10	0.19	L/G Kinase EP. no correction
	mg/dl	104	87.5	121	8.25	16.50	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.88	5.12	6.64	0.38	0.76	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.85	5.09	6.61	0.38	0.76	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.05	5.26	6.84	0.40	0.79	
Urea	mmol/l	7.14	6.07	8.21	0.54	1.07	Urease end point
	mg/dl	42.9	36.5	49.3	3.20	6.40	
	mmol/l	7.10	6.03	8.17	0.54	1.07	Urease kinetic
	mg/dl	42.7	36.2	49.2	3.25	6.50	
	mmol/l	7.10	6.04	8.16	0.53	1.06	BUN
	mg/dl	19.9	16.9	22.9	1.50	3.00	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.4	36.9	49.9	3.25	6.50	Bromocresol Purple
	g/dl	4.34	3.69	4.99	0.33	0.65	
Alkaline Phosphatase	U/l	175	149	201	13.00	26.00	p-Nitrophenylphosphate AMP 37°C
	U/l	182	155	209	13.50	27.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	37	29	45	4.00	8.00	Tris buffer without P5P 37°C
	U/l	36	29	43	3.50	7.00	Tris buffer SCE 37°C
Amylase Total	U/l	92	79	105	6.50	13.00	Beckman maltotetraose 37°C
	U/l	93	79	107	7.00	14.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	37	29	45	4.00	8.00	Tris buffer SCE 37°C
Bicarbonate	mmol/l	15.6	12.4	18.8	1.60	3.20	Differential rate pH change
	mmol/l	15.1	12.0	18.2	1.55	3.10	Ion selective electrode
Bilirubin Direct	µmol/l	13.6	10.8	16.4	1.40	2.80	Diazo with Sulphanilic Acid
	mg/dl	0.796	0.632	0.960	0.08	0.16	
Bilirubin Total	µmol/l	28.8	22.8	34.8	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.68	1.33	2.03	0.18	0.35	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Ion selective electrode
	mg/dl	8.86	7.98	9.74	0.44	0.88	
	mmol/l	2.27	2.04	2.50	0.12	0.23	Arsenazo III
	mg/dl	9.10	8.18	10.0	0.46	0.92	
Cholesterol	mmol/l	3.87	3.36	4.38	0.26	0.51	Cholesterol Oxidase
	mg/dl	149	130	168	9.50	19.00	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	96.5	88.7	104	3.90	7.80	ISE indirect
CK Total	U/l	209	172	246	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	203	166	240	18.50	37.00	Monothioglycerol 37°C
Creatinine	μmol/l	122	97.5	147	12.25	24.50	Alkaline picrate no deproteinization
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	μmol/l	121	96.5	146	12.25	24.50	Randox Enzymatic UV method
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	μmol/l	124	99.3	149	12.35	24.70	Jaffe rate blanked
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	μmol/l	122	98.0	146	12.00	24.00	Jaffe rate blanked comp. (~26 μmol/l)
	mg/dl	1.38	1.11	1.65	0.14	0.27	
gamma-GT	μmol/l	123	98.3	148	12.35	24.70	IDMS traceable
	mg/dl	1.39	1.11	1.67	0.14	0.28	
gamma-GT	U/l	44	38	50	3.00	6.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	43	37	49	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.00	5.10	6.90	0.45	0.90	Hexokinase
	mg/dl	108	91.9	124	8.05	16.10	
	mmol/l	6.13	5.21	7.05	0.46	0.92	Oxygen electrode
	mg/dl	110	93.9	126	8.05	16.10	
	mmol/l	5.96	5.07	6.85	0.45	0.89	Glucose oxidase
	mg/dl	107	91.4	123	7.80	15.60	
HDL - Cholesterol	mmol/l	1.67	1.42	1.92	0.13	0.25	Direct HDL PPD
	mg/dl	64.5	54.8	74.2	4.85	9.70	
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	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lactate	mmol/l	1.51	1.24	1.78	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.6	11.2	16.0	1.20	2.40	
LD (LDH)	U/l	170	144	196	13.00	26.00	L->P 37°C
	U/l	525	446	604	39.50	79.00	Pyruvate 1.4 mM - Beckman LD-P 37°C
	U/l	166	141	191	12.50	25.00	L->P IFCC 37°C
Lipase	U/l	29	23	35	3.00	6.00	Other Colorimetric 37°C
Magnesium	mmol/l	0.90	0.79	1.00	0.05	0.11	Calmagite
	mg/dl	2.18	1.92	2.44	0.13	0.26	
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	3.97	3.66	4.28	0.16	0.31	ISE method - indirect
Protein Total	g/l	59.6	47.6	71.6	6.00	12.00	Biuret reaction CX4/5/7
	g/dl	5.96	4.76	7.16	0.60	1.20	
	g/l	59.6	47.7	71.5	5.95	11.90	Biuret reaction end point
	g/dl	5.96	4.77	7.15	0.60	1.19	
	g/l	57.4	45.9	68.9	5.75	11.50	Biuret reaction kinetic
	g/dl	5.74	4.59	6.89	0.58	1.15	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	84.7	117	8.15	16.30	
	mmol/l	1.16	0.97	1.35	0.09	0.19	L/G Kinase EP. no correction
	mg/dl	103	86.0	120	8.50	17.00	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.66	4.92	6.40	0.37	0.74	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.41	6.30	8.52	0.56	1.11	Urease end point
	mg/dl	44.5	37.9	51.1	3.30	6.60	
	mmol/l	7.27	6.18	8.36	0.55	1.09	Urease kinetic
	mg/dl	43.7	37.1	50.3	3.30	6.60	
	mmol/l	7.27	6.18	8.36	0.55	1.09	BUN
	mg/dl	20.4	17.3	23.5	1.55	3.10	

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	39.6	33.7	45.5	2.95	5.90	Bromocresol Green
	g/dl	3.96	3.37	4.55	0.30	0.59	
ALT (GPT)	U/l	44	35	53	4.50	9.00	Tris buffer without P5P 37°C
	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 30°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	24.1	19.0	29.2	2.55	5.10	Diazo with Sulphanilic Acid
	mg/dl	1.41	1.11	1.71	0.15	0.30	
Bilirubin Total	µmol/l	33.8	26.7	40.9	3.55	7.10	Diazo with Sulphanilic Acid
	mg/dl	1.98	1.56	2.40	0.21	0.42	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Arsenazo III
	mg/dl	8.86	7.98	9.74	0.44	0.88	
Cholesterol	mmol/l	4.22	3.67	4.77	0.28	0.55	Cholesterol Oxidase
	mg/dl	163	142	184	10.50	21.00	
Creatinine	µmol/l	122	97.8	146	12.10	24.20	Alkaline picrate no deproteinization
	mg/dl	1.38	1.11	1.65	0.14	0.27	
Glucose	mmol/l	6.42	5.45	7.39	0.49	0.97	Glucose oxidase
	mg/dl	116	98.2	134	8.90	17.80	
Protein Total	g/l	59.6	47.7	71.5	5.95	11.90	Biuret reaction end point
	g/dl	5.96	4.77	7.15	0.60	1.19	
Triglycerides	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.3	110	7.70	15.40	

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.20	5.39	7.01	0.41	0.81	
	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.08	5.29	6.87	0.40	0.79	
Urea	mmol/l	7.21	6.12	8.30	0.55	1.09	Urease kinetic
	mg/dl	43.3	36.8	49.8	3.25	6.50	
	mmol/l	7.21	6.13	8.29	0.54	1.08	BUN
	mg/dl	20.2	17.2	23.2	1.50	3.00	

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	38.5	32.8	44.2	2.85	5.70	Bromocresol Green
	g/dl	3.85	3.28	4.42	0.29	0.57	
Bilirubin Total	µmol/l	33.5	26.4	40.6	3.55	7.10	Diazo with Sulphanilic Acid
	mg/dl	1.96	1.54	2.38	0.21	0.42	
Cholesterol	mmol/l	4.05	3.53	4.57	0.26	0.52	Cholesterol Oxidase
	mg/dl	156	136	176	10.00	20.00	
CK Total	U/l	214	175	253	19.50	39.00	CK-NAC (IFCC) 37°C
	U/l	134	110	158	12.00	24.00	CK-NAC (IFCC) 30°C
	U/l	91	74	108	8.50	17.00	CK-NAC (IFCC) 25°C
Glucose	mmol/l	6.30	5.36	7.24	0.47	0.94	Glucose oxidase
	mg/dl	114	96.6	131	8.70	17.40	
LD (LDH)	U/l	453	385	521	34.00	68.00	P->L Scandinavian & Dutch 37°C
	U/l	327	278	376	24.50	49.00	P->L Scandinavian & Dutch 30°C
	U/l	230	195	265	17.50	35.00	P->L Scandinavian & Dutch 25°C
Protein Total	g/l	57.6	46.1	69.1	5.75	11.50	Biuret reaction end point
	g/dl	5.76	4.61	6.91	0.58	1.15	
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.2	114	8.00	16.00	
Uric Acid (Urate)	mmol/l	0.38	0.33	0.42	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.32	5.51	7.13	0.41	0.81	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.01	5.22	6.80	0.40	0.79	

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.02	5.97	8.07	0.53	1.05	Urease kinetic
	mg/dl	42.2	35.9	48.5	3.15	6.30	
	mmol/l	7.02	5.97	8.07	0.53	1.05	BUN
	mg/dl	19.7	16.7	22.7	1.50	3.00	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	43.3	36.8	49.8	3.25	6.50	Bromocresol Green
	g/dl	4.33	3.68	4.98	0.33	0.65	
	g/l	40.9	34.8	47.0	3.05	6.10	Bromocresol Purple
	g/dl	4.09	3.48	4.70	0.31	0.61	
	g/l	39.5	33.6	45.4	2.95	5.90	Turbidimetric Assays
	g/dl	3.95	3.36	4.54	0.30	0.59	
Alkaline Phosphatase	U/l	123	105	141	9.00	18.00	Roche Integra AMP buffer 37°C
	U/l	96	82	110	7.00	14.00	Roche Integra AMP buffer 30°C
	U/l	79	67	91	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	66	56	76	5.00	10.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	89	76	102	6.50	13.00	Saccharogenic 37°C
	U/l	88	75	101	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	88	75	101	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	15.5	12.3	18.7	1.60	3.20	Enzymatic
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	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Bilirubin Direct	µmol/l	18.6	14.7	22.5	1.95	3.90	Diazo with Sulphanilic Acid
	mg/dl	1.09	0.860	1.32	0.12	0.23	
Bilirubin Total	µmol/l	26.1	20.6	31.6	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.53	1.21	1.85	0.16	0.32	
	µmol/l	26.0	20.5	31.5	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.52	1.20	1.84	0.16	0.32	
	µmol/l	25.7	20.3	31.1	2.70	5.40	Diazonium ion
	mg/dl	1.50	1.19	1.81	0.16	0.31	
Calcium	mmol/l	2.22	2.00	2.44	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.90	8.02	9.78	0.44	0.88	
	mmol/l	2.20	1.98	2.42	0.11	0.22	NM-BAPTA
	mg/dl	8.82	7.94	9.70	0.44	0.88	
Cholesterol	mmol/l	4.15	3.61	4.69	0.27	0.54	Cholesterol Oxidase
	mg/dl	160	139	181	10.50	21.00	
Chloride	mmol/l	96.3	88.6	104	3.85	7.70	ISE indirect
CK Total	U/l	203	166	240	18.50	37.00	CK-NAC substrate start (DGKC) 37°C
	U/l	127	104	150	11.50	23.00	CK-NAC substrate start (DGKC) 30°C
	U/l	86	71	101	7.50	15.00	CK-NAC substrate start (DGKC) 25°C
	U/l	206	169	243	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	129	106	152	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	88	72	104	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	117	93.5	141	11.75	23.50	Alkaline picrate no deproteinization
	mg/dl	1.32	1.06	1.58	0.13	0.26	
	µmol/l	123	98.1	148	12.45	24.90	Roche Creatinine Plus
	mg/dl	1.39	1.11	1.67	0.14	0.28	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	121	96.6	145	12.20	24.40	Jaffe rate blanked
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	μmol/l	116	93.1	139	11.45	22.90	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.31	1.05	1.57	0.13	0.26	
	μmol/l	117	94.0	140	11.50	23.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.32	1.06	1.58	0.13	0.26	
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	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.05	5.14	6.96	0.46	0.91	Glucose dehydrogenase
	mg/dl	109	92.6	125	8.20	16.40	
	mmol/l	6.13	5.21	7.05	0.46	0.92	Hexokinase
	mg/dl	110	93.9	126	8.05	16.10	
	mmol/l	6.22	5.28	7.16	0.47	0.94	Glucose oxidase
	mg/dl	112	95.1	129	8.45	16.90	
HDL - Cholesterol	mmol/l	1.42	1.21	1.63	0.11	0.21	Direct HDL PEGME
	mg/dl	54.8	46.7	62.9	4.05	8.10	
	mmol/l	1.45	1.24	1.66	0.11	0.21	Direct HDL Roche 3rd generation
	mg/dl	56.0	47.9	64.1	4.05	8.10	
Iron	μmol/l	20.3	16.6	24.0	1.85	3.70	Colorimetric with ppt.
	μg/dl	113	92.8	133	10.10	20.20	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Iron	µmol/l	20.0	16.4	23.6	1.80	3.60	Colorimetric without ppt.
	µg/dl	112	91.7	132	10.15	20.30	
Lactate	mmol/l	1.65	1.35	1.95	0.15	0.30	Colorimetric Lactate Oxidase
	mg/dl	14.9	12.2	17.6	1.35	2.70	
LD (LDH)	U/l	393	334	452	29.50	59.00	P->L German methods 37°C
	U/l	284	241	327	21.50	43.00	P->L German methods 30°C
	U/l	199	169	229	15.00	30.00	P->L German methods 25°C
	U/l	213	181	245	16.00	32.00	L->P IFCC 37°C
	U/l	154	131	177	11.50	23.00	L->P IFCC 30°C
	U/l	108	92	124	8.00	16.00	L->P IFCC 25°C
Lipase	U/l	35	28	42	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.05	0.92	1.18	0.07	0.13	Ion selective electrode
	mg/dl	0.729	0.639	0.819	0.05	0.09	
Magnesium	mmol/l	0.89	0.78	1.00	0.05	0.11	Xylidyl Blue
	mg/dl	2.17	1.91	2.43	0.13	0.26	
	mmol/l	0.89	0.79	1.00	0.05	0.11	Methylthymol blue
	mg/dl	2.17	1.91	2.43	0.13	0.26	
	mmol/l	0.89	0.79	1.00	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.17	1.91	2.43	0.13	0.26	
Phosphate Inorganic	mmol/l	1.45	1.23	1.67	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.50	3.81	5.19	0.35	0.69	
	mmol/l	1.44	1.22	1.66	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.46	3.78	5.14	0.34	0.68	
Potassium	mmol/l	4.03	3.71	4.35	0.16	0.32	ISE method - indirect
Protein Total	g/l	56.8	45.5	68.1	5.65	11.30	Biuret reaction end point
	g/dl	5.68	4.55	6.81	0.57	1.13	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Protein Total	g/l	57.6	46.0	69.2	5.80	11.60	Biuret reaction kinetic
	g/dl	5.76	4.60	6.92	0.58	1.16	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
TIBC	µmol/l	44.8	35.4	54.2	4.70	9.40	FE+UIBC(saturation with iron)
	µg/dl	250	198	302	26.00	52.00	
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.8	113	7.80	15.60	
	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	98.2	82.2	114	8.00	16.00	
	mmol/l	1.08	0.91	1.25	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	95.6	80.5	111	7.55	15.10	
	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	94.7	79.4	110	7.65	15.30	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.91	5.14	6.68	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.90	5.14	6.66	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.95	5.17	6.73	0.39	0.78	
Urea	mmol/l	6.72	5.71	7.73	0.51	1.01	Urease kinetic
	mg/dl	40.4	34.3	46.5	3.05	6.10	
	mmol/l	6.72	5.71	7.73	0.51	1.01	BUN
	mg/dl	18.9	16.1	21.7	1.40	2.80	

ELITech/Vitalab Selectra Pro/E/XL/Jnr

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	42.0	35.7	48.3	3.15	6.30	Bromocresol Green
	g/dl	4.20	3.57	4.83	0.32	0.63	
Alkaline Phosphatase	U/l	278	236	320	21.00	42.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	38	31	45	3.50	7.00	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	
Calcium	mmol/l	2.31	2.08	2.54	0.12	0.23	Arsenazo III
	mg/dl	9.26	8.34	10.2	0.46	0.92	
Cholesterol	mmol/l	4.15	3.61	4.69	0.27	0.54	Cholesterol Oxidase
	mg/dl	160	139	181	10.50	21.00	
CK Total	U/l	191	157	225	17.00	34.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	119	95.4	143	11.80	23.60	Alkaline picrate no deproteinization
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	μmol/l	124	99.3	149	12.35	24.70	Creatinine PAP method
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	μmol/l	122	97.9	146	12.05	24.10	Jaffe rate blanked
	mg/dl	1.38	1.11	1.65	0.14	0.27	
Glucose	mmol/l	6.30	5.36	7.24	0.47	0.94	Glucose oxidase
	mg/dl	114	96.6	131	8.70	17.40	
Protein Total	g/l	60.7	48.5	72.9	6.10	12.20	Biuret reaction end point
	g/dl	6.07	4.85	7.29	0.61	1.22	

ELITech/Vitalab Selectra Pro/E/XL/Jnr

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	84.9	117	8.05	16.10	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.06	5.28	6.84	0.39	0.78	
Urea	mmol/l	7.05	5.99	8.11	0.53	1.06	Urease kinetic
	mg/dl	42.4	36.0	48.8	3.20	6.40	
	mmol/l	7.05	5.99	8.11	0.53	1.06	BUN
	mg/dl	19.8	16.8	22.8	1.50	3.00	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

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	
	g/l	42.9	36.5	49.3	3.20	6.40	Bromocresol Purple
	g/dl	4.29	3.65	4.93	0.32	0.64	
Alkaline Phosphatase	U/l	110	94	126	8.00	16.00	Roche Integra AMP buffer 37°C
	U/l	86	73	99	6.50	13.00	Roche Integra AMP buffer 30°C
	U/l	70	60	80	5.00	10.00	Roche Integra AMP buffer 25°C
	U/l	169	144	194	12.50	25.00	AMP optimised to IFCC 37°C
	U/l	132	112	152	10.00	20.00	AMP optimised to IFCC 30°C
	U/l	108	92	124	8.00	16.00	AMP optimised to IFCC 25°C
	U/l	180	153	207	13.50	27.00	Randox AMP 37°C
	U/l	140	119	161	10.50	21.00	Randox AMP 30°C
ALT (GPT)	U/l	115	98	132	8.50	17.00	Randox AMP 25°C
	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
Amylase Pancreatic	U/l	22	17	27	2.50	5.00	Tris buffer without P5P 25°C
	U/l	64	54	74	5.00	10.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/l	76	65	87	5.50	11.00	Randox liquid stable pNPG7 37°C
	U/l	84	72	96	6.00	12.00	Roche liquid stable pNPG7 37°C
Acid Phosphatase (non-prostatic)	U/l	100	85	115	7.50	15.00	Randox liquid stable pNPG7 37°C
	U/l	4.22	2.83	5.61	0.70	1.39	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Acid Phosphatase (non-prostatic)	U/l	5.79	3.88	7.70	0.96	1.91	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Prostatic)	U/l	15.8	10.6	21.0	2.60	5.20	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	8.61	5.77	11.5	1.42	2.84	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Total)	U/l	20.0	13.4	26.6	3.30	6.60	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	14.4	9.65	19.2	2.38	4.75	1-Naphthyl Phosphate substrate Kinetic 37°C
AST (GOT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	24.9	19.9	29.9	2.50	5.00	5th Generation Colorimetric
Bicarbonate	mmol/l	15.4	12.2	18.6	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	17.8	14.1	21.5	1.85	3.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.04	0.825	1.26	0.11	0.22	
	µmol/l	18.0	14.2	21.8	1.90	3.80	Diazo with Sulphanilic Acid
	mg/dl	1.05	0.831	1.27	0.11	0.22	
Bilirubin Total	µmol/l	27.0	21.3	32.7	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.58	1.25	1.91	0.17	0.33	
	µmol/l	24.8	19.6	30.0	2.60	5.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.45	1.15	1.75	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	
Calcium	mmol/l	2.24	2.02	2.46	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.98	8.10	9.86	0.44	0.88	
	mmol/l	2.25	2.03	2.47	0.11	0.22	Arsenazo III
	mg/dl	9.02	8.14	9.90	0.44	0.88	
	mmol/l	2.21	1.99	2.43	0.11	0.22	NM-BAPTA
	mg/dl	8.86	7.98	9.74	0.44	0.88	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	4.10	3.57	4.63	0.27	0.53	Cholesterol Oxidase
	mg/dl	158	138	178	10.00	20.00	
Chloride	mmol/l	92.3	84.9	99.7	3.70	7.40	ISE indirect
Cholinesterase	U/l	5388	4310	6466	539.00	1078.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	195	160	230	17.50	35.00	CK-NAC substrate start (DGKC) 37°C
	U/l	122	100	144	11.00	22.00	CK-NAC substrate start (DGKC) 30°C
	U/l	83	68	98	7.50	15.00	CK-NAC substrate start (DGKC) 25°C
	U/l	190	156	224	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	119	98	140	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	127	101	153	13.00	26.00	Creatinine PAP method
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	126	101	151	12.50	25.00	Roche Creatinine Plus
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	125	99.9	150	12.55	25.10	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.41	1.13	1.69	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.24	0.20	0.28	0.02	0.04	Tris buffer 100mmol pH 8.5
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	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
	U/l	56	48	64	4.00	8.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	44	38	50	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	35	30	40	2.50	5.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
GLDH	U/l	23	18	28	2.50	5.00	Triethanolamine buffer 50 mmol 37°C
	U/l	18	14	22	2.00	4.00	Triethanolamine buffer 50 mmol 30°C
	U/l	14	11	17	1.50	3.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	6.08	5.17	6.99	0.46	0.91	Hexokinase
	mg/dl	110	93.2	127	8.40	16.80	
	mmol/l	6.30	5.36	7.24	0.47	0.94	Glucose oxidase
alpha-HBDH	mg/dl	114	96.6	131	8.70	17.40	
	U/l	232	183	281	24.50	49.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	175	138	212	18.50	37.00	Oxobutyrate < 10 mmol/l 30°C
HDL - Cholesterol	U/l	131	104	158	13.50	27.00	Oxobutyrate < 10 mmol/l 25°C
	mmol/l	1.36	1.15	1.57	0.11	0.21	Direct HDL Immunoseparation
	mg/dl	52.5	44.4	60.6	4.05	8.10	
Iron	mmol/l	1.39	1.18	1.60	0.11	0.21	Direct HDL PEGME
	mg/dl	53.7	45.5	61.9	4.10	8.20	
	mmol/l	1.42	1.21	1.63	0.11	0.21	Direct HDL Roche 3rd generation
Lactate	mg/dl	54.8	46.7	62.9	4.05	8.10	
	µmol/l	19.2	15.7	22.7	1.75	3.50	Colorimetric without ppt.
	µg/dl	107	87.8	126	9.60	19.20	
LD (LDH)	mmol/l	1.55	1.27	1.83	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.0	11.4	16.6	1.30	2.60	
	U/l	402	342	462	30.00	60.00	P->L German methods 37°C
	U/l	290	247	333	21.50	43.00	P->L German methods 30°C
	U/l	204	173	235	15.50	31.00	P->L German methods 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
LD (LDH)	U/l	197	167	227	15.00	30.00	L->P IFCC 37°C
	U/l	142	121	163	10.50	21.00	L->P IFCC 30°C
	U/l	100	85	115	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	33	26	40	3.50	7.00	Other Colorimetric 37°C
	U/l	32	26	38	3.00	6.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.08	0.95	1.21	0.06	0.13	Spectrophotometric
	mg/dl	0.750	0.662	0.838	0.04	0.09	
Magnesium	mmol/l	0.89	0.78	1.00	0.05	0.11	Xylidyl Blue
	mg/dl	2.16	1.90	2.42	0.13	0.26	
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	4.10	3.77	4.43	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.3	46.7	69.9	5.80	11.60	Biuret reaction end point
	g/dl	5.83	4.67	6.99	0.58	1.16	
Sodium	mmol/l	145	137	153	4.00	8.00	ISE method - indirect
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	
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	
	mmol/l	1.08	0.90	1.26	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	95.6	80.0	111	7.80	15.60	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.76	5.01	6.51	0.38	0.75	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.80	5.04	6.56	0.38	0.76	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.76	5.01	6.51	0.38	0.75	
Urea	mmol/l	7.33	6.23	8.43	0.55	1.10	Urease kinetic
	mg/dl	44.1	37.4	50.8	3.35	6.70	
	mmol/l	7.33	6.23	8.43	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	41.4	35.2	47.6	3.10	6.20	Bromocresol Green
	g/dl	4.14	3.52	4.76	0.31	0.62	
Alkaline Phosphatase	U/l	176	150	202	13.00	26.00	AMP optimised to IFCC 37°C
	U/l	137	117	157	10.00	20.00	AMP optimised to IFCC 30°C
	U/l	112	96	128	8.00	16.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	36	28	44	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
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
Bile Acids	µmol/l	22.4	17.9	26.9	2.25	4.50	Enzymatic Colorimetric
Calcium	mmol/l	2.20	1.98	2.42	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.82	7.94	9.70	0.44	0.88	
Cholesterol	mmol/l	3.97	3.46	4.48	0.26	0.51	Cholesterol Oxidase
	mg/dl	153	134	172	9.50	19.00	
Chloride	mmol/l	94.7	87.1	102	3.80	7.60	ISE indirect
CK Total	U/l	182	149	215	16.50	33.00	CK-NAC (IFCC) 37°C
	U/l	114	93	135	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	77	63	91	7.00	14.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	127	102	152	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.44	1.15	1.73	0.15	0.29	

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
D-3-Hydroxybutyrate	mmol/l	0.29	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	49	41	57	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	32	46	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	25	35	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	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
Glucose	mmol/l	6.18	5.25	7.11	0.47	0.93	Hexokinase
	mg/dl	111	94.6	127	8.20	16.40	
	mmol/l	6.07	5.16	6.98	0.46	0.91	Glucose oxidase
	mg/dl	109	93.0	125	8.00	16.00	
HDL - Cholesterol	mmol/l	1.24	1.05	1.43	0.10	0.19	Direct HDL Immunoseparation
	mg/dl	47.9	40.5	55.3	3.70	7.40	
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	
LD (LDH)	U/l	396	336	456	30.00	60.00	P->L German methods 37°C
	U/l	286	243	329	21.50	43.00	P->L German methods 30°C
	U/l	201	170	232	15.50	31.00	P->L German methods 25°C
Phosphate Inorganic	mmol/l	1.38	1.17	1.59	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.28	3.63	4.93	0.33	0.65	
Potassium	mmol/l	4.05	3.73	4.37	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.3	47.4	71.2	5.95	11.90	Biuret reaction end point
	g/dl	5.93	4.74	7.12	0.60	1.19	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.16	0.98	1.34	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	103	86.5	120	8.25	16.50	
	mmol/l	1.13	0.95	1.31	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	100	83.8	116	8.10	16.20	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.00	5.21	6.79	0.40	0.79	
Urea	mmol/l	7.26	6.17	8.35	0.55	1.09	Urease end point
	mg/dl	43.6	37.1	50.1	3.25	6.50	
	mmol/l	7.26	6.17	8.35	0.55	1.09	BUN
	mg/dl	20.4	17.3	23.5	1.55	3.10	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	40.3	34.3	46.3	3.00	6.00	Ortho Vitros Microslide Systems
	g/dl	4.03	3.43	4.63	0.30	0.60	
Alkaline Phosphatase	U/l	124	105	143	9.50	19.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	47	38	56	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	46	37	55	4.50	9.00	Vitros DT60/DT60 II/DTSC II 37°C
Amylase Total	U/l	65	55	75	5.00	10.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	51	41	61	5.00	10.00	Ortho Vitros Microslide visible slide 37°C
Bicarbonate	mmol/l	17.1	13.6	20.6	1.75	3.50	Ortho Vitros Microslide Systems
Bilirubin Total	µmol/l	22.9	18.1	27.7	2.40	4.80	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.34	1.06	1.62	0.14	0.28	
	µmol/l	21.9	17.3	26.5	2.30	4.60	Vitros 250/500/700/950 Total BUBC
	mg/dl	1.28	1.01	1.55	0.14	0.27	
Calcium	mmol/l	2.30	2.07	2.53	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	9.22	8.30	10.1	0.46	0.92	
	mmol/l	2.42	2.17	2.67	0.13	0.25	Vitros DT60/DT60 II/DTSC II
	mg/dl	9.70	8.70	10.7	0.50	1.00	
Cholesterol	mmol/l	3.80	3.31	4.29	0.25	0.49	Ortho Vitros Microslide Systems
	mg/dl	147	128	166	9.50	19.00	
	mmol/l	4.26	3.70	4.82	0.28	0.56	Vitros DT60/DT60 II
	mg/dl	164	143	185	10.50	21.00	
Chloride	mmol/l	96.5	88.8	104	3.85	7.70	Ortho Vitros Microslide Systems

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	98.0	90.2	106	3.90	7.80	Vitros DT60/DT60 II/DTE II
Cholinesterase	U/l	5537	4430	6644	553.50	1107.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	180	147	213	16.50	33.00	Ortho Vitros Microslide Systems 37°C
Creatinine	μmol/l	122	97.9	146	12.05	24.10	Vitros IDMS Traceable
	mg/dl	1.38	1.11	1.65	0.14	0.27	
Free T4	pmol/l	36.8	27.6	46.0	4.60	9.20	Vitros ECi
	ng/dl	2.87	2.15	3.59	0.36	0.72	
	pg/ml	28.7	21.5	35.9	3.60	7.20	
gamma-GT	U/l	66	56	76	5.00	10.00	Ortho Vitros Microslide Systems 37°C
Glucose	mmol/l	5.88	5.00	6.76	0.44	0.88	Ortho Vitros Microslide Systems
	mg/dl	106	90.1	122	7.95	15.90	
	mmol/l	5.64	4.80	6.48	0.42	0.84	Vitros DT60/DT60 II
	mg/dl	102	86.5	118	7.75	15.50	
HDL - Cholesterol	mmol/l	1.40	1.19	1.61	0.11	0.21	Vitros Magnetic HDL
	mg/dl	54.0	45.9	62.1	4.05	8.10	
	mmol/l	1.43	1.21	1.65	0.11	0.22	Vitros 5.1 FS microtip assay
	mg/dl	55.2	46.7	63.7	4.25	8.50	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Vitros dHDL PTA/MgCl ₂ direct precipitation
	mg/dl	53.7	45.5	61.9	4.10	8.20	
Iron	μmol/l	20.1	16.5	23.7	1.80	3.60	Ortho Vitros Microslide Systems
	μg/dl	112	92.2	132	9.90	19.80	
Lactate	mmol/l	1.47	1.20	1.74	0.14	0.27	Ortho Vitros Microslide Systems
	mg/dl	13.2	10.8	15.6	1.20	2.40	
LD (LDH)	U/l	587	499	675	44.00	88.00	Ortho Vitros Microslide Systems 37°C
Lipase	U/l	217	174	260	21.50	43.00	Ortho Vitros Microslide Systems 37°C

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Lipase	U/l	222	178	266	22.00	44.00	Vitros DT60/DT60 II/DTSC II 37°C
Lithium	mmol/l	1.25	1.10	1.40	0.08	0.15	Ortho Vitros Microslide Systems
	mg/dl	0.868	0.764	0.972	0.05	0.10	
Magnesium	mmol/l	0.90	0.79	1.00	0.05	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.18	1.92	2.44	0.13	0.26	
Phosphate Inorganic	mmol/l	1.51	1.28	1.74	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	4.68	3.97	5.39	0.36	0.71	
Potassium	mmol/l	4.11	3.78	4.44	0.17	0.33	Ortho Vitros Microslide Systems
	mmol/l	4.34	3.99	4.69	0.18	0.35	Vitros DT60/DT60 II/DTE II
Protein Total	g/l	58.4	46.7	70.1	5.85	11.70	Ortho Vitros Microslide Systems
	g/dl	5.84	4.67	7.01	0.59	1.17	
PSA Total	ng/ml =	16.7	12.5	20.9	2.10	4.20	Ortho Vitros 3600/5600/ECi PSA II
Sodium	mmol/l	144	136	152	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	142	135	149	3.50	7.00	Vitros DT60/DT60 II/DTE II
Thyroid Stimulating Hormone	µU/ml =	1.31	1.05	1.57	0.13	0.26	Vitros ECi
TIBC	µmol/l	46.0	36.4	55.6	4.80	9.60	Ortho Vitros Microslide Systems
	µg/dl	257	203	311	27.00	54.00	
Total T3	nmol/l	2.77	2.08	3.46	0.35	0.69	Vitros ECi
	ng/ml	1.80	1.35	2.25	0.23	0.45	
	ng/dl	180	135	225	22.50	45.00	Vitros ECi
Total T4	nmol/l	81.6	61.2	102	10.20	20.40	Vitros ECi
	µg/dl	6.36	4.77	7.95	0.80	1.59	
	ng/ml	63.6	47.7	79.5	7.95	15.90	Vitros ECi
Triglycerides	mmol/l	1.29	1.08	1.50	0.11	0.21	Ortho Vitros Microslide Systems
	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. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.66	4.92	6.40	0.37	0.74	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Vitros DT60/DT60 II
	mg/dl	5.93	5.16	6.70	0.39	0.77	
Urea	mmol/l	6.75	5.74	7.76	0.51	1.01	Ortho Vitros Microslide Systems
	mg/dl	40.6	34.5	46.7	3.05	6.10	
	mmol/l	6.75	5.74	7.76	0.51	1.01	BUN
	mg/dl	18.9	16.1	21.7	1.40	2.80	

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

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	40.0	34.0	46.0	3.00	6.00	Bromocresol Green
	g/dl	4.00	3.40	4.60	0.30	0.60	
Alkaline Phosphatase	U/l	287	244	330	21.50	43.00	Diethanolamine buffer DEA 37°C
	U/l	224	190	258	17.00	34.00	Diethanolamine buffer DEA 30°C
	U/l	183	156	210	13.50	27.00	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
Amylase Total	U/l	82	70	94	6.00	12.00	bioMerieux 2-chloro-pNPG3 37°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 Direct	µmol/l	18.1	14.3	21.9	1.90	3.80	Diazo with Sulphanilic Acid
	mg/dl	1.06	0.837	1.28	0.11	0.22	
Bilirubin Total	µmol/l	24.8	19.6	30.0	2.60	5.20	Nitrobenzenediazonium salt
	mg/dl	1.45	1.15	1.75	0.15	0.30	
Calcium	mmol/l	2.29	2.06	2.52	0.12	0.23	Arsenazo III
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Cholesterol	mmol/l	3.94	3.43	4.45	0.26	0.51	Cholesterol Oxidase
	mg/dl	152	132	172	10.00	20.00	
Chloride	mmol/l	98.7	90.8	107	3.95	7.90	ISE direct

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

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
CK Total	U/l	208	171	245	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	130	107	153	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	88	73	103	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	124	98.8	149	12.60	25.20	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	131	105	157	13.00	26.00	Creatinine PAP method
	mg/dl	1.48	1.19	1.77	0.15	0.29	
D-3-Hydroxybutyrate	mmol/l	0.29	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.58	5.60	7.56	0.49	0.98	Hexokinase
	mg/dl	119	101	137	9.00	18.00	
	mmol/l	6.19	5.26	7.12	0.47	0.93	Glucose oxidase
	mg/dl	112	94.8	129	8.60	17.20	
HDL - Cholesterol	mmol/l	1.37	1.17	1.57	0.10	0.20	Direct HDL PEGME
	mg/dl	52.9	45.2	60.6	3.85	7.70	
Iron	µmol/l	22.0	18.1	25.9	1.95	3.90	Colorimetric without ppt.
	µg/dl	123	101	145	11.00	22.00	
Magnesium	mmol/l	0.95	0.83	1.06	0.06	0.11	Calmagite
	mg/dl	2.30	2.03	2.57	0.14	0.27	
	mmol/l	0.88	0.78	0.99	0.05	0.11	Xylidyl Blue
	mg/dl	2.14	1.89	2.39	0.13	0.25	
Phosphate Inorganic	mmol/l	1.44	1.23	1.65	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.46	3.81	5.11	0.33	0.65	

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

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Potassium	mmol/l	3.88	3.57	4.19	0.16	0.31	ISE method - direct
Protein Total	g/l	59.5	47.6	71.4	5.95	11.90	Biuret reaction end point
	g/dl	5.95	4.76	7.14	0.60	1.19	
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	84.8	117	8.10	16.20	
Uric Acid (Urate)	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.10	5.31	6.89	0.40	0.79	
	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.88	5.11	6.65	0.39	0.77	
	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.08	5.29	6.87	0.40	0.79	
	mmol/l	7.15	6.07	8.23	0.54	1.08	Urease kinetic
	mg/dl	43.0	36.5	49.5	3.25	6.50	
Urea	mmol/l	7.15	6.08	8.22	0.54	1.07	BUN
	mg/dl	20.1	17.1	23.1	1.50	3.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.8	35.6	48.0	3.10	6.20	Bromocresol Green
	g/dl	4.18	3.56	4.80	0.31	0.62	
	g/l	42.5	36.1	48.9	3.20	6.40	Bromocresol Purple
	g/dl	4.25	3.61	4.89	0.32	0.64	
	g/l	40.3	34.3	46.3	3.00	6.00	Ortho Vitros Microslide Systems
	g/dl	4.03	3.43	4.63	0.30	0.60	
	g/l	39.7	33.7	45.7	3.00	6.00	Turbidimetric Assays
	g/dl	3.97	3.37	4.57	0.30	0.60	
Alkaline Phosphatase	U/l	176	149	203	13.50	27.00	p-Nitrophenylphosphate AMP 37°C
	U/l	137	116	158	10.50	21.00	p-Nitrophenylphosphate AMP 30°C
	U/l	112	95	129	8.50	17.00	p-Nitrophenylphosphate AMP 25°C
	U/l	124	105	143	9.50	19.00	Ortho Vitros Microslide Systems 37°C
	U/l	281	239	323	21.00	42.00	Diethanolamine buffer DEA 37°C
	U/l	219	186	252	16.50	33.00	Diethanolamine buffer DEA 30°C
	U/l	180	153	207	13.50	27.00	Diethanolamine buffer DEA 25°C
	U/l	173	147	199	13.00	26.00	AMP optimised to IFCC 37°C
	U/l	135	115	155	10.00	20.00	AMP optimised to IFCC 30°C
	U/l	111	94	128	8.50	17.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	47	38	56	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	41	33	49	4.00	8.00	Tris buffer with P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer with P5P 30°C
	U/l	23	19	27	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. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
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
	U/l	36	29	43	3.50	7.00	Tris buffer SCE 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer SCE 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer SCE 25°C
Amylase Pancreatic	U/l	66	56	76	5.00	10.00	Immunoinhibition EPS substrate 37°C
	U/l	65	55	75	5.00	10.00	Roche liquid stable pNPG7 37°C
	U/l	76	65	87	5.50	11.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	86	73	99	6.50	13.00	pNP Maltotriose substrates 37°C
	U/l	88	75	101	6.50	13.00	Siemens - blocked pNPG7 37°C
	U/l	87	74	100	6.50	13.00	Biotrol - blocked pNPG7 37°C
	U/l	71	60	82	5.50	11.00	Randox - Ethylidene pNPG7 37°C
	U/l	100	85	115	7.50	15.00	Randox liquid stable pNPG7 37°C
	U/l	89	76	102	6.50	13.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	90	76	104	7.00	14.00	Beckman maltotetraose 37°C
	U/l	108	92	124	8.00	16.00	Siemens - maltopenta/hexaoside 37°C
	U/l	89	75	103	7.00	14.00	Saccharogenic 37°C
	U/l	92	79	105	6.50	13.00	Siemens 2-chloro-pNP linked substrate 37°C
	U/l	88	75	101	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	65	55	75	5.00	10.00	Ortho Vitros Microslide Systems 37°C
	U/l	86	73	99	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	95	81	109	7.00	14.00	Siemens 2-chloro-pNPG3 37°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Total	U/l	82	70	94	6.00	12.00	bioMerieux 2-chloro-pNPG3 37°C
	U/l	84	72	96	6.00	12.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	93	79	107	7.00	14.00	Beckman Synchron AMY7 37°C
Apolipoprotein A-1	g/l	1.02	0.84	1.20	0.09	0.18	Immunoturbidimetric
	mg/dl	102	83.6	120	9.20	18.40	
Apolipoprotein B	g/l	0.58	0.48	0.68	0.05	0.10	Immunoturbidimetric
	mg/dl	57.9	47.5	68.3	5.20	10.40	
Acid Phosphatase (non-prostatic)	U/l	5.79	3.88	7.70	0.96	1.91	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	4.22	2.83	5.61	0.70	1.39	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	8.61	5.77	11.5	1.42	2.84	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	15.8	10.6	21.0	2.60	5.20	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Total)	U/l	14.4	9.65	19.2	2.38	4.75	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	20.0	13.4	26.6	3.30	6.60	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
AST (GOT)	U/l	51	41	61	5.00	10.00	Ortho Vitros Microslide visible slide 37°C
	U/l	51	41	61	5.00	10.00	Tris buffer with P5P 37°C
	U/l	34	28	40	3.00	6.00	Tris buffer with P5P 30°C
	U/l	24	20	28	2.00	4.00	Tris buffer with P5P 25°C
	U/l	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
	U/l	37	29	45	4.00	8.00	Tris buffer SCE 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer SCE 30°C
Bile Acids	μmol/l	27.6	22.1	33.1	2.75	5.50	4th Generation Colorimetric
	μmol/l	24.9	19.9	29.9	2.50	5.00	5th Generation Colorimetric

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Bicarbonate	mmol/l	15.3	12.2	18.4	1.55	3.10	Colorimetric
	mmol/l	17.1	13.6	20.6	1.75	3.50	Ortho Vitros Microslide Systems
	mmol/l	15.6	12.4	18.8	1.60	3.20	Differential rate pH change
	mmol/l	15.5	12.3	18.7	1.60	3.20	Enzymatic
	mmol/l	15.1	12.0	18.2	1.55	3.10	Ion selective electrode
Bilirubin Direct	μmol/l	19.2	15.2	23.2	2.00	4.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.12	0.889	1.35	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	19.0	15.0	23.0	2.00	4.00	Roche JG factored
	mg/dl	1.11	0.878	1.34	0.12	0.23	
	μmol/l	18.9	14.9	22.9	2.00	4.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.11	0.872	1.35	0.12	0.24	
	μmol/l	18.4	14.5	22.3	1.95	3.90	Oxidation to Biliverdin
	mg/dl	1.08	0.848	1.31	0.12	0.23	
Bilirubin Total	μmol/l	16.5	13.0	20.0	1.75	3.50	Modified Jendrassik
	mg/dl	0.965	0.761	1.17	0.10	0.20	
	μmol/l	22.9	18.1	27.7	2.40	4.80	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.34	1.06	1.62	0.14	0.28	
	μmol/l	21.9	17.3	26.5	2.30	4.60	Vitros 250/500/700/950 Total BUBC
	mg/dl	1.28	1.01	1.55	0.14	0.27	
	μmol/l	34.3	27.1	41.5	3.60	7.20	Diazo with Dichloroaniline (DCA)
	mg/dl	2.01	1.59	2.43	0.21	0.42	
	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	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	μmol/l	28.6	22.6	34.6	3.00	6.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.67	1.32	2.02	0.18	0.35	
	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	25.4	20.1	30.7	2.65	5.30	Diazonium ion
	mg/dl	1.49	1.18	1.80	0.16	0.31	
	μmol/l	29.2	23.1	35.3	3.05	6.10	Oxidation to Biliverdin
	mg/dl	1.71	1.35	2.07	0.18	0.36	
Calcium	μmol/l	34.1	26.9	41.3	3.60	7.20	Modified Jendrassik
	mg/dl	1.99	1.57	2.41	0.21	0.42	
	mmol/l	2.23	2.01	2.45	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.94	8.06	9.82	0.44	0.88	
	mmol/l	2.30	2.07	2.53	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	9.22	8.30	10.1	0.46	0.92	
	mmol/l	2.20	1.98	2.42	0.11	0.22	Ion selective electrode
	mg/dl	8.82	7.94	9.70	0.44	0.88	
	mmol/l	2.30	2.07	2.53	0.12	0.23	Methylthymol blue
	mg/dl	9.22	8.30	10.1	0.46	0.92	
	mmol/l	2.28	2.05	2.51	0.12	0.23	Arsenazo III
	mg/dl	9.14	8.22	10.1	0.46	0.92	
Cholesterol	mmol/l	2.24	2.01	2.47	0.12	0.23	NM-BAPTA
	mg/dl	8.98	8.06	9.90	0.46	0.92	
	mmol/l	3.80	3.31	4.29	0.25	0.49	Ortho Vitros Microslide Systems
	mg/dl	147	128	166	9.50	19.00	
	mmol/l	4.08	3.55	4.61	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	137	177	10.00	20.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	99.6	91.6	108	4.00	8.00	Colorimetric
	mmol/l	96.5	88.8	104	3.85	7.70	Ortho Vitros Microslide Systems
	mmol/l	94.6	87.0	102	3.80	7.60	ISE indirect
	mmol/l	96.8	89.0	105	3.90	7.80	ISE direct
Cholinesterase	U/l	5677	4542	6812	567.50	1135.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	180	147	213	16.50	33.00	Ortho Vitros Microslide Systems 37°C
	U/l	193	158	228	17.50	35.00	CK-NAC serum start (DGKC) 37°C
	U/l	121	99	143	11.00	22.00	CK-NAC serum start (DGKC) 30°C
	U/l	82	67	97	7.50	15.00	CK-NAC serum start (DGKC) 25°C
	U/l	204	167	241	18.50	37.00	CK-NAC substrate start (DGKC) 37°C
	U/l	128	105	151	11.50	23.00	CK-NAC substrate start (DGKC) 30°C
	U/l	87	71	103	8.00	16.00	CK-NAC substrate start (DGKC) 25°C
	U/l	201	165	237	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	126	103	149	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	85	70	100	7.50	15.00	CK-NAC (IFCC) 25°C
	U/l	203	166	240	18.50	37.00	Monothioglycerol 37°C
	U/l	127	104	150	11.50	23.00	Monothioglycerol 30°C
	U/l	86	71	101	7.50	15.00	Monothioglycerol 25°C
	U/l	191	157	225	17.00	34.00	Dithioerythritol 37°C
	U/l	120	98	142	11.00	22.00	Dithioerythritol 30°C
	U/l	81	67	95	7.00	14.00	Dithioerythritol 25°C
	U/l	188	154	222	17.00	34.00	Dithioerythritol (DTE) IFCC correlated 37°C
	U/l	118	96	140	11.00	22.00	Dithioerythritol (DTE) IFCC correlated 30°C
	U/l	80	65	95	7.50	15.00	Dithioerythritol (DTE) IFCC correlated 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Copper	µmol/l	19.2	15.4	23.0	1.90	3.80	Atomic absorption
	µg/dl	122	97.9	146	12.05	24.10	
	µmol/l	18.7	15.0	22.4	1.85	3.70	Colorimetric
	µg/dl	119	95.4	143	11.80	23.60	
Cortisol	nmol/l	525	394	656	65.50	131.00	Roche Cobas E411
	µg/dl	18.9	14.2	23.6	2.35	4.70	
Creatinine	µmol/l	120	96.1	144	11.95	23.90	Alkaline picrate with deproteinization
	mg/dl	1.36	1.09	1.63	0.14	0.27	
	µmol/l	123	98.3	148	12.35	24.70	Alkaline picrate no deproteinization
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	125	99.6	150	12.70	25.40	Randox Enzymatic UV method
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	128	102	154	13.00	26.00	Creatinine PAP method
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	127	102	152	12.50	25.00	Roche Creatinine Plus
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	124	99.3	149	12.35	24.70	Jaffe rate blanked
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	125	100	150	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	120	95.9	144	12.05	24.10	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	µmol/l	122	97.9	146	12.05	24.10	Vitros IDMS Traceable
	mg/dl	1.38	1.11	1.65	0.14	0.27	
	µmol/l	123	98.4	148	12.30	24.60	IDMS traceable
	mg/dl	1.39	1.11	1.67	0.14	0.28	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
D-3-Hydroxybutyrate	mmol/l	0.29	0.25	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	1.86	1.49	2.23	0.19	0.37	Immunoturbidimetric
	ng/ml	1.45	1.16	1.74	0.15	0.29	
Folate	nmol/l	41.5	31.5	51.5	5.00	10.00	Roche Cobas E411
	ng/ml	18.3	13.9	22.7	2.20	4.40	
Free T4	pmol/l	18.5	13.9	23.1	2.30	4.60	Abbott Architect
	ng/dl	1.44	1.08	1.80	0.18	0.36	
	pg/ml	14.4	10.8	18.0	1.80	3.60	
	pmol/l	18.7	14.0	23.4	2.35	4.70	Siemens Centaur XP/XPT/Classic
	ng/dl	1.46	1.09	1.83	0.19	0.37	
	pg/ml	14.6	10.9	18.3	1.85	3.70	Siemens Centaur XP/XPT/Classic
	pmol/l	19.9	14.9	24.9	2.50	5.00	
	ng/dl	1.55	1.16	1.94	0.20	0.39	Beckman Access
	pg/ml	15.5	11.6	19.4	1.95	3.90	
	pmol/l	21.0	15.7	26.3	2.65	5.30	Siemens Immulite 1000
	ng/dl	1.64	1.22	2.06	0.21	0.42	
	pg/ml	16.4	12.2	20.6	2.10	4.20	Siemens Immulite 1000
	pmol/l	36.8	27.6	46.0	4.60	9.20	
	ng/dl	2.87	2.15	3.59	0.36	0.72	Vitros Eci
	pg/ml	28.7	21.5	35.9	3.60	7.20	
	pmol/l	22.7	17.0	28.4	2.85	5.70	Roche Elecsys
	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 Elecsys
	pmol/l	22.2	16.6	27.8	2.80	5.60	
	ng/dl	1.73	1.29	2.17	0.22	0.44	Roche Modular E170
	pg/ml	17.3	12.9	21.7	2.20	4.40	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Free T4	pmol/l	22.8	17.1	28.5	2.85	5.70	Roche Cobas E411
	ng/dl	1.78	1.33	2.23	0.23	0.45	
	pg/ml	17.8	13.3	22.3	2.25	4.50	Roche Cobas E411
	pmol/l	22.3	16.7	27.9	2.80	5.60	Roche Cobas 6000/8000
	ng/dl	1.74	1.30	2.18	0.22	0.44	
	pg/ml	17.4	13.0	21.8	2.20	4.40	Roche Cobas 6000/8000
Gentamicin	µmol/l	7.93	6.34	9.52	0.80	1.59	Immunoturbidimetric
	µg/ml	3.79	3.03	4.55	0.38	0.76	
gamma-GT	U/l	50	42	58	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	26	36	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	66	56	76	5.00	10.00	Ortho Vitros Microslide Systems 37°C
	U/l	44	38	50	3.00	6.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	35	30	40	2.50	5.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	27	23	31	2.00	4.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	56	48	64	4.00	8.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	44	38	50	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	35	30	40	2.50	5.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	15	12	18	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
	U/l	12	9	15	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	9	7	11	1.00	2.00	Triethanolamine buffer 50 mmol 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	5.88	5.00	6.76	0.44	0.88	Ortho Vitros Microslide Systems
	mg/dl	106	90.1	122	7.95	15.90	
	mmol/l	6.15	5.23	7.07	0.46	0.92	Glucose dehydrogenase
	mg/dl	111	94.2	128	8.40	16.80	
	mmol/l	6.11	5.19	7.03	0.46	0.92	Hexokinase
	mg/dl	110	93.5	127	8.25	16.50	
	mmol/l	6.06	5.15	6.97	0.46	0.91	Oxygen electrode
	mg/dl	109	92.8	125	8.10	16.20	
	mmol/l	6.24	5.30	7.18	0.47	0.94	Glucose oxidase
	mg/dl	112	95.5	129	8.25	16.50	
alpha-HBDH	U/l	232	183	281	24.50	49.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	175	138	212	18.50	37.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	131	104	158	13.50	27.00	Oxobutyrate < 10 mmol/l 25°C
HDL - Cholesterol	mmol/l	1.59	1.35	1.83	0.12	0.24	Direct HDL PPD
	mg/dl	61.4	52.1	70.7	4.65	9.30	
	mmol/l	1.34	1.14	1.54	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	51.7	44.0	59.4	3.85	7.70	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Vitros Magnetic HDL
	mg/dl	54.0	45.9	62.1	4.05	8.10	
	mmol/l	1.42	1.21	1.63	0.11	0.21	Direct HDL PEGME
	mg/dl	54.8	46.7	62.9	4.05	8.10	
	mmol/l	1.33	1.13	1.53	0.10	0.20	Direct Clearance Method
	mg/dl	51.3	43.6	59.0	3.85	7.70	
	mmol/l	1.43	1.21	1.65	0.11	0.22	Vitros 5.1 FS microtip assay
	mg/dl	55.2	46.7	63.7	4.25	8.50	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	1.39	1.18	1.60	0.11	0.21	Vitros dHDL PTA/MgCl ₂ direct precipitation
	mg/dl	53.7	45.5	61.9	4.10	8.20	
	mmol/l	1.42	1.21	1.63	0.11	0.21	Direct HDL Roche 3rd generation
	mg/dl	54.8	46.7	62.9	4.05	8.10	
	mmol/l	1.50	1.28	1.72	0.11	0.22	HDL - Ultra
	mg/dl	57.9	49.4	66.4	4.25	8.50	
Immunoglobulin A	g/l	1.85	1.39	2.31	0.23	0.46	Immunoturbidimetric
	mg/dl	185	139	231	23.00	46.00	
Immunoglobulin G	g/l	6.41	5.26	7.56	0.58	1.15	Immunoturbidimetric
	mg/dl	641	526	756	57.50	115.00	
Immunoglobulin M	g/l	0.80	0.64	0.96	0.08	0.16	Immunoturbidimetric
	mg/dl	79.7	63.8	95.6	7.95	15.90	
Iron	μmol/l	19.6	16.0	23.2	1.80	3.60	Colorimetric with ppt.
	μg/dl	110	89.4	131	10.30	20.60	
	μmol/l	19.5	16.0	23.0	1.75	3.50	Colorimetric without ppt.
	μg/dl	109	89.4	129	9.80	19.60	
	μmol/l	20.1	16.5	23.7	1.80	3.60	Ortho Vitros Microslide Systems
	μg/dl	112	92.2	132	9.90	19.80	
Lactate	mmol/l	1.54	1.26	1.82	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	13.9	11.4	16.4	1.25	2.50	
	mmol/l	1.47	1.20	1.74	0.14	0.27	Ortho Vitros Microslide Systems
	mg/dl	13.2	10.8	15.6	1.20	2.40	
	mmol/l	1.36	1.12	1.60	0.12	0.24	UV LDH
	mg/dl	12.3	10.1	14.5	1.10	2.20	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
LAP	U/I	16	14	18	1.00	2.00	NAGEL 37°C
LD (LDH)	U/I	587	499	675	44.00	88.00	Ortho Vitros Microslide Systems 37°C
	U/I	184	156	212	14.00	28.00	L->P 37°C
	U/I	133	113	153	10.00	20.00	L->P 30°C
	U/I	93	79	107	7.00	14.00	L->P 25°C
	U/I	438	372	504	33.00	66.00	P->L Scandinavian & Dutch 37°C
	U/I	316	269	363	23.50	47.00	P->L Scandinavian & Dutch 30°C
	U/I	222	189	255	16.50	33.00	P->L Scandinavian & Dutch 25°C
	U/I	400	340	460	30.00	60.00	P->L German methods 37°C
	U/I	289	245	333	22.00	44.00	P->L German methods 30°C
	U/I	203	172	234	15.50	31.00	P->L German methods 25°C
	U/I	401	341	461	30.00	60.00	P->L SFBC 37°C
	U/I	290	246	334	22.00	44.00	P->L SFBC 30°C
	U/I	203	173	233	15.00	30.00	P->L SFBC 25°C
	U/I	204	173	235	15.50	31.00	L->P IFCC 37°C
	U/I	147	125	169	11.00	22.00	L->P IFCC 30°C
	U/I	103	88	118	7.50	15.00	L->P IFCC 25°C
Lipase	U/I	34	27	41	3.50	7.00	Other Colorimetric 37°C
	U/I	217	174	260	21.50	43.00	Ortho Vitros Microslide Systems 37°C
	U/I	33	26	40	3.50	7.00	Roche Colorimetric 37°C
	U/I	153	123	183	15.00	30.00	Randox Turbidimetric with colipase 37°C
	U/I	39	31	47	4.00	8.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.25	1.10	1.40	0.08	0.15	Ortho Vitros Microslide Systems
	mg/dl	0.868	0.764	0.972	0.05	0.10	
	mmol/l	1.06	0.93	1.19	0.07	0.13	Flame photometry
	mg/dl	0.736	0.645	0.827	0.05	0.09	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Lithium	mmol/l	1.03	0.91	1.15	0.06	0.12	Ion selective electrode
	mg/dl	0.715	0.629	0.801	0.04	0.09	
	mmol/l	1.06	0.93	1.19	0.06	0.13	Spectrophotometric
	mg/dl	0.736	0.646	0.826	0.05	0.09	
	mmol/l	1.10	0.97	1.23	0.07	0.13	Randox Colorimetric
	mg/dl	0.764	0.672	0.856	0.05	0.09	
Magnesium	mmol/l	0.88	0.78	0.99	0.05	0.11	Arsenazo III
	mg/dl	2.14	1.88	2.40	0.13	0.26	
	mmol/l	0.90	0.79	1.00	0.05	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.18	1.92	2.44	0.13	0.26	
	mmol/l	0.90	0.79	1.01	0.05	0.11	Calmagite
	mg/dl	2.19	1.92	2.46	0.14	0.27	
	mmol/l	0.91	0.80	1.01	0.05	0.11	Xylidyl Blue
	mg/dl	2.20	1.93	2.47	0.14	0.27	
	mmol/l	0.88	0.77	0.98	0.05	0.11	Methylthymol blue
	mg/dl	2.13	1.88	2.38	0.13	0.25	
	mmol/l	0.90	0.79	1.00	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.18	1.92	2.44	0.13	0.26	
NEFA	mmol/l	1.58	1.34	1.82	0.12	0.24	Colorimetric
Osmolality	mOsm/kg	290	232	348	29.00	58.00	Calculated
	mOsm/kg	305	244	366	30.50	61.00	Freezing point depression
	mOsm/kg	309	247	371	31.00	62.00	Vapour pressure

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Paracetamol	mmol/l	0.08	0.06	0.09	0.01	0.02	Colorimetric
	mg/l	11.6	9.23	14.0	1.19	2.37	
Phosphate Inorganic	mmol/l	1.51	1.28	1.74	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	4.68	3.97	5.39	0.36	0.71	
	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.40	3.75	5.05	0.33	0.65	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	4.11	3.78	4.44	0.17	0.33	Ortho Vitros Microslide Systems
	mmol/l	4.19	3.85	4.53	0.17	0.34	Enzymatic
	mmol/l	4.00	3.68	4.32	0.16	0.32	Flame photometry
	mmol/l	3.98	3.66	4.30	0.16	0.32	ISE method - direct
	mmol/l	4.05	3.72	4.38	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.4	46.7	70.1	5.85	11.70	Ortho Vitros Microslide Systems
	g/dl	5.84	4.67	7.01	0.59	1.17	
	g/l	58.7	47.0	70.4	5.85	11.70	Biuret reaction end point
	g/dl	5.87	4.70	7.04	0.59	1.17	
	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 =	12.0	9.00	15.0	1.50	3.00	Siemens Immulite 1000
	ng/ml =	16.8	12.6	21.0	2.10	4.20	Roche Elecsys Modular E170
	ng/ml =	16.6	12.4	20.8	2.10	4.20	Beckman Access standardised to Hybritech
	ng/ml =	14.8	11.1	18.5	1.85	3.70	bioMerieux VIDAS TPSA
	ng/ml =	13.5	10.1	16.9	1.70	3.40	Siemens Centaur XP/XPT/Classic
	ng/ml =	14.0	10.5	17.5	1.75	3.50	Abbott Architect

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
PSA Total	ng/ml =	17.0	12.7	21.3	2.15	4.30	Cobas E411
	ng/ml =	17.2	12.9	21.5	2.15	4.30	Roche Cobas 6000/8000
	ng/ml =	16.7	12.5	20.9	2.10	4.20	Ortho Vitros 3600/5600/ECi PSA II
Salicylate	mmol/l	0.40	0.32	0.48	0.04	0.08	Enzymatic
	mg/dl	5.55	4.44	6.66	0.56	1.11	
Sodium	mmol/l	144	136	152	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	145	138	152	3.50	7.00	Enzymatic
	mmol/l	141	134	148	3.50	7.00	Flame photometry
	mmol/l	142	135	149	3.50	7.00	ISE method - direct
	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
Theophylline	µmol/l	28.8	23.0	34.6	2.90	5.80	Immunoturbidimetric
	µg/ml	5.19	4.14	6.24	0.53	1.05	
Thyroid Stimulating Hormone	µU/ml =	1.18	0.94	1.42	0.12	0.24	Abbott Architect
	µU/ml =	1.30	1.04	1.56	0.13	0.26	Siemens Centaur XP/XPT/Classic
	µU/ml =	1.48	1.19	1.77	0.15	0.29	bioMerieux VIDAS TSH
	µU/ml =	1.54	1.23	1.85	0.16	0.31	bioMerieux VIDAS TSH3 Ultrasensitive
	µU/ml =	1.29	1.03	1.55	0.13	0.26	Siemens Immulite 1000
	µU/ml =	1.31	1.05	1.57	0.13	0.26	Vitros ECi
	µU/ml =	1.54	1.24	1.84	0.15	0.30	Roche Elecsys
	µU/ml =	1.56	1.25	1.87	0.16	0.31	Roche Modular E170
	µU/ml =	1.53	1.22	1.84	0.16	0.31	Roche Cobas E411
	µU/ml =	1.55	1.24	1.86	0.16	0.31	Roche Cobas 6000/8000
	µU/ml =	1.44	1.15	1.73	0.15	0.29	Beckman Dxl800 Hyper TSH
	µU/ml =	1.26	1.01	1.51	0.13	0.25	Siemens Centaur XP/XPT/Classic TSH3-Ultra
TIBC	µmol/l	46.0	36.4	55.6	4.80	9.60	Ortho Vitros Microslide Systems
	µg/dl	257	203	311	27.00	54.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
TIBC	μmol/l	43.2	34.2	52.2	4.50	9.00	Removal of excess free iron
	μg/dl	241	191	291	25.00	50.00	
	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	
	μmol/l	45.3	35.8	54.8	4.75	9.50	Direct Colorimetric
	μg/dl	253	200	306	26.50	53.00	
	μmol/l	51.8	40.9	62.7	5.45	10.90	Randox Direct
	μg/dl	290	229	351	30.50	61.00	
Tobramycin	μmol/l	6.15	4.92	7.38	0.62	1.23	Immunoturbidimetric
	μg/ml	2.88	2.30	3.46	0.29	0.58	
Total T3	nmol/l	2.17	1.63	2.71	0.27	0.54	Abbott AXSYM
	ng/ml	1.41	1.06	1.76	0.18	0.35	
	ng/dl	141	106	176	17.50	35.00	Abbott AXSYM
	nmol/l	2.15	1.61	2.69	0.27	0.54	Abbott Architect
	ng/ml	1.40	1.05	1.75	0.18	0.35	
	ng/dl	140	105	175	17.50	35.00	Abbott Architect
	nmol/l	2.45	1.83	3.07	0.31	0.62	Siemens Centaur XP/XPT/Classic
	ng/ml	1.59	1.19	1.99	0.20	0.40	
	ng/dl	159	119	199	20.00	40.00	Siemens Centaur XP/XPT/Classic
	nmol/l	2.33	1.75	2.91	0.29	0.58	Roche Modular E170
	ng/ml	1.52	1.14	1.90	0.19	0.38	
	ng/dl	152	114	190	19.00	38.00	Roche Modular E170
	nmol/l	2.77	2.08	3.46	0.35	0.69	Vitros ECi
	ng/ml	1.80	1.35	2.25	0.23	0.45	
	ng/dl	180	135	225	22.50	45.00	Vitros ECi

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Total T3	nmol/l	2.41	1.81	3.01	0.30	0.60	Roche Cobas E411
	ng/ml	1.57	1.18	1.96	0.20	0.39	
	ng/dl	157	118	196	19.50	39.00	Roche Cobas E411
	nmol/l	2.46	1.85	3.07	0.31	0.61	Roche Cobas 6000/8000
	ng/ml	1.60	1.20	2.00	0.20	0.40	
	ng/dl	160	120	200	20.00	40.00	Roche Cobas 6000/8000
Total T4	nmol/l	87.7	65.8	110	10.95	21.90	Abbott Architect
	µg/dl	6.84	5.13	8.55	0.86	1.71	
	ng/ml	68.4	51.3	85.5	8.55	17.10	Abbott Architect
	nmol/l	96.2	72.2	120	12.00	24.00	Siemens Centaur XP/XPT/Classic
	µg/dl	7.50	5.63	9.37	0.94	1.87	
	ng/ml	75.0	56.3	93.7	9.35	18.70	Siemens Centaur XP/XPT/Classic
	nmol/l	84.9	63.7	106	10.60	21.20	BioMerieux Vidas
	µg/dl	6.62	4.97	8.27	0.83	1.65	
	ng/ml	66.2	49.7	82.7	8.25	16.50	BioMerieux Vidas
	nmol/l	88.1	66.0	110	11.05	22.10	Siemens Immulite 2000/2500
	µg/dl	6.87	5.15	8.59	0.86	1.72	
	ng/ml	68.7	51.5	85.9	8.60	17.20	Siemens Immulite 2000/2500
	nmol/l	81.6	61.2	102	10.20	20.40	Vitros ECi
	µg/dl	6.36	4.77	7.95	0.80	1.59	
	ng/ml	63.6	47.7	79.5	7.95	15.90	Vitros ECi
	nmol/l	94.6	71.0	118	11.80	23.60	Roche Modular E170
	µg/dl	7.38	5.54	9.22	0.92	1.84	
	ng/ml	73.8	55.4	92.2	9.20	18.40	Roche Modular E170

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Total T4	nmol/l	93.0	69.7	116	11.65	23.30	Roche Cobas E411
	µg/dl	7.25	5.44	9.06	0.91	1.81	
	ng/ml	72.5	54.4	90.6	9.05	18.10	Roche Cobas E411
	nmol/l	90.7	68.0	113	11.35	22.70	Roche Cobas 6000/8000
	µg/dl	7.07	5.30	8.84	0.89	1.77	
	ng/ml	70.7	53.0	88.4	8.85	17.70	Roche Cobas 6000/8000
Transferrin	g/l	1.84	1.47	2.21	0.19	0.37	Immunoturbidimetric
	mg/dl	184	147	221	18.50	37.00	
Triglycerides	mmol/l	1.11	0.94	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.7	114	7.75	15.50	
	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	97.4	81.6	113	7.90	15.80	
	mmol/l	1.12	0.94	1.30	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	99.1	83.5	115	7.80	15.60	
	mmol/l	1.12	0.94	1.30	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	99.1	83.4	115	7.85	15.70	
	mmol/l	1.09	0.91	1.27	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	96.5	80.9	112	7.80	15.60	
Uric Acid (Urate)	mmol/l	1.29	1.08	1.50	0.11	0.21	Ortho Vitros Microslide Systems
	mg/dl	114	95.6	132	9.20	18.40	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.66	4.92	6.40	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.78	5.02	6.54	0.38	0.76	
	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	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.80	5.06	6.54	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.73	4.99	6.47	0.37	0.74	
	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	
Urea	mmol/l	6.75	5.74	7.76	0.51	1.01	Ortho Vitros Microslide Systems
	mg/dl	40.6	34.5	46.7	3.05	6.10	
	mmol/l	7.19	6.11	8.27	0.54	1.08	Urease end point
	mg/dl	43.2	36.7	49.7	3.25	6.50	
	mmol/l	7.00	5.95	8.05	0.53	1.05	Urease kinetic
	mg/dl	42.1	35.8	48.4	3.15	6.30	
	mmol/l	6.75	5.74	7.76	0.51	1.01	Urease hypochlorite
	mg/dl	40.6	34.5	46.7	3.05	6.10	
	mmol/l	6.80	5.78	7.82	0.51	1.02	Urease Berthelot
	mg/dl	40.9	34.7	47.1	3.10	6.20	
Vitamin B12	pmol/l	454	363	545	45.50	91.00	Roche Cobas E411
	pg/ml	615	492	738	61.50	123.00	
Zinc	µmol/l	26.5	21.2	31.8	2.65	5.30	Atomic absorption
	µg/dl	173	138	208	17.50	35.00	
	µmol/l	26.3	21.0	31.6	2.65	5.30	Colorimetric with deproteinisation
	µg/dl	172	137	207	17.50	35.00	

MEAN OF ALL INSTRUMENTS (Elec.)

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
alpha-1-globulin		6.2	4.7	7.7	0.75	1.49	% of total Protein (Beckman Capillary)
alpha-2-globulin		6.2	4.7	7.7	0.75	1.49	% of total Protein (Beckman Capillary)
Albumin (electrophoresis)		67.4	60.7	74.1	3.35	6.70	% of total Protein (Beckman Capillary)
beta-globulin		9.7	7.4	12.0	1.17	2.33	% of total Protein (Beckman Capillary)
gamma-globulin		10.5	8.0	13.0	1.26	2.52	% of total Protein (Beckman Capillary)

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.1	35.8	48.4	3.15	6.30	Bromocresol Green
	g/dl	4.21	3.58	4.84	0.32	0.63	
Alkaline Phosphatase	U/l	271	230	312	20.50	41.00	Diethanolamine buffer DEA 37°C
	U/l	211	179	243	16.00	32.00	Diethanolamine buffer DEA 30°C
	U/l	173	147	199	13.00	26.00	Diethanolamine buffer DEA 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	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Calcium	mmol/l	2.32	2.09	2.55	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.30	8.38	10.2	0.46	0.92	
	mmol/l	2.30	2.07	2.53	0.12	0.23	Arsenazo III
	mg/dl	9.22	8.30	10.1	0.46	0.92	
Cholesterol	mmol/l	4.02	3.50	4.54	0.26	0.52	Cholesterol Oxidase
	mg/dl	155	135	175	10.00	20.00	
Creatinine	μmol/l	117	93.3	141	11.85	23.70	Alkaline picrate with deproteinization
	mg/dl	1.32	1.05	1.59	0.14	0.27	
	μmol/l	120	96.4	144	11.80	23.60	Alkaline picrate no deproteinization
	mg/dl	1.36	1.09	1.63	0.14	0.27	

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	117	93.6	140	11.70	23.40	Randox Enzymatic UV method
	mg/dl	1.32	1.06	1.58	0.13	0.26	
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.33	5.38	7.28	0.48	0.95	Glucose oxidase
	mg/dl	114	96.9	131	8.55	17.10	
HDL - Cholesterol	mmol/l	1.42	1.21	1.63	0.11	0.21	Direct HDL PPD
	mg/dl	54.8	46.7	62.9	4.05	8.10	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Direct Clearance Method
	mg/dl	53.7	45.5	61.9	4.10	8.20	
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	
LD (LDH)	U/l	402	342	462	30.00	60.00	P->L German methods 37°C
	U/l	290	247	333	21.50	43.00	P->L German methods 30°C
	U/l	204	173	235	15.50	31.00	P->L German methods 25°C
	U/l	405	344	466	30.50	61.00	P->L SFBC 37°C
	U/l	292	248	336	22.00	44.00	P->L SFBC 30°C
	U/l	205	174	236	15.50	31.00	P->L SFBC 25°C
	U/l	212	181	243	15.50	31.00	L->P IFCC 37°C
	U/l	153	131	175	11.00	22.00	L->P IFCC 30°C
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Xylidyl Blue
	mg/dl	2.21	1.95	2.47	0.13	0.26	
Phosphate Inorganic	mmol/l	1.53	1.30	1.76	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.74	4.03	5.45	0.36	0.71	

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Potassium	mmol/l	4.14	3.81	4.47	0.17	0.33	ISE method - direct
Protein Total	g/l	59.4	47.5	71.3	5.95	11.90	Biuret reaction end point
	g/dl	5.94	4.75	7.13	0.60	1.19	
	g/l	61.3	49.1	73.5	6.10	12.20	Biuret reaction kinetic
	g/dl	6.13	4.91	7.35	0.61	1.22	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.16	0.97	1.35	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	103	86.2	120	8.40	16.80	
Uric Acid (Urate)	mmol/l	0.38	0.33	0.43	0.03	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.45	5.61	7.29	0.42	0.84	
	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.22	5.41	7.03	0.41	0.81	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.90	5.12	6.68	0.39	0.78	
Urea	mmol/l	7.18	6.11	8.25	0.54	1.07	Urease kinetic
	mg/dl	43.2	36.7	49.7	3.25	6.50	
	mmol/l	7.33	6.23	8.43	0.55	1.10	Urease hypochlorite
	mg/dl	44.1	37.4	50.8	3.35	6.70	
	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	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	40.3	34.2	46.4	3.05	6.10	Bromocresol Green
	g/dl	4.03	3.42	4.64	0.31	0.61	
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	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
	U/l	26	20	32	3.00	6.00	Tris buffer without P5P 30°C
	U/l	18	14	22	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	17.6	13.9	21.3	1.85	3.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.03	0.813	1.25	0.11	0.22	
Bilirubin Total	µmol/l	25.6	20.2	31.0	2.70	5.40	Diazo with Dichloroaniline (DCA)
	mg/dl	1.50	1.18	1.82	0.16	0.32	
Calcium	mmol/l	2.32	2.09	2.55	0.12	0.23	Arsenazo III
	mg/dl	9.30	8.38	10.2	0.46	0.92	
Cholesterol	mmol/l	4.06	3.53	4.59	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	136	178	10.50	21.00	
Creatinine	µmol/l	135	108	162	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.53	1.22	1.84	0.16	0.31	
	µmol/l	132	106	158	13.00	26.00	Creatinine PAP method
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	µmol/l	128	102	154	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.45	1.15	1.75	0.15	0.30	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Glucose	mmol/l	6.20	5.27	7.13	0.47	0.93	Glucose oxidase
	mg/dl	112	95.0	129	8.50	17.00	
Protein Total	g/l	61.4	49.1	73.7	6.15	12.30	Biuret reaction end point
	g/dl	6.14	4.91	7.37	0.62	1.23	
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.4	111	7.60	15.20	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.78	5.04	6.52	0.37	0.74	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.90	5.14	6.66	0.38	0.76	
Urea	mmol/l	7.00	5.95	8.05	0.53	1.05	Urease kinetic
	mg/dl	42.1	35.8	48.4	3.15	6.30	
	mmol/l	7.00	5.95	8.05	0.53	1.05	BUN
	mg/dl	19.6	16.7	22.5	1.45	2.90	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.5	36.2	48.8	3.15	6.30	Bromocresol Green
	g/dl	4.25	3.62	4.88	0.32	0.63	
	g/l	42.3	35.9	48.7	3.20	6.40	Bromocresol Purple
	g/dl	4.23	3.59	4.87	0.32	0.64	
	g/l	39.9	33.9	45.9	3.00	6.00	Turbidimetric Assays
	g/dl	3.99	3.39	4.59	0.30	0.60	
Alkaline Phosphatase	U/l	127	108	146	9.50	19.00	Roche Integra AMP buffer 37°C
	U/l	99	84	114	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	81	69	93	6.00	12.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	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	55	73	4.50	9.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	86	73	99	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	86	73	99	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	86	73	99	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	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
Bile Acids	µmol/l	25.5	20.4	30.6	2.55	5.10	Enzymatic Colorimetric
Bicarbonate	mmol/l	15.1	12.0	18.2	1.55	3.10	Colorimetric

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Bicarbonate	mmol/l	15.3	12.2	18.4	1.55	3.10	Enzymatic
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	19.1	15.1	23.1	2.00	4.00	Diazo with Sulphanilic Acid
	mg/dl	1.12	0.883	1.36	0.12	0.24	
	μmol/l	19.1	15.1	23.1	2.00	4.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.12	0.883	1.36	0.12	0.24	
Bilirubin Total	μmol/l	25.4	20.0	30.8	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.49	1.17	1.81	0.16	0.32	
	μmol/l	25.3	20.0	30.6	2.65	5.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.48	1.17	1.79	0.16	0.31	
	μmol/l	25.3	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	2.24	2.02	2.46	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.98	8.10	9.86	0.44	0.88	
	mmol/l	2.25	2.03	2.47	0.11	0.22	NM-BAPTA
	mg/dl	9.02	8.14	9.90	0.44	0.88	
Cholesterol	mmol/l	4.09	3.56	4.62	0.27	0.53	Cholesterol Oxidase
	mg/dl	158	137	179	10.50	21.00	
Chloride	mmol/l	90.7	83.4	98.0	3.65	7.30	ISE indirect
Cholinesterase	U/l	5449	4359	6539	545.00	1090.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	210	172	248	19.00	38.00	CK-NAC substrate start (DGKC) 37°C
	U/l	131	108	154	11.50	23.00	CK-NAC substrate start (DGKC) 30°C
	U/l	89	73	105	8.00	16.00	CK-NAC substrate start (DGKC) 25°C
	U/l	206	169	243	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	129	106	152	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	88	72	104	8.00	16.00	CK-NAC (IFCC) 25°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
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	128	102	154	13.00	26.00	Randox Enzymatic UV method
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	μmol/l	129	103	155	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	μmol/l	126	101	151	12.50	25.00	Jaffe rate blanked
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	μmol/l	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	
	μmol/l	123	98.1	148	12.45	24.90	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.39	1.11	1.67	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
Free T4	pmol/l	22.3	16.7	27.9	2.80	5.60	Roche Cobas 6000/8000
	ng/dl	1.74	1.30	2.18	0.22	0.44	
	pg/ml	17.4	13.0	21.8	2.20	4.40	Roche Cobas 6000/8000
gamma-GT	U/l	48	41	55	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	38	32	44	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	25	35	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	55	47	63	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	37	49	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	34	29	39	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.05	5.15	6.95	0.45	0.90	Hexokinase
	mg/dl	109	92.8	125	8.10	16.20	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Glucose	mmol/l	6.04	5.13	6.95	0.46	0.91	Glucose oxidase
	mg/dl	109	92.4	126	8.30	16.60	
HDL - Cholesterol	mmol/l	1.41	1.20	1.62	0.11	0.21	Direct HDL PEGME
	mg/dl	54.4	46.3	62.5	4.05	8.10	
	mmol/l	1.41	1.20	1.62	0.11	0.21	Direct HDL Roche 3rd generation
	mg/dl	54.4	46.3	62.5	4.05	8.10	
Iron	µmol/l	19.1	15.7	22.5	1.70	3.40	Colorimetric with ppt.
	µg/dl	107	87.8	126	9.60	19.20	
	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	1.54	1.27	1.81	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.9	11.4	16.4	1.25	2.50	
LD (LDH)	U/l	397	337	457	30.00	60.00	P->L German methods 37°C
	U/l	287	243	331	22.00	44.00	P->L German methods 30°C
	U/l	201	171	231	15.00	30.00	P->L German methods 25°C
	U/l	392	333	451	29.50	59.00	P->L SFBC 37°C
	U/l	283	240	326	21.50	43.00	P->L SFBC 30°C
	U/l	199	169	229	15.00	30.00	P->L SFBC 25°C
	U/l	201	171	231	15.00	30.00	L->P IFCC 37°C
	U/l	145	123	167	11.00	22.00	L->P IFCC 30°C
	U/l	102	87	117	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	32	26	38	3.00	6.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.07	0.94	1.20	0.07	0.13	Spectrophotometric
	mg/dl	0.743	0.653	0.833	0.05	0.09	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	0.90	0.79	1.01	0.05	0.11	Xylidyl Blue
	mg/dl	2.19	1.93	2.45	0.13	0.26	
	mmol/l	0.90	0.79	1.01	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.19	1.93	2.45	0.13	0.26	
Osmolality	mOsm/kg	290	232	348	29.00	58.00	Calculated
Phosphate Inorganic	mmol/l	1.37	1.17	1.57	0.10	0.20	Phosphomolybdate enzymatic
	mg/dl	4.25	3.63	4.87	0.31	0.62	
	mmol/l	1.39	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	4.09	3.76	4.42	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.1	46.5	69.7	5.80	11.60	Biuret reaction end point
	g/dl	5.81	4.65	6.97	0.58	1.16	
	g/l	57.9	46.3	69.5	5.80	11.60	Biuret reaction kinetic
	g/dl	5.79	4.63	6.95	0.58	1.16	
PSA Total	ng/ml =	17.2	12.9	21.5	2.15	4.30	Roche Cobas 6000/8000
Sodium	mmol/l	144	137	151	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	μU/ml =	1.55	1.24	1.86	0.16	0.31	Roche Cobas 6000/8000
TIBC	μmol/l	43.0	33.9	52.1	4.55	9.10	FE+UIBC(saturation with iron)
	μg/dl	240	190	290	25.00	50.00	
	μmol/l	40.8	32.2	49.4	4.30	8.60	Direct Colorimetric
	μg/dl	228	180	276	24.00	48.00	
Total T3	nmol/l	2.46	1.85	3.07	0.31	0.61	Roche Cobas 6000/8000
	ng/ml	1.60	1.20	2.00	0.20	0.40	
	ng/dl	160	120	200	20.00	40.00	Roche Cobas 6000/8000
Total T4	nmol/l	90.7	68.0	113	11.35	22.70	Roche Cobas 6000/8000
	μg/dl	7.07	5.30	8.84	0.89	1.77	
	ng/ml	70.7	53.0	88.4	8.85	17.70	Roche Cobas 6000/8000

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.8	113	7.80	15.60	
	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	98.2	82.3	114	7.95	15.90	
	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	
	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	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.78	5.02	6.54	0.38	0.76	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.78	5.04	6.52	0.37	0.74	
	mmol/l	6.95	5.91	7.99	0.52	1.04	Urease kinetic
	mg/dl	41.8	35.5	48.1	3.15	6.30	
	mmol/l	6.95	5.91	7.99	0.52	1.04	BUN
	mg/dl	19.5	16.6	22.4	1.45	2.90	
Urea							

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.4	36.9	49.9	3.25	6.50	Bromocresol Green
	g/dl	4.34	3.69	4.99	0.33	0.65	
Alkaline Phosphatase	U/l	123	104	142	9.50	19.00	Roche Integra AMP buffer 37°C
	U/l	96	81	111	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	79	66	92	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	89	76	102	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
Bicarbonate	mmol/l	15.7	12.5	18.9	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	18.7	14.8	22.6	1.95	3.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.09	0.866	1.31	0.11	0.22	
	µmol/l	18.6	14.7	22.5	1.95	3.90	Diazo with Sulphanilic Acid
	mg/dl	1.09	0.860	1.32	0.12	0.23	
	µmol/l	18.4	14.6	22.2	1.90	3.80	Roche JG factored
	mg/dl	1.08	0.854	1.31	0.11	0.23	
	µmol/l	19.2	15.1	23.3	2.05	4.10	Diazo with Dichloroaniline (DCA)
	mg/dl	1.12	0.883	1.36	0.12	0.24	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	μmol/l	26.2	20.7	31.7	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.53	1.21	1.85	0.16	0.32	
	μmol/l	25.6	20.2	31.0	2.70	5.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.50	1.18	1.82	0.16	0.32	
	μmol/l	26.2	20.7	31.7	2.75	5.50	Diazonium ion
	mg/dl	1.53	1.21	1.85	0.16	0.32	
	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	
Calcium	mmol/l	2.29	2.06	2.52	0.12	0.23	Arsenazo III
	mg/dl	9.18	8.26	10.1	0.46	0.92	
	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	
Cholesterol	mmol/l	4.18	3.63	4.73	0.28	0.55	Cholesterol Oxidase
	mg/dl	161	140	182	10.50	21.00	
Chloride	mmol/l	97.0	89.3	105	3.85	7.70	ISE indirect
CK Total	U/l	203	166	240	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	127	104	150	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	86	71	101	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	118	94.5	142	11.75	23.50	Alkaline picrate with deproteinization
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	μmol/l	121	96.7	145	12.15	24.30	Alkaline picrate no deproteinization
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	μmol/l	122	97.3	147	12.35	24.70	Roche Creatinine Plus
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	μmol/l	130	104	156	13.00	26.00	Jaffe rate blanked
	mg/dl	1.47	1.18	1.76	0.15	0.29	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	116	92.7	139	11.65	23.30	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.31	1.05	1.57	0.13	0.26	
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	36	50	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	33	28	38	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.19	5.27	7.11	0.46	0.92	Hexokinase
	mg/dl	112	95.0	129	8.50	17.00	
	mmol/l	6.30	5.35	7.25	0.48	0.95	Glucose oxidase
	mg/dl	114	96.4	132	8.80	17.60	
HDL - Cholesterol	mmol/l	1.42	1.21	1.63	0.11	0.21	Direct HDL PEGME
	mg/dl	54.8	46.7	62.9	4.05	8.10	
	mmol/l	1.45	1.23	1.67	0.11	0.22	Direct HDL Roche 3rd generation
	mg/dl	56.0	47.5	64.5	4.25	8.50	
Iron	μmol/l	20.5	16.8	24.2	1.85	3.70	Colorimetric without ppt.
	μg/dl	115	93.9	136	10.55	21.10	
LD (LDH)	U/l	393	334	452	29.50	59.00	P->L German methods 37°C
	U/l	284	241	327	21.50	43.00	P->L German methods 30°C
	U/l	199	169	229	15.00	30.00	P->L German methods 25°C
	U/l	216	183	249	16.50	33.00	L->P IFCC 37°C
	U/l	156	132	180	12.00	24.00	L->P IFCC 30°C
	U/l	110	93	127	8.50	17.00	L->P IFCC 25°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	0.89	0.79	1.00	0.05	0.11	Xylidyl Blue
	mg/dl	2.17	1.91	2.43	0.13	0.26	
	mmol/l	0.90	0.79	1.01	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.18	1.92	2.44	0.13	0.26	
Phosphate Inorganic	mmol/l	1.43	1.22	1.64	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.43	3.78	5.08	0.33	0.65	
	mmol/l	1.47	1.25	1.69	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.56	3.88	5.24	0.34	0.68	
Potassium	mmol/l	4.02	3.70	4.34	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
Triglycerides	mmol/l	1.10	0.93	1.27	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	97.4	82.1	113	7.65	15.30	
	mmol/l	1.09	0.91	1.27	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	96.5	80.7	112	7.90	15.80	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.85	5.09	6.61	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.90	5.12	6.68	0.39	0.78	
	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	
Urea	mmol/l	6.87	5.84	7.90	0.52	1.03	Urease kinetic
	mg/dl	41.3	35.1	47.5	3.10	6.20	
	mmol/l	7.21	6.13	8.29	0.54	1.08	Urease hypochlorite
	mg/dl	43.3	36.8	49.8	3.25	6.50	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	6.87	5.84	7.90	0.52	1.03	BUN
	mg/dl	19.3	16.4	22.2	1.45	2.90	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.7	36.3	49.1	3.20	6.40	Bromocresol Green
	g/dl	4.27	3.63	4.91	0.32	0.64	
	g/l	42.4	36.1	48.7	3.15	6.30	Bromocresol Purple
	g/dl	4.24	3.61	4.87	0.32	0.63	
Alkaline Phosphatase	U/l	126	107	145	9.50	19.00	Roche Integra AMP buffer 37°C
	U/l	98	83	113	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	81	68	94	6.50	13.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	34	28	40	3.00	6.00	Tris buffer without P5P 37°C
	U/l	25	21	29	2.00	4.00	Tris buffer without P5P 30°C
	U/l	19	16	22	1.50	3.00	Tris buffer without P5P 25°C
Amylase Total	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	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	15.4	12.2	18.6	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	19.7	15.6	23.8	2.05	4.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.15	0.913	1.39	0.12	0.24	
	µmol/l	20.3	16.0	24.6	2.15	4.30	Diazo with Sulphanilic Acid
	mg/dl	1.19	0.936	1.44	0.13	0.25	
	µmol/l	20.0	15.8	24.2	2.10	4.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.17	0.924	1.42	0.12	0.25	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	μmol/l	25.3	20.0	30.6	2.65	5.30	Diazo with Sulphanilic Acid
	mg/dl	1.48	1.17	1.79	0.16	0.31	
	μmol/l	25.3	20.0	30.6	2.65	5.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.48	1.17	1.79	0.16	0.31	
	μmol/l	25.7	20.3	31.1	2.70	5.40	Diazonium ion
	mg/dl	1.50	1.19	1.81	0.16	0.31	
Calcium	mmol/l	2.28	2.06	2.50	0.11	0.22	Cresolphthalein complexone
	mg/dl	9.14	8.26	10.0	0.44	0.88	
	mmol/l	2.25	2.03	2.47	0.11	0.22	NM-BAPTA
	mg/dl	9.02	8.14	9.90	0.44	0.88	
Cholesterol	mmol/l	4.12	3.59	4.65	0.27	0.53	Cholesterol Oxidase
	mg/dl	159	139	179	10.00	20.00	
Chloride	mmol/l	91.9	84.5	99.3	3.70	7.40	ISE indirect
Cholinesterase	U/l	5428	4342	6514	543.00	1086.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	209	171	247	19.00	38.00	CK-NAC (IFCC) 37°C
	U/l	131	107	155	12.00	24.00	CK-NAC (IFCC) 30°C
	U/l	89	73	105	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	127	101	153	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	μmol/l	128	103	153	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.45	1.16	1.74	0.15	0.29	
	μmol/l	130	104	156	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	μmol/l	128	102	154	13.00	26.00	Jaffe rate blanked
	mg/dl	1.45	1.15	1.75	0.15	0.30	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	129	103	155	13.00	26.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.46	1.16	1.76	0.15	0.30	
gamma-GT	U/l	49	41	57	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	32	46	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	25	35	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.11	5.19	7.03	0.46	0.92	Hexokinase
	mg/dl	110	93.5	127	8.25	16.50	
	mmol/l	6.09	5.18	7.00	0.46	0.91	Glucose oxidase
	mg/dl	110	93.3	127	8.35	16.70	
HDL - Cholesterol	mmol/l	1.43	1.21	1.65	0.11	0.22	Direct HDL Roche 3rd generation
	mg/dl	55.2	46.7	63.7	4.25	8.50	
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	
Lactate	mmol/l	1.56	1.28	1.84	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.1	11.5	16.7	1.30	2.60	
LD (LDH)	U/l	392	333	451	29.50	59.00	P->L German methods 37°C
	U/l	283	240	326	21.50	43.00	P->L German methods 30°C
	U/l	199	169	229	15.00	30.00	P->L German methods 25°C
	U/l	202	172	232	15.00	30.00	L->P IFCC 37°C
	U/l	146	124	168	11.00	22.00	L->P IFCC 30°C
	U/l	102	87	117	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	33	26	40	3.50	7.00	Roche Colorimetric 37°C

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	0.90	0.79	1.01	0.05	0.11	Xylidyl Blue
	mg/dl	2.19	1.93	2.45	0.13	0.26	
	mmol/l	0.93	0.82	1.04	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.26	1.99	2.53	0.14	0.27	
Phosphate Inorganic	mmol/l	1.41	1.19	1.63	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.37	3.69	5.05	0.34	0.68	
Potassium	mmol/l	4.10	3.77	4.43	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.5	46.8	70.2	5.85	11.70	Biuret reaction end point
	g/dl	5.85	4.68	7.02	0.59	1.17	
	g/l	60.5	48.4	72.6	6.05	12.10	Biuret reaction kinetic
	g/dl	6.05	4.84	7.26	0.61	1.21	
Sodium	mmol/l	145	138	152	3.50	7.00	ISE method - indirect
TIBC	µmol/l	43.1	34.0	52.2	4.55	9.10	FE+UIBC(saturation with iron)
	µg/dl	241	190	292	25.50	51.00	
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.5	113	7.95	15.90	
	mmol/l	1.08	0.91	1.25	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	95.6	80.6	111	7.50	15.00	
	mmol/l	1.10	0.93	1.27	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	97.4	82.0	113	7.70	15.40	
	mmol/l	1.13	0.95	1.31	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	100	84.2	116	7.90	15.80	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.88	5.12	6.64	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.90	5.12	6.68	0.39	0.78	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.81	5.06	6.56	0.38	0.75	
Urea	mmol/l	7.09	6.03	8.15	0.53	1.06	Urease kinetic
	mg/dl	42.6	36.2	49.0	3.20	6.40	
	mmol/l	7.09	6.03	8.15	0.53	1.06	BUN
	mg/dl	19.9	16.9	22.9	1.50	3.00	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.3	36.0	48.6	3.15	6.30	Bromocresol Green
	g/dl	4.23	3.60	4.86	0.32	0.63	
Alkaline Phosphatase	U/l	112	95	129	8.50	17.00	Roche Integra AMP buffer 37°C
	U/l	87	74	100	6.50	13.00	Roche Integra AMP buffer 30°C
	U/l	72	61	83	5.50	11.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	64	55	73	4.50	9.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	86	73	99	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	37	29	45	4.00	8.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	14	22	2.00	4.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	15.6	12.4	18.8	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	19.3	15.2	23.4	2.05	4.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.13	0.889	1.37	0.12	0.24	
Bilirubin Total	µmol/l	24.1	19.1	29.1	2.50	5.00	Diazo with Sulphanilic Acid
	mg/dl	1.41	1.12	1.70	0.15	0.29	
	µmol/l	24.1	19.1	29.1	2.50	5.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.41	1.12	1.70	0.15	0.29	
	µmol/l	24.8	19.6	30.0	2.60	5.20	Diazonium ion
	mg/dl	1.45	1.15	1.75	0.15	0.30	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
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	
	mmol/l	2.23	2.01	2.45	0.11	0.22	NM-BAPTA
	mg/dl	8.94	8.06	9.82	0.44	0.88	
Cholesterol	mmol/l	4.02	3.50	4.54	0.26	0.52	Cholesterol Oxidase
	mg/dl	155	135	175	10.00	20.00	
Chloride	mmol/l	91.0	83.7	98.3	3.65	7.30	ISE indirect
CK Total	U/l	190	156	224	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	119	98	140	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	134	107	161	13.50	27.00	Roche Creatinine Plus
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	µmol/l	128	102	154	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.45	1.15	1.75	0.15	0.30	
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	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.02	5.11	6.93	0.46	0.91	Hexokinase
	mg/dl	108	92.1	124	7.95	15.90	
HDL - Cholesterol	mmol/l	1.38	1.17	1.59	0.11	0.21	Direct HDL Roche 3rd generation
	mg/dl	53.3	45.2	61.4	4.05	8.10	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	μmol/l	18.9	15.5	22.3	1.70	3.40	Colorimetric without ppt.
	μg/dl	106	86.6	125	9.70	19.40	
Lactate	mmol/l	1.51	1.24	1.78	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.6	11.2	16.0	1.20	2.40	
LD (LDH)	U/l	200	170	230	15.00	30.00	L->P IFCC 37°C
	U/l	144	123	165	10.50	21.00	L->P IFCC 30°C
	U/l	101	86	116	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	34	27	41	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.09	0.96	1.22	0.07	0.13	Spectrophotometric
	mg/dl	0.757	0.664	0.850	0.05	0.09	
Magnesium	mmol/l	0.90	0.79	1.00	0.05	0.11	Xylidyl Blue
	mg/dl	2.18	1.92	2.44	0.13	0.26	
Phosphate Inorganic	mmol/l	1.38	1.17	1.59	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.28	3.63	4.93	0.33	0.65	
Potassium	mmol/l	4.13	3.80	4.46	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.1	46.5	69.7	5.80	11.60	Biuret reaction end point
	g/dl	5.81	4.65	6.97	0.58	1.16	
Sodium	mmol/l	144	137	151	3.50	7.00	ISE method - indirect
TIBC	μmol/l	42.9	33.9	51.9	4.50	9.00	FE+UIBC(saturation with iron)
	μg/dl	240	190	290	25.00	50.00	
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.2	111	7.70	15.40	
	mmol/l	1.10	0.92	1.28	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	97.4	81.6	113	7.90	15.80	
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	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.61	4.89	6.33	0.36	0.72	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.66	4.92	6.40	0.37	0.74	
Urea	mmol/l	6.80	5.78	7.82	0.51	1.02	Urease kinetic
	mg/dl	40.9	34.7	47.1	3.10	6.20	
	mmol/l	6.80	5.78	7.82	0.51	1.02	BUN
	mg/dl	19.1	16.2	22.0	1.45	2.90	

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.2	35.0	47.4	3.10	6.20	Bromocresol Green
	g/dl	4.12	3.50	4.74	0.31	0.62	
Alkaline Phosphatase	U/l	294	250	338	22.00	44.00	Diethanolamine buffer DEA 37°C
	U/l	180	153	207	13.50	27.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	76	65	87	5.50	11.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	100	85	115	7.50	15.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
Bile Acids	µmol/l	26.2	21.0	31.4	2.60	5.20	5th Generation Colorimetric
Bicarbonate	mmol/l	16.5	13.1	19.9	1.70	3.40	Enzymatic
Bilirubin Direct	µmol/l	21.1	16.7	25.5	2.20	4.40	Diazo with Sulphanilic Acid
	mg/dl	1.23	0.977	1.48	0.13	0.25	
	µmol/l	18.7	14.8	22.6	1.95	3.90	Vanadate Oxidation
	mg/dl	1.09	0.866	1.31	0.11	0.22	
Bilirubin Total	µmol/l	31.2	24.6	37.8	3.30	6.60	Diazo with Sulphanilic Acid
	mg/dl	1.83	1.44	2.22	0.20	0.39	
	µmol/l	28.5	22.5	34.5	3.00	6.00	Vanadate Oxidation
	mg/dl	1.67	1.32	2.02	0.18	0.35	
Calcium	mmol/l	2.29	2.06	2.52	0.12	0.23	Arsenazo III
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Cholesterol	mmol/l	4.15	3.61	4.69	0.27	0.54	Cholesterol Oxidase
	mg/dl	160	139	181	10.50	21.00	

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	93.9	86.4	101	3.75	7.50	ISE direct
CK Total	U/l	206	169	243	18.50	37.00	CK-NAC substrate start (DGKC) 37°C
	U/l	224	184	264	20.00	40.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	120	96.2	144	11.90	23.80	Alkaline picrate no deproteinization
	mg/dl	1.36	1.09	1.63	0.14	0.27	
	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	
gamma-GT	U/l	56	48	64	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.31	5.36	7.26	0.48	0.95	Hexokinase
	mg/dl	114	96.6	131	8.70	17.40	
	mmol/l	6.52	5.54	7.50	0.49	0.98	Glucose oxidase
	mg/dl	117	99.8	134	8.60	17.20	
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	
Lactate	mmol/l	1.50	1.23	1.77	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.5	11.1	15.9	1.20	2.40	
LD (LDH)	U/l	412	350	474	31.00	62.00	P->L German methods 37°C
	U/l	206	175	237	15.50	31.00	L->P IFCC 37°C
Lipase	U/l	39	31	47	4.00	8.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.10	0.97	1.23	0.07	0.13	Colorimetric
	mg/dl	0.764	0.672	0.856	0.05	0.09	
Magnesium	mmol/l	0.92	0.81	1.04	0.06	0.11	Xylidyl Blue
	mg/dl	2.25	1.98	2.52	0.14	0.27	
Phosphate Inorganic	mmol/l	1.43	1.22	1.64	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.43	3.78	5.08	0.33	0.65	

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Potassium	mmol/l	4.19	3.85	4.53	0.17	0.34	Enzymatic
	mmol/l	4.03	3.71	4.35	0.16	0.32	ISE method - direct
Protein Total	g/l	60.0	48.0	72.0	6.00	12.00	Biuret reaction end point
	g/dl	6.00	4.80	7.20	0.60	1.20	
Sodium	mmol/l	145	138	152	3.50	7.00	Enzymatic
	mmol/l	143	136	150	3.50	7.00	ISE method - direct
TIBC	μmol/l	51.8	40.9	62.7	5.45	10.90	Direct Colorimetric
	μg/dl	290	229	351	30.50	61.00	
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	84.9	117	8.05	16.10	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.70	4.96	6.44	0.37	0.74	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.00	5.22	6.78	0.39	0.78	
Urea	mmol/l	6.92	5.88	7.96	0.52	1.04	Urease kinetic
	mg/dl	41.6	35.3	47.9	3.15	6.30	
	mmol/l	6.92	5.88	7.96	0.52	1.04	BUN
	mg/dl	19.4	16.5	22.3	1.45	2.90	

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	40.0	34.0	46.0	3.00	6.00	Bromocresol Green
	g/dl	4.00	3.40	4.60	0.30	0.60	
	g/l	42.1	35.8	48.4	3.15	6.30	Bromocresol Purple
	g/dl	4.21	3.58	4.84	0.32	0.63	
Alkaline Phosphatase	U/l	246	209	283	18.50	37.00	Diethanolamine buffer DEA 37°C
	U/l	175	149	201	13.00	26.00	AMP optimised to IFCC 37°C
	U/l	172	146	198	13.00	26.00	AMP non-optimised 37°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Amylase Total	U/l	88	75	101	6.50	13.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
Bile Acids	µmol/l	25.3	20.3	30.3	2.50	5.00	Enzymatic Colorimetric
Bicarbonate	mmol/l	17.4	13.8	21.0	1.80	3.60	Enzymatic
Bilirubin Direct	µmol/l	18.5	14.7	22.3	1.90	3.80	Oxidation to Biliverdin
	mg/dl	1.08	0.860	1.30	0.11	0.22	
Bilirubin Total	µmol/l	29.2	23.1	35.3	3.05	6.10	Oxidation to Biliverdin
	mg/dl	1.71	1.35	2.07	0.18	0.36	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.86	7.98	9.74	0.44	0.88	
	mmol/l	2.27	2.04	2.50	0.12	0.23	Arsenazo III
	mg/dl	9.10	8.18	10.0	0.46	0.92	
Cholesterol	mmol/l	3.96	3.44	4.48	0.26	0.52	Cholesterol Oxidase
	mg/dl	153	133	173	10.00	20.00	

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	96.9	89.1	105	3.90	7.80	ISE indirect
Cholinesterase	U/l	5637	4510	6764	563.50	1127.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	192	158	226	17.00	34.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	126	101	151	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	μmol/l	121	96.6	145	12.20	24.40	Randox Enzymatic UV method
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	μmol/l	120	96.2	144	11.90	23.80	Jaffe rate blanked
	mg/dl	1.36	1.09	1.63	0.14	0.27	
	μmol/l	123	98.6	147	12.20	24.40	Jaffe rate blanked comp. (~26 μmol/l)
	mg/dl	1.39	1.11	1.67	0.14	0.28	
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	5.99	5.09	6.89	0.45	0.90	Hexokinase
	mg/dl	108	91.7	124	8.15	16.30	
	mmol/l	6.10	5.19	7.01	0.46	0.91	Glucose oxidase
	mg/dl	110	93.5	127	8.25	16.50	
HDL - Cholesterol	mmol/l	1.18	1.00	1.36	0.09	0.18	Direct Clearance Method
	mg/dl	45.5	38.6	52.4	3.45	6.90	
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	1.35	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	194	165	223	14.50	29.00	L->P 37°C
	U/l	404	344	464	30.00	60.00	P->L German methods 37°C

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	203	172	234	15.50	31.00	L->P IFCC 37°C
Lipase	U/l	40	32	48	4.00	8.00	Other Colorimetric 37°C
Lithium	mmol/l	1.06	0.93	1.19	0.06	0.13	Spectrophotometric
	mg/dl	0.736	0.648	0.824	0.04	0.09	
Magnesium	mmol/l	0.93	0.82	1.05	0.06	0.11	Xylidyl Blue
	mg/dl	2.27	2.00	2.54	0.14	0.27	
Phosphate Inorganic	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.37	3.72	5.02	0.33	0.65	
Potassium	mmol/l	4.08	3.75	4.41	0.17	0.33	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	144	137	151	3.50	7.00	ISE method - indirect
TIBC	μmol/l	47.1	37.2	57.0	4.95	9.90	FE+UIBC(saturation with iron)
	μg/dl	263	208	318	27.50	55.00	
	μmol/l	48.9	38.6	59.2	5.15	10.30	Direct Colorimetric
	μg/dl	273	216	330	28.50	57.00	
Triglycerides	mmol/l	1.16	0.97	1.35	0.10	0.19	Lipase/GPO-PAP no correction
	mg/dl	103	85.8	120	8.60	17.20	
	mmol/l	1.17	0.99	1.35	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	104	87.3	121	8.35	16.70	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.37	0.32	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.15	5.36	6.94	0.40	0.79	
Urea	mmol/l	7.23	6.15	8.31	0.54	1.08	Urease kinetic
	mg/dl	43.5	37.0	50.0	3.25	6.50	

**SIEMENS ADVIA 1200/1650/1800/2400®**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.23	6.15	8.31	0.54	1.08	BUN
	mg/dl	20.3	17.3	23.3	1.50	3.00	

Siemens Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.8	36.4	49.2	3.20	6.40	Bromocresol Purple
	g/dl	4.28	3.64	4.92	0.32	0.64	
ALT (GPT)	U/l	42	34	50	4.00	8.00	Tris buffer with P5P 37°C
	U/l	44	35	53	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	94	79	109	7.50	15.00	Siemens 2-chloro-pNP linked substrate 37°C
	U/l	95	81	109	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	48	39	57	4.50	9.00	Tris buffer with P5P 37°C
	U/l	50	40	60	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	16.2	12.8	19.6	1.70	3.40	Enzymatic
Bilirubin Direct	µmol/l	13.0	10.3	15.7	1.35	2.70	Diazo with Sulphanilic Acid
	mg/dl	0.761	0.603	0.919	0.08	0.16	
Bilirubin Total	µmol/l	27.5	21.7	33.3	2.90	5.80	Diazo with Sulphanilic Acid
	mg/dl	1.61	1.27	1.95	0.17	0.34	
Calcium	mmol/l	2.16	1.95	2.37	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.66	7.82	9.50	0.42	0.84	
Cholesterol	mmol/l	3.45	3.00	3.90	0.23	0.45	Dimension-Siemens reagents
	mg/dl	133	116	150	8.50	17.00	
Chloride	mmol/l	95.6	88.0	103	3.80	7.60	ISE indirect
CK Total	U/l	190	156	224	17.00	34.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	129	103	155	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.46	1.16	1.76	0.15	0.30	

Siemens Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	125	100	150	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.41	1.13	1.69	0.14	0.28	
gamma-GT	U/l	59	50	68	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	68	58	78	5.00	10.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.20	5.27	7.13	0.47	0.93	Hexokinase
	mg/dl	112	95.0	129	8.50	17.00	
HDL - Cholesterol	mmol/l	1.46	1.24	1.68	0.11	0.22	Direct HDL PEGME
	mg/dl	56.4	47.9	64.9	4.25	8.50	Direct Clearance Method
	mmol/l	1.47	1.25	1.69	0.11	0.22	
	mg/dl	56.7	48.3	65.1	4.20	8.40	
Iron	μmol/l	18.4	15.1	21.7	1.65	3.30	Colorimetric without ppt.
	μg/dl	103	84.4	122	9.30	18.60	
Lactate	mmol/l	1.30	1.07	1.53	0.12	0.23	UV LDH
	mg/dl	11.7	9.64	13.8	1.03	2.06	
LD (LDH)	U/l	193	164	222	14.50	29.00	L->P IFCC 37°C
Lipase	U/l	147	118	176	14.50	29.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	1.12	0.98	1.26	0.07	0.14	Spectrophotometric
	mg/dl	0.778	0.681	0.875	0.05	0.10	
Magnesium	mmol/l	0.88	0.77	0.98	0.05	0.11	Methylthymol blue
	mg/dl	2.13	1.87	2.39	0.13	0.26	
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	3.97	3.65	4.29	0.16	0.32	ISE method - indirect
Protein Total	g/l	60.5	48.4	72.6	6.05	12.10	Biuret reaction end point
	g/dl	6.05	4.84	7.26	0.61	1.21	

Siemens Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	95.6	80.2	111	7.70	15.40	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.66	4.94	6.38	0.36	0.72	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.80	5.04	6.56	0.38	0.76	
Urea	mmol/l	6.52	5.54	7.50	0.49	0.98	Urease end point
	mg/dl	39.2	33.3	45.1	2.95	5.90	
	mmol/l	6.97	5.93	8.01	0.52	1.04	Urease kinetic
	mg/dl	41.9	35.6	48.2	3.15	6.30	
	mmol/l	6.97	5.92	8.02	0.53	1.05	BUN
	mg/dl	19.6	16.7	22.5	1.45	2.90	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.8	36.3	49.3	3.25	6.50	Bromocresol Green
	g/dl	4.28	3.63	4.93	0.33	0.65	
	g/l	42.7	36.3	49.1	3.20	6.40	Bromocresol Purple
	g/dl	4.27	3.63	4.91	0.32	0.64	
Alkaline Phosphatase	U/l	134	114	154	10.00	20.00	Siemens Dimension AMP buffer 37°C
	U/l	155	132	178	11.50	23.00	AMP optimised to IFCC 37°C
	U/l	165	140	190	12.50	25.00	Randox AMP 37°C
ALT (GPT)	U/l	43	35	51	4.00	8.00	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	95	81	109	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	50	40	60	5.00	10.00	Tris buffer with P5P 37°C
	U/l	51	41	61	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	16.2	12.8	19.6	1.70	3.40	Enzymatic
Bilirubin Direct	µmol/l	12.8	10.1	15.5	1.35	2.70	Diazo with Sulphanilic Acid
	mg/dl	0.749	0.591	0.907	0.08	0.16	
Bilirubin Total	µmol/l	27.8	21.9	33.7	2.95	5.90	Diazo with Sulphanilic Acid
	mg/dl	1.63	1.28	1.98	0.18	0.35	
Calcium	mmol/l	2.17	1.95	2.39	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.70	7.82	9.58	0.44	0.88	
Cholesterol	mmol/l	3.53	3.07	3.99	0.23	0.46	Dimension-Siemens reagents
	mg/dl	136	119	153	8.50	17.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	95.0	87.4	103	3.80	7.60	ISE indirect
CK Total	U/l	185	151	219	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	192	157	227	17.50	35.00	Dithioerythritol 37°C
	U/l	191	156	226	17.50	35.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	µmol/l	133	106	160	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	µmol/l	124	99.0	149	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	132	106	158	13.00	26.00	Creatinine PAP method
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	µmol/l	129	103	155	13.00	26.00	Jaffe rate blanked
	mg/dl	1.46	1.16	1.76	0.15	0.30	
gamma-GT	µmol/l	127	102	152	12.50	25.00	IDMS traceable
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	U/l	60	51	69	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	U/l	68	58	78	5.00	10.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.22	5.29	7.15	0.47	0.93	Hexokinase
	mg/dl	112	95.3	129	8.35	16.70	
HDL - Cholesterol	mmol/l	1.53	1.30	1.76	0.12	0.23	Direct HDL PPD
	mg/dl	59.1	50.2	68.0	4.45	8.90	
	mmol/l	1.51	1.28	1.74	0.12	0.23	Direct HDL PEGME
	mg/dl	58.3	49.4	67.2	4.45	8.90	
	mmol/l	1.50	1.27	1.73	0.12	0.23	Direct Clearance Method
	mg/dl	57.9	49.0	66.8	4.45	8.90	
Iron	µmol/l	18.6	15.3	21.9	1.65	3.30	Colorimetric with ppt.
	µg/dl	104	85.5	123	9.25	18.50	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	μmol/l	18.5	15.2	21.8	1.65	3.30	Colorimetric without ppt.
	μg/dl	103	85.0	121	9.00	18.00	
Lactate	mmol/l	1.46	1.20	1.72	0.13	0.26	UV LDH
	mg/dl	13.2	10.8	15.6	1.20	2.40	
LD (LDH)	U/l	206	175	237	15.50	31.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	196	167	225	14.50	29.00	L->P IFCC 37°C
Lipase	U/l	144	116	172	14.00	28.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.87	0.77	0.98	0.05	0.11	Methylthymol blue
	mg/dl	2.11	1.86	2.36	0.13	0.25	
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.34	3.69	4.99	0.33	0.65	
	mmol/l	1.41	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	3.95	3.64	4.26	0.16	0.31	ISE method - indirect
Protein Total	g/l	60.0	48.0	72.0	6.00	12.00	Biuret reaction end point
	g/dl	6.00	4.80	7.20	0.60	1.20	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
TIBC	μmol/l	42.6	33.6	51.6	4.50	9.00	Removal of excess free iron
	μg/dl	238	188	288	25.00	50.00	
	μmol/l	40.9	32.3	49.5	4.30	8.60	Direct Colorimetric
	μg/dl	229	181	277	24.00	48.00	
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.8	113	7.80	15.60	
	mmol/l	1.08	0.90	1.26	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	95.6	80.0	111	7.80	15.60	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	97.4	81.5	113	7.95	15.90	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.75	5.01	6.49	0.37	0.74	
	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	0.34	0.30	0.39	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.73	4.99	6.47	0.37	0.74	
Urea	mmol/l	7.13	6.06	8.20	0.54	1.07	Urease end point
	mg/dl	42.9	36.4	49.4	3.25	6.50	
	mmol/l	6.97	5.93	8.01	0.52	1.04	Urease kinetic
	mg/dl	41.9	35.6	48.2	3.15	6.30	
	mmol/l	6.97	5.92	8.02	0.53	1.05	BUN
	mg/dl	19.6	16.7	22.5	1.45	2.90	

Siemens Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.5	36.1	48.9	3.20	6.40	Bromocresol Purple
	g/dl	4.25	3.61	4.89	0.32	0.64	
Alkaline Phosphatase	U/l	160	136	184	12.00	24.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer with P5P 37°C
Amylase Total	U/l	94	80	108	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	47	38	56	4.50	9.00	Tris buffer with P5P 37°C
Bicarbonate	mmol/l	17.1	13.6	20.6	1.75	3.50	Enzymatic
Bilirubin Direct	µmol/l	13.3	10.5	16.1	1.40	2.80	Diazo with Sulphanilic Acid
	mg/dl	0.778	0.614	0.942	0.08	0.16	
Bilirubin Total	µmol/l	28.0	22.1	33.9	2.95	5.90	Diazo with Sulphanilic Acid
	mg/dl	1.64	1.29	1.99	0.18	0.35	
Calcium	mmol/l	2.20	1.98	2.42	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.82	7.94	9.70	0.44	0.88	
Cholesterol	mmol/l	3.45	3.00	3.90	0.23	0.45	Dimension-Siemens reagents
	mg/dl	133	116	150	8.50	17.00	
Chloride	mmol/l	98.4	90.6	106	3.90	7.80	ISE indirect
CK Total	U/l	186	153	219	16.50	33.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	µmol/l	131	105	157	13.00	26.00	IDMS traceable
	mg/dl	1.48	1.19	1.77	0.15	0.29	
gamma-GT	U/l	63	53	73	5.00	10.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.09	5.17	7.01	0.46	0.92	Hexokinase
	mg/dl	110	93.2	127	8.40	16.80	

Siemens Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	1.41	1.20	1.62	0.11	0.21	Direct HDL PEGME
	mg/dl	54.4	46.3	62.5	4.05	8.10	
Iron	µmol/l	18.7	15.4	22.0	1.65	3.30	Colorimetric without ppt.
	µg/dl	105	86.1	124	9.45	18.90	
LD (LDH)	U/l	204	174	234	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	152	122	182	15.00	30.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	1.06	0.93	1.19	0.07	0.13	Spectrophotometric
	mg/dl	0.736	0.646	0.826	0.05	0.09	
Magnesium	mmol/l	0.86	0.76	0.97	0.05	0.10	Methylthymol blue
	mg/dl	2.10	1.85	2.35	0.13	0.25	
Phosphate Inorganic	mmol/l	1.38	1.18	1.58	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.28	3.66	4.90	0.31	0.62	
Potassium	mmol/l	3.94	3.63	4.25	0.16	0.31	ISE method - indirect
Protein Total	g/l	60.5	48.4	72.6	6.05	12.10	Biuret reaction end point
	g/dl	6.05	4.84	7.26	0.61	1.21	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.23	1.03	1.43	0.10	0.20	Lipase/GPO-PAP no correction
	mg/dl	109	91.2	127	8.90	17.80	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.51	4.80	6.22	0.36	0.71	
Urea	mmol/l	7.04	5.98	8.10	0.53	1.06	Urease kinetic
	mg/dl	42.3	35.9	48.7	3.20	6.40	
	mmol/l	7.04	5.98	8.10	0.53	1.06	BUN
	mg/dl	19.8	16.8	22.8	1.50	3.00	

Weiner Lab CB 350i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	39.3	33.4	45.2	2.95	5.90	Bromocresol Green
	g/dl	3.93	3.34	4.52	0.30	0.59	
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
Bilirubin Direct	µmol/l	16.9	13.3	20.5	1.80	3.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.989	0.778	1.20	0.11	0.21	
Cholesterol	mmol/l	3.92	3.41	4.43	0.26	0.51	Cholesterol Oxidase
	mg/dl	151	132	170	9.50	19.00	
Creatinine	µmol/l	123	98.7	147	12.15	24.30	Alkaline picrate no deproteinization
	mg/dl	1.39	1.12	1.66	0.14	0.27	
Glucose	mmol/l	6.28	5.34	7.22	0.47	0.94	Glucose oxidase
	mg/dl	113	96.2	130	8.40	16.80	
LD (LDH)	U/l	388	330	446	29.00	58.00	P->L SFBC 37°C
	U/l	280	238	322	21.00	42.00	P->L SFBC 30°C
	U/l	197	167	227	15.00	30.00	P->L SFBC 25°C
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	1.06	0.89	1.23	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	78.9	109	7.45	14.90	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.91	5.14	6.68	0.39	0.77	

Weiner Lab CB 350i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot No. 1011UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2019-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	6.78	5.77	7.79	0.51	1.01	Urease kinetic
	mg/dl	40.7	34.7	46.7	3.00	6.00	
	mmol/l	6.78	5.76	7.80	0.51	1.02	BUN
	mg/dl	19.0	16.2	21.8	1.40	2.80	