

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

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

LOT NO. 821UN
EXPIRY: 2016-12

INTENDED USE

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

DEVICE DESCRIPTION

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

SAFETY PRECAUTIONS AND WARNINGS

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

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

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

Health and Safety Data Sheets are available on request.

STORAGE AND STABILITY

OPENED: Store refrigerated (+2°C to +8°C). Reconstituted serum is stable for 8 hours at +15°C to +25°C or 7 days at +2°C to +8°C, and 28 days when frozen once at -20°C (see Limitations).

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

LIMITATIONS

For Total & Prostatic Acid Phosphatase, the material should be stabilised by adding 1 drop (25-30 µl) of 0.7M Acetic acid solution to 1ml of the serum exactly 30 minutes after reconstitution. After stabilisation Total and Prostatic Acid Phosphatase is stable for 2 hours at +15°C to +25°C, 2 days at +2°C to +8°C and 28 days when frozen once at -20°C.

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

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

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

Total PSA is stable for 4 days at +2°C to +8°C, or 28 days in aliquots frozen at -20°C.

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

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

The control should not be used as a calibration material.

PREPARATION FOR USE

The Human Assayed Multi-sera is supplied lyophilised.

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

MATERIALS PROVIDED

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

MATERIALS REQUIRED BUT NOT PROVIDED

Volumetric pipette

ASSIGNED VALUES

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

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

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

NOTES

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

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ABBOTT AEROSET®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	40.1	34.1	46.1	3.00	6.00	Bromocresol Green
	g/dl	4.01	3.41	4.61	0.30	0.60	
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	2.18	1.96	2.40	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.74	7.86	9.62	0.44	0.88	
	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	4.98	4.33	5.63	0.33	0.65	Cholesterol Oxidase
	mg/dl	192	167	217	12.50	25.00	
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	
Glucose	mmol/l	6.05	5.14	6.96	0.46	0.91	Hexokinase
	mg/dl	109	92.6	125	8.20	16.40	
Iron	µmol/l	19.2	15.7	22.7	1.75	3.50	Colorimetric without ppt.
	µg/dl	107	87.8	126	9.60	19.20	
Phosphate Inorganic	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.40	3.75	5.05	0.33	0.65	
Potassium	mmol/l	4.02	3.70	4.34	0.16	0.32	ISE method - direct
Protein Total	g/l	60.3	48.2	72.4	6.05	12.10	Biuret reaction end point
	g/dl	6.03	4.82	7.24	0.61	1.21	

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Range

Analyte	unit	target	low	high	1SD	2SD	methods
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.03	0.87	1.19	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	91.2	76.8	106	7.20	14.40	
Urea	mmol/l	7.70	6.55	8.85	0.58	1.15	Urease kinetic
	mg/dl	46.3	39.4	53.2	3.45	6.90	
	mmol/l	7.49	6.37	8.61	0.56	1.12	Urease hypochlorite
	mg/dl	45.0	38.3	51.7	3.35	6.70	
	mmol/l	7.70	6.55	8.85	0.58	1.15	BUN
	mg/dl	21.6	18.4	24.8	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.91	5.14	6.68	0.39	0.77	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.85	5.09	6.61	0.38	0.76	

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

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Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	39.9	33.9	45.9	3.00	6.00	Bromocresol Green
	g/dl	3.99	3.39	4.59	0.30	0.60	
	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	167	142	192	12.50	25.00	AMP optimised to IFCC 37°C
	U/l	167	142	192	12.50	25.00	AMP optimised to NVKC/SFBC 37°C
	U/l	167	142	192	12.50	25.00	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	64	54	74	5.00	10.00	Immunoinhibition EPS substrate 37°C
AST (GOT)	U/l	32	26	38	3.00	6.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	11.9	9.44	14.4	1.23	2.46	Enzymatic
Bile Acids	µmol/l	27.0	21.6	32.4	2.70	5.40	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	21.4	16.9	25.9	2.25	4.50	Diazo with Sulphanilic Acid
	mg/dl	1.25	0.989	1.51	0.13	0.26	
	µmol/l	21.5	17.0	26.0	2.25	4.50	Diazo with Dichloroaniline (DCA)
	mg/dl	1.26	0.995	1.53	0.13	0.27	
Bilirubin Total	µmol/l	26.8	21.2	32.4	2.80	5.60	Diazo with Dichloroaniline (DCA)
	mg/dl	1.57	1.24	1.90	0.17	0.33	
	µmol/l	26.6	21.0	32.2	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.56	1.23	1.89	0.17	0.33	
	µmol/l	28.1	22.2	34.0	2.95	5.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.64	1.30	1.98	0.17	0.34	

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Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	µmol/l	27.0	21.3	32.7	2.85	5.70	Diazonium ion
	mg/dl	1.58	1.25	1.91	0.17	0.33	
Calcium	mmol/l	2.36	2.13	2.59	0.12	0.23	Arsenazo III
	mg/dl	9.46	8.54	10.4	0.46	0.92	
Chloride	mmol/l	98.4	90.6	106	3.90	7.80	ISE indirect
Cholesterol	mmol/l	4.97	4.33	5.61	0.32	0.64	Cholesterol Oxidase
	mg/dl	192	167	217	12.50	25.00	
Cholinesterase	U/l	6846	5477	8215	684.50	1369.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	192	157	227	17.50	35.00	CK-NAC (IFCC) 37°C
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	139	111	167	14.00	28.00	Jaffe rate blanked
	mg/dl	1.57	1.25	1.89	0.16	0.32	
	µmol/l	134	107	161	13.50	27.00	IDMS traceable
	mg/dl	1.51	1.21	1.81	0.15	0.30	
Free T4	pmol/l	15.2	11.4	19.0	1.90	3.80	Abbott Architect
	ng/dl	1.19	0.889	1.49	0.15	0.30	
	pg/ml	11.9	8.89	14.9	1.51	3.01	Abbott Architect
gamma-GT	U/l	53	45	61	4.00	8.00	Gamma glutamyl-3-carboxy-4-nitroanilide 37°C
	U/l	53	45	61	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	52	44	60	4.00	8.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	6.03	5.13	6.93	0.45	0.90	Hexokinase
	mg/dl	109	92.4	126	8.30	16.60	
	mmol/l	6.01	5.11	6.91	0.45	0.90	Glucose oxidase
	mg/dl	108	92.1	124	7.95	15.90	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	1.66	1.41	1.91	0.13	0.25	Direct HDL PPD
	mg/dl	64.1	54.4	73.8	4.85	9.70	
	mmol/l	1.64	1.39	1.89	0.13	0.25	Direct Clearance Method
	mg/dl	63.3	53.7	72.9	4.80	9.60	
	mmol/l	1.63	1.38	1.88	0.13	0.25	HDL - Ultra
	mg/dl	62.9	53.3	72.5	4.80	9.60	
Iron	µmol/l	18.9	15.5	22.3	1.70	3.40	Colorimetric with ppt.
	µg/dl	106	86.6	125	9.70	19.40	
	µmol/l	19.3	15.8	22.8	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.3	128	9.85	19.70	
Lactate	mmol/l	1.60	1.31	1.89	0.15	0.29	Colorimetric Lactate Oxidase
	mg/dl	14.4	11.8	17.0	1.30	2.60	
LD (LDH)	U/l	253	215	291	19.00	38.00	L->P 37°C
	U/l	252	214	290	19.00	38.00	L->P IFCC 37°C
Lipase	U/l	35	28	42	3.50	7.00	Other Colorimetric 37°C
Lithium	mmol/l	1.04	0.91	1.17	0.06	0.13	Spectrophotometric
	mg/dl	0.722	0.633	0.811	0.04	0.09	
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Arsenazo III
	mg/dl	2.21	1.95	2.47	0.13	0.26	
	mmol/l	0.87	0.77	0.98	0.05	0.10	Enzymatic
	mg/dl	2.12	1.87	2.37	0.13	0.25	
Osmolality	mOsm/kg	295	236	354	29.50	59.00	Calculated
Phosphate Inorganic	mmol/l	1.43	1.21	1.65	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.43	3.75	5.11	0.34	0.68	

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Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Phosphate Inorganic	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.40	3.75	5.05	0.33	0.65	
Potassium	mmol/l	4.06	3.73	4.39	0.17	0.33	ISE method - indirect
Protein Total	g/l	60.4	48.3	72.5	6.05	12.10	Biuret reaction end point
	g/dl	6.04	4.83	7.25	0.61	1.21	
	g/l	61.0	48.8	73.2	6.10	12.20	Biuret reaction kinetic
	g/dl	6.10	4.88	7.32	0.61	1.22	
PSA Total	ng/ml =	11.2	8.43	14.0	1.39	2.77	Abbott Architect
Sodium	mmol/l	142	134	150	4.00	8.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.18	0.95	1.41	0.12	0.23	Abbott Architect
TIBC	µmol/l	43.9	34.7	53.1	4.60	9.20	FE+UIBC(saturation with iron)
	µg/dl	245	194	296	25.50	51.00	
Total T3	nmol/l	2.47	1.86	3.08	0.31	0.61	Abbott Architect
	ng/ml	1.61	1.21	2.01	0.20	0.40	
	ng/dl	161	121	201	20.00	40.00	Abbott Architect
Total T4	nmol/l	74.1	55.5	92.7	9.30	18.60	Abbott Architect
	µg/dl	5.78	4.33	7.23	0.73	1.45	
	ng/ml	57.8	43.3	72.3	7.25	14.50	Abbott Architect
Triglycerides	mmol/l	0.99	0.84	1.15	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	88.0	73.9	102	7.05	14.10	
	mmol/l	0.98	0.83	1.14	0.08	0.16	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	87.0	73.1	101	6.95	13.90	
	mmol/l	0.99	0.83	1.15	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	87.9	73.8	102	7.05	14.10	
	mmol/l	1.00	0.84	1.16	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	88.5	74.3	103	7.10	14.20	

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Urea	mmol/l	7.68	6.52	8.84	0.58	1.16	Urease end point
	mg/dl	46.2	39.2	53.2	3.50	7.00	
	mmol/l	7.73	6.57	8.89	0.58	1.16	Urease kinetic
	mg/dl	46.5	39.5	53.5	3.50	7.00	
	mmol/l	7.73	6.57	8.89	0.58	1.16	BUN
	mg/dl	21.7	18.4	25.0	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.71	4.97	6.45	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.76	5.01	6.51	0.38	0.75	
	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	

ABX Pentra 400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

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Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
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	164	139	189	12.50	25.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	14.0	11.1	16.9	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	23.2	18.4	28.0	2.40	4.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.36	1.08	1.64	0.14	0.28	
Bilirubin Total	µmol/l	27.8	21.9	33.7	2.95	5.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.63	1.28	1.98	0.18	0.35	
Calcium	mmol/l	2.29	2.06	2.52	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Chloride	mmol/l	96.3	88.6	104	3.85	7.70	ISE direct
Cholesterol	mmol/l	5.05	4.39	5.71	0.33	0.66	Cholesterol Oxidase
	mg/dl	195	169	221	13.00	26.00	
CK Total	U/l	187	153	221	17.00	34.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	136	109	163	13.50	27.00	Creatinine PAP method
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	µmol/l	139	111	167	14.00	28.00	Jaffe rate blanked
	mg/dl	1.57	1.25	1.89	0.16	0.32	
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C

ABX Pentra 400®

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Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Glucose	mmol/l	6.25	5.31	7.19	0.47	0.94	Glucose oxidase
	mg/dl	113	95.7	130	8.65	17.30	
Iron	µmol/l	18.8	15.4	22.2	1.70	3.40	Colorimetric without ppt.
	µg/dl	105	86.1	124	9.45	18.90	
Lipase	U/l	35	28	42	3.50	7.00	Other Colorimetric 37°C
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	1.55	1.32	1.78	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.81	4.09	5.53	0.36	0.72	
Potassium	mmol/l	4.01	3.69	4.33	0.16	0.32	ISE method - direct
Protein Total	g/l	61.7	49.4	74.0	6.15	12.30	Biuret reaction end point
	g/dl	6.17	4.94	7.40	0.62	1.23	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.05	0.88	1.22	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	77.9	108	7.50	15.00	
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	
Uric Acid (Urate)	mmol/l	0.32	0.28	0.36	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.41	4.70	6.12	0.36	0.71	

Beckman Coulter AU400/500/600/800®

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Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	40.9	34.8	47.0	3.05	6.10	Bromocresol Green
	g/dl	4.09	3.48	4.70	0.31	0.61	
	g/l	45.1	38.4	51.8	3.35	6.70	Bromocresol Purple
	g/dl	4.51	3.84	5.18	0.34	0.67	
Alkaline Phosphatase	U/l	194	165	223	14.50	29.00	p-Nitrophenylphosphate AMP 37°C
	U/l	299	254	344	22.50	45.00	Diethanolamine buffer DEA 37°C
	U/l	199	169	229	15.00	30.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
Amylase Total	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	88	75	101	6.50	13.00	Beckman Coulter - blocked pNPG7 37°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	13.0	10.3	15.7	1.35	2.70	Enzymatic
Bilirubin Direct	µmol/l	22.3	17.6	27.0	2.35	4.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.30	1.03	1.57	0.14	0.27	
	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	
Bilirubin Total	µmol/l	28.6	22.6	34.6	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.67	1.32	2.02	0.18	0.35	
	µmol/l	31.4	24.8	38.0	3.30	6.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.84	1.45	2.23	0.20	0.39	
	µmol/l	34.3	27.1	41.5	3.60	7.20	Oxidation to Biliverdin
	mg/dl	2.01	1.59	2.43	0.21	0.42	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.33	2.10	2.56	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.34	8.42	10.3	0.46	0.92	
	mmol/l	2.38	2.14	2.62	0.12	0.24	Arsenazo III
	mg/dl	9.54	8.58	10.5	0.48	0.96	
Chloride	mmol/l	97.2	89.4	105	3.90	7.80	ISE indirect
Cholesterol	mmol/l	5.12	4.45	5.79	0.34	0.67	Cholesterol Oxidase
	mg/dl	198	172	224	13.00	26.00	
CK Total	U/l	201	165	237	18.00	36.00	CK-NAC serum start (DGKC) 37°C
	U/l	198	162	234	18.00	36.00	CK-NAC substrate start (DGKC) 37°C
	U/l	199	163	235	18.00	36.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	140	112	168	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.58	1.27	1.89	0.16	0.31	
	µmol/l	136	109	163	13.50	27.00	Roche Creatinine Plus
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	µmol/l	141	113	169	14.00	28.00	Jaffe rate blanked
	mg/dl	1.59	1.28	1.90	0.16	0.31	
	µmol/l	134	107	161	13.50	27.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.42	1.14	1.70	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.28	0.24	0.32	0.02	0.04	Tris buffer 100mmol pH 8.5
	U/l	55	47	63	4.00	8.00	
gamma-GT	U/l	55	47	63	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
GLDH	U/l	14	11	17	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	6.10	5.19	7.01	0.46	0.91	Hexokinase
	mg/dl	110	93.5	127	8.25	16.50	
	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	1.68	1.43	1.93	0.13	0.25	Direct HDL Immunoseparation
	mg/dl	64.8	55.2	74.4	4.80	9.60	
	mmol/l	1.62	1.38	1.86	0.12	0.24	Direct Clearance Method
	mg/dl	62.5	53.3	71.7	4.60	9.20	
	mmol/l	1.61	1.37	1.85	0.12	0.24	Direct HDL Roche 3rd generation
	mg/dl	62.1	52.9	71.3	4.60	9.20	
Iron	µmol/l	20.5	16.8	24.2	1.85	3.70	Colorimetric with ppt.
	µg/dl	115	93.9	136	10.55	21.10	
	µmol/l	19.7	16.1	23.3	1.80	3.60	Colorimetric without ppt.
	µg/dl	110	90.0	130	10.00	20.00	
Lactate	mmol/l	1.49	1.22	1.76	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.4	11.0	15.8	1.20	2.40	
LD (LDH)	U/l	242	206	278	18.00	36.00	L->P 37°C
	U/l	450	382	518	34.00	68.00	P->L Scandinavian & Dutch 37°C
	U/l	394	335	453	29.50	59.00	P->L German methods 37°C
	U/l	244	207	281	18.50	37.00	L->P IFCC 37°C
Lipase	U/l	34	28	40	3.00	6.00	Other Colorimetric 37°C
Lithium	mmol/l	0.97	0.86	1.09	0.06	0.12	Spectrophotometric
	mg/dl	0.674	0.594	0.754	0.04	0.08	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Magnesium	mmol/l	0.90	0.80	1.01	0.05	0.11	Xylidyl Blue
	mg/dl	2.19	1.93	2.45	0.13	0.26	
Phosphate Inorganic	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.37	3.72	5.02	0.33	0.65	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	4.09	3.76	4.42	0.17	0.33	ISE method - indirect
Protein Total	g/l	60.1	48.1	72.1	6.00	12.00	Biuret reaction end point
	g/dl	6.01	4.81	7.21	0.60	1.20	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
TIBC	μmol/l	45.3	35.8	54.8	4.75	9.50	Removal of excess free iron
	μg/dl	253	200	306	26.50	53.00	
	μmol/l	44.7	35.3	54.1	4.70	9.40	FE+UIBC(saturation with iron)
	μg/dl	250	197	303	26.50	53.00	
Triglycerides	mmol/l	1.10	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	0.90	1.26	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	95.6	80.0	111	7.80	15.60	
	mmol/l	1.08	0.91	1.25	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	95.6	80.4	111	7.60	15.20	
Urea	mmol/l	7.92	6.73	9.11	0.60	1.19	Urease end point
	mg/dl	47.6	40.4	54.8	3.60	7.20	
	mmol/l	7.66	6.51	8.81	0.58	1.15	Urease kinetic
	mg/dl	46.0	39.1	52.9	3.45	6.90	
	mmol/l	7.66	6.51	8.81	0.58	1.15	BUN
	mg/dl	21.5	18.3	24.7	1.60	3.20	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.70	4.96	6.44	0.37	0.74	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.71	4.97	6.45	0.37	0.74	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.58	4.86	6.30	0.36	0.72	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	40.7	34.6	46.8	3.05	6.10	Bromocresol Green
	g/dl	4.07	3.46	4.68	0.31	0.61	
	g/l	42.9	36.4	49.4	3.25	6.50	Bromocresol Purple
	g/dl	4.29	3.64	4.94	0.33	0.65	
Alkaline Phosphatase	U/l	173	147	199	13.00	26.00	p-Nitrophenylphosphate AMP 37°C
	U/l	178	151	205	13.50	27.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	34	27	41	3.50	7.00	Tris buffer SCE 37°C
Amylase Pancreatic	U/l	56	48	64	4.00	8.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	92	78	106	7.00	14.00	Beckman maltotetraose 37°C
	U/l	88	74	102	7.00	14.00	Roche liquid stable pNPG7 37°C
	U/l	92	78	106	7.00	14.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	32	26	38	3.00	6.00	Tris buffer without P5P 37°C
	U/l	33	26	40	3.50	7.00	Tris buffer SCE 37°C
Bicarbonate	mmol/l	13.1	10.4	15.8	1.35	2.70	Differential rate pH change
	mmol/l	13.2	10.5	15.9	1.35	2.70	Ion selective electrode
Bilirubin Direct	µmol/l	15.5	12.2	18.8	1.65	3.30	Diazo with Sulphanilic Acid
	mg/dl	0.907	0.714	1.10	0.10	0.19	
Bilirubin Total	µmol/l	31.0	24.5	37.5	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.81	1.43	2.19	0.19	0.38	
Calcium	mmol/l	2.25	2.03	2.47	0.11	0.22	Ion selective electrode
	mg/dl	9.02	8.14	9.90	0.44	0.88	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.34	2.11	2.57	0.12	0.23	Arsenazo III
	mg/dl	9.38	8.46	10.3	0.46	0.92	
Chloride	mmol/l	98.6	90.7	107	3.95	7.90	ISE indirect
Cholesterol	mmol/l	4.88	4.24	5.52	0.32	0.64	Cholesterol Oxidase
	mg/dl	188	164	212	12.00	24.00	
Cholinesterase	U/l	5961	4769	7153	596.00	1192.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	187	153	221	17.00	34.00	CK-NAC serum start (DGKC) 37°C
	U/l	201	165	237	18.00	36.00	CK-NAC substrate start (DGKC) 37°C
	U/l	192	157	227	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	192	157	227	17.50	35.00	Monothioglycerol 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	118	94.4	142	11.80	23.60	Randox Enzymatic UV method
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	135	108	162	13.50	27.00	Jaffe rate blanked
	mg/dl	1.53	1.22	1.84	0.16	0.31	
	µmol/l	132	106	158	13.00	26.00	IDMS traceable
	mg/dl	1.49	1.20	1.78	0.15	0.29	
gamma-GT	U/l	43	36	50	3.50	7.00	Gamma glutamyl-3-carboxy-4-nitroanilide 37°C
	U/l	42	35	49	3.50	7.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	48	41	55	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	5.96	5.07	6.85	0.45	0.89	Hexokinase
	mg/dl	107	91.4	123	7.80	15.60	
	mmol/l	5.95	5.06	6.84	0.45	0.89	Oxygen electrode
	mg/dl	107	91.2	123	7.90	15.80	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Glucose	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	2.16	1.84	2.48	0.16	0.32	Direct HDL PPD
	mg/dl	83.4	71.0	95.8	6.20	12.40	
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	19.4	15.9	22.9	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.9	127	9.55	19.10	
Lactate	mmol/l	1.53	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	219	186	252	16.50	33.00	L→P 37°C
Lipase	U/l	33	26	40	3.50	7.00	Other Colorimetric 37°C
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Calmagite
	mg/dl	2.20	1.94	2.46	0.13	0.26	
	mmol/l	0.90	0.79	1.01	0.05	0.11	Xylidyl Blue
	mg/dl	2.18	1.92	2.44	0.13	0.26	
Osmolality	mOsm/kg	284	227	341	28.50	57.00	Calculated
Phosphate Inorganic	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.40	3.75	5.05	0.33	0.65	
Potassium	mmol/l	4.03	3.71	4.35	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.2	47.4	71.0	5.90	11.80	Biuret reaction CX4/5/7
	g/dl	5.92	4.74	7.10	0.59	1.18	
	g/l	59.7	47.7	71.7	6.00	12.00	Biuret reaction end point
	g/dl	5.97	4.77	7.17	0.60	1.20	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Protein Total	g/l	58.2	46.5	69.9	5.85	11.70	Biuret reaction kinetic
	g/dl	5.82	4.65	6.99	0.59	1.17	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
TIBC	μmol/l	43.9	34.7	53.1	4.60	9.20	Removal of excess free iron
	μg/dl	245	194	296	25.50	51.00	
	μmol/l	44.4	35.1	53.7	4.65	9.30	FE+UIBC(saturation with iron)
	μg/dl	248	196	300	26.00	52.00	
Triglycerides	mmol/l	1.07	0.90	1.24	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.7	110	7.50	15.00	
	mmol/l	1.06	0.89	1.23	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	93.8	78.9	109	7.45	14.90	
Urea	mmol/l	8.00	6.80	9.20	0.60	1.20	Urease end point
	mg/dl	48.1	40.9	55.3	3.60	7.20	
	mmol/l	7.83	6.65	9.01	0.59	1.18	Urease kinetic
	mg/dl	47.1	40.0	54.2	3.55	7.10	
	mmol/l	7.83	6.66	9.00	0.59	1.17	BUN
	mg/dl	22.0	18.7	25.3	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.33	0.28	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.48	4.77	6.19	0.36	0.71	

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	38.6	32.8	44.4	2.90	5.80	Bromocresol Green
	g/dl	3.86	3.28	4.44	0.29	0.58	
Alkaline Phosphatase	U/l	157	133	181	12.00	24.00	AMP optimised to IFCC 37°C
	U/l	122	104	140	9.00	18.00	AMP optimised to IFCC 30°C
	U/l	100	85	115	7.50	15.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
	U/l	29	23	35	3.00	6.00	Tris buffer without P5P 30°C
	U/l	22	17	27	2.50	5.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	17	14	20	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	34.5	27.2	41.8	3.65	7.30	Diazo with Sulphanilic Acid
	mg/dl	2.02	1.59	2.45	0.22	0.43	
Cholesterol	mmol/l	4.78	4.16	5.40	0.31	0.62	Cholesterol Oxidase
	mg/dl	185	161	209	12.00	24.00	
CK Total	U/l	192	157	227	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	120	98	142	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	82	67	97	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	125	100	150	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.41	1.13	1.69	0.14	0.28	
Glucose	mmol/l	5.96	5.07	6.85	0.45	0.89	Glucose oxidase
	mg/dl	107	91.4	123	7.80	15.60	

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Protein Total	g/l	59.7	47.8	71.6	5.95	11.90	Biuret reaction end point
	g/dl	5.97	4.78	7.16	0.60	1.19	
Triglycerides	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	99.1	83.5	115	7.80	15.60	
Urea	mmol/l	7.62	6.48	8.76	0.57	1.14	Urease kinetic
	mg/dl	45.8	38.9	52.7	3.45	6.90	
	mmol/l	7.62	6.48	8.76	0.57	1.14	BUN
	mg/dl	21.4	18.2	24.6	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.06	5.28	6.84	0.39	0.78	
	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	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	43.8	37.3	50.3	3.25	6.50	Bromocresol Green
	g/dl	4.38	3.73	5.03	0.33	0.65	
	g/l	41.0	34.8	47.2	3.10	6.20	Turbidimetric Assays
	g/dl	4.10	3.48	4.72	0.31	0.62	
Alkaline Phosphatase	U/l	135	115	155	10.00	20.00	Roche Integra AMP buffer 37°C
	U/l	105	90	120	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	86	73	99	6.50	13.00	Roche Integra AMP buffer 25°C
	U/l	129	110	148	9.50	19.00	AMP optimised to IFCC 37°C
	U/l	100	86	114	7.00	14.00	AMP optimised to IFCC 30°C
	U/l	82	70	94	6.00	12.00	AMP optimised to IFCC 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	67	57	77	5.00	10.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	88	75	101	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	89	76	102	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	32	26	38	3.00	6.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	15	12	18	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	13.4	10.6	16.2	1.40	2.80	Enzymatic
Bilirubin Direct	µmol/l	21.3	16.8	25.8	2.25	4.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.25	0.983	1.52	0.13	0.27	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Bilirubin Total	μmol/l	26.0	20.5	31.5	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.52	1.20	1.84	0.16	0.32	
	μmol/l	25.8	20.4	31.2	2.70	5.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.51	1.19	1.83	0.16	0.32	
	μmol/l	25.8	20.4	31.2	2.70	5.40	Diazonium ion
	mg/dl	1.51	1.19	1.83	0.16	0.32	
Calcium	mmol/l	2.36	2.12	2.60	0.12	0.24	Cresolphthalein complexone
	mg/dl	9.46	8.50	10.4	0.48	0.96	
Chloride	mmol/l	97.7	89.9	106	3.90	7.80	ISE indirect
Cholesterol	mmol/l	5.12	4.45	5.79	0.34	0.67	Cholesterol Oxidase
	mg/dl	198	172	224	13.00	26.00	
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	125	100	150	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	μmol/l	128	102	154	13.00	26.00	Jaffe rate blanked
	mg/dl	1.45	1.15	1.75	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	
	μmol/l	128	102	154	13.00	26.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.45	1.15	1.75	0.15	0.30	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	129	103	155	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.46	1.16	1.76	0.15	0.30	
gamma-GT	U/l	48	41	55	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	38	32	44	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	25	35	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.03	5.13	6.93	0.45	0.90	Glucose dehydrogenase
	mg/dl	109	92.4	126	8.30	16.60	
	mmol/l	6.10	5.19	7.01	0.46	0.91	Hexokinase
	mg/dl	110	93.5	127	8.25	16.50	
	mmol/l	6.03	5.13	6.93	0.45	0.90	Glucose oxidase
	mg/dl	109	92.4	126	8.30	16.60	
HDL - Cholesterol	mmol/l	1.82	1.55	2.09	0.14	0.27	Direct HDL Roche 3rd generation
	mg/dl	70.3	59.8	80.8	5.25	10.50	
Iron	μmol/l	20.2	16.6	23.8	1.80	3.60	Colorimetric with ppt.
	μg/dl	113	92.8	133	10.10	20.20	
	μmol/l	20.1	16.5	23.7	1.80	3.60	Colorimetric without ppt.
	μg/dl	112	92.2	132	9.90	19.80	
Lactate	mmol/l	1.64	1.34	1.94	0.15	0.30	Colorimetric Lactate Oxidase
	mg/dl	14.8	12.1	17.5	1.35	2.70	
LD (LDH)	U/l	351	299	403	26.00	52.00	P->L German methods 37°C
	U/l	253	216	290	18.50	37.00	P->L German methods 30°C
	U/l	178	152	204	13.00	26.00	P->L German methods 25°C

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
LD (LDH)	U/l	240	204	276	18.00	36.00	L->P IFCC 37°C
	U/l	173	147	199	13.00	26.00	L->P IFCC 30°C
	U/l	122	103	141	9.50	19.00	L->P IFCC 25°C
Lipase	U/l	37	30	44	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	0.99	0.87	1.10	0.06	0.12	Ion selective electrode
	mg/dl	0.684	0.602	0.766	0.04	0.08	
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	2.18	1.92	2.44	0.13	0.26	
Phosphate Inorganic	mmol/l	1.45	1.24	1.66	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.50	3.84	5.16	0.33	0.66	
	mmol/l	1.45	1.23	1.67	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.50	3.81	5.19	0.35	0.69	
Potassium	mmol/l	4.07	3.74	4.40	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.4	46.7	70.1	5.85	11.70	Biuret reaction end point
	g/dl	5.84	4.67	7.01	0.59	1.17	
	g/l	57.4	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	140	133	147	3.50	7.00	ISE method - indirect
TIBC	µmol/l	42.5	33.6	51.4	4.45	8.90	FE+UIBC(saturation with iron)
	µg/dl	238	188	288	25.00	50.00	
Triglycerides	mmol/l	1.03	0.86	1.20	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	91.2	76.4	106	7.40	14.80	
	mmol/l	1.03	0.86	1.20	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	91.2	76.4	106	7.40	14.80	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.03	0.86	1.20	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	91.2	76.5	106	7.35	14.70	
	mmol/l	1.04	0.87	1.21	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	92.0	77.2	107	7.40	14.80	
Urea	mmol/l	7.29	6.20	8.38	0.55	1.09	Urease kinetic
	mg/dl	43.8	37.3	50.3	3.25	6.50	
	mmol/l	7.29	6.20	8.38	0.55	1.09	BUN
	mg/dl	20.5	17.4	23.6	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.73	4.99	6.47	0.37	0.74	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.70	4.96	6.44	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.78	5.02	6.54	0.38	0.76	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
alpha-HBDH	U/l	130	103	157	13.50	27.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	98	78	118	10.00	20.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	74	58	90	8.00	16.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	5.70	3.82	7.58	0.94	1.88	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	4.50	3.02	5.98	0.74	1.48	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	13.7	9.18	18.2	2.26	4.52	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	9.70	6.50	12.9	1.60	3.20	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Total)	U/l	15.4	10.3	20.5	2.55	5.10	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	18.2	12.2	24.2	3.00	6.00	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Albumin	g/l	43.0	36.5	49.5	3.25	6.50	Bromocresol Green
	g/dl	4.30	3.65	4.95	0.33	0.65	
	g/l	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	263	224	302	19.50	39.00	Diethanolamine buffer DEA 37°C
	U/l	205	174	236	15.50	31.00	Diethanolamine buffer DEA 30°C
	U/l	168	143	193	12.50	25.00	Diethanolamine buffer DEA 25°C
	U/l	121	103	139	9.00	18.00	Roche Integra AMP buffer 37°C
	U/l	94	80	108	7.00	14.00	Roche Integra AMP buffer 30°C
	U/l	77	66	88	5.50	11.00	Roche Integra AMP buffer 25°C
	U/l	166	141	191	12.50	25.00	AMP non-optimised 37°C
	U/l	129	110	148	9.50	19.00	AMP non-optimised 30°C
	U/l	106	90	122	8.00	16.00	AMP non-optimised 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Alkaline Phosphatase	U/l	182	155	209	13.50	27.00	Randox AMP 37°C
	U/l	142	121	163	10.50	21.00	Randox AMP 30°C
	U/l	116	99	133	8.50	17.00	Randox AMP 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	76	65	87	5.50	11.00	Randox liquid stable pNPG7 37°C
	U/l	65	55	75	5.00	10.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/l	95	81	109	7.00	14.00	Randox liquid stable pNPG7 37°C
	U/l	88	75	101	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
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	13.0	10.3	15.7	1.35	2.70	Colorimetric
	mmol/l	13.0	10.3	15.7	1.35	2.70	Enzymatic
Bile Acids	µmol/l	27.3	21.8	32.8	2.75	5.50	5th Generation Colorimetric
Bilirubin Direct	µmol/l	20.8	16.4	25.2	2.20	4.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.22	0.959	1.48	0.13	0.26	
	µmol/l	20.7	16.4	25.0	2.15	4.30	Diazo with Sulphanilic Acid
	mg/dl	1.21	0.959	1.46	0.13	0.25	
	µmol/l	14.1	11.2	17.0	1.45	2.90	Roche JG factored
Bilirubin Total	mg/dl	0.825	0.655	0.995	0.09	0.17	
	µmol/l	27.4	21.7	33.1	2.85	5.70	Diazo with Dichloroaniline (DCA)

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	27.1	21.4	32.8	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.59	1.25	1.93	0.17	0.34	
	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	26.8	21.1	32.5	2.85	5.70	Diazonium ion
	mg/dl	1.57	1.23	1.91	0.17	0.34	
Calcium	µmol/l	27.1	21.4	32.8	2.85	5.70	DPD - Roche
	mg/dl	1.59	1.25	1.93	0.17	0.34	
	mmol/l	2.33	2.09	2.57	0.12	0.24	Cresolphthalein complexone
	mg/dl	9.34	8.38	10.3	0.48	0.96	
Chloride	mmol/l	2.33	2.10	2.56	0.12	0.23	Arsenazo III
	mg/dl	9.34	8.42	10.3	0.46	0.92	
Cholesterol	mmol/l	5.03	4.37	5.69	0.33	0.66	Cholesterol Oxidase
	mg/dl	194	169	219	12.50	25.00	
Cholinesterase	U/l	5660	4528	6792	566.00	1132.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	187	153	221	17.00	34.00	CK-NAC serum start (DGKC) 37°C
	U/l	117	96	138	10.50	21.00	CK-NAC serum start (DGKC) 30°C
	U/l	79	65	93	7.00	14.00	CK-NAC serum start (DGKC) 25°C
	U/l	189	155	223	17.00	34.00	CK-NAC substrate start (DGKC) 37°C
	U/l	118	97	139	10.50	21.00	CK-NAC substrate start (DGKC) 30°C
	U/l	80	66	94	7.00	14.00	CK-NAC substrate start (DGKC) 25°C
	U/l	188	154	222	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	118	96	140	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	80	65	95	7.50	15.00	CK-NAC (IFCC) 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
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	123	98.1	148	12.45	24.90	Randox Enzymatic UV method
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	μmol/l	136	109	163	13.50	27.00	Roche Creatinine Plus
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	μmol/l	137	110	164	13.50	27.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.55	1.24	1.86	0.16	0.31	
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	45	39	51	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	31	39	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	24	32	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	44	37	51	3.50	7.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	35	29	41	3.00	6.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	27	23	31	2.00	4.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	26	34	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	57	48	66	4.50	9.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	45	38	52	3.50	7.00	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	16	13	19	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
	U/l	12	10	14	1.00	2.00	Triethanolamine buffer 50 mmol 30°C
	U/l	10	8	12	1.00	2.00	Triethanolamine buffer 50 mmol 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Glucose	mmol/l	6.07	5.16	6.98	0.46	0.91	Hexokinase
	mg/dl	109	93.0	125	8.00	16.00	
	mmol/l	6.26	5.32	7.20	0.47	0.94	Glucose oxidase
	mg/dl	113	95.9	130	8.55	17.10	
HDL - Cholesterol	mmol/l	1.69	1.43	1.95	0.13	0.26	Direct HDL Immunoseparation
	mg/dl	65.2	55.2	75.2	5.00	10.00	
	mmol/l	1.74	1.48	2.00	0.13	0.26	Direct HDL PEGME
	mg/dl	67.2	57.1	77.3	5.05	10.10	
	mmol/l	1.74	1.48	2.00	0.13	0.26	Direct HDL Roche 3rd generation
	mg/dl	67.2	57.1	77.3	5.05	10.10	
Iron	µmol/l	18.8	15.4	22.2	1.70	3.40	Colorimetric with ppt.
	µg/dl	105	86.1	124	9.45	18.90	
	µmol/l	19.3	15.8	22.8	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.3	128	9.85	19.70	
Lactate	mmol/l	1.53	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	367	312	422	27.50	55.00	P->L German methods 37°C
	U/l	265	225	305	20.00	40.00	P->L German methods 30°C
	U/l	186	158	214	14.00	28.00	P->L German methods 25°C
	U/l	229	194	264	17.50	35.00	L->P IFCC 37°C
	U/l	165	140	190	12.50	25.00	L->P IFCC 30°C
	U/l	116	98	134	9.00	18.00	L->P IFCC 25°C
	U/l	257	218	296	19.50	39.00	L->P Randox 37°C
	U/l	186	157	215	14.50	29.00	L->P Randox 30°C
	U/l	130	111	149	9.50	19.00	L->P Randox 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Lipase	U/l	35	28	42	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.02	0.89	1.15	0.06	0.13	Spectrophotometric
	mg/dl	0.708	0.621	0.795	0.04	0.09	
Magnesium	mmol/l	0.90	0.79	1.00	0.05	0.11	Xylidyl Blue
	mg/dl	2.17	1.91	2.43	0.13	0.26	
	mmol/l	0.88	0.78	0.99	0.05	0.11	Enzymatic
	mg/dl	2.15	1.89	2.41	0.13	0.26	
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	4.10	3.77	4.43	0.17	0.33	ISE method - indirect
Protein Total	g/l	59.5	47.6	71.4	5.95	11.90	Biuret reaction end point
	g/dl	5.95	4.76	7.14	0.60	1.19	
Sodium	mmol/l	143	135	151	4.00	8.00	ISE method - indirect
TIBC	µmol/l	41.2	32.5	49.9	4.35	8.70	FE+UIBC(saturation with iron)
	µg/dl	230	182	278	24.00	48.00	
Triglycerides	mmol/l	1.02	0.86	1.18	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	90.3	76.0	105	7.15	14.30	
	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	92.9	78.1	108	7.40	14.80	
Urea	mmol/l	7.72	6.56	8.88	0.58	1.16	Urease kinetic
	mg/dl	46.4	39.4	53.4	3.50	7.00	
	mmol/l	7.72	6.56	8.88	0.58	1.16	BUN
	mg/dl	21.7	18.4	25.0	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.66	4.92	6.40	0.37	0.74	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.64	4.91	6.37	0.37	0.73	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.70	4.96	6.44	0.37	0.74	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.63	4.89	6.37	0.37	0.74	

ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	41.9	35.6	48.2	3.15	6.30	Bromocresol Green
	g/dl	4.19	3.56	4.82	0.32	0.63	
Alkaline Phosphatase	U/l	206	175	237	15.50	31.00	AMP optimised to IFCC 37°C
	U/l	160	136	184	12.00	24.00	AMP optimised to IFCC 30°C
	U/l	132	112	152	10.00	20.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	16	12	20	2.00	4.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	23.8	19.0	28.6	2.40	4.80	Enzymatic Colorimetric
Bilirubin Total	µmol/l	31.7	25.0	38.4	3.35	6.70	Diazo with Sulphanilic Acid
	mg/dl	1.85	1.46	2.24	0.20	0.39	
Calcium	mmol/l	2.28	2.05	2.51	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.14	8.22	10.1	0.46	0.92	
Chloride	mmol/l	96.7	89.0	104	3.85	7.70	ISE indirect
Cholesterol	mmol/l	4.98	4.33	5.63	0.33	0.65	Cholesterol Oxidase
	mg/dl	192	167	217	12.50	25.00	
CK Total	U/l	181	148	214	16.50	33.00	CK-NAC (IFCC) 37°C
	U/l	113	93	133	10.00	20.00	CK-NAC (IFCC) 30°C
	U/l	77	63	91	7.00	14.00	CK-NAC (IFCC) 25°C

ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	139	111	167	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.57	1.25	1.89	0.16	0.32	
gamma-GT	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	6.51	5.53	7.49	0.49	0.98	Hexokinase
	mg/dl	117	99.7	134	8.65	17.30	
	mmol/l	5.97	5.07	6.87	0.45	0.90	Glucose oxidase
	mg/dl	108	91.4	125	8.30	16.60	
Iron	μmol/l	19.8	16.3	23.3	1.75	3.50	Colorimetric without ppt.
	μg/dl	111	91.1	131	9.95	19.90	
LD (LDH)	U/l	363	308	418	27.50	55.00	P->L German methods 37°C
	U/l	262	222	302	20.00	40.00	P->L German methods 30°C
	U/l	184	156	212	14.00	28.00	P->L German methods 25°C
Magnesium	mmol/l	0.91	0.80	1.02	0.06	0.11	Enzymatic
	mg/dl	2.22	1.95	2.49	0.14	0.27	
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	4.22	3.89	4.55	0.17	0.33	ISE method - indirect
Protein Total	g/l	60.2	48.1	72.3	6.05	12.10	Biuret reaction end point
	g/dl	6.02	4.81	7.23	0.61	1.21	
Sodium	mmol/l	145	138	152	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.08	0.91	1.25	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.6	111	7.50	15.00	

ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.08	0.90	1.26	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	95.6	79.9	111	7.85	15.70	
Urea	mmol/l	7.83	6.66	9.00	0.59	1.17	Urease end point
	mg/dl	47.1	40.0	54.2	3.55	7.10	
	mmol/l	7.83	6.66	9.00	0.59	1.17	BUN
	mg/dl	22.0	18.7	25.3	1.65	3.30	
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	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	39.9	33.9	45.9	3.00	6.00	Ortho Vitros Microslide Systems
	g/dl	3.99	3.39	4.59	0.30	0.60	
Alkaline Phosphatase	U/l	149	127	171	11.00	22.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	46	37	55	4.50	9.00	Ortho Vitros Microslide Systems 37°C
Amylase Total	U/l	66	56	76	5.00	10.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	47	38	56	4.50	9.00	Ortho Vitros Microslide visible slide 37°C
Bicarbonate	mmol/l	13.6	10.8	16.4	1.40	2.80	Ortho Vitros Microslide Systems
Bilirubin Direct	µmol/l	14.4	11.4	17.4	1.50	3.00	Vitros Total Bil - BU
	mg/dl	0.842	0.667	1.02	0.09	0.18	
Bilirubin Total	µmol/l	25.3	20.0	30.6	2.65	5.30	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.48	1.17	1.79	0.16	0.31	
	µmol/l	27.4	21.6	33.2	2.90	5.80	Vitros 250/500/700/950 Total BUBC
	mg/dl	1.60	1.26	1.94	0.17	0.34	
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	2.28	2.06	2.50	0.11	0.22	Vitros DT60/DT60 II/DTSC II
	mg/dl	9.14	8.26	10.0	0.44	0.88	
Chloride	mmol/l	98.3	90.4	106	3.95	7.90	Ortho Vitros Microslide Systems
	mmol/l	102	93.5	111	4.25	8.50	Vitros DT60/DT60 II/DTE II
Cholesterol	mmol/l	4.96	4.32	5.60	0.32	0.64	Ortho Vitros Microslide Systems
	mg/dl	191	167	215	12.00	24.00	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Size 20 x 5ml / 5 x 5ml Expiry 2016-12			Range				
Analyte	unit	target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	5.01	4.36	5.66	0.33	0.65	Vitros DT60/DT60 II
	mg/dl	193	168	218	12.50	25.00	
Cholinesterase	U/l	5703	4563	6843	570.00	1140.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	174	143	205	15.50	31.00	Ortho Vitros Microslide Systems 37°C
	U/l	180	148	212	16.00	32.00	Vitros DT60/DT60 II/DTSC II 37°C
Creatinine	µmol/l	131	105	157	13.00	26.00	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	150	120	180	15.00	30.00	Vitros DT60/DT60 II/DTSC II
	mg/dl	1.70	1.36	2.04	0.17	0.34	
	µmol/l	133	106	160	13.50	27.00	Vitros IDMS Traceable
	mg/dl	1.50	1.20	1.80	0.15	0.30	
Free T4	pmol/l	24.9	18.6	31.2	3.15	6.30	Vitros ECI
	ng/dl	1.94	1.45	2.43	0.25	0.49	
	pg/ml	19.4	14.5	24.3	2.45	4.90	Vitros ECI
gamma-GT	U/l	65	55	75	5.00	10.00	Ortho Vitros Microslide Systems 37°C
Glucose	mmol/l	5.81	4.94	6.68	0.44	0.87	Ortho Vitros Microslide Systems
	mg/dl	105	89.0	121	8.00	16.00	
	mmol/l	5.92	5.03	6.81	0.45	0.89	Vitros DT60/DT60 II
	mg/dl	107	90.6	123	8.20	16.40	
HDL - Cholesterol	mmol/l	1.77	1.50	2.04	0.14	0.27	Vitros Magnetic HDL
	mg/dl	68.3	57.9	78.7	5.20	10.40	
	mmol/l	1.77	1.50	2.04	0.14	0.27	Vitros 5.1 FS microtip assay
	mg/dl	68.3	57.9	78.7	5.20	10.40	
	mmol/l	1.75	1.49	2.01	0.13	0.26	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	67.6	57.5	77.7	5.05	10.10	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Iron	µmol/l	19.7	16.1	23.3	1.80	3.60	Ortho Vitros Microslide Systems
	µg/dl	110	90.0	130	10.00	20.00	
Lactate	mmol/l	1.40	1.15	1.65	0.13	0.25	Ortho Vitros Microslide Systems
	mg/dl	12.6	10.4	14.8	1.10	2.20	
LD (LDH)	U/l	746	635	857	55.50	111.00	Ortho Vitros Microslide Systems 37°C
Lipase	U/l	271	218	324	26.50	53.00	Ortho Vitros Microslide Systems 37°C
	U/l	292	234	350	29.00	58.00	Vitros DT60/DT60 II/DTSC II 37°C
Lithium	mmol/l	1.15	1.01	1.29	0.07	0.14	Ortho Vitros Microslide Systems
	mg/dl	0.799	0.701	0.897	0.05	0.10	
Magnesium	mmol/l	0.87	0.77	0.98	0.05	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.12	1.86	2.38	0.13	0.26	
	mmol/l	0.82	0.72	0.92	0.05	0.10	Vitros DT60/DT60 II
	mg/dl	2.00	1.76	2.24	0.12	0.24	
Phosphate Inorganic	mmol/l	1.52	1.30	1.74	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.71	4.03	5.39	0.34	0.68	
	mmol/l	1.46	1.24	1.68	0.11	0.22	Vitros DT60/DT60 II
	mg/dl	4.53	3.84	5.22	0.35	0.69	
Potassium	mmol/l	4.17	3.84	4.50	0.17	0.33	Ortho Vitros Microslide Systems
	mmol/l	4.07	3.74	4.40	0.17	0.33	Vitros DT60/DT60 II/DTE II
Protein Total	g/l	59.3	47.5	71.1	5.90	11.80	Ortho Vitros Microslide Systems
	g/dl	5.93	4.75	7.11	0.59	1.18	
	g/l	58.5	46.8	70.2	5.85	11.70	Vitros DT60/DT60 II
	g/dl	5.85	4.68	7.02	0.59	1.17	
Sodium	mmol/l	143	136	150	3.50	7.00	Ortho Vitros Microslide Systems
	mmol/l	142	135	149	3.50	7.00	Vitros DT60/DT60 II/DTE II

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Thyroid Stimulating Hormone	µU/ml =	1.43	1.14	1.72	0.15	0.29	Vitros ECI
TIBC	µmol/l	42.1	33.3	50.9	4.40	8.80	Ortho Vitros Microslide Systems
	µg/dl	235	186	284	24.50	49.00	
Triglycerides	mmol/l	1.19	1.00	1.38	0.10	0.19	Ortho Vitros Microslide Systems
	mg/dl	105	88.5	122	8.25	16.50	
	mmol/l	1.15	0.96	1.34	0.09	0.19	Vitros DT60/DT60 II
	mg/dl	102	85.1	119	8.45	16.90	
Urea	mmol/l	6.92	5.88	7.96	0.52	1.04	Ortho Vitros Microslide Systems
	mg/dl	41.6	35.3	47.9	3.15	6.30	
	mmol/l	7.00	5.95	8.05	0.53	1.05	Vitros DT60/DT60 II
	mg/dl	42.1	35.8	48.4	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	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.49	4.79	6.19	0.35	0.70	
	mmol/l	0.32	0.28	0.36	0.02	0.04	Vitros DT60/DT60 II
	mg/dl	5.41	4.70	6.12	0.36	0.71	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	39.4	33.5	45.3	2.95	5.90	Bromocresol Green
	g/dl	3.94	3.35	4.53	0.30	0.59	
Alkaline Phosphatase	U/l	184	156	212	14.00	28.00	AMP optimised to IFCC 37°C
	U/l	143	122	164	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	118	100	136	9.00	18.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
	U/l	28	22	34	3.00	6.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	101	86	116	7.50	15.00	Randox - Ethylidene pNPG7 37°C
	U/l	86	73	99	6.50	13.00	bioMerieux 2-chloro-pNPG3 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
Bile Acids	µmol/l	25.7	20.6	30.8	2.55	5.10	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	19.3	15.2	23.4	2.05	4.10	Diazo with Sulphanilic Acid
	mg/dl	1.13	0.889	1.37	0.12	0.24	
Bilirubin Total	µmol/l	25.0	19.7	30.3	2.65	5.30	Diazo with Sulphanilic Acid
	mg/dl	1.46	1.15	1.77	0.16	0.31	
	µmol/l	24.0	19.0	29.0	2.50	5.00	Nitrobenzenediazonium salt
	mg/dl	1.40	1.11	1.69	0.15	0.29	
Calcium	mmol/l	2.35	2.11	2.59	0.12	0.24	Arsenazo III
	mg/dl	9.42	8.46	10.4	0.48	0.96	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Chloride	mmol/l	100	92.1	108	3.95	7.90	ISE direct
Cholesterol	mmol/l	4.87	4.24	5.50	0.32	0.63	Cholesterol Oxidase
	mg/dl	188	164	212	12.00	24.00	
CK Total	U/l	200	164	236	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	125	103	147	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	85	70	100	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	134	107	161	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	µmol/l	122	97.8	146	12.10	24.20	Randox Enzymatic UV method
	mg/dl	1.38	1.11	1.65	0.14	0.27	
	µmol/l	134	107	161	13.50	27.00	Creatinine PAP method
	mg/dl	1.51	1.21	1.81	0.15	0.30	
gamma-GT	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	6.07	5.16	6.98	0.46	0.91	Hexokinase
	mg/dl	109	93.0	125	8.00	16.00	
	mmol/l	6.13	5.21	7.05	0.46	0.92	Glucose oxidase
	mg/dl	110	93.9	126	8.05	16.10	
HDL - Cholesterol	mmol/l	1.67	1.42	1.92	0.13	0.25	Direct HDL PEGME
	mg/dl	64.5	54.8	74.2	4.85	9.70	
Iron	µmol/l	22.1	18.1	26.1	2.00	4.00	Colorimetric without ppt.
	µg/dl	124	101	147	11.50	23.00	
LD (LDH)	U/l	423	359	487	32.00	64.00	P->L Scandinavian & Dutch 37°C
	U/l	305	259	351	23.00	46.00	P->L Scandinavian & Dutch 30°C
	U/l	214	182	246	16.00	32.00	P->L Scandinavian & Dutch 25°C

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
LD (LDH)	U/l	386	328	444	29.00	58.00	P->L SFBC 37°C
	U/l	279	237	321	21.00	42.00	P->L SFBC 30°C
	U/l	196	166	226	15.00	30.00	P->L SFBC 25°C
Lithium	mmol/l	1.00	0.88	1.11	0.06	0.12	Ion selective electrode
	mg/dl	0.691	0.608	0.774	0.04	0.08	
Magnesium	mmol/l	0.98	0.86	1.10	0.06	0.12	Calmagite
	mg/dl	2.38	2.09	2.67	0.15	0.29	
	mmol/l	0.89	0.78	1.00	0.05	0.11	Xylidyl Blue
	mg/dl	2.16	1.91	2.41	0.13	0.25	
Phosphate Inorganic	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.40	3.75	5.05	0.33	0.65	
Potassium	mmol/l	3.93	3.62	4.24	0.16	0.31	ISE method - direct
Protein Total	g/l	59.6	47.7	71.5	5.95	11.90	Biuret reaction end point
	g/dl	5.96	4.77	7.15	0.60	1.19	
Sodium	mmol/l	138	131	145	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.3	111	7.65	15.30	
	mmol/l	1.05	0.88	1.22	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	92.9	77.9	108	7.50	15.00	
Urea	mmol/l	7.46	6.34	8.58	0.56	1.12	Urease kinetic
	mg/dl	44.8	38.1	51.5	3.35	6.70	
	mmol/l	7.46	6.34	8.58	0.56	1.12	BUN
	mg/dl	20.9	17.8	24.0	1.55	3.10	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

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
	mg/dl	6.01	5.22	6.80	0.40	0.79	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.96	5.19	6.73	0.39	0.77	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.96	5.19	6.73	0.39	0.77	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
alpha-HBDH	U/l	130	103	157	13.50	27.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	98	78	118	10.00	20.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	74	58	90	8.00	16.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	5.70	3.82	7.58	0.94	1.88	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	4.50	3.02	5.98	0.74	1.48	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	9.70	6.50	12.9	1.60	3.20	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	13.7	9.17	18.2	2.27	4.53	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Total)	U/l	15.4	10.3	20.5	2.55	5.10	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	18.2	12.2	24.2	3.00	6.00	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Albumin	g/l	41.9	35.6	48.2	3.15	6.30	Bromocresol Green
	g/dl	4.19	3.56	4.82	0.32	0.63	
	g/l	43.0	36.5	49.5	3.25	6.50	Bromocresol Purple
	g/dl	4.30	3.65	4.95	0.33	0.65	
	g/l	39.9	33.9	45.9	3.00	6.00	Ortho Vitros Microslide Systems
	g/dl	3.99	3.39	4.59	0.30	0.60	
	g/l	38.3	32.5	44.1	2.90	5.80	Turbidimetric Assays
	g/dl	3.83	3.25	4.41	0.29	0.58	
Alkaline Phosphatase	U/l	175	149	201	13.00	26.00	p-Nitrophenylphosphate AMP 37°C
	U/l	136	116	156	10.00	20.00	p-Nitrophenylphosphate AMP 30°C
	U/l	112	95	129	8.50	17.00	p-Nitrophenylphosphate AMP 25°C
	U/l	149	127	171	11.00	22.00	Ortho Vitros Microslide Systems 37°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Alkaline Phosphatase	U/l	274	233	315	20.50	41.00	Diethanolamine buffer DEA 37°C
	U/l	213	182	244	15.50	31.00	Diethanolamine buffer DEA 30°C
	U/l	175	149	201	13.00	26.00	Diethanolamine buffer DEA 25°C
	U/l	180	153	207	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	140	119	161	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	115	98	132	8.50	17.00	AMP optimised to IFCC 25°C
	U/l	173	147	199	13.00	26.00	AMP optimised to NVKC/SFBC 37°C
	U/l	135	115	155	10.00	20.00	AMP optimised to NVKC/SFBC 30°C
	U/l	111	94	128	8.50	17.00	AMP optimised to NVKC/SFBC 25°C
	U/l	177	150	204	13.50	27.00	AMP reduced interference 37°C
	U/l	138	117	159	10.50	21.00	AMP reduced interference 30°C
	U/l	113	96	130	8.50	17.00	AMP reduced interference 25°C
ALT (GPT)	U/l	46	37	55	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	40	32	48	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	18	28	2.50	5.00	Tris buffer with P5P 25°C
	U/l	36	28	44	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
	U/l	34	27	41	3.50	7.00	Tris buffer SCE 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer SCE 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer SCE 25°C
Amylase Pancreatic	U/l	63	54	72	4.50	9.00	Immunoinhibition EPS substrate 37°C
	U/l	76	65	87	5.50	11.00	Randox liquid stable pNPG7 37°C
	U/l	66	56	76	5.00	10.00	Roche liquid stable pNPG7 37°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Amylase Total	U/l	92	78	106	7.00	14.00	pNP Maltotrioxide substrates 37°C
	U/l	88	74	102	7.00	14.00	Siemens - blocked pNPG7 37°C
	U/l	74	63	85	5.50	11.00	Randox - Ethylidene pNPG7 37°C
	U/l	95	80	110	7.50	15.00	Randox liquid stable pNPG7 37°C
	U/l	91	77	105	7.00	14.00	Beckman maltotetraose 37°C
	U/l	96	82	110	7.00	14.00	Siemens - maltopenta/hexaaside 37°C
	U/l	88	75	101	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	66	56	76	5.00	10.00	Ortho Vitros Microslide Systems 37°C
	U/l	87	74	100	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	88	74	102	7.00	14.00	Roche liquid stable pNPG7 37°C
	U/l	94	80	108	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
	U/l	83	71	95	6.00	12.00	bioMerieux 2-chloro-pNPG3 37°C
	U/l	88	75	101	6.50	13.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	92	78	106	7.00	14.00	Beckman Synchron AMY7 37°C
Apolipoprotein A-1	g/l	1.14	0.94	1.35	0.10	0.21	Immunoturbidimetric
	mg/dl	114	93.5	135	10.25	20.50	
Apolipoprotein B	g/l	0.65	0.53	0.76	0.06	0.12	Immunoturbidimetric
	mg/dl	64.6	53.0	76.2	5.80	11.60	
AST (GOT)	U/l	47	38	56	4.50	9.00	Ortho Vitros Microslide visible slide 37°C
	U/l	47	38	56	4.50	9.00	Tris buffer with P5P 37°C
	U/l	32	26	38	3.00	6.00	Tris buffer with P5P 30°C
	U/l	22	18	26	2.00	4.00	Tris buffer with P5P 25°C
	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	16	12	20	2.00	4.00	Tris buffer without P5P 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
AST (GOT)	U/l	33	26	40	3.50	7.00	Tris buffer SCE 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer SCE 30°C
	U/l	16	12	20	2.00	4.00	Tris buffer SCE 25°C
Bicarbonate	mmol/l	12.8	10.2	15.4	1.30	2.60	Colorimetric
	mmol/l	13.6	10.8	16.4	1.40	2.80	Ortho Vitros Microslide Systems
	mmol/l	13.1	10.4	15.8	1.35	2.70	Differential rate pH change
	mmol/l	13.3	10.5	16.1	1.40	2.80	Enzymatic
	mmol/l	13.4	10.6	16.2	1.40	2.80	Ion selective electrode
Bile Acids	µmol/l	28.9	23.1	34.7	2.90	5.80	4th Generation Colorimetric
	µmol/l	27.3	21.8	32.8	2.75	5.50	5th Generation Colorimetric
Bilirubin Direct	µmol/l	21.7	17.1	26.3	2.30	4.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.27	1.00	1.54	0.14	0.27	
	µmol/l	22.7	17.9	27.5	2.40	4.80	Diazo with Sulphanilic Acid
	mg/dl	1.33	1.05	1.61	0.14	0.28	
	µmol/l	14.4	11.4	17.4	1.50	3.00	Vitros Total Bil - BU
	mg/dl	0.842	0.667	1.02	0.09	0.18	
	µmol/l	14.9	11.8	18.0	1.55	3.10	Roche JG factored
	mg/dl	0.872	0.690	1.05	0.09	0.18	
	µmol/l	21.1	16.6	25.6	2.25	4.50	Diazo with Dichloroaniline (DCA)
	mg/dl	1.23	0.971	1.49	0.13	0.26	
	µmol/l	20.1	15.8	24.4	2.15	4.30	Oxidation to Biliverdin
	mg/dl	1.18	0.924	1.44	0.13	0.26	
Bilirubin Total	µmol/l	16.8	13.3	20.3	1.75	3.50	Modified Jendrassik
	mg/dl	0.983	0.778	1.19	0.10	0.21	
Bilirubin Total	µmol/l	25.3	20.0	30.6	2.65	5.30	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.48	1.17	1.79	0.16	0.31	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	μmol/l	27.4	21.6	33.2	2.90	5.80	Vitros 250/500/700/950 Total BUBC
	mg/dl	1.60	1.26	1.94	0.17	0.34	
	μmol/l	34.7	27.4	42.0	3.65	7.30	Diazo with Dichloroaniline (DCA)
	mg/dl	2.03	1.60	2.46	0.22	0.43	
	μmol/l	29.1	23.0	35.2	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.70	1.35	2.05	0.18	0.35	
	μmol/l	28.8	22.8	34.8	3.00	6.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.68	1.33	2.03	0.18	0.35	
	μmol/l	24.6	19.5	29.7	2.55	5.10	Nitrobenzenediazonium salt
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	μmol/l	25.6	20.3	30.9	2.65	5.30	Diazonium ion
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	μmol/l	30.6	24.2	37.0	3.20	6.40	Oxidation to Biliverdin
	mg/dl	1.79	1.42	2.16	0.19	0.37	
	μmol/l	25.7	20.3	31.1	2.70	5.40	DPD - Roche
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	μmol/l	34.6	27.3	41.9	3.65	7.30	Modified Jendrassik
	mg/dl	2.02	1.60	2.44	0.21	0.42	
Calcium	mmol/l	2.31	2.08	2.54	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.26	8.34	10.2	0.46	0.92	
	mmol/l	2.30	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	2.25	2.03	2.47	0.11	0.22	Ion selective electrode
	mg/dl	9.02	8.14	9.90	0.44	0.88	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.34	2.11	2.57	0.12	0.23	Methylthymol blue
	mg/dl	9.38	8.46	10.3	0.46	0.92	
	mmol/l	2.36	2.12	2.60	0.12	0.24	Arsenazo III
	mg/dl	9.46	8.50	10.4	0.48	0.96	
Chloride	mmol/l	98.9	91.0	107	3.95	7.90	Colorimetric
	mmol/l	98.3	90.4	106	3.95	7.90	Ortho Vitros Microslide Systems
	mmol/l	96.5	88.8	104	3.85	7.70	ISE indirect
	mmol/l	98.5	90.6	106	3.95	7.90	ISE direct
Cholesterol	mmol/l	4.96	4.32	5.60	0.32	0.64	Ortho Vitros Microslide Systems
	mg/dl	191	167	215	12.00	24.00	
	mmol/l	5.00	4.35	5.65	0.33	0.65	Cholesterol Oxidase
	mg/dl	193	168	218	12.50	25.00	
Cholinesterase	U/l	5855	4684	7026	585.50	1171.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	174	143	205	15.50	31.00	Ortho Vitros Microslide Systems 37°C
	U/l	190	156	224	17.00	34.00	CK-NAC serum start (DGKC) 37°C
	U/l	119	98	140	10.50	21.00	CK-NAC serum start (DGKC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC serum start (DGKC) 25°C
	U/l	193	158	228	17.50	35.00	CK-NAC substrate start (DGKC) 37°C
	U/l	121	99	143	11.00	22.00	CK-NAC substrate start (DGKC) 30°C
	U/l	82	67	97	7.50	15.00	CK-NAC substrate start (DGKC) 25°C
	U/l	195	160	230	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	122	100	144	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	83	68	98	7.50	15.00	CK-NAC (IFCC) 25°C
	U/l	192	157	227	17.50	35.00	Monothioglycerol 37°C
	U/l	120	98	142	11.00	22.00	Monothioglycerol 30°C
	U/l	82	67	97	7.50	15.00	Monothioglycerol 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
CK Total	U/l	186	153	219	16.50	33.00	Dithioerythritol 37°C
	U/l	116	96	136	10.00	20.00	Dithioerythritol 30°C
	U/l	79	65	93	7.00	14.00	Dithioerythritol 25°C
	U/l	178	146	210	16.00	32.00	Dithioerythritol (DTE) IFCC correlated 37°C
	U/l	111	91	131	10.00	20.00	Dithioerythritol (DTE) IFCC correlated 30°C
	U/l	76	62	90	7.00	14.00	Dithioerythritol (DTE) IFCC correlated 25°C
Copper	µmol/l	16.6	13.3	19.9	1.65	3.30	Atomic absorption
	µg/dl	106	84.6	127	10.70	21.40	
	µmol/l	15.9	12.7	19.1	1.60	3.20	Colorimetric
	µg/dl	101	80.8	121	10.10	20.20	
Cortisol	nmol/l	466	350	582	58.00	116.00	Siemens Immulite 2000
	µg/dl	16.8	12.6	21.0	2.10	4.20	
Creatinine	µmol/l	132	106	158	13.00	26.00	Alkaline picrate with deproteinization
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	µmol/l	136	109	163	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	µmol/l	131	105	157	13.00	26.00	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	133	106	160	13.50	27.00	Randox Enzymatic UV method
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	µmol/l	136	109	163	13.50	27.00	Creatinine PAP method
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	µmol/l	136	109	163	13.50	27.00	Roche Creatinine Plus
	mg/dl	1.54	1.23	1.85	0.16	0.31	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	138	110	166	14.00	28.00	Jaffe rate blanked
	mg/dl	1.56	1.24	1.88	0.16	0.32	
	μmol/l	135	108	162	13.50	27.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.53	1.22	1.84	0.16	0.31	
	μmol/l	129	103	155	13.00	26.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	μmol/l	133	106	160	13.50	27.00	Vitros IDMS Traceable
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	μmol/l	131	105	157	13.00	26.00	IDMS traceable
	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
Digoxin	nmol/l	1.98	1.58	2.38	0.20	0.40	Immunoturbidimetric
	ng/ml	1.55	1.23	1.87	0.16	0.32	
Folate	nmol/l	35.6	27.1	44.1	4.25	8.50	Siemens Immulite 2000
	ng/ml	15.7	12.0	19.4	1.85	3.70	
	nmol/l	93.0	70.7	115	11.15	22.30	Siemens Advia Centaur
	ng/ml	41.0	31.2	50.8	4.90	9.80	
Free T4	pmol/l	15.4	11.5	19.3	1.95	3.90	Abbott Architect
	ng/dl	1.20	0.897	1.50	0.15	0.30	
	pg/ml	12.0	8.97	15.0	1.52	3.03	Abbott Architect
	pmol/l	14.4	10.8	18.0	1.80	3.60	Abbott AXSYM
	ng/dl	1.12	0.842	1.40	0.14	0.28	
	pg/ml	11.2	8.42	14.0	1.39	2.78	Abbott AXSYM
	pmol/l	14.7	11.0	18.4	1.85	3.70	Siemens Advia Centaur
	ng/dl	1.15	0.858	1.44	0.15	0.29	
	pg/ml	11.5	8.58	14.4	1.46	2.92	Siemens Advia Centaur

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Free T4	pmol/l	16.6	12.5	20.7	2.05	4.10	Siemens Immulite 2000/2500
	ng/dl	1.29	0.975	1.61	0.16	0.32	
	pg/ml	12.9	9.75	16.1	1.58	3.15	Siemens Immulite 2000/2500
	pmol/l	24.9	18.6	31.2	3.15	6.30	Vitros ECI
	ng/dl	1.94	1.45	2.43	0.25	0.49	
	pg/ml	19.4	14.5	24.3	2.45	4.90	Vitros ECI
	pmol/l	17.1	12.8	21.4	2.15	4.30	Roche Elecsys
	ng/dl	1.33	0.998	1.66	0.17	0.33	
	pg/ml	13.3	9.98	16.6	1.66	3.32	Roche Elecsys
	pmol/l	16.7	12.5	20.9	2.10	4.20	Roche Modular E170
	ng/dl	1.30	0.975	1.63	0.16	0.33	
	pg/ml	13.0	9.75	16.3	1.63	3.25	Roche Modular E170
	pmol/l	17.3	13.0	21.6	2.15	4.30	Roche Cobas E411
	ng/dl	1.35	1.01	1.69	0.17	0.34	
	pg/ml	13.5	10.1	16.9	1.70	3.40	Roche Cobas E411
	pmol/l	16.8	12.6	21.0	2.10	4.20	Roche Cobas 6000/8000
	ng/dl	1.31	0.983	1.64	0.16	0.33	
	pg/ml	13.1	9.83	16.4	1.64	3.27	Roche Cobas 6000/8000
Gentamicin	µmol/l	8.05	6.44	9.66	0.81	1.61	Immunoturbidimetric
	µg/ml	3.85	3.08	4.62	0.39	0.77	
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	65	55	75	5.00	10.00	Ortho Vitros Microslide Systems 37°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
gamma-GT	U/l	42	36	48	3.00	6.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	33	28	38	2.50	5.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	26	22	30	2.00	4.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	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	57	48	66	4.50	9.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	45	38	52	3.50	7.00	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	13	10	16	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
	U/l	10	8	12	1.00	2.00	Triethanolamine buffer 50 mmol 30°C
	U/l	8	6	10	1.00	2.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	5.81	4.94	6.68	0.44	0.87	Ortho Vitros Microslide Systems
	mg/dl	105	89.0	121	8.00	16.00	
	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	6.07	5.16	6.98	0.46	0.91	Hexokinase
	mg/dl	109	93.0	125	8.00	16.00	
	mmol/l	5.94	5.05	6.83	0.45	0.89	Oxygen electrode
	mg/dl	107	91.0	123	8.00	16.00	
	mmol/l	6.12	5.20	7.04	0.46	0.92	Glucose oxidase
	mg/dl	110	93.7	126	8.15	16.30	
HDL - Cholesterol	mmol/l	1.66	1.41	1.91	0.13	0.25	Direct HDL Immunoseparation
	mg/dl	64.1	54.4	73.8	4.85	9.70	
	mmol/l	1.77	1.50	2.04	0.14	0.27	Vitros Magnetic HDL
	mg/dl	68.3	57.9	78.7	5.20	10.40	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	1.72	1.46	1.98	0.13	0.26	Direct HDL PEGME
	mg/dl	66.4	56.4	76.4	5.00	10.00	
	mmol/l	1.53	1.30	1.76	0.12	0.23	Direct Clearance Method
	mg/dl	59.1	50.2	68.0	4.45	8.90	
	mmol/l	1.77	1.50	2.04	0.14	0.27	Vitros 5.1 FS microtip assay
	mg/dl	68.3	57.9	78.7	5.20	10.40	
	mmol/l	1.75	1.49	2.01	0.13	0.26	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	67.6	57.5	77.7	5.05	10.10	
	mmol/l	1.75	1.49	2.01	0.13	0.26	Direct HDL Roche 3rd generation
	mg/dl	67.6	57.5	77.7	5.05	10.10	
	mmol/l	1.63	1.38	1.88	0.13	0.25	HDL - Ultra
	mg/dl	62.9	53.3	72.5	4.80	9.60	
Immunoglobulin A	g/l	2.02	1.52	2.52	0.25	0.50	Immunoturbidimetric
	mg/dl	202	152	252	25.00	50.00	
Immunoglobulin G	g/l	8.48	6.95	10.0	0.77	1.53	Immunoturbidimetric
	mg/dl	848	695	1001	76.50	153.00	
Immunoglobulin M	g/l	0.82	0.66	0.99	0.08	0.16	Immunoturbidimetric
	mg/dl	82.1	65.7	98.5	8.20	16.40	
Iron	μmol/l	19.6	16.1	23.1	1.75	3.50	Colorimetric with ppt.
	μg/dl	110	90.0	130	10.00	20.00	
	μmol/l	19.6	16.1	23.1	1.75	3.50	Colorimetric without ppt.
	μg/dl	110	90.0	130	10.00	20.00	
	μmol/l	19.7	16.1	23.3	1.80	3.60	Ortho Vitros Microslide Systems
	μg/dl	110	90.0	130	10.00	20.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Lactate	mmol/l	1.53	1.26	1.80	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.8	11.4	16.2	1.20	2.40	
	mmol/l	1.40	1.15	1.65	0.13	0.25	Ortho Vitros Microslide Systems
	mg/dl	12.6	10.4	14.8	1.10	2.20	
	mmol/l	1.45	1.19	1.71	0.13	0.26	UV LDH
	mg/dl	13.1	10.7	15.5	1.20	2.40	
LAP	U/l	17	14	20	1.50	3.00	NAGEL 37°C
LD (LDH)	U/l	746	635	857	55.50	111.00	Ortho Vitros Microslide Systems 37°C
	U/l	230	196	264	17.00	34.00	L->P 37°C
	U/l	166	142	190	12.00	24.00	L->P 30°C
	U/l	117	99	135	9.00	18.00	L->P 25°C
	U/l	439	373	505	33.00	66.00	P->L Scandinavian & Dutch 37°C
	U/l	317	269	365	24.00	48.00	P->L Scandinavian & Dutch 30°C
	U/l	223	189	257	17.00	34.00	P->L Scandinavian & Dutch 25°C
	U/l	371	316	426	27.50	55.00	P->L German methods 37°C
	U/l	268	228	308	20.00	40.00	P->L German methods 30°C
	U/l	188	160	216	14.00	28.00	P->L German methods 25°C
	U/l	386	328	444	29.00	58.00	P->L SFBC 37°C
	U/l	279	237	321	21.00	42.00	P->L SFBC 30°C
	U/l	196	166	226	15.00	30.00	P->L SFBC 25°C
	U/l	235	200	270	17.50	35.00	L->P IFCC 37°C
	U/l	170	144	196	13.00	26.00	L->P IFCC 30°C
	U/l	119	101	137	9.00	18.00	L->P IFCC 25°C
	U/l	257	218	296	19.50	39.00	L->P Randox 37°C
	U/l	186	157	215	14.50	29.00	L->P Randox 30°C
	U/l	130	111	149	9.50	19.00	L->P Randox 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Lipase	U/l	35	28	42	3.50	7.00	Other Colorimetric 37°C
	U/l	271	218	324	26.50	53.00	Ortho Vitros Microslide Systems 37°C
	U/l	35	28	42	3.50	7.00	Roche Colorimetric 37°C
	U/l	193	155	231	19.00	38.00	Randox Turbidimetric with colipase 37°C
	U/l	44	35	53	4.50	9.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.15	1.01	1.29	0.07	0.14	Ortho Vitros Microslide Systems
	mg/dl	0.799	0.701	0.897	0.05	0.10	
	mmol/l	1.07	0.94	1.20	0.07	0.13	Flame photometry
	mg/dl	0.743	0.651	0.835	0.05	0.09	
	mmol/l	1.01	0.89	1.13	0.06	0.12	Ion selective electrode
	mg/dl	0.701	0.617	0.785	0.04	0.08	
	mmol/l	1.01	0.89	1.13	0.06	0.12	Spectrophotometric
	mg/dl	0.701	0.615	0.787	0.04	0.09	
Magnesium	mmol/l	0.96	0.84	1.07	0.06	0.12	Randox Colorimetric
	mg/dl	0.665	0.585	0.745	0.04	0.08	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Arsenazo III
	mg/dl	2.21	1.94	2.48	0.14	0.27	
	mmol/l	0.87	0.77	0.98	0.05	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.12	1.86	2.38	0.13	0.26	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Calmagite
	mg/dl	2.21	1.94	2.48	0.14	0.27	
	mmol/l	0.90	0.79	1.01	0.05	0.11	Xylidyl Blue
	mg/dl	2.18	1.92	2.44	0.13	0.26	
	mmol/l	0.86	0.76	0.97	0.05	0.10	Methylthymol blue
	mg/dl	2.09	1.84	2.34	0.13	0.25	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Magnesium	mmol/l	0.89	0.78	1.00	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.16	1.90	2.42	0.13	0.26	
	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	
NEFA	mmol/l	1.71	1.45	1.97	0.13	0.26	Colorimetric
Osmolality	mOsm/kg	288	231	345	28.50	57.00	Calculated
	mOsm/kg	311	249	373	31.00	62.00	Freezing point depression
	mOsm/kg	313	251	375	31.00	62.00	Vapour pressure
Paracetamol	mmol/l	0.09	0.07	0.10	0.01	0.02	Immunoturbidimetric
	mg/l	13.1	10.4	15.8	1.35	2.70	
Phosphate Inorganic	mmol/l	1.52	1.30	1.74	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.71	4.03	5.39	0.34	0.68	
	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	1.42	1.20	1.64	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.40	3.72	5.08	0.34	0.68	
Potassium	mmol/l	4.17	3.84	4.50	0.17	0.33	Ortho Vitros Microslide Systems
	mmol/l	4.13	3.80	4.46	0.17	0.33	Enzymatic
	mmol/l	4.04	3.72	4.36	0.16	0.32	Flame photometry
	mmol/l	4.04	3.72	4.36	0.16	0.32	ISE method - direct
	mmol/l	4.06	3.74	4.38	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.3	47.5	71.1	5.90	11.80	Ortho Vitros Microslide Systems
	g/dl	5.93	4.75	7.11	0.59	1.18	
	g/l	59.8	47.8	71.8	6.00	12.00	Biuret reaction end point
	g/dl	5.98	4.78	7.18	0.60	1.20	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Protein Total	g/l	58.5	46.8	70.2	5.85	11.70	Biuret reaction kinetic
	g/dl	5.85	4.68	7.02	0.59	1.17	
PSA Total	ng/ml =	9.40	7.05	11.8	1.18	2.35	Siemens Immulite 1000
	ng/ml =	13.9	10.4	17.4	1.75	3.50	Roche Cobas Core EIA
	ng/ml =	13.8	10.3	17.3	1.75	3.50	Roche Elecsys Modular E170
	ng/ml =	10.9	8.17	13.6	1.37	2.73	Siemens ADVIA Centaur (equimolar)
	ng/ml =	13.3	10.0	16.6	1.65	3.30	bioMerieux VIDAS TPSA
	ng/ml =	11.0	8.28	13.7	1.36	2.72	Siemens Advia Centaur
	ng/ml =	10.9	8.21	13.6	1.35	2.69	Abbott Architect
	ng/ml =	14.3	10.7	17.9	1.80	3.60	Cobas E411
Salicylate	mmol/l	0.43	0.34	0.52	0.04	0.09	Enzymatic
	mg/dl	5.92	4.73	7.11	0.60	1.19	
Sodium	mmol/l	143	136	150	3.50	7.00	Ortho Vitros Microslide Systems
	mmol/l	145	138	152	3.50	7.00	Enzymatic
	mmol/l	142	135	149	3.50	7.00	Flame photometry
	mmol/l	140	133	147	3.50	7.00	ISE method - direct
	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
Theophylline	μmol/l	28.6	22.9	34.3	2.85	5.70	Immunoturbidimetric
	μg/ml	5.15	4.13	6.17	0.51	1.02	
Thyroid Stimulating Hormone	μU/ml =	1.21	0.97	1.45	0.12	0.24	Abbott Architect
	μU/ml =	1.54	1.23	1.85	0.16	0.31	Siemens Advia Centaur
	μU/ml =	1.54	1.23	1.85	0.16	0.31	bioMerieux VIDAS TSH
	μU/ml =	1.28	1.03	1.53	0.13	0.25	Siemens Immulite 1000

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Thyroid Stimulating Hormone	µU/ml =	1.43	1.14	1.72	0.15	0.29	Vitros ECI
	µU/ml =	1.62	1.30	1.94	0.16	0.32	Roche Elecsys
	µU/ml =	1.64	1.31	1.97	0.17	0.33	Roche Modular E170
	µU/ml =	1.60	1.28	1.92	0.16	0.32	Roche Cobas E411
	µU/ml =	1.60	1.28	1.92	0.16	0.32	Roche Cobas 6000/8000
TIBC	µmol/l	42.1	33.3	50.9	4.40	8.80	Ortho Vitros Microslide Systems
	µg/dl	235	186	284	24.50	49.00	
	µmol/l	43.8	34.6	53.0	4.60	9.20	Removal of excess free iron
	µg/dl	245	193	297	26.00	52.00	
	µmol/l	42.5	33.6	51.4	4.45	8.90	FE+UIBC(saturation with iron)
	µg/dl	238	188	288	25.00	50.00	
	µmol/l	43.7	34.5	52.9	4.60	9.20	Direct Colorimetric
	µg/dl	244	193	295	25.50	51.00	
Tobramycin	µmol/l	5.43	4.34	6.52	0.55	1.09	Immunoturbidimetric
	µg/ml	2.54	2.03	3.05	0.26	0.51	
Total T3	nmol/l	2.35	1.76	2.94	0.30	0.59	Abbott AXSYM
	ng/ml	1.53	1.15	1.91	0.19	0.38	
	ng/dl	153	115	191	19.00	38.00	Abbott AXSYM
	nmol/l	2.44	1.83	3.05	0.31	0.61	Abbott Architect
	ng/ml	1.59	1.19	1.99	0.20	0.40	
	ng/dl	159	119	199	20.00	40.00	Abbott Architect
	nmol/l	2.81	2.11	3.51	0.35	0.70	Siemens Advia Centaur
	ng/ml	1.83	1.37	2.29	0.23	0.46	
	ng/dl	183	137	229	23.00	46.00	Siemens Advia Centaur

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Total T4	nmol/l	72.7	54.5	90.9	9.10	18.20	Abbott Architect
	µg/dl	5.67	4.25	7.09	0.71	1.42	
	ng/ml	56.7	42.5	70.9	7.10	14.20	Abbott Architect
	nmol/l	68.3	51.2	85.4	8.55	17.10	BioMerieux Vidas
	µg/dl	5.33	3.99	6.67	0.67	1.34	
	ng/ml	53.3	39.9	66.7	6.70	13.40	BioMerieux Vidas
	nmol/l	69.7	52.3	87.1	8.70	17.40	Roche Modular E170
	µg/dl	5.44	4.08	6.80	0.68	1.36	
Transferrin	ng/ml	54.4	40.8	68.0	6.80	13.60	Roche Modular E170
	g/l	2.07	1.66	2.48	0.21	0.41	Immunoturbidimetric
Triglycerides	mg/dl	207	166	248	20.50	41.00	
	mmol/l	1.05	0.88	1.22	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	77.8	108	7.55	15.10	
	mmol/l	1.03	0.87	1.20	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	91.2	76.6	106	7.30	14.60	
	mmol/l	1.04	0.88	1.20	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	92.0	77.5	107	7.25	14.50	
	mmol/l	1.01	0.85	1.17	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	89.4	75.4	103	7.00	14.00	
	mmol/l	1.19	1.00	1.38	0.10	0.19	Ortho Vitros Microslide Systems
Urea	mg/dl	105	88.5	122	8.25	16.50	
	mmol/l	0.93	0.78	1.08	0.07	0.15	Lipase/GPO-PAP free glycerol correction
Urea	mg/dl	82.2	69.0	95.4	6.60	13.20	
	mmol/l	6.92	5.88	7.96	0.52	1.04	Ortho Vitros Microslide Systems
Urea	mg/dl	41.6	35.3	47.9	3.15	6.30	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Urea	mmol/l	7.69	6.54	8.84	0.58	1.15	Urease end point
	mg/dl	46.2	39.3	53.1	3.45	6.90	
	mmol/l	7.57	6.44	8.70	0.57	1.13	Urease kinetic
	mg/dl	45.5	38.7	52.3	3.40	6.80	
	mmol/l	7.27	6.18	8.36	0.55	1.09	Urease hypochlorite
	mg/dl	43.7	37.1	50.3	3.30	6.60	
	mmol/l	7.59	6.45	8.73	0.57	1.14	Urease Berthelot
	mg/dl	45.6	38.8	52.4	3.40	6.80	
Uric Acid (Urate)	mmol/l	7.57	6.43	8.71	0.57	1.14	BUN
	mg/dl	21.2	18.0	24.4	1.60	3.20	
	mmol/l	0.33	0.29	0.37	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.49	4.79	6.19	0.35	0.70	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.68	4.94	6.42	0.37	0.74	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.68	4.94	6.42	0.37	0.74	
	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	
Vitamin B12	mmol/l	0.34	0.29	0.38	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.63	4.89	6.37	0.37	0.74	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.83	5.07	6.59	0.38	0.76	
Vitamin B12	pmol/l	444	355	533	44.50	89.00	Siemens Advia Centaur
	pg/ml	602	481	723	60.50	121.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Zinc	μmol/l	25.5	20.4	30.6	2.55	5.10	Colorimetric with deproteinisation
	μg/dl	167	133	201	17.00	34.00	

MEAN OF ALL INSTRUMENTS (Elec.)

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin (electrophoresis)		68.6	61.8	75.4	3.40	6.80	% of total Protein (Beckman Capillary)
alpha-1-globulin		5.4	4.1	6.7	0.65	1.30	% of total Protein (Beckman Capillary)
alpha-2-globulin		6.4	4.8	7.9	0.76	1.52	% of total Protein (Beckman Capillary)
beta-globulin		8.9	6.8	11.0	1.07	2.14	% of total Protein (Beckman Capillary)
gamma-globulin		10.8	8.2	13.4	1.30	2.59	% of total Protein (Beckman Capillary)

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.2	35.9	48.5	3.15	6.30	Bromocresol Green
	g/dl	4.22	3.59	4.85	0.32	0.63	
Alkaline Phosphatase	U/l	288	245	331	21.50	43.00	Diethanolamine buffer DEA 37°C
	U/l	224	191	257	16.50	33.00	Diethanolamine buffer DEA 30°C
	U/l	184	157	211	13.50	27.00	Diethanolamine buffer DEA 25°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Calcium	mmol/l	2.31	2.08	2.54	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.26	8.34	10.2	0.46	0.92	
	mmol/l	2.32	2.08	2.56	0.12	0.24	Arsenazo III
	mg/dl	9.30	8.34	10.3	0.48	0.96	
Cholesterol	mmol/l	5.05	4.40	5.70	0.33	0.65	Cholesterol Oxidase
	mg/dl	195	170	220	12.50	25.00	
CK Total	U/l	188	154	222	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	118	96	140	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	80	65	95	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	125	100	150	12.50	25.00	Alkaline picrate with deproteinization
	mg/dl	1.41	1.13	1.69	0.14	0.28	

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	134	107	161	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	μmol/l	135	108	162	13.50	27.00	Jaffe rate blanked
	mg/dl	1.53	1.22	1.84	0.16	0.31	
gamma-GT	U/l	49	41	57	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	32	46	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	25	35	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.39	5.43	7.35	0.48	0.96	Glucose oxidase
	mg/dl	115	97.8	132	8.60	17.20	
LD (LDH)	U/l	237	201	273	18.00	36.00	L->P IFCC 37°C
	U/l	171	145	197	13.00	26.00	L->P IFCC 30°C
	U/l	120	102	138	9.00	18.00	L->P IFCC 25°C
Magnesium	mmol/l	0.94	0.83	1.06	0.06	0.11	Xylidyl Blue
	mg/dl	2.29	2.02	2.56	0.14	0.27	
Phosphate Inorganic	mmol/l	1.51	1.29	1.73	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.68	4.00	5.36	0.34	0.68	
Potassium	mmol/l	3.96	3.64	4.28	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	138	131	145	3.50	7.00	ISE method - direct
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	
Urea	mmol/l	7.96	6.76	9.16	0.60	1.20	Urease end point
	mg/dl	47.8	40.6	55.0	3.60	7.20	

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	7.41	6.30	8.52	0.56	1.11	Urease kinetic
	mg/dl	44.5	37.9	51.1	3.30	6.60	
	mmol/l	7.37	6.26	8.48	0.56	1.11	Urease hypochlorite
	mg/dl	44.3	37.6	51.0	3.35	6.70	
	mmol/l	7.41	6.30	8.52	0.56	1.11	BUN
	mg/dl	20.8	17.7	23.9	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.98	5.21	6.75	0.39	0.77	
	mmol/l	0.37	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.17	5.38	6.96	0.40	0.79	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.95	5.17	6.73	0.39	0.78	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	42.2	35.8	48.6	3.20	6.40	Bromocresol Green
	g/dl	4.22	3.58	4.86	0.32	0.64	
Alkaline Phosphatase	U/l	265	225	305	20.00	40.00	Diethanolamine buffer DEA 37°C
	U/l	206	175	237	15.50	31.00	Diethanolamine buffer DEA 30°C
	U/l	169	144	194	12.50	25.00	Diethanolamine buffer DEA 25°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	14	22	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	19.7	15.5	23.9	2.10	4.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.15	0.907	1.39	0.12	0.24	
Bilirubin Total	µmol/l	26.2	20.7	31.7	2.75	5.50	Diazo with Dichloroaniline (DCA)
	mg/dl	1.53	1.21	1.85	0.16	0.32	
	µmol/l	29.5	23.3	35.7	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.73	1.36	2.10	0.19	0.37	
Calcium	mmol/l	2.36	2.13	2.59	0.12	0.23	Arsenazo III
	mg/dl	9.46	8.54	10.4	0.46	0.92	
Cholesterol	mmol/l	5.09	4.43	5.75	0.33	0.66	Cholesterol Oxidase
	mg/dl	196	171	221	12.50	25.00	
CK Total	U/l	202	166	238	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	126	104	148	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	86	71	101	7.50	15.00	CK-NAC (IFCC) 25°C

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	126	101	151	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	μmol/l	138	110	166	14.00	28.00	Creatinine PAP method
	mg/dl	1.56	1.24	1.88	0.16	0.32	
Glucose	mmol/l	6.25	5.31	7.19	0.47	0.94	Glucose oxidase
	mg/dl	113	95.7	130	8.65	17.30	
HDL - Cholesterol	mmol/l	1.60	1.36	1.84	0.12	0.24	Direct HDL Immunoseparation
	mg/dl	61.8	52.5	71.1	4.65	9.30	
Iron	μmol/l	19.1	15.7	22.5	1.70	3.40	Colorimetric without ppt.
	μg/dl	107	87.8	126	9.60	19.20	
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	
Protein Total	g/l	61.7	49.4	74.0	6.15	12.30	Biuret reaction end point
	g/dl	6.17	4.94	7.40	0.62	1.23	
Triglycerides	mmol/l	1.04	0.87	1.21	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.0	77.3	107	7.35	14.70	
Urea	mmol/l	7.80	6.63	8.97	0.59	1.17	Urease kinetic
	mg/dl	46.9	39.8	54.0	3.55	7.10	
	mmol/l	7.80	6.63	8.97	0.59	1.17	BUN
	mg/dl	21.9	18.6	25.2	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.64	4.91	6.37	0.37	0.73	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.70	4.96	6.44	0.37	0.74	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	42.8	36.4	49.2	3.20	6.40	Bromocresol Green
	g/dl	4.28	3.64	4.92	0.32	0.64	
	g/l	42.7	36.3	49.1	3.20	6.40	Bromocresol Purple
	g/dl	4.27	3.63	4.91	0.32	0.64	
	g/l	38.0	32.3	43.7	2.85	5.70	Turbidimetric Assays
	g/dl	3.80	3.23	4.37	0.29	0.57	
Alkaline Phosphatase	U/l	138	117	159	10.50	21.00	Roche Integra AMP buffer 37°C
	U/l	108	91	125	8.50	17.00	Roche Integra AMP buffer 30°C
	U/l	88	75	101	6.50	13.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	33	27	39	3.00	6.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	65	55	75	5.00	10.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	87	74	100	6.50	13.00	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	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	31	25	37	3.00	6.00	Tris buffer without P5P 37°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 30°C
	U/l	15	12	18	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	12.7	10.1	15.3	1.30	2.60	Colorimetric
	mmol/l	13.0	10.3	15.7	1.35	2.70	Enzymatic

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Direct	μmol/l	21.6	17.0	26.2	2.30	4.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.26	0.995	1.53	0.13	0.27	
	μmol/l	21.4	16.9	25.9	2.25	4.50	Diazo with Sulphanilic Acid
	mg/dl	1.25	0.989	1.51	0.13	0.26	
	μmol/l	15.3	12.1	18.5	1.60	3.20	Roche JG factored
	mg/dl	0.895	0.708	1.08	0.09	0.19	
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	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	25.1	19.9	30.3	2.60	5.20	Diazonium ion
	mg/dl	1.47	1.16	1.78	0.16	0.31	
	μmol/l	25.5	20.1	30.9	2.70	5.40	DPD - Roche
	mg/dl	1.49	1.18	1.80	0.16	0.31	
Calcium	mmol/l	2.34	2.11	2.57	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.38	8.46	10.3	0.46	0.92	
Chloride	mmol/l	92.4	85.0	99.8	3.70	7.40	ISE indirect
Cholesterol	mmol/l	5.11	4.44	5.78	0.34	0.67	Cholesterol Oxidase
	mg/dl	197	171	223	13.00	26.00	
Cholinesterase	U/l	5724	4580	6868	572.00	1144.00	Colorimetric Butyrylthiocholine 37°C
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	133	106	160	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.50	1.20	1.80	0.15	0.30	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	127	102	152	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	μmol/l	134	107	161	13.50	27.00	Creatinine PAP method
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	μmol/l	138	110	166	14.00	28.00	Roche Creatinine Plus
	mg/dl	1.56	1.24	1.88	0.16	0.32	
	μmol/l	138	110	166	14.00	28.00	Jaffe rate blanked
	mg/dl	1.56	1.24	1.88	0.16	0.32	
	μmol/l	134	107	161	13.50	27.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	μmol/l	135	108	162	13.50	27.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.53	1.22	1.84	0.16	0.31	
D-3-Hydroxybutyrate	mmol/l	0.28	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
Free T4	pmol/l	16.8	12.6	21.0	2.10	4.20	Roche Cobas 6000/8000
	ng/dl	1.31	0.983	1.64	0.16	0.33	
	pg/ml	13.1	9.83	16.4	1.64	3.27	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	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	51	43	59	4.00	8.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
	U/l	40	34	46	3.00	6.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 25°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Glucose	mmol/l	6.06	5.15	6.97	0.46	0.91	Hexokinase
	mg/dl	109	92.8	125	8.10	16.20	
	mmol/l	6.03	5.13	6.93	0.45	0.90	Glucose oxidase
	mg/dl	109	92.4	126	8.30	16.60	
HDL - Cholesterol	mmol/l	1.76	1.50	2.02	0.13	0.26	Direct HDL PEGME
	mg/dl	67.9	57.9	77.9	5.00	10.00	
	mmol/l	1.73	1.47	1.99	0.13	0.26	Direct HDL Roche 3rd generation
	mg/dl	66.8	56.7	76.9	5.05	10.10	
Iron	µmol/l	20.0	16.4	23.6	1.80	3.60	Colorimetric with ppt.
	µg/dl	112	91.7	132	10.15	20.30	
	µmol/l	19.7	16.1	23.3	1.80	3.60	Colorimetric without ppt.
	µg/dl	110	90.0	130	10.00	20.00	
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	366	311	421	27.50	55.00	P->L German methods 37°C
	U/l	264	225	303	19.50	39.00	P->L German methods 30°C
	U/l	186	158	214	14.00	28.00	P->L German methods 25°C
	U/l	373	317	429	28.00	56.00	P->L SFBC 37°C
	U/l	269	229	309	20.00	40.00	P->L SFBC 30°C
	U/l	189	161	217	14.00	28.00	P->L SFBC 25°C
	U/l	230	195	265	17.50	35.00	L->P IFCC 37°C
	U/l	166	141	191	12.50	25.00	L->P IFCC 30°C
	U/l	117	99	135	9.00	18.00	L->P IFCC 25°C
Lipase	U/l	35	28	42	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.01	0.89	1.13	0.06	0.12	Spectrophotometric
	mg/dl	0.701	0.617	0.785	0.04	0.08	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Magnesium	mmol/l	0.87	0.77	0.98	0.05	0.11	Arsenazo III
	mg/dl	2.12	1.86	2.38	0.13	0.26	
	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	
	mmol/l	0.88	0.77	0.98	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.14	1.88	2.40	0.13	0.26	
Phosphate Inorganic	mmol/l	1.42	1.20	1.64	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.40	3.72	5.08	0.34	0.68	
	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	59.2	47.4	71.0	5.90	11.80	Biuret reaction end point
	g/dl	5.92	4.74	7.10	0.59	1.18	
	g/l	59.9	47.9	71.9	6.00	12.00	Biuret reaction kinetic
	g/dl	5.99	4.79	7.19	0.60	1.20	
PSA Total	ng/ml =	13.6	10.2	17.0	1.70	3.40	Roche Cobas 6000/8000
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.60	1.28	1.92	0.16	0.32	Roche Cobas 6000/8000
TIBC	µmol/l	41.1	32.5	49.7	4.30	8.60	FE+UIBC(saturation with iron)
	µg/dl	230	182	278	24.00	48.00	
	µmol/l	44.7	35.3	54.1	4.70	9.40	Direct Colorimetric
	µg/dl	250	197	303	26.50	53.00	
Triglycerides	mmol/l	1.02	0.86	1.18	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	90.3	76.1	105	7.10	14.20	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.04	0.87	1.21	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	92.0	77.3	107	7.35	14.70	
	mmol/l	1.01	0.85	1.18	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	89.4	74.8	104	7.30	14.60	
Urea	mmol/l	7.34	6.24	8.44	0.55	1.10	Urease kinetic
	mg/dl	44.1	37.5	50.7	3.30	6.60	
	mmol/l	7.34	6.24	8.44	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.58	4.86	6.30	0.36	0.72	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.64	4.92	6.36	0.36	0.72	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.64	4.91	6.37	0.37	0.73	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.6	36.2	49.0	3.20	6.40	Bromocresol Green
	g/dl	4.26	3.62	4.90	0.32	0.64	
Alkaline Phosphatase	U/l	138	117	159	10.50	21.00	Roche Integra AMP buffer 37°C
	U/l	108	91	125	8.50	17.00	Roche Integra AMP buffer 30°C
	U/l	88	75	101	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	89	75	103	7.00	14.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	16	12	20	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	21.6	17.0	26.2	2.30	4.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.26	0.995	1.53	0.13	0.27	
	µmol/l	20.1	15.9	24.3	2.10	4.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.18	0.930	1.43	0.13	0.25	
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	26.2	20.7	31.7	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.53	1.21	1.85	0.16	0.32	
	µmol/l	26.5	20.9	32.1	2.80	5.60	Diazonium ion
	mg/dl	1.55	1.22	1.88	0.17	0.33	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.40	2.16	2.64	0.12	0.24	Cresolphthalein complexone
	mg/dl	9.62	8.66	10.6	0.48	0.96	
Chloride	mmol/l	96.9	89.1	105	3.90	7.80	ISE indirect
Cholesterol	mmol/l	5.14	4.47	5.81	0.34	0.67	Cholesterol Oxidase
	mg/dl	198	173	223	12.50	25.00	
CK Total	U/l	201	165	237	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	126	103	149	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	85	70	100	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	124	99.2	149	12.40	24.80	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	126	101	151	12.50	25.00	Roche Creatinine Plus
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.42	1.14	1.70	0.14	0.28	
gamma-GT	U/l	53	45	61	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	42	35	49	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	6.20	5.27	7.13	0.47	0.93	Hexokinase
	mg/dl	112	95.0	129	8.50	17.00	
	mmol/l	6.27	5.33	7.21	0.47	0.94	Glucose oxidase
	mg/dl	113	96.0	130	8.50	17.00	
HDL - Cholesterol	mmol/l	1.79	1.52	2.06	0.14	0.27	Direct HDL Roche 3rd generation
	mg/dl	69.1	58.7	79.5	5.20	10.40	
LD (LDH)	U/l	250	212	288	19.00	38.00	L->P IFCC 37°C
	U/l	181	153	209	14.00	28.00	L->P IFCC 30°C
	U/l	127	107	147	10.00	20.00	L->P IFCC 25°C

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.21	1.94	2.48	0.14	0.27	
Phosphate Inorganic	mmol/l	1.47	1.25	1.69	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.56	3.88	5.24	0.34	0.68	
	mmol/l	1.44	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	4.06	3.73	4.39	0.17	0.33	ISE method - indirect
Protein Total	g/l	59.3	47.5	71.1	5.90	11.80	Biuret reaction end point
	g/dl	5.93	4.75	7.11	0.59	1.18	
Sodium	mmol/l	138	131	145	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.04	0.87	1.21	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.0	77.2	107	7.40	14.80	
	mmol/l	1.02	0.86	1.19	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	90.3	75.7	105	7.30	14.60	
Urea	mmol/l	7.34	6.24	8.44	0.55	1.10	Urease kinetic
	mg/dl	44.1	37.5	50.7	3.30	6.60	
	mmol/l	7.60	6.46	8.74	0.57	1.14	Urease hypochlorite
	mg/dl	45.7	38.8	52.6	3.45	6.90	
	mmol/l	7.34	6.24	8.44	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.68	4.94	6.42	0.37	0.74	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.68	4.94	6.42	0.37	0.74	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.88	5.12	6.64	0.38	0.76	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	43.2	36.7	49.7	3.25	6.50	Bromocresol Green
	g/dl	4.32	3.67	4.97	0.33	0.65	
	g/l	42.0	35.7	48.3	3.15	6.30	Bromocresol Purple
	g/dl	4.20	3.57	4.83	0.32	0.63	
Alkaline Phosphatase	U/l	268	228	308	20.00	40.00	Diethanolamine buffer DEA 37°C
	U/l	209	178	240	15.50	31.00	Diethanolamine buffer DEA 30°C
	U/l	171	146	196	12.50	25.00	Diethanolamine buffer DEA 25°C
	U/l	135	115	155	10.00	20.00	Roche Integra AMP buffer 37°C
	U/l	105	90	120	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	86	73	99	6.50	13.00	Roche Integra AMP buffer 25°C
	U/l	142	121	163	10.50	21.00	AMP optimised to IFCC 37°C
	U/l	111	94	128	8.50	17.00	AMP optimised to IFCC 30°C
ALT (GPT)	U/l	33	27	39	3.00	6.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	89	76	102	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	89	76	102	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	32	26	38	3.00	6.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	15	12	18	1.50	3.00	Tris buffer without P5P 25°C

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bicarbonate	mmol/l	13.0	10.3	15.7	1.35	2.70	Enzymatic
Bilirubin Direct	µmol/l	21.9	17.3	26.5	2.30	4.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.28	1.01	1.55	0.14	0.27	
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	24.5	19.4	29.6	2.55	5.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.43	1.13	1.73	0.15	0.30	
	µmol/l	24.9	19.6	30.2	2.65	5.30	Diazonium ion
	mg/dl	1.46	1.15	1.77	0.16	0.31	
Calcium	mmol/l	2.38	2.14	2.62	0.12	0.24	Cresolphthalein complexone
	mg/dl	9.54	8.58	10.5	0.48	0.96	
	mmol/l	2.40	2.16	2.64	0.12	0.24	Arsenazo III
	mg/dl	9.62	8.66	10.6	0.48	0.96	
Chloride	mmol/l	92.5	85.1	99.9	3.70	7.40	ISE indirect
Cholesterol	mmol/l	5.08	4.42	5.74	0.33	0.66	Cholesterol Oxidase
	mg/dl	196	171	221	12.50	25.00	
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	131	105	157	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	139	111	167	14.00	28.00	Roche Creatinine Plus
	mg/dl	1.57	1.25	1.89	0.16	0.32	
	µmol/l	135	108	162	13.50	27.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.53	1.22	1.84	0.16	0.31	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	26	34	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	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	6.11	5.19	7.03	0.46	0.92	Hexokinase
	mg/dl	110	93.5	127	8.25	16.50	
	mmol/l	6.02	5.12	6.92	0.45	0.90	Glucose oxidase
	mg/dl	108	92.3	124	7.85	15.70	
HDL - Cholesterol	mmol/l	1.70	1.44	1.96	0.13	0.26	Direct HDL Roche 3rd generation
	mg/dl	65.6	55.6	75.6	5.00	10.00	
Iron	µmol/l	19.7	16.1	23.3	1.80	3.60	Colorimetric without ppt.
	µg/dl	110	90.0	130	10.00	20.00	
Lactate	mmol/l	1.59	1.30	1.88	0.15	0.29	Colorimetric Lactate Oxidase
	mg/dl	14.3	11.7	16.9	1.30	2.60	
LD (LDH)	U/l	366	311	421	27.50	55.00	P->L German methods 37°C
	U/l	264	225	303	19.50	39.00	P->L German methods 30°C
	U/l	186	158	214	14.00	28.00	P->L German methods 25°C
	U/l	227	193	261	17.00	34.00	L->P IFCC 37°C
	U/l	164	139	189	12.50	25.00	L->P IFCC 30°C
	U/l	115	98	132	8.50	17.00	L->P IFCC 25°C
Lipase	U/l	34	27	41	3.50	7.00	Roche Colorimetric 37°C
Magnesium	mmol/l	0.89	0.78	1.00	0.05	0.11	Xylidyl Blue
	mg/dl	2.17	1.91	2.43	0.13	0.26	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Magnesium	mmol/l	0.89	0.78	0.99	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.16	1.90	2.42	0.13	0.26	
Phosphate Inorganic	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.40	3.75	5.05	0.33	0.65	
Potassium	mmol/l	4.08	3.75	4.41	0.17	0.33	ISE method - indirect
Protein Total	g/l	59.8	47.8	71.8	6.00	12.00	Biuret reaction end point
	g/dl	5.98	4.78	7.18	0.60	1.20	
	g/l	58.8	47.0	70.6	5.90	11.80	Biuret reaction kinetic
	g/dl	5.88	4.70	7.06	0.59	1.18	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
TIBC	μmol/l	40.9	32.3	49.5	4.30	8.60	FE+UIBC(saturation with iron)
	μg/dl	229	181	277	24.00	48.00	
Triglycerides	mmol/l	1.03	0.87	1.19	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	91.2	76.6	106	7.30	14.60	
Urea	mmol/l	7.53	6.40	8.66	0.57	1.13	Urease kinetic
	mg/dl	45.3	38.5	52.1	3.40	6.80	
	mmol/l	7.53	6.40	8.66	0.57	1.13	BUN
	mg/dl	21.1	17.9	24.3	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.61	4.89	6.33	0.36	0.72	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.70	4.96	6.44	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.78	5.02	6.54	0.38	0.76	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.5	36.1	48.9	3.20	6.40	Bromocresol Green
	g/dl	4.25	3.61	4.89	0.32	0.64	
Alkaline Phosphatase	U/l	121	103	139	9.00	18.00	Roche Integra AMP buffer 37°C
	U/l	94	80	108	7.00	14.00	Roche Integra AMP buffer 30°C
	U/l	77	66	88	5.50	11.00	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	65	56	74	4.50	9.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	16	12	20	2.00	4.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	13.1	10.4	15.8	1.35	2.70	Enzymatic
Bilirubin Direct	µmol/l	21.7	17.1	26.3	2.30	4.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.27	1.00	1.54	0.14	0.27	
Bilirubin Total	µmol/l	24.6	19.5	29.7	2.55	5.10	Diazo with Sulphanilic Acid
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	23.7	18.7	28.7	2.50	5.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.39	1.09	1.69	0.15	0.30	
	µmol/l	24.3	19.2	29.4	2.55	5.10	Diazonium ion
	mg/dl	1.42	1.12	1.72	0.15	0.30	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.29	2.06	2.52	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Chloride	mmol/l	93.4	86.0	101	3.70	7.40	ISE indirect
Cholesterol	mmol/l	4.94	4.30	5.58	0.32	0.64	Cholesterol Oxidase
	mg/dl	191	166	216	12.50	25.00	
CK Total	U/l	187	153	221	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	117	96	138	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	79	65	93	7.00	14.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	143	114	172	14.50	29.00	Roche Creatinine Plus
	mg/dl	1.62	1.29	1.95	0.17	0.33	
	μmol/l	136	109	163	13.50	27.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.54	1.23	1.85	0.16	0.31	
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	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	5.99	5.09	6.89	0.45	0.90	Hexokinase
	mg/dl	108	91.7	124	8.15	16.30	
HDL - Cholesterol	mmol/l	1.70	1.44	1.96	0.13	0.26	Direct HDL PEGME
	mg/dl	65.6	55.6	75.6	5.00	10.00	
	mmol/l	1.65	1.41	1.89	0.12	0.24	Direct HDL Roche 3rd generation
	mg/dl	63.7	54.4	73.0	4.65	9.30	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Iron	μmol/l	19.0	15.6	22.4	1.70	3.40	Colorimetric without ppt.
	μg/dl	106	87.2	125	9.40	18.80	
Lactate	mmol/l	1.50	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	227	193	261	17.00	34.00	L->P IFCC 37°C
	U/l	164	139	189	12.50	25.00	L->P IFCC 30°C
	U/l	115	98	132	8.50	17.00	L->P IFCC 25°C
Lipase	U/l	33	27	39	3.00	6.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.02	0.90	1.14	0.06	0.12	Spectrophotometric
	mg/dl	0.708	0.624	0.792	0.04	0.08	
Magnesium	mmol/l	0.89	0.78	0.99	0.05	0.11	Xylidyl Blue
	mg/dl	2.16	1.90	2.42	0.13	0.26	
Phosphate Inorganic	mmol/l	1.39	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	4.14	3.80	4.48	0.17	0.34	ISE method - indirect
Protein Total	g/l	59.0	47.2	70.8	5.90	11.80	Biuret reaction end point
	g/dl	5.90	4.72	7.08	0.59	1.18	
Sodium	mmol/l	143	135	151	4.00	8.00	ISE method - indirect
TIBC	μmol/l	40.6	32.1	49.1	4.25	8.50	FE+UIBC(saturation with iron)
	μg/dl	227	179	275	24.00	48.00	
Triglycerides	mmol/l	1.01	0.85	1.17	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	89.4	75.0	104	7.20	14.40	
	mmol/l	1.02	0.86	1.18	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	90.3	75.9	105	7.20	14.40	
Urea	mmol/l	7.26	6.17	8.35	0.55	1.09	Urease kinetic
	mg/dl	43.6	37.1	50.1	3.25	6.50	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	7.26	6.17	8.35	0.55	1.09	BUN
	mg/dl	20.4	17.3	23.5	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.66	4.92	6.40	0.37	0.74	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.58	4.86	6.30	0.36	0.72	
	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.51	4.80	6.22	0.36	0.71	

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	41.0	34.8	47.2	3.10	6.20	Bromocresol Green
	g/dl	4.10	3.48	4.72	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	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	75	64	86	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	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	11.5	9.12	13.9	1.19	2.38	Enzymatic
Bile Acids	µmol/l	27.3	21.8	32.8	2.75	5.50	5th Generation Colorimetric
Bilirubin Direct	µmol/l	22.0	17.4	26.6	2.30	4.60	Diazo with Sulphanilic Acid
	mg/dl	1.29	1.02	1.56	0.14	0.27	
Bilirubin Total	µmol/l	31.6	25.0	38.2	3.30	6.60	Diazo with Sulphanilic Acid
	mg/dl	1.85	1.46	2.24	0.20	0.39	
Calcium	mmol/l	2.37	2.14	2.60	0.12	0.23	Arsenazo III
	mg/dl	9.50	8.58	10.4	0.46	0.92	
Chloride	mmol/l	96.3	88.6	104	3.85	7.70	ISE direct
Cholesterol	mmol/l	5.08	4.42	5.74	0.33	0.66	Cholesterol Oxidase
	mg/dl	196	171	221	12.50	25.00	
CK Total	U/l	194	159	229	17.50	35.00	CK-NAC substrate start (DGKC) 37°C
	U/l	203	166	240	18.50	37.00	CK-NAC (IFCC) 37°C

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	136	109	163	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.54	1.23	1.85	0.16	0.31	
gamma-GT	U/l	57	48	66	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (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	
	mmol/l	6.25	5.31	7.19	0.47	0.94	Glucose oxidase
	mg/dl	113	95.7	130	8.65	17.30	
Iron	μmol/l	20.4	16.7	24.1	1.85	3.70	Colorimetric without ppt.
	μg/dl	114	93.4	135	10.30	20.60	
Lactate	mmol/l	1.48	1.21	1.75	0.14	0.27	Enzymatic Colorimetric
	mg/dl	13.3	10.9	15.7	1.20	2.40	
LD (LDH)	U/l	426	362	490	32.00	64.00	P->L German methods 37°C
	U/l	256	218	294	19.00	38.00	L->P IFCC 37°C
Lipase	U/l	43	34	52	4.50	9.00	Randox Colorimetric 37°C
Lithium	mmol/l	0.96	0.84	1.07	0.06	0.12	Colorimetric
	mg/dl	0.665	0.585	0.745	0.04	0.08	
Magnesium	mmol/l	0.90	0.79	1.01	0.05	0.11	Xylidyl Blue
	mg/dl	2.19	1.93	2.45	0.13	0.26	
Phosphate Inorganic	mmol/l	1.44	1.22	1.66	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.46	3.78	5.14	0.34	0.68	
Potassium	mmol/l	4.14	3.81	4.47	0.17	0.33	ISE method - direct
	mmol/l	4.02	3.70	4.34	0.16	0.32	Enzymatic
Protein Total	g/l	58.9	47.1	70.7	5.90	11.80	Biuret reaction end point
	g/dl	5.89	4.71	7.07	0.59	1.18	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - direct

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Sodium	mmol/l	144	137	151	3.50	7.00	Enzymatic
TIBC	μmol/l	43.8	34.6	53.0	4.60	9.20	Direct Colorimetric
	μg/dl	245	193	297	26.00	52.00	
Triglycerides	mmol/l	1.08	0.91	1.26	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.1	111	7.75	15.50	
Urea	mmol/l	7.52	6.39	8.65	0.57	1.13	Urease kinetic
	mg/dl	45.2	38.4	52.0	3.40	6.80	
	mmol/l	7.52	6.39	8.65	0.57	1.13	BUN
	mg/dl	21.1	17.9	24.3	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.33	0.28	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.49	4.77	6.21	0.36	0.72	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.64	4.91	6.37	0.37	0.73	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	40.5	34.4	46.6	3.05	6.10	Bromocresol Green
	g/dl	4.05	3.44	4.66	0.31	0.61	
Alkaline Phosphatase	U/l	179	152	206	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	180	153	207	13.50	27.00	AMP non-optimised 37°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	67	57	77	5.00	10.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	87	74	100	6.50	13.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	15.0	11.9	18.1	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	21.0	16.6	25.4	2.20	4.40	Diazo with Sulphanilic Acid
	mg/dl	1.23	0.971	1.49	0.13	0.26	
	µmol/l	20.6	16.3	24.9	2.15	4.30	Oxidation to Biliverdin
	mg/dl	1.21	0.954	1.47	0.13	0.26	
Bilirubin Total	µmol/l	30.3	23.9	36.7	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.77	1.40	2.14	0.19	0.37	
	µmol/l	30.5	24.1	36.9	3.20	6.40	Oxidation to Biliverdin
	mg/dl	1.78	1.41	2.15	0.19	0.37	
Calcium	mmol/l	2.29	2.06	2.52	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.18	8.26	10.1	0.46	0.92	
	mmol/l	2.34	2.10	2.58	0.12	0.24	Arsenazo III
	mg/dl	9.38	8.42	10.3	0.48	0.96	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Chloride	mmol/l	98.2	90.4	106	3.90	7.80	ISE indirect
Cholesterol	mmol/l	4.93	4.29	5.57	0.32	0.64	Cholesterol Oxidase
	mg/dl	190	166	214	12.00	24.00	
Cholinesterase	U/l	6189	4951	7427	619.00	1238.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	193	158	228	17.50	35.00	CK-NAC substrate start (DGKC) 37°C
	U/l	187	153	221	17.00	34.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	140	112	168	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.58	1.27	1.89	0.16	0.31	
	μmol/l	119	95.1	143	11.95	23.90	Randox Enzymatic UV method
	mg/dl	1.34	1.07	1.61	0.14	0.27	
	μmol/l	136	109	163	13.50	27.00	Jaffe rate blanked
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	μmol/l	136	109	163	13.50	27.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.54	1.23	1.85	0.16	0.31	
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.06	5.15	6.97	0.46	0.91	Hexokinase
	mg/dl	109	92.8	125	8.10	16.20	
	mmol/l	6.12	5.20	7.04	0.46	0.92	Glucose oxidase
	mg/dl	110	93.7	126	8.15	16.30	
HDL - Cholesterol	mmol/l	1.48	1.26	1.70	0.11	0.22	Direct HDL Immunoseparation
	mg/dl	57.1	48.6	65.6	4.25	8.50	
	mmol/l	1.35	1.15	1.55	0.10	0.20	Direct Clearance Method
	mg/dl	52.1	44.4	59.8	3.85	7.70	
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	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Lactate	mmol/l	1.41	1.15	1.67	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	12.7	10.4	15.0	1.15	2.30	
LD (LDH)	U/l	244	207	281	18.50	37.00	L->P 37°C
	U/l	399	339	459	30.00	60.00	P->L German methods 37°C
	U/l	244	207	281	18.50	37.00	L->P IFCC 37°C
Lipase	U/l	41	33	49	4.00	8.00	Other Colorimetric 37°C
Lithium	mmol/l	1.05	0.93	1.17	0.06	0.12	Spectrophotometric
	mg/dl	0.729	0.644	0.814	0.04	0.09	
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Xylidyl Blue
	mg/dl	2.23	1.97	2.49	0.13	0.26	
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	4.12	3.79	4.45	0.17	0.33	ISE method - indirect
Protein Total	g/l	59.6	47.7	71.5	5.95	11.90	Biuret reaction end point
	g/dl	5.96	4.77	7.15	0.60	1.19	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
TIBC	µmol/l	45.9	36.3	55.5	4.80	9.60	Removal of excess free iron
	µg/dl	257	203	311	27.00	54.00	
	µmol/l	45.7	36.1	55.3	4.80	9.60	FE+UIBC(saturation with iron)
	µg/dl	255	202	308	26.50	53.00	
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.4	111	7.60	15.20	
	mmol/l	1.08	0.91	1.25	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	95.6	80.2	111	7.70	15.40	
Urea	mmol/l	7.76	6.59	8.93	0.59	1.17	Urease kinetic
	mg/dl	46.6	39.6	53.6	3.50	7.00	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	7.76	6.60	8.92	0.58	1.16	BUN
	mg/dl	21.8	18.5	25.1	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	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	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.75	4.99	6.51	0.38	0.76	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	43.6	37.1	50.1	3.25	6.50	Bromocresol Green
	g/dl	4.36	3.71	5.01	0.33	0.65	
	g/l	43.2	36.7	49.7	3.25	6.50	Bromocresol Purple
	g/dl	4.32	3.67	4.97	0.33	0.65	
ALT (GPT)	U/l	41	33	49	4.00	8.00	Tris buffer with P5P 37°C
	U/l	50	40	60	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	95	81	109	7.00	14.00	Siemens - maltopenta/hexaoside 37°C
	U/l	95	80	110	7.50	15.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	47	38	56	4.50	9.00	Tris buffer with P5P 37°C
	U/l	45	36	54	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	14.0	11.1	16.9	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	14.5	11.5	17.5	1.50	3.00	Diazo with Sulphanilic Acid
	mg/dl	0.848	0.673	1.02	0.09	0.18	
Bilirubin Total	µmol/l	29.3	23.1	35.5	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.71	1.35	2.07	0.18	0.36	
Calcium	mmol/l	2.24	2.01	2.47	0.12	0.23	Cresolphthalein complexone
	mg/dl	8.98	8.06	9.90	0.46	0.92	
Chloride	mmol/l	96.0	88.3	104	3.85	7.70	ISE indirect
Cholesterol	mmol/l	4.52	3.93	5.11	0.30	0.59	Cholesterol Oxidase
	mg/dl	174	152	196	11.00	22.00	
	mmol/l	4.49	3.91	5.07	0.29	0.58	Dimension-Siemens reagents
	mg/dl	173	151	195	11.00	22.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
CK Total	U/l	183	150	216	16.50	33.00	CK-NAC (IFCC) 37°C
	U/l	190	156	224	17.00	34.00	Dithioerythritol 37°C
	U/l	182	149	215	16.50	33.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	μmol/l	145	116	174	14.50	29.00	Alkaline picrate no deproteinization
	mg/dl	1.64	1.31	1.97	0.17	0.33	
	μmol/l	145	116	174	14.50	29.00	Creatinine PAP method
	mg/dl	1.64	1.31	1.97	0.17	0.33	
	μmol/l	148	118	178	15.00	30.00	Jaffe rate blanked
	mg/dl	1.67	1.33	2.01	0.17	0.34	
gamma-GT	μmol/l	148	118	178	15.00	30.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.67	1.33	2.01	0.17	0.34	
	U/l	59	50	68	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
	mmol/l	6.14	5.22	7.06	0.46	0.92	Hexokinase
	mg/dl	111	94.1	128	8.45	16.90	
	mmol/l	6.16	5.24	7.08	0.46	0.92	Glucose oxidase
HDL - Cholesterol	mg/dl	111	94.4	128	8.30	16.60	
	mmol/l	1.75	1.49	2.01	0.13	0.26	Direct HDL PPD
	mg/dl	67.6	57.5	77.7	5.05	10.10	
	mmol/l	1.68	1.43	1.93	0.13	0.25	Direct HDL PEGME
	mg/dl	64.8	55.2	74.4	4.80	9.60	
Iron	mmol/l	1.75	1.49	2.01	0.13	0.26	Direct Clearance Method
	mg/dl	67.6	57.5	77.7	5.05	10.10	
	μmol/l	18.8	15.4	22.2	1.70	3.40	Colorimetric with ppt.
	μg/dl	105	86.1	124	9.45	18.90	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

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	1.24	1.01	1.47	0.12	0.23	Colorimetric Lactate Oxidase
	mg/dl	11.2	9.10	13.3	1.05	2.10	
	mmol/l	1.53	1.26	1.80	0.14	0.27	UV LDH
	mg/dl	13.8	11.4	16.2	1.20	2.40	
LD (LDH)	U/l	229	194	264	17.50	35.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	228	194	262	17.00	34.00	L->P IFCC 37°C
Lipase	U/l	149	120	178	14.50	29.00	Siemens Dimension Colorimetric (LIP Kit) 37°C
	U/l	150	120	180	15.00	30.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	0.97	0.86	1.09	0.06	0.12	Spectrophotometric
	mg/dl	0.676	0.594	0.758	0.04	0.08	
Magnesium	mmol/l	0.87	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	1.39	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	4.02	3.69	4.35	0.17	0.33	ISE method - indirect
Protein Total	g/l	61.1	48.9	73.3	6.10	12.20	Biuret reaction end point
	g/dl	6.11	4.89	7.33	0.61	1.22	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
TIBC	μmol/l	41.7	33.0	50.4	4.35	8.70	Removal of excess free iron
	μg/dl	233	184	282	24.50	49.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
TIBC	μmol/l	40.4	31.9	48.9	4.25	8.50	FE+UIBC(saturation with iron)
	μg/dl	226	178	274	24.00	48.00	
	μmol/l	42.1	33.3	50.9	4.40	8.80	Direct Colorimetric
	μg/dl	235	186	284	24.50	49.00	
Triglycerides	mmol/l	1.00	0.84	1.16	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	88.5	74.3	103	7.10	14.20	
	mmol/l	1.01	0.85	1.17	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	89.4	75.3	104	7.05	14.10	
	mmol/l	1.01	0.85	1.17	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	89.4	75.4	103	7.00	14.00	
Urea	mmol/l	7.33	6.23	8.43	0.55	1.10	Urease end point
	mg/dl	44.1	37.4	50.8	3.35	6.70	
	mmol/l	7.62	6.48	8.76	0.57	1.14	Urease kinetic
	mg/dl	45.8	38.9	52.7	3.45	6.90	
	mmol/l	7.62	6.48	8.76	0.57	1.14	BUN
	mg/dl	21.4	18.2	24.6	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.64	4.91	6.37	0.37	0.73	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.64	4.91	6.37	0.37	0.73	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.61	4.89	6.33	0.36	0.72	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.61	4.89	6.33	0.36	0.72	

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	43.8	37.3	50.3	3.25	6.50	Bromocresol Purple
	g/dl	4.38	3.73	5.03	0.33	0.65	
ALT (GPT)	U/l	43	34	52	4.50	9.00	Tris buffer with P5P 37°C
	U/l	40	32	48	4.00	8.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	94	80	108	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	46	37	55	4.50	9.00	Tris buffer with P5P 37°C
	U/l	45	36	54	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	14.3	11.3	17.3	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	14.4	11.4	17.4	1.50	3.00	Diazo with Sulphanilic Acid
	mg/dl	0.842	0.667	1.02	0.09	0.18	
Bilirubin Total	µmol/l	28.9	22.8	35.0	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.69	1.33	2.05	0.18	0.36	
Calcium	mmol/l	2.24	2.02	2.46	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.98	8.10	9.86	0.44	0.88	
Chloride	mmol/l	97.8	90.0	106	3.90	7.80	ISE indirect
Cholesterol	mmol/l	4.51	3.93	5.09	0.29	0.58	Cholesterol Oxidase
	mg/dl	174	152	196	11.00	22.00	
	mmol/l	4.59	3.99	5.19	0.30	0.60	Dimension-Siemens reagents
	mg/dl	177	154	200	11.50	23.00	
CK Total	U/l	183	150	216	16.50	33.00	CK-NAC (IFCC) 37°C
	U/l	182	149	215	16.50	33.00	Dithioerythritol 37°C

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
CK Total	U/l	176	144	208	16.00	32.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	μmol/l	136	109	163	13.50	27.00	Alkaline picrate with deproteinization
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	μmol/l	149	119	179	15.00	30.00	Alkaline picrate no deproteinization
	mg/dl	1.68	1.34	2.02	0.17	0.34	
	μmol/l	126	100	152	13.00	26.00	Randox Enzymatic UV method
	mg/dl	1.42	1.13	1.71	0.15	0.29	
gamma-GT	μmol/l	133	106	160	13.50	27.00	IDMS traceable
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	U/l	62	52	72	5.00	10.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	U/l	67	57	77	5.00	10.00	Siemens Dimension (non IFCC) 37°C
	mmol/l	6.06	5.15	6.97	0.46	0.91	Hexokinase
HDL - Cholesterol	mg/dl	109	92.8	125	8.10	16.20	
	mmol/l	1.64	1.40	1.88	0.12	0.24	Direct HDL PEGME
Iron	mg/dl	63.3	54.0	72.6	4.65	9.30	
	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	1.39	1.14	1.64	0.13	0.25	Colorimetric Lactate Oxidase
	mg/dl	12.5	10.3	14.7	1.10	2.20	
	mmol/l	1.46	1.20	1.72	0.13	0.26	UV LDH
LD (LDH)	mg/dl	13.2	10.8	15.6	1.20	2.40	
	U/l	233	198	268	17.50	35.00	Siemens Dimension L-P Non IFCC 37°C
Lipase	U/l	233	198	268	17.50	35.00	L->P IFCC 37°C
	U/l	168	135	201	16.50	33.00	Siemens Dimension Colorimetric (LIP Kit) 37°C
	U/l	160	128	192	16.00	32.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Lithium	mmol/l	1.04	0.91	1.17	0.06	0.13	Spectrophotometric
	mg/dl	0.722	0.634	0.810	0.04	0.09	
Magnesium	mmol/l	0.84	0.74	0.94	0.05	0.10	Methylthymol blue
	mg/dl	2.03	1.79	2.27	0.12	0.24	
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	4.01	3.69	4.33	0.16	0.32	ISE method - indirect
Protein Total	g/l	61.5	49.2	73.8	6.15	12.30	Biuret reaction end point
	g/dl	6.15	4.92	7.38	0.62	1.23	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
TIBC	μmol/l	42.3	33.4	51.2	4.45	8.90	Removal of excess free iron
	μg/dl	236	187	285	24.50	49.00	
Triglycerides	mmol/l	1.14	0.96	1.33	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	101	84.5	118	8.25	16.50	
	mmol/l	1.01	0.85	1.17	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	89.4	75.4	103	7.00	14.00	
	mmol/l	1.01	0.85	1.17	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	89.4	75.0	104	7.20	14.40	
	mmol/l	7.59	6.45	8.73	0.57	1.14	Urease kinetic
	mg/dl	45.6	38.8	52.4	3.40	6.80	
Urea	mmol/l	7.59	6.45	8.73	0.57	1.14	BUN
	mg/dl	21.3	18.1	24.5	1.60	3.20	
	mmol/l	0.32	0.28	0.36	0.02	0.04	Uricase peroxidase no ascorbate oxidase
Uric Acid (Urate)	mg/dl	5.36	4.67	6.05	0.35	0.69	
	mmol/l	0.33	0.29	0.37	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.54	4.82	6.26	0.36	0.72	

VITALAB SELECTRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	41.7	35.5	47.9	3.10	6.20	Bromocresol Green
	g/dl	4.17	3.55	4.79	0.31	0.62	
Alkaline Phosphatase	U/l	263	224	302	19.50	39.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
Bilirubin Total	µmol/l	30.4	24.0	36.8	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.78	1.40	2.16	0.19	0.38	
	µmol/l	27.5	21.8	33.2	2.85	5.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.61	1.28	1.94	0.17	0.33	
Calcium	mmol/l	2.33	2.10	2.56	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.34	8.42	10.3	0.46	0.92	
	mmol/l	2.33	2.10	2.56	0.12	0.23	Arsenazo III
	mg/dl	9.34	8.42	10.3	0.46	0.92	
Cholesterol	mmol/l	5.07	4.41	5.73	0.33	0.66	Cholesterol Oxidase
	mg/dl	196	170	222	13.00	26.00	
CK Total	U/l	200	164	236	18.00	36.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	134	107	161	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	µmol/l	139	111	167	14.00	28.00	Jaffe rate blanked
	mg/dl	1.57	1.25	1.89	0.16	0.32	
gamma-GT	U/l	53	45	61	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C

VITALAB SELECTRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Glucose	mmol/l	6.15	5.23	7.07	0.46	0.92	Glucose oxidase
	mg/dl	111	94.2	128	8.40	16.80	
Phosphate Inorganic	mmol/l	1.48	1.26	1.70	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.59	3.91	5.27	0.34	0.68	
Protein Total	g/l	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	
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	
Urea	mmol/l	7.66	6.51	8.81	0.58	1.15	Urease kinetic
	mg/dl	46.0	39.1	52.9	3.45	6.90	
	mmol/l	7.66	6.51	8.81	0.58	1.15	BUN
	mg/dl	21.5	18.3	24.7	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.35	0.31	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 BT 3000 Plus/CB 350i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	39.9	33.9	45.9	3.00	6.00	Bromocresol Green
	g/dl	3.99	3.39	4.59	0.30	0.60	
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
Bilirubin Direct	µmol/l	19.3	15.3	23.3	2.00	4.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.13	0.895	1.37	0.12	0.24	
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	4.99	4.34	5.64	0.33	0.65	Cholesterol Oxidase
	mg/dl	193	168	218	12.50	25.00	
CK Total	U/l	187	153	221	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	117	96	138	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	79	65	93	7.00	14.00	CK-NAC (IFCC) 25°C
Glucose	mmol/l	6.08	5.17	6.99	0.46	0.91	Glucose oxidase
	mg/dl	110	93.2	127	8.40	16.80	
LD (LDH)	U/l	405	344	466	30.50	61.00	P->L SFBC 37°C
	U/l	292	248	336	22.00	44.00	P->L SFBC 30°C
	U/l	205	174	236	15.50	31.00	P->L SFBC 25°C
Phosphate Inorganic	mmol/l	1.49	1.26	1.72	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.62	3.91	5.33	0.36	0.71	

Weiner Lab BT 3000 Plus/CB 350i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 821UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2016-12

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Protein Total	g/l	60.6	48.5	72.7	6.05	12.10	Biuret reaction end point
	g/dl	6.06	4.85	7.27	0.61	1.21	
Urea	mmol/l	7.84	6.67	9.01	0.59	1.17	Urease kinetic
	mg/dl	47.1	40.1	54.1	3.50	7.00	
	mmol/l	7.84	6.66	9.02	0.59	1.18	BUN
	mg/dl	22.0	18.7	25.3	1.65	3.30	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.71	4.97	6.45	0.37	0.74	
	mmol/l	0.40	0.35	0.46	0.03	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.79	5.91	7.67	0.44	0.88	