

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

CAT. NO. HN1530 **LOT NO.** 1094UN
GTIN: 05055273203783
CAT. NO. HS2611
GTIN: 05055273203813
SIZE: 20 x 5ml / 5 x 5ml **EXPIRY:** 2020-01

INTENDED USE

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

DEVICE DESCRIPTION

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

SAFETY PRECAUTIONS AND WARNINGS

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

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

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

Health and Safety Data Sheets are available on request.

STORAGE AND STABILITY

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

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

LIMITATIONS

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

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

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

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

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

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

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

The control should not be used as a calibration material.

PREPARATION FOR USE

The Human Assayed Multi-sera is supplied lyophilised.

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

MATERIALS PROVIDED

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

MATERIALS REQUIRED BUT NOT PROVIDED

Volumetric pipette

ASSIGNED VALUES

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

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

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

NOTES

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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. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	42.1	35.8	48.4	3.15	6.30	Bromocresol Green
	g/dl	4.21	3.58	4.84	0.32	0.63	
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	37	29	45	4.00	8.00	Tris buffer without P5P 37°C
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Arsenazo III
	mg/dl	8.86	7.98	9.74	0.44	0.88	
Cholesterol	mmol/l	4.17	3.63	4.71	0.27	0.54	Cholesterol Oxidase
	mg/dl	161	140	182	10.50	21.00	
Creatinine	μmol/l	122	97.6	146	12.20	24.40	Alkaline picrate no deproteinization
	mg/dl	1.38	1.10	1.66	0.14	0.28	
Glucose	mmol/l	6.36	5.40	7.32	0.48	0.96	Hexokinase
	mg/dl	115	97.3	133	8.85	17.70	
Phosphate Inorganic	mmol/l	1.32	1.06	1.58	0.13	0.26	Phosphomolybdate UV
	mg/dl	4.09	3.29	4.89	0.40	0.80	
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	
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	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.70	4.96	6.44	0.37	0.74	
	mmol/l	0.34	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	

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Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.11	6.05	8.17	0.53	1.06	Urease kinetic
	mg/dl	42.7	36.4	49.0	3.15	6.30	
	mmol/l	7.11	6.04	8.18	0.54	1.07	BUN
	mg/dl	20.0	17.0	23.0	1.50	3.00	

Abbott Architect c/ci Systems®

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Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.5	35.3	47.7	3.10	6.20	Bromocresol Green
	g/dl	4.15	3.53	4.77	0.31	0.62	
	g/l	42.0	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	154	131	177	11.50	23.00	Diethanolamine buffer DEA 37°C
	U/l	168	143	193	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	164	140	188	12.00	24.00	AMP non-optimised 37°C
ALT (GPT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	66	56	76	5.00	10.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	98	84	112	7.00	14.00	Randox liquid stable pNPG7 37°C
	U/l	97	82	112	7.50	15.00	Abbott Architect Non-IFCC Cal. 37°C
	U/l	108	91	125	8.50	17.00	Abbott Architect IFCC Cal. 37°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
Bile Acids	µmol/l	24.5	19.6	29.4	2.45	4.90	Enzymatic Colorimetric
Bicarbonate	mmol/l	13.6	10.8	16.4	1.40	2.80	Enzymatic
Bilirubin Direct	µmol/l	17.6	13.9	21.3	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.03	0.813	1.25	0.11	0.22	
	µmol/l	17.8	14.1	21.5	1.85	3.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.04	0.825	1.26	0.11	0.22	
Bilirubin Total	µmol/l	24.6	19.4	29.8	2.60	5.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.44	1.13	1.75	0.16	0.31	

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Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	μmol/l	24.9	19.7	30.1	2.60	5.20	Diazo with Sulphanilic Acid
	mg/dl	1.46	1.15	1.77	0.16	0.31	
	μmol/l	24.1	19.0	29.2	2.55	5.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.41	1.11	1.71	0.15	0.30	
	μmol/l	25.2	19.9	30.5	2.65	5.30	Diazonium ion
	mg/dl	1.47	1.16	1.78	0.16	0.31	
Calcium	mmol/l	2.24	2.02	2.46	0.11	0.22	Arsenazo III
	mg/dl	8.98	8.10	9.86	0.44	0.88	
Cholesterol	mmol/l	4.13	3.59	4.67	0.27	0.54	Cholesterol Oxidase
	mg/dl	159	139	179	10.00	20.00	
Chloride	mmol/l	98.6	90.7	107	3.95	7.90	ISE indirect
Cholinesterase	U/l	6117	4893	7341	612.00	1224.00	Colorimetric Butyrylthiocholine 37°C
	U/l	6456	5165	7747	645.50	1291.00	Agappe - DGKC/Butyrylthiocholine 37°C
CK Total	U/l	215	176	254	19.50	39.00	CK-NAC (IFCC) 37°C
Copper	μmol/l	13.9	11.1	16.7	1.40	2.80	Colorimetric
	μg/dl	88.4	70.6	106	8.90	17.80	
Creatinine	μmol/l	122	98.0	146	12.00	24.00	Alkaline picrate no deproteinization
	mg/dl	1.38	1.11	1.65	0.14	0.27	
	μmol/l	121	96.6	145	12.20	24.40	Randox Enzymatic UV method
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	μmol/l	119	95.1	143	11.95	23.90	Creatinine PAP method
	mg/dl	1.34	1.07	1.61	0.14	0.27	
	μmol/l	125	99.7	150	12.65	25.30	Jaffe rate blanked
	mg/dl	1.41	1.13	1.69	0.14	0.28	

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Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	122	97.9	146	12.05	24.10	IDMS traceable
	mg/dl	1.38	1.11	1.65	0.14	0.27	
Free T4	pmol/l	20.2	15.1	25.3	2.55	5.10	Abbott Architect
	ng/dl	1.58	1.18	1.98	0.20	0.40	
	pg/ml	15.8	11.8	19.8	2.00	4.00	Abbott Architect
gamma-GT	U/l	48	41	55	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	48	41	55	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	46	39	53	3.50	7.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	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
	mg/dl	111	94.4	128	8.30	16.60	
HDL - Cholesterol	mmol/l	1.35	1.15	1.55	0.10	0.20	Direct HDL PPD
	mg/dl	52.1	44.4	59.8	3.85	7.70	
	mmol/l	1.31	1.12	1.50	0.10	0.19	Direct Clearance Method
	mg/dl	50.6	43.2	58.0	3.70	7.40	
	mmol/l	1.33	1.13	1.53	0.10	0.20	HDL - Ultra
	mg/dl	51.3	43.6	59.0	3.85	7.70	
Iron	μmol/l	16.9	13.9	19.9	1.50	3.00	Colorimetric with ppt.
	μg/dl	94.5	77.7	111	8.40	16.80	
	μmol/l	17.0	14.0	20.0	1.50	3.00	Colorimetric without ppt.
	μg/dl	95.0	78.3	112	8.35	16.70	
Lactate	mmol/l	1.51	1.24	1.78	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.6	11.2	16.0	1.20	2.40	
LD (LDH)	U/l	205	174	236	15.50	31.00	L->P 37°C

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Range

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	412	350	474	31.00	62.00	P->L German methods 37°C
	U/l	201	171	231	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	37	30	44	3.50	7.00	Other Colorimetric 37°C
Lithium	mmol/l	1.02	0.90	1.15	0.06	0.13	Spectrophotometric
	mg/dl	0.708	0.621	0.795	0.04	0.09	
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Arsenazo III
	mg/dl	2.22	1.95	2.49	0.14	0.27	
	mmol/l	0.90	0.79	1.01	0.05	0.11	Enzymatic
	mg/dl	2.18	1.92	2.44	0.13	0.26	
Osmolality	mOsm/kg	304	243	365	30.50	61.00	Calculated
Phosphate Inorganic	mmol/l	1.31	1.05	1.57	0.13	0.26	Phosphomolybdate enzymatic
	mg/dl	4.06	3.26	4.86	0.40	0.80	
	mmol/l	1.32	1.06	1.58	0.13	0.26	Phosphomolybdate UV
	mg/dl	4.09	3.29	4.89	0.40	0.80	
Potassium	mmol/l	4.09	3.76	4.42	0.17	0.33	ISE method - indirect
Protein Total	g/l	57.8	46.2	69.4	5.80	11.60	Biuret reaction end point
	g/dl	5.78	4.62	6.94	0.58	1.16	
	g/l	58.1	46.5	69.7	5.80	11.60	Biuret reaction kinetic
	g/dl	5.81	4.65	6.97	0.58	1.16	
PSA Total	ng/ml =	14.7	11.0	18.4	1.85	3.70	Abbott Architect
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.18	0.95	1.41	0.12	0.23	Abbott Architect
TIBC	µmol/l	47.4	37.4	57.4	5.00	10.00	FE+UIBC(saturation with iron)
	µg/dl	265	209	321	28.00	56.00	
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	

Abbott Architect c/ci Systems®

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Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.06	0.89	1.23	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	93.8	78.9	109	7.45	14.90	
	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	92.9	78.1	108	7.40	14.80	
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	0.34	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	5.68	4.94	6.42	0.37	0.74	
Urea	mmol/l	6.92	5.88	7.96	0.52	1.04	Urease kinetic
	mg/dl	41.6	35.3	47.9	3.15	6.30	
	mmol/l	6.92	5.88	7.96	0.52	1.04	BUN
	mg/dl	19.4	16.5	22.3	1.45	2.90	

Arkray Spotchem EZ/EL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

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Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	42.0	34.0	50.0	4.00	8.00	ARKRAY Spotchem EZ
	g/dl	4.20	3.40	5.00	0.40	0.80	
Alkaline Phosphatase	U/l	314	241	387	36.50	73.00	ARKRAY Spotchem EZ 37°C
ALT (GPT)	U/l	32	24	40	4.00	8.00	ARKRAY Spotchem EZ 37°C
Amylase Total	U/l	70	52	88	9.00	18.00	ARKRAY Spotchem EZ 37°C
AST (GOT)	U/l	32	27	37	2.50	5.00	ARKRAY Spotchem EZ 37°C
Bilirubin Total	µmol/l	23.9	20.5	27.4	1.71	3.42	ARKRAY Spotchem EZ
	mg/dl	1.40	1.20	1.60	0.10	0.20	
Bun Urea	mmol/l	7.50	6.07	8.93	0.71	1.43	ARKRAY Spotchem EZ
	mg/dl	21.0	17.0	25.0	2.00	4.00	
Calcium	mmol/l	2.22	1.87	2.57	0.18	0.35	ARKRAY Spotchem EZ
	mg/dl	8.90	7.50	10.3	0.70	1.40	
Cholesterol	mmol/l	4.38	3.78	4.97	0.30	0.60	ARKRAY Spotchem EZ
	mg/dl	169	146	192	11.50	23.00	
Chloride	mmol/l	110	104	116	3.00	6.00	ARKRAY Spotchem EL
CK Total	U/l	158	118	198	20.00	40.00	ARKRAY Spotchem EZ 37°C
Creatinine	µmol/l	115	88.5	142	13.30	26.50	ARKRAY Spotchem EZ (creatinine)
	mg/dl	1.30	1.00	1.60	0.15	0.30	
	µmol/l	88.5	70.8	106	8.85	17.70	ARKRAY Spotchem EZ (creatinine2)
	mg/dl	1.00	0.800	1.20	0.10	0.20	
gamma-GT	U/l	63	51	75	6.00	12.00	ARKRAY Spotchem EZ 37°C

Arkray Spotchem EZ/EL®

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Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	6.27	5.27	7.27	0.50	1.00	ARKRAY Spotchem EZ
	mg/dl	113	95.0	131	9.00	18.00	
HDL - Cholesterol	mmol/l	1.04	0.75	1.32	0.14	0.29	ARKRAY Spotchem EZ
	mg/dl	40.0	29.0	51.0	5.50	11.00	
LD (LDH)	U/l	332	251	413	40.50	81.00	ARKRAY Spotchem EZ 37°C
Magnesium	mmol/l	0.91	0.74	1.07	0.08	0.17	ARKRAY Spotchem EZ
	mg/dl	2.20	1.80	2.60	0.20	0.40	
Phosphate Inorganic	mmol/l	1.19	1.03	1.36	0.08	0.16	ARKRAY Spotchem EZ
	mg/dl	3.70	3.20	4.20	0.25	0.50	
Potassium	mmol/l	4.00	3.70	4.30	0.15	0.30	ARKRAY Spotchem EL
Protein Total	g/l	60.0	52.0	68.0	4.00	8.00	ARKRAY Spotchem EZ
	g/dl	6.00	5.20	6.80	0.40	0.80	
Sodium	mmol/l	141	133	149	4.00	8.00	ARKRAY Spotchem EL
Triglycerides	mmol/l	1.03	0.92	1.14	0.06	0.11	ARKRAY Spotchem EZ
	mg/dl	91.0	81.0	101	5.00	10.00	
Uric Acid (Urate)	mmol/l	0.32	0.29	0.36	0.02	0.04	ARKRAY Spotchem EZ
	mg/dl	5.40	4.80	6.00	0.30	0.60	

Beckman Coulter AU Series®

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Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.2	35.0	47.4	3.10	6.20	Bromocresol Green
	g/dl	4.12	3.50	4.74	0.31	0.62	
Alkaline Phosphatase	U/l	276	235	317	20.50	41.00	Diethanolamine buffer DEA 37°C
	U/l	198	168	228	15.00	30.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	41	33	49	4.00	8.00	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	88	74	102	7.00	14.00	pNP Maltotriose substrates 37°C
	U/l	78	66	90	6.00	12.00	Biotrol - blocked pNPG7 37°C
	U/l	87	74	100	6.50	13.00	Beckman Synchron CX4/CX5/CX7 37°C
	U/l	87	74	100	6.50	13.00	Beckman Olympus - blocked pNPG7 37°C
AST (GOT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	14.4	11.4	17.4	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	19.1	15.1	23.1	2.00	4.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.12	0.883	1.36	0.12	0.24	
	µmol/l	19.6	15.4	23.8	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.15	0.901	1.40	0.12	0.25	
Bilirubin Total	µmol/l	25.4	20.1	30.7	2.65	5.30	Diazo with Dichloroaniline (DCA)
	mg/dl	1.49	1.18	1.80	0.16	0.31	
	µmol/l	29.7	23.5	35.9	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.74	1.37	2.11	0.19	0.37	
	µmol/l	28.1	22.2	34.0	2.95	5.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.64	1.30	1.98	0.17	0.34	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	µmol/l	28.3	22.3	34.3	3.00	6.00	Oxidation to Biliverdin/Vanadate
	mg/dl	1.66	1.30	2.02	0.18	0.36	
Calcium	mmol/l	2.27	2.04	2.50	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.10	8.18	10.0	0.46	0.92	
	mmol/l	2.29	2.06	2.52	0.12	0.23	Arsenazo III
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Cholesterol	mmol/l	4.19	3.65	4.73	0.27	0.54	Cholesterol Oxidase
	mg/dl	162	141	183	10.50	21.00	
Chloride	mmol/l	96.6	88.8	104	3.90	7.80	ISE indirect
Cholinesterase	U/l	5111	4089	6133	511.00	1022.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	219	179	259	20.00	40.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	123	98.1	148	12.45	24.90	Alkaline picrate no deproteinization
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	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	117	93.5	141	11.75	23.50	Creatinine PAP method
	mg/dl	1.32	1.06	1.58	0.13	0.26	
	µmol/l	121	96.9	145	12.05	24.10	Jaffe rate blanked
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	µmol/l	112	90.0	134	11.00	22.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.27	1.02	1.52	0.13	0.25	
	µmol/l	117	93.4	141	11.80	23.60	IDMS traceable
	mg/dl	1.32	1.06	1.58	0.13	0.26	
D-3-Hydroxybutyrate	mmol/l	0.29	0.25	0.34	0.02	0.04	Tris buffer 100mmol pH 8.5

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	51	43	59	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
GLDH	U/l	19	15	23	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	6.27	5.33	7.21	0.47	0.94	Hexokinase
	mg/dl	113	96.0	130	8.50	17.00	
	mmol/l	6.29	5.35	7.23	0.47	0.94	Glucose oxidase
	mg/dl	113	96.4	130	8.30	16.60	
HDL - Cholesterol	mmol/l	1.30	1.11	1.49	0.10	0.19	Direct HDL Immunoseparation
	mg/dl	50.2	42.8	57.6	3.70	7.40	
	mmol/l	1.38	1.17	1.59	0.11	0.21	HDL - Ultra
	mg/dl	53.3	45.2	61.4	4.05	8.10	
Iron	µmol/l	17.2	14.1	20.3	1.55	3.10	Colorimetric with ppt.
	µg/dl	96.1	78.8	113	8.65	17.30	
	µmol/l	16.9	13.8	20.0	1.55	3.10	Colorimetric without ppt.
	µg/dl	94.5	77.1	112	8.70	17.40	
Lactate	mmol/l	1.44	1.18	1.70	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	13.0	10.6	15.4	1.20	2.40	
LD (LDH)	U/l	201	171	231	15.00	30.00	L->P 37°C
	U/l	438	372	504	33.00	66.00	P->L Scandinavian & Dutch 37°C
	U/l	200	170	230	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	36	29	43	3.50	7.00	Other Colorimetric 37°C
	U/l	43	34	52	4.50	9.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.00	0.88	1.12	0.06	0.12	Spectrophotometric
	mg/dl	0.692	0.610	0.774	0.04	0.08	
Magnesium	mmol/l	0.94	0.83	1.06	0.06	0.11	Xylidyl Blue
	mg/dl	2.29	2.02	2.56	0.14	0.27	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Phosphate Inorganic	mmol/l	1.33	1.07	1.59	0.13	0.26	Phosphomolybdate enzymatic
	mg/dl	4.12	3.32	4.92	0.40	0.80	
	mmol/l	1.31	1.05	1.57	0.13	0.26	Phosphomolybdate UV
	mg/dl	4.06	3.26	4.86	0.40	0.80	
Potassium	mmol/l	4.05	3.73	4.37	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.2	46.6	69.8	5.80	11.60	Biuret reaction end point
	g/dl	5.82	4.66	6.98	0.58	1.16	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
TIBC	µmol/l	46.5	36.7	56.3	4.90	9.80	FE+UIBC(saturation with iron)
	µg/dl	260	205	315	27.50	55.00	
Total T4	nmol/l	117	87.9	146	14.55	29.10	Microgenics DRI assay
	µg/dl	9.13	6.86	11.4	1.14	2.27	
	ng/ml	91.3	68.6	114	11.35	22.70	Microgenics DRI assay
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	1.12	0.94	1.30	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	99.1	83.5	115	7.80	15.60	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.88	5.12	6.64	0.38	0.76	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.85	5.09	6.61	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.90	5.12	6.68	0.39	0.78	
Urea	mmol/l	7.08	6.02	8.14	0.53	1.06	Urease end point
	mg/dl	42.6	36.2	49.0	3.20	6.40	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

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

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	44.8	38.0	51.6	3.40	6.80	Bromocresol Purple
	g/dl	4.48	3.80	5.16	0.34	0.68	
Alkaline Phosphatase	U/l	181	154	208	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	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
	U/l	37	29	45	4.00	8.00	Tris buffer SCE 37°C
Amylase Total	U/l	95	80	110	7.50	15.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	36	29	43	3.50	7.00	Tris buffer SCE 37°C
Bicarbonate	mmol/l	14.2	11.2	17.2	1.50	3.00	Differential rate pH change
	mmol/l	14.1	11.1	17.1	1.50	3.00	Ion selective electrode
Bilirubin Direct	µmol/l	13.0	10.3	15.7	1.35	2.70	Diazo with Sulphanilic Acid
	mg/dl	0.761	0.603	0.919	0.08	0.16	
Bilirubin Total	µmol/l	28.1	22.2	34.0	2.95	5.90	Diazo with Sulphanilic Acid
	mg/dl	1.64	1.30	1.98	0.17	0.34	
Calcium	mmol/l	2.22	2.00	2.44	0.11	0.22	Ion selective electrode
	mg/dl	8.90	8.02	9.78	0.44	0.88	
	mmol/l	2.26	2.04	2.48	0.11	0.22	Arsenazo III
	mg/dl	9.06	8.18	9.94	0.44	0.88	
Cholesterol	mmol/l	3.97	3.46	4.48	0.26	0.51	Cholesterol Oxidase
	mg/dl	153	134	172	9.50	19.00	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	97.2	89.4	105	3.90	7.80	ISE indirect
CK Total	U/l	232	190	274	21.00	42.00	CK-NAC (IFCC) 37°C
	U/l	222	182	262	20.00	40.00	Monothioglycerol 37°C
Creatinine	μmol/l	115	92.2	138	11.40	22.80	Alkaline picrate no deproteinization
	mg/dl	1.30	1.04	1.56	0.13	0.26	
	μmol/l	117	93.8	140	11.60	23.20	Randox Enzymatic UV method
	mg/dl	1.32	1.06	1.58	0.13	0.26	
	μmol/l	117	94.0	140	11.50	23.00	Jaffe rate blanked
	mg/dl	1.32	1.06	1.58	0.13	0.26	
	μmol/l	114	91.2	137	11.40	22.80	IDMS traceable
	mg/dl	1.29	1.03	1.55	0.13	0.26	
gamma-GT	U/l	41	35	47	3.00	6.00	Gamma glutamyl-4-nitroanilide 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	6.21	5.28	7.14	0.47	0.93	Glucose oxidase
	mg/dl	112	95.1	129	8.45	16.90	
HDL - Cholesterol	mmol/l	1.45	1.23	1.67	0.11	0.22	Direct HDL PPD
	mg/dl	56.0	47.5	64.5	4.25	8.50	
	mmol/l	1.39	1.18	1.60	0.11	0.21	HDL - Ultra
	mg/dl	53.7	45.5	61.9	4.10	8.20	
Iron	μmol/l	16.3	13.4	19.2	1.45	2.90	Colorimetric without ppt.
	μg/dl	91.1	74.9	107	8.10	16.20	
Lactate	mmol/l	1.47	1.21	1.73	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	13.2	10.9	15.5	1.15	2.30	
LD (LDH)	U/l	170	145	195	12.50	25.00	L->P 37°C

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	505	429	581	38.00	76.00	Pyruvate 1.4 mM - Beckman LD-P 37°C
Lipase	U/l	39	31	47	4.00	8.00	Other Colorimetric 37°C
Magnesium	mmol/l	0.94	0.83	1.06	0.06	0.11	Calmagite
	mg/dl	2.29	2.01	2.57	0.14	0.28	
Phosphate Inorganic	mmol/l	1.36	1.09	1.63	0.14	0.27	Phosphomolybdate UV
	mg/dl	4.22	3.38	5.06	0.42	0.84	
Potassium	mmol/l	3.99	3.67	4.31	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.4	46.7	70.1	5.85	11.70	Biuret reaction CX4/5/7
	g/dl	5.84	4.67	7.01	0.59	1.17	
	g/l	59.2	47.3	71.1	5.95	11.90	Biuret reaction end point
	g/dl	5.92	4.73	7.11	0.60	1.19	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.22	1.02	1.42	0.10	0.20	Lipase/GPO-PAP no correction
	mg/dl	108	90.3	126	8.85	17.70	
	mmol/l	1.20	1.01	1.39	0.10	0.19	L/G Kinase EP. no correction
	mg/dl	106	89.4	123	8.30	16.60	
Uric Acid (Urate)	mmol/l	0.32	0.28	0.36	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.41	4.70	6.12	0.36	0.71	
Urea	mmol/l	7.37	6.27	8.47	0.55	1.10	Urease kinetic
	mg/dl	44.3	37.7	50.9	3.30	6.60	
	mmol/l	7.37	6.26	8.48	0.56	1.11	BUN
	mg/dl	20.7	17.6	23.8	1.55	3.10	

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	39.3	33.4	45.2	2.95	5.90	Bromocresol Green
	g/dl	3.93	3.34	4.52	0.30	0.59	
Alkaline Phosphatase	U/l	169	144	194	12.50	25.00	AMP optimised to IFCC 37°C
	U/l	132	112	152	10.00	20.00	AMP optimised to IFCC 30°C
	U/l	108	92	124	8.00	16.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	44	35	53	4.50	9.00	Tris buffer without P5P 37°C
	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 30°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	45	36	54	4.50	9.00	Tris buffer without P5P 37°C
	U/l	30	24	36	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
Bilirubin Total	µmol/l	31.8	25.1	38.5	3.35	6.70	Diazo with Sulphanilic Acid
	mg/dl	1.86	1.47	2.25	0.20	0.39	
Cholesterol	mmol/l	4.23	3.68	4.78	0.28	0.55	Cholesterol Oxidase
	mg/dl	163	142	184	10.50	21.00	
CK Total	U/l	234	192	276	21.00	42.00	CK-NAC (IFCC) 37°C
	U/l	146	120	172	13.00	26.00	CK-NAC (IFCC) 30°C
	U/l	99	82	116	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	118	94.3	142	11.85	23.70	Alkaline picrate no deproteinization
	mg/dl	1.33	1.07	1.59	0.13	0.26	
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

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	6.36	5.41	7.31	0.48	0.95	Glucose oxidase
	mg/dl	115	97.5	133	8.75	17.50	
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	
Triglycerides	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.3	110	7.70	15.40	
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	
Urea	mmol/l	6.84	5.81	7.87	0.52	1.03	Urease kinetic
	mg/dl	41.1	34.9	47.3	3.10	6.20	
	mmol/l	6.84	5.81	7.87	0.52	1.03	BUN
	mg/dl	19.2	16.3	22.1	1.45	2.90	

Biotechnica/Weiner BT Series/CB 350i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	39.4	33.5	45.3	2.95	5.90	Bromocresol Green
	g/dl	3.94	3.35	4.53	0.30	0.59	
ALT (GPT)	U/l	41	33	49	4.00	8.00	Tris buffer without P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30°C
	U/l	23	19	27	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	15	21	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Direct	μmol/l	15.9	12.6	19.2	1.65	3.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.930	0.737	1.12	0.10	0.19	
Calcium	mmol/l	2.07	1.86	2.28	0.11	0.21	Arsenazo III
	mg/dl	8.30	7.45	9.15	0.43	0.85	
Cholesterol	mmol/l	3.92	3.41	4.43	0.26	0.51	Cholesterol Oxidase
	mg/dl	151	132	170	9.50	19.00	
CK Total	U/l	222	182	262	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	139	114	164	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	94	77	111	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	117	93.3	141	11.85	23.70	Alkaline picrate no deproteinization
	mg/dl	1.32	1.05	1.59	0.14	0.27	
	μmol/l	109	87.0	131	11.00	22.00	Creatinine PAP method
	mg/dl	1.23	0.983	1.48	0.12	0.25	

Biotechnica/Weiner BT Series/CB 350i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	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	1.22	1.04	1.40	0.09	0.18	Direct HDL Immunoseparation
	mg/dl	47.1	40.1	54.1	3.50	7.00	
	mmol/l	1.50	1.28	1.72	0.11	0.22	Direct Clearance Method
	mg/dl	57.9	49.4	66.4	4.25	8.50	
LD (LDH)	U/l	414	352	476	31.00	62.00	P->L SFBC 37°C
	U/l	299	254	344	22.50	45.00	P->L SFBC 30°C
	U/l	210	178	242	16.00	32.00	P->L SFBC 25°C
Phosphate Inorganic	mmol/l	1.25	1.00	1.50	0.13	0.25	Phosphomolybdate UV
	mg/dl	3.88	3.10	4.66	0.39	0.78	
Protein Total	g/l	56.8	45.4	68.2	5.70	11.40	Biuret reaction end point
	g/dl	5.68	4.54	6.82	0.57	1.14	
Triglycerides	mmol/l	0.97	0.81	1.12	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	85.8	72.0	99.6	6.90	13.80	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.75	5.01	6.49	0.37	0.74	
Urea	mmol/l	6.85	5.82	7.88	0.52	1.03	Urease kinetic
	mg/dl	41.2	35.0	47.4	3.10	6.20	
	mmol/l	6.85	5.82	7.88	0.52	1.03	BUN
	mg/dl	19.2	16.3	22.1	1.45	2.90	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.7	37.2	50.2	3.25	6.50	Bromocresol Green
	g/dl	4.37	3.72	5.02	0.33	0.65	
	g/l	41.0	34.9	47.1	3.05	6.10	Turbidimetric Assays
	g/dl	4.10	3.49	4.71	0.31	0.61	
Alkaline Phosphatase	U/l	140	119	161	10.50	21.00	Roche Integra AMP buffer 37°C
	U/l	109	93	125	8.00	16.00	Roche Integra AMP buffer 30°C
	U/l	89	76	102	6.50	13.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	91	77	105	7.00	14.00	Randox liquid stable pNPG7 37°C
	U/l	89	75	103	7.00	14.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	89	75	103	7.00	14.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	13.9	11.0	16.8	1.45	2.90	Colorimetric
	mmol/l	14.2	11.2	17.2	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	17.1	13.5	20.7	1.80	3.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.00	0.790	1.21	0.11	0.21	
	µmol/l	17.6	13.9	21.3	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.03	0.813	1.25	0.11	0.22	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	μmol/l	25.5	20.1	30.9	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.49	1.18	1.80	0.16	0.31	
	μmol/l	25.2	19.9	30.5	2.65	5.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.47	1.16	1.78	0.16	0.31	
	μmol/l	25.4	20.0	30.8	2.70	5.40	Diazonium ion
	mg/dl	1.49	1.17	1.81	0.16	0.32	
Calcium	mmol/l	2.23	2.01	2.45	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.94	8.06	9.82	0.44	0.88	
	mmol/l	2.23	2.00	2.46	0.12	0.23	NM-BAPTA
	mg/dl	8.94	8.02	9.86	0.46	0.92	
Cholesterol	mmol/l	4.17	3.63	4.71	0.27	0.54	Cholesterol Oxidase
	mg/dl	161	140	182	10.50	21.00	
Chloride	mmol/l	98.2	90.3	106	3.95	7.90	ISE indirect
CK Total	U/l	223	183	263	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	140	115	165	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	95	78	112	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	112	90.0	134	11.00	22.00	Alkaline picrate no deproteinization
	mg/dl	1.27	1.02	1.52	0.13	0.25	
	μmol/l	118	94.6	141	11.70	23.40	Randox Enzymatic UV method
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	μmol/l	118	94.7	141	11.65	23.30	Roche Creatinine Plus
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	μmol/l	119	95.3	143	11.85	23.70	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.34	1.08	1.60	0.13	0.26	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	115	91.6	138	11.70	23.40	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.30	1.04	1.56	0.13	0.26	
gamma-GT	U/l	45	38	52	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	30	40	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	23	33	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.22	5.29	7.15	0.47	0.93	Hexokinase
	mg/dl	112	95.3	129	8.35	16.70	
HDL - Cholesterol	mmol/l	1.40	1.19	1.61	0.11	0.21	Direct HDL PEGME
	mg/dl	54.0	45.9	62.1	4.05	8.10	
	mmol/l	1.41	1.20	1.62	0.11	0.21	Direct HDL Roche 3rd generation
	mg/dl	54.4	46.3	62.5	4.05	8.10	
Iron	μmol/l	17.4	14.3	20.5	1.55	3.10	Colorimetric with ppt.
	μg/dl	97.3	79.9	115	8.70	17.40	
	μmol/l	17.5	14.3	20.7	1.60	3.20	Colorimetric without ppt.
	μg/dl	97.8	79.9	116	8.95	17.90	
Lactate	mmol/l	1.54	1.26	1.82	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	13.9	11.4	16.4	1.25	2.50	
LD (LDH)	U/l	385	327	443	29.00	58.00	P->L German methods 37°C
	U/l	278	236	320	21.00	42.00	P->L German methods 30°C
	U/l	195	166	224	14.50	29.00	P->L German methods 25°C
	U/l	210	179	241	15.50	31.00	L->P IFCC 37°C
	U/l	152	129	175	11.50	23.00	L->P IFCC 30°C
	U/l	106	91	121	7.50	15.00	L->P IFCC 25°C

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lipase	U/l	36	29	43	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.01	0.89	1.13	0.06	0.12	Ion selective electrode
	mg/dl	0.701	0.619	0.783	0.04	0.08	
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.23	1.96	2.50	0.14	0.27	
Phosphate Inorganic	mmol/l	1.37	1.10	1.64	0.14	0.27	Phosphomolybdate enzymatic
	mg/dl	4.25	3.41	5.09	0.42	0.84	
	mmol/l	1.36	1.09	1.63	0.14	0.27	Phosphomolybdate UV
	mg/dl	4.22	3.38	5.06	0.42	0.84	
Potassium	mmol/l	4.09	3.77	4.41	0.16	0.32	ISE method - indirect
Protein Total	g/l	56.9	45.5	68.3	5.70	11.40	Biuret reaction end point
	g/dl	5.69	4.55	6.83	0.57	1.14	
	g/l	56.3	45.0	67.6	5.65	11.30	Biuret reaction kinetic
	g/dl	5.63	4.50	6.76	0.57	1.13	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
TIBC	µmol/l	45.3	35.8	54.8	4.75	9.50	FE+UIBC(saturation with iron)
	µg/dl	253	200	306	26.50	53.00	
	µmol/l	44.1	34.8	53.4	4.65	9.30	Direct Colorimetric
	µg/dl	247	195	299	26.00	52.00	
Triglycerides	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.3	110	7.70	15.40	
	mmol/l	1.07	0.90	1.24	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	94.7	79.9	110	7.40	14.80	
Uric Acid (Urate)	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	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.68	4.94	6.42	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	
Urea	mmol/l	6.71	5.70	7.72	0.51	1.01	Urease kinetic
	mg/dl	40.3	34.3	46.3	3.00	6.00	
	mmol/l	6.71	5.70	7.72	0.51	1.01	BUN
	mg/dl	18.8	16.0	21.6	1.40	2.80	

Elitech/Vitalab Selectra Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	42.0	35.7	48.3	3.15	6.30	Bromocresol Green
	g/dl	4.20	3.57	4.83	0.32	0.63	
Alkaline Phosphatase	U/l	272	231	313	20.50	41.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	41	33	49	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
Bilirubin Total	μmol/l	27.0	21.4	32.6	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.58	1.25	1.91	0.17	0.33	
	μmol/l	21.7	17.2	26.2	2.25	4.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.27	1.01	1.53	0.13	0.26	
Calcium	mmol/l	2.27	2.05	2.49	0.11	0.22	Arsenazo III
	mg/dl	9.10	8.22	9.98	0.44	0.88	
Cholesterol	mmol/l	4.09	3.56	4.62	0.27	0.53	Cholesterol Oxidase
	mg/dl	158	137	179	10.50	21.00	
Creatinine	μmol/l	120	96.3	144	11.85	23.70	Alkaline picrate no deproteinization
	mg/dl	1.36	1.09	1.63	0.14	0.27	
	μmol/l	122	97.9	146	12.05	24.10	Jaffe rate blanked
	mg/dl	1.38	1.11	1.65	0.14	0.27	
Glucose	mmol/l	6.41	5.45	7.37	0.48	0.96	Glucose oxidase
	mg/dl	116	98.2	134	8.90	17.80	
LD (LDH)	U/l	193	164	222	14.50	29.00	L->P IFCC 37°C
Phosphate Inorganic	mmol/l	1.41	1.13	1.69	0.14	0.28	Phosphomolybdate UV
	mg/dl	4.37	3.50	5.24	0.44	0.87	

Elitech/Vitalab Selectra Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Protein Total	g/l	62.8	50.2	75.4	6.30	12.60	Biuret reaction end point
	g/dl	6.28	5.02	7.54	0.63	1.26	
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.5	111	7.55	15.10	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.83	5.07	6.59	0.38	0.76	
Urea	mmol/l	6.86	5.83	7.89	0.52	1.03	Urease kinetic
	mg/dl	41.2	35.0	47.4	3.10	6.20	
	mmol/l	6.86	5.83	7.89	0.52	1.03	BUN
	mg/dl	19.3	16.4	22.2	1.45	2.90	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	42.8	36.3	49.3	3.25	6.50	Bromocresol Green
	g/dl	4.28	3.63	4.93	0.33	0.65	
Alkaline Phosphatase	U/l	127	108	146	9.50	19.00	Roche Integra AMP buffer 37°C
	U/l	99	84	114	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	81	69	93	6.00	12.00	Roche Integra AMP buffer 25°C
	U/l	178	151	205	13.50	27.00	Randox AMP 37°C
	U/l	139	118	160	10.50	21.00	Randox AMP 30°C
	U/l	114	96	132	9.00	18.00	Randox AMP 25°C
ALT (GPT)	U/l	39	32	46	3.50	7.00	Tris buffer without P5P 37°C
	U/l	29	24	34	2.50	5.00	Tris buffer without P5P 30°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	65	55	75	5.00	10.00	Roche liquid stable pNPG7 37°C
	U/l	76	65	87	5.50	11.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	85	72	98	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	99	84	114	7.50	15.00	Randox liquid stable pNPG7 37°C
Acid Phosphatase (non-prostatic)	U/l	4.02	2.69	5.35	0.67	1.33	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	4.19	2.81	5.57	0.69	1.38	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	9.78	6.55	13.0	1.62	3.23	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	14.1	9.45	18.8	2.33	4.65	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Total)	U/l	13.8	9.25	18.4	2.28	4.55	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	18.3	12.3	24.3	3.00	6.00	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	14	22	2.00	4.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	22.5	18.0	27.0	2.25	4.50	5th Generation Colorimetric
Bicarbonate	mmol/l	14.2	11.3	17.1	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	16.7	13.2	20.2	1.75	3.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.977	0.772	1.18	0.10	0.21	
	µmol/l	16.4	12.9	19.9	1.75	3.50	Diazo with Sulphanilic Acid
	mg/dl	0.959	0.755	1.16	0.10	0.20	
Bilirubin Total	µmol/l	25.5	20.1	30.9	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.49	1.18	1.80	0.16	0.31	
	µmol/l	24.5	19.3	29.7	2.60	5.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.43	1.13	1.73	0.15	0.30	
	µmol/l	24.8	19.6	30.0	2.60	5.20	Diazonium ion
	mg/dl	1.45	1.15	1.75	0.15	0.30	
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	
	mmol/l	2.24	2.02	2.46	0.11	0.22	NM-BAPTA
	mg/dl	8.98	8.10	9.86	0.44	0.88	
Cholesterol	mmol/l	4.11	3.58	4.64	0.27	0.53	Cholesterol Oxidase
	mg/dl	159	138	180	10.50	21.00	
Chloride	mmol/l	93.8	86.3	101	3.75	7.50	ISE indirect
Cholinesterase	U/l	5289	4231	6347	529.00	1058.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	211	173	249	19.00	38.00	CK-NAC substrate start (DGKC) 37°C
	U/l	132	108	156	12.00	24.00	CK-NAC substrate start (DGKC) 30°C
	U/l	90	74	106	8.00	16.00	CK-NAC substrate start (DGKC) 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
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
Creatinine	µmol/l	115	92.4	138	11.30	22.60	Randox Enzymatic UV method
	mg/dl	1.30	1.04	1.56	0.13	0.26	
	µmol/l	121	96.7	145	12.15	24.30	Creatinine PAP method
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	µmol/l	119	95.4	143	11.80	23.60	Roche Creatinine Plus
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.42	1.14	1.70	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.27	0.23	0.31	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	42	36	48	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	33	28	38	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	26	22	30	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	47	40	54	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	37	32	42	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	29	25	33	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	52	44	60	4.00	8.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	41	35	47	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
GLDH	U/l	22	17	27	2.50	5.00	Triethanolamine buffer 50 mmol 37°C
	U/l	17	13	21	2.00	4.00	Triethanolamine buffer 50 mmol 30°C
	U/l	14	11	17	1.50	3.00	Triethanolamine buffer 50 mmol 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
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	6.37	5.42	7.32	0.48	0.95	Glucose oxidase
	mg/dl	115	97.7	132	8.65	17.30	
alpha-HBDH	U/l	232	183	281	24.50	49.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	175	138	212	18.50	37.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	131	104	158	13.50	27.00	Oxobutyrate < 10 mmol/l 25°C
HDL - Cholesterol	mmol/l	1.34	1.14	1.54	0.10	0.20	Direct HDL PEGME
	mg/dl	51.7	44.0	59.4	3.85	7.70	
	mmol/l	1.35	1.15	1.55	0.10	0.20	Direct HDL Roche 3rd generation
	mg/dl	52.1	44.4	59.8	3.85	7.70	
Iron	µmol/l	16.8	13.8	19.8	1.50	3.00	Colorimetric without ppt.
	µg/dl	93.9	77.1	111	8.40	16.80	
Lactate	mmol/l	1.47	1.20	1.74	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.2	10.8	15.6	1.20	2.40	
LD (LDH)	U/l	383	325	441	29.00	58.00	P->L German methods 37°C
	U/l	277	235	319	21.00	42.00	P->L German methods 30°C
	U/l	194	165	223	14.50	29.00	P->L German methods 25°C
	U/l	196	166	226	15.00	30.00	L->P IFCC 37°C
	U/l	142	120	164	11.00	22.00	L->P IFCC 30°C
	U/l	99	84	114	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	33	27	39	3.00	6.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.03	0.90	1.16	0.06	0.13	Spectrophotometric
	mg/dl	0.715	0.628	0.802	0.04	0.09	
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Xylidyl Blue
	mg/dl	2.25	1.98	2.52	0.14	0.27	

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Analyte	unit	Target	low	high	1SD	2SD	methods
Phosphate Inorganic	mmol/l	1.31	1.05	1.57	0.13	0.26	Phosphomolybdate UV
	mg/dl	4.06	3.26	4.86	0.40	0.80	
Potassium	mmol/l	4.12	3.79	4.45	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.5	46.8	70.2	5.85	11.70	Biuret reaction end point
	g/dl	5.85	4.68	7.02	0.59	1.17	
Sodium	mmol/l	145	137	153	4.00	8.00	ISE method - indirect
TIBC	μmol/l	44.8	35.4	54.2	4.70	9.40	FE+UIBC(saturation with iron)
	μg/dl	250	198	302	26.00	52.00	
Triglycerides	mmol/l	1.05	0.89	1.22	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.3	108	7.30	14.60	
Uric Acid (Urate)	mmol/l	0.32	0.28	0.36	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.34	4.65	6.03	0.35	0.69	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.66	4.94	6.38	0.36	0.72	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.58	4.84	6.32	0.37	0.74	
Urea	mmol/l	7.13	6.06	8.20	0.54	1.07	Urease kinetic
	mg/dl	42.9	36.4	49.4	3.25	6.50	
	mmol/l	7.13	6.06	8.20	0.54	1.07	BUN
	mg/dl	20.0	17.0	23.0	1.50	3.00	

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.3	35.1	47.5	3.10	6.20	Bromocresol Green
	g/dl	4.13	3.51	4.75	0.31	0.62	
Alkaline Phosphatase	U/l	186	158	214	14.00	28.00	AMP optimised to IFCC 37°C
	U/l	145	123	167	11.00	22.00	AMP optimised to IFCC 30°C
	U/l	119	101	137	9.00	18.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	37	29	45	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	21	16	26	2.50	5.00	Tris buffer without P5P 25°C
Amylase Total	U/l	82	70	94	6.00	12.00	I.L. 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	21.1	16.9	25.3	2.10	4.20	Enzymatic Colorimetric
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	2.23	2.01	2.45	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.94	8.06	9.82	0.44	0.88	
Cholesterol	mmol/l	4.04	3.51	4.57	0.27	0.53	Cholesterol Oxidase
	mg/dl	156	135	177	10.50	21.00	
Chloride	mmol/l	95.0	87.4	103	3.80	7.60	ISE indirect
CK Total	U/l	198	162	234	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	124	101	147	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	84	69	99	7.50	15.00	CK-NAC (IFCC) 25°C

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Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	µmol/l	124	99.5	149	12.25	24.50	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
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	47	40	54	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	37	32	42	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	29	25	33	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	45	38	52	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	28	23	33	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.36	5.40	7.32	0.48	0.96	Hexokinase
	mg/dl	115	97.3	133	8.85	17.70	
	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	1.17	0.99	1.35	0.09	0.18	Direct HDL Immunoseparation
	mg/dl	45.2	38.3	52.1	3.45	6.90	
Magnesium	mmol/l	0.96	0.85	1.08	0.06	0.12	Xylidyl Blue
	mg/dl	2.34	2.06	2.62	0.14	0.28	
	mmol/l	0.98	0.86	1.10	0.06	0.12	Enzymatic
	mg/dl	2.38	2.10	2.66	0.14	0.28	
Phosphate Inorganic	mmol/l	1.34	1.07	1.61	0.14	0.27	Phosphomolybdate UV
	mg/dl	4.15	3.32	4.98	0.42	0.83	
Potassium	mmol/l	4.16	3.83	4.49	0.17	0.33	ISE method - indirect
Protein Total	g/l	59.3	47.4	71.2	5.95	11.90	Biuret reaction end point
	g/dl	5.93	4.74	7.12	0.60	1.19	

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Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.09	0.91	1.27	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	96.5	80.9	112	7.80	15.60	
	mmol/l	1.10	0.93	1.27	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	97.4	82.0	113	7.70	15.40	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.88	5.11	6.65	0.39	0.77	
Urea	mmol/l	7.23	6.14	8.32	0.55	1.09	Urease end point
	mg/dl	43.5	36.9	50.1	3.30	6.60	
	mmol/l	7.23	6.15	8.31	0.54	1.08	BUN
	mg/dl	20.3	17.3	23.3	1.50	3.00	

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Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	39.3	33.4	45.2	2.95	5.90	Ortho Vitros Microslide Systems
	g/dl	3.93	3.34	4.52	0.30	0.59	
Alkaline Phosphatase	U/l	146	124	168	11.00	22.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	50	40	60	5.00	10.00	Ortho Vitros Microslide Systems 37°C
Amylase Total	U/l	63	54	72	4.50	9.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	53	42	64	5.50	11.00	Ortho Vitros Microslide visible slide 37°C
Bicarbonate	mmol/l	15.7	12.5	18.9	1.60	3.20	Ortho Vitros Microslide Systems
Bilirubin Direct	µmol/l	11.5	9.11	13.9	1.20	2.39	Vitros conjugated from BUBC
	mg/dl	0.673	0.533	0.813	0.07	0.14	
Bilirubin Total	µmol/l	25.6	20.2	31.0	2.70	5.40	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.50	1.18	1.82	0.16	0.32	
	µmol/l	25.9	20.4	31.4	2.75	5.50	Vitros 250/500/700/950 Total BUBC
	mg/dl	1.52	1.19	1.85	0.17	0.33	
Calcium	mmol/l	2.31	2.08	2.54	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	9.26	8.34	10.2	0.46	0.92	
	mmol/l	2.36	2.12	2.60	0.12	0.24	Vitros DT60/DT60 II/DTSC II
	mg/dl	9.46	8.50	10.4	0.48	0.96	
Cholesterol	mmol/l	3.94	3.42	4.46	0.26	0.52	Ortho Vitros Microslide Systems
	mg/dl	152	132	172	10.00	20.00	
	mmol/l	4.02	3.49	4.55	0.27	0.53	Vitros DT60/DT60 II
	mg/dl	155	135	175	10.00	20.00	

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Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	97.5	89.7	105	3.90	7.80	Ortho Vitros Microslide Systems
Cholinesterase	U/l	5204	4163	6245	520.50	1041.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	201	165	237	18.00	36.00	Ortho Vitros Microslide Systems 37°C
Creatinine	μmol/l	118	94.6	141	11.70	23.40	Vitros IDMS Traceable
	mg/dl	1.33	1.07	1.59	0.13	0.26	
Free T4	pmol/l	40.5	30.4	50.6	5.05	10.10	Vitros ECI
	ng/dl	3.16	2.37	3.95	0.40	0.79	
	pg/ml	31.6	23.7	39.5	3.95	7.90	Vitros ECI
gamma-GT	U/l	61	52	70	4.50	9.00	Ortho Vitros Microslide Systems 37°C
Glucose	mmol/l	6.03	5.12	6.94	0.46	0.91	Ortho Vitros Microslide Systems
	mg/dl	109	92.3	126	8.35	16.70	
	mmol/l	5.98	5.08	6.88	0.45	0.90	Vitros DT60/DT60 II
	mg/dl	108	91.5	125	8.25	16.50	
HDL - Cholesterol	mmol/l	1.39	1.18	1.60	0.11	0.21	Vitros Magnetic HDL
	mg/dl	53.7	45.5	61.9	4.10	8.20	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Vitros 5.1 FS microtip assay
	mg/dl	54.0	45.9	62.1	4.05	8.10	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Vitros dHDL PTA/MgCl ₂ direct precipitation
	mg/dl	53.7	45.5	61.9	4.10	8.20	
Iron	μmol/l	18.0	14.7	21.3	1.65	3.30	Ortho Vitros Microslide Systems
	μg/dl	101	82.2	120	9.40	18.80	
Lactate	mmol/l	1.35	1.11	1.59	0.12	0.24	Ortho Vitros Microslide Systems
	mg/dl	12.2	10.0	14.4	1.10	2.20	
LD (LDH)	U/l	593	504	682	44.50	89.00	Ortho Vitros Microslide Systems 37°C
Lipase	U/l	265	213	317	26.00	52.00	Ortho Vitros Microslide Systems 37°C

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Analyte	unit	Target	low	high	1SD	2SD	methods
Lithium	mmol/l	1.23	1.08	1.38	0.08	0.15	Ortho Vitros Microslide Systems
	mg/dl	0.854	0.750	0.958	0.05	0.10	
Magnesium	mmol/l	0.94	0.82	1.05	0.06	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.27	2.00	2.54	0.14	0.27	
Phosphate Inorganic	mmol/l	1.41	1.13	1.69	0.14	0.28	Ortho Vitros Microslide Systems
	mg/dl	4.37	3.50	5.24	0.44	0.87	
Potassium	mmol/l	4.12	3.79	4.45	0.17	0.33	Ortho Vitros Microslide Systems
	mmol/l	4.13	3.80	4.46	0.17	0.33	Vitros DT60/DT60 II/DTE II
Protein Total	g/l	58.8	47.0	70.6	5.90	11.80	Ortho Vitros Microslide Systems
	g/dl	5.88	4.70	7.06	0.59	1.18	
Sodium	mmol/l	144	136	152	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	143	136	150	3.50	7.00	Vitros DT60/DT60 II/DTE II
Thyroid Stimulating Hormone	μU/ml =	1.28	1.03	1.53	0.13	0.25	Vitros ECI
TIBC	μmol/l	51.7	40.8	62.6	5.45	10.90	Ortho Vitros Microslide Systems
	μg/dl	289	228	350	30.50	61.00	
Triglycerides	mmol/l	1.20	1.01	1.39	0.10	0.19	Ortho Vitros Microslide Systems
	mg/dl	106	89.4	123	8.30	16.60	
	mmol/l	1.24	1.04	1.44	0.10	0.20	Vitros DT60/DT60 II
	mg/dl	110	92.0	128	9.00	18.00	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.53	4.80	6.26	0.37	0.73	
Urea	mmol/l	6.52	5.54	7.50	0.49	0.98	Ortho Vitros Microslide Systems
	mg/dl	39.2	33.3	45.1	2.95	5.90	
	mmol/l	6.30	5.35	7.25	0.48	0.95	Vitros DT60/DT60 II
	mg/dl	37.9	32.2	43.6	2.85	5.70	

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Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	6.52	5.54	7.50	0.49	0.98	BUN
	mg/dl	18.3	15.6	21.0	1.35	2.70	

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

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	39.8	33.8	45.8	3.00	6.00	Bromocresol Green
	g/dl	3.98	3.38	4.58	0.30	0.60	
Alkaline Phosphatase	U/l	261	222	300	19.50	39.00	Diethanolamine buffer DEA 37°C
	U/l	203	173	233	15.00	30.00	Diethanolamine buffer DEA 30°C
	U/l	167	142	192	12.50	25.00	Diethanolamine buffer DEA 25°C
	U/l	177	151	203	13.00	26.00	AMP optimised to IFCC 37°C
	U/l	138	118	158	10.00	20.00	AMP optimised to IFCC 30°C
	U/l	113	96	130	8.50	17.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	25.7	20.5	30.9	2.60	5.20	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	16.6	13.1	20.1	1.75	3.50	Diazo with Sulphanilic Acid
	mg/dl	0.971	0.766	1.18	0.10	0.21	
Bilirubin Total	µmol/l	22.3	17.6	27.0	2.35	4.70	Nitrobenzenediazonium salt
	mg/dl	1.30	1.03	1.57	0.14	0.27	
Calcium	mmol/l	2.26	2.03	2.49	0.12	0.23	Arsenazo III
	mg/dl	9.06	8.14	9.98	0.46	0.92	

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

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		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	4.04	3.51	4.57	0.27	0.53	Cholesterol Oxidase
	mg/dl	156	135	177	10.50	21.00	
Chloride	mmol/l	100	92.3	108	3.85	7.70	ISE direct
CK Total	U/l	212	174	250	19.00	38.00	CK-NAC (IFCC) 37°C
	U/l	133	109	157	12.00	24.00	CK-NAC (IFCC) 30°C
	U/l	90	74	106	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	120	95.9	144	12.05	24.10	Alkaline picrate no deproteinization
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	µmol/l	119	95.5	143	11.75	23.50	Randox Enzymatic UV method
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	µmol/l	119	95.1	143	11.95	23.90	Creatinine PAP method
	mg/dl	1.34	1.07	1.61	0.14	0.27	
	µmol/l	114	90.9	137	11.55	23.10	Jaffe rate blanked
	mg/dl	1.29	1.03	1.55	0.13	0.26	
	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
Glucose	mmol/l	6.62	5.62	7.62	0.50	1.00	Hexokinase
	mg/dl	119	101	137	9.00	18.00	
	mmol/l	6.28	5.34	7.22	0.47	0.94	Glucose oxidase
	mg/dl	113	96.2	130	8.40	16.80	
HDL - Cholesterol	mmol/l	1.34	1.14	1.54	0.10	0.20	Direct HDL PEGME
	mg/dl	51.7	44.0	59.4	3.85	7.70	
	mmol/l	1.30	1.10	1.50	0.10	0.20	Direct Clearance Method
	mg/dl	50.2	42.5	57.9	3.85	7.70	

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

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
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	
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Calmagite
	mg/dl	2.23	1.96	2.50	0.14	0.27	
	mmol/l	0.89	0.78	0.99	0.05	0.11	Xylidyl Blue
	mg/dl	2.15	1.89	2.41	0.13	0.26	
Phosphate Inorganic	mmol/l	1.32	1.05	1.59	0.14	0.27	Phosphomolybdate UV
	mg/dl	4.09	3.26	4.92	0.42	0.83	
Potassium	mmol/l	3.95	3.63	4.27	0.16	0.32	ISE method - direct
Protein Total	g/l	59.4	47.5	71.3	5.95	11.90	Biuret reaction end point
	g/dl	5.94	4.75	7.13	0.60	1.19	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - direct
TIBC	µmol/l	49.7	39.3	60.1	5.20	10.40	FE+UIBC(saturation with iron)
	µg/dl	278	220	336	29.00	58.00	
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.2	111	7.70	15.40	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.85	5.09	6.61	0.38	0.76	
	mmol/l	0.34	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	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.93	5.16	6.70	0.39	0.77	
Urea	mmol/l	6.93	5.89	7.97	0.52	1.04	Urease kinetic
	mg/dl	41.6	35.4	47.8	3.10	6.20	
	mmol/l	6.93	5.89	7.97	0.52	1.04	BUN
	mg/dl	19.5	16.6	22.4	1.45	2.90	

**MEAN OF ALL INSTRUMENTS (Elec.)**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
alpha-1-globulin		5.9	4.5	7.3	0.71	1.42	% of total Protein (Beckman Capillary)
alpha-2-globulin		5.8	4.4	7.2	0.70	1.39	% of total Protein (Beckman Capillary)
Albumin (electrophoresis)		68.6	61.8	75.4	3.40	6.80	% of total Protein (Beckman Capillary)
beta-globulin		9.1	6.9	11.3	1.09	2.18	% of total Protein (Beckman Capillary)
gamma-globulin		10.6	8.1	13.1	1.27	2.54	% of total Protein (Beckman Capillary)

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	42.1	35.8	48.4	3.15	6.30	Bromocresol Green
	g/dl	4.21	3.58	4.84	0.32	0.63	
	g/l	43.4	36.9	49.9	3.25	6.50	Bromocresol Purple
	g/dl	4.34	3.69	4.99	0.33	0.65	
	g/l	39.3	33.4	45.2	2.95	5.90	Ortho Vitros Microslide Systems
	g/dl	3.93	3.34	4.52	0.30	0.59	
	g/l	40.5	34.4	46.6	3.05	6.10	Turbidimetric Assays
	g/dl	4.05	3.44	4.66	0.31	0.61	
Alkaline Phosphatase	U/l	146	124	168	11.00	22.00	Ortho Vitros Microslide Systems 37°C
	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	178	151	205	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	139	118	160	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	114	96	132	9.00	18.00	AMP optimised to IFCC 25°C
	U/l	169	144	194	12.50	25.00	AMP non-optimised 37°C
	U/l	132	112	152	10.00	20.00	AMP non-optimised 30°C
	U/l	108	92	124	8.00	16.00	AMP non-optimised 25°C
ALT (GPT)	U/l	50	40	60	5.00	10.00	Ortho Vitros Microslide Systems 37°C
	U/l	44	35	53	4.50	9.00	Tris buffer with P5P 37°C
	U/l	33	26	40	3.50	7.00	Tris buffer with P5P 30°C
	U/l	25	20	30	2.50	5.00	Tris buffer with P5P 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
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
	U/l	37	29	45	4.00	8.00	Tris buffer SCE 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer SCE 30°C
	U/l	21	16	26	2.50	5.00	Tris buffer SCE 25°C
Amylase Pancreatic	U/l	66	56	76	5.00	10.00	Immunoinhibition EPS substrate 37°C
	U/l	65	55	75	5.00	10.00	Roche liquid stable pNPG7 37°C
	U/l	76	65	87	5.50	11.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	88	75	101	6.50	13.00	pNP Maltotriose substrates 37°C
	U/l	88	75	101	6.50	13.00	Siemens - blocked pNPG7 37°C
	U/l	78	66	90	6.00	12.00	Biotrol - blocked pNPG7 37°C
	U/l	71	60	82	5.50	11.00	Randox - Ethylidene pNPG7 37°C
	U/l	99	84	114	7.50	15.00	Randox liquid stable pNPG7 37°C
	U/l	88	75	101	6.50	13.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	88	75	101	6.50	13.00	Beckman Synchron CX4/CX5/CX7 37°C
	U/l	97	83	111	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	63	54	72	4.50	9.00	Ortho Vitros Microslide Systems 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
	U/l	96	81	111	7.50	15.00	Siemens 2-chloro-pNPG3 37°C
	U/l	80	68	92	6.00	12.00	bioMerieux 2-chloro-pNPG3 37°C
	U/l	87	74	100	6.50	13.00	Beckman Olympus - blocked pNPG7 37°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Total	U/l	95	81	109	7.00	14.00	Beckman Synchron AMY7 37°C
	U/l	82	70	94	6.00	12.00	I.L. 2-chloro-pNPG3 37°C
	U/l	97	82	112	7.50	15.00	Abbott Architect Non-IFCC Cal. 37°C
	U/l	108	91	125	8.50	17.00	Abbott Architect IFCC Cal. 37°C
Apolipoprotein A-1	g/l	1.10	0.90	1.30	0.10	0.20	Immunoturbidimetric
	mg/dl	110	90.2	130	9.90	19.80	
Apolipoprotein B	g/l	0.57	0.47	0.68	0.05	0.10	Immunoturbidimetric
	mg/dl	57.3	47.0	67.6	5.15	10.30	
Acid Phosphatase (non-prostatic)	U/l	4.02	2.69	5.35	0.67	1.33	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	4.19	2.81	5.57	0.69	1.38	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	9.78	6.55	13.0	1.62	3.23	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	14.1	9.45	18.8	2.33	4.65	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Total)	U/l	13.8	9.25	18.4	2.28	4.55	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	18.3	12.3	24.3	3.00	6.00	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
AST (GOT)	U/l	53	42	64	5.50	11.00	Ortho Vitros Microslide visible slide 37°C
	U/l	48	38	58	5.00	10.00	Tris buffer with P5P 37°C
	U/l	32	26	38	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	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	17	14	20	1.50	3.00	Tris buffer without P5P 25°C
	U/l	36	29	43	3.50	7.00	Tris buffer SCE 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer SCE 30°C
	U/l	17	14	20	1.50	3.00	Tris buffer SCE 25°C
Bile Acids	µmol/l	23.5	18.8	28.2	2.35	4.70	4th Generation Colorimetric

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Bile Acids	μmol/l	22.5	18.0	27.0	2.25	4.50	5th Generation Colorimetric
Bicarbonate	mmol/l	14.4	11.4	17.4	1.50	3.00	Colorimetric
	mmol/l	15.7	12.5	18.9	1.60	3.20	Ortho Vitros Microslide Systems
	mmol/l	14.2	11.2	17.2	1.50	3.00	Differential rate pH change
	mmol/l	14.5	11.5	17.5	1.50	3.00	Enzymatic
	mmol/l	14.4	11.5	17.3	1.45	2.90	Ion selective electrode
Bilirubin Direct	μmol/l	18.0	14.2	21.8	1.90	3.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.05	0.831	1.27	0.11	0.22	
	μmol/l	11.5	9.11	13.9	1.20	2.39	Vitros conjugated from BUBC
	mg/dl	0.673	0.533	0.813	0.07	0.14	
	μmol/l	18.9	14.9	22.9	2.00	4.00	Diazo with Sulphanilic Acid
	mg/dl	1.11	0.872	1.35	0.12	0.24	
	μmol/l	18.0	14.2	21.8	1.90	3.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.05	0.831	1.27	0.11	0.22	
	μmol/l	18.5	14.6	22.4	1.95	3.90	Oxidation to Biliverdin/Vanadate
	mg/dl	1.08	0.854	1.31	0.11	0.23	
Bilirubin Total	μmol/l	15.8	12.5	19.1	1.65	3.30	Modified Jendrassik
	mg/dl	0.924	0.731	1.12	0.10	0.19	
	μmol/l	25.6	20.2	31.0	2.70	5.40	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.50	1.18	1.82	0.16	0.32	
	μmol/l	25.9	20.4	31.4	2.75	5.50	Vitros 250/500/700/950 Total BUBC
	mg/dl	1.52	1.19	1.85	0.17	0.33	
	μmol/l	33.6	26.5	40.7	3.55	7.10	Diazo with Dichloroaniline (DCA)
	mg/dl	1.97	1.55	2.39	0.21	0.42	
	μmol/l	27.7	21.9	33.5	2.90	5.80	Diazo with Sulphanilic Acid
	mg/dl	1.62	1.28	1.96	0.17	0.34	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	μmol/l	27.1	21.4	32.8	2.85	5.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.59	1.25	1.93	0.17	0.34	
	μmol/l	22.9	18.1	27.7	2.40	4.80	Nitrobenzenediazonium salt
	mg/dl	1.34	1.06	1.62	0.14	0.28	
	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	28.3	22.4	34.2	2.95	5.90	Oxidation to Biliverdin/Vanadate
	mg/dl	1.66	1.31	2.01	0.18	0.35	
	μmol/l	33.9	26.8	41.0	3.55	7.10	Modified Jendrassik
	mg/dl	1.98	1.57	2.39	0.21	0.41	
Calcium	mmol/l	2.23	2.01	2.45	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.94	8.06	9.82	0.44	0.88	
	mmol/l	2.31	2.08	2.54	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	9.26	8.34	10.2	0.46	0.92	
	mmol/l	2.22	2.00	2.44	0.11	0.22	Ion selective electrode
	mg/dl	8.90	8.02	9.78	0.44	0.88	
	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	
	mmol/l	2.25	2.02	2.48	0.12	0.23	NM-BAPTA
	mg/dl	9.02	8.10	9.94	0.46	0.92	
Cholesterol	mmol/l	3.94	3.42	4.46	0.26	0.52	Ortho Vitros Microslide Systems
	mg/dl	152	132	172	10.00	20.00	
	mmol/l	4.14	3.60	4.68	0.27	0.54	Cholesterol Oxidase
	mg/dl	160	139	181	10.50	21.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	102	93.8	110	4.10	8.20	Colorimetric
	mmol/l	97.5	89.7	105	3.90	7.80	Ortho Vitros Microslide Systems
	mmol/l	95.7	88.1	103	3.80	7.60	ISE indirect
	mmol/l	98.7	90.8	107	3.95	7.90	ISE direct
Cholinesterase	U/l	5222	4178	6266	522.00	1044.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	201	165	237	18.00	36.00	Ortho Vitros Microslide Systems 37°C
	U/l	221	181	261	20.00	40.00	CK-NAC serum start (DGKC) 37°C
	U/l	138	113	163	12.50	25.00	CK-NAC serum start (DGKC) 30°C
	U/l	94	77	111	8.50	17.00	CK-NAC serum start (DGKC) 25°C
	U/l	218	179	257	19.50	39.00	CK-NAC substrate start (DGKC) 37°C
	U/l	136	112	160	12.00	24.00	CK-NAC substrate start (DGKC) 30°C
	U/l	93	76	110	8.50	17.00	CK-NAC substrate start (DGKC) 25°C
	U/l	218	179	257	19.50	39.00	CK-NAC (IFCC) 37°C
	U/l	136	112	160	12.00	24.00	CK-NAC (IFCC) 30°C
	U/l	93	76	110	8.50	17.00	CK-NAC (IFCC) 25°C
	U/l	222	182	262	20.00	40.00	Monothioglycerol 37°C
	U/l	139	114	164	12.50	25.00	Monothioglycerol 30°C
	U/l	94	77	111	8.50	17.00	Monothioglycerol 25°C
	U/l	208	171	245	18.50	37.00	Dithioerythritol 37°C
	U/l	130	107	153	11.50	23.00	Dithioerythritol 30°C
	U/l	88	73	103	7.50	15.00	Dithioerythritol 25°C
	U/l	200	164	236	18.00	36.00	Dithioerythritol (DTE) IFCC correlated 37°C
	U/l	125	103	147	11.00	22.00	Dithioerythritol (DTE) IFCC correlated 30°C
	U/l	85	70	100	7.50	15.00	Dithioerythritol (DTE) IFCC correlated 25°C
Copper	µmol/l	18.2	14.6	21.8	1.80	3.60	Atomic absorption
	µg/dl	116	92.9	139	11.55	23.10	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Copper	µmol/l	17.6	14.1	21.1	1.75	3.50	Colorimetric
	µg/dl	112	89.7	134	11.15	22.30	
Cortisol	nmol/l	533	400	666	66.50	133.00	Roche Cobas E411
	µg/dl	19.2	14.4	24.0	2.40	4.80	
Creatinine	µmol/l	119	94.9	143	12.05	24.10	Alkaline picrate with deproteinization
	mg/dl	1.34	1.07	1.61	0.14	0.27	
	µmol/l	120	96.0	144	12.00	24.00	Alkaline picrate no deproteinization
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	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	119	95.3	143	11.85	23.70	Creatinine PAP method
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	µmol/l	122	97.6	146	12.20	24.40	Roche Creatinine Plus
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	µmol/l	121	97.2	145	11.90	23.80	Jaffe rate blanked
	mg/dl	1.37	1.10	1.64	0.14	0.27	
	µmol/l	121	97.2	145	11.90	23.80	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.37	1.10	1.64	0.14	0.27	
	µmol/l	115	91.9	138	11.55	23.10	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.30	1.04	1.56	0.13	0.26	
	µmol/l	118	94.6	141	11.70	23.40	Vitros IDMS Traceable
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	118	94.3	142	11.85	23.70	IDMS traceable
	mg/dl	1.33	1.07	1.59	0.13	0.26	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
D-3-Hydroxybutyrate	mmol/l	0.29	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	1.95	1.56	2.34	0.20	0.39	Immunoturbidimetric
	ng/ml	1.52	1.22	1.82	0.15	0.30	
Folate	nmol/l	36.1	27.4	44.8	4.35	8.70	Roche Cobas E411
	ng/ml	15.9	12.1	19.7	1.90	3.80	
Free T4	pmol/l	20.0	15.0	25.0	2.50	5.00	Abbott Architect
	ng/dl	1.56	1.17	1.95	0.20	0.39	
	pg/ml	15.6	11.7	19.5	1.95	3.90	Abbott Architect
	pmol/l	19.5	14.6	24.4	2.45	4.90	Siemens Centaur XP/XPT/Classic
	ng/dl	1.52	1.14	1.90	0.19	0.38	
	pg/ml	15.2	11.4	19.0	1.90	3.80	Siemens Centaur XP/XPT/Classic
	pmol/l	24.9	18.7	31.1	3.10	6.20	Roche Elecsys
	ng/dl	1.94	1.46	2.42	0.24	0.48	
	pg/ml	19.4	14.6	24.2	2.40	4.80	Roche Elecsys
	pmol/l	24.9	18.6	31.2	3.15	6.30	Roche Modular E170
	ng/dl	1.94	1.45	2.43	0.25	0.49	
	pg/ml	19.4	14.5	24.3	2.45	4.90	Roche Modular E170
	pmol/l	24.9	18.7	31.1	3.10	6.20	Roche Cobas E411
	ng/dl	1.94	1.46	2.42	0.24	0.48	
	pg/ml	19.4	14.6	24.2	2.40	4.80	Roche Cobas E411
	pmol/l	24.8	18.6	31.0	3.10	6.20	Roche Cobas 6000/8000
	ng/dl	1.93	1.45	2.41	0.24	0.48	
	pg/ml	19.3	14.5	24.1	2.40	4.80	Roche Cobas 6000/8000
Gentamicin	μmol/l	8.62	6.90	10.3	0.86	1.72	Immunoturbidimetric
	μg/ml	4.12	3.30	4.94	0.41	0.82	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	46	39	53	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	36	31	41	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	24	32	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	61	52	70	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	41	35	47	3.00	6.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	32	28	36	2.00	4.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	25	22	28	1.50	3.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	52	44	60	4.00	8.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	41	35	47	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	32	27	37	2.50	5.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	19	15	23	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
	U/l	15	12	18	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	12	9	15	1.50	3.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	6.03	5.12	6.94	0.46	0.91	Ortho Vitros Microslide Systems
	mg/dl	109	92.3	126	8.35	16.70	
	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	6.29	5.35	7.23	0.47	0.94	Glucose oxidase
	mg/dl	113	96.4	130	8.30	16.60	
alpha-HBDH	U/l	234	185	283	24.50	49.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	177	140	214	18.50	37.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	132	105	159	13.50	27.00	Oxobutyrate < 10 mmol/l 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	1.37	1.16	1.58	0.11	0.21	Direct HDL PPD
	mg/dl	52.9	44.8	61.0	4.05	8.10	
	mmol/l	1.29	1.10	1.48	0.10	0.19	Direct HDL Immunoseparation
	mg/dl	49.8	42.5	57.1	3.65	7.30	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Vitros Magnetic HDL
	mg/dl	53.7	45.5	61.9	4.10	8.20	
	mmol/l	1.37	1.16	1.58	0.11	0.21	Direct HDL PEGME
	mg/dl	52.9	44.8	61.0	4.05	8.10	
	mmol/l	1.21	1.03	1.39	0.09	0.18	Direct Clearance Method
	mg/dl	46.7	39.8	53.6	3.45	6.90	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Vitros 5.1 FS microtip assay
	mg/dl	54.0	45.9	62.1	4.05	8.10	
Immunoglobulin A	mmol/l	1.39	1.18	1.60	0.11	0.21	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	53.7	45.5	61.9	4.10	8.20	
Immunoglobulin G	mmol/l	1.36	1.15	1.57	0.11	0.21	Direct HDL Roche 3rd generation
	mg/dl	52.5	44.4	60.6	4.05	8.10	
Immunoglobulin M	mmol/l	1.34	1.14	1.54	0.10	0.20	HDL - Ultra
	mg/dl	51.7	44.0	59.4	3.85	7.70	
Iron	g/l	1.42	1.07	1.77	0.18	0.35	Immunoturbidimetric
	mg/dl	142	107	177	17.50	35.00	
Iron	g/l	6.61	5.42	7.80	0.60	1.19	Immunoturbidimetric
	mg/dl	661	542	780	59.50	119.00	
Iron	g/l	0.77	0.61	0.92	0.08	0.15	Immunoturbidimetric
	mg/dl	76.5	61.2	91.8	7.65	15.30	
Iron	μmol/l	17.1	14.0	20.2	1.55	3.10	Colorimetric with ppt.
	μg/dl	95.6	78.3	113	8.65	17.30	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	µmol/l	17.0	13.9	20.1	1.55	3.10	Colorimetric without ppt.
	µg/dl	95.0	77.7	112	8.65	17.30	
	µmol/l	18.0	14.7	21.3	1.65	3.30	Ortho Vitros Microslide Systems
	µg/dl	101	82.2	120	9.40	18.80	
Lactate	mmol/l	1.46	1.20	1.72	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	13.2	10.8	15.6	1.20	2.40	
	mmol/l	1.35	1.11	1.59	0.12	0.24	Ortho Vitros Microslide Systems
	mg/dl	12.2	10.0	14.4	1.10	2.20	
	mmol/l	1.64	1.34	1.94	0.15	0.30	Enzymatic Electrode
	mg/dl	14.8	12.1	17.5	1.35	2.70	
	mmol/l	1.37	1.12	1.62	0.13	0.25	UV LDH
	mg/dl	12.3	10.1	14.5	1.10	2.20	
LAP	U/l	16	14	18	1.00	2.00	NAGEL 37°C
LD (LDH)	U/l	593	504	682	44.50	89.00	Ortho Vitros Microslide Systems 37°C
	U/l	193	164	222	14.50	29.00	L->P 37°C
	U/l	139	118	160	10.50	21.00	L->P 30°C
	U/l	98	83	113	7.50	15.00	L->P 25°C
	U/l	442	376	508	33.00	66.00	P->L Scandinavian & Dutch 37°C
	U/l	319	271	367	24.00	48.00	P->L Scandinavian & Dutch 30°C
	U/l	224	191	257	16.50	33.00	P->L Scandinavian & Dutch 25°C
	U/l	396	337	455	29.50	59.00	P->L German methods 37°C
	U/l	286	243	329	21.50	43.00	P->L German methods 30°C
	U/l	201	171	231	15.00	30.00	P->L German methods 25°C
	U/l	403	343	463	30.00	60.00	P->L SFBC 37°C
	U/l	291	248	334	21.50	43.00	P->L SFBC 30°C
	U/l	204	174	234	15.00	30.00	P->L SFBC 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	200	170	230	15.00	30.00	L->P IFCC 37°C
	U/l	144	123	165	10.50	21.00	L->P IFCC 30°C
	U/l	101	86	116	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	38	31	45	3.50	7.00	Other Colorimetric 37°C
	U/l	265	213	317	26.00	52.00	Ortho Vitros Microslide Systems 37°C
	U/l	34	27	41	3.50	7.00	Roche Colorimetric 37°C
	U/l	44	35	53	4.50	9.00	Randox Colorimetric 37°C
	U/l	202	162	242	20.00	40.00	Randox Turbidimetric with colipase 37°C
Lithium	mmol/l	1.23	1.08	1.38	0.08	0.15	Ortho Vitros Microslide Systems
	mg/dl	0.854	0.750	0.958	0.05	0.10	
	mmol/l	1.00	0.88	1.12	0.06	0.12	Ion selective electrode
	mg/dl	0.694	0.613	0.775	0.04	0.08	
	mmol/l	1.03	0.91	1.15	0.06	0.12	Spectrophotometric
	mg/dl	0.715	0.631	0.799	0.04	0.08	
	mmol/l	0.94	0.83	1.06	0.06	0.11	Randox Colorimetric
	mg/dl	0.655	0.576	0.734	0.04	0.08	
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Arsenazo III
	mg/dl	2.21	1.94	2.48	0.14	0.27	
	mmol/l	0.94	0.82	1.05	0.06	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.27	2.00	2.54	0.14	0.27	
	mmol/l	0.94	0.83	1.05	0.06	0.11	Calmagite
	mg/dl	2.28	2.00	2.56	0.14	0.28	
	mmol/l	0.94	0.83	1.05	0.06	0.11	Xylidyl Blue
	mg/dl	2.28	2.00	2.56	0.14	0.28	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	0.90	0.79	1.01	0.05	0.11	Methylthymol blue
	mg/dl	2.18	1.92	2.44	0.13	0.26	
	mmol/l	0.93	0.81	1.04	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.25	1.98	2.52	0.14	0.27	
	mmol/l	0.90	0.79	1.01	0.05	0.11	Enzymatic
	mg/dl	2.19	1.93	2.45	0.13	0.26	
NEFA	mmol/l	3.10	2.64	3.56	0.23	0.46	Colorimetric
Osmolality	mOsm/kg	293	234	352	29.50	59.00	Calculated
	mOsm/kg	305	244	366	30.50	61.00	Freezing point depression
Paracetamol	mmol/l	0.08	0.06	0.10	0.01	0.02	Colorimetric
	mg/l	12.0	9.53	14.5	1.24	2.47	
Phosphate Inorganic	mmol/l	1.41	1.13	1.69	0.14	0.28	Ortho Vitros Microslide Systems
	mg/dl	4.37	3.50	5.24	0.44	0.87	
	mmol/l	1.33	1.06	1.60	0.14	0.27	Phosphomolybdate enzymatic
	mg/dl	4.12	3.29	4.95	0.42	0.83	
	mmol/l	1.33	1.06	1.60	0.14	0.27	Phosphomolybdate UV
	mg/dl	4.12	3.29	4.95	0.42	0.83	
Potassium	mmol/l	4.12	3.79	4.45	0.17	0.33	Ortho Vitros Microslide Systems
	mmol/l	4.12	3.79	4.45	0.17	0.33	Enzymatic
	mmol/l	4.00	3.68	4.32	0.16	0.32	Flame photometry
	mmol/l	4.02	3.69	4.35	0.17	0.33	ISE method - direct
	mmol/l	4.09	3.77	4.41	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.8	47.0	70.6	5.90	11.80	Ortho Vitros Microslide Systems
	g/dl	5.88	4.70	7.06	0.59	1.18	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Protein Total	g/l	58.6	46.9	70.3	5.85	11.70	Biuret reaction end point
	g/dl	5.86	4.69	7.03	0.59	1.17	
	g/l	58.3	46.7	69.9	5.80	11.60	Biuret reaction kinetic
	g/dl	5.83	4.67	6.99	0.58	1.16	
PSA Total	ng/ml =	18.1	13.6	22.6	2.25	4.50	Roche Elecsys Modular E170
	ng/ml =	15.3	11.5	19.1	1.90	3.80	bioMerieux VIDAS TPSA
	ng/ml =	12.4	9.28	15.5	1.56	3.12	Siemens Centaur XP/XPT/Classic
	ng/ml =	14.3	10.7	17.9	1.80	3.60	Abbott Architect
	ng/ml =	17.4	13.0	21.8	2.20	4.40	Cobas E411
	ng/ml =	17.3	13.0	21.6	2.15	4.30	Roche Cobas 6000/8000
Salicylate	mmol/l	0.41	0.33	0.49	0.04	0.08	Enzymatic
	mg/dl	5.60	4.49	6.71	0.56	1.11	
Sodium	mmol/l	144	136	152	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	145	138	152	3.50	7.00	Enzymatic
	mmol/l	140	133	147	3.50	7.00	Flame photometry
	mmol/l	141	134	148	3.50	7.00	ISE method - direct
	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
Theophylline	μmol/l	24.8	19.8	29.8	2.50	5.00	Immunoturbidimetric
	μg/ml	4.47	3.57	5.37	0.45	0.90	
Thyroid Stimulating Hormone	μU/ml =	1.17	0.93	1.41	0.12	0.24	Abbott Architect
	μU/ml =	1.49	1.19	1.79	0.15	0.30	bioMerieux VIDAS TSH
	μU/ml =	1.28	1.03	1.53	0.13	0.25	Vitros Eci
	μU/ml =	1.47	1.17	1.77	0.15	0.30	Roche Elecsys
	μU/ml =	1.50	1.20	1.80	0.15	0.30	Roche Modular E170
	μU/ml =	1.47	1.18	1.76	0.15	0.29	Roche Cobas E411

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Thyroid Stimulating Hormone	µU/ml =	1.48	1.18	1.78	0.15	0.30	Roche Cobas 6000/8000
	µU/ml =	1.25	1.00	1.50	0.13	0.25	Siemens Centaur XP/XPT/Classic TSH3-Ultra
TIBC	µmol/l	51.7	40.8	62.6	5.45	10.90	Ortho Vitros Microslide Systems
	µg/dl	289	228	350	30.50	61.00	
	µmol/l	43.2	34.2	52.2	4.50	9.00	Removal of excess free iron
	µg/dl	241	191	291	25.00	50.00	
	µmol/l	45.2	35.7	54.7	4.75	9.50	FE+UIBC(saturation with iron)
	µg/dl	253	200	306	26.50	53.00	
	µmol/l	48.3	38.2	58.4	5.05	10.10	Direct Colorimetric
	µg/dl	270	214	326	28.00	56.00	
Tobramycin	µmol/l	53.9	42.6	65.2	5.65	11.30	Randox Direct
	µg/dl	301	238	364	31.50	63.00	
Tobramycin	µmol/l	5.51	4.41	6.61	0.55	1.10	Immunoturbidimetric
	µg/ml	2.58	2.06	3.10	0.26	0.52	
Total T3	nmol/l	2.43	1.82	3.04	0.31	0.61	Abbott Architect
	ng/ml	1.58	1.18	1.98	0.20	0.40	
	ng/dl	158	118	198	20.00	40.00	Abbott Architect
	nmol/l	2.91	2.18	3.64	0.37	0.73	Siemens Centaur XP/XPT/Classic
	ng/ml	1.89	1.42	2.36	0.24	0.47	
	ng/dl	189	142	236	23.50	47.00	Siemens Centaur XP/XPT/Classic
	nmol/l	2.59	1.95	3.23	0.32	0.64	BioMerieux Vidas
	ng/ml	1.69	1.27	2.11	0.21	0.42	
	ng/dl	169	127	211	21.00	42.00	BioMerieux Vidas
	nmol/l	2.71	2.04	3.38	0.34	0.67	Roche Cobas E411
Total T3	ng/ml	1.76	1.33	2.19	0.22	0.43	
	ng/dl	176	133	219	21.50	43.00	Roche Cobas E411

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Total T4	nmol/l	101	75.8	126	12.60	25.20	Abbott Architect
	µg/dl	7.88	5.91	9.85	0.99	1.97	
	ng/ml	78.8	59.1	98.5	9.85	19.70	Abbott Architect
	nmol/l	101	75.6	126	12.70	25.40	Siemens Centaur XP/XPT/Classic
	µg/dl	7.88	5.90	9.86	0.99	1.98	
	ng/ml	78.8	59.0	98.6	9.90	19.80	Siemens Centaur XP/XPT/Classic
	nmol/l	88.8	66.6	111	11.10	22.20	BioMerieux Vidas
	µg/dl	6.93	5.19	8.67	0.87	1.74	
	ng/ml	69.3	51.9	86.7	8.70	17.40	BioMerieux Vidas
	nmol/l	83.2	62.4	104	10.40	20.80	Siemens Immulite 2000/2500
	µg/dl	6.49	4.87	8.11	0.81	1.62	
	ng/ml	64.9	48.7	81.1	8.10	16.20	Siemens Immulite 2000/2500
	nmol/l	99.8	74.9	125	12.45	24.90	Roche Modular E170
	µg/dl	7.78	5.84	9.72	0.97	1.94	
	ng/ml	77.8	58.4	97.2	9.70	19.40	Roche Modular E170
Transferrin	g/l	1.83	1.46	2.20	0.19	0.37	Immunoturbidimetric
	mg/dl	183	146	220	18.50	37.00	
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	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	93.8	78.9	109	7.45	14.90	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	97.4	81.4	113	8.00	16.00	
	mmol/l	1.12	0.94	1.30	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	99.1	83.3	115	7.90	15.80	
	mmol/l	1.05	0.89	1.22	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	92.9	78.3	108	7.30	14.60	
UIBC	mmol/l	1.20	1.01	1.39	0.10	0.19	Ortho Vitros Microslide Systems
	mg/dl	106	89.4	123	8.30	16.60	
	μmol/l	31.3	25.7	36.9	2.80	5.60	TIBC - FE
	μg/dl	175	144	206	15.50	31.00	
	mmol/l	0.33	0.29	0.37	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.53	4.80	6.26	0.37	0.73	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.73	4.99	6.47	0.37	0.74	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.70	4.96	6.44	0.37	0.74	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.68	4.94	6.42	0.37	0.74	
	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	0.34	0.30	0.39	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.73	4.99	6.47	0.37	0.74	
Urea	mmol/l	6.52	5.54	7.50	0.49	0.98	Ortho Vitros Microslide Systems
	mg/dl	39.2	33.3	45.1	2.95	5.90	
	mmol/l	7.10	6.04	8.16	0.53	1.06	Urease end point
	mg/dl	42.7	36.3	49.1	3.20	6.40	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	6.95	5.91	7.99	0.52	1.04	Urease kinetic
	mg/dl	41.8	35.5	48.1	3.15	6.30	
	mmol/l	6.75	5.74	7.76	0.51	1.01	Urease hypochlorite
	mg/dl	40.6	34.5	46.7	3.05	6.10	
	mmol/l	6.64	5.64	7.64	0.50	1.00	Urease Berthelot
	mg/dl	39.9	33.9	45.9	3.00	6.00	
Vitamin B12	mmol/l	6.95	5.91	7.99	0.52	1.04	BUN
	mg/dl	19.5	16.6	22.4	1.45	2.90	
Zinc	pmol/l	545	436	654	54.50	109.00	Roche Cobas E411
	pg/ml	738	591	885	73.50	147.00	
Zinc	μmol/l	34.0	27.2	40.8	3.40	6.80	Atomic absorption
	μg/dl	222	178	266	22.00	44.00	
	μmol/l	31.8	25.4	38.2	3.20	6.40	Colorimetric with deproteinisation
	μg/dl	208	166	250	21.00	42.00	

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.8	35.5	48.1	3.15	6.30	Bromocresol Green
	g/dl	4.18	3.55	4.81	0.32	0.63	
Alkaline Phosphatase	U/l	260	221	299	19.50	39.00	Agappe - DGKC-SCE 37°C
	U/l	203	172	234	15.50	31.00	Agappe - DGKC-SCE 30°C
	U/l	166	141	191	12.50	25.00	Agappe - DGKC-SCE 25°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Calcium	mmol/l	2.25	2.02	2.48	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.02	8.10	9.94	0.46	0.92	
	mmol/l	2.31	2.08	2.54	0.12	0.23	Arsenazo III
	mg/dl	9.26	8.34	10.2	0.46	0.92	
Cholesterol	mmol/l	4.08	3.55	4.61	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	137	177	10.00	20.00	
CK Total	U/l	208	171	245	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	130	107	153	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	88	73	103	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	123	98.2	148	12.40	24.80	Alkaline picrate with deproteinization
	mg/dl	1.39	1.11	1.67	0.14	0.28	

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	113	90.7	135	11.15	22.30	Alkaline picrate no deproteinization
	mg/dl	1.28	1.02	1.54	0.13	0.26	
	μmol/l	111	88.4	134	11.30	22.60	Randox Enzymatic UV method
	mg/dl	1.25	0.999	1.50	0.13	0.25	
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	6.43	5.46	7.40	0.49	0.97	Glucose oxidase
	mg/dl	116	98.4	134	8.80	17.60	
HDL - Cholesterol	mmol/l	1.27	1.08	1.46	0.10	0.19	Direct HDL PPD
	mg/dl	49.0	41.7	56.3	3.65	7.30	
	mmol/l	1.38	1.17	1.59	0.11	0.21	Direct Clearance Method
	mg/dl	53.3	45.2	61.4	4.05	8.10	
Iron	μmol/l	16.4	13.5	19.3	1.45	2.90	Colorimetric without ppt.
	μg/dl	91.7	75.5	108	8.10	16.20	
LD (LDH)	U/l	396	336	456	30.00	60.00	P->L German methods 37°C
	U/l	286	243	329	21.50	43.00	P->L German methods 30°C
	U/l	201	170	232	15.50	31.00	P->L German methods 25°C
	U/l	410	349	471	30.50	61.00	P->L SFBC 37°C
	U/l	296	252	340	22.00	44.00	P->L SFBC 30°C
	U/l	208	177	239	15.50	31.00	P->L SFBC 25°C
	U/l	202	172	232	15.00	30.00	L->P IFCC 37°C
	U/l	146	124	168	11.00	22.00	L->P IFCC 30°C
	U/l	102	87	117	7.50	15.00	L->P IFCC 25°C
Magnesium	mmol/l	0.95	0.83	1.06	0.06	0.11	Xylidyl Blue
	mg/dl	2.30	2.02	2.58	0.14	0.28	

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Phosphate Inorganic	mmol/l	1.53	1.23	1.83	0.15	0.30	Phosphomolybdate UV
	mg/dl	4.74	3.81	5.67	0.47	0.93	
Protein Total	g/l	59.9	47.9	71.9	6.00	12.00	Biuret reaction end point
	g/dl	5.99	4.79	7.19	0.60	1.20	
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	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.96	5.19	6.73	0.39	0.77	
	mmol/l	0.35	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	0.34	0.30	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.71	4.97	6.45	0.37	0.74	
	mmol/l	7.19	6.11	8.27	0.54	1.08	Urease kinetic
	mg/dl	43.2	36.7	49.7	3.25	6.50	
Urea	mmol/l	7.31	6.22	8.40	0.55	1.09	Urease hypochlorite
	mg/dl	43.9	37.4	50.4	3.25	6.50	
	mmol/l	7.19	6.11	8.27	0.54	1.08	BUN
	mg/dl	20.2	17.2	23.2	1.50	3.00	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	43.7	37.1	50.3	3.30	6.60	Bromocresol Green
	g/dl	4.37	3.71	5.03	0.33	0.66	
ALT (GPT)	U/l	41	33	49	4.00	8.00	Tris buffer without P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30°C
	U/l	23	19	27	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	14	22	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	25.1	19.8	30.4	2.65	5.30	Diazo with Dichloroaniline (DCA)
	mg/dl	1.47	1.16	1.78	0.16	0.31	
Cholesterol	mmol/l	4.35	3.78	4.92	0.29	0.57	Cholesterol Oxidase
	mg/dl	168	146	190	11.00	22.00	
Glucose	mmol/l	6.59	5.60	7.58	0.50	0.99	Glucose oxidase
	mg/dl	119	101	137	9.00	18.00	
HDL - Cholesterol	mmol/l	1.33	1.13	1.53	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	51.3	43.6	59.0	3.85	7.70	
Protein Total	g/l	60.7	48.5	72.9	6.10	12.20	Biuret reaction end point
	g/dl	6.07	4.85	7.29	0.61	1.22	
Triglycerides	mmol/l	1.07	0.90	1.24	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.8	110	7.45	14.90	
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	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

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

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.0	36.5	49.5	3.25	6.50	Bromocresol Green
	g/dl	4.30	3.65	4.95	0.33	0.65	
	g/l	43.9	37.3	50.5	3.30	6.60	Bromocresol Purple
	g/dl	4.39	3.73	5.05	0.33	0.66	
	g/l	40.6	34.5	46.7	3.05	6.10	Turbidimetric Assays
	g/dl	4.06	3.45	4.67	0.31	0.61	
Alkaline Phosphatase	U/l	137	116	158	10.50	21.00	Roche Integra AMP buffer 37°C
	U/l	107	90	124	8.50	17.00	Roche Integra AMP buffer 30°C
	U/l	88	74	102	7.00	14.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	65	55	75	5.00	10.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	86	73	99	6.50	13.00	Randox liquid stable pNPG7 37°C
	U/l	88	75	101	6.50	13.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	87	74	100	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	88	75	101	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	86	73	99	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Bile Acids	μmol/l	24.0	19.2	28.8	2.40	4.80	Enzymatic Colorimetric
Bicarbonate	mmol/l	14.4	11.4	17.4	1.50	3.00	Colorimetric
	mmol/l	14.3	11.4	17.2	1.45	2.90	Enzymatic
Bilirubin Direct	μmol/l	17.8	14.0	21.6	1.90	3.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.04	0.819	1.26	0.11	0.22	
	μmol/l	18.0	14.2	21.8	1.90	3.80	Diazo with Sulphanilic Acid
	mg/dl	1.05	0.831	1.27	0.11	0.22	
	μmol/l	18.6	14.7	22.5	1.95	3.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.09	0.860	1.32	0.12	0.23	
Bilirubin Total	μmol/l	25.0	19.8	30.2	2.60	5.20	Diazo with Sulphanilic Acid
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	μmol/l	25.3	20.0	30.6	2.65	5.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.48	1.17	1.79	0.16	0.31	
	μmol/l	25.1	19.8	30.4	2.65	5.30	Diazonium ion
	mg/dl	1.47	1.16	1.78	0.16	0.31	
Calcium	mmol/l	2.25	2.02	2.48	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.02	8.10	9.94	0.46	0.92	
	mmol/l	2.25	2.03	2.47	0.11	0.22	NM-BAPTA
	mg/dl	9.02	8.14	9.90	0.44	0.88	
Cholesterol	mmol/l	4.14	3.60	4.68	0.27	0.54	Cholesterol Oxidase
	mg/dl	160	139	181	10.50	21.00	
Chloride	mmol/l	91.8	84.4	99.2	3.70	7.40	ISE indirect
Cholinesterase	U/l	5150	4120	6180	515.00	1030.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	237	194	280	21.50	43.00	CK-NAC substrate start (DGKC) 37°C
	U/l	148	121	175	13.50	27.00	CK-NAC substrate start (DGKC) 30°C
	U/l	101	82	120	9.50	19.00	CK-NAC substrate start (DGKC) 25°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
CK Total	U/l	225	185	265	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	141	116	166	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	96	79	113	8.50	17.00	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	122	97.4	147	12.30	24.60	Randox Enzymatic UV method
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	μmol/l	122	97.8	146	12.10	24.20	Roche Creatinine Plus
	mg/dl	1.38	1.11	1.65	0.14	0.27	
	μmol/l	122	97.6	146	12.20	24.40	Jaffe rate blanked
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	μmol/l	121	96.5	146	12.25	24.50	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	μmol/l	119	95.1	143	11.95	23.90	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.34	1.07	1.61	0.14	0.27	
D-3-Hydroxybutyrate	mmol/l	0.27	0.23	0.31	0.02	0.04	Tris buffer 100mmol pH 8.5
Free T4	pmol/l	24.8	18.6	31.0	3.10	6.20	Roche Cobas 6000/8000
	ng/dl	1.93	1.45	2.41	0.24	0.48	
	pg/ml	19.3	14.5	24.1	2.40	4.80	Roche Cobas 6000/8000
gamma-GT	U/l	44	38	50	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	30	40	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	23	31	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	50	43	57	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	34	44	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	6.17	5.25	7.09	0.46	0.92	Hexokinase
	mg/dl	111	94.6	127	8.20	16.40	
	mmol/l	6.16	5.24	7.08	0.46	0.92	Glucose oxidase
	mg/dl	111	94.4	128	8.30	16.60	
HDL - Cholesterol	mmol/l	1.29	1.09	1.49	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	49.8	42.1	57.5	3.85	7.70	
	mmol/l	1.36	1.16	1.56	0.10	0.20	Direct HDL PEGME
	mg/dl	52.5	44.8	60.2	3.85	7.70	
Iron	mmol/l	1.36	1.16	1.56	0.10	0.20	Direct HDL Roche 3rd generation
	mg/dl	52.5	44.8	60.2	3.85	7.70	
	µmol/l	17.0	13.9	20.1	1.55	3.10	Colorimetric with ppt.
	µg/dl	95.0	77.7	112	8.65	17.30	
Lactate	µmol/l	17.1	14.0	20.2	1.55	3.10	Colorimetric without ppt.
	µg/dl	95.6	78.3	113	8.65	17.30	
	mmol/l	1.46	1.20	1.72	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	13.2	10.8	15.6	1.20	2.40	
LD (LDH)	U/l	394	335	453	29.50	59.00	P->L German methods 37°C
	U/l	284	242	326	21.00	42.00	P->L German methods 30°C
	U/l	200	170	230	15.00	30.00	P->L German methods 25°C
	U/l	198	168	228	15.00	30.00	L->P IFCC 37°C
	U/l	143	121	165	11.00	22.00	L->P IFCC 30°C
	U/l	100	85	115	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	33	27	39	3.00	6.00	Roche Colorimetric 37°C
	U/l	32	26	38	3.00	6.00	Roche Turbidimetric with colipase 37°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Lithium	mmol/l	1.05	0.92	1.18	0.06	0.13	Spectrophotometric
	mg/dl	0.729	0.640	0.818	0.04	0.09	
Magnesium	mmol/l	0.93	0.82	1.05	0.06	0.11	Xylidyl Blue
	mg/dl	2.27	2.00	2.54	0.14	0.27	
	mmol/l	0.93	0.82	1.04	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.26	1.99	2.53	0.14	0.27	
Osmolality	mOsm/kg	289	231	347	29.00	58.00	Calculated
Phosphate Inorganic	mmol/l	1.32	1.06	1.58	0.13	0.26	Phosphomolybdate enzymatic
	mg/dl	4.09	3.29	4.89	0.40	0.80	
	mmol/l	1.31	1.05	1.57	0.13	0.26	Phosphomolybdate UV
	mg/dl	4.06	3.26	4.86	0.40	0.80	
Potassium	mmol/l	4.12	3.79	4.45	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.3	46.6	70.0	5.85	11.70	Biuret reaction end point
	g/dl	5.83	4.66	7.00	0.59	1.17	
	g/l	58.3	46.7	69.9	5.80	11.60	Biuret reaction kinetic
	g/dl	5.83	4.67	6.99	0.58	1.16	
PSA Total	ng/ml =	17.3	13.0	21.6	2.15	4.30	Roche Cobas 6000/8000
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	μU/ml =	1.48	1.18	1.78	0.15	0.30	Roche Cobas 6000/8000
TIBC	μmol/l	44.0	34.8	53.2	4.60	9.20	FE+UIBC(saturation with iron)
	μg/dl	246	195	297	25.50	51.00	
Triglycerides	mmol/l	1.07	0.90	1.25	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.2	110	7.75	15.50	
	mmol/l	1.08	0.91	1.26	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	95.6	80.1	111	7.75	15.50	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	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	
Uric Acid (Urate)	mmol/l	0.33	0.28	0.37	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.49	4.77	6.21	0.36	0.72	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.59	4.87	6.31	0.36	0.72	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.61	4.87	6.35	0.37	0.74	
Urea	mmol/l	6.92	5.88	7.96	0.52	1.04	Urease kinetic
	mg/dl	41.6	35.3	47.9	3.15	6.30	
	mmol/l	6.92	5.88	7.96	0.52	1.04	BUN
	mg/dl	19.4	16.5	22.3	1.45	2.90	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.4	36.9	49.9	3.25	6.50	Bromocresol Green
	g/dl	4.34	3.69	4.99	0.33	0.65	
Alkaline Phosphatase	U/l	139	118	160	10.50	21.00	Roche Integra AMP buffer 37°C
	U/l	108	92	124	8.00	16.00	Roche Integra AMP buffer 30°C
	U/l	89	75	103	7.00	14.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	17.3	13.7	20.9	1.80	3.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.01	0.801	1.22	0.10	0.21	
	µmol/l	17.8	14.1	21.5	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.04	0.825	1.26	0.11	0.22	
Bilirubin Total	µmol/l	25.7	20.3	31.1	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	µmol/l	24.9	19.7	30.1	2.60	5.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.46	1.15	1.77	0.16	0.31	
	µmol/l	25.8	20.4	31.2	2.70	5.40	Diazonium ion
	mg/dl	1.51	1.19	1.83	0.16	0.32	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.23	2.01	2.45	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.94	8.06	9.82	0.44	0.88	
	mmol/l	2.30	2.07	2.53	0.12	0.23	Arsenazo III
	mg/dl	9.22	8.30	10.1	0.46	0.92	
	mmol/l	2.25	2.02	2.48	0.12	0.23	NM-BAPTA
	mg/dl	9.02	8.10	9.94	0.46	0.92	
Cholesterol	mmol/l	4.24	3.69	4.79	0.28	0.55	Cholesterol Oxidase
	mg/dl	164	142	186	11.00	22.00	
Chloride	mmol/l	98.4	90.5	106	3.95	7.90	ISE indirect
CK Total	U/l	218	179	257	19.50	39.00	CK-NAC (IFCC) 37°C
	U/l	136	112	160	12.00	24.00	CK-NAC (IFCC) 30°C
	U/l	93	76	110	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	114	91.2	137	11.40	22.80	Alkaline picrate no deproteinization
	mg/dl	1.29	1.03	1.55	0.13	0.26	
	µmol/l	118	94.5	142	11.75	23.50	Roche Creatinine Plus
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	110	87.9	132	11.05	22.10	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.24	0.993	1.49	0.12	0.25	
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	26	34	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.33	5.38	7.28	0.48	0.95	Hexokinase
	mg/dl	114	96.9	131	8.55	17.10	
	mmol/l	6.29	5.34	7.24	0.48	0.95	Glucose oxidase
	mg/dl	113	96.2	130	8.40	16.80	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.34	1.14	1.54	0.10	0.20	Direct HDL Roche 3rd generation
	mg/dl	51.7	44.0	59.4	3.85	7.70	
LD (LDH)	U/l	208	177	239	15.50	31.00	L->P IFCC 37°C
	U/l	150	128	172	11.00	22.00	L->P IFCC 30°C
	U/l	105	90	120	7.50	15.00	L->P IFCC 25°C
Magnesium	mmol/l	0.93	0.82	1.04	0.06	0.11	Chlorophosphonazo III
	mg/dl	2.26	1.99	2.53	0.14	0.27	
Phosphate Inorganic	mmol/l	1.35	1.08	1.62	0.14	0.27	Phosphomolybdate UV
	mg/dl	4.19	3.35	5.03	0.42	0.84	
Potassium	mmol/l	4.03	3.70	4.36	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.1	46.5	69.7	5.80	11.60	Biuret reaction end point
	g/dl	5.81	4.65	6.97	0.58	1.16	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
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	1.08	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	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.80	5.04	6.56	0.38	0.76	
	mmol/l	0.33	0.28	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.48	4.75	6.21	0.37	0.73	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.73	4.99	6.47	0.37	0.74	
Urea	mmol/l	6.72	5.71	7.73	0.51	1.01	Urease kinetic
	mg/dl	40.4	34.3	46.5	3.05	6.10	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	6.72	5.71	7.73	0.51	1.01	BUN
	mg/dl	18.9	16.1	21.7	1.40	2.80	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.0	36.6	49.4	3.20	6.40	Bromocresol Green
	g/dl	4.30	3.66	4.94	0.32	0.64	
	g/l	43.9	37.3	50.5	3.30	6.60	Bromocresol Purple
	g/dl	4.39	3.73	5.05	0.33	0.66	
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	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	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 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	13.7	10.9	16.5	1.40	2.80	Enzymatic
Bilirubin Direct	µmol/l	18.2	14.4	22.0	1.90	3.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.06	0.842	1.28	0.11	0.22	
	µmol/l	18.0	14.2	21.8	1.90	3.80	Diazo with Sulphanilic Acid
	mg/dl	1.05	0.831	1.27	0.11	0.22	
	µmol/l	17.9	14.1	21.7	1.90	3.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.05	0.825	1.28	0.11	0.23	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	μmol/l	24.9	19.7	30.1	2.60	5.20	Diazo with Sulphanilic Acid
	mg/dl	1.46	1.15	1.77	0.16	0.31	
	μmol/l	25.1	19.8	30.4	2.65	5.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.47	1.16	1.78	0.16	0.31	
	μmol/l	25.4	20.1	30.7	2.65	5.30	Diazonium ion
	mg/dl	1.49	1.18	1.80	0.16	0.31	
Calcium	mmol/l	2.27	2.04	2.50	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.10	8.18	10.0	0.46	0.92	
	mmol/l	2.26	2.04	2.48	0.11	0.22	Arsenazo III
	mg/dl	9.06	8.18	9.94	0.44	0.88	
	mmol/l	2.28	2.05	2.51	0.12	0.23	NM-BAPTA
	mg/dl	9.14	8.22	10.1	0.46	0.92	
Cholesterol	mmol/l	4.15	3.61	4.69	0.27	0.54	Cholesterol Oxidase
	mg/dl	160	139	181	10.50	21.00	
Chloride	mmol/l	92.4	85.0	99.8	3.70	7.40	ISE indirect
Cholinesterase	U/l	5098	4078	6118	510.00	1020.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	226	186	266	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	141	116	166	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	96	79	113	8.50	17.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	123	98.1	148	12.45	24.90	Alkaline picrate no deproteinization
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	μmol/l	123	98.4	148	12.30	24.60	Randox Enzymatic UV method
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	μmol/l	123	98.4	148	12.30	24.60	Roche Creatinine Plus
	mg/dl	1.39	1.11	1.67	0.14	0.28	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	129	103	155	13.00	26.00	Jaffe rate blanked
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	μmol/l	120	96.1	144	11.95	23.90	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.36	1.09	1.63	0.14	0.27	
gamma-GT	U/l	46	39	53	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	36	31	41	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	24	32	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	26	34	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.21	5.28	7.14	0.47	0.93	Hexokinase
	mg/dl	112	95.1	129	8.45	16.90	
	mmol/l	6.22	5.29	7.15	0.47	0.93	Glucose oxidase
	mg/dl	112	95.3	129	8.35	16.70	
HDL - Cholesterol	mmol/l	1.33	1.13	1.53	0.10	0.20	Direct HDL Roche 3rd generation
	mg/dl	51.3	43.6	59.0	3.85	7.70	
Iron	μmol/l	17.1	14.0	20.2	1.55	3.10	Colorimetric without ppt.
	μg/dl	95.6	78.3	113	8.65	17.30	
Lactate	mmol/l	1.46	1.19	1.73	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.2	10.7	15.7	1.25	2.50	
LD (LDH)	U/l	398	338	458	30.00	60.00	P->L German methods 37°C
	U/l	287	244	330	21.50	43.00	P->L German methods 30°C
	U/l	202	171	233	15.50	31.00	P->L German methods 25°C
	U/l	198	168	228	15.00	30.00	L->P IFCC 37°C
	U/l	143	121	165	11.00	22.00	L->P IFCC 30°C
	U/l	100	85	115	7.50	15.00	L->P IFCC 25°C

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lipase	U/l	33	27	39	3.00	6.00	Roche Colorimetric 37°C
Magnesium	mmol/l	0.93	0.82	1.05	0.06	0.11	Xylidyl Blue
	mg/dl	2.27	2.00	2.54	0.14	0.27	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.23	1.96	2.50	0.14	0.27	
Phosphate Inorganic	mmol/l	1.33	1.06	1.60	0.14	0.27	Phosphomolybdate UV
	mg/dl	4.12	3.29	4.95	0.42	0.83	
Potassium	mmol/l	4.16	3.83	4.49	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.7	47.0	70.4	5.85	11.70	Biuret reaction end point
	g/dl	5.87	4.70	7.04	0.59	1.17	
	g/l	57.2	45.7	68.7	5.75	11.50	Biuret reaction kinetic
	g/dl	5.72	4.57	6.87	0.58	1.15	
Sodium	mmol/l	144	137	151	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.3	110	7.70	15.40	
	mmol/l	1.03	0.86	1.20	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	91.2	76.2	106	7.50	15.00	
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	0.29	0.38	0.02	0.04	Uricase peroxidase no 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 with ascorbate oxidase @ 546nm
	mg/dl	5.66	4.92	6.40	0.37	0.74	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.06	6.00	8.12	0.53	1.06	Urease kinetic
	mg/dl	42.4	36.1	48.7	3.15	6.30	
	mmol/l	7.06	6.00	8.12	0.53	1.06	BUN
	mg/dl	19.8	16.8	22.8	1.50	3.00	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
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	133	113	153	10.00	20.00	Roche Integra AMP buffer 37°C
	U/l	104	88	120	8.00	16.00	Roche Integra AMP buffer 30°C
	U/l	85	72	98	6.50	13.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	37	29	45	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	21	16	26	2.50	5.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	64	55	73	4.50	9.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.6	11.6	17.6	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	18.0	14.2	21.8	1.90	3.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.05	0.831	1.27	0.11	0.22	
Bilirubin Total	µmol/l	24.1	19.1	29.1	2.50	5.00	Diazo with Sulphanilic Acid
	mg/dl	1.41	1.12	1.70	0.15	0.29	
	µmol/l	24.2	19.1	29.3	2.55	5.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.42	1.12	1.72	0.15	0.30	
	µmol/l	23.8	18.8	28.8	2.50	5.00	Diazonium ion
	mg/dl	1.39	1.10	1.68	0.15	0.29	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.25	2.02	2.48	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.02	8.10	9.94	0.46	0.92	
	mmol/l	2.24	2.01	2.47	0.12	0.23	NM-BAPTA
	mg/dl	8.98	8.06	9.90	0.46	0.92	
Cholesterol	mmol/l	4.08	3.55	4.61	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	137	177	10.00	20.00	
Chloride	mmol/l	93.3	85.8	101	3.75	7.50	ISE indirect
CK Total	U/l	206	169	243	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	129	106	152	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	88	72	104	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	125	99.7	150	12.65	25.30	Roche Creatinine Plus
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	μmol/l	121	96.6	145	12.20	24.40	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.37	1.09	1.65	0.14	0.28	
gamma-GT	U/l	44	37	51	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	29	41	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	23	31	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	50	42	58	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	26	36	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.12	5.20	7.04	0.46	0.92	Hexokinase
	mg/dl	110	93.7	126	8.15	16.30	
HDL - Cholesterol	mmol/l	1.29	1.10	1.48	0.10	0.19	Direct HDL Roche 3rd generation
	mg/dl	49.8	42.5	57.1	3.65	7.30	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	μmol/l	16.7	13.7	19.7	1.50	3.00	Colorimetric without ppt.
	μg/dl	93.4	76.6	110	8.40	16.80	
Lactate	mmol/l	1.44	1.18	1.70	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	13.0	10.6	15.4	1.20	2.40	
LD (LDH)	U/l	197	167	227	15.00	30.00	L->P IFCC 37°C
	U/l	142	121	163	10.50	21.00	L->P IFCC 30°C
	U/l	100	85	115	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	34	27	41	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.06	0.93	1.19	0.06	0.13	Spectrophotometric
	mg/dl	0.736	0.648	0.824	0.04	0.09	
Magnesium	mmol/l	0.94	0.82	1.05	0.06	0.11	Xylidyl Blue
	mg/dl	2.27	2.00	2.54	0.14	0.27	
Phosphate Inorganic	mmol/l	1.29	1.04	1.54	0.13	0.25	Phosphomolybdate UV
	mg/dl	4.00	3.22	4.78	0.39	0.78	
Potassium	mmol/l	4.15	3.82	4.48	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.2	46.6	69.8	5.80	11.60	Biuret reaction end point
	g/dl	5.82	4.66	6.98	0.58	1.16	
Sodium	mmol/l	144	137	151	3.50	7.00	ISE method - indirect
TIBC	μmol/l	44.1	34.9	53.3	4.60	9.20	FE+UIBC(saturation with iron)
	μg/dl	247	195	299	26.00	52.00	
Triglycerides	mmol/l	1.05	0.89	1.22	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.3	108	7.30	14.60	
	mmol/l	1.05	0.88	1.22	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	92.9	77.7	108	7.60	15.20	
Uric Acid (Urate)	mmol/l	0.32	0.28	0.37	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.43	4.72	6.14	0.36	0.71	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.51	4.79	6.23	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	4.79	6.23	0.36	0.72	
Urea	mmol/l	6.75	5.74	7.76	0.51	1.01	Urease kinetic
	mg/dl	40.6	34.5	46.7	3.05	6.10	
	mmol/l	6.75	5.74	7.76	0.51	1.01	BUN
	mg/dl	18.9	16.1	21.7	1.40	2.80	

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.6	35.4	47.8	3.10	6.20	Bromocresol Green
	g/dl	4.16	3.54	4.78	0.31	0.62	
Alkaline Phosphatase	U/l	293	249	337	22.00	44.00	Diethanolamine buffer DEA 37°C
	U/l	178	151	205	13.50	27.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	76	65	87	5.50	11.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	99	84	114	7.50	15.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
Bile Acids	µmol/l	24.2	19.4	29.0	2.40	4.80	5th Generation Colorimetric
Bicarbonate	mmol/l	14.5	11.5	17.5	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	19.0	15.0	23.0	2.00	4.00	Diazo with Sulphanilic Acid
	mg/dl	1.11	0.878	1.34	0.12	0.23	
	µmol/l	17.7	14.0	21.4	1.85	3.70	Oxidation to Biliverdin/Vanadate
	mg/dl	1.04	0.819	1.26	0.11	0.22	
Bilirubin Total	µmol/l	31.0	24.5	37.5	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.81	1.43	2.19	0.19	0.38	
	µmol/l	27.5	21.7	33.3	2.90	5.80	Oxidation to Biliverdin/Vanadate
	mg/dl	1.61	1.27	1.95	0.17	0.34	
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	
Cholesterol	mmol/l	4.29	3.73	4.85	0.28	0.56	Cholesterol Oxidase
	mg/dl	166	144	188	11.00	22.00	

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	96.9	89.1	105	3.90	7.80	ISE direct
CK Total	U/l	221	181	261	20.00	40.00	CK-NAC substrate start (DGKC) 37°C
	U/l	247	203	291	22.00	44.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	121	97.2	145	11.90	23.80	Alkaline picrate no deproteinization
	mg/dl	1.37	1.10	1.64	0.14	0.27	
	µmol/l	119	95.2	143	11.90	23.80	Randox Enzymatic UV method
	mg/dl	1.34	1.08	1.60	0.13	0.26	
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.48	5.51	7.45	0.49	0.97	Hexokinase
	mg/dl	117	99.3	135	8.85	17.70	
	mmol/l	6.50	5.53	7.47	0.49	0.97	Glucose oxidase
	mg/dl	117	99.7	134	8.65	17.30	
Iron	µmol/l	18.3	15.0	21.6	1.65	3.30	Colorimetric without ppt.
	µg/dl	102	83.9	120	9.05	18.10	
Lactate	mmol/l	1.40	1.15	1.65	0.13	0.25	Colorimetric Lactate Oxidase
	mg/dl	12.6	10.4	14.8	1.10	2.20	
LD (LDH)	U/l	412	350	474	31.00	62.00	P->L German methods 37°C
	U/l	203	173	233	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	44	35	53	4.50	9.00	Randox Colorimetric 37°C
Lithium	mmol/l	0.94	0.83	1.06	0.06	0.11	Colorimetric
	mg/dl	0.655	0.576	0.734	0.04	0.08	
Magnesium	mmol/l	0.94	0.83	1.05	0.06	0.11	Xylidyl Blue
	mg/dl	2.28	2.00	2.56	0.14	0.28	
Phosphate Inorganic	mmol/l	1.35	1.08	1.62	0.14	0.27	Phosphomolybdate UV
	mg/dl	4.19	3.35	5.03	0.42	0.84	

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Potassium	mmol/l	4.40	4.05	4.75	0.18	0.35	Enzymatic
	mmol/l	4.07	3.75	4.39	0.16	0.32	ISE method - direct
Protein Total	g/l	60.2	48.2	72.2	6.00	12.00	Biuret reaction end point
	g/dl	6.02	4.82	7.22	0.60	1.20	
Sodium	mmol/l	145	138	152	3.50	7.00	Enzymatic
	mmol/l	142	135	149	3.50	7.00	ISE method - direct
TIBC	μmol/l	53.9	42.6	65.2	5.65	11.30	Direct Colorimetric
	μg/dl	301	238	364	31.50	63.00	
Triglycerides	mmol/l	1.09	0.92	1.26	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	96.5	81.1	112	7.70	15.40	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.53	4.80	6.26	0.37	0.73	
	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	
Urea	mmol/l	7.02	5.97	8.07	0.53	1.05	Urease kinetic
	mg/dl	42.2	35.9	48.5	3.15	6.30	
	mmol/l	7.02	5.97	8.07	0.53	1.05	BUN
	mg/dl	19.7	16.7	22.7	1.50	3.00	

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	40.2	34.2	46.2	3.00	6.00	Bromocresol Green
	g/dl	4.02	3.42	4.62	0.30	0.60	
	g/l	43.6	37.0	50.2	3.30	6.60	Bromocresol Purple
	g/dl	4.36	3.70	5.02	0.33	0.66	
Alkaline Phosphatase	U/l	284	241	327	21.50	43.00	Diethanolamine buffer DEA 37°C
	U/l	173	147	199	13.00	26.00	AMP optimised to IFCC 37°C
	U/l	163	139	187	12.00	24.00	AMP non-optimised 37°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	68	58	78	5.00	10.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	88	75	101	6.50	13.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
Bile Acids	µmol/l	23.4	18.7	28.1	2.35	4.70	Enzymatic Colorimetric
Bicarbonate	mmol/l	16.5	13.1	19.9	1.70	3.40	Enzymatic
Bilirubin Direct	µmol/l	18.5	14.6	22.4	1.95	3.90	Oxidation to Biliverdin/Vanadate
	mg/dl	1.08	0.854	1.31	0.11	0.23	
Bilirubin Total	µmol/l	28.2	22.3	34.1	2.95	5.90	Oxidation to Biliverdin/Vanadate
	mg/dl	1.65	1.30	2.00	0.18	0.35	
Calcium	mmol/l	2.22	2.00	2.44	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.90	8.02	9.78	0.44	0.88	
	mmol/l	2.29	2.06	2.52	0.12	0.23	Arsenazo III
	mg/dl	9.18	8.26	10.1	0.46	0.92	

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	4.11	3.58	4.64	0.27	0.53	Cholesterol Oxidase
	mg/dl	159	138	180	10.50	21.00	
Chloride	mmol/l	98.3	90.4	106	3.95	7.90	ISE indirect
CK Total	U/l	212	174	250	19.00	38.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	130	104	156	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	μmol/l	116	92.8	139	11.60	23.20	Randox Enzymatic UV method
	mg/dl	1.31	1.05	1.57	0.13	0.26	
	μmol/l	121	96.5	146	12.25	24.50	Jaffe rate blanked
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	μmol/l	119	95.1	143	11.95	23.90	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.34	1.07	1.61	0.14	0.27	
gamma-GT	U/l	50	43	57	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.09	5.18	7.00	0.46	0.91	Hexokinase
	mg/dl	110	93.3	127	8.35	16.70	
	mmol/l	6.19	5.26	7.12	0.47	0.93	Glucose oxidase
	mg/dl	112	94.8	129	8.60	17.20	
HDL - Cholesterol	mmol/l	1.08	0.92	1.24	0.08	0.16	Direct Clearance Method
	mg/dl	41.7	35.5	47.9	3.10	6.20	
Iron	μmol/l	17.3	14.2	20.4	1.55	3.10	Colorimetric without ppt.
	μg/dl	96.7	79.4	114	8.65	17.30	
Lactate	mmol/l	1.28	1.05	1.51	0.12	0.23	Colorimetric Lactate Oxidase
	mg/dl	11.5	9.46	13.5	1.02	2.04	
LD (LDH)	U/l	199	169	229	15.00	30.00	L->P 37°C
	U/l	395	335	455	30.00	60.00	P->L German methods 37°C

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	203	173	233	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	42	34	50	4.00	8.00	Other Colorimetric 37°C
Lithium	mmol/l	1.04	0.91	1.17	0.06	0.13	Spectrophotometric
	mg/dl	0.722	0.635	0.809	0.04	0.09	
Magnesium	mmol/l	0.95	0.84	1.07	0.06	0.11	Xylidyl Blue
	mg/dl	2.31	2.04	2.58	0.14	0.27	
Phosphate Inorganic	mmol/l	1.33	1.06	1.60	0.14	0.27	Phosphomolybdate UV
	mg/dl	4.12	3.29	4.95	0.42	0.83	
Potassium	mmol/l	4.12	3.79	4.45	0.17	0.33	ISE method - indirect
Protein Total	g/l	59.3	47.4	71.2	5.95	11.90	Biuret reaction end point
	g/dl	5.93	4.74	7.12	0.60	1.19	
Sodium	mmol/l	144	137	151	3.50	7.00	ISE method - indirect
TIBC	μmol/l	52.0	41.1	62.9	5.45	10.90	Direct Colorimetric
	μg/dl	291	230	352	30.50	61.00	
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.7	114	7.75	15.50	
	mmol/l	1.18	0.99	1.37	0.09	0.19	L/G Kinase EP. no correction
	mg/dl	104	87.7	120	8.15	16.30	
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	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.59	4.87	6.31	0.36	0.72	
Urea	mmol/l	7.18	6.10	8.26	0.54	1.08	Urease kinetic
	mg/dl	43.2	36.7	49.7	3.25	6.50	
	mmol/l	7.18	6.10	8.26	0.54	1.08	BUN
	mg/dl	20.2	17.2	23.2	1.50	3.00	

Siemens/Dade Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	44.1	37.5	50.7	3.30	6.60	Bromocresol Purple
	g/dl	4.41	3.75	5.07	0.33	0.66	
Alkaline Phosphatase	U/l	161	137	185	12.00	24.00	Siemens Dimension AMP buffer 37°C
	U/l	159	136	182	11.50	23.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	46	37	55	4.50	9.00	Tris buffer with P5P 37°C
	U/l	46	37	55	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	96	82	110	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	50	40	60	5.00	10.00	Tris buffer with P5P 37°C
	U/l	51	41	61	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	15.2	12.1	18.3	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	11.8	9.33	14.3	1.24	2.47	Diazo with Sulphanilic Acid
	mg/dl	0.690	0.546	0.834	0.07	0.14	
Bilirubin Total	µmol/l	27.7	21.9	33.5	2.90	5.80	Diazo with Sulphanilic Acid
	mg/dl	1.62	1.28	1.96	0.17	0.34	
Calcium	mmol/l	2.15	1.93	2.37	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.62	7.74	9.50	0.44	0.88	
Cholesterol	mmol/l	3.63	3.16	4.10	0.24	0.47	Dimension-Siemens reagents
	mg/dl	140	122	158	9.00	18.00	
Chloride	mmol/l	96.9	89.1	105	3.90	7.80	ISE indirect
CK Total	U/l	200	164	236	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	200	164	236	18.00	36.00	Dithioerythritol 37°C

Siemens/Dade Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
CK Total	U/l	203	166	240	18.50	37.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	μmol/l	127	102	152	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	μmol/l	119	95.5	143	11.75	23.50	IDMS traceable
	mg/dl	1.34	1.08	1.60	0.13	0.26	
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	64	54	74	5.00	10.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.33	5.38	7.28	0.48	0.95	Hexokinase
	mg/dl	114	96.9	131	8.55	17.10	
HDL - Cholesterol	mmol/l	1.31	1.12	1.50	0.10	0.19	Direct HDL PPD
	mg/dl	50.6	43.2	58.0	3.70	7.40	
	mmol/l	1.43	1.21	1.65	0.11	0.22	Direct HDL PEGME
	mg/dl	55.2	46.7	63.7	4.25	8.50	
Iron	μmol/l	16.1	13.2	19.0	1.45	2.90	Colorimetric without ppt.
	μg/dl	90.0	73.8	106	8.10	16.20	
Lactate	mmol/l	1.32	1.08	1.56	0.12	0.24	UV LDH
	mg/dl	11.9	9.73	14.1	1.09	2.17	
LD (LDH)	U/l	193	164	222	14.50	29.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	194	165	223	14.50	29.00	L->P IFCC 37°C
Lipase	U/l	146	117	175	14.50	29.00	Colorimetric Siemens Dimension (LIPL Kit) 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	0.89	0.79	1.00	0.05	0.11	Methylthymol blue
	mg/dl	2.17	1.91	2.43	0.13	0.26	
Phosphate Inorganic	mmol/l	1.36	1.09	1.63	0.14	0.27	Phosphomolybdate UV
	mg/dl	4.22	3.38	5.06	0.42	0.84	

Siemens/Dade Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Potassium	mmol/l	3.98	3.66	4.30	0.16	0.32	ISE method - indirect
Protein Total	g/l	60.8	48.6	73.0	6.10	12.20	Biuret reaction end point
	g/dl	6.08	4.86	7.30	0.61	1.22	
Sodium	mmol/l	143	136	150	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	
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	1.00	0.84	1.15	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	88.1	74.0	102	7.05	14.10	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.68	4.94	6.42	0.37	0.74	
Urea	mmol/l	7.08	6.02	8.14	0.53	1.06	Urease kinetic
	mg/dl	42.6	36.2	49.0	3.20	6.40	
	mmol/l	7.08	6.02	8.14	0.53	1.06	BUN
	mg/dl	19.9	16.9	22.9	1.50	3.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	42.2	35.9	48.5	3.15	6.30	Bromocresol Green
	g/dl	4.22	3.59	4.85	0.32	0.63	
	g/l	43.4	36.9	49.9	3.25	6.50	Bromocresol Purple
	g/dl	4.34	3.69	4.99	0.33	0.65	
Alkaline Phosphatase	U/l	159	135	183	12.00	24.00	Siemens Dimension AMP buffer 37°C
	U/l	158	135	181	11.50	23.00	AMP optimised to IFCC 37°C
	U/l	177	150	204	13.50	27.00	Randox AMP 37°C
ALT (GPT)	U/l	45	36	54	4.50	9.00	Tris buffer with P5P 37°C
	U/l	46	37	55	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	97	83	111	7.00	14.00	Siemens - maltopenta/hexaoside 37°C
	U/l	96	82	110	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	48	38	58	5.00	10.00	Tris buffer with P5P 37°C
	U/l	50	40	60	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	16.1	12.7	19.5	1.70	3.40	Enzymatic
Bilirubin Direct	µmol/l	11.8	9.28	14.3	1.26	2.52	Diazo with Sulphanilic Acid
	mg/dl	0.690	0.543	0.837	0.07	0.15	
Bilirubin Total	µmol/l	27.4	21.7	33.1	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.60	1.27	1.93	0.17	0.33	
Calcium	mmol/l	2.17	1.95	2.39	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.70	7.82	9.58	0.44	0.88	
Cholesterol	mmol/l	3.61	3.14	4.08	0.24	0.47	Dimension-Siemens reagents
	mg/dl	139	121	157	9.00	18.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	96.8	89.1	105	3.85	7.70	ISE indirect
CK Total	U/l	200	164	236	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	213	175	251	19.00	38.00	Dithioerythritol 37°C
Creatinine	μmol/l	129	103	155	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	μmol/l	117	94.0	140	11.50	23.00	Randox Enzymatic UV method
	mg/dl	1.32	1.06	1.58	0.13	0.26	
	μmol/l	125	99.8	150	12.60	25.20	Creatinine PAP method
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	μmol/l	122	97.6	146	12.20	24.40	Jaffe rate blanked
	mg/dl	1.38	1.10	1.66	0.14	0.28	
gamma-GT	U/l	63	53	73	5.00	10.00	Siemens Dimension (non IFCC) 37°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.28	5.34	7.22	0.47	0.94	Hexokinase
	mg/dl	113	96.2	130	8.40	16.80	
	mmol/l	6.33	5.38	7.28	0.48	0.95	Glucose oxidase
	mg/dl	114	96.9	131	8.55	17.10	
HDL - Cholesterol	mmol/l	1.43	1.21	1.65	0.11	0.22	Direct HDL PPD
	mg/dl	55.2	46.7	63.7	4.25	8.50	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Direct HDL PEGME
	mg/dl	53.7	45.5	61.9	4.10	8.20	
	mmol/l	1.35	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	16.1	13.2	19.0	1.45	2.90	Colorimetric with ppt.
	μg/dl	90.0	73.8	106	8.10	16.20	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	µmol/l	16.0	13.1	18.9	1.45	2.90	Colorimetric without ppt.
	µg/dl	89.4	73.2	106	8.10	16.20	
LD (LDH)	U/l	200	170	230	15.00	30.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	192	163	221	14.50	29.00	L->P IFCC 37°C
Lipase	U/l	145	117	173	14.00	28.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.90	0.79	1.00	0.05	0.11	Methylthymol blue
	mg/dl	2.17	1.91	2.43	0.13	0.26	
Phosphate Inorganic	mmol/l	1.37	1.09	1.65	0.14	0.28	Phosphomolybdate enzymatic
	mg/dl	4.25	3.38	5.12	0.44	0.87	
	mmol/l	1.38	1.10	1.66	0.14	0.28	Phosphomolybdate UV
	mg/dl	4.28	3.41	5.15	0.44	0.87	
Potassium	mmol/l	4.01	3.69	4.33	0.16	0.32	ISE method - indirect
Protein Total	g/l	61.0	48.8	73.2	6.10	12.20	Biuret reaction end point
	g/dl	6.10	4.88	7.32	0.61	1.22	
	g/l	60.5	48.4	72.6	6.05	12.10	Biuret reaction kinetic
	g/dl	6.05	4.84	7.26	0.61	1.21	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
TIBC	µmol/l	39.9	31.5	48.3	4.20	8.40	Removal of excess free iron
	µg/dl	223	176	270	23.50	47.00	
	µmol/l	39.4	31.1	47.7	4.15	8.30	Direct Colorimetric
	µg/dl	220	174	266	23.00	46.00	
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	1.02	0.85	1.19	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	90.3	75.6	105	7.35	14.70	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.02	0.86	1.18	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	90.3	75.9	105	7.20	14.40	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.76	5.01	6.51	0.38	0.75	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.59	4.87	6.31	0.36	0.72	
	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	
Urea	mmol/l	6.85	5.82	7.88	0.52	1.03	Urease end point
	mg/dl	41.2	35.0	47.4	3.10	6.20	
	mmol/l	7.07	6.01	8.13	0.53	1.06	Urease kinetic
	mg/dl	42.5	36.1	48.9	3.20	6.40	
	mmol/l	7.07	6.01	8.13	0.53	1.06	BUN
	mg/dl	19.8	16.8	22.8	1.50	3.00	

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	44.3	37.7	50.9	3.30	6.60	Bromocresol Purple
	g/dl	4.43	3.77	5.09	0.33	0.66	
Alkaline Phosphatase	U/l	159	135	183	12.00	24.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	45	36	54	4.50	9.00	Tris buffer with P5P 37°C
Amylase Total	U/l	93	79	107	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	50	40	60	5.00	10.00	Tris buffer with P5P 37°C
Bicarbonate	mmol/l	15.6	12.4	18.8	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	11.6	9.16	14.0	1.22	2.44	Diazo with Sulphanilic Acid
	mg/dl	0.679	0.536	0.822	0.07	0.14	
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	2.16	1.95	2.37	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.66	7.82	9.50	0.42	0.84	
Cholesterol	mmol/l	3.58	3.11	4.05	0.24	0.47	Dimension-Siemens reagents
	mg/dl	138	120	156	9.00	18.00	
Chloride	mmol/l	99.4	91.4	107	4.00	8.00	ISE indirect
CK Total	U/l	199	163	235	18.00	36.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	µmol/l	121	96.8	145	12.10	24.20	IDMS traceable
	mg/dl	1.37	1.09	1.65	0.14	0.28	
gamma-GT	U/l	59	50	68	4.50	9.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.04	5.13	6.95	0.46	0.91	Hexokinase
	mg/dl	109	92.4	126	8.30	16.60	

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.37	1.17	1.57	0.10	0.20	Direct HDL PEGME
	mg/dl	52.9	45.2	60.6	3.85	7.70	
Lactate	mmol/l	1.45	1.19	1.71	0.13	0.26	UV LDH
	mg/dl	13.1	10.7	15.5	1.20	2.40	
LD (LDH)	U/l	197	167	227	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	159	127	191	16.00	32.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.89	0.78	1.00	0.05	0.11	Methylthymol blue
	mg/dl	2.16	1.90	2.42	0.13	0.26	
Phosphate Inorganic	mmol/l	1.30	1.04	1.56	0.13	0.26	Phosphomolybdate UV
	mg/dl	4.03	3.22	4.84	0.41	0.81	
Potassium	mmol/l	4.00	3.68	4.32	0.16	0.32	ISE method - indirect
Protein Total	g/l	60.2	48.2	72.2	6.00	12.00	Biuret reaction end point
	g/dl	6.02	4.82	7.22	0.60	1.20	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.15	0.96	1.34	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	102	85.3	119	8.35	16.70	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.38	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.58	4.86	6.30	0.36	0.72	
Urea	mmol/l	7.10	6.04	8.16	0.53	1.06	Urease kinetic
	mg/dl	42.7	36.3	49.1	3.20	6.40	
	mmol/l	7.10	6.04	8.16	0.53	1.06	BUN
	mg/dl	19.9	16.9	22.9	1.50	3.00	

**VITALAB FLEXOR®****ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1094UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2020-01

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.5	37.0	50.0	3.25	6.50	Bromocresol Green
	g/dl	4.35	3.70	5.00	0.33	0.65	
Alkaline Phosphatase	U/l	281	239	323	21.00	42.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
Cholesterol	mmol/l	4.13	3.59	4.67	0.27	0.54	Cholesterol Oxidase
	mg/dl	159	139	179	10.00	20.00	
Creatinine	µmol/l	116	92.7	139	11.65	23.30	Alkaline picrate no deproteinization
	mg/dl	1.31	1.05	1.57	0.13	0.26	
Glucose	mmol/l	6.45	5.48	7.42	0.49	0.97	Glucose oxidase
	mg/dl	116	98.7	133	8.65	17.30	
Protein Total	g/l	61.6	49.3	73.9	6.15	12.30	Biuret reaction end point
	g/dl	6.16	4.93	7.39	0.62	1.23	
Triglycerides	mmol/l	1.09	0.92	1.26	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	96.5	81.2	112	7.65	15.30	
Urea	mmol/l	7.13	6.06	8.20	0.54	1.07	Urease kinetic
	mg/dl	42.9	36.4	49.4	3.25	6.50	
	mmol/l	7.13	6.06	8.20	0.54	1.07	BUN
	mg/dl	20.0	17.0	23.0	1.50	3.00	