

HUMAN ASSAYED MULTI-SERA - LEVEL 3 (HUM ASY CONTROL 3)

CAT. NO. HE1532 / HS2611

LOT NO. 651UE

SIZE: 20 x 5ml / 5 x 5ml

EXP: 2017-07

INTENDED USE

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

DEVICE DESCRIPTION

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

SAFETY PRECAUTIONS AND WARNINGS

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

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

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

Health and Safety Data Sheets are available on request.

STORAGE AND STABILITY

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

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

LIMITATIONS

For Total & Prostatic Acid Phosphatase, the material should be stabilised by adding 1 drop (25µl - 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 -20°C.

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

Bilirubin in the serum is light sensitive and it is recommended that the serum is stored in the dark. Stored in the dark, it is stable for 3 days at +2°C to +8°C. Do not store at +15°C to +25°C. Do not freeze.

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

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

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

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

The control should not be used as a calibration material.

PREPARATION FOR USE

The Human Assayed Multi-sera is supplied lyophilised.

- 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.
- Refer to the Control section of the individual analyser application.
- Refrigerate any unused material. Prior to reuse, mix contents thoroughly.

MATERIALS PROVIDED

Human Assayed Multi-sera - Level 3 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 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	29.2	24.8	33.6	2.20	4.40	Bromocresol Green
	g/dl	2.92	2.48	3.36	0.22	0.44	
Alkaline Phosphatase	U/l	361	307	415	27.00	54.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	127	101	153	13.00	26.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	138	110	166	14.00	28.00	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	30.2	23.8	36.6	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.77	1.39	2.15	0.19	0.38	
	µmol/l	29.7	23.5	35.9	3.10	6.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.74	1.37	2.11	0.19	0.37	
Bilirubin Total	µmol/l	86.2	68.1	104	9.05	18.10	Diazo with Dichloroaniline (DCA)
	mg/dl	5.04	3.98	6.10	0.53	1.06	
Calcium	mmol/l	3.10	2.79	3.41	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.4	11.2	13.6	0.60	1.20	
	mmol/l	3.06	2.76	3.36	0.15	0.30	Arsenazo III
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE direct
Cholesterol	mmol/l	7.34	6.39	8.29	0.48	0.95	Cholesterol Oxidase
	mg/dl	283	247	319	18.00	36.00	
CK Total	U/l	570	467	673	51.50	103.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	359	287	431	36.00	72.00	Alkaline picrate no deproteinization
	mg/dl	4.06	3.24	4.88	0.41	0.82	

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		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Glucose	mmol/l	15.6	13.3	17.9	1.15	2.30	Hexokinase
	mg/dl	281	240	322	20.50	41.00	
	mmol/l	15.5	13.2	17.8	1.15	2.30	Glucose oxidase
	mg/dl	279	238	320	20.50	41.00	
HDL - Cholesterol	mmol/l	2.62	2.23	3.01	0.20	0.39	HDL - Ultra
	mg/dl	101	86.1	116	7.45	14.90	
Iron	µmol/l	37.7	30.9	44.5	3.40	6.80	Colorimetric without ppt.
	µg/dl	211	173	249	19.00	38.00	
LD (LDH)	U/l	358	304	412	27.00	54.00	L->P IFCC 37°C
Phosphate Inorganic	mmol/l	2.30	1.96	2.64	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.13	6.08	8.18	0.53	1.05	
Potassium	mmol/l	5.94	5.46	6.42	0.24	0.48	ISE method - direct
Protein Total	g/l	48.2	38.5	57.9	4.85	9.70	Biuret reaction end point
	g/dl	4.82	3.85	5.79	0.49	0.97	
Sodium	mmol/l	157	149	165	4.00	8.00	ISE method - direct
Triglycerides	mmol/l	2.89	2.43	3.35	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	256	215	297	20.50	41.00	
Urea	mmol/l	19.8	16.8	22.8	1.50	3.00	Urease kinetic
	mg/dl	119	101	137	9.00	18.00	
	mmol/l	19.8	16.8	22.8	1.50	3.00	Urease hypochlorite
	mg/dl	119	101	137	9.00	18.00	
	mmol/l	19.8	16.8	22.8	1.50	3.00	BUN
	mg/dl	55.6	47.3	63.9	4.15	8.30	
Uric Acid (Urate)	mmol/l	0.56	0.49	0.63	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.36	8.15	10.6	0.61	1.21	

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Range

Analyte	unit	target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.56	0.49	0.64	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.48	8.25	10.7	0.62	1.23	

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		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	28.5	24.2	32.8	2.15	4.30	Bromocresol Green
	g/dl	2.85	2.42	3.28	0.22	0.43	
	g/l	27.0	22.9	31.1	2.05	4.10	Bromocresol Purple
	g/dl	2.70	2.29	3.11	0.21	0.41	
Alkaline Phosphatase	U/l	338	287	389	25.50	51.00	AMP optimised to IFCC 37°C
	U/l	335	284	386	25.50	51.00	AMP non-optimised 37°C
ALT (GPT)	U/l	127	102	152	12.50	25.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	270	229	311	20.50	41.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	316	269	363	23.50	47.00	pNP Maltotriose substrates 37°C
AST (GOT)	U/l	141	113	169	14.00	28.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	15.3	12.2	18.4	1.55	3.10	Enzymatic
Bile Acids	µmol/l	45.5	36.4	54.6	4.55	9.10	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	32.8	25.9	39.7	3.45	6.90	Diazo with Sulphanilic Acid
	mg/dl	1.92	1.52	2.32	0.20	0.40	
	µmol/l	33.5	26.5	40.5	3.50	7.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.96	1.55	2.37	0.21	0.41	
Bilirubin Total	µmol/l	94.4	74.6	114	9.90	19.80	Diazo with Dichloroaniline (DCA)
	mg/dl	5.52	4.36	6.68	0.58	1.16	
	µmol/l	94.5	74.7	114	9.90	19.80	Diazo with Sulphanilic Acid
	mg/dl	5.53	4.37	6.69	0.58	1.16	
	µmol/l	96.7	76.4	117	10.15	20.30	Diazonium ion
	mg/dl	5.66	4.47	6.85	0.60	1.19	

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Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Calcium	mmol/l	3.17	2.85	3.49	0.16	0.32	Arsenazo III
	mg/dl	12.7	11.4	14.0	0.65	1.30	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.34	6.38	8.30	0.48	0.96	Cholesterol Oxidase
	mg/dl	283	246	320	18.50	37.00	
CK Total	U/l	595	488	702	53.50	107.00	CK-NAC (IFCC) 37°C
	U/l	603	495	711	54.00	108.00	Monothioglycerol 37°C
Creatinine	µmol/l	388	310	466	39.00	78.00	Alkaline picrate no deproteinization
	mg/dl	4.38	3.50	5.26	0.44	0.88	
	µmol/l	389	311	467	39.00	78.00	Randox Enzymatic UV method
	mg/dl	4.40	3.51	5.29	0.45	0.89	
	µmol/l	387	310	464	38.50	77.00	Jaffe rate blanked
	mg/dl	4.37	3.50	5.24	0.44	0.87	
gamma-GT	µmol/l	391	313	469	39.00	78.00	IDMS traceable
	mg/dl	4.42	3.54	5.30	0.44	0.88	
	U/l	168	143	193	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	168	143	193	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	163	139	187	12.00	24.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	15.8	13.5	18.1	1.15	2.30	Hexokinase
	mg/dl	285	243	327	21.00	42.00	
	mmol/l	15.8	13.5	18.1	1.15	2.30	Glucose oxidase
	mg/dl	285	243	327	21.00	42.00	
HDL - Cholesterol	mmol/l	2.63	2.24	3.02	0.20	0.39	Direct HDL PPD
	mg/dl	102	86.5	118	7.75	15.50	

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		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	2.67	2.27	3.07	0.20	0.40	Direct Clearance Method
	mg/dl	103	87.6	118	7.70	15.40	
	mmol/l	2.72	2.31	3.13	0.21	0.41	HDL - Ultra
	mg/dl	105	89.2	121	7.90	15.80	
Iron	µmol/l	38.2	31.4	45.0	3.40	6.80	Colorimetric with ppt.
	µg/dl	214	176	252	19.00	38.00	
	µmol/l	38.2	31.3	45.1	3.45	6.90	Colorimetric without ppt.
	µg/dl	214	175	253	19.50	39.00	
Lactate	mmol/l	5.51	4.52	6.50	0.50	0.99	Colorimetric Lactate Oxidase
	mg/dl	49.6	40.7	58.5	4.45	8.90	
LD (LDH)	U/l	387	329	445	29.00	58.00	L->P 37°C
	U/l	387	329	445	29.00	58.00	L->P IFCC 37°C
Lipase	U/l	63	50	76	6.50	13.00	Other Colorimetric 37°C
Lithium	mmol/l	2.10	1.85	2.35	0.13	0.25	Spectrophotometric
	mg/dl	1.46	1.28	1.64	0.09	0.18	
Magnesium	mmol/l	1.79	1.57	2.01	0.11	0.22	Arsenazo III
	mg/dl	4.35	3.82	4.88	0.27	0.53	
	mmol/l	1.83	1.61	2.05	0.11	0.22	Xylidyl Blue
	mg/dl	4.45	3.91	4.99	0.27	0.54	
	mmol/l	1.79	1.57	2.01	0.11	0.22	Enzymatic
	mg/dl	4.35	3.82	4.88	0.27	0.53	
Osmolality	mOsm/kg	345	276	414	34.50	69.00	Calculated
Phosphate Inorganic	mmol/l	2.33	1.98	2.68	0.18	0.35	Phosphomolybdate enzymatic
	mg/dl	7.22	6.14	8.30	0.54	1.08	
	mmol/l	2.33	1.98	2.68	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.22	6.14	8.30	0.54	1.08	

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		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Potassium	mmol/l	5.86	5.39	6.33	0.24	0.47	ISE method - indirect
Protein Total	g/l	46.3	37.0	55.6	4.65	9.30	Biuret reaction end point
	g/dl	4.63	3.70	5.56	0.47	0.93	
	g/l	46.3	37.1	55.5	4.60	9.20	Biuret reaction kinetic
	g/dl	4.63	3.71	5.55	0.46	0.92	
PSA Total	ng/ml =	30.6	23.0	38.2	3.80	7.60	Abbott Architect
Sodium	mmol/l	157	149	165	4.00	8.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.05	0.84	1.26	0.11	0.21	Abbott Architect
TIBC	µmol/l	59.4	46.9	71.9	6.25	12.50	FE+UIBC(saturation with iron)
	µg/dl	332	262	402	35.00	70.00	
Total T3	nmol/l	3.64	2.73	4.55	0.46	0.91	Abbott Architect
	ng/ml	2.37	1.78	2.96	0.30	0.59	
	ng/dl	237	178	296	29.50	59.00	Abbott Architect
Triglycerides	mmol/l	2.94	2.47	3.41	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	260	219	301	20.50	41.00	
	mmol/l	2.92	2.45	3.39	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	258	217	299	20.50	41.00	
	mmol/l	2.93	2.46	3.40	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	259	218	300	20.50	41.00	
	mmol/l	2.93	2.46	3.40	0.24	0.47	Lipase/Glycerol Dehydrogenase
	mg/dl	259	218	300	20.50	41.00	
Urea	mmol/l	20.6	17.5	23.7	1.55	3.10	Urease end point
	mg/dl	124	105	143	9.50	19.00	
	mmol/l	20.4	17.4	23.4	1.50	3.00	Urease kinetic
	mg/dl	123	105	141	9.00	18.00	

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		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	20.4	17.3	23.5	1.55	3.10	BUN
	mg/dl	57.3	48.7	65.9	4.30	8.60	
Uric Acid (Urate)	mmol/l	0.57	0.49	0.64	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.51	8.28	10.7	0.62	1.23	
	mmol/l	0.56	0.49	0.64	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.46	8.23	10.7	0.62	1.23	
	mmol/l	0.57	0.50	0.65	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.61	8.37	10.9	0.62	1.24	

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Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	29.2	24.8	33.6	2.20	4.40	Bromocresol Green
	g/dl	2.92	2.48	3.36	0.22	0.44	
Alkaline Phosphatase	U/l	360	306	414	27.00	54.00	AMP optimised to IFCC 37°C
	U/l	280	238	322	21.00	42.00	AMP optimised to IFCC 30°C
	U/l	230	196	264	17.00	34.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	143	114	172	14.50	29.00	Tris buffer without P5P 37°C
	U/l	106	84	128	11.00	22.00	Tris buffer without P5P 30°C
	U/l	81	64	98	8.50	17.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	151	121	181	15.00	30.00	Tris buffer without P5P 37°C
	U/l	102	82	122	10.00	20.00	Tris buffer without P5P 30°C
	U/l	72	58	86	7.00	14.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	93.6	74.0	113	9.80	19.60	Diazo with Dichloroaniline (DCA)
	mg/dl	5.48	4.33	6.63	0.58	1.15	
Calcium	mmol/l	3.19	2.87	3.51	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.8	11.5	14.1	0.65	1.30	
Cholesterol	mmol/l	7.45	6.49	8.41	0.48	0.96	Cholesterol Oxidase
	mg/dl	288	251	325	18.50	37.00	
CK Total	U/l	594	487	701	53.50	107.00	CK-NAC (IFCC) 37°C
	U/l	372	305	439	33.50	67.00	CK-NAC (IFCC) 30°C
	U/l	252	207	297	22.50	45.00	CK-NAC (IFCC) 25°C
Glucose	mmol/l	15.9	13.6	18.2	1.15	2.30	Glucose oxidase
	mg/dl	287	245	329	21.00	42.00	

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		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Magnesium	mmol/l	1.64	1.44	1.84	0.10	0.20	Xylidyl Blue
	mg/dl	3.99	3.50	4.48	0.25	0.49	
Protein Total	g/l	49.2	39.4	59.0	4.90	9.80	Biuret reaction end point
	g/dl	4.92	3.94	5.90	0.49	0.98	
Triglycerides	mmol/l	3.01	2.53	3.49	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	266	224	308	21.00	42.00	

Alfa Wassermann Alfa 600 / Analyticon Biolyzer 600 ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	29.5	25.1	33.9	2.20	4.40	Bromocresol Green
	g/dl	2.95	2.51	3.39	0.22	0.44	
Alkaline Phosphatase	U/l	395	335	455	30.00	60.00	AMP optimised to IFCC 37°C
	U/l	308	261	355	23.50	47.00	AMP optimised to IFCC 30°C
	U/l	252	214	290	19.00	38.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	139	111	167	14.00	28.00	Tris buffer without P5P 37°C
	U/l	103	82	124	10.50	21.00	Tris buffer without P5P 30°C
	U/l	78	62	94	8.00	16.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	147	118	176	14.50	29.00	Tris buffer without P5P 37°C
	U/l	99	80	118	9.50	19.00	Tris buffer without P5P 30°C
	U/l	70	56	84	7.00	14.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	83.8	66.2	101	8.80	17.60	Diazo with Sulphanilic Acid
	mg/dl	4.90	3.87	5.93	0.52	1.03	
Calcium	mmol/l	3.18	2.87	3.49	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.7	11.5	13.9	0.60	1.20	
	mmol/l	3.00	2.70	3.30	0.15	0.30	Arsenazo III
	mg/dl	12.0	10.8	13.2	0.60	1.20	
Cholesterol	mmol/l	7.19	6.26	8.12	0.47	0.93	Cholesterol Oxidase
	mg/dl	278	242	314	18.00	36.00	
Creatinine	µmol/l	364	292	436	36.00	72.00	Alkaline picrate no deproteinization
	mg/dl	4.11	3.30	4.92	0.41	0.81	

Alfa Wassermann Alfa 600 / Analyticon Biolyzer 600

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Glucose	mmol/l	15.7	13.3	18.1	1.20	2.40	Hexokinase
	mg/dl	283	240	326	21.50	43.00	
Phosphate Inorganic	mmol/l	2.24	1.90	2.58	0.17	0.34	Phosphomolybdate UV
	mg/dl	6.94	5.89	7.99	0.53	1.05	
Triglycerides	mmol/l	2.99	2.51	3.47	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	265	222	308	21.50	43.00	
Urea	mmol/l	19.4	16.5	22.3	1.45	2.90	Urease kinetic
	mg/dl	117	99.2	135	8.90	17.80	
	mmol/l	19.4	16.5	22.3	1.45	2.90	BUN
	mg/dl	54.4	46.2	62.6	4.10	8.20	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.26	8.06	10.5	0.60	1.20	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	27.8	23.7	31.9	2.05	4.10	Bromocresol Green
	g/dl	2.78	2.37	3.19	0.21	0.41	
Alkaline Phosphatase	U/l	428	364	492	32.00	64.00	p-Nitrophenylphosphate AMP 37°C
	U/l	579	492	666	43.50	87.00	Diethanolamine buffer DEA 37°C
	U/l	418	355	481	31.50	63.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	134	107	161	13.50	27.00	Tris buffer without P5P 37°C
Amylase Total	U/l	286	243	329	21.50	43.00	Beckman maltotetraose 37°C
	U/l	279	237	321	21.00	42.00	Roche liquid stable pNPG7 37°C
	U/l	291	247	335	22.00	44.00	Beckman Coulter - blocked pNPG7 37°C
AST (GOT)	U/l	152	122	182	15.00	30.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	16.6	13.2	20.0	1.70	3.40	Enzymatic
Bilirubin Direct	µmol/l	24.4	19.3	29.5	2.55	5.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.43	1.13	1.73	0.15	0.30	
Bilirubin Total	µmol/l	92.0	72.7	111	9.65	19.30	Diazo with Sulphanilic Acid
	mg/dl	5.38	4.25	6.51	0.57	1.13	
	µmol/l	93.6	73.9	113	9.85	19.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.48	4.32	6.64	0.58	1.16	
	µmol/l	93.7	74.1	113	9.80	19.60	Oxidation to Biliverdin
	mg/dl	5.48	4.33	6.63	0.58	1.15	
Calcium	mmol/l	3.11	2.80	3.42	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.5	11.2	13.8	0.65	1.30	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Calcium	mmol/l	3.13	2.81	3.45	0.16	0.32	Arsenazo III
	mg/dl	12.5	11.3	13.7	0.60	1.20	
Chloride	mmol/l	114	105	123	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.45	6.48	8.42	0.49	0.97	Cholesterol Oxidase
	mg/dl	288	250	326	19.00	38.00	
Cholinesterase	U/l	4442	3554	5330	444.00	888.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	579	474	684	52.50	105.00	CK-NAC serum start (DGKC) 37°C
	U/l	606	497	715	54.50	109.00	CK-NAC substrate start (DGKC) 37°C
	U/l	622	510	734	56.00	112.00	CK-NAC (IFCC) 37°C
Copper	µmol/l	27.8	22.2	33.4	2.80	5.60	Colorimetric
	µg/dl	177	141	213	18.00	36.00	
Creatinine	µmol/l	368	294	442	37.00	74.00	Alkaline picrate no deproteinization
	mg/dl	4.16	3.32	5.00	0.42	0.84	
	µmol/l	375	300	450	37.50	75.00	Randox Enzymatic UV method
	mg/dl	4.24	3.39	5.09	0.43	0.85	
	µmol/l	382	305	459	38.50	77.00	Creatinine PAP method
	mg/dl	4.32	3.45	5.19	0.44	0.87	
	µmol/l	380	304	456	38.00	76.00	Roche Creatinine Plus
	mg/dl	4.29	3.44	5.14	0.43	0.85	
	µmol/l	368	294	442	37.00	74.00	Jaffe rate blanked
	mg/dl	4.16	3.32	5.00	0.42	0.84	
	µmol/l	379	303	455	38.00	76.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.28	3.42	5.14	0.43	0.86	
	µmol/l	371	297	445	37.00	74.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.19	3.36	5.02	0.42	0.83	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	363	290	436	36.50	73.00	IDMS traceable
	mg/dl	4.10	3.28	4.92	0.41	0.82	
D-3-Hydroxybutyrate	mmol/l	1.17	1.00	1.34	0.09	0.17	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	172	146	198	13.00	26.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	172	147	197	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
GLDH	U/l	34	27	41	3.50	7.00	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	15.8	13.5	18.1	1.15	2.30	Hexokinase
	mg/dl	285	243	327	21.00	42.00	
	mmol/l	15.9	13.5	18.3	1.20	2.40	Glucose oxidase
	mg/dl	287	243	331	22.00	44.00	
HDL - Cholesterol	mmol/l	2.91	2.48	3.34	0.22	0.43	Direct HDL PPD
	mg/dl	112	95.7	128	8.15	16.30	
	mmol/l	2.65	2.26	3.04	0.20	0.39	Direct HDL Immunoseparation
	mg/dl	102	87.2	117	7.40	14.80	
	mmol/l	2.74	2.33	3.15	0.21	0.41	Direct Clearance Method
	mg/dl	106	89.9	122	8.05	16.10	
Iron	μmol/l	38.6	31.7	45.5	3.45	6.90	Colorimetric with ppt.
	μg/dl	216	177	255	19.50	39.00	
	μmol/l	39.2	32.1	46.3	3.55	7.10	Colorimetric without ppt.
	μg/dl	219	179	259	20.00	40.00	
Lactate	mmol/l	5.47	4.49	6.45	0.49	0.98	Colorimetric Lactate Oxidase
	mg/dl	49.3	40.5	58.1	4.40	8.80	
LD (LDH)	U/l	387	329	445	29.00	58.00	L->P 37°C
	U/l	867	737	997	65.00	130.00	P->L Scandinavian & Dutch 37°C
	U/l	742	631	853	55.50	111.00	P->L German methods 37°C

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
LD (LDH)	U/l	745	633	857	56.00	112.00	P->L SFBC 37°C
	U/l	388	330	446	29.00	58.00	L->P IFCC 37°C
Lipase	U/l	66	53	79	6.50	13.00	Other Colorimetric 37°C
	U/l	60	48	72	6.00	12.00	Roche Colorimetric 37°C
Lithium	mmol/l	2.01	1.77	2.25	0.12	0.24	Spectrophotometric
	mg/dl	1.40	1.23	1.57	0.09	0.17	
Magnesium	mmol/l	1.79	1.58	2.00	0.11	0.21	Xylidyl Blue
	mg/dl	4.35	3.84	4.86	0.26	0.51	
Phosphate Inorganic	mmol/l	2.39	2.03	2.75	0.18	0.36	Phosphomolybdate enzymatic
	mg/dl	7.41	6.29	8.53	0.56	1.12	
	mmol/l	2.32	1.98	2.66	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.19	6.14	8.24	0.53	1.05	
Potassium	mmol/l	5.88	5.41	6.35	0.24	0.47	ISE method - indirect
Protein Total	g/l	45.7	36.5	54.9	4.60	9.20	Biuret reaction end point
	g/dl	4.57	3.65	5.49	0.46	0.92	
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - indirect
TIBC	µmol/l	58.8	46.5	71.1	6.15	12.30	FE+UIBC(saturation with iron)
	µg/dl	329	260	398	34.50	69.00	
Triglycerides	mmol/l	3.00	2.52	3.48	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	266	223	309	21.50	43.00	
	mmol/l	2.91	2.44	3.38	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	258	216	300	21.00	42.00	
	mmol/l	3.04	2.55	3.53	0.25	0.49	L/G Kinase EP. no correction
	mg/dl	269	226	312	21.50	43.00	
	mmol/l	2.96	2.48	3.44	0.24	0.48	Lipase/Glycerol Dehydrogenase
	mg/dl	262	219	305	21.50	43.00	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	20.3	17.2	23.4	1.55	3.10	Urease end point
	mg/dl	122	103	141	9.50	19.00	
	mmol/l	20.0	17.0	23.0	1.50	3.00	Urease kinetic
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	20.0	17.0	23.0	1.50	3.00	BUN
	mg/dl	56.1	47.7	64.5	4.20	8.40	
Uric Acid (Urate)	mmol/l	0.56	0.49	0.63	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.41	8.18	10.6	0.62	1.23	
	mmol/l	0.57	0.49	0.64	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.49	8.25	10.7	0.62	1.24	
	mmol/l	0.54	0.47	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.14	7.95	10.3	0.60	1.19	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	28.9	24.5	33.3	2.20	4.40	Bromocresol Green
	g/dl	2.89	2.45	3.33	0.22	0.44	
	g/l	28.0	23.8	32.2	2.10	4.20	Bromocresol Purple
	g/dl	2.80	2.38	3.22	0.21	0.42	
Alkaline Phosphatase	U/l	372	316	428	28.00	56.00	p-Nitrophenylphosphate AMP 37°C
	U/l	375	318	432	28.50	57.00	AMP optimised to IFCC 37°C
	U/l	365	310	420	27.50	55.00	AMP reduced interference 37°C
ALT (GPT)	U/l	125	100	150	12.50	25.00	Tris buffer without P5P 37°C
	U/l	126	101	151	12.50	25.00	Tris buffer SCE 37°C
Amylase Pancreatic	U/l	210	178	242	16.00	32.00	Immunoinhibition EPS substrate 37°C
	U/l	222	189	255	16.50	33.00	Beckman Synchron/CX/LXi/DxC 37°C
Amylase Total	U/l	305	259	351	23.00	46.00	Beckman maltotetraose 37°C
	U/l	307	261	353	23.00	46.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	137	110	164	13.50	27.00	Tris buffer without P5P 37°C
	U/l	140	112	168	14.00	28.00	Tris buffer SCE 37°C
Bicarbonate	mmol/l	16.1	12.8	19.4	1.65	3.30	Differential rate pH change
	mmol/l	16.2	12.8	19.6	1.70	3.40	Ion selective electrode
Bilirubin Direct	µmol/l	17.8	14.0	21.6	1.90	3.80	Diazo with Sulphanilic Acid
	mg/dl	1.04	0.819	1.26	0.11	0.22	
Bilirubin Total	µmol/l	89.7	70.9	109	9.40	18.80	Diazo with Sulphanilic Acid
	mg/dl	5.25	4.15	6.35	0.55	1.10	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Calcium	mmol/l	3.01	2.71	3.31	0.15	0.30	Cresolphthalein complexone
	mg/dl	12.1	10.9	13.3	0.60	1.20	
	mmol/l	3.04	2.73	3.35	0.16	0.31	Ion selective electrode
	mg/dl	12.2	10.9	13.5	0.65	1.30	
	mmol/l	3.09	2.78	3.40	0.16	0.31	Arsenazo III
	mg/dl	12.4	11.1	13.7	0.65	1.30	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.39	6.43	8.35	0.48	0.96	Cholesterol Oxidase
	mg/dl	285	248	322	18.50	37.00	
Cholinesterase	U/l	4936	3949	5923	493.50	987.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	593	486	700	53.50	107.00	CK-NAC serum start (DGKC) 37°C
	U/l	596	489	703	53.50	107.00	CK-NAC substrate start (DGKC) 37°C
	U/l	601	493	709	54.00	108.00	CK-NAC (IFCC) 37°C
	U/l	592	485	699	53.50	107.00	Monothioglycerol 37°C
Creatinine	µmol/l	381	305	457	38.00	76.00	Alkaline picrate no deproteinization
	mg/dl	4.31	3.45	5.17	0.43	0.86	
	µmol/l	373	298	448	37.50	75.00	Randox Enzymatic UV method
	mg/dl	4.21	3.37	5.05	0.42	0.84	
	µmol/l	381	305	457	38.00	76.00	Jaffe rate blanked
	mg/dl	4.31	3.45	5.17	0.43	0.86	
	µmol/l	378	302	454	38.00	76.00	IDMS traceable
	mg/dl	4.27	3.41	5.13	0.43	0.86	
gamma-GT	U/l	135	115	155	10.00	20.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	135	115	155	10.00	20.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	156	132	180	12.00	24.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Glucose	mmol/l	15.5	13.2	17.8	1.15	2.30	Hexokinase
	mg/dl	279	238	320	20.50	41.00	
	mmol/l	15.4	13.1	17.7	1.15	2.30	Oxygen electrode
	mg/dl	278	236	320	21.00	42.00	
	mmol/l	15.3	13.0	17.6	1.15	2.30	Glucose oxidase
	mg/dl	276	234	318	21.00	42.00	
HDL - Cholesterol	mmol/l	4.02	3.41	4.63	0.31	0.61	Direct HDL PPD
	mg/dl	155	132	178	11.50	23.00	
Iron	µmol/l	40.2	33.0	47.4	3.60	7.20	Colorimetric without ppt.
	µg/dl	225	184	266	20.50	41.00	
Lactate	mmol/l	5.28	4.33	6.23	0.48	0.95	Colorimetric Lactate Oxidase
	mg/dl	47.6	39.0	56.2	4.30	8.60	
LD (LDH)	U/l	317	269	365	24.00	48.00	L->P 37°C
	U/l	1012	860	1164	76.00	152.00	Pyruvate 1.4 mM - Beckman LD-P 37°C
	U/l	362	308	416	27.00	54.00	L->P IFCC 37°C
Lipase	U/l	62	50	74	6.00	12.00	Other Colorimetric 37°C
Lithium	mmol/l	2.10	1.85	2.35	0.13	0.25	Spectrophotometric
	mg/dl	1.46	1.28	1.64	0.09	0.18	
Magnesium	mmol/l	1.75	1.54	1.96	0.11	0.21	Calmagite
	mg/dl	4.25	3.74	4.76	0.26	0.51	
	mmol/l	1.76	1.55	1.97	0.11	0.21	Xylidyl Blue
	mg/dl	4.28	3.77	4.79	0.26	0.51	
Osmolality	mOsm/kg	332	266	398	33.00	66.00	Calculated
Phosphate Inorganic	mmol/l	2.34	1.99	2.69	0.18	0.35	Phosphomolybdate enzymatic
	mg/dl	7.25	6.17	8.33	0.54	1.08	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Phosphate Inorganic	mmol/l	2.36	2.00	2.72	0.18	0.36	Phosphomolybdate UV
	mg/dl	7.32	6.20	8.44	0.56	1.12	
Potassium	mmol/l	5.91	5.43	6.39	0.24	0.48	ISE method - indirect
Protein Total	g/l	45.7	36.6	54.8	4.55	9.10	Biuret reaction CX4/5/7
	g/dl	4.57	3.66	5.48	0.46	0.91	
	g/l	46.0	36.8	55.2	4.60	9.20	Biuret reaction end point
	g/dl	4.60	3.68	5.52	0.46	0.92	
	g/l	43.8	35.0	52.6	4.40	8.80	Biuret reaction kinetic
	g/dl	4.38	3.50	5.26	0.44	0.88	
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - indirect
TIBC	µmol/l	66.2	52.3	80.1	6.95	13.90	Removal of excess free iron
	µg/dl	370	292	448	39.00	78.00	
	µmol/l	60.7	47.9	73.5	6.40	12.80	FE+UIBC(saturation with iron)
	µg/dl	339	268	410	35.50	71.00	
Triglycerides	mmol/l	2.97	2.50	3.44	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	263	221	305	21.00	42.00	
	mmol/l	3.00	2.52	3.48	0.24	0.48	L/G Kinase EP. no correction
	mg/dl	266	223	309	21.50	43.00	
Urea	mmol/l	20.3	17.2	23.4	1.55	3.10	Urease end point
	mg/dl	122	103	141	9.50	19.00	
	mmol/l	20.4	17.3	23.5	1.55	3.10	Urease kinetic
	mg/dl	123	104	142	9.50	19.00	
	mmol/l	20.4	17.3	23.5	1.55	3.10	BUN
	mg/dl	57.3	48.7	65.9	4.30	8.60	
Uric Acid (Urate)	mmol/l	0.51	0.45	0.58	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.60	7.48	9.72	0.56	1.12	

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	28.6	24.3	32.9	2.15	4.30	Bromocresol Green
	g/dl	2.86	2.43	3.29	0.22	0.43	
Alkaline Phosphatase	U/l	353	300	406	26.50	53.00	AMP optimised to IFCC 37°C
	U/l	275	234	316	20.50	41.00	AMP optimised to IFCC 30°C
	U/l	226	192	260	17.00	34.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	142	113	171	14.50	29.00	Tris buffer without P5P 37°C
	U/l	105	84	126	10.50	21.00	Tris buffer without P5P 30°C
	U/l	80	64	96	8.00	16.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	90.8	71.8	110	9.50	19.00	Diazo with Sulphanilic Acid
	mg/dl	5.31	4.20	6.42	0.56	1.11	
Cholesterol	mmol/l	7.74	6.74	8.74	0.50	1.00	Cholesterol Oxidase
	mg/dl	299	260	338	19.50	39.00	
CK Total	U/l	614	504	724	55.00	110.00	CK-NAC (IFCC) 37°C
	U/l	384	316	452	34.00	68.00	CK-NAC (IFCC) 30°C
	U/l	261	214	308	23.50	47.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	338	271	405	33.50	67.00	Alkaline picrate no deproteinization
	mg/dl	3.82	3.06	4.58	0.38	0.76	
Glucose	mmol/l	15.9	13.5	18.3	1.20	2.40	Glucose oxidase
	mg/dl	287	243	331	22.00	44.00	
Protein Total	g/l	46.1	36.9	55.3	4.60	9.20	Biuret reaction end point
	g/dl	4.61	3.69	5.53	0.46	0.92	

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	2.96	2.48	3.44	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	262	219	305	21.50	43.00	
Urea	mmol/l	20.3	17.3	23.3	1.50	3.00	Urease kinetic
	mg/dl	122	104	140	9.00	18.00	
	mmol/l	20.3	17.3	23.3	1.50	3.00	BUN
	mg/dl	57.0	48.5	65.5	4.25	8.50	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.94	7.78	10.1	0.58	1.16	

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	28.1	23.9	32.3	2.10	4.20	Bromocresol Green
	g/dl	2.81	2.39	3.23	0.21	0.42	
Alkaline Phosphatase	U/l	329	280	378	24.50	49.00	AMP optimised to IFCC 37°C
	U/l	256	218	294	19.00	38.00	AMP optimised to IFCC 30°C
	U/l	210	179	241	15.50	31.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	138	110	166	14.00	28.00	Tris buffer without P5P 37°C
	U/l	102	81	123	10.50	21.00	Tris buffer without P5P 30°C
	U/l	78	62	94	8.00	16.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	156	125	187	15.50	31.00	Tris buffer without P5P 37°C
	U/l	105	85	125	10.00	20.00	Tris buffer without P5P 30°C
	U/l	74	60	88	7.00	14.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	29.4	23.3	35.5	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.72	1.36	2.08	0.18	0.36	
Bilirubin Total	µmol/l	89.5	70.7	108	9.40	18.80	Diazo with Sulphanilic Acid
	mg/dl	5.24	4.14	6.34	0.55	1.10	
Cholesterol	mmol/l	7.45	6.48	8.42	0.49	0.97	Cholesterol Oxidase
	mg/dl	288	250	326	19.00	38.00	
CK Total	U/l	588	482	694	53.00	106.00	CK-NAC (IFCC) 37°C
	U/l	368	302	434	33.00	66.00	CK-NAC (IFCC) 30°C
	U/l	250	205	295	22.50	45.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	333	267	399	33.00	66.00	Alkaline picrate no deproteinization
	mg/dl	3.76	3.02	4.50	0.37	0.74	

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Glucose	mmol/l	15.6	13.2	18.0	1.20	2.40	Glucose oxidase
	mg/dl	281	238	324	21.50	43.00	
Protein Total	g/l	46.3	37.0	55.6	4.65	9.30	Biuret reaction end point
	g/dl	4.63	3.70	5.56	0.47	0.93	
Triglycerides	mmol/l	2.89	2.42	3.36	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	256	214	298	21.00	42.00	
Urea	mmol/l	19.1	16.3	21.9	1.40	2.80	Urease kinetic
	mg/dl	115	98.0	132	8.50	17.00	
	mmol/l	19.1	16.2	22.0	1.45	2.90	BUN
	mg/dl	53.6	45.6	61.6	4.00	8.00	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	8.87	7.71	10.0	0.58	1.16	
	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.95	7.80	10.1	0.58	1.15	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	30.2	25.7	34.7	2.25	4.50	Bromocresol Green
	g/dl	3.02	2.57	3.47	0.23	0.45	
	g/l	26.8	22.8	30.8	2.00	4.00	Bromocresol Purple
	g/dl	2.68	2.28	3.08	0.20	0.40	
Alkaline Phosphatase	U/l	261	222	300	19.50	39.00	Roche Integra AMP buffer 37°C
	U/l	203	173	233	15.00	30.00	Roche Integra AMP buffer 30°C
	U/l	167	142	192	12.50	25.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	125	100	150	12.50	25.00	Tris buffer without P5P 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer without P5P 30°C
	U/l	70	56	84	7.00	14.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	266	226	306	20.00	40.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/l	283	241	325	21.00	42.00	Saccharogenic 37°C
	U/l	286	243	329	21.50	43.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	286	243	329	21.50	43.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	144	116	172	14.00	28.00	Tris buffer without P5P 37°C
	U/l	97	78	116	9.50	19.00	Tris buffer without P5P 30°C
	U/l	69	55	83	7.00	14.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	16.7	13.2	20.2	1.75	3.50	Colorimetric
	mmol/l	16.1	12.8	19.4	1.65	3.30	Enzymatic
Bilirubin Direct	µmol/l	31.6	25.0	38.2	3.30	6.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.85	1.46	2.24	0.20	0.39	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Direct	µmol/l	27.6	21.8	33.4	2.90	5.80	Diazo with Sulphanilic Acid
	mg/dl	1.61	1.28	1.94	0.17	0.33	
Bilirubin Total	µmol/l	87.0	68.7	105	9.15	18.30	Diazo with Sulphanilic Acid
	mg/dl	5.09	4.02	6.16	0.54	1.07	
	µmol/l	85.2	67.3	103	8.95	17.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.98	3.94	6.02	0.52	1.04	
	µmol/l	86.1	68.0	104	9.05	18.10	Diazonium ion
	mg/dl	5.04	3.98	6.10	0.53	1.06	
Calcium	mmol/l	3.19	2.87	3.51	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.8	11.5	14.1	0.65	1.30	
	mmol/l	3.15	2.83	3.47	0.16	0.32	NM-BAPTA
	mg/dl	12.6	11.3	13.9	0.65	1.30	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.48	6.50	8.46	0.49	0.98	Cholesterol Oxidase
	mg/dl	289	251	327	19.00	38.00	
CK Total	U/l	600	492	708	54.00	108.00	CK-NAC substrate start (DGKC) 37°C
	U/l	376	308	444	34.00	68.00	CK-NAC substrate start (DGKC) 30°C
	U/l	255	209	301	23.00	46.00	CK-NAC substrate start (DGKC) 25°C
	U/l	637	522	752	57.50	115.00	CK-NAC (IFCC) 37°C
	U/l	399	327	471	36.00	72.00	CK-NAC (IFCC) 30°C
	U/l	271	222	320	24.50	49.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	351	281	421	35.00	70.00	Alkaline picrate no deproteinization
	mg/dl	3.97	3.18	4.76	0.40	0.79	
	µmol/l	359	287	431	36.00	72.00	Roche Creatinine Plus
	mg/dl	4.06	3.24	4.88	0.41	0.82	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Creatinine	μmol/l	361	289	433	36.00	72.00	Jaffe rate blanked
	mg/dl	4.08	3.27	4.89	0.41	0.81	
	μmol/l	365	292	438	36.50	73.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	4.12	3.30	4.94	0.41	0.82	
	μmol/l	359	288	430	35.50	71.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	4.06	3.25	4.87	0.41	0.81	
	U/l	156	132	180	12.00	24.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	123	104	142	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
gamma-GT	U/l	96	81	111	7.50	15.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	173	147	199	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	136	116	156	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	107	91	123	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.8	13.5	18.1	1.15	2.30	Glucose dehydrogenase
	mg/dl	285	243	327	21.00	42.00	
	mmol/l	15.9	13.5	18.3	1.20	2.40	Hexokinase
	mg/dl	287	243	331	22.00	44.00	
	mmol/l	15.8	13.4	18.2	1.20	2.40	Glucose oxidase
	mg/dl	285	241	329	22.00	44.00	
HDL - Cholesterol	mmol/l	4.39	3.74	5.04	0.33	0.65	Direct HDL PEGME
	mg/dl	169	144	194	12.50	25.00	
	mmol/l	4.44	3.77	5.11	0.34	0.67	Direct HDL Roche 3rd generation
	mg/dl	171	146	196	12.50	25.00	
Iron	μmol/l	39.9	32.7	47.1	3.60	7.20	Colorimetric with ppt.
	μg/dl	223	183	263	20.00	40.00	
	μmol/l	39.6	32.5	46.7	3.55	7.10	Colorimetric without ppt.
	μg/dl	221	182	260	19.50	39.00	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Lactate	mmol/l	5.74	4.70	6.78	0.52	1.04	Colorimetric Lactate Oxidase
	mg/dl	51.7	42.3	61.1	4.70	9.40	
LD (LDH)	U/l	401	341	461	30.00	60.00	L->P IFCC 37°C
	U/l	290	246	334	22.00	44.00	L->P IFCC 30°C
	U/l	203	173	233	15.00	30.00	L->P IFCC 25°C
Lipase	U/l	68	55	81	6.50	13.00	Roche Colorimetric 37°C
Lithium	mmol/l	2.08	1.83	2.33	0.13	0.25	Ion selective electrode
	mg/dl	1.44	1.27	1.61	0.09	0.17	
Magnesium	mmol/l	1.73	1.52	1.94	0.11	0.21	Chlorphosphonazo III
	mg/dl	4.20	3.69	4.71	0.26	0.51	
Phosphate Inorganic	mmol/l	2.39	2.03	2.75	0.18	0.36	Phosphomolybdate enzymatic
	mg/dl	7.41	6.29	8.53	0.56	1.12	
	mmol/l	2.39	2.03	2.75	0.18	0.36	Phosphomolybdate UV
	mg/dl	7.41	6.29	8.53	0.56	1.12	
Potassium	mmol/l	5.92	5.45	6.39	0.24	0.47	ISE method - indirect
Protein Total	g/l	44.8	35.8	53.8	4.50	9.00	Biuret reaction end point
	g/dl	4.48	3.58	5.38	0.45	0.90	
	g/l	44.0	35.2	52.8	4.40	8.80	Biuret reaction kinetic
	g/dl	4.40	3.52	5.28	0.44	0.88	
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - indirect
TIBC	µmol/l	63.2	49.9	76.5	6.65	13.30	FE+UIBC(saturation with iron)
	µg/dl	353	279	427	37.00	74.00	
Triglycerides	mmol/l	2.88	2.42	3.34	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	255	214	296	20.50	41.00	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Triglycerides	mmol/l	2.92	2.45	3.39	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	258	217	299	20.50	41.00	
	mmol/l	2.97	2.49	3.45	0.24	0.48	L/G Kinase EP. no correction
	mg/dl	263	220	306	21.50	43.00	
	mmol/l	2.90	2.43	3.37	0.24	0.47	Lipase/Glycerol Dehydrogenase
	mg/dl	257	215	299	21.00	42.00	
	mmol/l	19.8	16.8	22.8	1.50	3.00	Urease end point
	mg/dl	119	101	137	9.00	18.00	
Urea	mmol/l	19.4	16.5	22.3	1.45	2.90	Urease kinetic
	mg/dl	117	99.2	135	8.90	17.80	
	mmol/l	19.4	16.5	22.3	1.45	2.90	BUN
	mg/dl	54.4	46.2	62.6	4.10	8.20	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.21	8.01	10.4	0.60	1.20	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.19	8.00	10.4	0.60	1.19	
Uric Acid (Urate)	mmol/l	0.55	0.47	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.16	7.96	10.4	0.60	1.20	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
alpha-HBDH	U/l	496	392	600	52.00	104.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	374	296	452	39.00	78.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	281	222	340	29.50	59.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	9.56	6.41	12.7	1.58	3.15	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	13.1	8.78	17.4	2.16	4.32	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Prostatic)	U/l	40.9	27.4	54.4	6.75	13.50	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	25.8	17.3	34.3	4.25	8.50	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Total)	U/l	50.5	33.8	67.2	8.35	16.70	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	38.9	26.1	51.7	6.40	12.80	1-Naphthyl Phosphate substrate Kinetic 37°C
Albumin	g/l	30.4	25.8	35.0	2.30	4.60	Bromocresol Green
	g/dl	3.04	2.58	3.50	0.23	0.46	
	g/l	27.0	22.9	31.1	2.05	4.10	Bromocresol Purple
	g/dl	2.70	2.29	3.11	0.21	0.41	
Alkaline Phosphatase	U/l	510	434	586	38.00	76.00	Diethanolamine buffer DEA 37°C
	U/l	397	338	456	29.50	59.00	Diethanolamine buffer DEA 30°C
	U/l	326	277	375	24.50	49.00	Diethanolamine buffer DEA 25°C
	U/l	243	206	280	18.50	37.00	Roche Integra AMP buffer 37°C
	U/l	189	160	218	14.50	29.00	Roche Integra AMP buffer 30°C
	U/l	155	132	178	11.50	23.00	Roche Integra AMP buffer 25°C
	U/l	340	289	391	25.50	51.00	AMP optimised to IFCC 37°C
	U/l	265	225	305	20.00	40.00	AMP optimised to IFCC 30°C
	U/l	217	185	249	16.00	32.00	AMP optimised to IFCC 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Alkaline Phosphatase	U/l	341	290	392	25.50	51.00	AMP non-optimised 37°C
	U/l	266	226	306	20.00	40.00	AMP non-optimised 30°C
	U/l	218	185	251	16.50	33.00	AMP non-optimised 25°C
	U/l	365	310	420	27.50	55.00	Randox AMP 37°C
	U/l	284	241	327	21.50	43.00	Randox AMP 30°C
	U/l	233	198	268	17.50	35.00	Randox AMP 25°C
ALT (GPT)	U/l	130	104	156	13.00	26.00	Tris buffer without P5P 37°C
	U/l	96	77	115	9.50	19.00	Tris buffer without P5P 30°C
	U/l	73	59	87	7.00	14.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	254	216	292	19.00	38.00	Roche liquid stable pNPG7 37°C
	U/l	290	247	333	21.50	43.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	279	237	321	21.00	42.00	Roche liquid stable pNPG7 37°C
	U/l	313	266	360	23.50	47.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	143	114	172	14.50	29.00	Tris buffer without P5P 37°C
	U/l	97	77	117	10.00	20.00	Tris buffer without P5P 30°C
	U/l	68	54	82	7.00	14.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	15.8	12.5	19.1	1.65	3.30	Colorimetric
	mmol/l	15.9	12.6	19.2	1.65	3.30	Enzymatic
Bile Acids	µmol/l	48.6	38.9	58.3	4.85	9.70	5th Generation Colorimetric
Bilirubin Direct	µmol/l	29.8	23.6	36.0	3.10	6.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.74	1.38	2.10	0.18	0.36	
	µmol/l	30.2	23.8	36.6	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.77	1.39	2.15	0.19	0.38	
Bilirubin Total	µmol/l	92.6	73.1	112	9.75	19.50	Diazo with Dichloroaniline (DCA)
	mg/dl	5.42	4.28	6.56	0.57	1.14	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	µmol/l	87.0	68.7	105	9.15	18.30	Diazo with Sulphanilic Acid
	mg/dl	5.09	4.02	6.16	0.54	1.07	
	µmol/l	83.6	66.0	101	8.80	17.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.89	3.86	5.92	0.52	1.03	
	µmol/l	86.1	68.0	104	9.05	18.10	Diazonium ion
	mg/dl	5.04	3.98	6.10	0.53	1.06	
Calcium	mmol/l	3.16	2.84	3.48	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.7	11.4	14.0	0.65	1.30	
	mmol/l	3.13	2.82	3.44	0.16	0.31	Arsenazo III
	mg/dl	12.5	11.3	13.7	0.60	1.20	
	mmol/l	3.13	2.82	3.44	0.16	0.31	NM-BAPTA
	mg/dl	12.5	11.3	13.7	0.60	1.20	
Chloride	mmol/l	113	104	122	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.34	6.39	8.29	0.48	0.95	Cholesterol Oxidase
	mg/dl	283	247	319	18.00	36.00	
Cholinesterase	U/l	4850	3880	5820	485.00	970.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	576	472	680	52.00	104.00	CK-NAC substrate start (DGKC) 37°C
	U/l	361	295	427	33.00	66.00	CK-NAC substrate start (DGKC) 30°C
	U/l	245	201	289	22.00	44.00	CK-NAC substrate start (DGKC) 25°C
	U/l	587	482	692	52.50	105.00	CK-NAC (IFCC) 37°C
	U/l	367	302	432	32.50	65.00	CK-NAC (IFCC) 30°C
	U/l	249	205	293	22.00	44.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	375	300	450	37.50	75.00	Alkaline picrate no deproteinization
	mg/dl	4.24	3.39	5.09	0.43	0.85	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	µmol/l	376	301	451	37.50	75.00	Randox Enzymatic UV method
	mg/dl	4.25	3.40	5.10	0.43	0.85	
	µmol/l	377	302	452	37.50	75.00	Creatinine PAP method
	mg/dl	4.26	3.41	5.11	0.43	0.85	
	µmol/l	387	310	464	38.50	77.00	Roche Creatinine Plus
	mg/dl	4.37	3.50	5.24	0.44	0.87	
	µmol/l	361	289	433	36.00	72.00	Jaffe rate blanked
	mg/dl	4.08	3.27	4.89	0.41	0.81	
	µmol/l	378	303	453	37.50	75.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.27	3.42	5.12	0.43	0.85	
	µmol/l	347	278	416	34.50	69.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	3.92	3.14	4.70	0.39	0.78	
D-3-Hydroxybutyrate	mmol/l	1.15	0.98	1.32	0.08	0.17	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	149	127	171	11.00	22.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	117	100	134	8.50	17.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	92	78	106	7.00	14.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	165	141	189	12.00	24.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	130	111	149	9.50	19.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	102	87	117	7.50	15.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	179	152	206	13.50	27.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	141	120	162	10.50	21.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
GLDH	U/l	110	94	126	8.00	16.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	36	29	43	3.50	7.00	Triethanolamine buffer 50 mmol 37°C
	U/l	28	22	34	3.00	6.00	Triethanolamine buffer 50 mmol 30°C
	U/l	22	18	26	2.00	4.00	Triethanolamine buffer 50 mmol 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Glucose	mmol/l	15.9	13.5	18.3	1.20	2.40	Hexokinase
	mg/dl	287	243	331	22.00	44.00	
	mmol/l	15.9	13.5	18.3	1.20	2.40	Glucose oxidase
	mg/dl	287	243	331	22.00	44.00	
HDL - Cholesterol	mmol/l	2.71	2.30	3.12	0.21	0.41	Direct HDL Immunoseparation
	mg/dl	105	88.8	121	8.10	16.20	
	mmol/l	4.26	3.62	4.90	0.32	0.64	Direct HDL Roche 3rd generation
	mg/dl	164	140	188	12.00	24.00	
Iron	µmol/l	38.7	31.8	45.6	3.45	6.90	Colorimetric with ppt.
	µg/dl	216	178	254	19.00	38.00	
	µmol/l	38.6	31.7	45.5	3.45	6.90	Colorimetric without ppt.
	µg/dl	216	177	255	19.50	39.00	
Lactate	mmol/l	5.50	4.51	6.49	0.50	0.99	Colorimetric Lactate Oxidase
	mg/dl	49.6	40.6	58.6	4.50	9.00	
LD (LDH)	U/l	747	635	859	56.00	112.00	P->L German methods 37°C
	U/l	539	458	620	40.50	81.00	P->L German methods 30°C
	U/l	379	322	436	28.50	57.00	P->L German methods 25°C
	U/l	382	324	440	29.00	58.00	L->P IFCC 37°C
	U/l	276	234	318	21.00	42.00	L->P IFCC 30°C
	U/l	194	164	224	15.00	30.00	L->P IFCC 25°C
Lipase	U/l	65	52	78	6.50	13.00	Other Colorimetric 37°C
	U/l	62	50	74	6.00	12.00	Roche Colorimetric 37°C
Lithium	mmol/l	2.05	1.80	2.30	0.13	0.25	Spectrophotometric
	mg/dl	1.42	1.25	1.59	0.09	0.17	
Magnesium	mmol/l	1.74	1.53	1.95	0.11	0.21	Xylidyl Blue
	mg/dl	4.23	3.72	4.74	0.26	0.51	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Magnesium	mmol/l	1.79	1.57	2.01	0.11	0.22	Enzymatic
	mg/dl	4.35	3.82	4.88	0.27	0.53	
Phosphate Inorganic	mmol/l	2.31	1.96	2.66	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.16	6.08	8.24	0.54	1.08	
Potassium	mmol/l	5.94	5.46	6.42	0.24	0.48	ISE method - indirect
Protein Total	g/l	45.9	36.7	55.1	4.60	9.20	Biuret reaction end point
	g/dl	4.59	3.67	5.51	0.46	0.92	
Sodium	mmol/l	157	149	165	4.00	8.00	ISE method - indirect
TIBC	µmol/l	57.9	45.8	70.0	6.05	12.10	FE+UIBC(saturation with iron)
	µg/dl	324	256	392	34.00	68.00	
Triglycerides	mmol/l	2.83	2.38	3.28	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	250	211	289	19.50	39.00	
	mmol/l	2.86	2.40	3.32	0.23	0.46	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	253	212	294	20.50	41.00	
	mmol/l	2.84	2.39	3.29	0.23	0.45	L/G Kinase EP. no correction
	mg/dl	251	212	290	19.50	39.00	
Urea	mmol/l	20.1	17.1	23.1	1.50	3.00	Urease kinetic
	mg/dl	121	103	139	9.00	18.00	
	mmol/l	20.1	17.1	23.1	1.50	3.00	BUN
	mg/dl	56.4	47.9	64.9	4.25	8.50	
Uric Acid (Urate)	mmol/l	0.55	0.47	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.16	7.96	10.4	0.60	1.20	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.12	7.93	10.3	0.60	1.19	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.04	7.86	10.2	0.59	1.18	

ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	29.6	25.2	34.0	2.20	4.40	Bromocresol Green
	g/dl	2.96	2.52	3.40	0.22	0.44	
Alkaline Phosphatase	U/l	388	329	447	29.50	59.00	AMP optimised to IFCC 37°C
	U/l	302	256	348	23.00	46.00	AMP optimised to IFCC 30°C
	U/l	248	210	286	19.00	38.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	123	98	148	12.50	25.00	Tris buffer without P5P 37°C
	U/l	91	73	109	9.00	18.00	Tris buffer without P5P 30°C
	U/l	69	55	83	7.00	14.00	Tris buffer without P5P 25°C
Amylase Total	U/l	314	267	361	23.50	47.00	I.L. - blocked pNPG7 37°C
AST (GOT)	U/l	138	110	166	14.00	28.00	Tris buffer without P5P 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer without P5P 30°C
	U/l	66	52	80	7.00	14.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	92.8	73.3	112	9.75	19.50	Diazo with Sulphanilic Acid
	mg/dl	5.43	4.29	6.57	0.57	1.14	
Calcium	mmol/l	3.22	2.90	3.54	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.9	11.6	14.2	0.65	1.30	
Chloride	mmol/l	114	105	123	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.37	6.41	8.33	0.48	0.96	Cholesterol Oxidase
	mg/dl	284	247	321	18.50	37.00	
CK Total	U/l	543	446	640	48.50	97.00	CK-NAC (IFCC) 37°C
	U/l	340	279	401	30.50	61.00	CK-NAC (IFCC) 30°C
	U/l	231	190	272	20.50	41.00	CK-NAC (IFCC) 25°C

ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	µmol/l	345	276	414	34.50	69.00	Alkaline picrate no deproteinization
	mg/dl	3.90	3.12	4.68	0.39	0.78	
D-3-Hydroxybutyrate	mmol/l	1.21	1.03	1.39	0.09	0.18	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	153	130	176	11.50	23.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	121	102	140	9.50	19.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	94	80	108	7.00	14.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Hexokinase
	mg/dl	288	245	331	21.50	43.00	
	mmol/l	15.2	12.9	17.5	1.15	2.30	Glucose oxidase
	mg/dl	274	232	316	21.00	42.00	
LD (LDH)	U/l	766	651	881	57.50	115.00	P->L German methods 37°C
	U/l	553	470	636	41.50	83.00	P->L German methods 30°C
	U/l	388	330	446	29.00	58.00	P->L German methods 25°C
Phosphate Inorganic	mmol/l	2.44	2.08	2.80	0.18	0.36	Phosphomolybdate UV
	mg/dl	7.56	6.45	8.67	0.56	1.11	
Potassium	mmol/l	5.98	5.50	6.46	0.24	0.48	ISE method - indirect
Protein Total	g/l	46.4	37.1	55.7	4.65	9.30	Biuret reaction end point
	g/dl	4.64	3.71	5.57	0.47	0.93	
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
Triglycerides	mmol/l	2.94	2.47	3.41	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	260	219	301	20.50	41.00	
	mmol/l	3.03	2.54	3.52	0.25	0.49	L/G Kinase EP. no correction
	mg/dl	268	225	311	21.50	43.00	
Urea	mmol/l	20.9	17.7	24.1	1.60	3.20	Urease end point
	mg/dl	126	106	146	10.00	20.00	

ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	20.9	17.8	24.0	1.55	3.10	BUN
	mg/dl	58.7	49.9	67.5	4.40	8.80	
Uric Acid (Urate)	mmol/l	0.58	0.50	0.65	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.66	8.42	10.9	0.62	1.24	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	26.3	22.4	30.2	1.95	3.90	Ortho Vitros Microslide Systems
	g/dl	2.63	2.24	3.02	0.20	0.39	
Alkaline Phosphatase	U/l	254	216	292	19.00	38.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	140	112	168	14.00	28.00	Ortho Vitros Microslide Systems 37°C
	U/l	140	112	168	14.00	28.00	Vitros DT60/DT60 II/DTSC II 37°C
Amylase Total	U/l	176	149	203	13.50	27.00	Ortho Vitros Microslide Systems 37°C
	U/l	170	144	196	13.00	26.00	Vitros DT60/DT60 II 37°C
AST (GOT)	U/l	182	146	218	18.00	36.00	Ortho Vitros Microslide visible slide 37°C
	U/l	192	153	231	19.50	39.00	Vitros DT60/DT60 II/DTSC II 37°C
Bicarbonate	mmol/l	18.5	14.7	22.3	1.90	3.80	Ortho Vitros Microslide Systems
Bilirubin Total	µmol/l	80.1	63.3	96.9	8.40	16.80	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	4.69	3.70	5.68	0.50	0.99	
	µmol/l	80.6	63.7	97.5	8.45	16.90	Vitros 250/500/700/950 Total BUBC
	mg/dl	4.72	3.73	5.71	0.50	0.99	
	µmol/l	76.0	60.1	91.9	7.95	15.90	Vitros DT60/DT60 II Total Bil
	mg/dl	4.45	3.52	5.38	0.47	0.93	
Calcium	mmol/l	3.13	2.82	3.44	0.16	0.31	Ortho Vitros Microslide Systems
	mg/dl	12.5	11.3	13.7	0.60	1.20	
	mmol/l	3.09	2.78	3.40	0.16	0.31	Vitros DT60/DT60 II/DTSC II
	mg/dl	12.4	11.1	13.7	0.65	1.30	
Chloride	mmol/l	116	107	125	4.50	9.00	Ortho Vitros Microslide Systems

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	6.89	6.00	7.78	0.45	0.89	Ortho Vitros Microslide Systems
	mg/dl	266	232	300	17.00	34.00	
Cholinesterase	U/l	4536	3628	5444	454.00	908.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	482	395	569	43.50	87.00	Ortho Vitros Microslide Systems 37°C
Creatinine	µmol/l	390	312	468	39.00	78.00	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	4.41	3.53	5.29	0.44	0.88	
	µmol/l	392	314	470	39.00	78.00	Vitros 250/500/700/950 double slide
	mg/dl	4.43	3.55	5.31	0.44	0.88	
	µmol/l	393	315	471	39.00	78.00	Vitros IDMS Traceable
	mg/dl	4.44	3.56	5.32	0.44	0.88	
gamma-GT	U/l	200	170	230	15.00	30.00	Ortho Vitros Microslide Systems 37°C
Glucose	mmol/l	14.7	12.5	16.9	1.10	2.20	Ortho Vitros Microslide Systems
	mg/dl	265	225	305	20.00	40.00	
	mmol/l	15.1	12.9	17.3	1.10	2.20	Vitros DT60/DT60 II
	mg/dl	272	232	312	20.00	40.00	
HDL - Cholesterol	mmol/l	2.68	2.27	3.09	0.21	0.41	Vitros Magnetic HDL
	mg/dl	103	87.6	118	7.70	15.40	
	mmol/l	2.68	2.28	3.08	0.20	0.40	Vitros dHDL PTA/MgCl ₂ direct precipitation
	mg/dl	103	88.0	118	7.50	15.00	
Iron	µmol/l	42.2	34.6	49.8	3.80	7.60	Ortho Vitros Microslide Systems
	µg/dl	236	193	279	21.50	43.00	
Lactate	mmol/l	5.10	4.18	6.02	0.46	0.92	Ortho Vitros Microslide Systems
	mg/dl	46.0	37.7	54.3	4.15	8.30	
LD (LDH)	U/l	1116	949	1283	83.50	167.00	Ortho Vitros Microslide Systems 37°C
Lipase	U/l	847	679	1015	84.00	168.00	Ortho Vitros Microslide Systems 37°C

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Lithium	mmol/l	2.35	2.07	2.63	0.14	0.28	Ortho Vitros Microslide Systems
	mg/dl	1.63	1.44	1.82	0.10	0.19	
Magnesium	mmol/l	1.79	1.57	2.01	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.35	3.82	4.88	0.27	0.53	
	mmol/l	1.80	1.58	2.02	0.11	0.22	Vitros DT60/DT60 II
	mg/dl	4.37	3.84	4.90	0.27	0.53	
Phosphate Inorganic	mmol/l	2.37	2.01	2.73	0.18	0.36	Ortho Vitros Microslide Systems
	mg/dl	7.35	6.23	8.47	0.56	1.12	
	mmol/l	2.34	1.99	2.69	0.18	0.35	Vitros DT60/DT60 II
	mg/dl	7.25	6.17	8.33	0.54	1.08	
Potassium	mmol/l	5.89	5.42	6.36	0.24	0.47	Ortho Vitros Microslide Systems
	mmol/l	5.90	5.43	6.37	0.24	0.47	Vitros DT60/DT60 II/DTE II
Protein Total	g/l	46.6	37.3	55.9	4.65	9.30	Ortho Vitros Microslide Systems
	g/dl	4.66	3.73	5.59	0.47	0.93	
	g/l	46.0	36.8	55.2	4.60	9.20	Vitros DT60/DT60 II
	g/dl	4.60	3.68	5.52	0.46	0.92	
PSA Total	ng/ml =	36.4	27.3	45.5	4.55	9.10	Ortho Vitros 3600/5600/ECi PSA II
Sodium	mmol/l	156	148	164	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	154	146	162	4.00	8.00	Vitros DT60/DT60 II/DTE II
Thyroid Stimulating Hormone	µU/ml =	1.10	0.88	1.32	0.11	0.22	Vitros ECi
Triglycerides	mmol/l	3.59	3.02	4.16	0.29	0.57	Ortho Vitros Microslide Systems
	mg/dl	318	267	369	25.50	51.00	
	mmol/l	3.57	3.00	4.14	0.29	0.57	Vitros DT60/DT60 II
	mg/dl	316	266	366	25.00	50.00	
Urea	mmol/l	18.3	15.6	21.0	1.35	2.70	Ortho Vitros Microslide Systems
	mg/dl	110	93.8	126	8.10	16.20	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	19.1	16.2	22.0	1.45	2.90	Vitros DT60/DT60 II
	mg/dl	115	97.4	133	8.80	17.60	
	mmol/l	18.3	15.6	21.0	1.35	2.70	BUN
	mg/dl	51.4	43.7	59.1	3.85	7.70	
Uric Acid (Urate)	mmol/l	0.51	0.45	0.58	0.03	0.07	Ortho Vitros Microslide Systems
	mg/dl	8.64	7.51	9.77	0.57	1.13	
	mmol/l	0.52	0.45	0.58	0.03	0.07	Vitros DT60/DT60 II
	mg/dl	8.67	7.54	9.80	0.57	1.13	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	28.6	24.3	32.9	2.15	4.30	Bromocresol Green
	g/dl	2.86	2.43	3.29	0.22	0.43	
Alkaline Phosphatase	U/l	537	456	618	40.50	81.00	Diethanolamine buffer DEA 37°C
	U/l	418	355	481	31.50	63.00	Diethanolamine buffer DEA 30°C
	U/l	343	291	395	26.00	52.00	Diethanolamine buffer DEA 25°C
	U/l	361	307	415	27.00	54.00	AMP optimised to IFCC 37°C
	U/l	281	239	323	21.00	42.00	AMP optimised to IFCC 30°C
	U/l	231	196	266	17.50	35.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	139	111	167	14.00	28.00	Tris buffer without P5P 37°C
	U/l	103	82	124	10.50	21.00	Tris buffer without P5P 30°C
	U/l	78	62	94	8.00	16.00	Tris buffer without P5P 25°C
Amylase Total	U/l	300	255	345	22.50	45.00	bioMerieux - blocked pNPG7 37°C
	U/l	332	282	382	25.00	50.00	Randox - Ethylidene pNPG7 37°C
	U/l	274	233	315	20.50	41.00	bioMerieux 2-chloro-pNPG3 37°C
AST (GOT)	U/l	157	126	188	15.50	31.00	Tris buffer without P5P 37°C
	U/l	106	85	127	10.50	21.00	Tris buffer without P5P 30°C
	U/l	75	60	90	7.50	15.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	33.8	26.7	40.9	3.55	7.10	Diazo with Sulphanilic Acid
	mg/dl	1.98	1.56	2.40	0.21	0.42	
Bilirubin Total	µmol/l	86.5	68.4	105	9.05	18.10	Diazo with Sulphanilic Acid
	mg/dl	5.06	4.00	6.12	0.53	1.06	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	µmol/l	85.9	67.9	104	9.00	18.00	Nitrobenzenediazonium salt
	mg/dl	5.03	3.97	6.09	0.53	1.06	
Calcium	mmol/l	3.27	2.94	3.60	0.17	0.33	Arsenazo III
	mg/dl	13.1	11.8	14.4	0.65	1.30	
Chloride	mmol/l	116	106	126	5.00	10.00	ISE direct
Cholesterol	mmol/l	7.17	6.24	8.10	0.47	0.93	Cholesterol Oxidase
	mg/dl	277	241	313	18.00	36.00	
CK Total	U/l	586	481	691	52.50	105.00	CK-NAC (IFCC) 37°C
	U/l	367	301	433	33.00	66.00	CK-NAC (IFCC) 30°C
	U/l	249	204	294	22.50	45.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	375	300	450	37.50	75.00	Alkaline picrate no deproteinization
	mg/dl	4.24	3.39	5.09	0.43	0.85	
	µmol/l	387	309	465	39.00	78.00	Randox Enzymatic UV method
	mg/dl	4.37	3.49	5.25	0.44	0.88	
	µmol/l	379	303	455	38.00	76.00	Creatinine PAP method
	mg/dl	4.28	3.42	5.14	0.43	0.86	
	µmol/l	359	287	431	36.00	72.00	Jaffe rate blanked
	mg/dl	4.06	3.24	4.88	0.41	0.82	
D-3-Hydroxybutyrate	mmol/l	1.16	0.99	1.33	0.09	0.17	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	167	142	192	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	132	112	152	10.00	20.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	103	88	118	7.50	15.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	170	144	196	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	134	113	155	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	105	89	121	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Glucose	mmol/l	15.7	13.4	18.0	1.15	2.30	Hexokinase
	mg/dl	283	241	325	21.00	42.00	
	mmol/l	15.7	13.3	18.1	1.20	2.40	Glucose oxidase
	mg/dl	283	240	326	21.50	43.00	
HDL - Cholesterol	mmol/l	3.77	3.20	4.34	0.29	0.57	Direct HDL PEGME
	mg/dl	146	124	168	11.00	22.00	
Iron	µmol/l	38.9	31.9	45.9	3.50	7.00	Colorimetric without ppt.
	µg/dl	217	178	256	19.50	39.00	
LD (LDH)	U/l	822	699	945	61.50	123.00	P->L Scandinavian & Dutch 37°C
	U/l	593	505	681	44.00	88.00	P->L Scandinavian & Dutch 30°C
	U/l	417	354	480	31.50	63.00	P->L Scandinavian & Dutch 25°C
	U/l	744	633	855	55.50	111.00	P->L German methods 37°C
	U/l	537	457	617	40.00	80.00	P->L German methods 30°C
	U/l	377	321	433	28.00	56.00	P->L German methods 25°C
Magnesium	mmol/l	1.68	1.48	1.88	0.10	0.20	Calmagite
	mg/dl	4.08	3.60	4.56	0.24	0.48	
	mmol/l	1.55	1.36	1.74	0.10	0.19	Xylidyl Blue
	mg/dl	3.77	3.30	4.24	0.24	0.47	
Phosphate Inorganic	mmol/l	2.38	2.03	2.73	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.38	6.29	8.47	0.55	1.09	
Potassium	mmol/l	5.70	5.25	6.15	0.23	0.45	ISE method - direct
Protein Total	g/l	45.8	36.7	54.9	4.55	9.10	Biuret reaction end point
	g/dl	4.58	3.67	5.49	0.46	0.91	
Sodium	mmol/l	153	145	161	4.00	8.00	ISE method - direct
Triglycerides	mmol/l	2.98	2.50	3.46	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	264	221	307	21.50	43.00	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Triglycerides	mmol/l	2.91	2.45	3.37	0.23	0.46	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	258	217	299	20.50	41.00	
	mmol/l	3.00	2.52	3.48	0.24	0.48	Lipase/Glycerol Dehydrogenase
	mg/dl	266	223	309	21.50	43.00	
Urea	mmol/l	18.8	16.0	21.6	1.40	2.80	Urease kinetic
	mg/dl	113	96.2	130	8.40	16.80	
	mmol/l	18.8	16.0	21.6	1.40	2.80	BUN
	mg/dl	52.8	44.9	60.7	3.95	7.90	
Uric Acid (Urate)	mmol/l	0.58	0.50	0.65	0.04	0.08	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.69	8.43	11.0	0.63	1.26	
	mmol/l	0.56	0.49	0.64	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.44	8.22	10.7	0.61	1.22	
	mmol/l	0.57	0.49	0.64	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.51	8.28	10.7	0.62	1.23	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
alpha-HBDH	U/l	496	392	600	52.00	104.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	374	296	452	39.00	78.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	281	222	340	29.50	59.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	13.1	8.78	17.4	2.16	4.32	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	9.56	6.41	12.7	1.58	3.15	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	25.8	17.3	34.3	4.25	8.50	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	40.9	27.4	54.4	6.75	13.50	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Total)	U/l	38.9	26.1	51.7	6.40	12.80	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	50.5	33.8	67.2	8.35	16.70	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Albumin	g/l	29.5	25.1	33.9	2.20	4.40	Bromocresol Green
	g/dl	2.95	2.51	3.39	0.22	0.44	
	g/l	27.4	23.3	31.5	2.05	4.10	Bromocresol Purple
	g/dl	2.74	2.33	3.15	0.21	0.41	
	g/l	26.3	22.4	30.2	1.95	3.90	Ortho Vitros Microslide Systems
	g/dl	2.63	2.24	3.02	0.20	0.39	
	g/l	25.9	22.0	29.8	1.95	3.90	Turbidimetric Assays
	g/dl	2.59	2.20	2.98	0.20	0.39	
Alkaline Phosphatase	U/l	374	318	430	28.00	56.00	p-Nitrophenylphosphate AMP 37°C
	U/l	291	248	334	21.50	43.00	p-Nitrophenylphosphate AMP 30°C
	U/l	239	203	275	18.00	36.00	p-Nitrophenylphosphate AMP 25°C
	U/l	254	216	292	19.00	38.00	Ortho Vitros Microslide Systems 37°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Alkaline Phosphatase	U/l	528	449	607	39.50	79.00	Diethanolamine buffer DEA 37°C
	U/l	411	350	472	30.50	61.00	Diethanolamine buffer DEA 30°C
	U/l	337	287	387	25.00	50.00	Diethanolamine buffer DEA 25°C
	U/l	367	312	422	27.50	55.00	AMP optimised to IFCC 37°C
	U/l	286	243	329	21.50	43.00	AMP optimised to IFCC 30°C
	U/l	235	199	271	18.00	36.00	AMP optimised to IFCC 25°C
	U/l	354	301	407	26.50	53.00	AMP reduced interference 37°C
	U/l	276	234	318	21.00	42.00	AMP reduced interference 30°C
	U/l	226	192	260	17.00	34.00	AMP reduced interference 25°C
ALT (GPT)	U/l	140	112	168	14.00	28.00	Ortho Vitros Microslide Systems 37°C
	U/l	159	127	191	16.00	32.00	Tris buffer with P5P 37°C
	U/l	118	94	142	12.00	24.00	Tris buffer with P5P 30°C
	U/l	90	72	108	9.00	18.00	Tris buffer with P5P 25°C
	U/l	132	106	158	13.00	26.00	Tris buffer without P5P 37°C
	U/l	98	78	118	10.00	20.00	Tris buffer without P5P 30°C
	U/l	74	60	88	7.00	14.00	Tris buffer without P5P 25°C
	U/l	132	105	159	13.50	27.00	Phosphate buffer DGKC 37°C
	U/l	98	78	118	10.00	20.00	Phosphate buffer DGKC 30°C
	U/l	74	59	89	7.50	15.00	Phosphate buffer DGKC 25°C
	U/l	124	99	149	12.50	25.00	Tris buffer SCE 37°C
	U/l	92	73	111	9.50	19.00	Tris buffer SCE 30°C
	U/l	70	56	84	7.00	14.00	Tris buffer SCE 25°C
Amylase Pancreatic	U/l	247	210	284	18.50	37.00	Immunoinhibition EPS substrate 37°C
	U/l	260	221	299	19.50	39.00	Roche liquid stable pNPG7 37°C
	U/l	290	247	333	21.50	43.00	Randox liquid stable pNPG7 37°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Amylase Total	U/l	301	256	346	22.50	45.00	pNP Maltotriose substrates 37°C
	U/l	282	240	324	21.00	42.00	Siemens - blocked pNPG7 37°C
	U/l	300	255	345	22.50	45.00	bioMerieux - blocked pNPG7 37°C
	U/l	316	269	363	23.50	47.00	I.L. - blocked pNPG7 37°C
	U/l	243	207	279	18.00	36.00	Randox - Ethylidene pNPG7 37°C
	U/l	313	266	360	23.50	47.00	Randox liquid stable pNPG7 37°C
	U/l	280	238	322	21.00	42.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	301	256	346	22.50	45.00	Beckman maltotetraose 37°C
	U/l	328	279	377	24.50	49.00	Siemens - maltopenta/hexaose 37°C
	U/l	330	281	379	24.50	49.00	Siemens 2-chloro-pNP linked substrate 37°C
	U/l	283	241	325	21.00	42.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	176	149	203	13.50	27.00	Ortho Vitros Microslide Systems 37°C
	U/l	280	238	322	21.00	42.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	281	238	324	21.50	43.00	Roche liquid stable pNPG7 37°C
	U/l	335	285	385	25.00	50.00	Siemens 2-chloro-pNPG3 37°C
	U/l	275	234	316	20.50	41.00	bioMerieux 2-chloro-pNPG3 37°C
	U/l	291	247	335	22.00	44.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	307	261	353	23.00	46.00	Beckman Synchron AMY7 37°C
Apolipoprotein A-1	g/l	0.98	0.81	1.16	0.09	0.18	Immunoturbidimetric
	mg/dl	98.4	80.7	116	8.85	17.70	
Apolipoprotein B	g/l	0.54	0.44	0.64	0.05	0.10	Immunoturbidimetric
	mg/dl	54.0	44.3	63.7	4.85	9.70	
AST (GOT)	U/l	182	146	218	18.00	36.00	Ortho Vitros Microslide visible slide 37°C
	U/l	200	160	240	20.00	40.00	Tris buffer with P5P 37°C
	U/l	135	108	162	13.50	27.00	Tris buffer with P5P 30°C
	U/l	95	76	114	9.50	19.00	Tris buffer with P5P 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
AST (GOT)	U/l	149	119	179	15.00	30.00	Tris buffer without P5P 37°C
	U/l	101	80	122	10.50	21.00	Tris buffer without P5P 30°C
	U/l	71	57	85	7.00	14.00	Tris buffer without P5P 25°C
	U/l	163	130	196	16.50	33.00	Phosphate buffer DGKC 37°C
	U/l	110	88	132	11.00	22.00	Phosphate buffer DGKC 30°C
	U/l	78	62	94	8.00	16.00	Phosphate buffer DGKC 25°C
	U/l	140	112	168	14.00	28.00	Tris buffer SCE 37°C
	U/l	95	76	114	9.50	19.00	Tris buffer SCE 30°C
	U/l	67	53	81	7.00	14.00	Tris buffer SCE 25°C
Bicarbonate	mmol/l	15.9	12.6	19.2	1.65	3.30	Colorimetric
	mmol/l	18.5	14.7	22.3	1.90	3.80	Ortho Vitros Microslide Systems
	mmol/l	16.1	12.8	19.4	1.65	3.30	Differential rate pH change
	mmol/l	16.2	12.8	19.6	1.70	3.40	Enzymatic
	mmol/l	16.4	13.0	19.8	1.70	3.40	Ion selective electrode
Bile Acids	μmol/l	44.7	35.8	53.6	4.45	8.90	4th Generation Colorimetric
	μmol/l	48.6	38.9	58.3	4.85	9.70	5th Generation Colorimetric
Bilirubin Direct	μmol/l	30.2	23.8	36.6	3.20	6.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.77	1.39	2.15	0.19	0.38	
	μmol/l	31.5	24.9	38.1	3.30	6.60	Diazo with Sulphanilic Acid
	mg/dl	1.84	1.46	2.22	0.19	0.38	
	μmol/l	32.0	25.3	38.7	3.35	6.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.87	1.48	2.26	0.20	0.39	
	μmol/l	32.4	25.6	39.2	3.40	6.80	Oxidation to Biliverdin
	mg/dl	1.90	1.50	2.30	0.20	0.40	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Direct	µmol/l	31.0	24.5	37.5	3.25	6.50	Modified Jendrassik
	mg/dl	1.81	1.43	2.19	0.19	0.38	
Bilirubin Total	µmol/l	80.1	63.3	96.9	8.40	16.80	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	4.69	3.70	5.68	0.50	0.99	
	µmol/l	80.6	63.7	97.5	8.45	16.90	Vitros 250/500/700/950 Total BUBC
	mg/dl	4.72	3.73	5.71	0.50	0.99	
	µmol/l	100	79.0	121	10.50	21.00	Diazo with Dichloroaniline (DCA)
	mg/dl	5.85	4.62	7.08	0.62	1.23	
	µmol/l	88.0	69.5	107	9.25	18.50	Diazo with Sulphanilic Acid
	mg/dl	5.15	4.07	6.23	0.54	1.08	
	µmol/l	99.7	78.8	121	10.45	20.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.83	4.61	7.05	0.61	1.22	
	µmol/l	88.2	69.7	107	9.25	18.50	Nitrobenzenediazonium salt
	mg/dl	5.16	4.08	6.24	0.54	1.08	
	µmol/l	86.1	68.0	104	9.05	18.10	Diazonium ion
	mg/dl	5.04	3.98	6.10	0.53	1.06	
	µmol/l	99.3	78.4	120	10.45	20.90	Oxidation to Biliverdin
	mg/dl	5.81	4.59	7.03	0.61	1.22	
	µmol/l	99.8	78.8	121	10.50	21.00	Modified Jendrassik
	mg/dl	5.84	4.61	7.07	0.62	1.23	
Calcium	mmol/l	3.19	2.87	3.51	0.16	0.32	Atomic absorption
	mg/dl	12.8	11.5	14.1	0.65	1.30	
	mmol/l	3.10	2.79	3.41	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.4	11.2	13.6	0.60	1.20	
	mmol/l	3.13	2.82	3.44	0.16	0.31	Ortho Vitros Microslide Systems
	mg/dl	12.5	11.3	13.7	0.60	1.20	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Calcium	mmol/l	3.04	2.74	3.34	0.15	0.30	Ion selective electrode
	mg/dl	12.2	11.0	13.4	0.60	1.20	
	mmol/l	2.89	2.61	3.17	0.14	0.28	Methylthymol blue
	mg/dl	11.6	10.5	12.7	0.55	1.10	
	mmol/l	3.14	2.82	3.46	0.16	0.32	Arsenazo III
	mg/dl	12.6	11.3	13.9	0.65	1.30	
	mmol/l	3.15	2.83	3.47	0.16	0.32	NM-BAPTA
	mg/dl	12.6	11.3	13.9	0.65	1.30	
Chloride	mmol/l	114	105	123	4.50	9.00	Colorimetric
	mmol/l	116	107	125	4.50	9.00	Ortho Vitros Microslide Systems
	mmol/l	114	104	124	5.00	10.00	ISE indirect
	mmol/l	115	106	124	4.50	9.00	ISE direct
Cholesterol	mmol/l	6.89	6.00	7.78	0.45	0.89	Ortho Vitros Microslide Systems
	mg/dl	266	232	300	17.00	34.00	
	mmol/l	7.35	6.39	8.31	0.48	0.96	Cholesterol Oxidase
	mg/dl	284	247	321	18.50	37.00	
Cholinesterase	U/l	4853	3882	5824	485.50	971.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	482	395	569	43.50	87.00	Ortho Vitros Microslide Systems 37°C
	U/l	579	475	683	52.00	104.00	CK-NAC serum start (DGKC) 37°C
	U/l	362	297	427	32.50	65.00	CK-NAC serum start (DGKC) 30°C
	U/l	246	202	290	22.00	44.00	CK-NAC serum start (DGKC) 25°C
	U/l	597	490	704	53.50	107.00	CK-NAC substrate start (DGKC) 37°C
	U/l	374	307	441	33.50	67.00	CK-NAC substrate start (DGKC) 30°C
	U/l	254	208	300	23.00	46.00	CK-NAC substrate start (DGKC) 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
CK Total	U/l	610	500	720	55.00	110.00	CK-NAC (IFCC) 37°C
	U/l	382	313	451	34.50	69.00	CK-NAC (IFCC) 30°C
	U/l	259	213	305	23.00	46.00	CK-NAC (IFCC) 25°C
	U/l	591	485	697	53.00	106.00	Monothioglycerol 37°C
	U/l	370	304	436	33.00	66.00	Monothioglycerol 30°C
	U/l	251	206	296	22.50	45.00	Monothioglycerol 25°C
	U/l	561	460	662	50.50	101.00	Dithioerythritol 37°C
	U/l	351	288	414	31.50	63.00	Dithioerythritol 30°C
	U/l	238	196	280	21.00	42.00	Dithioerythritol 25°C
	U/l	565	464	666	50.50	101.00	Dithioerythritol (DTE) IFCC correlated 37°C
	U/l	354	290	418	32.00	64.00	Dithioerythritol (DTE) IFCC correlated 30°C
	U/l	240	197	283	21.50	43.00	Dithioerythritol (DTE) IFCC correlated 25°C
Copper	µmol/l	27.8	22.2	33.4	2.80	5.60	Atomic absorption
	µg/dl	177	141	213	18.00	36.00	
	µmol/l	27.9	22.3	33.5	2.80	5.60	Colorimetric
	µg/dl	177	142	212	17.50	35.00	
Cortisol	nmol/l	1084	813	1355	135.50	271.00	Roche Cobas E411
	µg/dl	39.0	29.3	48.7	4.85	9.70	
Creatinine	µmol/l	365	292	438	36.50	73.00	Alkaline picrate no deproteinization
	mg/dl	4.12	3.30	4.94	0.41	0.82	
	µmol/l	390	312	468	39.00	78.00	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	4.41	3.53	5.29	0.44	0.88	
	µmol/l	380	304	456	38.00	76.00	Randox Enzymatic UV method
	mg/dl	4.29	3.44	5.14	0.43	0.85	
	µmol/l	379	303	455	38.00	76.00	Creatinine PAP method
	mg/dl	4.28	3.42	5.14	0.43	0.86	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Creatinine	μmol/l	382	306	458	38.00	76.00	Roche Creatinine Plus
	mg/dl	4.32	3.46	5.18	0.43	0.86	
	μmol/l	376	301	451	37.50	75.00	Jaffe rate blanked
	mg/dl	4.25	3.40	5.10	0.43	0.85	
	μmol/l	374	299	449	37.50	75.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	4.23	3.38	5.08	0.43	0.85	
	μmol/l	364	291	437	36.50	73.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	4.11	3.29	4.93	0.41	0.82	
	μmol/l	393	315	471	39.00	78.00	Vitros IDMS Traceable
	mg/dl	4.44	3.56	5.32	0.44	0.88	
	μmol/l	379	303	455	38.00	76.00	IDMS traceable
	mg/dl	4.28	3.42	5.14	0.43	0.86	
D-3-Hydroxybutyrate	mmol/l	1.16	0.99	1.33	0.09	0.17	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	3.91	3.13	4.69	0.39	0.78	Immunoturbidimetric
	ng/ml	3.05	2.44	3.66	0.31	0.61	
Folate	nmol/l	31.5	23.9	39.1	3.80	7.60	Roche Cobas E411
	ng/ml	13.9	10.5	17.3	1.70	3.40	
Free T4	pmol/l	54.6	41.0	68.2	6.80	13.60	Abbott Architect
	ng/dl	4.26	3.20	5.32	0.53	1.06	
	pg/ml	42.6	32.0	53.2	5.30	10.60	Abbott Architect
	pmol/l	68.7	51.5	85.9	8.60	17.20	Siemens Advia Centaur
	ng/dl	5.36	4.02	6.70	0.67	1.34	
	pg/ml	53.6	40.2	67.0	6.70	13.40	Siemens Advia Centaur
	pmol/l	67.2	50.4	84.0	8.40	16.80	Beckman Dxl800
	ng/dl	5.24	3.93	6.55	0.66	1.31	
	pg/ml	52.4	39.3	65.5	6.55	13.10	Beckman Dxl800

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Free T4	pmol/l	68.0	51.0	85.0	8.50	17.00	BioMerieux Vidas
	ng/dl	5.30	3.98	6.62	0.66	1.32	
	pg/ml	53.0	39.8	66.2	6.60	13.20	BioMerieux Vidas
	pmol/l	73.9	55.4	92.4	9.25	18.50	Siemens Immulite 1000
	ng/dl	5.76	4.32	7.20	0.72	1.44	
	pg/ml	57.6	43.2	72.0	7.20	14.40	Siemens Immulite 1000
	pmol/l	65.4	49.0	81.8	8.20	16.40	Siemens Immulite 2000/2500
	ng/dl	5.10	3.82	6.38	0.64	1.28	
	pg/ml	51.0	38.2	63.8	6.40	12.80	Siemens Immulite 2000/2500
	pmol/l	71.7	53.8	89.6	8.95	17.90	Roche Elecsys
	ng/dl	5.59	4.20	6.98	0.70	1.39	
	pg/ml	55.9	42.0	69.8	6.95	13.90	Roche Elecsys
	pmol/l	73.4	55.0	91.8	9.20	18.40	Roche Modular E170
	ng/dl	5.73	4.29	7.17	0.72	1.44	
	pg/ml	57.3	42.9	71.7	7.20	14.40	Roche Modular E170
	pmol/l	72.8	54.6	91.0	9.10	18.20	Roche Cobas E411
	ng/dl	5.68	4.26	7.10	0.71	1.42	
	pg/ml	56.8	42.6	71.0	7.10	14.20	Roche Cobas E411
	pmol/l	69.1	51.8	86.4	8.65	17.30	Roche Cobas 6000/8000
	ng/dl	5.39	4.04	6.74	0.68	1.35	
	pg/ml	53.9	40.4	67.4	6.75	13.50	Roche Cobas 6000/8000
Gentamicin	μmol/l	18.6	14.9	22.3	1.85	3.70	Immunoturbidimetric
	μg/ml	8.89	7.12	10.7	0.89	1.77	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
gamma-GT	U/l	156	132	180	12.00	24.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	123	104	142	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	96	81	111	7.50	15.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	200	170	230	15.00	30.00	Ortho Vitros Microslide Systems 37°C
	U/l	135	115	155	10.00	20.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	106	91	121	7.50	15.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	83	71	95	6.00	12.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	172	146	198	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	136	115	157	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	106	90	122	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	179	152	206	13.50	27.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	141	120	162	10.50	21.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	110	94	126	8.00	16.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	34	27	41	3.50	7.00	Triethanolamine buffer 50 mmol 37°C
	U/l	26	21	31	2.50	5.00	Triethanolamine buffer 50 mmol 30°C
	U/l	21	17	25	2.00	4.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	14.7	12.5	16.9	1.10	2.20	Ortho Vitros Microslide Systems
	mg/dl	265	225	305	20.00	40.00	
	mmol/l	15.7	13.3	18.1	1.20	2.40	Glucose dehydrogenase
	mg/dl	283	240	326	21.50	43.00	
	mmol/l	15.8	13.4	18.2	1.20	2.40	Hexokinase
	mg/dl	285	241	329	22.00	44.00	
	mmol/l	15.3	13.0	17.6	1.15	2.30	Oxygen electrode
	mg/dl	276	234	318	21.00	42.00	
	mmol/l	15.6	13.3	17.9	1.15	2.30	Glucose oxidase
	mg/dl	281	240	322	20.50	41.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	2.58	2.20	2.96	0.19	0.38	Direct HDL Immunoseparation
	mg/dl	99.6	84.9	114	7.35	14.70	
	mmol/l	2.68	2.27	3.09	0.21	0.41	Vitros Magnetic HDL
	mg/dl	103	87.6	118	7.70	15.40	
	mmol/l	2.96	2.52	3.40	0.22	0.44	Direct Clearance Method
	mg/dl	114	97.3	131	8.35	16.70	
	mmol/l	2.68	2.28	3.08	0.20	0.40	Vitros dHDL PTA/MgCl ₂ direct precipitation
	mg/dl	103	88.0	118	7.50	15.00	
	mmol/l	4.25	3.61	4.89	0.32	0.64	Direct HDL Roche 3rd generation
Immunoglobulin A	g/l	1.61	1.21	2.01	0.20	0.40	Immunoturbidimetric
	mg/dl	161	121	201	20.00	40.00	
Immunoglobulin G	g/l	5.33	4.37	6.29	0.48	0.96	Immunoturbidimetric
	mg/dl	533	437	629	48.00	96.00	
Immunoglobulin M	g/l	0.73	0.58	0.87	0.07	0.15	Immunoturbidimetric
	mg/dl	72.6	58.1	87.1	7.25	14.50	
Iron	μmol/l	38.7	31.7	45.7	3.50	7.00	Colorimetric with ppt.
	μg/dl	216	177	255	19.50	39.00	
	μmol/l	38.8	31.9	45.7	3.45	6.90	Colorimetric without ppt.
	μg/dl	217	178	256	19.50	39.00	
	μmol/l	42.2	34.6	49.8	3.80	7.60	Ortho Vitros Microslide Systems
	μg/dl	236	193	279	21.50	43.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Lactate	mmol/l	5.47	4.49	6.45	0.49	0.98	Colorimetric Lactate Oxidase
	mg/dl	49.3	40.5	58.1	4.40	8.80	
	mmol/l	5.10	4.18	6.02	0.46	0.92	Ortho Vitros Microslide Systems
	mg/dl	46.0	37.7	54.3	4.15	8.30	
	mmol/l	5.32	4.36	6.28	0.48	0.96	UV LDH
	mg/dl	47.9	39.3	56.5	4.30	8.60	
LAP	U/l	15	13	17	1.00	2.00	NAGEL 37°C
LD (LDH)	U/l	1116	949	1283	83.50	167.00	Ortho Vitros Microslide Systems 37°C
	U/l	345	293	397	26.00	52.00	L->P 37°C
	U/l	249	212	286	18.50	37.00	L->P 30°C
	U/l	175	149	201	13.00	26.00	L->P 25°C
	U/l	842	716	968	63.00	126.00	P->L Scandinavian & Dutch 37°C
	U/l	608	517	699	45.50	91.00	P->L Scandinavian & Dutch 30°C
	U/l	427	363	491	32.00	64.00	P->L Scandinavian & Dutch 25°C
	U/l	745	634	856	55.50	111.00	P->L German methods 37°C
	U/l	538	458	618	40.00	80.00	P->L German methods 30°C
	U/l	378	321	435	28.50	57.00	P->L German methods 25°C
	U/l	767	652	882	57.50	115.00	P->L SFBC 37°C
	U/l	554	471	637	41.50	83.00	P->L SFBC 30°C
	U/l	389	331	447	29.00	58.00	P->L SFBC 25°C
	U/l	385	327	443	29.00	58.00	L->P IFCC 37°C
	U/l	278	236	320	21.00	42.00	L->P IFCC 30°C
	U/l	195	166	224	14.50	29.00	L->P IFCC 25°C
Lipase	U/l	65	52	78	6.50	13.00	Other Colorimetric 37°C
	U/l	847	679	1015	84.00	168.00	Ortho Vitros Microslide Systems 37°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Lipase	U/l	63	51	75	6.00	12.00	Roche Colorimetric 37°C
	U/l	464	372	556	46.00	92.00	Randox Turbidimetric with colipase 37°C
	U/l	92	74	110	9.00	18.00	Randox Colorimetric 37°C
Lithium	mmol/l	2.35	2.07	2.63	0.14	0.28	Ortho Vitros Microslide Systems
	mg/dl	1.63	1.44	1.82	0.10	0.19	
	mmol/l	2.08	1.83	2.33	0.13	0.25	Flame photometry
	mg/dl	1.44	1.27	1.61	0.09	0.17	
	mmol/l	2.09	1.84	2.34	0.13	0.25	Ion selective electrode
	mg/dl	1.45	1.28	1.62	0.09	0.17	
	mmol/l	2.05	1.80	2.30	0.13	0.25	Spectrophotometric
	mg/dl	1.42	1.25	1.59	0.09	0.17	
Magnesium	mmol/l	2.03	1.79	2.27	0.12	0.24	Randox Colorimetric
	mg/dl	1.41	1.24	1.58	0.09	0.17	
	mmol/l	1.78	1.56	2.00	0.11	0.22	Arsenazo III
	mg/dl	4.33	3.79	4.87	0.27	0.54	
	mmol/l	1.79	1.57	2.01	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.35	3.82	4.88	0.27	0.53	
	mmol/l	1.74	1.54	1.94	0.10	0.20	Calmagite
	mg/dl	4.23	3.74	4.72	0.25	0.49	
	mmol/l	1.76	1.55	1.97	0.11	0.21	Xylidyl Blue
	mg/dl	4.28	3.77	4.79	0.26	0.51	
	mmol/l	1.74	1.53	1.95	0.11	0.21	Methylthymol blue
	mg/dl	4.23	3.72	4.74	0.26	0.51	
	mmol/l	1.73	1.52	1.94	0.11	0.21	Chlorphosphonazo III
	mg/dl	4.20	3.69	4.71	0.26	0.51	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Magnesium	mmol/l	1.78	1.56	2.00	0.11	0.22	Enzymatic
	mg/dl	4.33	3.79	4.87	0.27	0.54	
NEFA	mmol/l	1.30	1.11	1.49	0.10	0.19	Colorimetric
Osmolality	mOsm/kg	333	267	399	33.00	66.00	Calculated
	mOsm/kg	383	306	460	38.50	77.00	Freezing point depression
Paracetamol	mmol/l	0.58	0.46	0.69	0.06	0.12	Colorimetric
	mg/l	87.1	69.7	105	8.70	17.40	
Phosphate Inorganic	mmol/l	2.37	2.01	2.73	0.18	0.36	Ortho Vitros Microslide Systems
	mg/dl	7.35	6.23	8.47	0.56	1.12	
	mmol/l	2.35	2.00	2.70	0.18	0.35	Phosphomolybdate enzymatic
	mg/dl	7.29	6.20	8.38	0.55	1.09	
	mmol/l	2.33	1.98	2.68	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.22	6.14	8.30	0.54	1.08	
Potassium	mmol/l	5.89	5.42	6.36	0.24	0.47	Ortho Vitros Microslide Systems
	mmol/l	6.06	5.58	6.54	0.24	0.48	Enzymatic
	mmol/l	5.87	5.40	6.34	0.24	0.47	Flame photometry
	mmol/l	5.87	5.40	6.34	0.24	0.47	ISE method - direct
	mmol/l	5.90	5.43	6.37	0.24	0.47	ISE method - indirect
Protein Total	g/l	46.6	37.3	55.9	4.65	9.30	Ortho Vitros Microslide Systems
	g/dl	4.66	3.73	5.59	0.47	0.93	
	g/l	46.3	37.0	55.6	4.65	9.30	Biuret reaction end point
	g/dl	4.63	3.70	5.56	0.47	0.93	
	g/l	44.5	35.6	53.4	4.45	8.90	Biuret reaction kinetic
	g/dl	4.45	3.56	5.34	0.45	0.89	
PSA Total	ng/ml =	29.6	22.2	37.0	3.70	7.40	Siemens Immulite 1000

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
PSA Total	ng/ml =	34.4	25.8	43.0	4.30	8.60	Roche Cobas Core EIA
	ng/ml =	36.7	27.6	45.8	4.55	9.10	Roche Elecsys Modular E170
	ng/ml =	34.1	25.5	42.7	4.30	8.60	Beckman Access Hybritech TPSA
	ng/ml =	34.0	25.5	42.5	4.25	8.50	bioMerieux VIDAS TPSA
	ng/ml =	31.6	23.7	39.5	3.95	7.90	Siemens Advia Centaur
	ng/ml =	30.5	22.9	38.1	3.80	7.60	Abbott Architect
	ng/ml =	36.7	27.5	45.9	4.60	9.20	Cobas E411
	ng/ml =	36.1	27.1	45.1	4.50	9.00	Roche Cobas 6000/8000
Salicylate	mmol/l	0.86	0.68	1.03	0.09	0.17	Enzymatic
	mg/dl	11.8	9.44	14.2	1.18	2.36	
Sodium	mmol/l	156	148	164	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	155	147	163	4.00	8.00	Enzymatic
	mmol/l	155	148	162	3.50	7.00	Flame photometry
	mmol/l	155	147	163	4.00	8.00	ISE method - direct
	mmol/l	156	148	164	4.00	8.00	ISE method - indirect
Theophylline	µmol/l	140	112	168	14.00	28.00	Immunoturbidimetric
	µg/ml	25.2	20.2	30.2	2.50	5.00	
Thyroid Stimulating Hormone	µU/ml =	1.03	0.83	1.24	0.10	0.21	Abbott Architect
	µU/ml =	1.37	1.10	1.64	0.14	0.27	Siemens Advia Centaur
	µU/ml =	1.12	0.89	1.35	0.11	0.23	Siemens ADVIA Centaur 3rd Generation
	µU/ml =	1.15	0.92	1.38	0.11	0.23	Beckman Access hyperTSH 3rd Generation
	µU/ml =	1.27	1.02	1.52	0.13	0.25	bioMerieux VIDAS TSH
	µU/ml =	1.13	0.90	1.36	0.11	0.23	Siemens Immulite 1000
	µU/ml =	1.30	1.04	1.56	0.13	0.26	Siemens Immulite 2000/2500
	µU/ml =	1.10	0.88	1.32	0.11	0.22	Vitros ECI

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Thyroid Stimulating Hormone	µU/ml =	1.28	1.03	1.53	0.13	0.25	Roche Elecsys
	µU/ml =	1.32	1.06	1.58	0.13	0.26	Roche Modular E170
	µU/ml =	1.33	1.06	1.60	0.14	0.27	Roche Cobas E411
	µU/ml =	1.31	1.05	1.57	0.13	0.26	Roche Cobas 6000/8000
	µU/ml =	1.13	0.91	1.36	0.11	0.23	Siemens ADVIA Centaur TSH3-Ultra
TIBC	µmol/l	54.3	42.9	65.7	5.70	11.40	Removal of excess free iron
	µg/dl	304	240	368	32.00	64.00	
	µmol/l	59.6	47.1	72.1	6.25	12.50	FE+UIBC(saturation with iron)
	µg/dl	333	263	403	35.00	70.00	
	µmol/l	53.1	42.0	64.2	5.55	11.10	Direct Colorimetric
	µg/dl	297	235	359	31.00	62.00	
Tobramycin	µmol/l	51.8	40.9	62.7	5.45	10.90	Randox Direct
	µg/dl	290	229	351	30.50	61.00	
	µg/ml	7.07	5.66	8.48	0.71	1.41	
Total T3	µmol/l	15.1	12.1	18.1	1.50	3.00	Immunoturbidimetric
	ng/ml	2.07	1.56	2.58	0.26	0.51	
	ng/dl	207	156	258	25.50	51.00	Abbott AXSYM
	nmol/l	3.18	2.39	3.97	0.40	0.79	Abbott Architect
	ng/ml	2.35	1.76	2.94	0.30	0.59	
	ng/dl	235	176	294	29.50	59.00	Abbott Architect
	nmol/l	5.17	3.88	6.46	0.65	1.29	Siemens Advia Centaur
	ng/ml	3.37	2.53	4.21	0.42	0.84	
	ng/dl	337	253	421	42.00	84.00	Siemens Advia Centaur
	nmol/l	4.04	3.03	5.05	0.51	1.01	BioMerieux Vidas
	ng/ml	2.63	1.97	3.29	0.33	0.66	
	ng/dl	263	197	329	33.00	66.00	BioMerieux Vidas

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Total T3	nmol/l	4.55	3.41	5.69	0.57	1.14	Roche Modular E170
	ng/ml	2.96	2.22	3.70	0.37	0.74	
	ng/dl	296	222	370	37.00	74.00	Roche Modular E170
	nmol/l	4.64	3.48	5.80	0.58	1.16	Roche Cobas E411
	ng/ml	3.02	2.27	3.77	0.38	0.75	
	ng/dl	302	227	377	37.50	75.00	Roche Cobas E411
Total T4	nmol/l	229	171	287	29.00	58.00	Abbott Architect
	µg/dl	17.9	13.3	22.5	2.30	4.60	
	ng/ml	179	133	225	23.00	46.00	Abbott Architect
	nmol/l	206	154	258	26.00	52.00	Abbott AXSYM
	µg/dl	16.1	12.0	20.2	2.05	4.10	
	ng/ml	161	120	202	20.50	41.00	Abbott AXSYM
	nmol/l	206	154	258	26.00	52.00	Siemens Advia Centaur
	µg/dl	16.1	12.0	20.2	2.05	4.10	
	ng/ml	161	120	202	20.50	41.00	Siemens Advia Centaur
	nmol/l	202	152	252	25.00	50.00	BioMerieux Vidas
	µg/dl	15.8	11.9	19.7	1.95	3.90	
	ng/ml	158	119	197	19.50	39.00	BioMerieux Vidas
	nmol/l	193	145	241	24.00	48.00	Siemens Immulite 1000
	µg/dl	15.1	11.3	18.9	1.90	3.80	
	ng/ml	151	113	189	19.00	38.00	Siemens Immulite 1000
	nmol/l	197	148	246	24.50	49.00	Siemens Immulite 2000/2500
	µg/dl	15.4	11.5	19.3	1.95	3.90	
	ng/ml	154	115	193	19.50	39.00	Siemens Immulite 2000/2500

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Total T4	nmol/l	182	136	228	23.00	46.00	Roche Modular E170
	µg/dl	14.2	10.6	17.8	1.80	3.60	
	ng/ml	142	106	178	18.00	36.00	Roche Modular E170
	nmol/l	204	153	255	25.50	51.00	Tosoh AIA360
	µg/dl	15.9	11.9	19.9	2.00	4.00	
	ng/ml	159	119	199	20.00	40.00	Tosoh AIA360
	nmol/l	196	147	245	24.50	49.00	Roche Cobas E411
	µg/dl	15.3	11.5	19.1	1.90	3.80	
	ng/ml	153	115	191	19.00	38.00	Roche Cobas E411
	nmol/l	182	137	227	22.50	45.00	Roche Cobas 6000/8000
	µg/dl	14.2	10.7	17.7	1.75	3.50	
	ng/ml	142	107	177	17.50	35.00	Roche Cobas 6000/8000
Transferrin	g/l	1.85	1.48	2.22	0.19	0.37	Immunoturbidimetric
	mg/dl	185	148	222	18.50	37.00	
Triglycerides	mmol/l	2.88	2.42	3.34	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	255	214	296	20.50	41.00	
	mmol/l	2.89	2.43	3.35	0.23	0.46	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	256	215	297	20.50	41.00	
	mmol/l	2.94	2.47	3.41	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	260	219	301	20.50	41.00	
	mmol/l	2.94	2.47	3.41	0.24	0.47	Lipase/Glycerol Dehydrogenase
	mg/dl	260	219	301	20.50	41.00	
	mmol/l	3.59	3.02	4.16	0.29	0.57	Ortho Vitros Microslide Systems
	mg/dl	318	267	369	25.50	51.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	18.3	15.6	21.0	1.35	2.70	Ortho Vitros Microslide Systems
	mg/dl	110	93.8	126	8.10	16.20	
	mmol/l	20.2	17.2	23.2	1.50	3.00	Urease end point
	mg/dl	121	103	139	9.00	18.00	
	mmol/l	19.8	16.9	22.7	1.45	2.90	Urease kinetic
	mg/dl	119	102	136	8.50	17.00	
	mmol/l	18.5	15.7	21.3	1.40	2.80	Urease hypochlorite
	mg/dl	111	94.4	128	8.30	16.60	
	mmol/l	21.4	18.2	24.6	1.60	3.20	Urease Berthelot
	mg/dl	129	109	149	10.00	20.00	
	mmol/l	19.8	16.8	22.8	1.50	3.00	BUN
	mg/dl	55.6	47.3	63.9	4.15	8.30	
Uric Acid (Urate)	mmol/l	0.51	0.45	0.58	0.03	0.07	Ortho Vitros Microslide Systems
	mg/dl	8.64	7.51	9.77	0.57	1.13	
	mmol/l	0.53	0.46	0.60	0.04	0.07	Uricase catalase 340nm
	mg/dl	8.94	7.76	10.1	0.59	1.18	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.21	8.00	10.4	0.61	1.21	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.04	7.86	10.2	0.59	1.18	
	mmol/l	0.54	0.47	0.60	0.03	0.07	Spectrophotometric at 280-290
	mg/dl	8.99	7.83	10.2	0.58	1.16	
	mmol/l	0.55	0.47	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.16	7.96	10.4	0.60	1.20	
Vitamin B12	pmol/l	166	133	199	16.50	33.00	Roche Cobas E411
	pg/ml	225	180	270	22.50	45.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Zinc	μmol/l	36.6	29.3	43.9	3.65	7.30	Atomic absorption
	μg/dl	239	191	287	24.00	48.00	
	μmol/l	37.9	30.3	45.5	3.80	7.60	Colorimetric with deproteinisation
	μg/dl	247	198	296	24.50	49.00	

MEAN OF ALL INSTRUMENTS (Elec.)

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin (electrophoresis)		59.2	53.3	65.1	2.95	5.90	% of total Protein (Beckman Capillary)
alpha-1-globulin		3.7	2.8	4.6	0.45	0.89	% of total Protein (Beckman Capillary)
alpha-2-globulin		3.3	2.5	4.1	0.40	0.79	% of total Protein (Beckman Capillary)
beta-globulin		17.9	13.6	22.2	2.15	4.30	% of total Protein (Beckman Capillary)
gamma-globulin		15.9	12.1	19.7	1.90	3.80	% of total Protein (Beckman Capillary)

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	30.0	25.5	34.5	2.25	4.50	Bromocresol Green
	g/dl	3.00	2.55	3.45	0.23	0.45	
Alkaline Phosphatase	U/l	529	449	609	40.00	80.00	Diethanolamine buffer DEA 37°C
	U/l	412	350	474	31.00	62.00	Diethanolamine buffer DEA 30°C
	U/l	338	287	389	25.50	51.00	Diethanolamine buffer DEA 25°C
	U/l	342	291	393	25.50	51.00	AMP optimised to IFCC 37°C
	U/l	266	227	305	19.50	39.00	AMP optimised to IFCC 30°C
	U/l	219	186	252	16.50	33.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	133	106	160	13.50	27.00	Tris buffer without P5P 37°C
	U/l	98	78	118	10.00	20.00	Tris buffer without P5P 30°C
	U/l	75	60	90	7.50	15.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	146	117	175	14.50	29.00	Tris buffer without P5P 37°C
	U/l	99	79	119	10.00	20.00	Tris buffer without P5P 30°C
	U/l	69	56	82	6.50	13.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	92.0	72.6	111	9.70	19.40	Diazo with Sulphanilic Acid
	mg/dl	5.38	4.25	6.51	0.57	1.13	
Calcium	mmol/l	3.02	2.72	3.32	0.15	0.30	Cresolphthalein complexone
	mg/dl	12.1	10.9	13.3	0.60	1.20	
	mmol/l	3.00	2.70	3.30	0.15	0.30	Arsenazo III
	mg/dl	12.0	10.8	13.2	0.60	1.20	
Cholesterol	mmol/l	7.29	6.34	8.24	0.48	0.95	Cholesterol Oxidase
	mg/dl	281	245	317	18.00	36.00	

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
CK Total	U/l	608	498	718	55.00	110.00	CK-NAC (IFCC) 37°C
	U/l	381	312	450	34.50	69.00	CK-NAC (IFCC) 30°C
	U/l	258	212	304	23.00	46.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	326	261	391	32.50	65.00	Alkaline picrate with deproteinization
	mg/dl	3.68	2.95	4.41	0.37	0.73	
	µmol/l	332	266	398	33.00	66.00	Alkaline picrate no deproteinization
	mg/dl	3.75	3.01	4.49	0.37	0.74	
	µmol/l	372	298	446	37.00	74.00	Randox Enzymatic UV method
	mg/dl	4.20	3.37	5.03	0.42	0.83	
gamma-GT	µmol/l	372	298	446	37.00	74.00	Jaffe rate blanked
	mg/dl	4.20	3.37	5.03	0.42	0.83	
	U/l	163	139	187	12.00	24.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	U/l	128	110	146	9.00	18.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	101	86	116	7.50	15.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	mmol/l	16.0	13.6	18.4	1.20	2.40	Glucose oxidase
Iron	mg/dl	288	245	331	21.50	43.00	
	µmol/l	36.0	29.5	42.5	3.25	6.50	Colorimetric without ppt.
	µg/dl	201	165	237	18.00	36.00	
LD (LDH)	U/l	725	616	834	54.50	109.00	P->L German methods 37°C
	U/l	523	445	601	39.00	78.00	P->L German methods 30°C
	U/l	368	312	424	28.00	56.00	P->L German methods 25°C
Magnesium	mmol/l	1.65	1.45	1.85	0.10	0.20	Xylidyl Blue
	mg/dl	4.01	3.52	4.50	0.25	0.49	
Phosphate Inorganic	mmol/l	2.31	1.96	2.66	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.16	6.08	8.24	0.54	1.08	

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Potassium	mmol/l	5.49	5.05	5.93	0.22	0.44	ISE method - direct
Protein Total	g/l	47.9	38.3	57.5	4.80	9.60	Biuret reaction end point
	g/dl	4.79	3.83	5.75	0.48	0.96	
Sodium	mmol/l	150	142	158	4.00	8.00	ISE method - direct
Triglycerides	mmol/l	2.80	2.35	3.25	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	248	208	288	20.00	40.00	
Urea	mmol/l	19.8	16.9	22.7	1.45	2.90	Urease kinetic
	mg/dl	119	102	136	8.50	17.00	
	mmol/l	19.2	16.3	22.1	1.45	2.90	Urease hypochlorite
	mg/dl	115	98.0	132	8.50	17.00	
	mmol/l	19.8	16.8	22.8	1.50	3.00	BUN
	mg/dl	55.6	47.3	63.9	4.15	8.30	
	mmol/l	0.56	0.49	0.64	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.48	8.23	10.7	0.63	1.25	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.94	7.78	10.1	0.58	1.16	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.11	7.93	10.3	0.59	1.18	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	29.9	25.4	34.4	2.25	4.50	Bromocresol Green
	g/dl	2.99	2.54	3.44	0.23	0.45	
Alkaline Phosphatase	U/l	505	429	581	38.00	76.00	Diethanolamine buffer DEA 37°C
	U/l	393	334	452	29.50	59.00	Diethanolamine buffer DEA 30°C
	U/l	323	274	372	24.50	49.00	Diethanolamine buffer DEA 25°C
ALT (GPT)	U/l	141	113	169	14.00	28.00	Tris buffer without P5P 37°C
	U/l	104	84	124	10.00	20.00	Tris buffer without P5P 30°C
	U/l	79	64	94	7.50	15.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	154	123	185	15.50	31.00	Tris buffer without P5P 37°C
	U/l	104	83	125	10.50	21.00	Tris buffer without P5P 30°C
	U/l	73	59	87	7.00	14.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	27.7	21.9	33.5	2.90	5.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.62	1.28	1.96	0.17	0.34	
	µmol/l	27.9	22.1	33.7	2.90	5.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.63	1.29	1.97	0.17	0.34	
Bilirubin Total	µmol/l	90.7	71.7	110	9.50	19.00	Diazo with Dichloroaniline (DCA)
	mg/dl	5.31	4.19	6.43	0.56	1.12	
	µmol/l	93.8	74.1	114	9.85	19.70	Diazo with Sulphanilic Acid
	mg/dl	5.49	4.33	6.65	0.58	1.16	
Calcium	mmol/l	3.13	2.82	3.44	0.16	0.31	Arsenazo III
	mg/dl	12.5	11.3	13.7	0.60	1.20	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	7.53	6.55	8.51	0.49	0.98	Cholesterol Oxidase
	mg/dl	291	253	329	19.00	38.00	
CK Total	U/l	639	524	754	57.50	115.00	CK-NAC (IFCC) 37°C
	U/l	400	328	472	36.00	72.00	CK-NAC (IFCC) 30°C
	U/l	272	223	321	24.50	49.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	328	262	394	33.00	66.00	Alkaline picrate no deproteinization
	mg/dl	3.71	2.96	4.46	0.38	0.75	
	µmol/l	399	319	479	40.00	80.00	Creatinine PAP method
	mg/dl	4.51	3.60	5.42	0.46	0.91	
Glucose	mmol/l	16.2	13.8	18.6	1.20	2.40	Glucose oxidase
	mg/dl	292	249	335	21.50	43.00	
Iron	µmol/l	38.1	31.3	44.9	3.40	6.80	Colorimetric without ppt.
	µg/dl	213	175	251	19.00	38.00	
LD (LDH)	U/l	708	602	814	53.00	106.00	P->L German methods 37°C
	U/l	511	435	587	38.00	76.00	P->L German methods 30°C
	U/l	359	305	413	27.00	54.00	P->L German methods 25°C
Protein Total	g/l	46.9	37.5	56.3	4.70	9.40	Biuret reaction end point
	g/dl	4.69	3.75	5.63	0.47	0.94	
Triglycerides	mmol/l	2.96	2.48	3.44	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	262	219	305	21.50	43.00	
Urea	mmol/l	19.7	16.8	22.6	1.45	2.90	Urease kinetic
	mg/dl	118	101	135	8.50	17.00	
	mmol/l	19.7	16.7	22.7	1.50	3.00	BUN
	mg/dl	55.3	47.0	63.6	4.15	8.30	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.02	7.85	10.2	0.59	1.17	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.51	0.45	0.58	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.64	7.51	9.77	0.57	1.13	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	30.2	25.7	34.7	2.25	4.50	Bromocresol Green
	g/dl	3.02	2.57	3.47	0.23	0.45	
	g/l	26.8	22.8	30.8	2.00	4.00	Bromocresol Purple
	g/dl	2.68	2.28	3.08	0.20	0.40	
	g/l	25.8	22.0	29.6	1.90	3.80	Turbidimetric Assays
	g/dl	2.58	2.20	2.96	0.19	0.38	
Alkaline Phosphatase	U/l	268	228	308	20.00	40.00	Roche Integra AMP buffer 37°C
	U/l	209	178	240	15.50	31.00	Roche Integra AMP buffer 30°C
	U/l	171	146	196	12.50	25.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	125	100	150	12.50	25.00	Tris buffer without P5P 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer without P5P 30°C
	U/l	70	56	84	7.00	14.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	256	218	294	19.00	38.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	283	241	325	21.00	42.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	278	236	320	21.00	42.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	278	236	320	21.00	42.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	279	237	321	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	142	114	170	14.00	28.00	Tris buffer without P5P 37°C
	U/l	96	77	115	9.50	19.00	Tris buffer without P5P 30°C
	U/l	68	54	82	7.00	14.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	16.1	12.7	19.5	1.70	3.40	Colorimetric

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Bicarbonate	mmol/l	16.1	12.8	19.4	1.65	3.30	Enzymatic
Bile Acids	μmol/l	51.8	41.4	62.2	5.20	10.40	Enzymatic Colorimetric
Bilirubin Direct	μmol/l	31.3	24.7	37.9	3.30	6.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.83	1.44	2.22	0.20	0.39	
	μmol/l	31.2	24.6	37.8	3.30	6.60	Diazo with Sulphanilic Acid
	mg/dl	1.83	1.44	2.22	0.20	0.39	
Bilirubin Total	μmol/l	85.4	67.5	103	8.95	17.90	Diazo with Sulphanilic Acid
	mg/dl	5.00	3.95	6.05	0.53	1.05	
	μmol/l	82.7	65.4	100	8.65	17.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.84	3.83	5.85	0.51	1.01	
	μmol/l	85.3	67.4	103	8.95	17.90	Diazonium ion
	mg/dl	4.99	3.94	6.04	0.53	1.05	
Calcium	mmol/l	3.15	2.83	3.47	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.6	11.3	13.9	0.65	1.30	
	mmol/l	3.15	2.83	3.47	0.16	0.32	NM-BAPTA
	mg/dl	12.6	11.3	13.9	0.65	1.30	
Chloride	mmol/l	110	101	119	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.30	6.35	8.25	0.48	0.95	Cholesterol Oxidase
	mg/dl	282	245	319	18.50	37.00	
Cholinesterase	U/l	4848	3878	5818	485.00	970.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	648	531	765	58.50	117.00	CK-NAC substrate start (DGKC) 37°C
	U/l	406	332	480	37.00	74.00	CK-NAC substrate start (DGKC) 30°C
	U/l	275	226	324	24.50	49.00	CK-NAC substrate start (DGKC) 25°C
	U/l	636	522	750	57.00	114.00	CK-NAC (IFCC) 37°C
	U/l	398	327	469	35.50	71.00	CK-NAC (IFCC) 30°C
	U/l	270	222	318	24.00	48.00	CK-NAC (IFCC) 25°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	374	299	449	37.50	75.00	Alkaline picrate no deproteinization
	mg/dl	4.23	3.38	5.08	0.43	0.85	
	μmol/l	390	312	468	39.00	78.00	Randox Enzymatic UV method
	mg/dl	4.41	3.53	5.29	0.44	0.88	
	μmol/l	384	307	461	38.50	77.00	Creatinine PAP method
	mg/dl	4.34	3.47	5.21	0.44	0.87	
	μmol/l	388	310	466	39.00	78.00	Roche Creatinine Plus
	mg/dl	4.38	3.50	5.26	0.44	0.88	
	μmol/l	374	299	449	37.50	75.00	Jaffe rate blanked
	mg/dl	4.23	3.38	5.08	0.43	0.85	
D-3-Hydroxybutyrate	mmol/l	1.18	1.01	1.35	0.09	0.17	Tris buffer 100mmol pH 8.5
	pmol/l	69.1	51.8	86.4	8.65	17.30	Roche Cobas 6000/8000
	ng/dl	5.39	4.04	6.74	0.68	1.35	
Free T4	pg/ml	53.9	40.4	67.4	6.75	13.50	Roche Cobas 6000/8000
gamma-GT	U/l	152	129	175	11.50	23.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	120	102	138	9.00	18.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	94	80	108	7.00	14.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	173	147	199	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	136	116	156	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	107	91	123	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Glucose	mmol/l	15.7	13.3	18.1	1.20	2.40	Hexokinase
	mg/dl	283	240	326	21.50	43.00	
	mmol/l	15.7	13.3	18.1	1.20	2.40	Glucose oxidase
	mg/dl	283	240	326	21.50	43.00	
HDL - Cholesterol	mmol/l	4.44	3.77	5.11	0.34	0.67	Direct HDL PEGME
	mg/dl	171	146	196	12.50	25.00	
	mmol/l	4.30	3.65	4.95	0.33	0.65	Direct HDL Roche 3rd generation
	mg/dl	166	141	191	12.50	25.00	
Iron	µmol/l	38.8	31.8	45.8	3.50	7.00	Colorimetric with ppt.
	µg/dl	217	178	256	19.50	39.00	
	µmol/l	39.0	32.0	46.0	3.50	7.00	Colorimetric without ppt.
	µg/dl	218	179	257	19.50	39.00	
Lactate	mmol/l	5.47	4.48	6.46	0.50	0.99	Colorimetric Lactate Oxidase
	mg/dl	49.3	40.4	58.2	4.45	8.90	
LD (LDH)	U/l	740	629	851	55.50	111.00	P->L German methods 37°C
	U/l	534	454	614	40.00	80.00	P->L German methods 30°C
	U/l	375	319	431	28.00	56.00	P->L German methods 25°C
	U/l	742	631	853	55.50	111.00	P->L SFBC 37°C
	U/l	536	456	616	40.00	80.00	P->L SFBC 30°C
	U/l	376	320	432	28.00	56.00	P->L SFBC 25°C
	U/l	379	322	436	28.50	57.00	L->P IFCC 37°C
	U/l	274	232	316	21.00	42.00	L->P IFCC 30°C
	U/l	192	163	221	14.50	29.00	L->P IFCC 25°C
Lipase	U/l	63	50	76	6.50	13.00	Roche Colorimetric 37°C
Lithium	mmol/l	2.02	1.78	2.26	0.12	0.24	Spectrophotometric
	mg/dl	1.40	1.24	1.56	0.08	0.16	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Magnesium	mmol/l	1.75	1.54	1.96	0.11	0.21	Xylidyl Blue
	mg/dl	4.25	3.74	4.76	0.26	0.51	
	mmol/l	1.73	1.53	1.93	0.10	0.20	Chlorphosphonazo III
	mg/dl	4.20	3.72	4.68	0.24	0.48	
Osmolality	mOsm/kg	332	265	399	33.50	67.00	Calculated
Phosphate Inorganic	mmol/l	2.28	1.93	2.63	0.18	0.35	Phosphomolybdate enzymatic
	mg/dl	7.07	5.98	8.16	0.55	1.09	
	mmol/l	2.31	1.97	2.65	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.16	6.11	8.21	0.53	1.05	
Potassium	mmol/l	5.91	5.43	6.39	0.24	0.48	ISE method - indirect
Protein Total	g/l	45.5	36.4	54.6	4.55	9.10	Biuret reaction end point
	g/dl	4.55	3.64	5.46	0.46	0.91	
	g/l	45.5	36.4	54.6	4.55	9.10	Biuret reaction kinetic
	g/dl	4.55	3.64	5.46	0.46	0.91	
PSA Total	ng/ml =	36.1	27.1	45.1	4.50	9.00	Roche Cobas 6000/8000
Sodium	mmol/l	155	148	162	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	μU/ml =	1.31	1.05	1.57	0.13	0.26	Roche Cobas 6000/8000
TIBC	μmol/l	59.9	47.3	72.5	6.30	12.60	FE+UIBC(saturation with iron)
	μg/dl	335	264	406	35.50	71.00	
Total T4	nmol/l	182	137	227	22.50	45.00	Roche Cobas 6000/8000
	μg/dl	14.2	10.7	17.7	1.75	3.50	
	ng/ml	142	107	177	17.50	35.00	Roche Cobas 6000/8000
Triglycerides	mmol/l	2.83	2.38	3.28	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	250	211	289	19.50	39.00	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	2.86	2.40	3.32	0.23	0.46	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	253	212	294	20.50	41.00	
	mmol/l	2.80	2.35	3.25	0.23	0.45	L/G Kinase EP. no correction
	mg/dl	248	208	288	20.00	40.00	
Urea	mmol/l	19.5	16.6	22.4	1.45	2.90	Urease kinetic
	mg/dl	117	99.8	134	8.60	17.20	
	mmol/l	19.5	16.6	22.4	1.45	2.90	BUN
	mg/dl	54.7	46.5	62.9	4.10	8.20	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	8.95	7.80	10.1	0.58	1.15	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.99	7.81	10.2	0.59	1.18	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	8.99	7.81	10.2	0.59	1.18	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	30.2	25.7	34.7	2.25	4.50	Bromocresol Green
	g/dl	3.02	2.57	3.47	0.23	0.45	
Alkaline Phosphatase	U/l	262	222	302	20.00	40.00	Roche Integra AMP buffer 37°C
	U/l	204	173	235	15.50	31.00	Roche Integra AMP buffer 30°C
	U/l	167	142	192	12.50	25.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	125	100	150	12.50	25.00	Tris buffer without P5P 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer without P5P 30°C
	U/l	70	56	84	7.00	14.00	Tris buffer without P5P 25°C
Amylase Total	U/l	300	255	345	22.50	45.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	284	242	326	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	145	116	174	14.50	29.00	Tris buffer without P5P 37°C
	U/l	98	78	118	10.00	20.00	Tris buffer without P5P 30°C
	U/l	69	55	83	7.00	14.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	33.1	26.1	40.1	3.50	7.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.94	1.53	2.35	0.21	0.41	
	µmol/l	32.7	25.8	39.6	3.45	6.90	Diazo with Sulphanilic Acid
	mg/dl	1.91	1.51	2.31	0.20	0.40	
	µmol/l	33.2	26.3	40.1	3.45	6.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.94	1.54	2.34	0.20	0.40	
	µmol/l	83.3	65.8	101	8.75	17.50	Diazo with Sulphanilic Acid
	mg/dl	4.87	3.85	5.89	0.51	1.02	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	µmol/l	82.3	65.0	99.6	8.65	17.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.81	3.80	5.82	0.51	1.01	
	µmol/l	84.3	66.6	102	8.85	17.70	Diazonium ion
	mg/dl	4.93	3.90	5.96	0.52	1.03	
Calcium	mmol/l	3.17	2.85	3.49	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.7	11.4	14.0	0.65	1.30	
	mmol/l	3.18	2.86	3.50	0.16	0.32	NM-BAPTA
	mg/dl	12.7	11.5	13.9	0.60	1.20	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.51	6.53	8.49	0.49	0.98	Cholesterol Oxidase
	mg/dl	290	252	328	19.00	38.00	
CK Total	U/l	638	523	753	57.50	115.00	CK-NAC (IFCC) 37°C
	U/l	399	327	471	36.00	72.00	CK-NAC (IFCC) 30°C
	U/l	271	222	320	24.50	49.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	358	286	430	36.00	72.00	Alkaline picrate no deproteinization
	mg/dl	4.05	3.23	4.87	0.41	0.82	
	µmol/l	364	291	437	36.50	73.00	Roche Creatinine Plus
	mg/dl	4.11	3.29	4.93	0.41	0.82	
	µmol/l	357	286	428	35.50	71.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.03	3.23	4.83	0.40	0.80	
gamma-GT	U/l	176	149	203	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	139	117	161	11.00	22.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	109	92	126	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	16.1	13.7	18.5	1.20	2.40	Hexokinase
	mg/dl	290	247	333	21.50	43.00	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Glucose	mmol/l	16.4	13.9	18.9	1.25	2.50	Glucose oxidase
	mg/dl	296	250	342	23.00	46.00	
HDL - Cholesterol	mmol/l	3.94	3.35	4.53	0.30	0.59	Direct HDL Roche 3rd generation
	mg/dl	152	129	175	11.50	23.00	
Iron	µmol/l	39.5	32.4	46.6	3.55	7.10	Colorimetric without ppt.
	µg/dl	221	181	261	20.00	40.00	
LD (LDH)	U/l	400	340	460	30.00	60.00	L->P IFCC 37°C
	U/l	289	245	333	22.00	44.00	L->P IFCC 30°C
	U/l	203	172	234	15.50	31.00	L->P IFCC 25°C
Lipase	U/l	63	50	76	6.50	13.00	Roche Colorimetric 37°C
Magnesium	mmol/l	1.76	1.54	1.98	0.11	0.22	Chlorphosphonazo III
	mg/dl	4.28	3.74	4.82	0.27	0.54	
Phosphate Inorganic	mmol/l	2.39	2.03	2.75	0.18	0.36	Phosphomolybdate UV
	mg/dl	7.41	6.29	8.53	0.56	1.12	
Potassium	mmol/l	5.97	5.49	6.45	0.24	0.48	ISE method - indirect
Protein Total	g/l	46.3	37.0	55.6	4.65	9.30	Biuret reaction end point
	g/dl	4.63	3.70	5.56	0.47	0.93	
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - indirect
Triglycerides	mmol/l	2.91	2.44	3.38	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	258	216	300	21.00	42.00	
	mmol/l	2.83	2.38	3.28	0.23	0.45	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	250	211	289	19.50	39.00	
Urea	mmol/l	19.6	16.6	22.6	1.50	3.00	Urease kinetic
	mg/dl	118	99.8	136	9.10	18.20	
	mmol/l	19.3	16.4	22.2	1.45	2.90	Urease hypochlorite
	mg/dl	116	98.6	133	8.70	17.40	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	19.6	16.7	22.5	1.45	2.90	BUN
	mg/dl	55.0	46.8	63.2	4.10	8.20	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.26	8.06	10.5	0.60	1.20	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.16	7.98	10.3	0.59	1.18	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.11	7.91	10.3	0.60	1.20	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	29.9	25.4	34.4	2.25	4.50	Bromocresol Green
	g/dl	2.99	2.54	3.44	0.23	0.45	
	g/l	27.2	23.1	31.3	2.05	4.10	Bromocresol Purple
	g/dl	2.72	2.31	3.13	0.21	0.41	
Alkaline Phosphatase	U/l	534	454	614	40.00	80.00	Diethanolamine buffer DEA 37°C
	U/l	416	354	478	31.00	62.00	Diethanolamine buffer DEA 30°C
	U/l	341	290	392	25.50	51.00	Diethanolamine buffer DEA 25°C
	U/l	259	220	298	19.50	39.00	Roche Integra AMP buffer 37°C
	U/l	202	171	233	15.50	31.00	Roche Integra AMP buffer 30°C
	U/l	166	141	191	12.50	25.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	125	100	150	12.50	25.00	Tris buffer without P5P 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer without P5P 30°C
	U/l	70	56	84	7.00	14.00	Tris buffer without P5P 25°C
Amylase Total	U/l	281	239	323	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	143	114	172	14.50	29.00	Tris buffer without P5P 37°C
	U/l	97	77	117	10.00	20.00	Tris buffer without P5P 30°C
	U/l	68	54	82	7.00	14.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	15.7	12.5	18.9	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	31.0	24.5	37.5	3.25	6.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.81	1.43	2.19	0.19	0.38	
Bilirubin Total	µmol/l	81.7	64.5	98.9	8.60	17.20	Diazo with Sulphanilic Acid
	mg/dl	4.78	3.77	5.79	0.51	1.01	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	µmol/l	81.7	64.5	98.9	8.60	17.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.78	3.77	5.79	0.51	1.01	
	µmol/l	85.7	67.7	104	9.00	18.00	Diazonium ion
	mg/dl	5.01	3.96	6.06	0.53	1.05	
Calcium	mmol/l	3.18	2.86	3.50	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.7	11.5	13.9	0.60	1.20	
	mmol/l	3.16	2.84	3.48	0.16	0.32	NM-BAPTA
	mg/dl	12.7	11.4	14.0	0.65	1.30	
Chloride	mmol/l	110	101	119	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.36	6.40	8.32	0.48	0.96	Cholesterol Oxidase
	mg/dl	284	247	321	18.50	37.00	
CK Total	U/l	632	518	746	57.00	114.00	CK-NAC (IFCC) 37°C
	U/l	396	324	468	36.00	72.00	CK-NAC (IFCC) 30°C
	U/l	269	220	318	24.50	49.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	370	296	444	37.00	74.00	Alkaline picrate no deproteinization
	mg/dl	4.18	3.34	5.02	0.42	0.84	
	µmol/l	392	314	470	39.00	78.00	Randox Enzymatic UV method
	mg/dl	4.43	3.55	5.31	0.44	0.88	
	µmol/l	390	312	468	39.00	78.00	Roche Creatinine Plus
	mg/dl	4.41	3.53	5.29	0.44	0.88	
	µmol/l	378	302	454	38.00	76.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.27	3.41	5.13	0.43	0.86	
gamma-GT	U/l	156	132	180	12.00	24.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	123	104	142	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	96	81	111	7.50	15.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
gamma-GT	U/l	174	148	200	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	137	117	157	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	107	91	123	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.8	13.4	18.2	1.20	2.40	Hexokinase
	mg/dl	285	241	329	22.00	44.00	
	mmol/l	15.4	13.1	17.7	1.15	2.30	Glucose oxidase
	mg/dl	278	236	320	21.00	42.00	
HDL - Cholesterol	mmol/l	3.84	3.26	4.42	0.29	0.58	Direct HDL Roche 3rd generation
	mg/dl	148	126	170	11.00	22.00	
Iron	µmol/l	38.8	31.8	45.8	3.50	7.00	Colorimetric without ppt.
	µg/dl	217	178	256	19.50	39.00	
Lactate	mmol/l	5.64	4.62	6.66	0.51	1.02	Colorimetric Lactate Oxidase
	mg/dl	50.8	41.6	60.0	4.60	9.20	
LD (LDH)	U/l	739	628	850	55.50	111.00	P->L German methods 37°C
	U/l	534	453	615	40.50	81.00	P->L German methods 30°C
	U/l	375	318	432	28.50	57.00	P->L German methods 25°C
	U/l	380	323	437	28.50	57.00	L->P IFCC 37°C
	U/l	274	233	315	20.50	41.00	L->P IFCC 30°C
	U/l	193	164	222	14.50	29.00	L->P IFCC 25°C
Lipase	U/l	62	49	75	6.50	13.00	Roche Colorimetric 37°C
Magnesium	mmol/l	1.75	1.54	1.96	0.11	0.21	Xylidyl Blue
	mg/dl	4.25	3.74	4.76	0.26	0.51	
	mmol/l	1.75	1.54	1.96	0.11	0.21	Chlorphosphonazo III
	mg/dl	4.25	3.74	4.76	0.26	0.51	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Phosphate Inorganic	mmol/l	2.33	1.98	2.68	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.22	6.14	8.30	0.54	1.08	
Potassium	mmol/l	5.91	5.43	6.39	0.24	0.48	ISE method - indirect
Protein Total	g/l	45.7	36.6	54.8	4.55	9.10	Biuret reaction end point
	g/dl	4.57	3.66	5.48	0.46	0.91	
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - indirect
TIBC	μmol/l	60.6	47.9	73.3	6.35	12.70	FE+UIBC(saturation with iron)
	μg/dl	339	268	410	35.50	71.00	
Triglycerides	mmol/l	2.83	2.38	3.28	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	250	211	289	19.50	39.00	
	mmol/l	2.85	2.39	3.31	0.23	0.46	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	252	212	292	20.00	40.00	
	mmol/l	2.82	2.37	3.27	0.23	0.45	L/G Kinase EP. no correction
	mg/dl	250	210	290	20.00	40.00	
Urea	mmol/l	19.7	16.8	22.6	1.45	2.90	Urease kinetic
	mg/dl	118	101	135	8.50	17.00	
	mmol/l	19.7	16.7	22.7	1.50	3.00	BUN
	mg/dl	55.3	47.0	63.6	4.15	8.30	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.09	7.90	10.3	0.60	1.19	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.21	8.01	10.4	0.60	1.20	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.09	7.90	10.3	0.60	1.19	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	29.9	25.4	34.4	2.25	4.50	Bromocresol Green
	g/dl	2.99	2.54	3.44	0.23	0.45	
	g/l	27.2	23.1	31.3	2.05	4.10	Bromocresol Purple
	g/dl	2.72	2.31	3.13	0.21	0.41	
Alkaline Phosphatase	U/l	534	454	614	40.00	80.00	Diethanolamine buffer DEA 37°C
	U/l	416	354	478	31.00	62.00	Diethanolamine buffer DEA 30°C
	U/l	341	290	392	25.50	51.00	Diethanolamine buffer DEA 25°C
	U/l	259	220	298	19.50	39.00	Roche Integra AMP buffer 37°C
	U/l	202	171	233	15.50	31.00	Roche Integra AMP buffer 30°C
	U/l	166	141	191	12.50	25.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	125	100	150	12.50	25.00	Tris buffer without P5P 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer without P5P 30°C
	U/l	70	56	84	7.00	14.00	Tris buffer without P5P 25°C
Amylase Total	U/l	281	239	323	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	143	114	172	14.50	29.00	Tris buffer without P5P 37°C
	U/l	97	77	117	10.00	20.00	Tris buffer without P5P 30°C
	U/l	68	54	82	7.00	14.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	15.7	12.5	18.9	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	31.0	24.5	37.5	3.25	6.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.81	1.43	2.19	0.19	0.38	
Bilirubin Total	µmol/l	81.7	64.5	98.9	8.60	17.20	Diazo with Sulphanilic Acid
	mg/dl	4.78	3.77	5.79	0.51	1.01	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	µmol/l	81.7	64.5	98.9	8.60	17.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.78	3.77	5.79	0.51	1.01	
	µmol/l	85.7	67.7	104	9.00	18.00	Diazonium ion
	mg/dl	5.01	3.96	6.06	0.53	1.05	
Calcium	mmol/l	3.18	2.86	3.50	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.7	11.5	13.9	0.60	1.20	
	mmol/l	3.16	2.84	3.48	0.16	0.32	NM-BAPTA
	mg/dl	12.7	11.4	14.0	0.65	1.30	
Chloride	mmol/l	110	101	119	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.36	6.40	8.32	0.48	0.96	Cholesterol Oxidase
	mg/dl	284	247	321	18.50	37.00	
CK Total	U/l	632	518	746	57.00	114.00	CK-NAC (IFCC) 37°C
	U/l	396	324	468	36.00	72.00	CK-NAC (IFCC) 30°C
	U/l	269	220	318	24.50	49.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	370	296	444	37.00	74.00	Alkaline picrate no deproteinization
	mg/dl	4.18	3.34	5.02	0.42	0.84	
	µmol/l	392	314	470	39.00	78.00	Randox Enzymatic UV method
	mg/dl	4.43	3.55	5.31	0.44	0.88	
	µmol/l	390	312	468	39.00	78.00	Roche Creatinine Plus
	mg/dl	4.41	3.53	5.29	0.44	0.88	
	µmol/l	378	302	454	38.00	76.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.27	3.41	5.13	0.43	0.86	
gamma-GT	U/l	156	132	180	12.00	24.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	123	104	142	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	96	81	111	7.50	15.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
gamma-GT	U/l	174	148	200	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	137	117	157	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	107	91	123	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.8	13.4	18.2	1.20	2.40	Hexokinase
	mg/dl	285	241	329	22.00	44.00	
	mmol/l	15.4	13.1	17.7	1.15	2.30	Glucose oxidase
	mg/dl	278	236	320	21.00	42.00	
HDL - Cholesterol	mmol/l	3.84	3.26	4.42	0.29	0.58	Direct HDL Roche 3rd generation
	mg/dl	148	126	170	11.00	22.00	
Iron	µmol/l	38.8	31.8	45.8	3.50	7.00	Colorimetric without ppt.
	µg/dl	217	178	256	19.50	39.00	
Lactate	mmol/l	5.64	4.62	6.66	0.51	1.02	Colorimetric Lactate Oxidase
	mg/dl	50.8	41.6	60.0	4.60	9.20	
LD (LDH)	U/l	739	628	850	55.50	111.00	P->L German methods 37°C
	U/l	534	453	615	40.50	81.00	P->L German methods 30°C
	U/l	375	318	432	28.50	57.00	P->L German methods 25°C
	U/l	380	323	437	28.50	57.00	L->P IFCC 37°C
	U/l	274	233	315	20.50	41.00	L->P IFCC 30°C
	U/l	193	164	222	14.50	29.00	L->P IFCC 25°C
Lipase	U/l	62	49	75	6.50	13.00	Roche Colorimetric 37°C
Magnesium	mmol/l	1.75	1.54	1.96	0.11	0.21	Xylidyl Blue
	mg/dl	4.25	3.74	4.76	0.26	0.51	
	mmol/l	1.75	1.54	1.96	0.11	0.21	Chlorphosphonazo III
	mg/dl	4.25	3.74	4.76	0.26	0.51	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Phosphate Inorganic	mmol/l	2.33	1.98	2.68	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.22	6.14	8.30	0.54	1.08	
Potassium	mmol/l	5.91	5.43	6.39	0.24	0.48	ISE method - indirect
Protein Total	g/l	45.7	36.6	54.8	4.55	9.10	Biuret reaction end point
	g/dl	4.57	3.66	5.48	0.46	0.91	
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - indirect
TIBC	µmol/l	60.6	47.9	73.3	6.35	12.70	FE+UIBC(saturation with iron)
	µg/dl	339	268	410	35.50	71.00	
Triglycerides	mmol/l	2.83	2.38	3.28	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	250	211	289	19.50	39.00	
	mmol/l	2.85	2.39	3.31	0.23	0.46	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	252	212	292	20.00	40.00	
	mmol/l	2.82	2.37	3.27	0.23	0.45	L/G Kinase EP. no correction
	mg/dl	250	210	290	20.00	40.00	
Urea	mmol/l	19.7	16.8	22.6	1.45	2.90	Urease kinetic
	mg/dl	118	101	135	8.50	17.00	
	mmol/l	19.7	16.7	22.7	1.50	3.00	BUN
	mg/dl	55.3	47.0	63.6	4.15	8.30	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.09	7.90	10.3	0.60	1.19	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.21	8.01	10.4	0.60	1.20	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.09	7.90	10.3	0.60	1.19	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	29.9	25.4	34.4	2.25	4.50	Bromocresol Green
	g/dl	2.99	2.54	3.44	0.23	0.45	
Alkaline Phosphatase	U/l	233	198	268	17.50	35.00	Roche Integra AMP buffer 37°C
	U/l	182	154	210	14.00	28.00	Roche Integra AMP buffer 30°C
	U/l	149	127	171	11.00	22.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	128	102	154	13.00	26.00	Tris buffer without P5P 37°C
	U/l	95	75	115	10.00	20.00	Tris buffer without P5P 30°C
	U/l	72	57	87	7.50	15.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	249	212	286	18.50	37.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/l	280	238	322	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	143	115	171	14.00	28.00	Tris buffer without P5P 37°C
	U/l	97	78	116	9.50	19.00	Tris buffer without P5P 30°C
	U/l	68	55	81	6.50	13.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	16.3	13.0	19.6	1.65	3.30	Enzymatic
Bilirubin Direct	µmol/l	32.4	25.6	39.2	3.40	6.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.90	1.50	2.30	0.20	0.40	
Bilirubin Total	µmol/l	84.1	66.4	102	8.85	17.70	Diazo with Sulphanilic Acid
	mg/dl	4.92	3.88	5.96	0.52	1.04	
	µmol/l	83.7	66.1	101	8.80	17.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.90	3.87	5.93	0.52	1.03	
	µmol/l	83.4	65.9	101	8.75	17.50	Diazonium ion
	mg/dl	4.88	3.86	5.90	0.51	1.02	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Calcium	mmol/l	3.18	2.86	3.50	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.7	11.5	13.9	0.60	1.20	
	mmol/l	3.13	2.82	3.44	0.16	0.31	NM-BAPTA
	mg/dl	12.5	11.3	13.7	0.60	1.20	
Chloride	mmol/l	112	103	121	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.22	6.28	8.16	0.47	0.94	Cholesterol Oxidase
	mg/dl	279	242	316	18.50	37.00	
CK Total	U/l	557	457	657	50.00	100.00	CK-NAC (IFCC) 37°C
	U/l	349	286	412	31.50	63.00	CK-NAC (IFCC) 30°C
	U/l	237	194	280	21.50	43.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	392	314	470	39.00	78.00	Roche Creatinine Plus
	mg/dl	4.43	3.55	5.31	0.44	0.88	
	μmol/l	376	300	452	38.00	76.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	4.25	3.39	5.11	0.43	0.86	
gamma-GT	U/l	149	126	172	11.50	23.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	117	99	135	9.00	18.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	92	78	106	7.00	14.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	169	144	194	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	133	113	153	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	104	89	119	7.50	15.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.7	13.3	18.1	1.20	2.40	Hexokinase
	mg/dl	283	240	326	21.50	43.00	
HDL - Cholesterol	mmol/l	4.34	3.69	4.99	0.33	0.65	Direct HDL Roche 3rd generation
	mg/dl	168	142	194	13.00	26.00	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Iron	μmol/l	38.2	31.3	45.1	3.45	6.90	Colorimetric without ppt.
	μg/dl	214	175	253	19.50	39.00	
Lactate	mmol/l	5.45	4.47	6.43	0.49	0.98	Colorimetric Lactate Oxidase
	mg/dl	49.1	40.3	57.9	4.40	8.80	
LD (LDH)	U/l	369	314	424	27.50	55.00	L->P IFCC 37°C
	U/l	266	227	305	19.50	39.00	L->P IFCC 30°C
	U/l	187	159	215	14.00	28.00	L->P IFCC 25°C
Lipase	U/l	62	50	74	6.00	12.00	Roche Colorimetric 37°C
Lithium	mmol/l	2.06	1.82	2.30	0.12	0.24	Spectrophotometric
	mg/dl	1.43	1.26	1.60	0.09	0.17	
Magnesium	mmol/l	1.73	1.52	1.94	0.11	0.21	Xylidyl Blue
	mg/dl	4.20	3.69	4.71	0.26	0.51	
Phosphate Inorganic	mmol/l	2.29	1.95	2.63	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.10	6.05	8.15	0.53	1.05	
Potassium	mmol/l	5.94	5.46	6.42	0.24	0.48	ISE method - indirect
Protein Total	g/l	45.6	36.5	54.7	4.55	9.10	Biuret reaction end point
	g/dl	4.56	3.65	5.47	0.46	0.91	
Sodium	mmol/l	157	149	165	4.00	8.00	ISE method - indirect
TIBC	μmol/l	58.6	46.3	70.9	6.15	12.30	FE+UIBC(saturation with iron)
	μg/dl	328	259	397	34.50	69.00	
Triglycerides	mmol/l	2.82	2.37	3.27	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	250	210	290	20.00	40.00	
	mmol/l	2.79	2.34	3.24	0.23	0.45	L/G Kinase EP. no correction
	mg/dl	247	207	287	20.00	40.00	
Urea	mmol/l	19.4	16.5	22.3	1.45	2.90	Urease kinetic
	mg/dl	117	99.2	135	8.90	17.80	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	19.4	16.5	22.3	1.45	2.90	BUN
	mg/dl	54.4	46.2	62.6	4.10	8.20	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	8.94	7.78	10.1	0.58	1.16	
	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.84	7.68	10.0	0.58	1.16	
	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	8.90	7.74	10.1	0.58	1.16	

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Albumin	g/l	29.2	24.8	33.6	2.20	4.40	Bromocresol Green
	g/dl	2.92	2.48	3.36	0.22	0.44	
Alkaline Phosphatase	U/l	570	485	655	42.50	85.00	Diethanolamine buffer DEA 37°C
	U/l	365	310	420	27.50	55.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	136	109	163	13.50	27.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	297	252	342	22.50	45.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	313	266	360	23.50	47.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	158	126	190	16.00	32.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	15.7	12.5	18.9	1.60	3.20	Enzymatic
Bile Acids	µmol/l	48.0	38.4	57.6	4.80	9.60	5th Generation Colorimetric
Bilirubin Direct	µmol/l	34.3	27.1	41.5	3.60	7.20	Diazo with Sulphanilic Acid
	mg/dl	2.01	1.59	2.43	0.21	0.42	
	µmol/l	29.9	23.6	36.2	3.15	6.30	Vanadate Oxidation
	mg/dl	1.75	1.38	2.12	0.19	0.37	
Bilirubin Total	µmol/l	93.0	73.5	113	9.75	19.50	Diazo with Sulphanilic Acid
	mg/dl	5.44	4.30	6.58	0.57	1.14	
	µmol/l	100	79.0	121	10.50	21.00	Vanadate Oxidation
	mg/dl	5.85	4.62	7.08	0.62	1.23	
Calcium	mmol/l	3.13	2.82	3.44	0.16	0.31	Arsenazo III
	mg/dl	12.5	11.3	13.7	0.60	1.20	
Chloride	mmol/l	114	105	123	4.50	9.00	ISE direct

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	7.44	6.48	8.40	0.48	0.96	Cholesterol Oxidase
	mg/dl	287	250	324	18.50	37.00	
CK Total	U/l	576	472	680	52.00	104.00	CK-NAC substrate start (DGKC) 37°C
	U/l	601	493	709	54.00	108.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	340	272	408	34.00	68.00	Alkaline picrate no deproteinization
	mg/dl	3.84	3.07	4.61	0.39	0.77	
gamma-GT	U/l	179	152	206	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	16.2	13.7	18.7	1.25	2.50	Hexokinase
	mg/dl	292	247	337	22.50	45.00	
	mmol/l	16.0	13.6	18.4	1.20	2.40	Glucose oxidase
	mg/dl	288	245	331	21.50	43.00	
Iron	µmol/l	39.7	32.6	46.8	3.55	7.10	Colorimetric without ppt.
	µg/dl	222	182	262	20.00	40.00	
Lactate	mmol/l	5.38	4.41	6.35	0.49	0.97	Enzymatic Colorimetric
	mg/dl	48.5	39.7	57.3	4.40	8.80	
LD (LDH)	U/l	767	652	882	57.50	115.00	P->L German methods 37°C
	U/l	389	331	447	29.00	58.00	L->P IFCC 37°C
Lipase	U/l	91	73	109	9.00	18.00	Randox Colorimetric 37°C
Lithium	mmol/l	2.00	1.76	2.24	0.12	0.24	Randox Colorimetric
	mg/dl	1.39	1.22	1.56	0.09	0.17	
Magnesium	mmol/l	1.77	1.56	1.98	0.11	0.21	Xylidyl Blue
	mg/dl	4.30	3.79	4.81	0.26	0.51	
Phosphate Inorganic	mmol/l	2.35	2.00	2.70	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.29	6.20	8.38	0.55	1.09	
Potassium	mmol/l	5.89	5.42	6.36	0.24	0.47	Enzymatic

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Potassium	mmol/l	5.69	5.23	6.15	0.23	0.46	ISE method - direct
Protein Total	g/l	46.4	37.1	55.7	4.65	9.30	Biuret reaction end point
	g/dl	4.64	3.71	5.57	0.47	0.93	
Sodium	mmol/l	157	149	165	4.00	8.00	Enzymatic
	mmol/l	154	146	162	4.00	8.00	ISE method - direct
TIBC	μmol/l	55.2	43.6	66.8	5.80	11.60	Direct Colorimetric
	μg/dl	309	244	374	32.50	65.00	
Triglycerides	mmol/l	2.87	2.41	3.33	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	254	213	295	20.50	41.00	
Urea	mmol/l	19.3	16.4	22.2	1.45	2.90	Urease kinetic
	mg/dl	116	98.6	133	8.70	17.40	
	mmol/l	19.3	16.4	22.2	1.45	2.90	BUN
	mg/dl	54.2	46.1	62.3	4.05	8.10	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.17	7.98	10.4	0.60	1.19	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.06	7.88	10.2	0.59	1.18	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	28.6	24.3	32.9	2.15	4.30	Bromocresol Green
	g/dl	2.86	2.43	3.29	0.22	0.43	
Alkaline Phosphatase	U/l	522	443	601	39.50	79.00	Diethanolamine buffer DEA 37°C
	U/l	366	311	421	27.50	55.00	AMP optimised to IFCC 37°C
	U/l	362	308	416	27.00	54.00	AMP non-optimised 37°C
ALT (GPT)	U/l	136	109	163	13.50	27.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	262	223	301	19.50	39.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	281	239	323	21.00	42.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	149	119	179	15.00	30.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	18.8	14.9	22.7	1.95	3.90	Enzymatic
Bile Acids	µmol/l	52.7	42.2	63.2	5.25	10.50	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	30.9	24.4	37.4	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.81	1.43	2.19	0.19	0.38	
	µmol/l	32.5	25.6	39.4	3.45	6.90	Oxidation to Biliverdin
	mg/dl	1.90	1.50	2.30	0.20	0.40	
Bilirubin Total	µmol/l	99.2	78.4	120	10.40	20.80	Diazo with Sulphanilic Acid
	mg/dl	5.80	4.59	7.01	0.61	1.21	
	µmol/l	99.8	78.8	121	10.50	21.00	Oxidation to Biliverdin
	mg/dl	5.84	4.61	7.07	0.62	1.23	
Calcium	mmol/l	3.18	2.86	3.50	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.7	11.5	13.9	0.60	1.20	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Calcium	mmol/l	3.08	2.77	3.39	0.16	0.31	Arsenazo III
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Chloride	mmol/l	116	107	125	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.27	6.32	8.22	0.48	0.95	Cholesterol Oxidase
	mg/dl	281	244	318	18.50	37.00	
CK Total	U/l	562	461	663	50.50	101.00	CK-NAC serum start (DGKC) 37°C
	U/l	603	495	711	54.00	108.00	CK-NAC substrate start (DGKC) 37°C
	U/l	583	478	688	52.50	105.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	372	297	447	37.50	75.00	Alkaline picrate no deproteinization
	mg/dl	4.20	3.36	5.04	0.42	0.84	
	µmol/l	372	297	447	37.50	75.00	Randox Enzymatic UV method
	mg/dl	4.20	3.36	5.04	0.42	0.84	
	µmol/l	385	308	462	38.50	77.00	Jaffe rate blanked
	mg/dl	4.35	3.48	5.22	0.44	0.87	
	µmol/l	364	291	437	36.50	73.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.11	3.29	4.93	0.41	0.82	
gamma-GT	U/l	171	145	197	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	15.6	13.2	18.0	1.20	2.40	Hexokinase
	mg/dl	281	238	324	21.50	43.00	
	mmol/l	15.6	13.2	18.0	1.20	2.40	Glucose oxidase
	mg/dl	281	238	324	21.50	43.00	
HDL - Cholesterol	mmol/l	2.20	1.87	2.53	0.17	0.33	Direct HDL Immunoseparation
	mg/dl	84.9	72.2	97.6	6.35	12.70	
	mmol/l	2.31	1.96	2.66	0.18	0.35	Direct Clearance Method
	mg/dl	89.2	75.7	103	6.75	13.50	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Iron	μmol/l	39.0	32.0	46.0	3.50	7.00	Colorimetric without ppt.
	μg/dl	218	179	257	19.50	39.00	
Lactate	mmol/l	5.47	4.49	6.45	0.49	0.98	Colorimetric Lactate Oxidase
	mg/dl	49.3	40.5	58.1	4.40	8.80	
LD (LDH)	U/l	379	322	436	28.50	57.00	L->P 37°C
	U/l	749	637	861	56.00	112.00	P->L German methods 37°C
	U/l	385	327	443	29.00	58.00	L->P IFCC 37°C
Lipase	U/l	86	69	103	8.50	17.00	Other Colorimetric 37°C
Lithium	mmol/l	2.01	1.77	2.25	0.12	0.24	Spectrophotometric
	mg/dl	1.40	1.23	1.57	0.09	0.17	
Magnesium	mmol/l	1.78	1.57	1.99	0.11	0.21	Xylidyl Blue
	mg/dl	4.33	3.82	4.84	0.26	0.51	
Phosphate Inorganic	mmol/l	2.31	1.97	2.65	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.16	6.11	8.21	0.53	1.05	
Potassium	mmol/l	5.97	5.49	6.45	0.24	0.48	ISE method - indirect
Protein Total	g/l	46.9	37.5	56.3	4.70	9.40	Biuret reaction end point
	g/dl	4.69	3.75	5.63	0.47	0.94	
Sodium	mmol/l	157	149	165	4.00	8.00	ISE method - indirect
TIBC	μmol/l	54.9	43.4	66.4	5.75	11.50	Removal of excess free iron
	μg/dl	307	243	371	32.00	64.00	
	μmol/l	54.0	42.7	65.3	5.65	11.30	FE+UIBC(saturation with iron)
	μg/dl	302	239	365	31.50	63.00	
	μmol/l	55.0	43.4	66.6	5.80	11.60	Direct Colorimetric
	μg/dl	307	243	371	32.00	64.00	
Triglycerides	mmol/l	2.95	2.48	3.42	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	261	219	303	21.00	42.00	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	2.94	2.47	3.41	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	260	219	301	20.50	41.00	
Urea	mmol/l	20.0	17.0	23.0	1.50	3.00	Urease kinetic
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	20.0	17.0	23.0	1.50	3.00	BUN
	mg/dl	56.1	47.7	64.5	4.20	8.40	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.17	7.98	10.4	0.60	1.19	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.22	8.03	10.4	0.60	1.19	

Siemens/Dade Dimension EXL

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	27.0	23.0	31.0	2.00	4.00	Bromocresol Purple
	g/dl	2.70	2.30	3.10	0.20	0.40	
ALT (GPT)	U/l	131	105	157	13.00	26.00	Tris buffer with P5P 37°C Siemens Dade Standard Non IFCC Correlated 37°C
	U/l	141	113	169	14.00	28.00	
Amylase Total	U/l	330	281	379	24.50	49.00	Siemens 2-chloro-pNP linked substrate 37°C
AST (GOT)	U/l	178	142	214	18.00	36.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bilirubin Total	µmol/l	88.8	70.1	108	9.35	18.70	Diazo with Sulphanilic Acid
	mg/dl	5.19	4.10	6.28	0.55	1.09	
Calcium	mmol/l	3.09	2.78	3.40	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.4	11.1	13.7	0.65	1.30	
Chloride	mmol/l	114	105	123	4.50	9.00	ISE indirect
Cholesterol	mmol/l	6.91	6.01	7.81	0.45	0.90	Dimension-Siemens reagents
	mg/dl	267	232	302	17.50	35.00	
CK Total	U/l	572	469	675	51.50	103.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	389	311	467	39.00	78.00	Alkaline picrate no deproteinization
	mg/dl	4.40	3.51	5.29	0.45	0.89	
Glucose	mmol/l	15.6	13.2	18.0	1.20	2.40	Hexokinase
	mg/dl	281	238	324	21.50	43.00	
Magnesium	mmol/l	1.74	1.53	1.95	0.11	0.21	Methylthymol blue
	mg/dl	4.23	3.72	4.74	0.26	0.51	
Phosphate Inorganic	mmol/l	2.31	1.97	2.65	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.16	6.11	8.21	0.53	1.05	

Siemens/Dade Dimension EXL

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Potassium	mmol/l	5.92	5.44	6.40	0.24	0.48	ISE method - indirect
Protein Total	g/l	47.0	37.6	56.4	4.70	9.40	Biuret reaction end point
	g/dl	4.70	3.76	5.64	0.47	0.94	
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - indirect
Triglycerides	mmol/l	2.87	2.41	3.33	0.23	0.46	L/G Kinase EP. no correction
	mg/dl	254	213	295	20.50	41.00	
Urea	mmol/l	20.0	17.0	23.0	1.50	3.00	Urease kinetic
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	20.0	17.0	23.0	1.50	3.00	BUN
	mg/dl	56.1	47.7	64.5	4.20	8.40	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Spectrophotometric at 280-290
	mg/dl	9.02	7.85	10.2	0.59	1.17	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	27.1	23.1	31.1	2.00	4.00	Bromocresol Green
	g/dl	2.71	2.31	3.11	0.20	0.40	
	g/l	27.4	23.3	31.5	2.05	4.10	Bromocresol Purple
	g/dl	2.74	2.33	3.15	0.21	0.41	
Alkaline Phosphatase	U/l	228	194	262	17.00	34.00	Siemens Dimension AMP buffer 37°C
	U/l	335	285	385	25.00	50.00	Randox AMP 37°C
ALT (GPT)	U/l	133	107	159	13.00	26.00	Tris buffer with P5P 37°C
	U/l	137	110	164	13.50	27.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	324	275	373	24.50	49.00	Siemens - maltopenta/hexaoside 37°C
	U/l	335	285	385	25.00	50.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	175	140	210	17.50	35.00	Tris buffer with P5P 37°C
	U/l	174	139	209	17.50	35.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	17.4	13.8	21.0	1.80	3.60	Enzymatic
Bilirubin Direct	µmol/l	18.7	14.7	22.7	2.00	4.00	Diazo with Sulphanilic Acid
	mg/dl	1.09	0.860	1.32	0.12	0.23	
Bilirubin Total	µmol/l	87.6	69.2	106	9.20	18.40	Diazo with Sulphanilic Acid
	mg/dl	5.12	4.05	6.19	0.54	1.07	
Calcium	mmol/l	3.07	2.76	3.38	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Chloride	mmol/l	114	105	123	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.00	6.09	7.91	0.46	0.91	Dimension-Siemens reagents
	mg/dl	270	235	305	17.50	35.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
CK Total	U/l	561	460	662	50.50	101.00	CK-NAC (IFCC) 37°C
	U/l	572	469	675	51.50	103.00	Dithioerythritol 37°C
	U/l	576	472	680	52.00	104.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	μmol/l	386	309	463	38.50	77.00	Alkaline picrate no deproteinization
	mg/dl	4.36	3.49	5.23	0.44	0.87	
	μmol/l	380	304	456	38.00	76.00	Creatinine PAP method
	mg/dl	4.29	3.44	5.14	0.43	0.85	
	μmol/l	385	308	462	38.50	77.00	Jaffe rate blanked
	mg/dl	4.35	3.48	5.22	0.44	0.87	
gamma-GT	μmol/l	389	311	467	39.00	78.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	4.40	3.51	5.29	0.45	0.89	
	U/l	179	152	206	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	U/l	205	174	236	15.50	31.00	Siemens Dimension (non IFCC) 37°C
	mmol/l	15.7	13.3	18.1	1.20	2.40	Hexokinase
	mg/dl	283	240	326	21.50	43.00	
	mmol/l	15.5	13.2	17.8	1.15	2.30	Glucose oxidase
HDL - Cholesterol	mg/dl	279	238	320	20.50	41.00	
	mmol/l	3.72	3.16	4.28	0.28	0.56	Direct HDL PPD
	mg/dl	144	122	166	11.00	22.00	
	mmol/l	3.64	3.09	4.19	0.28	0.55	Direct HDL PEGME
	mg/dl	141	119	163	11.00	22.00	
Iron	mmol/l	3.73	3.17	4.29	0.28	0.56	Direct Clearance Method
	mg/dl	144	122	166	11.00	22.00	
	μmol/l	37.1	30.5	43.7	3.30	6.60	Colorimetric with ppt.
	μg/dl	207	170	244	18.50	37.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Iron	μmol/l	37.3	30.6	44.0	3.35	6.70	Colorimetric without ppt.
	μg/dl	209	171	247	19.00	38.00	
Lactate	mmol/l	5.42	4.44	6.40	0.49	0.98	UV LDH
	mg/dl	48.8	40.0	57.6	4.40	8.80	
LD (LDH)	U/l	391	332	450	29.50	59.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	390	331	449	29.50	59.00	L->P IFCC 37°C
Lipase	U/l	285	229	341	28.00	56.00	Siemens Dimension Colorimetric (LIP Kit) 37°C
	U/l	277	222	332	27.50	55.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	2.23	1.96	2.50	0.14	0.27	Spectrophotometric
	mg/dl	1.55	1.36	1.74	0.10	0.19	
Magnesium	mmol/l	1.74	1.53	1.95	0.11	0.21	Methylthymol blue
	mg/dl	4.23	3.72	4.74	0.26	0.51	
Phosphate Inorganic	mmol/l	2.28	1.93	2.63	0.18	0.35	Phosphomolybdate enzymatic
	mg/dl	7.07	5.98	8.16	0.55	1.09	
	mmol/l	2.28	1.94	2.62	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.07	6.01	8.13	0.53	1.06	
Potassium	mmol/l	5.91	5.43	6.39	0.24	0.48	ISE method - indirect
Protein Total	g/l	47.2	37.8	56.6	4.70	9.40	Biuret reaction end point
	g/dl	4.72	3.78	5.66	0.47	0.94	
	g/l	46.3	37.0	55.6	4.65	9.30	Biuret reaction kinetic
	g/dl	4.63	3.70	5.56	0.47	0.93	
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - indirect
TIBC	μmol/l	48.1	38.0	58.2	5.05	10.10	Removal of excess free iron
	μg/dl	269	212	326	28.50	57.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
TIBC	μmol/l	50.8	40.1	61.5	5.35	10.70	Direct Colorimetric
	μg/dl	284	224	344	30.00	60.00	
Triglycerides	mmol/l	2.91	2.44	3.38	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	258	216	300	21.00	42.00	
	mmol/l	2.89	2.43	3.35	0.23	0.46	L/G Kinase EP. no correction
	mg/dl	256	215	297	20.50	41.00	
	mmol/l	2.94	2.47	3.41	0.24	0.47	Lipase/Glycerol Dehydrogenase
	mg/dl	260	219	301	20.50	41.00	
Urea	mmol/l	20.4	17.3	23.5	1.55	3.10	Urease end point
	mg/dl	123	104	142	9.50	19.00	
	mmol/l	20.3	17.3	23.3	1.50	3.00	Urease kinetic
	mg/dl	122	104	140	9.00	18.00	
	mmol/l	20.3	17.3	23.3	1.50	3.00	BUN
	mg/dl	57.0	48.5	65.5	4.25	8.50	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.04	0.07	Uricase catalase 340nm
	mg/dl	8.97	7.80	10.1	0.59	1.17	
	mmol/l	0.53	0.47	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.97	7.81	10.1	0.58	1.16	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Spectrophotometric at 280-290
	mg/dl	9.04	7.86	10.2	0.59	1.18	

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	27.6	23.5	31.7	2.05	4.10	Bromocresol Purple
	g/dl	2.76	2.35	3.17	0.21	0.41	
Alkaline Phosphatase	U/l	345	294	396	25.50	51.00	Siemens Dimension AMP buffer 37°C
ALT (GPT)	U/l	131	105	157	13.00	26.00	Tris buffer with P5P 37°C
	U/l	135	108	162	13.50	27.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	335	285	385	25.00	50.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	174	139	209	17.50	35.00	Tris buffer with P5P 37°C
	U/l	174	139	209	17.50	35.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	16.9	13.4	20.4	1.75	3.50	Enzymatic
Bilirubin Direct	µmol/l	19.8	15.6	24.0	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.16	0.913	1.41	0.12	0.25	
Bilirubin Total	µmol/l	86.3	68.2	104	9.05	18.10	Diazo with Sulphanilic Acid
	mg/dl	5.05	3.99	6.11	0.53	1.06	
Calcium	mmol/l	3.08	2.77	3.39	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Chloride	mmol/l	118	108	128	5.00	10.00	ISE indirect
Cholesterol	mmol/l	6.89	5.99	7.79	0.45	0.90	Dimension-Siemens reagents
	mg/dl	266	231	301	17.50	35.00	
CK Total	U/l	563	462	664	50.50	101.00	CK-NAC (IFCC) 37°C
	U/l	560	459	661	50.50	101.00	Dithioerythritol 37°C
	U/l	553	453	653	50.00	100.00	Dithioerythritol (DTE) IFCC correlated 37°C

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	385	308	462	38.50	77.00	Alkaline picrate no deproteinization
	mg/dl	4.35	3.48	5.22	0.44	0.87	
	μmol/l	382	305	459	38.50	77.00	Randox Enzymatic UV method
	mg/dl	4.32	3.45	5.19	0.44	0.87	
	μmol/l	376	301	451	37.50	75.00	IDMS traceable
	mg/dl	4.25	3.40	5.10	0.43	0.85	
gamma-GT	U/l	194	165	223	14.50	29.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	204	173	235	15.50	31.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	15.4	13.1	17.7	1.15	2.30	Hexokinase
	mg/dl	278	236	320	21.00	42.00	
HDL - Cholesterol	mmol/l	3.63	3.09	4.17	0.27	0.54	Direct HDL PEGME
	mg/dl	140	119	161	10.50	21.00	
Iron	μmol/l	39.1	32.0	46.2	3.55	7.10	Colorimetric without ppt.
	μg/dl	219	179	259	20.00	40.00	
Lactate	mmol/l	5.12	4.20	6.04	0.46	0.92	Colorimetric Lactate Oxidase
	mg/dl	46.1	37.8	54.4	4.15	8.30	
	mmol/l	5.19	4.25	6.13	0.47	0.94	UV LDH
	mg/dl	46.8	38.3	55.3	4.25	8.50	
LD (LDH)	U/l	389	331	447	29.00	58.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	392	333	451	29.50	59.00	L->P IFCC 37°C
Lipase	U/l	326	261	391	32.50	65.00	Siemens Dimension Colorimetric (LIP Kit) 37°C
	U/l	319	256	382	31.50	63.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	2.19	1.93	2.45	0.13	0.26	Spectrophotometric
	mg/dl	1.52	1.34	1.70	0.09	0.18	
Magnesium	mmol/l	1.75	1.54	1.96	0.11	0.21	Methylthymol blue
	mg/dl	4.25	3.74	4.76	0.26	0.51	

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Phosphate Inorganic	mmol/l	2.26	1.92	2.60	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.01	5.95	8.07	0.53	1.06	
Potassium	mmol/l	5.86	5.39	6.33	0.24	0.47	ISE method - indirect
Protein Total	g/l	47.5	38.0	57.0	4.75	9.50	Biuret reaction end point
	g/dl	4.75	3.80	5.70	0.48	0.95	
Sodium	mmol/l	156	149	163	3.50	7.00	ISE method - indirect
TIBC	μmol/l	51.7	40.8	62.6	5.45	10.90	Removal of excess free iron
	μg/dl	289	228	350	30.50	61.00	
Triglycerides	mmol/l	3.07	2.58	3.56	0.25	0.49	Lipase/GPO-PAP no correction
	mg/dl	272	228	316	22.00	44.00	
Urea	mmol/l	20.5	17.4	23.6	1.55	3.10	Urease kinetic
	mg/dl	123	105	141	9.00	18.00	
	mmol/l	20.5	17.4	23.6	1.55	3.10	BUN
	mg/dl	57.5	48.9	66.1	4.30	8.60	
Uric Acid (Urate)	mmol/l	0.51	0.45	0.58	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.64	7.51	9.77	0.57	1.13	
	mmol/l	0.52	0.45	0.58	0.03	0.07	Spectrophotometric at 280-290
	mg/dl	8.65	7.53	9.77	0.56	1.12	

VITALAB FLEXOR®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	30.9	26.2	35.6	2.35	4.70	Bromocresol Green
	g/dl	3.09	2.62	3.56	0.24	0.47	
ALT (GPT)	U/l	136	109	163	13.50	27.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	149	119	179	15.00	30.00	Tris buffer without P5P 37°C
Calcium	mmol/l	3.06	2.75	3.37	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.3	11.0	13.6	0.65	1.30	
	mmol/l	3.12	2.81	3.43	0.16	0.31	Arsenazo III
	mg/dl	12.5	11.3	13.7	0.60	1.20	
Cholesterol	mmol/l	7.43	6.47	8.39	0.48	0.96	Cholesterol Oxidase
	mg/dl	287	250	324	18.50	37.00	
Creatinine	µmol/l	359	288	430	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	4.06	3.25	4.87	0.41	0.81	
Glucose	mmol/l	16.1	13.7	18.5	1.20	2.40	Glucose oxidase
	mg/dl	290	247	333	21.50	43.00	
Iron	µmol/l	36.9	30.3	43.5	3.30	6.60	Colorimetric without ppt.
	µg/dl	206	169	243	18.50	37.00	
Protein Total	g/l	51.1	40.9	61.3	5.10	10.20	Biuret reaction end point
	g/dl	5.11	4.09	6.13	0.51	1.02	
Triglycerides	mmol/l	3.01	2.53	3.49	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	266	224	308	21.00	42.00	
Urea	mmol/l	19.8	16.8	22.8	1.50	3.00	Urease kinetic
	mg/dl	119	101	137	9.00	18.00	

**VITALAB FLEXOR®**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Urea	mmol/l	19.8	16.8	22.8	1.50	3.00	BUN
	mg/dl	55.6	47.3	63.9	4.15	8.30	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.26	8.05	10.5	0.61	1.21	

VITALAB SELECTRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	30.5	25.9	35.1	2.30	4.60	Bromocresol Green
	g/dl	3.05	2.59	3.51	0.23	0.46	
Alkaline Phosphatase	U/l	516	438	594	39.00	78.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	135	108	162	13.50	27.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	146	117	175	14.50	29.00	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	39.2	30.9	47.5	4.15	8.30	Diazo with Sulphanilic Acid
	mg/dl	2.29	1.81	2.77	0.24	0.48	
Bilirubin Total	µmol/l	93.7	74.0	113	9.85	19.70	Diazo with Sulphanilic Acid
	mg/dl	5.48	4.33	6.63	0.58	1.15	
	µmol/l	79.2	62.6	95.8	8.30	16.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.63	3.66	5.60	0.49	0.97	
Calcium	mmol/l	3.25	2.93	3.57	0.16	0.32	Cresolphthalein complexone
	mg/dl	13.0	11.7	14.3	0.65	1.30	
	mmol/l	2.93	2.64	3.22	0.15	0.29	Arsenazo III
	mg/dl	11.7	10.6	12.8	0.55	1.10	
Cholesterol	mmol/l	7.25	6.31	8.19	0.47	0.94	Cholesterol Oxidase
	mg/dl	280	244	316	18.00	36.00	
Creatinine	µmol/l	327	262	392	32.50	65.00	Alkaline picrate no deproteinization
	mg/dl	3.70	2.96	4.44	0.37	0.74	
	µmol/l	361	289	433	36.00	72.00	Jaffe rate blanked
	mg/dl	4.08	3.27	4.89	0.41	0.81	

VITALAB SELECTRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
gamma-GT	U/l	175	148	202	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	15.7	13.3	18.1	1.20	2.40	Glucose oxidase
	mg/dl	283	240	326	21.50	43.00	
HDL - Cholesterol	mmol/l	2.74	2.33	3.15	0.21	0.41	Direct Clearance Method
	mg/dl	106	89.9	122	8.05	16.10	
LD (LDH)	U/l	336	285	387	25.50	51.00	L->P IFCC 37°C
Phosphate Inorganic	mmol/l	2.21	1.88	2.54	0.17	0.33	Phosphomolybdate UV
	mg/dl	6.85	5.83	7.87	0.51	1.02	
Protein Total	g/l	49.7	39.7	59.7	5.00	10.00	Biuret reaction end point
	g/dl	4.97	3.97	5.97	0.50	1.00	
Triglycerides	mmol/l	2.87	2.41	3.33	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	254	213	295	20.50	41.00	
Urea	mmol/l	19.3	16.4	22.2	1.45	2.90	Urease kinetic
	mg/dl	116	98.6	133	8.70	17.40	
	mmol/l	19.3	16.4	22.2	1.45	2.90	BUN
	mg/dl	54.2	46.1	62.3	4.05	8.10	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.97	7.80	10.1	0.59	1.17	

Weiner Lab BT 3000 Plus/CB 350i

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 651UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
ALT (GPT)	U/l	134	108	160	13.00	26.00	Tris buffer without P5P 37°C
	U/l	99	80	118	9.50	19.00	Tris buffer without P5P 30°C
	U/l	75	61	89	7.00	14.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	151	121	181	15.00	30.00	Tris buffer without P5P 37°C
	U/l	102	82	122	10.00	20.00	Tris buffer without P5P 30°C
	U/l	72	58	86	7.00	14.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	34.6	27.3	41.9	3.65	7.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	2.02	1.60	2.44	0.21	0.42	
Calcium	mmol/l	2.98	2.69	3.27	0.15	0.29	Arsenazo III
	mg/dl	11.9	10.8	13.0	0.55	1.10	
Cholesterol	mmol/l	7.33	6.38	8.28	0.48	0.95	Cholesterol Oxidase
	mg/dl	283	246	320	18.50	37.00	
Creatinine	µmol/l	350	280	420	35.00	70.00	Alkaline picrate no deproteinization
	mg/dl	3.96	3.16	4.76	0.40	0.80	
Glucose	mmol/l	15.7	13.3	18.1	1.20	2.40	Glucose oxidase
	mg/dl	283	240	326	21.50	43.00	
Phosphate Inorganic	mmol/l	2.45	2.08	2.82	0.19	0.37	Phosphomolybdate UV
	mg/dl	7.60	6.45	8.75	0.58	1.15	
Protein Total	g/l	48.1	38.5	57.7	4.80	9.60	Biuret reaction end point
	g/dl	4.81	3.85	5.77	0.48	0.96	
Triglycerides	mmol/l	2.85	2.39	3.31	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	252	212	292	20.00	40.00	

Weiner Lab BT 3000 Plus/CB 350i

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Urea	mmol/l	19.9	17.0	22.8	1.45	2.90	Urease kinetic
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	19.9	16.9	22.9	1.50	3.00	BUN
	mg/dl	55.9	47.5	64.3	4.20	8.40	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.99	7.83	10.2	0.58	1.16	