

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

CAT. NO. HE1532 / HS2611

LOT NO. 647UE

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

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

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

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

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

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

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

The control should not be used as a calibration material.

PREPARATION FOR USE

The Human Assayed Multi-sera is supplied lyophilised.

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

MATERIALS PROVIDED

Human Assayed Multi-sera - Level 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

® All trademarks recognised

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

12 Nov '13 ne

ABBOTT AEROSET®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	28.3	24.0	32.6	2.15	4.30	Bromocresol Green
	g/dl	2.83	2.40	3.26	0.22	0.43	
ALT (GPT)	U/l	131	105	157	13.00	26.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	142	114	170	14.00	28.00	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	29.2	23.0	35.4	3.10	6.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.71	1.35	2.07	0.18	0.36	
Bilirubin Total	µmol/l	84.7	66.9	103	8.90	17.80	Diazo with Dichloroaniline (DCA)
	mg/dl	4.95	3.91	5.99	0.52	1.04	
Calcium	mmol/l	2.99	2.69	3.29	0.15	0.30	Cresolphthalein complexone
	mg/dl	12.0	10.8	13.2	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	
Chloride	mmol/l	109	101	117	4.00	8.00	ISE direct
Cholesterol	mmol/l	6.98	6.07	7.89	0.46	0.91	Cholesterol Oxidase
	mg/dl	269	234	304	17.50	35.00	
CK Total	U/l	602	494	710	54.00	108.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	346	277	415	34.50	69.00	Alkaline picrate no deproteinization
	mg/dl	3.91	3.13	4.69	0.39	0.78	
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	15.8	13.4	18.2	1.20	2.40	Glucose oxidase
	mg/dl	285	241	329	22.00	44.00	

ABBOTT AEROSET®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	2.37	2.01	2.73	0.18	0.36	HDL - Ultra
	mg/dl	91.5	77.6	105	6.95	13.90	
Iron	µmol/l	37.4	30.6	44.2	3.40	6.80	Colorimetric without ppt.
	µg/dl	209	171	247	19.00	38.00	
LD (LDH)	U/l	377	321	433	28.00	56.00	L->P IFCC 37°C
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	5.93	5.45	6.41	0.24	0.48	ISE method - direct
Protein Total	g/l	44.4	35.5	53.3	4.45	8.90	Biuret reaction end point
	g/dl	4.44	3.55	5.33	0.45	0.89	
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - direct
Triglycerides	mmol/l	2.81	2.36	3.26	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	249	209	289	20.00	40.00	
Urea	mmol/l	19.1	16.2	22.0	1.45	2.90	Urease kinetic
	mg/dl	115	97.4	133	8.80	17.60	
	mmol/l	18.2	15.5	20.9	1.35	2.70	Urease hypochlorite
	mg/dl	109	93.2	125	7.90	15.80	
	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	
	mmol/l	0.56	0.48	0.63	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.36	8.13	10.6	0.61	1.23	
Uric Acid (Urate)	mmol/l	0.56	0.49	0.63	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.39	8.16	10.6	0.62	1.23	

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	
	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	336	286	386	25.00	50.00	AMP non-optimised 37°C
ALT (GPT)	U/l	128	103	153	12.50	25.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	260	221	299	19.50	39.00	Immunoinhibition EPS substrate 37°C
AST (GOT)	U/l	142	114	170	14.00	28.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	14.8	11.8	17.8	1.50	3.00	Enzymatic
Bile Acids	µmol/l	49.8	39.8	59.8	5.00	10.00	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	30.8	24.3	37.3	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.80	1.42	2.18	0.19	0.38	
	µmol/l	30.9	24.4	37.4	3.25	6.50	Diazo with Dichloroaniline (DCA)
	mg/dl	1.81	1.43	2.19	0.19	0.38	
Bilirubin Total	µmol/l	82.3	65.0	99.6	8.65	17.30	Diazo with Dichloroaniline (DCA)
	mg/dl	4.81	3.80	5.82	0.51	1.01	
	µmol/l	81.2	64.2	98.2	8.50	17.00	Diazo with Sulphanilic Acid
	mg/dl	4.75	3.76	5.74	0.50	0.99	
	µmol/l	82.3	65.0	99.6	8.65	17.30	Diazonium ion
	mg/dl	4.81	3.80	5.82	0.51	1.01	

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	3.12	2.80	3.44	0.16	0.32	Arsenazo III
	mg/dl	12.5	11.2	13.8	0.65	1.30	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE indirect
Cholesterol	mmol/l	6.87	5.98	7.76	0.45	0.89	Cholesterol Oxidase
	mg/dl	265	231	299	17.00	34.00	
CK Total	U/l	605	496	714	54.50	109.00	CK-NAC (IFCC) 37°C
	U/l	617	506	728	55.50	111.00	Monothioglycerol 37°C
Creatinine	µmol/l	382	305	459	38.50	77.00	Alkaline picrate no deproteinization
	mg/dl	4.32	3.45	5.19	0.44	0.87	
	µmol/l	383	306	460	38.50	77.00	Randox Enzymatic UV method
	mg/dl	4.33	3.46	5.20	0.44	0.87	
	µmol/l	377	302	452	37.50	75.00	Jaffe rate blanked
	mg/dl	4.26	3.41	5.11	0.43	0.85	
	µmol/l	381	305	457	38.00	76.00	IDMS traceable
	mg/dl	4.31	3.45	5.17	0.43	0.86	
Free T4	pmol/l	56.5	42.4	70.6	7.05	14.10	Abbott Architect
	ng/dl	4.41	3.31	5.51	0.55	1.10	
	pg/ml	44.1	33.1	55.1	5.50	11.00	Abbott Architect
gamma-GT	U/l	163	138	188	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	163	139	187	12.00	24.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	158	134	182	12.00	24.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	15.9	13.5	18.3	1.20	2.40	Hexokinase
	mg/dl	287	243	331	22.00	44.00	
HDL - Cholesterol	mmol/l	2.43	2.07	2.79	0.18	0.36	Direct HDL PPD
	mg/dl	93.8	79.9	108	6.95	13.90	

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	2.55	2.16	2.94	0.20	0.39	Direct Clearance Method
	mg/dl	98.4	83.4	113	7.50	15.00	
	mmol/l	2.56	2.18	2.94	0.19	0.38	HDL - Ultra
	mg/dl	98.8	84.1	114	7.35	14.70	
Iron	µmol/l	37.2	30.5	43.9	3.35	6.70	Colorimetric with ppt.
	µg/dl	208	170	246	19.00	38.00	
	µmol/l	37.5	30.7	44.3	3.40	6.80	Colorimetric without ppt.
	µg/dl	210	172	248	19.00	38.00	
Lactate	mmol/l	5.61	4.60	6.62	0.51	1.01	Colorimetric Lactate Oxidase
	mg/dl	50.5	41.4	59.6	4.55	9.10	
LD (LDH)	U/l	399	339	459	30.00	60.00	L->P 37°C
	U/l	400	340	460	30.00	60.00	L->P IFCC 37°C
Lipase	U/l	64	52	76	6.00	12.00	Other Colorimetric 37°C
Lithium	mmol/l	1.94	1.71	2.17	0.12	0.23	Spectrophotometric
	mg/dl	1.35	1.19	1.51	0.08	0.16	
Magnesium	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	1.82	1.60	2.04	0.11	0.22	Xylidyl Blue
	mg/dl	4.42	3.89	4.95	0.27	0.53	
	mmol/l	1.76	1.55	1.97	0.11	0.21	Enzymatic
	mg/dl	4.28	3.77	4.79	0.26	0.51	
Phosphate Inorganic	mmol/l	2.28	1.94	2.62	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	7.07	6.01	8.13	0.53	1.06	
	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	

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Potassium	mmol/l	5.94	5.47	6.41	0.24	0.47	ISE method - indirect
Protein Total	g/l	44.4	35.5	53.3	4.45	8.90	Biuret reaction end point
	g/dl	4.44	3.55	5.33	0.45	0.89	
	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	
PSA Total	ng/ml =	29.5	22.1	36.9	3.70	7.40	Abbott Architect
Sodium	mmol/l	157	149	165	4.00	8.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.01	0.81	1.21	0.10	0.20	Abbott Architect
TIBC	µmol/l	44.9	35.5	54.3	4.70	9.40	FE+UIBC(saturation with iron)
	µg/dl	251	198	304	26.50	53.00	
Total T3	nmol/l	4.06	3.04	5.08	0.51	1.02	Abbott Architect
	ng/ml	2.64	1.98	3.30	0.33	0.66	
	ng/dl	264	198	330	33.00	66.00	Abbott Architect
Total T4	nmol/l	222	167	277	27.50	55.00	Abbott Architect
	µg/dl	17.3	13.0	21.6	2.15	4.30	
	ng/ml	173	130	216	21.50	43.00	Abbott Architect
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	2.86	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	2.88	2.42	3.34	0.23	0.46	L/G Kinase EP. no correction
	mg/dl	255	214	296	20.50	41.00	
	mmol/l	2.88	2.42	3.34	0.23	0.46	Lipase/Glycerol Dehydrogenase
	mg/dl	255	214	296	20.50	41.00	
Urea	mmol/l	20.2	17.2	23.2	1.50	3.00	Urease end point
	mg/dl	121	103	139	9.00	18.00	

Abbott Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	19.7	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	0.56	0.49	0.64	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.44	8.22	10.7	0.61	1.22	
	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	0.56	0.48	0.63	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.32	8.11	10.5	0.61	1.21	

ABX Pentra 400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	28.8	24.4	33.2	2.20	4.40	Bromocresol Green
	g/dl	2.88	2.44	3.32	0.22	0.44	
Alkaline Phosphatase	U/l	333	283	383	25.00	50.00	AMP optimised to IFCC 37°C
	U/l	259	220	298	19.50	39.00	AMP optimised to IFCC 30°C
	U/l	213	181	245	16.00	32.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	142	114	170	14.00	28.00	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
AST (GOT)	U/l	153	122	184	15.50	31.00	Tris buffer without P5P 37°C
	U/l	103	82	124	10.50	21.00	Tris buffer without P5P 30°C
	U/l	73	58	88	7.50	15.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	26.1	20.6	31.6	2.75	5.50	Diazo with Dichloroaniline (DCA)
	mg/dl	1.53	1.21	1.85	0.16	0.32	
Bilirubin Total	µmol/l	83.2	65.7	101	8.75	17.50	Diazo with Dichloroaniline (DCA)
	mg/dl	4.87	3.84	5.90	0.52	1.03	
Calcium	mmol/l	3.21	2.89	3.53	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.9	11.6	14.2	0.65	1.30	
Cholesterol	mmol/l	7.04	6.13	7.95	0.46	0.91	Cholesterol Oxidase
	mg/dl	272	237	307	17.50	35.00	
CK Total	U/l	608	499	717	54.50	109.00	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

ABX Pentra 400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	Creatinine PAP method
	mg/dl	4.23	3.38	5.08	0.43	0.85	
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	16.0	13.6	18.4	1.20	2.40	Glucose oxidase
	mg/dl	288	245	331	21.50	43.00	
Iron	μmol/l	36.2	29.7	42.7	3.25	6.50	Colorimetric without ppt.
	μg/dl	202	166	238	18.00	36.00	
Magnesium	mmol/l	1.68	1.48	1.88	0.10	0.20	Xylidyl Blue
	mg/dl	4.08	3.60	4.56	0.24	0.48	
Phosphate Inorganic	mmol/l	2.46	2.09	2.83	0.19	0.37	Phosphomolybdate UV
	mg/dl	7.63	6.48	8.78	0.58	1.15	
Protein Total	g/l	44.6	35.7	53.5	4.45	8.90	Biuret reaction end point
	g/dl	4.46	3.57	5.35	0.45	0.89	
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	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	8.90	7.74	10.1	0.58	1.16	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	27.5	23.4	31.6	2.05	4.10	Bromocresol Green
	g/dl	2.75	2.34	3.16	0.21	0.41	
Alkaline Phosphatase	U/l	415	353	477	31.00	62.00	p-Nitrophenylphosphate AMP 37°C
	U/l	574	488	660	43.00	86.00	Diethanolamine buffer DEA 37°C
	U/l	423	359	487	32.00	64.00	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	285	242	328	21.50	43.00	Beckman maltotetraose 37°C
	U/l	277	235	319	21.00	42.00	Roche liquid stable pNPG7 37°C
	U/l	288	245	331	21.50	43.00	Beckman Coulter - blocked pNPG7 37°C
AST (GOT)	U/l	155	124	186	15.50	31.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	17.0	13.5	20.5	1.75	3.50	Enzymatic
Bilirubin Direct	µmol/l	22.0	17.4	26.6	2.30	4.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.29	1.02	1.56	0.14	0.27	
Bilirubin Total	µmol/l	81.8	64.6	99.0	8.60	17.20	Diazo with Dichloroaniline (DCA)
	mg/dl	4.79	3.78	5.80	0.51	1.01	
	µmol/l	83.9	66.3	102	8.80	17.60	Diazo with Sulphanilic Acid
	mg/dl	4.91	3.88	5.94	0.52	1.03	
	µmol/l	85.5	67.5	104	9.00	18.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.00	3.95	6.05	0.53	1.05	
	µmol/l	84.6	66.8	102	8.90	17.80	Oxidation to Biliverdin
	mg/dl	4.95	3.91	5.99	0.52	1.04	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	3.09	2.78	3.40	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.4	11.1	13.7	0.65	1.30	
	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	114	105	123	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.04	6.13	7.95	0.46	0.91	Cholesterol Oxidase
	mg/dl	272	237	307	17.50	35.00	
CK Total	U/l	592	486	698	53.00	106.00	CK-NAC serum start (DGKC) 37°C
	U/l	627	514	740	56.50	113.00	CK-NAC substrate start (DGKC) 37°C
	U/l	623	511	735	56.00	112.00	CK-NAC (IFCC) 37°C
Copper	µmol/l	26.6	21.2	32.0	2.70	5.40	Colorimetric
	µg/dl	169	135	203	17.00	34.00	
Creatinine	µmol/l	360	288	432	36.00	72.00	Alkaline picrate no deproteinization
	mg/dl	4.07	3.25	4.89	0.41	0.82	
	µmol/l	374	299	449	37.50	75.00	Randox Enzymatic UV method
	mg/dl	4.23	3.38	5.08	0.43	0.85	
	µmol/l	366	293	439	36.50	73.00	Jaffe rate blanked
	mg/dl	4.14	3.31	4.97	0.42	0.83	
	µmol/l	369	295	443	37.00	74.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.17	3.33	5.01	0.42	0.84	
	µmol/l	369	295	443	37.00	74.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.17	3.33	5.01	0.42	0.84	
D-3-Hydroxybutyrate	mmol/l	1.17	0.99	1.35	0.09	0.18	Tris buffer 100mmol pH 8.5

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	165	140	190	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	165	140	190	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	15.9	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	2.66	2.26	3.06	0.20	0.40	Direct HDL Immunoseparation
	mg/dl	103	87.2	119	7.90	15.80	
	mmol/l	2.59	2.20	2.98	0.20	0.39	Direct Clearance Method
	mg/dl	100	84.9	115	7.55	15.10	
Iron	µmol/l	38.5	31.6	45.4	3.45	6.90	Colorimetric with ppt.
	µg/dl	215	177	253	19.00	38.00	
	µmol/l	37.7	30.9	44.5	3.40	6.80	Colorimetric without ppt.
	µg/dl	211	173	249	19.00	38.00	
Lactate	mmol/l	5.70	4.67	6.73	0.52	1.03	Colorimetric Lactate Oxidase
	mg/dl	51.4	42.1	60.7	4.65	9.30	
LD (LDH)	U/l	406	345	467	30.50	61.00	L->P 37°C
	U/l	896	761	1031	67.50	135.00	P->L Scandinavian & Dutch 37°C
	U/l	782	664	900	59.00	118.00	P->L German methods 37°C
	U/l	792	673	911	59.50	119.00	P->L SFBC 37°C
	U/l	406	345	467	30.50	61.00	L->P IFCC 37°C
Lipase	U/l	67	54	80	6.50	13.00	Other Colorimetric 37°C
	U/l	59	47	71	6.00	12.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.86	1.64	2.08	0.11	0.22	Spectrophotometric
	mg/dl	1.29	1.14	1.44	0.08	0.15	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	Xylidyl Blue
	mg/dl	4.33	3.79	4.87	0.27	0.54	
Phosphate Inorganic	mmol/l	2.28	1.94	2.62	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	7.07	6.01	8.13	0.53	1.06	
	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	5.99	5.51	6.47	0.24	0.48	ISE method - indirect
Protein Total	g/l	44.3	35.4	53.2	4.45	8.90	Biuret reaction end point
	g/dl	4.43	3.54	5.32	0.45	0.89	
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - indirect
TIBC	μmol/l	45.9	36.2	55.6	4.85	9.70	FE+UIBC(saturation with iron)
	μg/dl	257	202	312	27.50	55.00	
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	
	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	2.96	2.49	3.43	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	262	220	304	21.00	42.00	
	mmol/l	19.8	16.9	22.7	1.45	2.90	Urease end point
	mg/dl	119	102	136	8.50	17.00	
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	

Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	0.56	0.48	0.63	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.36	8.13	10.6	0.61	1.23	
	mmol/l	0.57	0.49	0.64	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.53	8.30	10.8	0.61	1.23	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.19	8.00	10.4	0.60	1.19	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	28.1	23.9	32.3	2.10	4.20	Bromocresol Green
	g/dl	2.81	2.39	3.23	0.21	0.42	
	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	368	313	423	27.50	55.00	p-Nitrophenylphosphate AMP 37°C
	U/l	377	320	434	28.50	57.00	AMP optimised to IFCC 37°C
	U/l	372	316	428	28.00	56.00	AMP reduced interference 37°C
ALT (GPT)	U/l	125	100	150	12.50	25.00	Tris buffer without P5P 37°C
	U/l	125	100	150	12.50	25.00	Tris buffer SCE 37°C
Amylase Pancreatic	U/l	216	183	249	16.50	33.00	Immunoinhibition EPS substrate 37°C
	U/l	217	185	249	16.00	32.00	Beckman Synchron/CX/LXi/DxC 37°C
Amylase Total	U/l	306	260	352	23.00	46.00	Beckman maltotetraose 37°C
	U/l	303	258	348	22.50	45.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	139	111	167	14.00	28.00	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	16.5	13.1	19.9	1.70	3.40	Ion selective electrode
Bilirubin Direct	µmol/l	16.1	12.8	19.4	1.65	3.30	Diazo with Sulphanilic Acid
	mg/dl	0.942	0.749	1.14	0.10	0.19	
Bilirubin Total	µmol/l	80.4	63.5	97.3	8.45	16.90	Diazo with Sulphanilic Acid
	mg/dl	4.70	3.71	5.69	0.50	0.99	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	3.00	2.70	3.30	0.15	0.30	Cresolphthalein complexone
	mg/dl	12.0	10.8	13.2	0.60	1.20	
	mmol/l	3.00	2.70	3.30	0.15	0.30	Ion selective electrode
	mg/dl	12.0	10.8	13.2	0.60	1.20	
	mmol/l	3.05	2.74	3.36	0.16	0.31	Arsenazo III
	mg/dl	12.2	11.0	13.4	0.60	1.20	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.02	6.11	7.93	0.46	0.91	Cholesterol Oxidase
	mg/dl	271	236	306	17.50	35.00	
CK Total	U/l	593	486	700	53.50	107.00	CK-NAC serum start (DGKC) 37°C
	U/l	605	496	714	54.50	109.00	CK-NAC (IFCC) 37°C
	U/l	600	492	708	54.00	108.00	Monothioglycerol 37°C
Creatinine	µmol/l	373	298	448	37.50	75.00	Alkaline picrate no deproteinization
	mg/dl	4.21	3.37	5.05	0.42	0.84	
	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	373	298	448	37.50	75.00	Jaffe rate blanked
	mg/dl	4.21	3.37	5.05	0.42	0.84	
	µmol/l	369	295	443	37.00	74.00	IDMS traceable
	mg/dl	4.17	3.33	5.01	0.42	0.84	
gamma-GT	U/l	132	113	151	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	132	112	152	10.00	20.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	151	128	174	11.50	23.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (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	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	15.6	13.3	17.9	1.15	2.30	Oxygen electrode
	mg/dl	281	240	322	20.50	41.00	
	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	3.72	3.16	4.28	0.28	0.56	Direct HDL PPD
	mg/dl	144	122	166	11.00	22.00	
Iron	µmol/l	39.6	32.5	46.7	3.55	7.10	Colorimetric without ppt.
	µg/dl	221	182	260	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	328	279	377	24.50	49.00	L->P 37°C
	U/l	1053	895	1211	79.00	158.00	Pyruvate 1.4 mM - Beckman LD-P 37°C
	U/l	393	334	452	29.50	59.00	L->P IFCC 37°C
Lipase	U/l	65	52	78	6.50	13.00	Other Colorimetric 37°C
Lithium	mmol/l	1.88	1.65	2.11	0.12	0.23	Spectrophotometric
	mg/dl	1.31	1.15	1.47	0.08	0.16	
Magnesium	mmol/l	1.74	1.53	1.95	0.11	0.21	Calmagite
	mg/dl	4.23	3.72	4.74	0.26	0.51	
Osmolality	mOsm/kg	334	268	400	33.00	66.00	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	2.36	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	6.02	5.54	6.50	0.24	0.48	ISE method - indirect
Protein Total	g/l	43.8	35.0	52.6	4.40	8.80	Biuret reaction CX4/5/7
	g/dl	4.38	3.50	5.26	0.44	0.88	

Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Protein Total	g/l	44.2	35.4	53.0	4.40	8.80	Biuret reaction end point
	g/dl	4.42	3.54	5.30	0.44	0.88	
	g/l	43.3	34.6	52.0	4.35	8.70	Biuret reaction kinetic
	g/dl	4.33	3.46	5.20	0.44	0.87	
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - indirect
TIBC	μmol/l	47.6	37.6	57.6	5.00	10.00	Removal of excess free iron
	μg/dl	266	210	322	28.00	56.00	
	μmol/l	47.2	37.3	57.1	4.95	9.90	FE+UIBC(saturation with iron)
	μg/dl	264	209	319	27.50	55.00	
Triglycerides	mmol/l	2.93	2.46	3.40	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	259	218	300	20.50	41.00	
	mmol/l	2.99	2.51	3.47	0.24	0.48	L/G Kinase EP. no correction
	mg/dl	265	222	308	21.50	43.00	
Urea	mmol/l	19.7	16.8	22.6	1.45	2.90	Urease end point
	mg/dl	118	101	135	8.50	17.00	
	mmol/l	19.7	16.7	22.7	1.50	3.00	Urease kinetic
	mg/dl	118	100	136	9.00	18.00	
	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	
	mmol/l	0.52	0.45	0.58	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.67	7.54	9.80	0.57	1.13	

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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 Green
	g/dl	2.76	2.35	3.17	0.21	0.41	
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	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 Total	µmol/l	80.9	63.9	97.9	8.50	17.00	Diazo with Sulphanilic Acid
	mg/dl	4.73	3.74	5.72	0.50	0.99	
Calcium	mmol/l	3.06	2.75	3.37	0.16	0.31	Arsenazo III
	mg/dl	12.3	11.0	13.6	0.65	1.30	
Cholesterol	mmol/l	6.94	6.03	7.85	0.46	0.91	Cholesterol Oxidase
	mg/dl	268	233	303	17.50	35.00	
Creatinine	µmol/l	321	256	386	32.50	65.00	Alkaline picrate no deproteinization
	mg/dl	3.63	2.89	4.37	0.37	0.74	
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Glucose oxidase
	mg/dl	288	245	331	21.50	43.00	
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	
Protein Total	g/l	44.2	35.3	53.1	4.45	8.90	Biuret reaction end point
	g/dl	4.42	3.53	5.31	0.45	0.89	

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	2.83	2.38	3.28	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	250	211	289	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	0.56	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	

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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 Green
	g/dl	2.76	2.35	3.17	0.21	0.41	
Alkaline Phosphatase	U/l	320	272	368	24.00	48.00	AMP optimised to IFCC 37°C
	U/l	249	212	286	18.50	37.00	AMP optimised to IFCC 30°C
	U/l	204	174	234	15.00	30.00	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	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
Bilirubin Direct	µmol/l	27.0	21.3	32.7	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.58	1.25	1.91	0.17	0.33	
Bilirubin Total	µmol/l	80.2	63.3	97.1	8.45	16.90	Diazo with Sulphanilic Acid
	mg/dl	4.69	3.70	5.68	0.50	0.99	
Calcium	mmol/l	3.01	2.71	3.31	0.15	0.30	Arsenazo III
	mg/dl	12.1	10.9	13.3	0.60	1.20	
Cholesterol	mmol/l	7.08	6.16	8.00	0.46	0.92	Cholesterol Oxidase
	mg/dl	273	238	308	17.50	35.00	
CK Total	U/l	593	486	700	53.50	107.00	CK-NAC (IFCC) 37°C
	U/l	371	304	438	33.50	67.00	CK-NAC (IFCC) 30°C
	U/l	252	207	297	22.50	45.00	CK-NAC (IFCC) 25°C

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	332	265	399	33.50	67.00	Alkaline picrate no deproteinization
	mg/dl	3.75	2.99	4.51	0.38	0.76	
Glucose	mmol/l	15.3	13.0	17.6	1.15	2.30	Glucose oxidase
	mg/dl	276	234	318	21.00	42.00	
Protein Total	g/l	44.9	35.9	53.9	4.50	9.00	Biuret reaction end point
	g/dl	4.49	3.59	5.39	0.45	0.90	
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	19.3	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	0.57	0.49	0.64	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.53	8.28	10.8	0.63	1.25	
	mmol/l	0.51	0.45	0.58	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.62	7.51	9.73	0.56	1.11	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	27.0	22.9	31.1	2.05	4.10	Bromocresol Purple
	g/dl	2.70	2.29	3.11	0.21	0.41	
	g/l	25.6	21.8	29.4	1.90	3.80	Turbidimetric Assays
	g/dl	2.56	2.18	2.94	0.19	0.38	
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	126	100	152	13.00	26.00	Tris buffer without P5P 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer without P5P 30°C
	U/l	71	56	86	7.50	15.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	265	225	305	20.00	40.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/l	285	242	328	21.50	43.00	Saccharogenic 37°C
	U/l	280	238	322	21.00	42.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	282	240	324	21.00	42.00	Roche liquid stable pNPG7 37°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
Bicarbonate	mmol/l	15.8	12.5	19.1	1.65	3.30	Enzymatic
Bilirubin Direct	µmol/l	28.9	22.8	35.0	3.05	6.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.69	1.33	2.05	0.18	0.36	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	23.6	18.7	28.5	2.45	4.90	Diazo with Sulphanilic Acid
	mg/dl	1.38	1.09	1.67	0.15	0.29	
Bilirubin Total	μmol/l	75.8	59.9	91.7	7.95	15.90	Diazo with Sulphanilic Acid
	mg/dl	4.43	3.50	5.36	0.47	0.93	
	μmol/l	75.3	59.5	91.1	7.90	15.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.41	3.48	5.34	0.47	0.93	
	μmol/l	76.2	60.2	92.2	8.00	16.00	Diazonium ion
	mg/dl	4.46	3.52	5.40	0.47	0.94	
Calcium	mmol/l	3.14	2.83	3.45	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.6	11.3	13.9	0.65	1.30	
	mmol/l	3.08	2.77	3.39	0.16	0.31	NM-BAPTA
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Chloride	mmol/l	116	106	126	5.00	10.00	ISE indirect
Cholesterol	mmol/l	7.02	6.11	7.93	0.46	0.91	Cholesterol Oxidase
	mg/dl	271	236	306	17.50	35.00	
Cholinesterase	U/l	4539	3631	5447	454.00	908.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	624	512	736	56.00	112.00	CK-NAC substrate start (DGKC) 37°C
	U/l	391	321	461	35.00	70.00	CK-NAC substrate start (DGKC) 30°C
	U/l	265	218	312	23.50	47.00	CK-NAC substrate start (DGKC) 25°C
	U/l	642	526	758	58.00	116.00	CK-NAC (IFCC) 37°C
	U/l	402	329	475	36.50	73.00	CK-NAC (IFCC) 30°C
	U/l	273	224	322	24.50	49.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	352	281	423	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	3.98	3.18	4.78	0.40	0.80	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	356	285	427	35.50	71.00	Roche Creatinine Plus
	mg/dl	4.02	3.22	4.82	0.40	0.80	
	μmol/l	351	281	421	35.00	70.00	Jaffe rate blanked
	mg/dl	3.97	3.18	4.76	0.40	0.79	
	μmol/l	334	267	401	33.50	67.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	3.77	3.02	4.52	0.38	0.75	
gamma-GT	μmol/l	352	282	422	35.00	70.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	3.98	3.19	4.77	0.40	0.79	
	U/l	150	127	173	11.50	23.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	118	100	136	9.00	18.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	93	78	108	7.50	15.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	168	143	193	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	U/l	132	113	151	9.50	19.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	104	88	120	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	mmol/l	15.5	13.1	17.9	1.20	2.40	Glucose dehydrogenase
	mg/dl	279	236	322	21.50	43.00	
	mmol/l	15.9	13.5	18.3	1.20	2.40	Hexokinase
	mg/dl	287	243	331	22.00	44.00	
HDL - Cholesterol	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	3.90	3.31	4.49	0.30	0.59	Direct HDL Roche 3rd generation
	mg/dl	151	128	174	11.50	23.00	
Iron	μmol/l	38.5	31.6	45.4	3.45	6.90	Colorimetric with ppt.
	μg/dl	215	177	253	19.00	38.00	
	μmol/l	38.4	31.5	45.3	3.45	6.90	Colorimetric without ppt.
	μg/dl	215	176	254	19.50	39.00	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	5.88	4.82	6.94	0.53	1.06	Colorimetric Lactate Oxidase
	mg/dl	53.0	43.4	62.6	4.80	9.60	
LD (LDH)	U/l	416	354	478	31.00	62.00	L->P IFCC 37°C
	U/l	300	256	344	22.00	44.00	L->P IFCC 30°C
	U/l	211	179	243	16.00	32.00	L->P IFCC 25°C
Lipase	U/l	66	53	79	6.50	13.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.97	1.73	2.21	0.12	0.24	Ion selective electrode
	mg/dl	1.37	1.20	1.54	0.09	0.17	
Magnesium	mmol/l	1.67	1.47	1.87	0.10	0.20	Xylidyl Blue
	mg/dl	4.06	3.57	4.55	0.25	0.49	
	mmol/l	1.71	1.51	1.91	0.10	0.20	Chlorphosphonazo III
	mg/dl	4.16	3.67	4.65	0.25	0.49	
Phosphate Inorganic	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	2.36	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	6.02	5.54	6.50	0.24	0.48	ISE method - indirect
Protein Total	g/l	43.2	34.6	51.8	4.30	8.60	Biuret reaction end point
	g/dl	4.32	3.46	5.18	0.43	0.86	
	g/l	42.4	33.9	50.9	4.25	8.50	Biuret reaction kinetic
	g/dl	4.24	3.39	5.09	0.43	0.85	
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - indirect
TIBC	µmol/l	44.9	35.5	54.3	4.70	9.40	FE+UIBC(saturation with iron)
	µg/dl	251	198	304	26.50	53.00	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	2.85	2.39	3.31	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	252	212	292	20.00	40.00	
	mmol/l	2.80	2.35	3.25	0.23	0.45	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	248	208	288	20.00	40.00	
	mmol/l	2.86	2.40	3.32	0.23	0.46	L/G Kinase EP. no correction
	mg/dl	253	212	294	20.50	41.00	
Urea	mmol/l	2.82	2.37	3.27	0.23	0.45	Lipase/Glycerol Dehydrogenase
	mg/dl	250	210	290	20.00	40.00	
	mmol/l	19.0	16.1	21.9	1.45	2.90	Urease end point
	mg/dl	114	96.8	131	8.60	17.20	
	mmol/l	18.8	15.9	21.7	1.45	2.90	Urease kinetic
	mg/dl	113	95.6	130	8.70	17.40	
Uric Acid (Urate)	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	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with 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 no ascorbate oxidase
	mg/dl	9.12	7.93	10.3	0.60	1.19	
	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	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	518	409	627	54.50	109.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	391	309	473	41.00	82.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	293	231	355	31.00	62.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	8.95	6.00	11.9	1.48	2.95	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	12.1	8.11	16.1	2.00	3.99	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Prostatic)	U/l	41.3	27.7	54.9	6.80	13.60	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	26.4	17.7	35.1	4.35	8.70	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Total)	U/l	50.2	33.6	66.8	8.30	16.60	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	38.5	25.8	51.2	6.35	12.70	1-Naphthyl Phosphate substrate Kinetic 37°C
Albumin	g/l	30.1	25.6	34.6	2.25	4.50	Bromocresol Green
	g/dl	3.01	2.56	3.46	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	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	332	282	382	25.00	50.00	AMP optimised to IFCC 37°C
	U/l	259	220	298	19.50	39.00	AMP optimised to IFCC 30°C
	U/l	212	180	244	16.00	32.00	AMP optimised to IFCC 25°C
	U/l	364	309	419	27.50	55.00	Randox AMP 37°C
	U/l	284	241	327	21.50	43.00	Randox AMP 30°C
	U/l	233	197	269	18.00	36.00	Randox AMP 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	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	284	241	327	21.50	43.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	274	233	315	20.50	41.00	Roche liquid stable pNPG7 37°C
	U/l	308	262	354	23.00	46.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	144	115	173	14.50	29.00	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	15.9	12.6	19.2	1.65	3.30	Enzymatic
Bile Acids	µmol/l	49.4	39.5	59.3	4.95	9.90	5th Generation Colorimetric
Bilirubin Direct	µmol/l	26.3	20.8	31.8	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.54	1.22	1.86	0.16	0.32	
	µmol/l	26.4	20.9	31.9	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.54	1.22	1.86	0.16	0.32	
Bilirubin Total	µmol/l	79.6	62.9	96.3	8.35	16.70	Diazo with Dichloroaniline (DCA)
	mg/dl	4.66	3.68	5.64	0.49	0.98	
	µmol/l	76.9	60.8	93.0	8.05	16.10	Diazo with Sulphanilic Acid
	mg/dl	4.50	3.56	5.44	0.47	0.94	
	µmol/l	75.8	59.9	91.7	7.95	15.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.43	3.50	5.36	0.47	0.93	
	µmol/l	77.0	60.8	93.2	8.10	16.20	Diazonium ion
	mg/dl	4.50	3.56	5.44	0.47	0.94	
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	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	
	mmol/l	3.07	2.77	3.37	0.15	0.30	NM-BAPTA
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Chloride	mmol/l	113	104	122	4.50	9.00	ISE indirect
Cholesterol	mmol/l	6.93	6.03	7.83	0.45	0.90	Cholesterol Oxidase
	mg/dl	267	233	301	17.00	34.00	
Cholinesterase	U/l	4502	3602	5402	450.00	900.00	Colorimetric Butyrylthiocholine 37°C
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
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	379	303	455	38.00	76.00	Randox Enzymatic UV method
	mg/dl	4.28	3.42	5.14	0.43	0.86	
	µmol/l	374	299	449	37.50	75.00	Creatinine PAP method
	mg/dl	4.23	3.38	5.08	0.43	0.85	
	µmol/l	383	306	460	38.50	77.00	Roche Creatinine Plus
	mg/dl	4.33	3.46	5.20	0.44	0.87	
	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	
D-3-Hydroxybutyrate	mmol/l	1.15	0.97	1.33	0.09	0.18	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	143	122	164	10.50	21.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	113	96	130	8.50	17.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	88	75	101	6.50	13.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	162	137	187	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	128	108	148	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	100	85	115	7.50	15.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	172	146	198	13.00	26.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	136	115	157	10.50	21.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	106	90	122	8.00	16.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	35	28	42	3.50	7.00	Triethanolamine buffer 50 mmol 37°C
	U/l	27	22	32	2.50	5.00	Triethanolamine buffer 50 mmol 30°C
	U/l	22	17	27	2.50	5.00	Triethanolamine buffer 50 mmol 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	15.8	13.4	18.2	1.20	2.40	Glucose oxidase
	mg/dl	285	241	329	22.00	44.00	
HDL - Cholesterol	mmol/l	2.64	2.25	3.03	0.20	0.39	Direct HDL Immunoseparation
	mg/dl	102	86.9	117	7.55	15.10	
	mmol/l	3.76	3.20	4.32	0.28	0.56	Direct HDL Roche 3rd generation
	mg/dl	145	124	166	10.50	21.00	
Iron	µmol/l	37.7	30.9	44.5	3.40	6.80	Colorimetric with ppt.
	µg/dl	211	173	249	19.00	38.00	
	µmol/l	37.8	31.0	44.6	3.40	6.80	Colorimetric without ppt.
	µg/dl	211	173	249	19.00	38.00	
Lactate	mmol/l	5.64	4.63	6.65	0.51	1.01	Colorimetric Lactate Oxidase
	mg/dl	50.8	41.7	59.9	4.55	9.10	
LD (LDH)	U/l	769	653	885	58.00	116.00	P->L German methods 37°C
	U/l	555	471	639	42.00	84.00	P->L German methods 30°C
	U/l	390	331	449	29.50	59.00	P->L German methods 25°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
LD (LDH)	U/l	392	333	451	29.50	59.00	L->P IFCC 37°C
	U/l	283	240	326	21.50	43.00	L->P IFCC 30°C
	U/l	199	169	229	15.00	30.00	L->P IFCC 25°C
Lipase	U/l	66	53	79	6.50	13.00	Other Colorimetric 37°C
	U/l	61	49	73	6.00	12.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.90	1.68	2.12	0.11	0.22	Spectrophotometric
	mg/dl	1.32	1.17	1.47	0.08	0.15	
Magnesium	mmol/l	1.72	1.52	1.92	0.10	0.20	Xylidyl Blue
	mg/dl	4.18	3.69	4.67	0.25	0.49	
	mmol/l	1.76	1.55	1.97	0.11	0.21	Enzymatic
	mg/dl	4.28	3.77	4.79	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	6.04	5.56	6.52	0.24	0.48	ISE method - indirect
Protein Total	g/l	44.3	35.5	53.1	4.40	8.80	Biuret reaction end point
	g/dl	4.43	3.55	5.31	0.44	0.88	
	g/l	43.9	35.1	52.7	4.40	8.80	Biuret reaction kinetic
	g/dl	4.39	3.51	5.27	0.44	0.88	
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
TIBC	µmol/l	43.6	34.4	52.8	4.60	9.20	FE+UIBC(saturation with iron)
	µg/dl	244	192	296	26.00	52.00	
Triglycerides	mmol/l	2.81	2.36	3.26	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	249	209	289	20.00	40.00	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	2.79	2.35	3.23	0.22	0.44	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	247	208	286	19.50	39.00	
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	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.11	7.93	10.3	0.59	1.18	
	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	0.61	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. 647UE 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	29.3	24.9	33.7	2.20	4.40	Bromocresol Green
	g/dl	2.93	2.49	3.37	0.22	0.44	
Alkaline Phosphatase	U/l	400	340	460	30.00	60.00	AMP optimised to IFCC 37°C
	U/l	312	265	359	23.50	47.00	AMP optimised to IFCC 30°C
	U/l	256	217	295	19.50	39.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	127	101	153	13.00	26.00	Tris buffer without P5P 37°C
	U/l	94	75	113	9.50	19.00	Tris buffer without P5P 30°C
	U/l	72	57	87	7.50	15.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	144	115	173	14.50	29.00	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
Bile Acids	µmol/l	50.5	40.4	60.6	5.05	10.10	Enzymatic Colorimetric
Bilirubin Total	µmol/l	85.6	67.6	104	9.00	18.00	Diazo with Sulphanilic Acid
	mg/dl	5.01	3.95	6.07	0.53	1.06	
Calcium	mmol/l	3.14	2.83	3.45	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.6	11.3	13.9	0.65	1.30	
Chloride	mmol/l	113	104	122	4.50	9.00	ISE indirect
Cholesterol	mmol/l	6.95	6.05	7.85	0.45	0.90	Cholesterol Oxidase
	mg/dl	268	234	302	17.00	34.00	
CK Total	U/l	556	456	656	50.00	100.00	CK-NAC (IFCC) 37°C
	U/l	348	285	411	31.50	63.00	CK-NAC (IFCC) 30°C
	U/l	236	194	278	21.00	42.00	CK-NAC (IFCC) 25°C

ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	347	277	417	35.00	70.00	Alkaline picrate no deproteinization
	mg/dl	3.92	3.13	4.71	0.40	0.79	
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	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	147	125	169	11.00	22.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	116	99	133	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	91	77	105	7.00	14.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	16.6	14.1	19.1	1.25	2.50	Hexokinase
	mg/dl	299	254	344	22.50	45.00	
	mmol/l	15.4	13.1	17.7	1.15	2.30	Glucose oxidase
	mg/dl	278	236	320	21.00	42.00	
LD (LDH)	U/l	800	680	920	60.00	120.00	P->L German methods 37°C
	U/l	578	491	665	43.50	87.00	P->L German methods 30°C
	U/l	406	345	467	30.50	61.00	P->L German methods 25°C
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	
	mmol/l	1.85	1.63	2.07	0.11	0.22	Enzymatic
	mg/dl	4.50	3.96	5.04	0.27	0.54	
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	6.12	5.63	6.61	0.25	0.49	ISE method - indirect
Protein Total	g/l	44.4	35.6	53.2	4.40	8.80	Biuret reaction end point
	g/dl	4.44	3.56	5.32	0.44	0.88	

ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Sodium	mmol/l	160	152	168	4.00	8.00	ISE method - indirect
Triglycerides	mmol/l	2.92	2.45	3.39	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	258	217	299	20.50	41.00	
	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	
Uric Acid (Urate)	mmol/l	0.57	0.49	0.64	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.53	8.30	10.8	0.61	1.23	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	25.9	22.0	29.8	1.95	3.90	Ortho Vitros Microslide Systems
	g/dl	2.59	2.20	2.98	0.20	0.39	
	g/l	26.5	22.5	30.5	2.00	4.00	Vitros DT60/DT60 II/DTSC II
	g/dl	2.65	2.25	3.05	0.20	0.40	
Alkaline Phosphatase	U/l	250	213	287	18.50	37.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	138	110	166	14.00	28.00	Ortho Vitros Microslide Systems 37°C
	U/l	133	106	160	13.50	27.00	Vitros DT60/DT60 II/DTSC II 37°C
Amylase Total	U/l	170	145	195	12.50	25.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	182	145	219	18.50	37.00	Ortho Vitros Microslide visible slide 37°C
	U/l	191	153	229	19.00	38.00	Vitros DT60/DT60 II/DTSC II 37°C
Bicarbonate	mmol/l	18.7	14.8	22.6	1.95	3.90	Ortho Vitros Microslide Systems
Bilirubin Total	µmol/l	71.8	56.7	86.9	7.55	15.10	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	4.20	3.32	5.08	0.44	0.88	
	µmol/l	71.5	56.5	86.5	7.50	15.00	Vitros 250/500/700/950 Total BUBC
	mg/dl	4.18	3.31	5.05	0.44	0.87	
	µmol/l	73.8	58.3	89.3	7.75	15.50	Vitros DT60/DT60 II Total Bil
	mg/dl	4.32	3.41	5.23	0.46	0.91	
Calcium	mmol/l	3.09	2.78	3.40	0.16	0.31	Ortho Vitros Microslide Systems
	mg/dl	12.4	11.1	13.7	0.65	1.30	
	mmol/l	3.13	2.82	3.44	0.16	0.31	Vitros DT60/DT60 II/DTSC II
	mg/dl	12.5	11.3	13.7	0.60	1.20	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Chloride	mmol/l	116	107	125	4.50	9.00	Ortho Vitros Microslide Systems
	mmol/l	116	107	125	4.50	9.00	Vitros DT60/DT60 II/DTE II
Cholesterol	mmol/l	6.51	5.66	7.36	0.43	0.85	Ortho Vitros Microslide Systems
	mg/dl	251	218	284	16.50	33.00	
	mmol/l	6.96	6.06	7.86	0.45	0.90	Vitros DT60/DT60 II
	mg/dl	269	234	304	17.50	35.00	
Cholinesterase	U/l	4403	3523	5283	440.00	880.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	488	400	576	44.00	88.00	Ortho Vitros Microslide Systems 37°C
Creatinine	µmol/l	383	307	459	38.00	76.00	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	4.33	3.47	5.19	0.43	0.86	
	µmol/l	394	315	473	39.50	79.00	Vitros 250/500/700/950 double slide
	mg/dl	4.45	3.56	5.34	0.45	0.89	
	µmol/l	392	314	470	39.00	78.00	Vitros DT60/DT60 II/DTSC II
	mg/dl	4.43	3.55	5.31	0.44	0.88	
	µmol/l	386	309	463	38.50	77.00	Vitros IDMS Traceable
	mg/dl	4.36	3.49	5.23	0.44	0.87	
Free T4	pmol/l	249	187	311	31.00	62.00	Vitros ECi
	ng/dl	19.4	14.6	24.2	2.40	4.80	
	pg/ml	194	146	242	24.00	48.00	Vitros ECi
gamma-GT	U/l	198	168	228	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	14.8	12.5	17.1	1.15	2.30	Vitros DT60/DT60 II
	mg/dl	267	225	309	21.00	42.00	
HDL - Cholesterol	mmol/l	2.67	2.27	3.07	0.20	0.40	Vitros Magnetic HDL
	mg/dl	103	87.6	118	7.70	15.40	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	2.65	2.25	3.05	0.20	0.40	Vitros dHDL PTA/MgCl ₂ direct precipitation
	mg/dl	102	86.9	117	7.55	15.10	
Iron	µmol/l	37.2	30.5	43.9	3.35	6.70	Ortho Vitros Microslide Systems
	µg/dl	208	170	246	19.00	38.00	
Lactate	mmol/l	5.23	4.29	6.17	0.47	0.94	Ortho Vitros Microslide Systems
	mg/dl	47.1	38.7	55.5	4.20	8.40	
LD (LDH)	U/l	1154	981	1327	86.50	173.00	Ortho Vitros Microslide Systems 37°C
Lipase	U/l	829	665	993	82.00	164.00	Ortho Vitros Microslide Systems 37°C
Lithium	mmol/l	2.24	1.97	2.51	0.14	0.27	Ortho Vitros Microslide Systems
	mg/dl	1.56	1.37	1.75	0.10	0.19	
Magnesium	mmol/l	1.78	1.56	2.00	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.33	3.79	4.87	0.27	0.54	
	mmol/l	1.79	1.57	2.01	0.11	0.22	Vitros DT60/DT60 II
	mg/dl	4.35	3.82	4.88	0.27	0.53	
Phosphate Inorganic	mmol/l	2.32	1.97	2.67	0.18	0.35	Ortho Vitros Microslide Systems
	mg/dl	7.19	6.11	8.27	0.54	1.08	
	mmol/l	2.35	2.00	2.70	0.18	0.35	Vitros DT60/DT60 II
	mg/dl	7.29	6.20	8.38	0.55	1.09	
Potassium	mmol/l	5.98	5.50	6.46	0.24	0.48	Ortho Vitros Microslide Systems
	mmol/l	5.98	5.50	6.46	0.24	0.48	Vitros DT60/DT60 II/DTE II
Protein Total	g/l	44.9	35.9	53.9	4.50	9.00	Ortho Vitros Microslide Systems
	g/dl	4.49	3.59	5.39	0.45	0.90	
	g/l	46.3	37.0	55.6	4.65	9.30	Vitros DT60/DT60 II
	g/dl	4.63	3.70	5.56	0.47	0.93	

JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Sodium	mmol/l	157	149	165	4.00	8.00	Ortho Vitros Microslide Systems
Thyroid Stimulating Hormone	µU/ml =	1.11	0.89	1.34	0.11	0.23	Vitros ECI
Triglycerides	mmol/l	3.52	2.96	4.08	0.28	0.56	Ortho Vitros Microslide Systems
	mg/dl	312	262	362	25.00	50.00	
	mmol/l	3.47	2.92	4.02	0.28	0.55	Vitros DT60/DT60 II
	mg/dl	307	258	356	24.50	49.00	
Urea	mmol/l	17.7	15.0	20.4	1.35	2.70	Ortho Vitros Microslide Systems
	mg/dl	106	90.2	122	7.90	15.80	
	mmol/l	18.3	15.5	21.1	1.40	2.80	Vitros DT60/DT60 II
	mg/dl	110	93.2	127	8.40	16.80	
	mmol/l	17.7	15.0	20.4	1.35	2.70	BUN
	mg/dl	49.7	42.2	57.2	3.75	7.50	
Uric Acid (Urate)	mmol/l	0.51	0.45	0.58	0.03	0.07	Ortho Vitros Microslide Systems
	mg/dl	8.62	7.49	9.75	0.57	1.13	
	mmol/l	0.51	0.44	0.57	0.03	0.07	Vitros DT60/DT60 II
	mg/dl	8.50	7.39	9.61	0.56	1.11	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	28.0	23.8	32.2	2.10	4.20	Bromocresol Green
	g/dl	2.80	2.38	3.22	0.21	0.42	
Alkaline Phosphatase	U/l	539	459	619	40.00	80.00	Diethanolamine buffer DEA 37°C
	U/l	420	358	482	31.00	62.00	Diethanolamine buffer DEA 30°C
	U/l	344	293	395	25.50	51.00	Diethanolamine buffer DEA 25°C
	U/l	354	301	407	26.50	53.00	AMP optimised to IFCC 37°C
	U/l	276	234	318	21.00	42.00	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	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
Amylase Total	U/l	327	278	376	24.50	49.00	Randox - Ethylidene pNPG7 37°C
	U/l	269	229	309	20.00	40.00	bioMerieux 2-chloro-pNPG3 37°C
AST (GOT)	U/l	157	125	189	16.00	32.00	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
Bile Acids	µmol/l	50.1	40.1	60.1	5.00	10.00	Enzymatic Colorimetric
Bilirubin Total	µmol/l	75.9	59.9	91.9	8.00	16.00	Diazo with Sulphanilic Acid
	mg/dl	4.44	3.50	5.38	0.47	0.94	
	µmol/l	77.2	61.0	93.4	8.10	16.20	Nitrobenzenediazonium salt
	mg/dl	4.52	3.57	5.47	0.48	0.95	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	3.21	2.89	3.53	0.16	0.32	Arsenazo III
	mg/dl	12.9	11.6	14.2	0.65	1.30	
Chloride	mmol/l	116	107	125	4.50	9.00	ISE direct
Cholesterol	mmol/l	6.85	5.96	7.74	0.45	0.89	Cholesterol Oxidase
	mg/dl	264	230	298	17.00	34.00	
CK Total	U/l	591	485	697	53.00	106.00	CK-NAC (IFCC) 37°C
	U/l	370	304	436	33.00	66.00	CK-NAC (IFCC) 30°C
	U/l	251	206	296	22.50	45.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	364	291	437	36.50	73.00	Alkaline picrate no deproteinization
	mg/dl	4.11	3.29	4.93	0.41	0.82	
	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	372	298	446	37.00	74.00	Creatinine PAP method
	mg/dl	4.20	3.37	5.03	0.42	0.83	
gamma-GT	U/l	161	137	185	12.00	24.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	127	108	146	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	99	85	113	7.00	14.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	163	139	187	12.00	24.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	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
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	15.8	13.4	18.2	1.20	2.40	Glucose oxidase
	mg/dl	285	241	329	22.00	44.00	
HDL - Cholesterol	mmol/l	3.46	2.94	3.98	0.26	0.52	Direct HDL PEGME
	mg/dl	134	113	155	10.50	21.00	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	38.1	31.2	45.0	3.45	6.90	Colorimetric without ppt.
	µg/dl	213	174	252	19.50	39.00	
LD (LDH)	U/l	831	706	956	62.50	125.00	P->L Scandinavian & Dutch 37°C
	U/l	600	510	690	45.00	90.00	P->L Scandinavian & Dutch 30°C
	U/l	421	358	484	31.50	63.00	P->L Scandinavian & Dutch 25°C
	U/l	792	673	911	59.50	119.00	P->L German methods 37°C
	U/l	572	486	658	43.00	86.00	P->L German methods 30°C
	U/l	402	341	463	30.50	61.00	P->L German methods 25°C
Magnesium	mmol/l	1.73	1.52	1.94	0.11	0.21	Arsenazo III
	mg/dl	4.20	3.69	4.71	0.26	0.51	
	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	1.59	1.39	1.79	0.10	0.20	Xylidyl Blue
	mg/dl	3.86	3.38	4.34	0.24	0.48	
Phosphate Inorganic	mmol/l	2.32	1.97	2.67	0.18	0.35	Phosphomolybdate enzymatic
	mg/dl	7.19	6.11	8.27	0.54	1.08	
	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	5.80	5.34	6.26	0.23	0.46	ISE method - direct
Protein Total	g/l	44.5	35.6	53.4	4.45	8.90	Biuret reaction end point
	g/dl	4.45	3.56	5.34	0.45	0.89	
Sodium	mmol/l	154	146	162	4.00	8.00	ISE method - direct
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	

Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	
Urea	mmol/l	18.2	15.5	20.9	1.35	2.70	Urease kinetic
	mg/dl	109	93.2	125	7.90	15.80	
	mmol/l	18.2	15.5	20.9	1.35	2.70	BUN
	mg/dl	51.1	43.4	58.8	3.85	7.70	
Uric Acid (Urate)	mmol/l	0.57	0.49	0.64	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.53	8.28	10.8	0.63	1.25	
	mmol/l	0.55	0.48	0.63	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.31	8.10	10.5	0.61	1.21	
	mmol/l	0.56	0.49	0.63	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.41	8.18	10.6	0.62	1.23	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	518	409	627	54.50	109.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	391	309	473	41.00	82.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	293	231	355	31.00	62.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	12.1	8.11	16.1	2.00	3.99	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	8.95	6.00	11.9	1.48	2.95	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	26.4	17.7	35.1	4.35	8.70	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	41.3	27.7	54.9	6.80	13.60	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Total)	U/l	38.5	25.8	51.2	6.35	12.70	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	50.2	33.6	66.8	8.30	16.60	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
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	
	g/l	27.5	23.4	31.6	2.05	4.10	Bromocresol Purple
	g/dl	2.75	2.34	3.16	0.21	0.41	
	g/l	25.9	22.0	29.8	1.95	3.90	Ortho Vitros Microslide Systems
	g/dl	2.59	2.20	2.98	0.20	0.39	
	g/l	25.8	21.9	29.7	1.95	3.90	Turbidimetric Assays
	g/dl	2.58	2.19	2.97	0.20	0.39	
Alkaline Phosphatase	U/l	375	319	431	28.00	56.00	p-Nitrophenylphosphate AMP 37°C
	U/l	292	249	335	21.50	43.00	p-Nitrophenylphosphate AMP 30°C
	U/l	240	204	276	18.00	36.00	p-Nitrophenylphosphate AMP 25°C
	U/l	250	213	287	18.50	37.00	Ortho Vitros Microslide Systems 37°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	525	447	603	39.00	78.00	Diethanolamine buffer DEA 37°C
	U/l	409	348	470	30.50	61.00	Diethanolamine buffer DEA 30°C
	U/l	335	286	384	24.50	49.00	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	366	311	421	27.50	55.00	AMP reduced interference 37°C
	U/l	285	242	328	21.50	43.00	AMP reduced interference 30°C
	U/l	234	199	269	17.50	35.00	AMP reduced interference 25°C
ALT (GPT)	U/l	138	110	166	14.00	28.00	Ortho Vitros Microslide Systems 37°C
	U/l	158	126	190	16.00	32.00	Tris buffer with P5P 37°C
	U/l	117	93	141	12.00	24.00	Tris buffer with P5P 30°C
	U/l	89	71	107	9.00	18.00	Tris buffer with P5P 25°C
	U/l	128	103	153	12.50	25.00	Tris buffer without P5P 37°C
	U/l	95	76	114	9.50	19.00	Tris buffer without P5P 30°C
	U/l	72	58	86	7.00	14.00	Tris buffer without P5P 25°C
	U/l	130	104	156	13.00	26.00	Phosphate buffer DGKC 37°C
	U/l	96	77	115	9.50	19.00	Phosphate buffer DGKC 30°C
	U/l	73	59	87	7.00	14.00	Phosphate buffer DGKC 25°C
	U/l	125	100	150	12.50	25.00	Tris buffer SCE 37°C
	U/l	93	74	112	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	251	214	288	18.50	37.00	Immunoinhibition EPS substrate 37°C
	U/l	257	218	296	19.50	39.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
	U/l	284	241	327	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. 647UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Amylase Pancreatic	U/I	257	218	296	19.50	39.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/I	306	260	352	23.00	46.00	pNP Maltotriose substrates 37°C
	U/I	280	238	322	21.00	42.00	Siemens - blocked pNPG7 37°C
	U/I	317	269	365	24.00	48.00	I.L. - blocked pNPG7 37°C
	U/I	236	201	271	17.50	35.00	Randox - Ethylidene pNPG7 37°C
	U/I	308	262	354	23.00	46.00	Randox liquid stable pNPG7 37°C
	U/I	280	238	322	21.00	42.00	BM/Roche Colorimetric pNPG7 37°C
	U/I	299	254	344	22.50	45.00	Beckman maltotetraose 37°C
	U/I	334	284	384	25.00	50.00	Siemens - maltopenta/hexaose 37°C
	U/I	285	242	328	21.50	43.00	Saccharogenic 37°C
	U/I	279	237	321	21.00	42.00	Roche Integra 2-chloro-pNPG7 37°C
	U/I	170	145	195	12.50	25.00	Ortho Vitros Microslide Systems 37°C
	U/I	269	229	309	20.00	40.00	Other Roche 2-chloro-pNPG7 37°C
	U/I	277	235	319	21.00	42.00	Roche liquid stable pNPG7 37°C
	U/I	330	281	379	24.50	49.00	Siemens 2-chloro-pNPG3 37°C
	U/I	274	233	315	20.50	41.00	bioMerieux 2-chloro-pNPG3 37°C
	U/I	288	245	331	21.50	43.00	Beckman Coulter - blocked pNPG7 37°C
	U/I	303	258	348	22.50	45.00	Beckman Synchron AMY7 37°C
Apolipoprotein A-1	g/l	0.99	0.81	1.17	0.09	0.18	Immunoturbidimetric
	mg/dl	99.2	81.3	117	8.95	17.90	
Apolipoprotein B	g/l	0.49	0.40	0.58	0.04	0.09	Immunoturbidimetric
	mg/dl	48.8	40.0	57.6	4.40	8.80	
AST (GOT)	U/I	182	145	219	18.50	37.00	Ortho Vitros Microslide visible slide 37°C
	U/I	207	166	248	20.50	41.00	Tris buffer with P5P 37°C
	U/I	140	112	168	14.00	28.00	Tris buffer with P5P 30°C
	U/I	99	79	119	10.00	20.00	Tris buffer with P5P 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	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
	U/l	157	126	188	15.50	31.00	Phosphate buffer DGKC 37°C
	U/l	106	85	127	10.50	21.00	Phosphate buffer DGKC 30°C
	U/l	75	60	90	7.50	15.00	Phosphate buffer DGKC 25°C
	U/l	141	113	169	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	54	80	6.50	13.00	Tris buffer SCE 25°C
Bicarbonate	mmol/l	16.2	12.9	19.5	1.65	3.30	Colorimetric
	mmol/l	18.7	14.8	22.6	1.95	3.90	Ortho Vitros Microslide Systems
	mmol/l	16.2	12.8	19.6	1.70	3.40	Differential rate pH change
	mmol/l	16.3	12.9	19.7	1.70	3.40	Enzymatic
	mmol/l	16.6	13.2	20.0	1.70	3.40	Ion selective electrode
Bile Acids	μmol/l	48.7	39.0	58.4	4.85	9.70	4th Generation Colorimetric
	μmol/l	49.4	39.5	59.3	4.95	9.90	5th Generation Colorimetric
Bilirubin Direct	μmol/l	27.1	21.4	32.8	2.85	5.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.59	1.25	1.93	0.17	0.34	
	μmol/l	27.9	22.0	33.8	2.95	5.90	Diazo with Sulphanilic Acid
	mg/dl	1.63	1.29	1.97	0.17	0.34	
	μmol/l	29.0	22.9	35.1	3.05	6.10	Diazo with Dichloroaniline (DCA)
	mg/dl	1.70	1.34	2.06	0.18	0.36	
	μmol/l	30.0	23.7	36.3	3.15	6.30	Oxidation to Biliverdin
	mg/dl	1.76	1.39	2.13	0.19	0.37	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Bilirubin Direct	µmol/l	27.1	21.4	32.8	2.85	5.70	Modified Jendrassik
	mg/dl	1.59	1.25	1.93	0.17	0.34	
Bilirubin Total	µmol/l	71.8	56.7	86.9	7.55	15.10	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	4.20	3.32	5.08	0.44	0.88	
	µmol/l	71.5	56.5	86.5	7.50	15.00	Vitros 250/500/700/950 Total BUBC
	mg/dl	4.18	3.31	5.05	0.44	0.87	
	µmol/l	88.5	69.9	107	9.30	18.60	Diazo with Dichloroaniline (DCA)
	mg/dl	5.18	4.09	6.27	0.55	1.09	
	µmol/l	79.7	63.0	96.4	8.35	16.70	Diazo with Sulphanilic Acid
	mg/dl	4.66	3.69	5.63	0.49	0.97	
	µmol/l	88.7	70.1	107	9.30	18.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.19	4.10	6.28	0.55	1.09	
	µmol/l	78.4	61.9	94.9	8.25	16.50	Nitrobenzenediazonium salt
	mg/dl	4.59	3.62	5.56	0.49	0.97	
	µmol/l	75.4	59.6	91.2	7.90	15.80	Diazonium ion
	mg/dl	4.41	3.49	5.33	0.46	0.92	
	µmol/l	88.8	70.1	108	9.35	18.70	Oxidation to Biliverdin
	mg/dl	5.19	4.10	6.28	0.55	1.09	
	µmol/l	88.8	70.2	107	9.30	18.60	Modified Jendrassik
	mg/dl	5.19	4.11	6.27	0.54	1.08	
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	3.09	2.78	3.40	0.16	0.31	Ortho Vitros Microslide Systems
	mg/dl	12.4	11.1	13.7	0.65	1.30	
	mmol/l	3.00	2.70	3.30	0.15	0.30	Ion selective electrode
	mg/dl	12.0	10.8	13.2	0.60	1.20	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	2.86	2.57	3.15	0.15	0.29	Methylthymol blue
	mg/dl	11.5	10.3	12.7	0.60	1.20	
	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	
	mmol/l	3.08	2.77	3.39	0.16	0.31	NM-BAPTA
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Chloride	mmol/l	113	104	122	4.50	9.00	Colorimetric
	mmol/l	116	107	125	4.50	9.00	Ortho Vitros Microslide Systems
	mmol/l	114	105	123	4.50	9.00	ISE indirect
	mmol/l	115	106	124	4.50	9.00	ISE direct
Cholesterol	mmol/l	6.51	5.66	7.36	0.43	0.85	Ortho Vitros Microslide Systems
	mg/dl	251	218	284	16.50	33.00	
	mmol/l	6.96	6.06	7.86	0.45	0.90	Cholesterol Oxidase
	mg/dl	269	234	304	17.50	35.00	
Cholinesterase	U/l	4412	3530	5294	441.00	882.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	488	400	576	44.00	88.00	Ortho Vitros Microslide Systems 37°C
	U/l	589	483	695	53.00	106.00	CK-NAC serum start (DGKC) 37°C
	U/l	369	302	436	33.50	67.00	CK-NAC serum start (DGKC) 30°C
	U/l	250	205	295	22.50	45.00	CK-NAC serum start (DGKC) 25°C
	U/l	603	494	712	54.50	109.00	CK-NAC substrate start (DGKC) 37°C
	U/l	377	309	445	34.00	68.00	CK-NAC substrate start (DGKC) 30°C
	U/l	256	210	302	23.00	46.00	CK-NAC substrate start (DGKC) 25°C
	U/l	615	504	726	55.50	111.00	CK-NAC (IFCC) 37°C
	U/l	385	316	454	34.50	69.00	CK-NAC (IFCC) 30°C
	U/l	261	214	308	23.50	47.00	CK-NAC (IFCC) 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	600	492	708	54.00	108.00	Monothioglycerol 37°C
	U/l	376	308	444	34.00	68.00	Monothioglycerol 30°C
	U/l	255	209	301	23.00	46.00	Monothioglycerol 25°C
	U/l	562	460	664	51.00	102.00	Dithioerythritol 37°C
	U/l	352	288	416	32.00	64.00	Dithioerythritol 30°C
	U/l	239	196	282	21.50	43.00	Dithioerythritol 25°C
	U/l	568	466	670	51.00	102.00	Dithioerythritol (DTE) IFCC correlated 37°C
	U/l	356	292	420	32.00	64.00	Dithioerythritol (DTE) IFCC correlated 30°C
	U/l	241	198	284	21.50	43.00	Dithioerythritol (DTE) IFCC correlated 25°C
Copper	µmol/l	27.0	21.6	32.4	2.70	5.40	Atomic absorption
	µg/dl	172	137	207	17.50	35.00	
	µmol/l	27.1	21.7	32.5	2.70	5.40	Colorimetric
	µg/dl	172	138	206	17.00	34.00	
Cortisol	nmol/l	1148	861	1435	143.50	287.00	Roche Cobas E411
	µg/dl	41.3	31.0	51.6	5.15	10.30	
Creatinine	µmol/l	346	277	415	34.50	69.00	Alkaline picrate with deproteinization
	mg/dl	3.91	3.13	4.69	0.39	0.78	
	µmol/l	358	287	429	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	4.05	3.24	4.86	0.41	0.81	
	µmol/l	383	307	459	38.00	76.00	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	4.33	3.47	5.19	0.43	0.86	
	µmol/l	377	301	453	38.00	76.00	Randox Enzymatic UV method
	mg/dl	4.26	3.40	5.12	0.43	0.86	
	µmol/l	377	302	452	37.50	75.00	Creatinine PAP method
	mg/dl	4.26	3.41	5.11	0.43	0.85	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	377	302	452	37.50	75.00	Roche Creatinine Plus
	mg/dl	4.26	3.41	5.11	0.43	0.85	
	μmol/l	369	295	443	37.00	74.00	Jaffe rate blanked
	mg/dl	4.17	3.33	5.01	0.42	0.84	
	μmol/l	371	297	445	37.00	74.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	4.19	3.36	5.02	0.42	0.83	
	μmol/l	358	286	430	36.00	72.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	4.05	3.23	4.87	0.41	0.82	
	μmol/l	386	309	463	38.50	77.00	Vitros IDMS Traceable
	mg/dl	4.36	3.49	5.23	0.44	0.87	
	μmol/l	370	296	444	37.00	74.00	IDMS traceable
	mg/dl	4.18	3.34	5.02	0.42	0.84	
D-3-Hydroxybutyrate	mmol/l	1.19	1.01	1.37	0.09	0.18	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	3.65	2.92	4.38	0.37	0.73	Immunoturbidimetric
	ng/ml	2.85	2.28	3.42	0.29	0.57	
Folate	nmol/l	30.6	23.3	37.9	3.65	7.30	Roche Cobas E411
	ng/ml	13.5	10.3	16.7	1.60	3.20	
Free T4	pmol/l	54.9	41.2	68.6	6.85	13.70	Abbott Architect
	ng/dl	4.28	3.21	5.35	0.54	1.07	
	pg/ml	42.8	32.1	53.5	5.35	10.70	Abbott Architect
	pmol/l	105	78.7	131	13.15	26.30	Siemens Advia Centaur
	ng/dl	8.19	6.14	10.2	1.03	2.05	
	pg/ml	81.9	61.4	102	10.25	20.50	Siemens Advia Centaur
	pmol/l	57.4	43.1	71.7	7.15	14.30	Beckman Access
	ng/dl	4.48	3.36	5.60	0.56	1.12	
	pg/ml	44.8	33.6	56.0	5.60	11.20	Beckman Access

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	67.5	50.7	84.3	8.40	16.80	BioMerieux Vidas
	ng/dl	5.27	3.95	6.59	0.66	1.32	
	pg/ml	52.7	39.5	65.9	6.60	13.20	BioMerieux Vidas
	pmol/l	67.4	50.5	84.3	8.45	16.90	Siemens Immulite 1000
	ng/dl	5.26	3.94	6.58	0.66	1.32	
	pg/ml	52.6	39.4	65.8	6.60	13.20	Siemens Immulite 1000
	pmol/l	67.2	50.4	84.0	8.40	16.80	Siemens Immulite 2000/2500
	ng/dl	5.24	3.93	6.55	0.66	1.31	
	pg/ml	52.4	39.3	65.5	6.55	13.10	Siemens Immulite 2000/2500
	pmol/l	249	187	311	31.00	62.00	Vitros ECI
	ng/dl	19.4	14.6	24.2	2.40	4.80	
	pg/ml	194	146	242	24.00	48.00	Vitros ECI
	pmol/l	71.3	53.5	89.1	8.90	17.80	Roche Elecsys
	ng/dl	5.56	4.17	6.95	0.70	1.39	
	pg/ml	55.6	41.7	69.5	6.95	13.90	Roche Elecsys
	pmol/l	75.3	56.5	94.1	9.40	18.80	Roche Modular E170
	ng/dl	5.87	4.41	7.33	0.73	1.46	
	pg/ml	58.7	44.1	73.3	7.30	14.60	Roche Modular E170
	pmol/l	70.5	52.9	88.1	8.80	17.60	Roche Cobas E411
	ng/dl	5.50	4.13	6.87	0.69	1.37	
	pg/ml	55.0	41.3	68.7	6.85	13.70	Roche Cobas E411
	pmol/l	70.3	52.7	87.9	8.80	17.60	Roche Cobas 6000/8000
	ng/dl	5.48	4.11	6.85	0.69	1.37	
	pg/ml	54.8	41.1	68.5	6.85	13.70	Roche Cobas 6000/8000

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Gentamicin	µmol/l	18.8	15.0	22.6	1.90	3.80	Immunoturbidimetric
	µg/ml	8.99	7.17	10.8	0.91	1.82	
gamma-GT	U/l	150	128	172	11.00	22.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	118	101	135	8.50	17.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	93	79	107	7.00	14.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	198	168	228	15.00	30.00	Ortho Vitros Microslide Systems 37°C
	U/l	133	113	153	10.00	20.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	105	89	121	8.00	16.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	82	70	94	6.00	12.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	165	140	190	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	130	110	150	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	102	86	118	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	172	146	198	13.00	26.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	136	115	157	10.50	21.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	106	90	122	8.00	16.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	33	26	40	3.50	7.00	Triethanolamine buffer 50 mmol 37°C
	U/l	25	20	30	2.50	5.00	Triethanolamine buffer 50 mmol 30°C
	U/l	20	16	24	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	15.6	13.3	17.9	1.15	2.30	Glucose dehydrogenase
	mg/dl	281	240	322	20.50	41.00	
	mmol/l	15.8	13.4	18.2	1.20	2.40	Hexokinase
	mg/dl	285	241	329	22.00	44.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	15.6	13.3	17.9	1.15	2.30	Oxygen electrode
	mg/dl	281	240	322	20.50	41.00	
	mmol/l	15.6	13.3	17.9	1.15	2.30	Glucose oxidase
	mg/dl	281	240	322	20.50	41.00	
HDL - Cholesterol	mmol/l	2.57	2.19	2.95	0.19	0.38	Direct HDL Immunoseparation
	mg/dl	99.2	84.5	114	7.35	14.70	
	mmol/l	2.67	2.27	3.07	0.20	0.40	Vitros Magnetic HDL
	mg/dl	103	87.6	118	7.70	15.40	
	mmol/l	2.93	2.49	3.37	0.22	0.44	Direct Clearance Method
	mg/dl	113	96.1	130	8.45	16.90	
	mmol/l	2.65	2.25	3.05	0.20	0.40	Vitros dHDL PTA/MgCl ₂ direct precipitation
	mg/dl	102	86.9	117	7.55	15.10	
	mmol/l	3.81	3.23	4.39	0.29	0.58	Direct HDL Roche 3rd generation
	mg/dl	147	125	169	11.00	22.00	
Immunoglobulin A	g/l	1.52	1.14	1.90	0.19	0.38	Immunoturbidimetric
	mg/dl	152	114	190	19.00	38.00	
Immunoglobulin G	g/l	5.10	4.18	6.02	0.46	0.92	Immunoturbidimetric
	mg/dl	510	418	602	46.00	92.00	
Immunoglobulin M	g/l	0.65	0.52	0.78	0.07	0.13	Immunoturbidimetric
	mg/dl	65.1	52.1	78.1	6.50	13.00	
Iron	μmol/l	37.9	31.1	44.7	3.40	6.80	Colorimetric with ppt.
	μg/dl	212	174	250	19.00	38.00	
	μmol/l	37.9	31.1	44.7	3.40	6.80	Colorimetric without ppt.
	μg/dl	212	174	250	19.00	38.00	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	37.2	30.5	43.9	3.35	6.70	Ortho Vitros Microslide Systems
	µg/dl	208	170	246	19.00	38.00	
Lactate	mmol/l	5.63	4.61	6.65	0.51	1.02	Colorimetric Lactate Oxidase
	mg/dl	50.7	41.5	59.9	4.60	9.20	
	mmol/l	5.23	4.29	6.17	0.47	0.94	Ortho Vitros Microslide Systems
	mg/dl	47.1	38.7	55.5	4.20	8.40	
	mmol/l	5.32	4.37	6.27	0.48	0.95	UV LDH
	mg/dl	47.9	39.4	56.4	4.25	8.50	
LAP	U/l	15	13	17	1.00	2.00	NAGEL 37°C
LD (LDH)	U/l	1154	981	1327	86.50	173.00	Ortho Vitros Microslide Systems 37°C
	U/l	356	303	409	26.50	53.00	L->P 37°C
	U/l	257	219	295	19.00	38.00	L->P 30°C
	U/l	180	154	206	13.00	26.00	L->P 25°C
	U/l	882	750	1014	66.00	132.00	P->L Scandinavian & Dutch 37°C
	U/l	637	542	732	47.50	95.00	P->L Scandinavian & Dutch 30°C
	U/l	447	380	514	33.50	67.00	P->L Scandinavian & Dutch 25°C
	U/l	770	655	885	57.50	115.00	P->L German methods 37°C
	U/l	556	473	639	41.50	83.00	P->L German methods 30°C
	U/l	390	332	448	29.00	58.00	P->L German methods 25°C
	U/l	793	674	912	59.50	119.00	P->L SFBC 37°C
	U/l	573	487	659	43.00	86.00	P->L SFBC 30°C
	U/l	402	342	462	30.00	60.00	P->L SFBC 25°C
	U/l	397	338	456	29.50	59.00	L->P IFCC 37°C
	U/l	287	244	330	21.50	43.00	L->P IFCC 30°C
	U/l	201	171	231	15.00	30.00	L->P IFCC 25°C

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Lipase	U/l	67	54	80	6.50	13.00	Other Colorimetric 37°C
	U/l	829	665	993	82.00	164.00	Ortho Vitros Microslide Systems 37°C
	U/l	61	49	73	6.00	12.00	Roche Colorimetric 37°C
	U/l	443	355	531	44.00	88.00	Randox Turbidimetric with colipase 37°C
	U/l	89	71	107	9.00	18.00	Randox Colorimetric 37°C
Lithium	mmol/l	2.24	1.97	2.51	0.14	0.27	Ortho Vitros Microslide Systems
	mg/dl	1.56	1.37	1.75	0.10	0.19	
	mmol/l	1.98	1.74	2.22	0.12	0.24	Flame photometry
	mg/dl	1.37	1.21	1.53	0.08	0.16	
	mmol/l	1.97	1.74	2.20	0.12	0.23	Ion selective electrode
	mg/dl	1.37	1.21	1.53	0.08	0.16	
	mmol/l	1.91	1.68	2.14	0.12	0.23	Spectrophotometric
	mg/dl	1.33	1.17	1.49	0.08	0.16	
Magnesium	mmol/l	1.92	1.69	2.15	0.12	0.23	Randox Colorimetric
	mg/dl	1.33	1.17	1.49	0.08	0.16	
	mmol/l	1.76	1.54	1.98	0.11	0.22	Arsenazo III
	mg/dl	4.28	3.74	4.82	0.27	0.54	
	mmol/l	1.78	1.56	2.00	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.33	3.79	4.87	0.27	0.54	
	mmol/l	1.70	1.49	1.91	0.11	0.21	Atomic absorption
	mg/dl	4.13	3.62	4.64	0.26	0.51	
	mmol/l	1.74	1.53	1.95	0.11	0.21	Calmagite
	mg/dl	4.23	3.72	4.74	0.26	0.51	
	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	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	1.73	1.52	1.94	0.11	0.21	Methylthymol blue
	mg/dl	4.20	3.69	4.71	0.26	0.51	
	mmol/l	1.71	1.50	1.92	0.11	0.21	Chlorphosphonazo III
	mg/dl	4.16	3.65	4.67	0.26	0.51	
	mmol/l	1.76	1.55	1.97	0.11	0.21	Enzymatic
	mg/dl	4.28	3.77	4.79	0.26	0.51	
NEFA	mmol/l	1.01	0.86	1.16	0.08	0.15	Colorimetric
Osmolality	mOsm/kg	338	271	405	33.50	67.00	Calculated
	mOsm/kg	385	308	462	38.50	77.00	Freezing point depression
Paracetamol	mmol/l	0.59	0.47	0.70	0.06	0.12	Colorimetric
	mg/l	88.7	71.0	106	8.85	17.70	
Phosphate Inorganic	mmol/l	2.32	1.97	2.67	0.18	0.35	Ortho Vitros Microslide Systems
	mg/dl	7.19	6.11	8.27	0.54	1.08	
	mmol/l	2.32	1.97	2.67	0.18	0.35	Phosphomolybdate enzymatic
	mg/dl	7.19	6.11	8.27	0.54	1.08	
	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	5.98	5.50	6.46	0.24	0.48	Ortho Vitros Microslide Systems
	mmol/l	6.19	5.69	6.69	0.25	0.50	Enzymatic
	mmol/l	5.95	5.48	6.42	0.24	0.47	Flame photometry
	mmol/l	5.98	5.50	6.46	0.24	0.48	ISE method - direct
	mmol/l	6.01	5.53	6.49	0.24	0.48	ISE method - indirect
	mmol/l	5.98	5.50	6.46	0.24	0.48	Vitros DT60/DT60 II/DTE II
Protein Total	g/l	44.9	35.9	53.9	4.50	9.00	Ortho Vitros Microslide Systems
	g/dl	4.49	3.59	5.39	0.45	0.90	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Protein Total	g/l	44.7	35.8	53.6	4.45	8.90	Biuret reaction end point
	g/dl	4.47	3.58	5.36	0.45	0.89	
	g/l	43.5	34.8	52.2	4.35	8.70	Biuret reaction kinetic
	g/dl	4.35	3.48	5.22	0.44	0.87	
PSA Total	ng/ml =	25.4	19.0	31.8	3.20	6.40	Tosoh AIA360
	ng/ml =	36.2	27.2	45.2	4.50	9.00	Roche Elecsys Modular E170
	ng/ml =	36.3	27.2	45.4	4.55	9.10	Beckman Access Hybritech TPSA
	ng/ml =	31.2	23.4	39.0	3.90	7.80	Siemens ADVIA Centaur (equimolar)
	ng/ml =	32.4	24.3	40.5	4.05	8.10	bioMerieux VIDAS TPSA
	ng/ml =	30.2	22.7	37.7	3.75	7.50	Siemens Advia Centaur
	ng/ml =	29.3	22.0	36.6	3.65	7.30	Abbott Architect
	ng/ml =	38.3	28.8	47.8	4.75	9.50	Cobas E411
	ng/ml =	36.6	27.5	45.7	4.55	9.10	Roche Cobas 6000/8000
Salicylate	mmol/l	0.84	0.67	1.01	0.08	0.17	Enzymatic
	mg/dl	11.6	9.27	13.9	1.17	2.33	
Sodium	mmol/l	157	149	165	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	155	147	163	4.00	8.00	Enzymatic
	mmol/l	156	148	164	4.00	8.00	Flame photometry
	mmol/l	155	148	162	3.50	7.00	ISE method - direct
	mmol/l	156	149	163	3.50	7.00	ISE method - indirect
	mmol/l	156	148	164	4.00	8.00	Vitros DT60/DT60 II/DTE II
Theophylline	μmol/l	137	110	164	13.50	27.00	Immunoturbidimetric
	μg/ml	24.7	19.8	29.6	2.45	4.90	
Thyroid Stimulating Hormone	μU/ml =	1.00	0.80	1.20	0.10	0.20	Abbott Architect

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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 =	1.14	0.91	1.37	0.11	0.23	Siemens ADVIA Centaur 3rd Generation
	µU/ml =	1.17	0.93	1.41	0.12	0.24	Beckman Access hyperTSH 3rd Generation
	µU/ml =	1.21	0.97	1.45	0.12	0.24	bioMerieux VIDAS TSH
	µU/ml =	1.06	0.85	1.27	0.11	0.21	Siemens Immulite 1000
	µU/ml =	1.20	0.96	1.44	0.12	0.24	Siemens Immulite 2000/2500
	µU/ml =	1.11	0.89	1.34	0.11	0.23	Vitros Eci
	µU/ml =	1.24	0.99	1.49	0.12	0.25	Roche Elecsys
	µU/ml =	1.29	1.03	1.55	0.13	0.26	Roche Modular E170
	µU/ml =	1.16	0.93	1.39	0.11	0.23	Tosoh AIA360
	µU/ml =	1.26	1.01	1.51	0.13	0.25	Roche Cobas E411
	µU/ml =	1.27	1.01	1.53	0.13	0.26	Roche Cobas 6000/8000
TIBC	µmol/l	44.3	35.0	53.6	4.65	9.30	Removal of excess free iron
	µg/dl	248	196	300	26.00	52.00	
	µmol/l	44.4	35.0	53.8	4.70	9.40	FE+UIBC(saturation with iron)
	µg/dl	248	196	300	26.00	52.00	
	µmol/l	43.5	34.3	52.7	4.60	9.20	Direct Colorimetric
	µg/dl	243	192	294	25.50	51.00	
	µmol/l	45.1	35.6	54.6	4.75	9.50	Randox Direct
Tobramycin	µg/dl	252	199	305	26.50	53.00	
	µmol/l	14.3	11.4	17.2	1.45	2.90	Immunoturbidimetric
Total T3	µg/ml	6.69	5.34	8.04	0.68	1.35	
	nmol/l	4.06	3.05	5.07	0.51	1.01	Abbott Architect
	ng/ml	2.64	1.99	3.29	0.33	0.65	
	ng/dl	264	199	329	32.50	65.00	Abbott Architect
	nmol/l	5.73	4.29	7.17	0.72	1.44	Siemens Advia Centaur
	ng/ml	3.73	2.79	4.67	0.47	0.94	
	ng/dl	373	279	467	47.00	94.00	Siemens Advia Centaur

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	4.58	3.44	5.72	0.57	1.14	BioMerieux Vidas
	ng/ml	2.98	2.24	3.72	0.37	0.74	
	ng/dl	298	224	372	37.00	74.00	BioMerieux Vidas
	nmol/l	5.35	4.01	6.69	0.67	1.34	Roche Cobas E411
	ng/ml	3.48	2.61	4.35	0.44	0.87	
	ng/dl	348	261	435	43.50	87.00	Roche Cobas E411
Total T4	nmol/l	226	169	283	28.50	57.00	Abbott Architect
	µg/dl	17.6	13.2	22.0	2.20	4.40	
	ng/ml	176	132	220	22.00	44.00	Abbott Architect
	nmol/l	211	158	264	26.50	53.00	Siemens Advia Centaur
	µg/dl	16.5	12.3	20.7	2.10	4.20	
	ng/ml	165	123	207	21.00	42.00	Siemens Advia Centaur
	nmol/l	200	150	250	25.00	50.00	BioMerieux Vidas
	µg/dl	15.6	11.7	19.5	1.95	3.90	
	ng/ml	156	117	195	19.50	39.00	BioMerieux Vidas
	nmol/l	200	150	250	25.00	50.00	Siemens Immulite 1000
	µg/dl	15.6	11.7	19.5	1.95	3.90	
	ng/ml	156	117	195	19.50	39.00	Siemens Immulite 1000
	nmol/l	192	144	240	24.00	48.00	Siemens Immulite 2000/2500
	µg/dl	15.0	11.2	18.8	1.90	3.80	
	ng/ml	150	112	188	19.00	38.00	Siemens Immulite 2000/2500
	nmol/l	178	133	223	22.50	45.00	Roche Modular E170
	µg/dl	13.9	10.4	17.4	1.75	3.50	
	ng/ml	139	104	174	17.50	35.00	Roche Modular E170

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	199	149	249	25.00	50.00	Roche Cobas E411
	µg/dl	15.5	11.6	19.4	1.95	3.90	
	ng/ml	155	116	194	19.50	39.00	Roche Cobas E411
Transferrin	g/l	1.78	1.42	2.14	0.18	0.36	Immunoturbidimetric
	mg/dl	178	142	214	18.00	36.00	
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	2.82	2.37	3.27	0.23	0.45	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	250	210	290	20.00	40.00	
	mmol/l	2.91	2.44	3.38	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	258	216	300	21.00	42.00	
	mmol/l	2.84	2.39	3.29	0.23	0.45	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	251	212	290	19.50	39.00	
	mmol/l	2.86	2.40	3.32	0.23	0.46	Lipase/Glycerol Dehydrogenase
	mg/dl	253	212	294	20.50	41.00	
Urea	mmol/l	3.52	2.96	4.08	0.28	0.56	Ortho Vitros Microslide Systems
	mg/dl	312	262	362	25.00	50.00	
	mmol/l	17.7	15.0	20.4	1.35	2.70	Ortho Vitros Microslide Systems
	mg/dl	106	90.2	122	7.90	15.80	
	mmol/l	19.5	16.6	22.4	1.45	2.90	Urease end point
	mg/dl	117	99.8	134	8.60	17.20	
	mmol/l	19.2	16.3	22.1	1.45	2.90	Urease kinetic
	mg/dl	115	98.0	132	8.50	17.00	
	mmol/l	17.7	15.0	20.4	1.35	2.70	Urease hypochlorite
	mg/dl	106	90.2	122	7.90	15.80	

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Urea	mmol/l	19.1	16.2	22.0	1.45	2.90	Urease Berthelot
	mg/dl	115	97.4	133	8.80	17.60	
	mmol/l	19.2	16.3	22.1	1.45	2.90	BUN
	mg/dl	53.9	45.8	62.0	4.05	8.10	
Uric Acid (Urate)	mmol/l	0.51	0.45	0.58	0.03	0.07	Ortho Vitros Microslide Systems
	mg/dl	8.62	7.49	9.75	0.57	1.13	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase catalase 340nm
	mg/dl	9.06	7.88	10.2	0.59	1.18	
	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	9.02	7.85	10.2	0.59	1.17	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Spectrophotometric at 280-290
	mg/dl	9.00	7.83	10.2	0.59	1.17	
Vitamin B12	pmol/l	192	154	230	19.00	38.00	Roche Cobas E411
	pg/ml	260	209	311	25.50	51.00	
Zinc	µmol/l	33.2	26.6	39.8	3.30	6.60	Atomic absorption
	µg/dl	217	174	260	21.50	43.00	
	µmol/l	35.6	28.5	42.7	3.55	7.10	Colorimetric with deproteinisation
	µg/dl	232	186	278	23.00	46.00	

MEAN OF ALL INSTRUMENTS (Elec.)

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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)		61.8	55.7	67.9	3.05	6.10	% 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		3.0	2.3	3.7	0.36	0.72	% of total Protein (Beckman Capillary)
beta-globulin		16.5	12.5	20.5	2.00	4.00	% of total Protein (Beckman Capillary)
gamma-globulin		15.0	11.4	18.6	1.80	3.60	% of total Protein (Beckman Capillary)

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	
ALT (GPT)	U/l	134	107	161	13.50	27.00	Tris buffer without P5P 37°C
	U/l	99	79	119	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	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
Calcium	mmol/l	2.97	2.67	3.27	0.15	0.30	Cresolphthalein complexone
	mg/dl	11.9	10.7	13.1	0.60	1.20	
	mmol/l	2.97	2.68	3.26	0.15	0.29	Arsenazo III
	mg/dl	11.9	10.7	13.1	0.60	1.20	
Cholesterol	mmol/l	6.92	6.02	7.82	0.45	0.90	Cholesterol Oxidase
	mg/dl	267	232	302	17.50	35.00	
Creatinine	μmol/l	322	258	386	32.00	64.00	Alkaline picrate with deproteinization
	mg/dl	3.64	2.92	4.36	0.36	0.72	
	μmol/l	347	277	417	35.00	70.00	Jaffe rate blanked
	mg/dl	3.92	3.13	4.71	0.40	0.79	
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Glucose oxidase
	mg/dl	288	245	331	21.50	43.00	
LD (LDH)	U/l	754	641	867	56.50	113.00	P->L SFBC 37°C
	U/l	544	463	625	40.50	81.00	P->L SFBC 30°C
	U/l	382	325	439	28.50	57.00	P->L SFBC 25°C

MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Phosphate Inorganic	mmol/l	2.37	2.01	2.73	0.18	0.36	Phosphomolybdate UV
	mg/dl	7.35	6.23	8.47	0.56	1.12	
Potassium	mmol/l	5.79	5.32	6.26	0.24	0.47	ISE method - direct
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	
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - direct
Triglycerides	mmol/l	2.79	2.34	3.24	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	247	207	287	20.00	40.00	
Urea	mmol/l	19.6	16.6	22.6	1.50	3.00	Urease end point
	mg/dl	118	99.8	136	9.10	18.20	
	mmol/l	19.0	16.1	21.9	1.45	2.90	Urease kinetic
	mg/dl	114	96.8	131	8.60	17.20	
	mmol/l	18.8	16.0	21.6	1.40	2.80	Urease hypochlorite
	mg/dl	113	96.2	130	8.40	16.80	
	mmol/l	19.0	16.2	21.8	1.40	2.80	BUN
	mg/dl	53.3	45.3	61.3	4.00	8.00	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with 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 no ascorbate oxidase
	mg/dl	8.99	7.81	10.2	0.59	1.18	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.24	8.03	10.5	0.61	1.21	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	26.3	35.5	2.30	4.60	Bromocresol Green
	g/dl	3.09	2.63	3.55	0.23	0.46	
Alkaline Phosphatase	U/l	518	440	596	39.00	78.00	Diethanolamine buffer DEA 37°C
	U/l	404	343	465	30.50	61.00	Diethanolamine buffer DEA 30°C
	U/l	331	281	381	25.00	50.00	Diethanolamine buffer DEA 25°C
ALT (GPT)	U/l	145	116	174	14.50	29.00	Tris buffer without P5P 37°C
	U/l	107	86	128	10.50	21.00	Tris buffer without P5P 30°C
	U/l	82	65	99	8.50	17.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	155	124	186	15.50	31.00	Tris buffer without P5P 37°C
	U/l	105	84	126	10.50	21.00	Tris buffer without P5P 30°C
	U/l	74	59	89	7.50	15.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	24.7	19.5	29.9	2.60	5.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.44	1.14	1.74	0.15	0.30	
Bilirubin Total	µmol/l	79.5	62.8	96.2	8.35	16.70	Diazo with Dichloroaniline (DCA)
	mg/dl	4.65	3.67	5.63	0.49	0.98	
Calcium	mmol/l	2.99	2.69	3.29	0.15	0.30	Arsenazo III
	mg/dl	12.0	10.8	13.2	0.60	1.20	
Cholesterol	mmol/l	7.05	6.13	7.97	0.46	0.92	Cholesterol Oxidase
	mg/dl	272	237	307	17.50	35.00	
Creatinine	µmol/l	317	253	381	32.00	64.00	Alkaline picrate no deproteinization
	mg/dl	3.58	2.86	4.30	0.36	0.72	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	412	330	494	41.00	82.00	Creatinine PAP method
	mg/dl	4.66	3.73	5.59	0.47	0.93	
Glucose	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	2.12	1.80	2.44	0.16	0.32	Direct HDL Immunoseparation
	mg/dl	81.8	69.5	94.1	6.15	12.30	
LD (LDH)	U/l	719	611	827	54.00	108.00	P->L German methods 37°C
	U/l	519	441	597	39.00	78.00	P->L German methods 30°C
	U/l	365	310	420	27.50	55.00	P->L German methods 25°C
Magnesium	mmol/l	1.69	1.48	1.90	0.11	0.21	Xylidyl Blue
	mg/dl	4.11	3.60	4.62	0.26	0.51	
Protein Total	g/l	44.6	35.7	53.5	4.45	8.90	Biuret reaction end point
	g/dl	4.46	3.57	5.35	0.45	0.89	
Triglycerides	mmol/l	2.77	2.33	3.21	0.22	0.44	Lipase/GPO-PAP no correction
	mg/dl	245	206	284	19.50	39.00	
Urea	mmol/l	19.2	16.3	22.1	1.45	2.90	Urease kinetic
	mg/dl	115	98.0	132	8.50	17.00	
	mmol/l	19.2	16.3	22.1	1.45	2.90	BUN
	mg/dl	53.9	45.8	62.0	4.05	8.10	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.07	7.90	10.2	0.59	1.17	
	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.89	7.73	10.1	0.58	1.16	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	27.2	23.1	31.3	2.05	4.10	Bromocresol Purple
	g/dl	2.72	2.31	3.13	0.21	0.41	
	g/l	25.7	21.8	29.6	1.95	3.90	Turbidimetric Assays
	g/dl	2.57	2.18	2.96	0.20	0.39	
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	252	214	290	19.00	38.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	276	234	318	21.00	42.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	264	224	304	20.00	40.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	275	234	316	20.50	41.00	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	12.9	19.7	1.70	3.40	Colorimetric
	mmol/l	16.3	12.9	19.7	1.70	3.40	Enzymatic

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Bile Acids	μmol/l	52.6	42.1	63.1	5.25	10.50	Enzymatic Colorimetric
Bilirubin Direct	μmol/l	27.9	22.0	33.8	2.95	5.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.63	1.29	1.97	0.17	0.34	
	μmol/l	27.7	21.9	33.5	2.90	5.80	Diazo with Sulphanilic Acid
	mg/dl	1.62	1.28	1.96	0.17	0.34	
Bilirubin Total	μmol/l	74.7	59.0	90.4	7.85	15.70	Diazo with Sulphanilic Acid
	mg/dl	4.37	3.45	5.29	0.46	0.92	
	μmol/l	72.9	57.6	88.2	7.65	15.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.26	3.37	5.15	0.45	0.89	
	μmol/l	74.8	59.1	90.5	7.85	15.70	Diazonium ion
	mg/dl	4.38	3.46	5.30	0.46	0.92	
	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	
Calcium	mmol/l	3.08	2.77	3.39	0.16	0.31	NM-BAPTA
	mg/dl	12.3	11.1	13.5	0.60	1.20	
	mmol/l	110	101	119	4.50	9.00	ISE indirect
Chloride	mmol/l	6.86	5.97	7.75	0.45	0.89	Cholesterol Oxidase
	mg/dl	265	230	300	17.50	35.00	
Cholesterol	mmol/l	4480	3584	5376	448.00	896.00	Colorimetric Butyrylthiocholine 37°C
Cholinesterase	U/l	647	531	763	58.00	116.00	CK-NAC substrate start (DGKC) 37°C
CK Total	U/l	405	332	478	36.50	73.00	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	642	527	757	57.50	115.00	CK-NAC (IFCC) 37°C
	U/l	402	330	474	36.00	72.00	CK-NAC (IFCC) 30°C
	U/l	273	224	322	24.50	49.00	CK-NAC (IFCC) 25°C
	U/l						

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	369	295	443	37.00	74.00	Alkaline picrate no deproteinization
	mg/dl	4.17	3.33	5.01	0.42	0.84	
	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	381	305	457	38.00	76.00	Roche Creatinine Plus
	mg/dl	4.31	3.45	5.17	0.43	0.86	
	μmol/l	364	291	437	36.50	73.00	Jaffe rate blanked
	mg/dl	4.11	3.29	4.93	0.41	0.82	
	μmol/l	367	294	440	36.50	73.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	4.15	3.32	4.98	0.42	0.83	
	μmol/l	363	291	435	36.00	72.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	4.10	3.29	4.91	0.41	0.81	
D-3-Hydroxybutyrate	mmol/l	1.19	1.01	1.37	0.09	0.18	Tris buffer 100mmol pH 8.5
Free T4	pmol/l	70.3	52.7	87.9	8.80	17.60	Roche Cobas 6000/8000
	ng/dl	5.48	4.11	6.85	0.69	1.37	
	pg/ml	54.8	41.1	68.5	6.85	13.70	Roche Cobas 6000/8000
gamma-GT	U/l	147	125	169	11.00	22.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	116	99	133	8.50	17.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	91	77	105	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	146	124	168	11.00	22.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
	U/l	115	98	132	8.50	17.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 30°C
	U/l	90	77	103	6.50	13.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 25°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
GLDH	U/l	29	23	35	3.00	6.00	Triethanolamine buffer 50 mmol 37°C
	U/l	22	18	26	2.00	4.00	Triethanolamine buffer 50 mmol 30°C
	U/l	18	14	22	2.00	4.00	Triethanolamine buffer 50 mmol 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	
	mmol/l	16.2	13.8	18.6	1.20	2.40	Glucose oxidase
	mg/dl	292	249	335	21.50	43.00	
HDL - Cholesterol	mmol/l	4.25	3.61	4.89	0.32	0.64	Direct HDL PEGME
	mg/dl	164	139	189	12.50	25.00	
	mmol/l	3.87	3.29	4.45	0.29	0.58	Direct HDL Roche 3rd generation
	mg/dl	149	127	171	11.00	22.00	
Iron	µmol/l	38.4	31.5	45.3	3.45	6.90	Colorimetric with ppt.
	µg/dl	215	176	254	19.50	39.00	
	µmol/l	38.3	31.4	45.2	3.45	6.90	Colorimetric without ppt.
	µg/dl	214	176	252	19.00	38.00	
Lactate	mmol/l	5.60	4.59	6.61	0.51	1.01	Colorimetric Lactate Oxidase
	mg/dl	50.5	41.4	59.6	4.55	9.10	
LD (LDH)	U/l	755	642	868	56.50	113.00	P->L German methods 37°C
	U/l	545	464	626	40.50	81.00	P->L German methods 30°C
	U/l	383	325	441	29.00	58.00	P->L German methods 25°C
	U/l	764	649	879	57.50	115.00	P->L SFBC 37°C
	U/l	552	469	635	41.50	83.00	P->L SFBC 30°C
	U/l	387	329	445	29.00	58.00	P->L SFBC 25°C
	U/l	391	332	450	29.50	59.00	L->P IFCC 37°C
	U/l	282	240	324	21.00	42.00	L->P IFCC 30°C
	U/l	198	168	228	15.00	30.00	L->P IFCC 25°C

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Lipase	U/l	61	49	73	6.00	12.00	Roche Colorimetric 37°C
	U/l	64	51	77	6.50	13.00	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	1.92	1.69	2.15	0.12	0.23	Ion selective electrode
	mg/dl	1.33	1.17	1.49	0.08	0.16	
	mmol/l	1.92	1.69	2.15	0.12	0.23	Spectrophotometric
	mg/dl	1.33	1.17	1.49	0.08	0.16	
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	
	mmol/l	1.71	1.51	1.91	0.10	0.20	Chlorphosphonazo III
	mg/dl	4.16	3.67	4.65	0.25	0.49	
Osmolality	mOsm/kg	335	268	402	33.50	67.00	Calculated
Phosphate Inorganic	mmol/l	2.26	1.92	2.60	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	7.01	5.95	8.07	0.53	1.06	
	mmol/l	2.30	1.95	2.65	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.13	6.05	8.21	0.54	1.08	
Potassium	mmol/l	6.02	5.53	6.51	0.25	0.49	ISE method - indirect
Protein Total	g/l	43.8	35.0	52.6	4.40	8.80	Biuret reaction end point
	g/dl	4.38	3.50	5.26	0.44	0.88	
	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	
PSA Total	ng/ml =	36.7	27.5	45.9	4.60	9.20	Roche Cobas 6000/8000
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - indirect
Thyroid Stimulating Hormone	μU/ml =	1.27	1.01	1.53	0.13	0.26	Roche Cobas 6000/8000
TIBC	μmol/l	43.2	34.1	52.3	4.55	9.10	FE+UIBC(saturation with iron)
	μg/dl	241	191	291	25.00	50.00	

Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	41.8	33.0	50.6	4.40	8.80	Direct Colorimetric
	μg/dl	234	184	284	25.00	50.00	
Triglycerides	mmol/l	2.79	2.34	3.24	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	247	207	287	20.00	40.00	
	mmol/l	2.79	2.35	3.23	0.22	0.44	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	247	208	286	19.50	39.00	
	mmol/l	2.76	2.32	3.20	0.22	0.44	L/G Kinase EP. no correction
	mg/dl	244	205	283	19.50	39.00	
Urea	mmol/l	19.2	16.3	22.1	1.45	2.90	Urease end point
	mg/dl	115	98.0	132	8.50	17.00	
	mmol/l	18.9	16.1	21.7	1.40	2.80	Urease kinetic
	mg/dl	114	96.8	131	8.60	17.20	
	mmol/l	18.9	16.1	21.7	1.40	2.80	BUN
	mg/dl	53.0	45.1	60.9	3.95	7.90	
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	8.92	7.76	10.1	0.58	1.16	
	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	8.94	7.78	10.1	0.58	1.16	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	25.1	34.1	2.25	4.50	Bromocresol Green
	g/dl	2.96	2.51	3.41	0.23	0.45	
Alkaline Phosphatase	U/l	258	219	297	19.50	39.00	Roche Integra AMP buffer 37°C
	U/l	201	171	231	15.00	30.00	Roche Integra AMP buffer 30°C
	U/l	165	140	190	12.50	25.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	124	99	149	12.50	25.00	Tris buffer without P5P 37°C
	U/l	92	73	111	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	273	232	314	20.50	41.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	282	240	324	21.00	42.00	Roche liquid stable pNPG7 37°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 Direct	µmol/l	29.4	23.2	35.6	3.10	6.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.72	1.36	2.08	0.18	0.36	
Bilirubin Total	µmol/l	73.9	58.4	89.4	7.75	15.50	Diazo with Sulphanilic Acid
	mg/dl	4.32	3.42	5.22	0.45	0.90	
	µmol/l	74.0	58.4	89.6	7.80	15.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.33	3.42	5.24	0.46	0.91	
	µmol/l	73.0	57.7	88.3	7.65	15.30	Diazonium ion
	mg/dl	4.27	3.38	5.16	0.45	0.89	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	3.13	2.81	3.45	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.5	11.3	13.7	0.60	1.20	
Chloride	mmol/l	116	107	125	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.10	6.18	8.02	0.46	0.92	Cholesterol Oxidase
	mg/dl	274	239	309	17.50	35.00	
CK Total	U/l	643	527	759	58.00	116.00	CK-NAC (IFCC) 37°C
	U/l	403	330	476	36.50	73.00	CK-NAC (IFCC) 30°C
	U/l	273	224	322	24.50	49.00	CK-NAC (IFCC) 25°C
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	
	µmol/l	381	304	458	38.50	77.00	Randox Enzymatic UV method
	mg/dl	4.31	3.44	5.18	0.44	0.87	
	µmol/l	355	284	426	35.50	71.00	Roche Creatinine Plus
	mg/dl	4.01	3.21	4.81	0.40	0.80	
	µmol/l	346	277	415	34.50	69.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	3.91	3.13	4.69	0.39	0.78	
gamma-GT	U/l	164	140	188	12.00	24.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	129	110	148	9.50	19.00	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
Glucose	mmol/l	16.1	13.7	18.5	1.20	2.40	Hexokinase
	mg/dl	290	247	333	21.50	43.00	
	mmol/l	16.1	13.7	18.5	1.20	2.40	Glucose oxidase
	mg/dl	290	247	333	21.50	43.00	
HDL - Cholesterol	mmol/l	3.66	3.11	4.21	0.28	0.55	Direct HDL Roche 3rd generation
	mg/dl	141	120	162	10.50	21.00	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	38.7	31.7	45.7	3.50	7.00	Colorimetric without ppt.
	µg/dl	216	177	255	19.50	39.00	
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	64	51	77	6.50	13.00	Roche Colorimetric 37°C
Magnesium	mmol/l	1.74	1.53	1.95	0.11	0.21	Chlorphosphonazo III
	mg/dl	4.23	3.72	4.74	0.26	0.51	
Phosphate Inorganic	mmol/l	2.36	2.01	2.71	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.32	6.23	8.41	0.55	1.09	
Potassium	mmol/l	5.98	5.50	6.46	0.24	0.48	ISE method - indirect
Protein Total	g/l	45.3	36.3	54.3	4.50	9.00	Biuret reaction end point
	g/dl	4.53	3.63	5.43	0.45	0.90	
Sodium	mmol/l	153	146	160	3.50	7.00	ISE method - indirect
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	
	mmol/l	2.82	2.37	3.27	0.23	0.45	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	250	210	290	20.00	40.00	
Urea	mmol/l	18.7	15.9	21.5	1.40	2.80	Urease kinetic
	mg/dl	112	95.6	128	8.20	16.40	
	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	18.7	15.9	21.5	1.40	2.80	BUN
	mg/dl	52.5	44.6	60.4	3.95	7.90	
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	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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 no ascorbate oxidase
	mg/dl	9.06	7.88	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	9.12	7.93	10.3	0.60	1.19	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	25.5	34.3	2.20	4.40	Bromocresol Green
	g/dl	2.99	2.55	3.43	0.22	0.44	
	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	262	223	301	19.50	39.00	Roche Integra AMP buffer 37°C
	U/l	204	174	234	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 Total	U/l	277	235	319	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	144	115	173	14.50	29.00	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	15.8	12.5	19.1	1.65	3.30	Enzymatic
Bilirubin Direct	µmol/l	27.9	22.1	33.7	2.90	5.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.63	1.29	1.97	0.17	0.34	
	µmol/l	26.9	21.3	32.5	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.57	1.25	1.89	0.16	0.32	
Bilirubin Total	µmol/l	76.9	60.7	93.1	8.10	16.20	Diazo with Sulphanilic Acid
	mg/dl	4.50	3.55	5.45	0.48	0.95	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

		Range					
Analyte	unit	target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	72.9	57.6	88.2	7.65	15.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.26	3.37	5.15	0.45	0.89	
	µmol/l	74.6	59.0	90.2	7.80	15.60	Diazonium ion
	mg/dl	4.36	3.45	5.27	0.46	0.91	
Calcium	mmol/l	3.12	2.81	3.43	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.5	11.3	13.7	0.60	1.20	
	mmol/l	3.10	2.79	3.41	0.16	0.31	NM-BAPTA
	mg/dl	12.4	11.2	13.6	0.60	1.20	
Chloride	mmol/l	111	102	120	4.50	9.00	ISE indirect
Cholesterol	mmol/l	6.92	6.02	7.82	0.45	0.90	Cholesterol Oxidase
	mg/dl	267	232	302	17.50	35.00	
CK Total	U/l	646	529	763	58.50	117.00	CK-NAC (IFCC) 37°C
	U/l	404	331	477	36.50	73.00	CK-NAC (IFCC) 30°C
	U/l	275	225	325	25.00	50.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	379	304	454	37.50	75.00	Randox Enzymatic UV method
	mg/dl	4.28	3.44	5.12	0.42	0.84	
	µmol/l	386	309	463	38.50	77.00	Roche Creatinine Plus
	mg/dl	4.36	3.49	5.23	0.44	0.87	
	µmol/l	373	298	448	37.50	75.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.21	3.37	5.05	0.42	0.84	
	U/l	158	134	182	12.00	24.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	125	106	144	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
gamma-GT	U/l	97	83	111	7.00	14.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	167	142	192	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	132	112	152	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	103	88	118	7.50	15.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	15.9	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	3.50	2.98	4.02	0.26	0.52	Direct HDL Roche 3rd generation
	mg/dl	135	115	155	10.00	20.00	
Iron	µmol/l	37.9	31.1	44.7	3.40	6.80	Colorimetric without ppt.
	µg/dl	212	174	250	19.00	38.00	
Lactate	mmol/l	5.67	4.65	6.69	0.51	1.02	Colorimetric Lactate Oxidase
	mg/dl	51.1	41.9	60.3	4.60	9.20	
LD (LDH)	U/l	392	333	451	29.50	59.00	L->P IFCC 37°C
	U/l	283	240	326	21.50	43.00	L->P IFCC 30°C
	U/l	199	169	229	15.00	30.00	L->P IFCC 25°C
Lipase	U/l	59	47	71	6.00	12.00	Roche Colorimetric 37°C
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	
	mmol/l	1.70	1.50	1.90	0.10	0.20	Chlorphosphonazo III
	mg/dl	4.13	3.65	4.61	0.24	0.48	
Phosphate Inorganic	mmol/l	2.32	1.97	2.67	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.19	6.11	8.27	0.54	1.08	
Potassium	mmol/l	6.02	5.54	6.50	0.24	0.48	ISE method - indirect
Protein Total	g/l	44.0	35.2	52.8	4.40	8.80	Biuret reaction end point
	g/dl	4.40	3.52	5.28	0.44	0.88	
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - indirect

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	44.2	34.9	53.5	4.65	9.30	FE+UIBC(saturation with iron)
	μg/dl	247	195	299	26.00	52.00	
Triglycerides	mmol/l	2.79	2.34	3.24	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	247	207	287	20.00	40.00	
	mmol/l	2.73	2.29	3.17	0.22	0.44	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	242	203	281	19.50	39.00	
Urea	mmol/l	19.0	16.2	21.8	1.40	2.80	Urease kinetic
	mg/dl	114	97.4	131	8.30	16.60	
	mmol/l	19.0	16.2	21.8	1.40	2.80	BUN
	mg/dl	53.3	45.3	61.3	4.00	8.00	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.07	7.90	10.2	0.59	1.17	
	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	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.12	7.93	10.3	0.60	1.19	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	29.5	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	234	199	269	17.50	35.00	Roche Integra AMP buffer 37°C
	U/l	182	155	209	13.50	27.00	Roche Integra AMP buffer 30°C
	U/l	150	127	173	11.50	23.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	127	102	152	12.50	25.00	Tris buffer without P5P 37°C
	U/l	94	75	113	9.50	19.00	Tris buffer without P5P 30°C
	U/l	72	57	87	7.50	15.00	Tris buffer without P5P 25°C
Amylase Total	U/l	275	234	316	20.50	41.00	Roche liquid stable pNPG7 37°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
Bicarbonate	mmol/l	15.9	12.6	19.2	1.65	3.30	Enzymatic
Bile Acids	µmol/l	47.7	38.2	57.2	4.75	9.50	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	29.0	22.9	35.1	3.05	6.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.70	1.34	2.06	0.18	0.36	
Bilirubin Total	µmol/l	76.3	60.3	92.3	8.00	16.00	Diazo with Sulphanilic Acid
	mg/dl	4.46	3.53	5.39	0.47	0.93	
	µmol/l	74.4	58.8	90.0	7.80	15.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.35	3.44	5.26	0.46	0.91	
	µmol/l	74.3	58.7	89.9	7.80	15.60	Diazonium ion
	mg/dl	4.35	3.43	5.27	0.46	0.92	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	3.07	2.76	3.38	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.3	11.1	13.5	0.60	1.20	
	mmol/l	3.07	2.76	3.38	0.16	0.31	NM-BAPTA
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Chloride	mmol/l	113	104	122	4.50	9.00	ISE indirect
Cholesterol	mmol/l	6.80	5.91	7.69	0.45	0.89	Cholesterol Oxidase
	mg/dl	262	228	296	17.00	34.00	
Cholinesterase	U/l	4367	3494	5240	436.50	873.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	564	463	665	50.50	101.00	CK-NAC (IFCC) 37°C
	U/l	353	290	416	31.50	63.00	CK-NAC (IFCC) 30°C
	U/l	240	197	283	21.50	43.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	388	311	465	38.50	77.00	Roche Creatinine Plus
	mg/dl	4.38	3.51	5.25	0.44	0.87	
	µmol/l	375	300	450	37.50	75.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.24	3.39	5.09	0.43	0.85	
gamma-GT	U/l	141	120	162	10.50	21.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	111	95	127	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	87	74	100	6.50	13.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	162	138	186	12.00	24.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	128	109	147	9.50	19.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	100	85	115	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	3.98	3.38	4.58	0.30	0.60	Direct HDL Roche 3rd generation
	mg/dl	154	130	178	12.00	24.00	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	36.9	30.3	43.5	3.30	6.60	Colorimetric without ppt.
	μg/dl	206	169	243	18.50	37.00	
Lactate	mmol/l	5.52	4.52	6.52	0.50	1.00	Colorimetric Lactate Oxidase
	mg/dl	49.7	40.7	58.7	4.50	9.00	
LD (LDH)	U/l	383	325	441	29.00	58.00	L->P IFCC 37°C
	U/l	277	235	319	21.00	42.00	L->P IFCC 30°C
	U/l	194	165	223	14.50	29.00	L->P IFCC 25°C
Lipase	U/l	60	49	71	5.50	11.00	Roche Colorimetric 37°C
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	2.27	1.93	2.61	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.04	5.98	8.10	0.53	1.06	
Potassium	mmol/l	6.05	5.57	6.53	0.24	0.48	ISE method - indirect
Protein Total	g/l	43.8	35.0	52.6	4.40	8.80	Biuret reaction end point
	g/dl	4.38	3.50	5.26	0.44	0.88	
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
TIBC	μmol/l	42.6	33.7	51.5	4.45	8.90	FE+UIBC(saturation with iron)
	μg/dl	238	188	288	25.00	50.00	
Triglycerides	mmol/l	2.78	2.34	3.22	0.22	0.44	Lipase/GPO-PAP no correction
	mg/dl	246	207	285	19.50	39.00	
Urea	mmol/l	18.8	15.9	21.7	1.45	2.90	Urease kinetic
	mg/dl	113	95.6	130	8.70	17.40	
	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	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	0.53	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	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.89	7.73	10.1	0.58	1.16	
	mmol/l	0.53	0.46	0.59	0.03	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	8.82	7.68	9.96	0.57	1.14	

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	29.0	24.6	33.4	2.20	4.40	Bromocresol Green
	g/dl	2.90	2.46	3.34	0.22	0.44	
Alkaline Phosphatase	U/l	562	478	646	42.00	84.00	Diethanolamine buffer DEA 37°C
	U/l	364	310	418	27.00	54.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	135	108	162	13.50	27.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	288	245	331	21.50	43.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	302	257	347	22.50	45.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	160	128	192	16.00	32.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	15.6	12.4	18.8	1.60	3.20	Enzymatic
Bile Acids	µmol/l	48.9	39.1	58.7	4.90	9.80	5th Generation Colorimetric
Bilirubin Direct	µmol/l	29.1	23.0	35.2	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.70	1.35	2.05	0.18	0.35	
	µmol/l	29.4	23.2	35.6	3.10	6.20	Vanadate Oxidation
	mg/dl	1.72	1.36	2.08	0.18	0.36	
Bilirubin Total	µmol/l	82.8	65.4	100	8.70	17.40	Diazo with Sulphanilic Acid
	mg/dl	4.84	3.83	5.85	0.51	1.01	
	µmol/l	89.7	70.9	109	9.40	18.80	Vanadate Oxidation
	mg/dl	5.25	4.15	6.35	0.55	1.10	
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	114	105	123	4.50	9.00	ISE direct

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Cholesterol	mmol/l	7.01	6.10	7.92	0.46	0.91	Cholesterol Oxidase
	mg/dl	271	235	307	18.00	36.00	
CK Total	U/l	577	473	681	52.00	104.00	CK-NAC substrate start (DGKC) 37°C
	U/l	612	502	722	55.00	110.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	336	269	403	33.50	67.00	Alkaline picrate no deproteinization
	mg/dl	3.80	3.04	4.56	0.38	0.76	
gamma-GT	U/l	172	147	197	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	16.3	13.9	18.7	1.20	2.40	Hexokinase
	mg/dl	294	250	338	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	
Iron	µmol/l	40.1	32.9	47.3	3.60	7.20	Colorimetric without ppt.
	µg/dl	224	184	264	20.00	40.00	
Lactate	mmol/l	5.55	4.55	6.55	0.50	1.00	Enzymatic Colorimetric
	mg/dl	50.0	41.0	59.0	4.50	9.00	
LD (LDH)	U/l	798	678	918	60.00	120.00	P->L German methods 37°C
	U/l	399	339	459	30.00	60.00	L->P IFCC 37°C
Lipase	U/l	87	70	104	8.50	17.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.90	1.67	2.13	0.12	0.23	Randox Colorimetric
	mg/dl	1.32	1.16	1.48	0.08	0.16	
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	5.91	5.44	6.38	0.24	0.47	Enzymatic

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

Range

Analyte	unit	target	low	high	1SD	2SD	methods
Potassium	mmol/l	5.78	5.32	6.24	0.23	0.46	ISE method - direct
Protein Total	g/l	44.6	35.7	53.5	4.45	8.90	Biuret reaction end point
	g/dl	4.46	3.57	5.35	0.45	0.89	
Sodium	mmol/l	156	148	164	4.00	8.00	Enzymatic
	mmol/l	155	147	163	4.00	8.00	ISE method - direct
TIBC	μmol/l	47.4	37.4	57.4	5.00	10.00	Direct Colorimetric
	μg/dl	265	209	321	28.00	56.00	
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	18.6	15.8	21.4	1.40	2.80	Urease kinetic
	mg/dl	112	95.0	129	8.50	17.00	
	mmol/l	18.6	15.8	21.4	1.40	2.80	BUN
	mg/dl	52.2	44.4	60.0	3.90	7.80	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.00	7.83	10.2	0.59	1.17	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.09	7.91	10.3	0.59	1.18	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	28.3	24.0	32.6	2.15	4.30	Bromocresol Green
	g/dl	2.83	2.40	3.26	0.22	0.43	
Alkaline Phosphatase	U/l	369	314	424	27.50	55.00	AMP optimised to IFCC 37°C
	U/l	367	312	422	27.50	55.00	AMP non-optimised 37°C
ALT (GPT)	U/l	134	107	161	13.50	27.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	270	230	310	20.00	40.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	279	237	321	21.00	42.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	152	121	183	15.50	31.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	18.5	14.6	22.4	1.95	3.90	Enzymatic
Bilirubin Direct	µmol/l	31.8	25.1	38.5	3.35	6.70	Diazo with Sulphanilic Acid
	mg/dl	1.86	1.47	2.25	0.20	0.39	
	µmol/l	30.2	23.9	36.5	3.15	6.30	Oxidation to Biliverdin
	mg/dl	1.77	1.40	2.14	0.19	0.37	
Bilirubin Total	µmol/l	88.9	70.3	108	9.30	18.60	Oxidation to Biliverdin
	mg/dl	5.20	4.11	6.29	0.55	1.09	
Calcium	mmol/l	3.14	2.82	3.46	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.6	11.3	13.9	0.65	1.30	
	mmol/l	3.04	2.74	3.34	0.15	0.30	Arsenazo III
	mg/dl	12.2	11.0	13.4	0.60	1.20	
Chloride	mmol/l	116	107	125	4.50	9.00	ISE indirect
Cholesterol	mmol/l	6.90	6.00	7.80	0.45	0.90	Cholesterol Oxidase
	mg/dl	266	232	300	17.00	34.00	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	576	472	680	52.00	104.00	CK-NAC substrate start (DGKC) 37°C
	U/l	590	484	696	53.00	106.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	376	300	452	38.00	76.00	Alkaline picrate no deproteinization
	mg/dl	4.25	3.39	5.11	0.43	0.86	
	µmol/l	368	294	442	37.00	74.00	Randox Enzymatic UV method
	mg/dl	4.16	3.32	5.00	0.42	0.84	
	µmol/l	367	293	441	37.00	74.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.15	3.31	4.99	0.42	0.84	
gamma-GT	U/l	164	140	188	12.00	24.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
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	2.32	1.97	2.67	0.18	0.35	Direct HDL Immunoseparation
	mg/dl	89.6	76.0	103	6.80	13.60	
	mmol/l	2.15	1.83	2.47	0.16	0.32	Direct Clearance Method
	mg/dl	83.0	70.6	95.4	6.20	12.40	
Iron	µmol/l	38.0	31.2	44.8	3.40	6.80	Colorimetric without ppt.
	µg/dl	212	174	250	19.00	38.00	
Lactate	mmol/l	5.70	4.67	6.73	0.52	1.03	Colorimetric Lactate Oxidase
	mg/dl	51.4	42.1	60.7	4.65	9.30	
LD (LDH)	U/l	391	333	449	29.00	58.00	L->P 37°C
	U/l	786	668	904	59.00	118.00	P->L German methods 37°C
	U/l	399	339	459	30.00	60.00	L->P IFCC 37°C

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE Cat. No. HE1532 / HS2611

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

Analyte	unit	target	Range		1SD	2SD	methods
			low	high			
Lipase	U/l	83	66	100	8.50	17.00	Other Colorimetric 37°C
Lithium	mmol/l	1.92	1.69	2.15	0.12	0.23	Spectrophotometric
	mg/dl	1.33	1.17	1.49	0.08	0.16	
Magnesium	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	
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	6.07	5.58	6.56	0.25	0.49	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	157	149	165	4.00	8.00	ISE method - indirect
TIBC	μmol/l	45.4	35.8	55.0	4.80	9.60	Removal of excess free iron
	μg/dl	254	200	308	27.00	54.00	
	μmol/l	48.4	38.2	58.6	5.10	10.20	FE+UIBC(saturation with iron)
	μg/dl	271	214	328	28.50	57.00	
Triglycerides	mmol/l	2.90	2.44	3.36	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	257	216	298	20.50	41.00	
	mmol/l	2.86	2.40	3.32	0.23	0.46	L/G Kinase EP. no correction
	mg/dl	253	212	294	20.50	41.00	
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 no ascorbate oxidase
	mg/dl	9.19	8.00	10.4	0.60	1.19	

SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	9.02	7.85	10.2	0.59	1.17	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	27.4	23.3	31.5	2.05	4.10	Bromocresol Green
	g/dl	2.74	2.33	3.15	0.21	0.41	
	g/l	27.3	23.2	31.4	2.05	4.10	Bromocresol Purple
	g/dl	2.73	2.32	3.14	0.21	0.41	
Alkaline Phosphatase	U/l	238	202	274	18.00	36.00	Siemens Dimension AMP buffer 37°C
	U/l	338	287	389	25.50	51.00	Randox AMP 37°C
ALT (GPT)	U/l	134	107	161	13.50	27.00	Tris buffer with P5P 37°C
	U/l	138	111	165	13.50	27.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	330	281	379	24.50	49.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	177	142	212	17.50	35.00	Tris buffer with P5P 37°C
	U/l	180	144	216	18.00	36.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	17.5	13.8	21.2	1.85	3.70	Enzymatic
Bilirubin Direct	µmol/l	15.9	12.6	19.2	1.65	3.30	Diazo with Sulphanilic Acid
	mg/dl	0.930	0.737	1.12	0.10	0.19	
Bilirubin Total	µmol/l	78.0	61.6	94.4	8.20	16.40	Diazo with Sulphanilic Acid
	mg/dl	4.56	3.60	5.52	0.48	0.96	
Calcium	mmol/l	3.00	2.70	3.30	0.15	0.30	Cresolphthalein complexone
	mg/dl	12.0	10.8	13.2	0.60	1.20	
Chloride	mmol/l	114	105	123	4.50	9.00	ISE indirect
Cholesterol	mmol/l	6.61	5.75	7.47	0.43	0.86	Dimension-Siemens reagents
	mg/dl	255	222	288	16.50	33.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	565	463	667	51.00	102.00	CK-NAC (IFCC) 37°C
	U/l	566	464	668	51.00	102.00	Dithioerythritol 37°C
	U/l	570	468	672	51.00	102.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	µmol/l	382	306	458	38.00	76.00	Alkaline picrate no deproteinization
	mg/dl	4.32	3.46	5.18	0.43	0.86	
	µmol/l	376	301	451	37.50	75.00	Creatinine PAP method
	mg/dl	4.25	3.40	5.10	0.43	0.85	
	µmol/l	382	306	458	38.00	76.00	Jaffe rate blanked
	mg/dl	4.32	3.46	5.18	0.43	0.86	
gamma-GT	µmol/l	381	305	457	38.00	76.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.31	3.45	5.17	0.43	0.86	
	U/l	171	145	197	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	U/l	198	168	228	15.00	30.00	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	15.6	13.3	17.9	1.15	2.30	Glucose oxidase
HDL - Cholesterol	mg/dl	281	240	322	20.50	41.00	
	mmol/l	3.44	2.92	3.96	0.26	0.52	Direct HDL PPD
	mg/dl	133	113	153	10.00	20.00	
	mmol/l	3.33	2.83	3.83	0.25	0.50	Direct HDL PEGME
	mg/dl	129	109	149	10.00	20.00	
Iron	mmol/l	3.47	2.95	3.99	0.26	0.52	Direct Clearance Method
	mg/dl	134	114	154	10.00	20.00	
	µmol/l	36.4	29.8	43.0	3.30	6.60	Colorimetric with ppt.
	µg/dl	203	167	239	18.00	36.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	36.1	29.6	42.6	3.25	6.50	Colorimetric without ppt.
	µg/dl	202	165	239	18.50	37.00	
Lactate	mmol/l	5.48	4.50	6.46	0.49	0.98	UV LDH
	mg/dl	49.4	40.5	58.3	4.45	8.90	
LD (LDH)	U/l	401	341	461	30.00	60.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	403	343	463	30.00	60.00	L->P IFCC 37°C
Lipase	U/l	269	216	322	26.50	53.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	1.98	1.74	2.22	0.12	0.24	Spectrophotometric
	mg/dl	1.37	1.21	1.53	0.08	0.16	
Magnesium	mmol/l	1.73	1.52	1.94	0.11	0.21	Methylthymol blue
	mg/dl	4.20	3.69	4.71	0.26	0.51	
Phosphate Inorganic	mmol/l	2.26	1.92	2.60	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	7.01	5.95	8.07	0.53	1.06	
	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	6.01	5.53	6.49	0.24	0.48	ISE method - indirect
Protein Total	g/l	45.8	36.6	55.0	4.60	9.20	Biuret reaction end point
	g/dl	4.58	3.66	5.50	0.46	0.92	
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - indirect
TIBC	µmol/l	42.2	33.3	51.1	4.45	8.90	Removal of excess free iron
	µg/dl	236	186	286	25.00	50.00	
	µmol/l	38.3	30.3	46.3	4.00	8.00	Direct Colorimetric
	µg/dl	214	169	259	22.50	45.00	
Triglycerides	mmol/l	2.86	2.40	3.32	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	253	212	294	20.50	41.00	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	2.83	2.38	3.28	0.23	0.45	L/G Kinase EP. no correction
	mg/dl	250	211	289	19.50	39.00	
	mmol/l	2.90	2.44	3.36	0.23	0.46	Lipase/Glycerol Dehydrogenase
	mg/dl	257	216	298	20.50	41.00	
Urea	mmol/l	19.4	16.5	22.3	1.45	2.90	Urease end point
	mg/dl	117	99.2	135	8.90	17.80	
	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
Uric Acid (Urate)	mg/dl	54.7	46.5	62.9	4.10	8.20	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase catalase 340nm
	mg/dl	9.07	7.90	10.2	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	9.00	7.83	10.2	0.59	1.17	

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	27.8	23.6	32.0	2.10	4.20	Bromocresol Purple
	g/dl	2.78	2.36	3.20	0.21	0.42	
ALT (GPT)	U/l	135	108	162	13.50	27.00	Tris buffer with P5P 37°C
	U/l	132	106	158	13.00	26.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	331	282	380	24.50	49.00	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	173	139	207	17.00	34.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	16.8	13.3	20.3	1.75	3.50	Enzymatic
Bilirubin Direct	µmol/l	17.1	13.5	20.7	1.80	3.60	Diazo with Sulphanilic Acid
	mg/dl	1.00	0.790	1.21	0.11	0.21	
Bilirubin Total	µmol/l	77.1	60.9	93.3	8.10	16.20	Diazo with Sulphanilic Acid
	mg/dl	4.51	3.56	5.46	0.48	0.95	
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	
Chloride	mmol/l	117	108	126	4.50	9.00	ISE indirect
Cholesterol	mmol/l	6.63	5.77	7.49	0.43	0.86	Cholesterol Oxidase
	mg/dl	256	223	289	16.50	33.00	
	mmol/l	6.75	5.87	7.63	0.44	0.88	Dimension-Siemens reagents
	mg/dl	261	227	295	17.00	34.00	
CK Total	U/l	570	467	673	51.50	103.00	CK-NAC (IFCC) 37°C
	U/l	549	450	648	49.50	99.00	Dithioerythritol 37°C

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	560	459	661	50.50	101.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	μmol/l	377	302	452	37.50	75.00	Alkaline picrate no deproteinization
	mg/dl	4.26	3.41	5.11	0.43	0.85	
	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	367	294	440	36.50	73.00	IDMS traceable
	mg/dl	4.15	3.32	4.98	0.42	0.83	
gamma-GT	U/l	192	163	221	14.50	29.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	194	165	223	14.50	29.00	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	3.33	2.83	3.83	0.25	0.50	Direct HDL PEGME
	mg/dl	129	109	149	10.00	20.00	
Iron	μmol/l	37.8	31.0	44.6	3.40	6.80	Colorimetric without ppt.
	μg/dl	211	173	249	19.00	38.00	
Lactate	mmol/l	5.43	4.45	6.41	0.49	0.98	Colorimetric Lactate Oxidase
	mg/dl	48.9	40.1	57.7	4.40	8.80	
	mmol/l	5.24	4.30	6.18	0.47	0.94	UV LDH
	mg/dl	47.2	38.7	55.7	4.25	8.50	
LD (LDH)	U/l	399	339	459	30.00	60.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	403	342	464	30.50	61.00	L->P IFCC 37°C
Lipase	U/l	321	257	385	32.00	64.00	Siemens Dimension Colorimetric (LIP Kit) 37°C
	U/l	320	256	384	32.00	64.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	1.94	1.70	2.18	0.12	0.24	Spectrophotometric
	mg/dl	1.35	1.18	1.52	0.09	0.17	

Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	1.74	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	2.23	1.90	2.56	0.17	0.33	Phosphomolybdate UV
	mg/dl	6.91	5.89	7.93	0.51	1.02	
Potassium	mmol/l	5.90	5.43	6.37	0.24	0.47	ISE method - indirect
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	157	149	165	4.00	8.00	ISE method - indirect
TIBC	μmol/l	42.5	33.6	51.4	4.45	8.90	Removal of excess free iron
	μg/dl	238	188	288	25.00	50.00	
Triglycerides	mmol/l	3.06	2.57	3.55	0.25	0.49	Lipase/GPO-PAP no correction
	mg/dl	271	227	315	22.00	44.00	
Urea	mmol/l	19.9	16.9	22.9	1.50	3.00	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	0.51	0.44	0.57	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.48	7.38	9.58	0.55	1.10	
	mmol/l	0.51	0.44	0.57	0.03	0.07	Spectrophotometric at 280-290
	mg/dl	8.53	7.43	9.63	0.55	1.10	

VITALAB FLEXOR®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	29.5	25.1	33.9	2.20	4.40	Bromocresol Green
	g/dl	2.95	2.51	3.39	0.22	0.44	
ALT (GPT)	U/l	128	103	153	12.50	25.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	151	121	181	15.00	30.00	Tris buffer without P5P 37°C
Bilirubin Total	µmol/l	82.6	65.2	100	8.70	17.40	Diazo with Sulphanilic Acid
	mg/dl	4.83	3.81	5.85	0.51	1.02	
Calcium	mmol/l	3.03	2.72	3.34	0.16	0.31	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	7.10	6.18	8.02	0.46	0.92	Cholesterol Oxidase
	mg/dl	274	239	309	17.50	35.00	
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	
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	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	
Triglycerides	mmol/l	2.86	2.41	3.31	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	253	213	293	20.00	40.00	
Urea	mmol/l	19.1	16.2	22.0	1.45	2.90	Urease kinetic
	mg/dl	115	97.4	133	8.80	17.60	

**VITALAB FLEXOR®**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	BUN
	mg/dl	53.6	45.6	61.6	4.00	8.00	
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	

VITALAB SELECTRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	526	447	605	39.50	79.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	139	111	167	14.00	28.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	151	120	182	15.50	31.00	Tris buffer without P5P 37°C
Bilirubin Total	µmol/l	76.6	60.5	92.7	8.05	16.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.48	3.54	5.42	0.47	0.94	
Calcium	mmol/l	3.05	2.74	3.36	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.2	11.0	13.4	0.60	1.20	
	mmol/l	3.07	2.76	3.38	0.16	0.31	Arsenazo III
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Cholesterol	mmol/l	6.88	5.99	7.77	0.45	0.89	Cholesterol Oxidase
	mg/dl	266	231	301	17.50	35.00	
CK Total	U/l	592	486	698	53.00	106.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	349	280	418	34.50	69.00	Alkaline picrate no deproteinization
	mg/dl	3.94	3.16	4.72	0.39	0.78	
	µmol/l	361	289	433	36.00	72.00	Creatinine PAP method
	mg/dl	4.08	3.27	4.89	0.41	0.81	
	µmol/l	360	288	432	36.00	72.00	Jaffe rate blanked
	mg/dl	4.07	3.25	4.89	0.41	0.82	
gamma-GT	U/l	162	137	187	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C

VITALAB SELECTRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	15.9	13.5	18.3	1.20	2.40	Glucose oxidase
	mg/dl	287	243	331	22.00	44.00	
Iron	µmol/l	38.6	31.6	45.6	3.50	7.00	Colorimetric without ppt.
	µg/dl	216	177	255	19.50	39.00	
LD (LDH)	U/l	372	316	428	28.00	56.00	L->P IFCC 37°C
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	
Protein Total	g/l	48.8	39.0	58.6	4.90	9.80	Biuret reaction end point
	g/dl	4.88	3.90	5.86	0.49	0.98	
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	
Urea	mmol/l	19.1	16.2	22.0	1.45	2.90	Urease kinetic
	mg/dl	115	97.4	133	8.80	17.60	
	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	0.52	0.45	0.59	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.72	7.59	9.85	0.57	1.13	

Weiner Lab BT 3000 Plus/CB 350i

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	31.3	26.6	36.0	2.35	4.70	Bromocresol Green
	g/dl	3.13	2.66	3.60	0.24	0.47	
ALT (GPT)	U/l	136	109	163	13.50	27.00	Tris buffer without P5P 37°C
	U/l	101	81	121	10.00	20.00	Tris buffer without P5P 30°C
	U/l	77	61	93	8.00	16.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	90.5	71.5	110	9.50	19.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.29	4.18	6.40	0.56	1.11	
Cholesterol	mmol/l	6.86	5.97	7.75	0.45	0.89	Cholesterol Oxidase
	mg/dl	265	230	300	17.50	35.00	
Creatinine	µmol/l	329	264	394	32.50	65.00	Alkaline picrate no deproteinization
	mg/dl	3.72	2.98	4.46	0.37	0.74	
Glucose	mmol/l	15.4	13.1	17.7	1.15	2.30	Glucose oxidase
	mg/dl	278	236	320	21.00	42.00	
Protein Total	g/l	45.3	36.3	54.3	4.50	9.00	Biuret reaction end point
	g/dl	4.53	3.63	5.43	0.45	0.90	
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	
Urea	mmol/l	19.2	16.3	22.1	1.45	2.90	Urease kinetic
	mg/dl	115	98.0	132	8.50	17.00	
	mmol/l	19.2	16.3	22.1	1.45	2.90	BUN
	mg/dl	53.9	45.8	62.0	4.05	8.10	

**Weiner Lab BT 3000 Plus/CB 350i**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 647UE 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	0.52	0.45	0.58	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.67	7.54	9.80	0.57	1.13	