RANDOX 0843 CE

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

CAT. NO. HE1532 / HS2611 **LOT NO.** 623UE
SIZE: 20 x 5ml / 5 x 5ml **EXP:** 2017-01

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

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

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

Human source material from which this product has been derived has been tested at donor level for the Human Immunodeficiency Virus (HIV 1, HIV 2) antibody, Hepatitis B Surface Antigen (HbsAg), and Hepatitis C Virus (HCV) antibody and found to be NON-REACTIVE. FDA approved methods have been used to conduct these tests.
However, since no method can offer complete assurance as to the absence of infectious agents, this material and all patient samples should be handled as though capable of transmitting infectious diseases and disposed of accordingly.

Health and Safety Data Sheets are available on request.

STORAGE AND STABILITY
OPENED: Store refrigerated (+2°C to +8°C). Reconstituted serum is stable for 8 hours at +15°C to +25°C or 7 days at +2°C to +8°C, and 28 days when frozen once at -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 be stored in the dark. Stored in the dark it is stable for 4 days at +2°C to +8°C. Do not store at +15°C to +25°C. Do not freeze.
NEFA is stable for 1 day at +2°C to +8°C.
Total PSA is stable for 4 days at +2°C to +8°C, or 28 days in aliquots frozen at -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 ±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 Support, Northern Ireland, tel: +44 (0) 28 9442 2413 or email Technical.Support@randox.com

NOTES

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

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ABBOTT AEROSET®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

Analyte	unit	target	Range low	Range high	1SD	2SD	methods
Albumin	g/l	29.2	24.8	33.6	2.20	4.40	Bromocresol Green
	g/dl	2.92	2.48	3.36	0.22	0.44	
ALT (GPT)	U/l	130	104	156	13.00	26.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	134	107	161	13.50	27.00	Tris buffer without P5P 37°C
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	
	µmol/l	82.5	65.1	99.9	8.70	17.40	Diazo with Sulphanilic Acid
	mg/dl	4.83	3.81	5.85	0.51	1.02	
Calcium	mmol/l	3.04	2.74	3.34	0.15	0.30	Cresolphthalein complexone
	mg/dl	12.2	11.0	13.4	0.60	1.20	
	mmol/l	3.13	2.82	3.44	0.16	0.31	Arsenazo III
	mg/dl	12.5	11.3	13.7	0.60	1.20	
Cholesterol	mmol/l	7.37	6.41	8.33	0.48	0.96	Cholesterol Oxidase
	mg/dl	284	247	321	18.50	37.00	
CK Total	U/l	584	479	689	52.50	105.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	356	285	427	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	4.02	3.22	4.82	0.40	0.80	
Glucose	mmol/l	15.9	13.5	18.3	1.20	2.40	Hexokinase
	mg/dl	287	243	331	22.00	44.00	
Iron	µmol/l	37.4	30.7	44.1	3.35	6.70	Colorimetric without ppt.
	µg/dl	209	172	246	18.50	37.00	

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Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

Analyte	unit	target	Range low	Range high	1SD	2SD	methods
Phosphate Inorganic	mmol/l	2.25	1.91	2.59	0.17	0.34	Phosphomolybdate UV
	mg/dl	6.98	5.92	8.04	0.53	1.06	
Potassium	mmol/l	5.81	5.35	6.27	0.23	0.46	ISE method - direct
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	
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	19.6	16.7	22.5	1.45	2.90	Urease kinetic
	mg/dl	118	100	136	9.00	18.00	
	mmol/l	19.2	16.3	22.1	1.45	2.90	Urease hypochlorite
	mg/dl	115	98.0	132	8.50	17.00	
	mmol/l	19.6	16.7	22.5	1.45	2.90	BUN
	mg/dl	55.0	46.8	63.2	4.10	8.20	
Uric Acid (Urate)	mmol/l	0.56	0.49	0.63	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.41	8.18	10.6	0.62	1.23	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.26	8.05	10.5	0.61	1.21	

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			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	28.7	24.4	33.0	2.15	4.30	Bromocresol Green
	g/dl	2.87	2.44	3.30	0.22	0.43	
	g/l	28.5	24.2	32.8	2.15	4.30	Bromocresol Purple
	g/dl	2.85	2.42	3.28	0.22	0.43	
Alkaline Phosphatase	U/l	323	274	372	24.50	49.00	AMP optimised to IFCC 37°C
	U/l	324	275	373	24.50	49.00	AMP non-optimsed 37°C
ALT (GPT)	U/l	130	104	156	13.00	26.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	132	105	159	13.50	27.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	14.5	11.5	17.5	1.50	3.00	Enzymatic
Bile Acids	µmol/l	51.4	41.2	61.6	5.10	10.20	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	28.9	22.9	34.9	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.69	1.34	2.04	0.18	0.35	
	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	
Bilirubin Total	µmol/l	84.8	67.0	103	8.90	17.80	Diazo with Dichloroaniline (DCA)
	mg/dl	4.96	3.92	6.00	0.52	1.04	
	µmol/l	83.6	66.1	101	8.75	17.50	Diazo with Sulphanilic Acid
	mg/dl	4.89	3.87	5.91	0.51	1.02	
	µmol/l	90.2	71.3	109	9.45	18.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.28	4.17	6.39	0.56	1.11	
	µmol/l	86.6	68.4	105	9.10	18.20	Diazonium ion
	mg/dl	5.07	4.00	6.14	0.54	1.07	

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			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	3.19	2.87	3.51	0.16	0.32	Arsenazo III
	mg/dl	12.8	11.5	14.1	0.65	1.30	
Chloride	mmol/l	114	105	123	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.21	6.27	8.15	0.47	0.94	Cholesterol Oxidase
	mg/dl	278	242	314	18.00	36.00	
CK Total	U/l	547	448	646	49.50	99.00	CK-NAC substrate start (DGKC) 37°C
	U/l	570	468	672	51.00	102.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	383	306	460	38.50	77.00	Alkaline picrate no deproteinization
	mg/dl	4.33	3.46	5.20	0.44	0.87	
	µmol/l	378	302	454	38.00	76.00	Randox Enzymatic UV method
	mg/dl	4.27	3.41	5.13	0.43	0.86	
	µmol/l	380	304	456	38.00	76.00	Jaffe rate blanked
	mg/dl	4.29	3.44	5.14	0.43	0.85	
	µmol/l	379	304	454	37.50	75.00	IDMS traceable
	mg/dl	4.28	3.44	5.12	0.42	0.84	
Free T4	pmol/l	40.7	30.5	50.9	5.10	10.20	Abbott Architect
	ng/dl	3.17	2.38	3.96	0.40	0.79	
	pg/ml	31.7	23.8	39.6	3.95	7.90	Abbott Architect
gamma-GT	U/l	183	156	210	13.50	27.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	182	155	209	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	176	149	203	13.50	27.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Hexokinase
	mg/dl	288	245	331	21.50	43.00	
	mmol/l	15.8	13.4	18.2	1.20	2.40	Glucose oxidase
	mg/dl	285	241	329	22.00	44.00	

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Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	3.15	2.68	3.62	0.24	0.47	Direct HDL PPD
	mg/dl	122	103	141	9.50	19.00	
	mmol/l	3.06	2.60	3.52	0.23	0.46	Direct Clearance Method
	mg/dl	118	100	136	9.00	18.00	
	mmol/l	3.11	2.65	3.57	0.23	0.46	HDL - Ultra
	mg/dl	120	102	138	9.00	18.00	
Iron	µmol/l	38.1	31.3	44.9	3.40	6.80	Colorimetric with ppt.
	µg/dl	213	175	251	19.00	38.00	
	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	5.48	4.50	6.46	0.49	0.98	Colorimetric Lactate Oxidase
	mg/dl	49.4	40.5	58.3	4.45	8.90	
LD (LDH)	U/l	496	421	571	37.50	75.00	L->P 37°C
	U/l	499	424	574	37.50	75.00	L->P IFCC 37°C
Lipase	U/l	62	50	74	6.00	12.00	Other Colorimetric 37°C
Lithium	mmol/l	2.09	1.84	2.34	0.13	0.25	Spectrophotometric
	mg/dl	1.45	1.28	1.62	0.09	0.17	
Magnesium	mmol/l	1.77	1.55	1.99	0.11	0.22	Arsenazo III
	mg/dl	4.30	3.77	4.83	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	
Osmolality	mOsm/kg	340	272	408	34.00	68.00	Calculated
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	

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			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	5.98	5.50	6.46	0.24	0.48	ISE method - indirect
Protein Total	g/l	47.6	38.1	57.1	4.75	9.50	Biuret reaction end point
	g/dl	4.76	3.81	5.71	0.48	0.95	
	g/l	47.6	38.1	57.1	4.75	9.50	Biuret reaction kinetic
	g/dl	4.76	3.81	5.71	0.48	0.95	
PSA Total	ng/ml =	25.6	19.2	32.0	3.20	6.40	Abbott Architect
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.11	0.89	1.33	0.11	0.22	Abbott Architect
TIBC	µmol/l	47.5	37.6	57.4	4.95	9.90	FE+UIBC(saturation with iron)
	µg/dl	266	210	322	28.00	56.00	
Total T3	nmol/l	3.71	2.78	4.64	0.47	0.93	Abbott Architect
	ng/ml	2.42	1.81	3.03	0.31	0.61	
	ng/dl	242	181	303	30.50	61.00	Abbott Architect
Total T4	nmol/l	197	148	246	24.50	49.00	Abbott Architect
	µg/dl	15.4	11.5	19.3	1.95	3.90	
	ng/ml	154	115	193	19.50	39.00	Abbott Architect
Triglycerides	mmol/l	2.94	2.47	3.41	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	260	219	301	20.50	41.00	
	mmol/l	2.93	2.46	3.40	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	259	218	300	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	2.93	2.46	3.40	0.24	0.47	Lipase/Glycerol Dehydrogenase
	mg/dl	259	218	300	20.50	41.00	

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Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	20.8	17.7	23.9	1.55	3.10	Urease end point
	mg/dl	125	106	144	9.50	19.00	
	mmol/l	20.2	17.1	23.3	1.55	3.10	Urease kinetic
	mg/dl	121	103	139	9.00	18.00	
	mmol/l	20.2	17.2	23.2	1.50	3.00	BUN
	mg/dl	56.7	48.2	65.2	4.25	8.50	
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	0.57	0.49	0.64	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.53	8.28	10.8	0.63	1.25	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.17	7.98	10.4	0.60	1.19	

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			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	315	268	362	23.50	47.00	AMP optimised to IFCC 37°C
	U/l	245	209	281	18.00	36.00	AMP optimised to IFCC 30°C
	U/l	201	171	231	15.00	30.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	141	113	169	14.00	28.00	Tris buffer without P5P 37°C
	U/l	104	84	124	10.00	20.00	Tris buffer without P5P 30°C
	U/l	79	64	94	7.50	15.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	138	110	166	14.00	28.00	Tris buffer without P5P 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer without P5P 30°C
	U/l	66	52	80	7.00	14.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	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	
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	
Cholesterol	mmol/l	7.32	6.37	8.27	0.48	0.95	Cholesterol Oxidase
	mg/dl	283	246	320	18.50	37.00	
CK Total	U/l	560	459	661	50.50	101.00	CK-NAC (IFCC) 37°C
	U/l	351	287	415	32.00	64.00	CK-NAC (IFCC) 30°C
	U/l	238	195	281	21.50	43.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	376	300	452	38.00	76.00	Creatinine PAP method
	mg/dl	4.25	3.39	5.11	0.43	0.86	

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			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	190	161	219	14.50	29.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	150	127	173	11.50	23.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	117	99	135	9.00	18.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.7	13.3	18.1	1.20	2.40	Glucose oxidase
	mg/dl	283	240	326	21.50	43.00	
Iron	µmol/l	37.3	30.6	44.0	3.35	6.70	Colorimetric without ppt.
	µg/dl	209	171	247	19.00	38.00	
Magnesium	mmol/l	1.66	1.46	1.86	0.10	0.20	Xylidyl Blue
	mg/dl	4.03	3.55	4.51	0.24	0.48	
Phosphate Inorganic	mmol/l	2.39	2.03	2.75	0.18	0.36	Phosphomolybdate UV
	mg/dl	7.41	6.29	8.53	0.56	1.12	
Protein Total	g/l	50.2	40.1	60.3	5.05	10.10	Biuret reaction end point
	g/dl	5.02	4.01	6.03	0.51	1.01	
Triglycerides	mmol/l	2.94	2.47	3.41	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	260	219	301	20.50	41.00	
	mmol/l	2.98	2.51	3.45	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	264	222	306	21.00	42.00	
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	0.55	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	

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Beckman Coulter AU400/500/600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	28.9	24.6	33.2	2.15	4.30	Bromocresol Green
	g/dl	2.89	2.46	3.32	0.22	0.43	
Alkaline Phosphatase	U/l	393	334	452	29.50	59.00	p-Nitrophenylphosphate AMP 37°C
	U/l	557	474	640	41.50	83.00	Diethanolamine buffer DEA 37°C
	U/l	400	340	460	30.00	60.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	136	109	163	13.50	27.00	Tris buffer without P5P 37°C
Amylase Total	U/l	273	232	314	20.50	41.00	Roche liquid stable pNPG7 37°C
	U/l	291	247	335	22.00	44.00	Beckman Coulter - blocked pNPG7 37°C
AST (GOT)	U/l	142	114	170	14.00	28.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	16.0	12.7	19.3	1.65	3.30	Enzymatic
Bilirubin Direct	µmol/l	19.9	15.7	24.1	2.10	4.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.16	0.918	1.40	0.12	0.24	
Bilirubin Total	µmol/l	83.4	65.9	101	8.75	17.50	Diazo with Dichloroaniline (DCA)
	mg/dl	4.88	3.86	5.90	0.51	1.02	
	µmol/l	85.2	67.3	103	8.95	17.90	Diazo with Sulphanilic Acid
	mg/dl	4.98	3.94	6.02	0.52	1.04	
	µmol/l	87.4	69.0	106	9.20	18.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.11	4.04	6.18	0.54	1.07	
	µmol/l	85.4	67.4	103	9.00	18.00	Oxidation to Biliverdin
	mg/dl	5.00	3.94	6.06	0.53	1.06	
Calcium	mmol/l	3.15	2.84	3.46	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.6	11.4	13.8	0.60	1.20	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	3.15	2.83	3.47	0.16	0.32	Arsenazo III
	mg/dl	12.6	11.3	13.9	0.65	1.30	
Chloride	mmol/l	114	104	124	5.00	10.00	ISE indirect
Cholesterol	mmol/l	7.44	6.48	8.40	0.48	0.96	Cholesterol Oxidase
	mg/dl	287	250	324	18.50	37.00	
CK Total	U/l	579	475	683	52.00	104.00	CK-NAC serum start (DGKC) 37°C
	U/l	615	505	725	55.00	110.00	CK-NAC substrate start (DGKC) 37°C
	U/l	590	484	696	53.00	106.00	CK-NAC (IFCC) 37°C
Copper	µmol/l	24.3	19.5	29.1	2.40	4.80	Colorimetric
	µg/dl	155	124	186	15.50	31.00	
Creatinine	µmol/l	371	297	445	37.00	74.00	Alkaline picrate no deproteinization
	mg/dl	4.19	3.36	5.02	0.42	0.83	
	µmol/l	385	308	462	38.50	77.00	Roche Creatinine Plus
	mg/dl	4.35	3.48	5.22	0.44	0.87	
	µmol/l	368	294	442	37.00	74.00	Jaffe rate blanked
	mg/dl	4.16	3.32	5.00	0.42	0.84	
	µmol/l	376	300	452	38.00	76.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.25	3.39	5.11	0.43	0.86	
	µmol/l	365	292	438	36.50	73.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.12	3.30	4.94	0.41	0.82	
	µmol/l	355	284	426	35.50	71.00	IDMS traceable
	mg/dl	4.01	3.21	4.81	0.40	0.80	
D-3-Hydroxybutyrate	mmol/l	1.18	1.00	1.36	0.09	0.18	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	189	161	217	14.00	28.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	183	156	210	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
GLDH	U/l	31	24	38	3.50	7.00	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Hexokinase
	mg/dl	288	245	331	21.50	43.00	
	mmol/l	16.0	13.6	18.4	1.20	2.40	Glucose oxidase
	mg/dl	288	245	331	21.50	43.00	
HDL - Cholesterol	mmol/l	3.00	2.55	3.45	0.23	0.45	Direct HDL Immunoseparation
	mg/dl	116	98.4	134	8.80	17.60	
	mmol/l	3.18	2.70	3.66	0.24	0.48	Direct Clearance Method
	mg/dl	123	104	142	9.50	19.00	
	mmol/l	4.21	3.58	4.84	0.32	0.63	Direct HDL Roche 3rd generation
	mg/dl	163	138	188	12.50	25.00	
Iron	µmol/l	38.3	31.4	45.2	3.45	6.90	Colorimetric with ppt.
	µg/dl	214	176	252	19.00	38.00	
	µmol/l	38.6	31.6	45.6	3.50	7.00	Colorimetric without ppt.
	µg/dl	216	177	255	19.50	39.00	
Lactate	mmol/l	5.39	4.42	6.36	0.49	0.97	Colorimetric Lactate Oxidase
	mg/dl	48.6	39.8	57.4	4.40	8.80	
LD (LDH)	U/l	491	417	565	37.00	74.00	L->P 37°C
	U/l	843	716	970	63.50	127.00	P->L Scandinavian & Dutch 37°C
	U/l	660	561	759	49.50	99.00	P->L German methods 37°C
	U/l	480	408	552	36.00	72.00	L->P IFCC 37°C
Lipase	U/l	65	52	78	6.50	13.00	Other Colorimetric 37°C
	U/l	54	43	65	5.50	11.00	Roche Colorimetric 37°C
Lithium	mmol/l	2.02	1.78	2.26	0.12	0.24	Spectrophotometric
	mg/dl	1.40	1.24	1.56	0.08	0.16	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Magnesium	mmol/l	1.77	1.56	1.98	0.11	0.21	Xylidyl Blue
	mg/dl	4.30	3.79	4.81	0.26	0.51	
Phosphate Inorganic	mmol/l	2.32	1.97	2.67	0.18	0.35	Phosphomolybdate enzymatic
	mg/dl	7.19	6.11	8.27	0.54	1.08	
	mmol/l	2.30	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	5.99	5.51	6.47	0.24	0.48	ISE method - indirect
Protein Total	g/l	47.9	38.3	57.5	4.80	9.60	Biuret reaction end point
	g/dl	4.79	3.83	5.75	0.48	0.96	
Sodium	mmol/l	154	146	162	4.00	8.00	ISE method - indirect
TIBC	µmol/l	49.5	39.1	59.9	5.20	10.40	FE+UIBC(saturation with iron)
	µg/dl	277	219	335	29.00	58.00	
Triglycerides	mmol/l	3.01	2.53	3.49	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	266	224	308	21.00	42.00	
	mmol/l	2.88	2.42	3.34	0.23	0.46	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	255	214	296	20.50	41.00	
	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	
Urea	mmol/l	20.0	17.0	23.0	1.50	3.00	Urease end point
	mg/dl	120	102	138	9.00	18.00	
	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	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.57	0.50	0.64	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.56	8.32	10.8	0.62	1.24	
	mmol/l	0.57	0.50	0.64	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.56	8.32	10.8	0.62	1.24	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.27	8.06	10.5	0.61	1.21	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	29.9	25.4	34.4	2.25	4.50	Bromocresol Green
	g/dl	2.99	2.54	3.44	0.23	0.45	
	g/l	29.6	25.2	34.0	2.20	4.40	Bromocresol Purple
	g/dl	2.96	2.52	3.40	0.22	0.44	
Alkaline Phosphatase	U/l	355	302	408	26.50	53.00	AMP optimised to IFCC 37°C
	U/l	347	295	399	26.00	52.00	AMP reduced interference 37°C
	U/l	270	230	310	20.00	40.00	AMP reduced interference 30°C
	U/l	222	189	255	16.50	33.00	AMP reduced interference 25°C
	U/l	364	309	419	27.50	55.00	AMP non-optimsed 37°C
ALT (GPT)	U/l	127	101	153	13.00	26.00	Tris buffer without P5P 37°C
	U/l	126	101	151	12.50	25.00	Tris buffer SCE 37°C
Amylase Pancreatic	U/l	210	178	242	16.00	32.00	Immunoinhibition EPS substrate 37°C
	U/l	212	180	244	16.00	32.00	Beckman Synchron/CX/LXi/DxC 37°C
Amylase Total	U/l	298	254	342	22.00	44.00	Beckman maltotetraose 37°C
	U/l	296	252	340	22.00	44.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	127	102	152	12.50	25.00	Tris buffer without P5P 37°C
	U/l	128	102	154	13.00	26.00	Tris buffer SCE 37°C
Bicarbonate	mmol/l	16.0	12.7	19.3	1.65	3.30	Differential rate pH change
	mmol/l	16.3	12.9	19.7	1.70	3.40	Ion selective electrode
Bilirubin Direct	µmol/l	14.3	11.3	17.3	1.50	3.00	Diazo with Sulphanilic Acid
	mg/dl	0.837	0.661	1.01	0.09	0.18	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	81.1	64.1	98.1	8.50	17.00	Diazo with Sulphanilic Acid
	mg/dl	4.74	3.75	5.73	0.50	0.99	
Calcium	mmol/l	3.06	2.75	3.37	0.16	0.31	Ion selective electrode
	mg/dl	12.3	11.0	13.6	0.65	1.30	
	mmol/l	3.10	2.79	3.41	0.16	0.31	Arsenazo III
	mg/dl	12.4	11.2	13.6	0.60	1.20	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.36	6.40	8.32	0.48	0.96	Cholesterol Oxidase
	mg/dl	284	247	321	18.50	37.00	
Cholinesterase	U/l	5260	4208	6312	526.00	1052.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	570	467	673	51.50	103.00	CK-NAC serum start (DGKC) 37°C
	U/l	586	481	691	52.50	105.00	CK-NAC substrate start (DGKC) 37°C
	U/l	578	474	682	52.00	104.00	CK-NAC (IFCC) 37°C
	U/l	565	464	666	50.50	101.00	Monothioglycerol 37°C
Creatinine	µmol/l	376	301	451	37.50	75.00	Alkaline picrate no deproteinization
	mg/dl	4.25	3.40	5.10	0.43	0.85	
	µmol/l	359	287	431	36.00	72.00	Randox Enzymatic UV method
	mg/dl	4.06	3.24	4.88	0.41	0.82	
	µmol/l	375	300	450	37.50	75.00	Jaffe rate blanked
	mg/dl	4.24	3.39	5.09	0.43	0.85	
	µmol/l	375	300	450	37.50	75.00	IDMS traceable
	mg/dl	4.24	3.39	5.09	0.43	0.85	
gamma-GT	U/l	145	123	167	11.00	22.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	144	122	166	11.00	22.00	Gamma glutamyl-4-nitroanilide 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	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			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	15.5	13.2	17.8	1.15	2.30	Glucose oxidase
	mg/dl	279	238	320	20.50	41.00	
HDL - Cholesterol	mmol/l	4.14	3.52	4.76	0.31	0.62	Direct HDL PPD
	mg/dl	160	136	184	12.00	24.00	
Iron	µmol/l	39.1	32.1	46.1	3.50	7.00	Colorimetric without ppt.
	µg/dl	219	179	259	20.00	40.00	
Lactate	mmol/l	5.08	4.17	5.99	0.46	0.91	Colorimetric Lactate Oxidase
	mg/dl	45.8	37.6	54.0	4.10	8.20	
LD (LDH)	U/l	419	356	482	31.50	63.00	L->P 37°C
	U/l	473	402	544	35.50	71.00	L->P IFCC 37°C
Lipase	U/l	61	49	73	6.00	12.00	Other Colorimetric 37°C
Lithium	mmol/l	2.06	1.82	2.30	0.12	0.24	Spectrophotometric
	mg/dl	1.43	1.26	1.60	0.09	0.17	
Magnesium	mmol/l	1.74	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	
Osmolality	mOsm/kg	327	262	392	32.50	65.00	Calculated
Phosphate Inorganic	mmol/l	2.30	1.96	2.64	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	7.13	6.08	8.18	0.53	1.05	
	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	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	6.04	5.55	6.53	0.25	0.49	ISE method - indirect
Protein Total	g/l	46.2	36.9	55.5	4.65	9.30	Biuret reaction CX4/5/7
	g/dl	4.62	3.69	5.55	0.47	0.93	
	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	
	g/l	46.1	36.9	55.3	4.60	9.20	Biuret reaction kinetic
	g/dl	4.61	3.69	5.53	0.46	0.92	
Sodium	mmol/l	154	146	162	4.00	8.00	ISE method - indirect
TIBC	µmol/l	50.7	40.0	61.4	5.35	10.70	Removal of excess free iron
	µg/dl	283	224	342	29.50	59.00	
	µmol/l	50.9	40.2	61.6	5.35	10.70	FE+UIBC(saturation with iron)
	µg/dl	285	225	345	30.00	60.00	
Triglycerides	mmol/l	3.00	2.52	3.48	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	266	223	309	21.50	43.00	
	mmol/l	3.02	2.53	3.51	0.25	0.49	L/G Kinase EP. no correction
	mg/dl	267	224	310	21.50	43.00	
Urea	mmol/l	20.0	17.0	23.0	1.50	3.00	Urease end point
	mg/dl	120	102	138	9.00	18.00	
	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	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.87	7.73	10.0	0.57	1.14	
	mmol/l	0.53	0.46	0.60	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	8.97	7.80	10.1	0.59	1.17	

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BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	28.8	24.5	33.1	2.15	4.30	Bromocresol Green
	g/dl	2.88	2.45	3.31	0.22	0.43	
Alkaline Phosphatase	U/l	313	266	360	23.50	47.00	AMP optimised to IFCC 37°C
	U/l	244	207	281	18.50	37.00	AMP optimised to IFCC 30°C
	U/l	200	170	230	15.00	30.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	141	113	169	14.00	28.00	Tris buffer without P5P 37°C
	U/l	104	84	124	10.00	20.00	Tris buffer without P5P 30°C
	U/l	79	64	94	7.50	15.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	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	26.8	21.2	32.4	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.57	1.24	1.90	0.17	0.33	
Bilirubin Total	µmol/l	80.1	63.3	96.9	8.40	16.80	Diazo with Sulphanilic Acid
	mg/dl	4.69	3.70	5.68	0.50	0.99	
Cholesterol	mmol/l	7.44	6.47	8.41	0.49	0.97	Cholesterol Oxidase
	mg/dl	287	250	324	18.50	37.00	
CK Total	U/l	555	455	655	50.00	100.00	CK-NAC (IFCC) 37°C
	U/l	347	285	409	31.00	62.00	CK-NAC (IFCC) 30°C
	U/l	236	193	279	21.50	43.00	CK-NAC (IFCC) 25°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	

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BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	46.9	37.5	56.3	4.70	9.40	Biuret reaction end point
	g/dl	4.69	3.75	5.63	0.47	0.94	
Triglycerides	mmol/l	2.95	2.48	3.42	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	261	219	303	21.00	42.00	
Urea	mmol/l	18.8	16.0	21.6	1.40	2.80	Urease kinetic
	mg/dl	113	96.2	130	8.40	16.80	
	mmol/l	18.8	16.0	21.6	1.40	2.80	BUN
	mg/dl	52.8	44.9	60.7	3.95	7.90	
Uric Acid (Urate)	mmol/l	0.57	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	9.29	8.08	10.5	0.61	1.21	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	31.8	27.0	36.6	2.40	4.80	Bromocresol Green
	g/dl	3.18	2.70	3.66	0.24	0.48	
	g/l	29.8	25.3	34.3	2.25	4.50	Bromocresol Purple
	g/dl	2.98	2.53	3.43	0.23	0.45	
	g/l	29.2	24.8	33.6	2.20	4.40	Turbidimetric Assays
	g/dl	2.92	2.48	3.36	0.22	0.44	
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
	U/l	255	217	293	19.00	38.00	AMP optimised to IFCC 37°C
	U/l	199	169	229	15.00	30.00	AMP optimised to IFCC 30°C
	U/l	163	139	187	12.00	24.00	AMP optimised to IFCC 25°C
ALT (GPT)	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
Amylase Total	U/l	274	233	315	20.50	41.00	Saccharogenic 37°C
	U/l	280	238	322	21.00	42.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	281	239	323	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	135	108	162	13.50	27.00	Tris buffer without P5P 37°C
	U/l	91	73	109	9.00	18.00	Tris buffer without P5P 30°C
	U/l	64	51	77	6.50	13.00	Tris buffer without P5P 25°C

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bicarbonate	mmol/l	15.5	12.3	18.7	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	27.5	21.7	33.3	2.90	5.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.61	1.27	1.95	0.17	0.34	
Bilirubin Total	µmol/l	76.5	60.4	92.6	8.05	16.10	Diazo with Sulphanilic Acid
	mg/dl	4.48	3.53	5.43	0.48	0.95	
	µmol/l	76.3	60.2	92.4	8.05	16.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.46	3.52	5.40	0.47	0.94	
	µmol/l	75.1	59.4	90.8	7.85	15.70	Diazonium ion
	mg/dl	4.39	3.47	5.31	0.46	0.92	
	µmol/l	74.6	59.0	90.2	7.80	15.60	DPD - Roche
	mg/dl	4.36	3.45	5.27	0.46	0.91	
Calcium	mmol/l	3.26	2.94	3.58	0.16	0.32	Cresolphthalein complexone
	mg/dl	13.1	11.8	14.4	0.65	1.30	
Chloride	mmol/l	115	105	125	5.00	10.00	ISE indirect
Cholesterol	mmol/l	7.39	6.43	8.35	0.48	0.96	Cholesterol Oxidase
	mg/dl	285	248	322	18.50	37.00	
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
Creatinine	µmol/l	348	279	417	34.50	69.00	Alkaline picrate no deproteinization
	mg/dl	3.93	3.15	4.71	0.39	0.78	
	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	352	282	422	35.00	70.00	Jaffe rate blanked
	mg/dl	3.98	3.19	4.77	0.40	0.79	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	341	273	409	34.00	68.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	3.85	3.08	4.62	0.39	0.77	
	µmol/l	355	284	426	35.50	71.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.01	3.21	4.81	0.40	0.80	
gamma-GT	U/l	168	142	194	13.00	26.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	132	112	152	10.00	20.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	104	88	120	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	188	159	217	14.50	29.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	148	125	171	11.50	23.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	116	98	134	9.00	18.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.6	13.2	18.0	1.20	2.40	Glucose dehydrogenase
	mg/dl	281	238	324	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	
	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	4.38	3.72	5.04	0.33	0.66	Direct HDL Roche 3rd generation
	mg/dl	169	144	194	12.50	25.00	
Iron	µmol/l	38.8	31.8	45.8	3.50	7.00	Colorimetric with ppt.
	µg/dl	217	178	256	19.50	39.00	
	µmol/l	38.6	31.7	45.5	3.45	6.90	Colorimetric without ppt.
	µg/dl	216	177	255	19.50	39.00	
Lactate	mmol/l	5.78	4.74	6.82	0.52	1.04	Colorimetric Lactate Oxidase
	mg/dl	52.1	42.7	61.5	4.70	9.40	
LD (LDH)	U/l	609	518	700	45.50	91.00	P->L German methods 37°C
	U/l	440	374	506	33.00	66.00	P->L German methods 30°C
	U/l	309	263	355	23.00	46.00	P->L German methods 25°C

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	445	379	511	33.00	66.00	L->P IFCC 37°C
	U/l	321	274	368	23.50	47.00	L->P IFCC 30°C
	U/l	226	192	260	17.00	34.00	L->P IFCC 25°C
Lipase	U/l	64	52	76	6.00	12.00	Roche Colorimetric 37°C
Lithium	mmol/l	2.09	1.84	2.34	0.13	0.25	Ion selective electrode
	mg/dl	1.45	1.28	1.62	0.09	0.17	
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	1.73	1.53	1.93	0.10	0.20	Chlorphosphonazo III
	mg/dl	4.20	3.72	4.68	0.24	0.48	
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	2.32	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	6.04	5.56	6.52	0.24	0.48	ISE method - indirect
Protein Total	g/l	46.1	36.9	55.3	4.60	9.20	Biuret reaction end point
	g/dl	4.61	3.69	5.53	0.46	0.92	
	g/l	45.5	36.4	54.6	4.55	9.10	Biuret reaction kinetic
	g/dl	4.55	3.64	5.46	0.46	0.91	
Sodium	mmol/l	154	146	162	4.00	8.00	ISE method - indirect
TIBC	µmol/l	48.7	38.5	58.9	5.10	10.20	FE+UIBC(saturation with iron)
	µg/dl	272	215	329	28.50	57.00	
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	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	2.89	2.43	3.35	0.23	0.46	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	256	215	297	20.50	41.00	
	mmol/l	2.85	2.39	3.31	0.23	0.46	L/G Kinase EP. no correction
	mg/dl	252	212	292	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	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	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.27	8.06	10.5	0.61	1.21	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.22	8.03	10.4	0.60	1.19	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.27	8.06	10.5	0.61	1.21	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
alpha-HBDH	U/l	188	149	227	19.50	39.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	142	112	172	15.00	30.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	106	84	128	11.00	22.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	20.2	13.5	26.9	3.35	6.70	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	12.0	8.04	16.0	1.98	3.96	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	28.1	18.8	37.4	4.65	9.30	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	17.9	12.0	23.8	2.95	5.90	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Total)	U/l	38.1	25.5	50.7	6.30	12.60	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	40.1	26.9	53.3	6.60	13.20	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Albumin	g/l	31.5	26.8	36.2	2.35	4.70	Bromocresol Green
	g/dl	3.15	2.68	3.62	0.24	0.47	
	g/l	28.4	24.2	32.6	2.10	4.20	Bromocresol Purple
	g/dl	2.84	2.42	3.26	0.21	0.42	
Alkaline Phosphatase	U/l	483	411	555	36.00	72.00	Diethanolamine buffer DEA 37°C
	U/l	376	320	432	28.00	56.00	Diethanolamine buffer DEA 30°C
	U/l	309	263	355	23.00	46.00	Diethanolamine buffer DEA 25°C
	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
	U/l	325	276	374	24.50	49.00	AMP non-optimsed 37°C
	U/l	253	215	291	19.00	38.00	AMP non-optimsed 30°C
	U/l	208	176	240	16.00	32.00	AMP non-optimsed 25°C

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Alkaline Phosphatase	U/l	350	298	402	26.00	52.00	Randox AMP 37°C
	U/l	273	232	314	20.50	41.00	Randox AMP 30°C
	U/l	224	190	258	17.00	34.00	Randox AMP 25°C
ALT (GPT)	U/l	131	105	157	13.00	26.00	Tris buffer without P5P 37°C
	U/l	97	78	116	9.50	19.00	Tris buffer without P5P 30°C
	U/l	74	59	89	7.50	15.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	253	215	291	19.00	38.00	Roche liquid stable pNPG7 37°C
	U/l	285	242	328	21.50	43.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	312	265	359	23.50	47.00	Randox liquid stable pNPG7 37°C
	U/l	274	233	315	20.50	41.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	133	107	159	13.00	26.00	Tris buffer without P5P 37°C
	U/l	90	72	108	9.00	18.00	Tris buffer without P5P 30°C
	U/l	63	51	75	6.00	12.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	16.1	12.8	19.4	1.65	3.30	Colorimetric
	mmol/l	16.2	12.8	19.6	1.70	3.40	Enzymatic
Bile Acids	µmol/l	49.7	39.8	59.6	4.95	9.90	5th Generation Colorimetric
Bilirubin Direct	µmol/l	25.7	20.3	31.1	2.70	5.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	µmol/l	25.7	20.3	31.1	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	µmol/l	16.7	13.2	20.2	1.75	3.50	Roche JG factored
	mg/dl	0.977	0.772	1.18	0.10	0.21	
	µmol/l	26.4	20.8	32.0	2.80	5.60	Diazo with Dichloroaniline (DCA)
	mg/dl	1.54	1.22	1.86	0.16	0.32	

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HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	84.9	67.0	103	8.95	17.90	Diazo with Dichloroaniline (DCA)
	mg/dl	4.97	3.92	6.02	0.53	1.05	
	µmol/l	76.6	60.5	92.7	8.05	16.10	Diazo with Sulphanilic Acid
	mg/dl	4.48	3.54	5.42	0.47	0.94	
	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	76.6	60.5	92.7	8.05	16.10	Diazonium ion
	mg/dl	4.48	3.54	5.42	0.47	0.94	
	µmol/l	76.7	60.6	92.8	8.05	16.10	DPD - Roche
	mg/dl	4.49	3.55	5.43	0.47	0.94	
Calcium	mmol/l	3.18	2.86	3.50	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.7	11.5	13.9	0.60	1.20	
	mmol/l	3.17	2.85	3.49	0.16	0.32	Arsenazo III
	mg/dl	12.7	11.4	14.0	0.65	1.30	
Chloride	mmol/l	112	103	121	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.35	6.39	8.31	0.48	0.96	Cholesterol Oxidase
	mg/dl	284	247	321	18.50	37.00	
Cholinesterase	U/l	5318	4255	6381	531.50	1063.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	523	429	617	47.00	94.00	CK-NAC serum start (DGKC) 37°C
	U/l	327	269	385	29.00	58.00	CK-NAC serum start (DGKC) 30°C
	U/l	222	182	262	20.00	40.00	CK-NAC serum start (DGKC) 25°C
	U/l	553	453	653	50.00	100.00	CK-NAC substrate start (DGKC) 37°C
	U/l	346	284	408	31.00	62.00	CK-NAC substrate start (DGKC) 30°C
	U/l	235	193	277	21.00	42.00	CK-NAC substrate start (DGKC) 25°C
	U/l	561	460	662	50.50	101.00	CK-NAC (IFCC) 37°C
	U/l	351	288	414	31.50	63.00	CK-NAC (IFCC) 30°C
	U/l	238	196	280	21.00	42.00	CK-NAC (IFCC) 25°C

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	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	383	306	460	38.50	77.00	Roche Creatinine Plus
	mg/dl	4.33	3.46	5.20	0.44	0.87	
	µmol/l	381	305	457	38.00	76.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.31	3.45	5.17	0.43	0.86	
D-3-Hydroxybutyrate	mmol/l	1.13	0.96	1.30	0.08	0.17	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	163	138	188	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	128	109	147	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	101	85	117	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	175	149	201	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	138	117	159	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	108	92	124	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	194	165	223	14.50	29.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	153	130	176	11.50	23.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	120	102	138	9.00	18.00	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	15.8	13.4	18.2	1.20	2.40	Hexokinase
	mg/dl	285	241	329	22.00	44.00	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	15.9	13.6	18.2	1.15	2.30	Glucose oxidase
	mg/dl	287	245	329	21.00	42.00	
HDL - Cholesterol	mmol/l	2.93	2.49	3.37	0.22	0.44	Direct HDL Immunoseparation
	mg/dl	113	96.1	130	8.45	16.90	
	mmol/l	4.13	3.51	4.75	0.31	0.62	Direct HDL PEGME
	mg/dl	159	135	183	12.00	24.00	
	mmol/l	2.97	2.52	3.42	0.23	0.45	Direct Clearance Method
	mg/dl	115	97.3	133	8.85	17.70	
	mmol/l	4.19	3.56	4.82	0.32	0.63	Direct HDL Roche 3rd generation
	mg/dl	162	137	187	12.50	25.00	
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	38.0	31.2	44.8	3.40	6.80	Colorimetric without ppt.
	µg/dl	212	174	250	19.00	38.00	
Lactate	mmol/l	5.55	4.55	6.55	0.50	1.00	Colorimetric Lactate Oxidase
	mg/dl	50.0	41.0	59.0	4.50	9.00	
LD (LDH)	U/l	628	533	723	47.50	95.00	P->L German methods 37°C
	U/l	453	385	521	34.00	68.00	P->L German methods 30°C
	U/l	318	270	366	24.00	48.00	P->L German methods 25°C
	U/l	434	369	499	32.50	65.00	L->P IFCC 37°C
	U/l	313	266	360	23.50	47.00	L->P IFCC 30°C
	U/l	220	187	253	16.50	33.00	L->P IFCC 25°C
	U/l	461	392	530	34.50	69.00	L->P Randox 37°C
	U/l	333	283	383	25.00	50.00	L->P Randox 30°C
	U/l	234	199	269	17.50	35.00	L->P Randox 25°C

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lipase	U/l	64	51	77	6.50	13.00	Other Colorimetric 37°C
	U/l	59	48	70	5.50	11.00	Roche Colorimetric 37°C
Lithium	mmol/l	2.06	1.81	2.31	0.13	0.25	Spectrophotometric
	mg/dl	1.43	1.26	1.60	0.09	0.17	
Magnesium	mmol/l	1.74	1.53	1.95	0.11	0.21	Xylidyl Blue
	mg/dl	4.23	3.72	4.74	0.26	0.51	
	mmol/l	1.77	1.56	1.98	0.11	0.21	Enzymatic
	mg/dl	4.30	3.79	4.81	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	6.04	5.56	6.52	0.24	0.48	ISE method - indirect
Protein Total	g/l	47.2	37.8	56.6	4.70	9.40	Biuret reaction end point
	g/dl	4.72	3.78	5.66	0.47	0.94	
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - indirect
TIBC	µmol/l	46.8	37.0	56.6	4.90	9.80	FE+UIBC(saturation with iron)
	µg/dl	262	207	317	27.50	55.00	
Triglycerides	mmol/l	2.82	2.37	3.27	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	250	210	290	20.00	40.00	
	mmol/l	2.91	2.44	3.38	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	258	216	300	21.00	42.00	
	mmol/l	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	
Urea	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	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.21	8.01	10.4	0.60	1.20	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.24	8.03	10.5	0.61	1.21	
	mmol/l	0.55	0.47	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.16	7.96	10.4	0.60	1.20	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	30.6	26.0	35.2	2.30	4.60	Bromocresol Green
	g/dl	3.06	2.60	3.52	0.23	0.46	
Alkaline Phosphatase	U/l	383	325	441	29.00	58.00	AMP optimised to IFCC 37°C
	U/l	298	253	343	22.50	45.00	AMP optimised to IFCC 30°C
	U/l	245	208	282	18.50	37.00	AMP optimised to IFCC 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
AST (GOT)	U/l	128	102	154	13.00	26.00	Tris buffer without P5P 37°C
	U/l	87	69	105	9.00	18.00	Tris buffer without P5P 30°C
	U/l	61	49	73	6.00	12.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	48.8	39.1	58.5	4.85	9.70	Enzymatic Colorimetric
Bilirubin Total	µmol/l	81.2	64.1	98.3	8.55	17.10	Diazo with Sulphanilic Acid
	mg/dl	4.75	3.75	5.75	0.50	1.00	
Calcium	mmol/l	3.15	2.84	3.46	0.16	0.31	Cresolphthalein complexone
	mg/dl	12.6	11.4	13.8	0.60	1.20	
Chloride	mmol/l	112	103	121	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.32	6.37	8.27	0.48	0.95	Cholesterol Oxidase
	mg/dl	283	246	320	18.50	37.00	
CK Total	U/l	515	422	608	46.50	93.00	CK-NAC (IFCC) 37°C
	U/l	322	264	380	29.00	58.00	CK-NAC (IFCC) 30°C
	U/l	219	179	259	20.00	40.00	CK-NAC (IFCC) 25°C

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	348	278	418	35.00	70.00	Alkaline picrate no deproteinization
	mg/dl	3.93	3.14	4.72	0.40	0.79	
D-3-Hydroxybutyrate	mmol/l	1.19	1.01	1.37	0.09	0.18	Tris buffer 100mmol pH 8.5
gamma-GT	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
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	15.4	13.1	17.7	1.15	2.30	Glucose oxidase
	mg/dl	278	236	320	21.00	42.00	
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	
LD (LDH)	U/l	687	584	790	51.50	103.00	P->L German methods 37°C
	U/l	496	422	570	37.00	74.00	P->L German methods 30°C
	U/l	348	296	400	26.00	52.00	P->L German methods 25°C
Magnesium	mmol/l	1.78	1.57	1.99	0.11	0.21	Enzymatic
	mg/dl	4.33	3.82	4.84	0.26	0.51	
Phosphate Inorganic	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	6.06	5.58	6.54	0.24	0.48	ISE method - indirect
Protein Total	g/l	47.4	38.0	56.8	4.70	9.40	Biuret reaction end point
	g/dl	4.74	3.80	5.68	0.47	0.94	
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - indirect
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	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	3.04	2.56	3.52	0.24	0.48	L/G Kinase EP. no correction
	mg/dl	269	227	311	21.00	42.00	
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	BUN
	mg/dl	55.3	47.0	63.6	4.15	8.30	
Uric Acid (Urate)	mmol/l	0.57	0.50	0.64	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.56	8.32	10.8	0.62	1.24	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	27.6	23.5	31.7	2.05	4.10	Ortho Vitros Microslide Systems
	g/dl	2.76	2.35	3.17	0.21	0.41	
Alkaline Phosphatase	U/l	258	219	297	19.50	39.00	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	118	94	142	12.00	24.00	Vitros DT60/DT60 II/DTSC II 37°C
Amylase Total	U/l	177	150	204	13.50	27.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	170	136	204	17.00	34.00	Ortho Vitros Microslide visible slide 37°C
	U/l	169	135	203	17.00	34.00	Vitros DT60/DT60 II/DTSC II 37°C
Bicarbonate	mmol/l	17.7	14.0	21.4	1.85	3.70	Ortho Vitros Microslide Systems
Bilirubin Total	µmol/l	70.7	55.8	85.6	7.45	14.90	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	4.14	3.26	5.02	0.44	0.88	
	µmol/l	69.6	55.0	84.2	7.30	14.60	Vitros 250/500/700/950 Total BUBC
	mg/dl	4.07	3.22	4.92	0.43	0.85	
Calcium	mmol/l	3.12	2.81	3.43	0.16	0.31	Ortho Vitros Microslide Systems
	mg/dl	12.5	11.3	13.7	0.60	1.20	
	mmol/l	3.16	2.84	3.48	0.16	0.32	Vitros DT60/DT60 II/DTSC II
	mg/dl	12.7	11.4	14.0	0.65	1.30	
Chloride	mmol/l	115	106	124	4.50	9.00	Ortho Vitros Microslide Systems
	mmol/l	116	106	126	5.00	10.00	Vitros DT60/DT60 II/DTE II
Cholesterol	mmol/l	7.07	6.15	7.99	0.46	0.92	Ortho Vitros Microslide Systems
	mg/dl	273	237	309	18.00	36.00	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Cholesterol	mmol/l	7.11	6.19	8.03	0.46	0.92	Vitros DT60/DT60 II
	mg/dl	274	239	309	17.50	35.00	
Cholinesterase	U/l	5040	4032	6048	504.00	1008.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	472	387	557	42.50	85.00	Ortho Vitros Microslide Systems 37°C
Creatinine	µmol/l	384	307	461	38.50	77.00	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	4.34	3.47	5.21	0.44	0.87	
	µmol/l	390	312	468	39.00	78.00	Vitros 250/500/700/950 double slide
	mg/dl	4.41	3.53	5.29	0.44	0.88	
	µmol/l	394	315	473	39.50	79.00	Vitros DT60/DT60 II/DTSC II
	mg/dl	4.45	3.56	5.34	0.45	0.89	
	µmol/l	384	307	461	38.50	77.00	Vitros IDMS Traceable
	mg/dl	4.34	3.47	5.21	0.44	0.87	
gamma-GT	U/l	217	185	249	16.00	32.00	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	12.6	17.0	1.10	2.20	Vitros DT60/DT60 II
	mg/dl	267	227	307	20.00	40.00	
Iron	µmol/l	37.6	30.8	44.4	3.40	6.80	Ortho Vitros Microslide Systems
	µg/dl	210	172	248	19.00	38.00	
Lactate	mmol/l	5.16	4.23	6.09	0.47	0.93	Ortho Vitros Microslide Systems
	mg/dl	46.5	38.1	54.9	4.20	8.40	
LD (LDH)	U/l	1542	1311	1773	115.50	231.00	Ortho Vitros Microslide Systems 37°C
Lipase	U/l	757	608	906	74.50	149.00	Ortho Vitros Microslide Systems 37°C
Lithium	mmol/l	2.34	2.06	2.62	0.14	0.28	Ortho Vitros Microslide Systems
	mg/dl	1.62	1.43	1.81	0.10	0.19	

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JOHNSON AND JOHNSON VITROS®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Magnesium	mmol/l	1.78	1.57	1.99	0.11	0.21	Ortho Vitros Microslide Systems
	mg/dl	4.33	3.82	4.84	0.26	0.51	
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	
Potassium	mmol/l	6.00	5.52	6.48	0.24	0.48	Ortho Vitros Microslide Systems
	mmol/l	6.00	5.52	6.48	0.24	0.48	Vitros DT60/DT60 II/DTE II
Protein Total	g/l	47.5	38.0	57.0	4.75	9.50	Ortho Vitros Microslide Systems
	g/dl	4.75	3.80	5.70	0.48	0.95	
	g/l	46.4	37.1	55.7	4.65	9.30	Vitros DT60/DT60 II
	g/dl	4.64	3.71	5.57	0.47	0.93	
Sodium	mmol/l	155	147	163	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	154	146	162	4.00	8.00	Vitros DT60/DT60 II/DTE II
Triglycerides	mmol/l	3.47	2.92	4.02	0.28	0.55	Ortho Vitros Microslide Systems
	mg/dl	307	258	356	24.50	49.00	
	mmol/l	3.84	3.23	4.45	0.31	0.61	Vitros DT60/DT60 II
	mg/dl	340	286	394	27.00	54.00	
Urea	mmol/l	18.0	15.3	20.7	1.35	2.70	Ortho Vitros Microslide Systems
	mg/dl	108	92.0	124	8.00	16.00	
	mmol/l	19.0	16.2	21.8	1.40	2.80	Vitros DT60/DT60 II
	mg/dl	114	97.4	131	8.30	16.60	
	mmol/l	18.0	15.3	20.7	1.35	2.70	BUN
	mg/dl	50.5	42.9	58.1	3.80	7.60	
Uric Acid (Urate)	mmol/l	0.52	0.46	0.59	0.03	0.07	Ortho Vitros Microslide Systems
	mg/dl	8.79	7.64	9.94	0.58	1.15	

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Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	29.2	24.8	33.6	2.20	4.40	Bromocresol Green
	g/dl	2.92	2.48	3.36	0.22	0.44	
Alkaline Phosphatase	U/l	514	437	591	38.50	77.00	Diethanolamine buffer DEA 37°C
	U/l	400	340	460	30.00	60.00	Diethanolamine buffer DEA 30°C
	U/l	328	279	377	24.50	49.00	Diethanolamine buffer DEA 25°C
	U/l	361	307	415	27.00	54.00	AMP optimised to IFCC 37°C
	U/l	281	239	323	21.00	42.00	AMP optimised to IFCC 30°C
	U/l	231	196	266	17.50	35.00	AMP optimised to IFCC 25°C
	U/l	361	307	415	27.00	54.00	AMP optimised to NVKC/SFBC 37°C
	U/l	281	239	323	21.00	42.00	AMP optimised to NVKC/SFBC 30°C
	U/l	231	196	266	17.50	35.00	AMP optimised to NVKC/SFBC 25°C
ALT (GPT)	U/l	141	113	169	14.00	28.00	Tris buffer without P5P 37°C
	U/l	104	84	124	10.00	20.00	Tris buffer without P5P 30°C
	U/l	79	64	94	7.50	15.00	Tris buffer without P5P 25°C
Amylase Total	U/l	328	278	378	25.00	50.00	Randox - Ethylidene pNPG7 37°C
	U/l	277	235	319	21.00	42.00	bioMerieux 2-chloro-pNPG3 37°C
AST (GOT)	U/l	147	117	177	15.00	30.00	Tris buffer without P5P 37°C
	U/l	99	79	119	10.00	20.00	Tris buffer without P5P 30°C
	U/l	70	56	84	7.00	14.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	53.6	42.8	64.4	5.40	10.80	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	31.2	24.7	37.7	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.83	1.44	2.22	0.20	0.39	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	
	µmol/l	79.0	62.4	95.6	8.30	16.60	Nitrobenzenediazonium salt
	mg/dl	4.62	3.65	5.59	0.49	0.97	
Calcium	mmol/l	3.28	2.95	3.61	0.17	0.33	Arsenazo III
	mg/dl	13.1	11.8	14.4	0.65	1.30	
Chloride	mmol/l	114	105	123	4.50	9.00	ISE direct
Cholesterol	mmol/l	7.14	6.21	8.07	0.47	0.93	Cholesterol Oxidase
	mg/dl	276	240	312	18.00	36.00	
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	358	286	430	36.00	72.00	Alkaline picrate no deproteinization
	mg/dl	4.05	3.23	4.87	0.41	0.82	
	µmol/l	369	295	443	37.00	74.00	Randox Enzymatic UV method
	mg/dl	4.17	3.33	5.01	0.42	0.84	
	µmol/l	374	299	449	37.50	75.00	Creatinine PAP method
	mg/dl	4.23	3.38	5.08	0.43	0.85	
gamma-GT	U/l	183	156	210	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	144	123	165	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	113	96	130	8.50	17.00	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	15.7	13.3	18.1	1.20	2.40	Glucose oxidase
	mg/dl	283	240	326	21.50	43.00	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	3.66	3.11	4.21	0.28	0.55	Direct HDL PEGME
	mg/dl	141	120	162	10.50	21.00	
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	763	649	877	57.00	114.00	P->L Scandinavian & Dutch 37°C
	U/l	551	469	633	41.00	82.00	P->L Scandinavian & Dutch 30°C
	U/l	387	329	445	29.00	58.00	P->L Scandinavian & Dutch 25°C
Lipase	U/l	69	55	83	7.00	14.00	Other Colorimetric 37°C
Magnesium	mmol/l	1.72	1.51	1.93	0.11	0.21	Arsenazo III
	mg/dl	4.18	3.67	4.69	0.26	0.51	
	mmol/l	1.72	1.51	1.93	0.11	0.21	Calmagite
	mg/dl	4.18	3.67	4.69	0.26	0.51	
	mmol/l	1.66	1.46	1.86	0.10	0.20	Xylidyl Blue
	mg/dl	4.03	3.55	4.51	0.24	0.48	
Phosphate Inorganic	mmol/l	2.28	1.94	2.62	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.07	6.01	8.13	0.53	1.06	
Potassium	mmol/l	5.84	5.37	6.31	0.24	0.47	ISE method - direct
Protein Total	g/l	47.2	37.7	56.7	4.75	9.50	Biuret reaction end point
	g/dl	4.72	3.77	5.67	0.48	0.95	
Sodium	mmol/l	153	145	161	4.00	8.00	ISE method - direct
Triglycerides	mmol/l	2.95	2.47	3.43	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	261	219	303	21.00	42.00	
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	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	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	0.59	0.51	0.67	0.04	0.08	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.91	8.62	11.2	0.65	1.29	
	mmol/l	0.56	0.49	0.63	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.39	8.18	10.6	0.61	1.21	
	mmol/l	0.57	0.50	0.65	0.04	0.08	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.64	8.38	10.9	0.63	1.26	

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
alpha-HBDH	U/l	188	149	227	19.50	39.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	142	112	172	15.00	30.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	106	84	128	11.00	22.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (non-prostatic)	U/l	20.2	13.5	26.9	3.35	6.70	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	12.0	8.04	16.0	1.98	3.96	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	17.9	12.0	23.8	2.95	5.90	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	28.1	18.8	37.4	4.65	9.30	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Total)	U/l	38.1	25.5	50.7	6.30	12.60	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	40.1	26.9	53.3	6.60	13.20	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Albumin	g/l	30.6	26.0	35.2	2.30	4.60	Bromocresol Green
	g/dl	3.06	2.60	3.52	0.23	0.46	
	g/l	29.2	24.8	33.6	2.20	4.40	Bromocresol Purple
	g/dl	2.92	2.48	3.36	0.22	0.44	
	g/l	27.6	23.5	31.7	2.05	4.10	Ortho Vitros Microslide Systems
	g/dl	2.76	2.35	3.17	0.21	0.41	
	g/l	26.2	22.3	30.1	1.95	3.90	Turbidimetric Assays
	g/dl	2.62	2.23	3.01	0.20	0.39	
Alkaline Phosphatase	U/l	359	305	413	27.00	54.00	p-Nitrophenylphosphate AMP 37°C
	U/l	280	238	322	21.00	42.00	p-Nitrophenylphosphate AMP 30°C
	U/l	229	195	263	17.00	34.00	p-Nitrophenylphosphate AMP 25°C
	U/l	258	219	297	19.50	39.00	Ortho Vitros Microslide Systems 37°C

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Alkaline Phosphatase	U/l	502	427	577	37.50	75.00	Diethanolamine buffer DEA 37°C
	U/l	391	333	449	29.00	58.00	Diethanolamine buffer DEA 30°C
	U/l	321	273	369	24.00	48.00	Diethanolamine buffer DEA 25°C
	U/l	349	297	401	26.00	52.00	AMP optimised to IFCC 37°C
	U/l	272	231	313	20.50	41.00	AMP optimised to IFCC 30°C
	U/l	223	190	256	16.50	33.00	AMP optimised to IFCC 25°C
	U/l	338	287	389	25.50	51.00	AMP reduced interference 37°C
	U/l	263	224	302	19.50	39.00	AMP reduced interference 30°C
	U/l	216	183	249	16.50	33.00	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	131	105	157	13.00	26.00	Tris buffer without P5P 37°C
	U/l	97	78	116	9.50	19.00	Tris buffer without P5P 30°C
	U/l	74	59	89	7.50	15.00	Tris buffer without P5P 25°C
	U/l	126	101	151	12.50	25.00	Phosphate buffer DGKC 37°C
	U/l	93	75	111	9.00	18.00	Phosphate buffer DGKC 30°C
	U/l	71	57	85	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	283	241	325	21.00	42.00	Randox liquid stable pNPG7 37°C
	U/l	253	215	291	19.00	38.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/l	310	264	356	23.00	46.00	pNP Maltotrioside substrates 37°C

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Amylase Total	U/l	280	238	322	21.00	42.00	Siemens - blocked pNPG7 37°C
	U/l	312	265	359	23.50	47.00	I.L. - blocked pNPG7 37°C
	U/l	226	192	260	17.00	34.00	Randox - Ethylidene pNPG7 37°C
	U/l	305	259	351	23.00	46.00	Randox liquid stable pNPG7 37°C
	U/l	298	253	343	22.50	45.00	Beckman maltotetraose 37°C
	U/l	337	286	388	25.50	51.00	Siemens - maltopenta/hexaoside 37°C
	U/l	278	236	320	21.00	42.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	177	150	204	13.50	27.00	Ortho Vitros Microslide Systems 37°C
	U/l	274	233	315	20.50	41.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	276	235	317	20.50	41.00	Roche liquid stable pNPG7 37°C
	U/l	336	285	387	25.50	51.00	Siemens 2-chloro-pNPG3 37°C
	U/l	284	242	326	21.00	42.00	bioMerieux 2-chloro-pNPG3 37°C
	U/l	291	247	335	22.00	44.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	296	252	340	22.00	44.00	Beckman Synchron AMY7 37°C
Apolipoprotein A-1	g/l	1.13	0.93	1.33	0.10	0.20	Immunoturbidimetric
	mg/dl	113	92.7	133	10.15	20.30	
Apolipoprotein B	g/l	0.58	0.48	0.68	0.05	0.10	Immunoturbidimetric
	mg/dl	58.0	47.6	68.4	5.20	10.40	
AST (GOT)	U/l	170	136	204	17.00	34.00	Ortho Vitros Microslide visible slide 37°C
	U/l	182	146	218	18.00	36.00	Tris buffer with P5P 37°C
	U/l	123	99	147	12.00	24.00	Tris buffer with P5P 30°C
	U/l	87	69	105	9.00	18.00	Tris buffer with P5P 25°C
	U/l	135	108	162	13.50	27.00	Tris buffer without P5P 37°C
	U/l	91	73	109	9.00	18.00	Tris buffer without P5P 30°C
	U/l	64	51	77	6.50	13.00	Tris buffer without P5P 25°C

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
AST (GOT)	U/l	128	102	154	13.00	26.00	Tris buffer SCE 37°C
	U/l	87	69	105	9.00	18.00	Tris buffer SCE 30°C
	U/l	61	49	73	6.00	12.00	Tris buffer SCE 25°C
Bicarbonate	mmol/l	16.0	12.7	19.3	1.65	3.30	Colorimetric
	mmol/l	17.7	14.0	21.4	1.85	3.70	Ortho Vitros Microslide Systems
	mmol/l	16.0	12.7	19.3	1.65	3.30	Differential rate pH change
	mmol/l	15.9	12.6	19.2	1.65	3.30	Enzymatic
	mmol/l	16.6	13.2	20.0	1.70	3.40	Ion selective electrode
Bile Acids	µmol/l	51.7	41.4	62.0	5.15	10.30	4th Generation Colorimetric
	µmol/l	49.7	39.8	59.6	4.95	9.90	5th Generation Colorimetric
Bilirubin Direct	µmol/l	25.9	20.5	31.3	2.70	5.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.52	1.20	1.84	0.16	0.32	
	µmol/l	27.3	21.6	33.0	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.60	1.26	1.94	0.17	0.34	
	µmol/l	16.7	13.2	20.2	1.75	3.50	Roche JG factored
	mg/dl	0.977	0.772	1.18	0.10	0.21	
	µmol/l	27.9	22.1	33.7	2.90	5.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.63	1.29	1.97	0.17	0.34	
	µmol/l	31.3	24.8	37.8	3.25	6.50	Oxidation to Biliverdin
	mg/dl	1.83	1.45	2.21	0.19	0.38	
	µmol/l	27.5	21.7	33.3	2.90	5.80	Modified Jendrassik
	mg/dl	1.61	1.27	1.95	0.17	0.34	
Bilirubin Total	µmol/l	70.7	55.8	85.6	7.45	14.90	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	4.14	3.26	5.02	0.44	0.88	
	µmol/l	69.6	55.0	84.2	7.30	14.60	Vitros 250/500/700/950 Total BUBC
	mg/dl	4.07	3.22	4.92	0.43	0.85	

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RANDOX

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	89.2	70.5	108	9.35	18.70	Diazo with Dichloroaniline (DCA)
	mg/dl	5.22	4.12	6.32	0.55	1.10	
	µmol/l	79.8	63.1	96.5	8.35	16.70	Diazo with Sulphanilic Acid
	mg/dl	4.67	3.69	5.65	0.49	0.98	
	µmol/l	91.8	72.5	111	9.65	19.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.37	4.24	6.50	0.57	1.13	
	µmol/l	80.1	63.3	96.9	8.40	16.80	Nitrobenzenediazonium salt
	mg/dl	4.69	3.70	5.68	0.50	0.99	
	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	87.5	69.1	106	9.20	18.40	Oxidation to Biliverdin
	mg/dl	5.12	4.04	6.20	0.54	1.08	
	µmol/l	74.8	59.1	90.5	7.85	15.70	DPD - Roche
	mg/dl	4.38	3.46	5.30	0.46	0.92	
	µmol/l	89.7	70.9	109	9.40	18.80	Modified Jendrassik
	mg/dl	5.25	4.15	6.35	0.55	1.10	
Calcium	mmol/l	3.16	2.84	3.48	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.7	11.4	14.0	0.65	1.30	
	mmol/l	3.12	2.81	3.43	0.16	0.31	Ortho Vitros Microslide Systems
	mg/dl	12.5	11.3	13.7	0.60	1.20	
	mmol/l	3.06	2.75	3.37	0.16	0.31	Ion selective electrode
	mg/dl	12.3	11.0	13.6	0.65	1.30	
	mmol/l	3.01	2.71	3.31	0.15	0.30	Methylthymol blue
	mg/dl	12.1	10.9	13.3	0.60	1.20	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	3.13	2.82	3.44	0.16	0.31	Arsenazo III
	mg/dl	12.5	11.3	13.7	0.60	1.20	
Chloride	mmol/l	114	105	123	4.50	9.00	Colorimetric
	mmol/l	115	106	124	4.50	9.00	Ortho Vitros Microslide Systems
	mmol/l	113	104	122	4.50	9.00	ISE indirect
	mmol/l	115	105	125	5.00	10.00	ISE direct
Cholesterol	mmol/l	7.07	6.15	7.99	0.46	0.92	Ortho Vitros Microslide Systems
	mg/dl	273	237	309	18.00	36.00	
	mmol/l	7.34	6.38	8.30	0.48	0.96	Cholesterol Oxidase
	mg/dl	283	246	320	18.50	37.00	
Cholinesterase	U/l	5333	4266	6400	533.50	1067.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	472	387	557	42.50	85.00	Ortho Vitros Microslide Systems 37°C
	U/l	568	465	671	51.50	103.00	CK-NAC serum start (DGKC) 37°C
	U/l	356	291	421	32.50	65.00	CK-NAC serum start (DGKC) 30°C
	U/l	241	198	284	21.50	43.00	CK-NAC serum start (DGKC) 25°C
	U/l	571	468	674	51.50	103.00	CK-NAC substrate start (DGKC) 37°C
	U/l	357	293	421	32.00	64.00	CK-NAC substrate start (DGKC) 30°C
	U/l	243	199	287	22.00	44.00	CK-NAC substrate start (DGKC) 25°C
	U/l	583	478	688	52.50	105.00	CK-NAC (IFCC) 37°C
	U/l	365	299	431	33.00	66.00	CK-NAC (IFCC) 30°C
	U/l	248	203	293	22.50	45.00	CK-NAC (IFCC) 25°C
	U/l	566	464	668	51.00	102.00	Monothioglycerol 37°C
	U/l	354	290	418	32.00	64.00	Monothioglycerol 30°C
	U/l	241	197	285	22.00	44.00	Monothioglycerol 25°C
	U/l	538	441	635	48.50	97.00	Dithioerythritol 37°C
	U/l	337	276	398	30.50	61.00	Dithioerythritol 30°C
	U/l	229	187	271	21.00	42.00	Dithioerythritol 25°C

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	533	437	629	48.00	96.00	Dithioerythritol (DTE) IFCC correlated 37°C
	U/l	334	274	394	30.00	60.00	Dithioerythritol (DTE) IFCC correlated 30°C
	U/l	227	186	268	20.50	41.00	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	26.1	20.9	31.3	2.60	5.20	Colorimetric
	µg/dl	166	133	199	16.50	33.00	
Cortisol	nmol/l	1073	805	1341	134.00	268.00	Siemens Immulite 2000
	µg/dl	38.6	29.0	48.2	4.80	9.60	
Creatinine	µmol/l	344	275	413	34.50	69.00	Alkaline picrate with deproteinization
	mg/dl	3.89	3.11	4.67	0.39	0.78	
	µmol/l	362	290	434	36.00	72.00	Alkaline picrate no deproteinization
	mg/dl	4.09	3.28	4.90	0.41	0.81	
	µmol/l	384	307	461	38.50	77.00	Vitros 250/500/700/950/5.1FS single slide
	mg/dl	4.34	3.47	5.21	0.44	0.87	
	µmol/l	381	305	457	38.00	76.00	Randox Enzymatic UV method
	mg/dl	4.31	3.45	5.17	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	
	µmol/l	378	302	454	38.00	76.00	Roche Creatinine Plus
	mg/dl	4.27	3.41	5.13	0.43	0.86	
	µmol/l	370	296	444	37.00	74.00	Jaffe rate blanked
	mg/dl	4.18	3.34	5.02	0.42	0.84	

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	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	
	µmol/l	358	287	429	35.50	71.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.05	3.24	4.86	0.41	0.81	
	µmol/l	384	307	461	38.50	77.00	Vitros IDMS Traceable
	mg/dl	4.34	3.47	5.21	0.44	0.87	
	µmol/l	375	300	450	37.50	75.00	IDMS traceable
	mg/dl	4.24	3.39	5.09	0.43	0.85	
D-3-Hydroxybutyrate	mmol/l	1.18	1.00	1.36	0.09	0.18	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	3.46	2.77	4.15	0.35	0.69	Immunoturbidimetric
	ng/ml	2.70	2.16	3.24	0.27	0.54	
Folate	nmol/l	18.4	14.0	22.8	2.20	4.40	Siemens Immulite 2000
	ng/ml	8.11	6.17	10.1	0.97	1.94	
	nmol/l	84.4	64.1	105	10.15	20.30	Siemens Advia Centaur
	ng/ml	37.2	28.3	46.1	4.45	8.90	
Free T4	pmol/l	41.9	31.4	52.4	5.25	10.50	Abbott Architect
	ng/dl	3.27	2.45	4.09	0.41	0.82	
	pg/ml	32.7	24.5	40.9	4.10	8.20	Abbott Architect
	pmol/l	48.6	36.4	60.8	6.10	12.20	Siemens Advia Centaur
	ng/dl	3.79	2.84	4.74	0.48	0.95	
	pg/ml	37.9	28.4	47.4	4.75	9.50	Siemens Advia Centaur
	pmol/l	49.6	37.2	62.0	6.20	12.40	Beckman Access
	ng/dl	3.87	2.90	4.84	0.49	0.97	
	pg/ml	38.7	29.0	48.4	4.85	9.70	Beckman Access
	pmol/l	52.6	39.4	65.8	6.60	13.20	Beckman DxI800
	ng/dl	4.10	3.07	5.13	0.52	1.03	
	pg/ml	41.0	30.7	51.3	5.15	10.30	Beckman DxI800

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Free T4	pmol/l	52.5	39.4	65.6	6.55	13.10	BioMerieux Vidas
	ng/dl	4.10	3.07	5.13	0.52	1.03	
	pg/ml	41.0	30.7	51.3	5.15	10.30	BioMerieux Vidas
	pmol/l	50.4	37.8	63.0	6.30	12.60	Siemens Immulite 1000
	ng/dl	3.93	2.95	4.91	0.49	0.98	
	pg/ml	39.3	29.5	49.1	4.90	9.80	Siemens Immulite 1000
	pmol/l	50.7	38.0	63.4	6.35	12.70	Siemens Immulite 2000/2500
	ng/dl	3.95	2.96	4.94	0.50	0.99	
	pg/ml	39.5	29.6	49.4	4.95	9.90	Siemens Immulite 2000/2500
	pmol/l	80.2	60.1	100	10.05	20.10	Vitros ECi
	ng/dl	6.26	4.69	7.83	0.79	1.57	
	pg/ml	62.6	46.9	78.3	7.85	15.70	Vitros ECi
	pmol/l	52.4	39.3	65.5	6.55	13.10	Roche Elecsys
	ng/dl	4.09	3.07	5.11	0.51	1.02	
	pg/ml	40.9	30.7	51.1	5.10	10.20	Roche Elecsys
	pmol/l	50.3	37.7	62.9	6.30	12.60	Roche Modular E170
	ng/dl	3.92	2.94	4.90	0.49	0.98	
	pg/ml	39.2	29.4	49.0	4.90	9.80	Roche Modular E170
	pmol/l	49.7	37.3	62.1	6.20	12.40	Roche Cobas E411
	ng/dl	3.88	2.91	4.85	0.49	0.97	
	pg/ml	38.8	29.1	48.5	4.85	9.70	Roche Cobas E411
	pmol/l	51.3	38.4	64.2	6.45	12.90	Roche Cobas 6000/8000
	ng/dl	4.00	3.00	5.00	0.50	1.00	
	pg/ml	40.0	30.0	50.0	5.00	10.00	Roche Cobas 6000/8000

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Gentamicin	µmol/l	20.0	16.0	24.0	2.00	4.00	Immunoturbidimetric
	µg/ml	9.56	7.65	11.5	0.96	1.91	
gamma-GT	U/l	168	143	193	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	132	113	151	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	104	88	120	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	217	185	249	16.00	32.00	Ortho Vitros Microslide Systems 37°C
	U/l	144	123	165	10.50	21.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	113	97	129	8.00	16.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	89	76	102	6.50	13.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	183	156	210	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	144	123	165	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	113	96	130	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	194	165	223	14.50	29.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	153	130	176	11.50	23.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	120	102	138	9.00	18.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	31	25	37	3.00	6.00	Triethanolamine buffer 50 mmol 37°C
	U/l	24	19	29	2.50	5.00	Triethanolamine buffer 50 mmol 30°C
	U/l	19	16	22	1.50	3.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	14.7	12.5	16.9	1.10	2.20	Ortho Vitros Microslide Systems
	mg/dl	265	225	305	20.00	40.00	
	mmol/l	15.7	13.3	18.1	1.20	2.40	Glucose dehydrogenase
	mg/dl	283	240	326	21.50	43.00	
	mmol/l	15.8	13.4	18.2	1.20	2.40	Hexokinase
	mg/dl	285	241	329	22.00	44.00	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			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	15.7	13.4	18.0	1.15	2.30	Glucose oxidase
	mg/dl	283	241	325	21.00	42.00	
HDL - Cholesterol	mmol/l	2.98	2.53	3.43	0.23	0.45	Direct HDL Immunoseparation
	mg/dl	115	97.7	132	8.65	17.30	
	mmol/l	3.93	3.34	4.52	0.30	0.59	Direct HDL PEGME
	mg/dl	152	129	175	11.50	23.00	
	mmol/l	3.23	2.75	3.71	0.24	0.48	Direct Clearance Method
	mg/dl	125	106	144	9.50	19.00	
	mmol/l	4.21	3.58	4.84	0.32	0.63	Direct HDL Roche 3rd generation
	mg/dl	163	138	188	12.50	25.00	
	mmol/l	3.10	2.64	3.56	0.23	0.46	HDL - Ultra
	mg/dl	120	102	138	9.00	18.00	
Immunoglobulin A	g/l	1.84	1.38	2.30	0.23	0.46	Immunoturbidimetric
	mg/dl	184	138	230	23.00	46.00	
Immunoglobulin G	g/l	7.77	6.37	9.17	0.70	1.40	Immunoturbidimetric
	mg/dl	777	637	917	70.00	140.00	
Immunoglobulin M	g/l	0.88	0.71	1.06	0.09	0.18	Immunoturbidimetric
	mg/dl	88.2	70.6	106	8.80	17.60	
Iron	µmol/l	38.0	31.1	44.9	3.45	6.90	Colorimetric with ppt.
	µg/dl	212	174	250	19.00	38.00	
	µmol/l	38.3	31.4	45.2	3.45	6.90	Colorimetric without ppt.
	µg/dl	214	176	252	19.00	38.00	
	µmol/l	37.6	30.8	44.4	3.40	6.80	Ortho Vitros Microslide Systems
	µg/dl	210	172	248	19.00	38.00	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lactate	mmol/l	5.47	4.49	6.45	0.49	0.98	Colorimetric Lactate Oxidase
	mg/dl	49.3	40.5	58.1	4.40	8.80	
	mmol/l	5.16	4.23	6.09	0.47	0.93	Ortho Vitros Microslide Systems
	mg/dl	46.5	38.1	54.9	4.20	8.40	
	mmol/l	5.29	4.34	6.24	0.48	0.95	UV LDH
	mg/dl	47.7	39.1	56.3	4.30	8.60	
LAP	U/l	14	12	16	1.00	2.00	NAGEL 37°C
LD (LDH)	U/l	1542	1311	1773	115.50	231.00	Ortho Vitros Microslide Systems 37°C
	U/l	452	384	520	34.00	68.00	L->P 37°C
	U/l	326	277	375	24.50	49.00	L->P 30°C
	U/l	229	195	263	17.00	34.00	L->P 25°C
	U/l	830	705	955	62.50	125.00	P->L Scandinavian & Dutch 37°C
	U/l	599	509	689	45.00	90.00	P->L Scandinavian & Dutch 30°C
	U/l	421	357	485	32.00	64.00	P->L Scandinavian & Dutch 25°C
	U/l	643	547	739	48.00	96.00	P->L German methods 37°C
	U/l	464	395	533	34.50	69.00	P->L German methods 30°C
	U/l	326	277	375	24.50	49.00	P->L German methods 25°C
	U/l	670	569	771	50.50	101.00	P->L SFBC 37°C
	U/l	484	411	557	36.50	73.00	P->L SFBC 30°C
	U/l	340	288	392	26.00	52.00	P->L SFBC 25°C
	U/l	444	377	511	33.50	67.00	L->P IFCC 37°C
	U/l	321	272	370	24.50	49.00	L->P IFCC 30°C
	U/l	225	191	259	17.00	34.00	L->P IFCC 25°C
	U/l	472	401	543	35.50	71.00	L->P Randox 37°C
	U/l	341	290	392	25.50	51.00	L->P Randox 30°C
	U/l	239	203	275	18.00	36.00	L->P Randox 25°C

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RANDOX

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lipase	U/l	64	51	77	6.50	13.00	Other Colorimetric 37°C
	U/l	757	608	906	74.50	149.00	Ortho Vitros Microslide Systems 37°C
	U/l	59	48	70	5.50	11.00	Roche Colorimetric 37°C
	U/l	444	356	532	44.00	88.00	Randox Turbidimetric with colipase 37°C
	U/l	88	71	105	8.50	17.00	Randox Colorimetric 37°C
Lithium	mmol/l	2.19	1.92	2.46	0.14	0.27	Atomic absorption
	mg/dl	1.52	1.33	1.71	0.10	0.19	
	mmol/l	2.34	2.06	2.62	0.14	0.28	Ortho Vitros Microslide Systems
	mg/dl	1.62	1.43	1.81	0.10	0.19	
	mmol/l	2.15	1.89	2.41	0.13	0.26	Flame photometry
	mg/dl	1.49	1.31	1.67	0.09	0.18	
	mmol/l	2.09	1.84	2.34	0.13	0.25	Ion selective electrode
	mg/dl	1.45	1.28	1.62	0.09	0.17	
	mmol/l	2.05	1.81	2.29	0.12	0.24	Spectrophotometric
	mg/dl	1.42	1.26	1.58	0.08	0.16	
	mmol/l	1.99	1.75	2.23	0.12	0.24	Randox Colorimetric
	mg/dl	1.38	1.22	1.54	0.08	0.16	
Magnesium	mmol/l	1.76	1.55	1.97	0.11	0.21	Arsenazo III
	mg/dl	4.28	3.77	4.79	0.26	0.51	
	mmol/l	1.78	1.57	1.99	0.11	0.21	Ortho Vitros Microslide Systems
	mg/dl	4.33	3.82	4.84	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	

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	1.76	1.55	1.97	0.11	0.21	Methylthymol blue
	mg/dl	4.28	3.77	4.79	0.26	0.51	
	mmol/l	1.72	1.51	1.93	0.11	0.21	Chlorphosphonazo III
	mg/dl	4.18	3.67	4.69	0.26	0.51	
	mmol/l	1.77	1.55	1.99	0.11	0.22	Enzymatic
	mg/dl	4.30	3.77	4.83	0.27	0.53	
NEFA	mmol/l	0.57	0.48	0.65	0.04	0.09	Colorimetric
Osmolality	mOsm/kg	329	264	394	32.50	65.00	Calculated
	mOsm/kg	383	306	460	38.50	77.00	Freezing point depression
Paracetamol	mmol/l	0.61	0.49	0.73	0.06	0.12	Immunoturbidimetric
	mg/l	92.4	74.0	111	9.20	18.40	
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	2.30	1.96	2.64	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	7.13	6.08	8.18	0.53	1.05	
	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	6.00	5.52	6.48	0.24	0.48	Ortho Vitros Microslide Systems
	mmol/l	6.15	5.66	6.64	0.25	0.49	Enzymatic
	mmol/l	5.95	5.47	6.43	0.24	0.48	Flame photometry
	mmol/l	6.01	5.53	6.49	0.24	0.48	ISE method - direct
	mmol/l	6.02	5.54	6.50	0.24	0.48	ISE method - indirect
	mmol/l	6.00	5.52	6.48	0.24	0.48	Vitros DT60/DT60 II/DTE II

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Protein Total	g/l	47.5	38.0	57.0	4.75	9.50	Ortho Vitros Microslide Systems
	g/dl	4.75	3.80	5.70	0.48	0.95	
	g/l	47.5	38.0	57.0	4.75	9.50	Biuret reaction end point
	g/dl	4.75	3.80	5.70	0.48	0.95	
	g/l	46.3	37.1	55.5	4.60	9.20	Biuret reaction kinetic
	g/dl	4.63	3.71	5.55	0.46	0.92	
PSA Total	ng/ml =	21.1	15.8	26.4	2.65	5.30	Tosoh AIA360
	ng/ml =	31.5	23.6	39.4	3.95	7.90	Roche Elecsys Modular E170
	ng/ml =	32.2	24.1	40.3	4.05	8.10	Beckman Access Hybritech TPSA
	ng/ml =	28.0	21.0	35.0	3.50	7.00	Siemens ADVIA Centaur (equimolar)
	ng/ml =	30.1	22.6	37.6	3.75	7.50	bioMerieux VIDAS TPSA
	ng/ml =	26.0	19.5	32.5	3.25	6.50	Siemens Advia Centaur
	ng/ml =	25.2	18.9	31.5	3.15	6.30	Abbott Architect
	ng/ml =	32.2	24.1	40.3	4.05	8.10	Cobas E411
	ng/ml =	30.7	23.0	38.4	3.85	7.70	Roche Cobas 6000/8000
Salicylate	mmol/l	0.88	0.70	1.05	0.09	0.18	Enzymatic
	mg/dl	12.1	9.67	14.5	1.22	2.43	
Sodium	mmol/l	155	147	163	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	156	148	164	4.00	8.00	Enzymatic
	mmol/l	156	148	164	4.00	8.00	Flame photometry
	mmol/l	154	146	162	4.00	8.00	ISE method - direct
	mmol/l	154	147	161	3.50	7.00	ISE method - indirect
	mmol/l	154	146	162	4.00	8.00	Vitros DT60/DT60 II/DTE II
Theophylline	µmol/l	127	102	152	12.50	25.00	Immunoturbidimetric
	µg/ml	22.9	18.4	27.4	2.25	4.50	

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Thyroid Stimulating Hormone	µU/ml =	1.12	0.89	1.35	0.11	0.23	Abbott Architect
	µU/ml =	1.35	1.08	1.62	0.14	0.27	bioMerieux VIDAS TSH
	µU/ml =	1.24	0.99	1.49	0.13	0.25	Siemens Immulite 1000
	µU/ml =	1.31	1.05	1.57	0.13	0.26	Siemens Immulite 2000/2500
	µU/ml =	1.32	1.06	1.58	0.13	0.26	Vitros ECi
	µU/ml =	1.45	1.16	1.74	0.15	0.29	Roche Elecsys
	µU/ml =	1.46	1.16	1.76	0.15	0.30	Roche Modular E170
	µU/ml =	1.40	1.12	1.68	0.14	0.28	Tosoh AIA360
	µU/ml =	1.49	1.19	1.79	0.15	0.30	Roche Cobas E411
	µU/ml =	1.46	1.17	1.75	0.15	0.29	Roche Cobas 6000/8000
	µU/ml =	1.28	1.02	1.54	0.13	0.26	Beckman DxI800 Hyper TSH
TIBC	µmol/l	46.4	36.7	56.1	4.85	9.70	Removal of excess free iron
	µg/dl	259	205	313	27.00	54.00	
	µmol/l	47.9	37.9	57.9	5.00	10.00	FE+UIBC(saturation with iron)
	µg/dl	268	212	324	28.00	56.00	
	µmol/l	45.9	36.3	55.5	4.80	9.60	Direct Colorimetric
	µg/dl	257	203	311	27.00	54.00	
	µmol/l	47.6	37.6	57.6	5.00	10.00	Randox Direct
	µg/dl	266	210	322	28.00	56.00	
Tobramycin	µmol/l	14.4	11.5	17.3	1.45	2.90	Immunoturbidimetric
	µg/ml	6.74	5.38	8.10	0.68	1.36	
Total T3	nmol/l	3.70	2.77	4.63	0.47	0.93	Abbott Architect
	ng/ml	2.41	1.80	3.02	0.31	0.61	
	ng/dl	241	180	302	30.50	61.00	Abbott Architect
	nmol/l	5.02	3.76	6.28	0.63	1.26	Siemens Advia Centaur
	ng/ml	3.27	2.45	4.09	0.41	0.82	
	ng/dl	327	245	409	41.00	82.00	Siemens Advia Centaur

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Total T3	nmol/l	4.31	3.23	5.39	0.54	1.08	Roche Modular E170
	ng/ml	2.81	2.10	3.52	0.36	0.71	
	ng/dl	281	210	352	35.50	71.00	Roche Modular E170
Total T4	nmol/l	191	143	239	24.00	48.00	Abbott Architect
	µg/dl	14.9	11.2	18.6	1.85	3.70	
	ng/ml	149	112	186	18.50	37.00	Abbott Architect
	nmol/l	178	134	222	22.00	44.00	Siemens Advia Centaur
	µg/dl	13.9	10.5	17.3	1.70	3.40	
	ng/ml	139	105	173	17.00	34.00	Siemens Advia Centaur
	nmol/l	177	132	222	22.50	45.00	Siemens Immulite 2000/2500
	µg/dl	13.8	10.3	17.3	1.75	3.50	
	ng/ml	138	103	173	17.50	35.00	Siemens Immulite 2000/2500
	nmol/l	153	115	191	19.00	38.00	Roche Modular E170
	µg/dl	11.9	8.97	14.8	1.47	2.93	
	ng/ml	119	89.7	148	14.65	29.30	Roche Modular E170
Transferrin	g/l	1.88	1.50	2.26	0.19	0.38	Immunoturbidimetric
	mg/dl	188	150	226	19.00	38.00	
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	
	mmol/l	2.86	2.41	3.31	0.23	0.45	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	253	213	293	20.00	40.00	
	mmol/l	2.92	2.45	3.39	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	258	217	299	20.50	41.00	

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	2.91	2.45	3.37	0.23	0.46	Lipase/Glycerol Dehydrogenase
	mg/dl	258	217	299	20.50	41.00	
	mmol/l	3.47	2.92	4.02	0.28	0.55	Ortho Vitros Microslide Systems
	mg/dl	307	258	356	24.50	49.00	
Urea	mmol/l	18.0	15.3	20.7	1.35	2.70	Ortho Vitros Microslide Systems
	mg/dl	108	92.0	124	8.00	16.00	
	mmol/l	19.7	16.7	22.7	1.50	3.00	Urease end point
	mg/dl	118	100	136	9.00	18.00	
	mmol/l	19.5	16.5	22.5	1.50	3.00	Urease kinetic
	mg/dl	117	99.2	135	8.90	17.80	
	mmol/l	18.6	15.8	21.4	1.40	2.80	Urease hypochlorite
	mg/dl	112	95.0	129	8.50	17.00	
	mmol/l	21.6	18.4	24.8	1.60	3.20	Urease Berthelot
	mg/dl	130	111	149	9.50	19.00	
	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	0.52	0.46	0.59	0.03	0.07	Ortho Vitros Microslide Systems
	mg/dl	8.79	7.64	9.94	0.58	1.15	
	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	0.55	0.48	0.63	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.29	8.08	10.5	0.61	1.21	
	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	Spectrophotometric at 280-290
	mg/dl	9.07	7.90	10.2	0.59	1.17	

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.24	8.05	10.4	0.60	1.19	
Vitamin B12	pmol/l	154	123	185	15.50	31.00	Siemens Advia Centaur
	pg/ml	209	167	251	21.00	42.00	
Zinc	µmol/l	32.7	26.2	39.2	3.25	6.50	Atomic absorption
	µg/dl	214	171	257	21.50	43.00	
	µmol/l	33.7	27.0	40.4	3.35	6.70	Colorimetric with deproteinisation
	µg/dl	220	176	264	22.00	44.00	

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RANDOX

MEAN OF ALL INSTRUMENTS (Elec.)

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			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		6.7	5.1	8.3	0.81	1.61	% of total Protein (Beckman Capillary)
alpha-2-globulin		8.6	6.5	10.6	1.03	2.05	% of total Protein (Beckman Capillary)
beta-globulin		11.3	8.6	14.0	1.36	2.71	% of total Protein (Beckman Capillary)
gamma-globulin		11.8	9.0	14.6	1.42	2.83	% of total Protein (Beckman Capillary)

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MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	504	429	579	37.50	75.00	Diethanolamine buffer DEA 37°C
	U/l	393	334	452	29.50	59.00	Diethanolamine buffer DEA 30°C
	U/l	322	274	370	24.00	48.00	Diethanolamine buffer DEA 25°C
ALT (GPT)	U/l	135	108	162	13.50	27.00	Tris buffer without P5P 37°C
	U/l	100	80	120	10.00	20.00	Tris buffer without P5P 30°C
	U/l	76	61	91	7.50	15.00	Tris buffer without P5P 25°C
Amylase Total	U/l	313	266	360	23.50	47.00	pNP Maltotrioside substrates 37°C
AST (GOT)	U/l	142	113	171	14.50	29.00	Tris buffer without P5P 37°C
	U/l	96	76	116	10.00	20.00	Tris buffer without P5P 30°C
	U/l	68	54	82	7.00	14.00	Tris buffer without P5P 25°C
Calcium	mmol/l	3.04	2.74	3.34	0.15	0.30	Cresolphthalein complexone
	mg/dl	12.2	11.0	13.4	0.60	1.20	
	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	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE direct
Cholesterol	mmol/l	7.32	6.37	8.27	0.48	0.95	Cholesterol Oxidase
	mg/dl	283	246	320	18.50	37.00	
CK Total	U/l	576	472	680	52.00	104.00	CK-NAC (IFCC) 37°C
	U/l	361	295	427	33.00	66.00	CK-NAC (IFCC) 30°C
	U/l	245	201	289	22.00	44.00	CK-NAC (IFCC) 25°C

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MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	330	264	396	33.00	66.00	Alkaline picrate no deproteinization
	mg/dl	3.73	2.98	4.48	0.38	0.75	
	µmol/l	339	271	407	34.00	68.00	Jaffe rate blanked
	mg/dl	3.83	3.06	4.60	0.39	0.77	
gamma-GT	U/l	172	146	198	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	136	115	157	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	106	90	122	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	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	38.3	31.4	45.2	3.45	6.90	Colorimetric without ppt.
	µg/dl	214	176	252	19.00	38.00	
Magnesium	mmol/l	1.75	1.54	1.96	0.11	0.21	Xylidyl Blue
	mg/dl	4.25	3.74	4.76	0.26	0.51	
Phosphate Inorganic	mmol/l	2.31	1.96	2.66	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.16	6.08	8.24	0.54	1.08	
Potassium	mmol/l	5.84	5.37	6.31	0.24	0.47	ISE method - direct
Protein Total	g/l	48.3	38.7	57.9	4.80	9.60	Biuret reaction end point
	g/dl	4.83	3.87	5.79	0.48	0.96	
Sodium	mmol/l	152	145	159	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	2.85	2.40	3.30	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	252	212	292	20.00	40.00	
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	18.1	15.4	20.8	1.35	2.70	Urease hypochlorite
	mg/dl	109	92.6	125	8.20	16.40	

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MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	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	9.49	8.25	10.7	0.62	1.24	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.07	7.90	10.2	0.59	1.17	
	mmol/l	0.55	0.48	0.63	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.29	8.08	10.5	0.61	1.21	

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PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	29.9	25.4	34.4	2.25	4.50	Bromocresol Green
	g/dl	2.99	2.54	3.44	0.23	0.45	
Alkaline Phosphatase	U/l	481	408	554	36.50	73.00	Diethanolamine buffer DEA 37°C
	U/l	375	318	432	28.50	57.00	Diethanolamine buffer DEA 30°C
	U/l	307	261	353	23.00	46.00	Diethanolamine buffer DEA 25°C
ALT (GPT)	U/l	146	117	175	14.50	29.00	Tris buffer without P5P 37°C
	U/l	108	87	129	10.50	21.00	Tris buffer without P5P 30°C
	U/l	82	66	98	8.00	16.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	145	116	174	14.50	29.00	Tris buffer without P5P 37°C
	U/l	98	78	118	10.00	20.00	Tris buffer without P5P 30°C
	U/l	69	55	83	7.00	14.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	24.1	19.1	29.1	2.50	5.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.41	1.12	1.70	0.15	0.29	
Bilirubin Total	µmol/l	84.0	66.4	102	8.80	17.60	Diazo with Dichloroaniline (DCA)
	mg/dl	4.91	3.88	5.94	0.52	1.03	
Calcium	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	7.34	6.39	8.29	0.48	0.95	Cholesterol Oxidase
	mg/dl	283	247	319	18.00	36.00	
CK Total	U/l	584	479	689	52.50	105.00	CK-NAC (IFCC) 37°C
	U/l	366	300	432	33.00	66.00	CK-NAC (IFCC) 30°C
	U/l	248	204	292	22.00	44.00	CK-NAC (IFCC) 25°C

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PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	338	270	406	34.00	68.00	Alkaline picrate no deproteinization
	mg/dl	3.82	3.05	4.59	0.39	0.77	
	µmol/l	382	306	458	38.00	76.00	Creatinine PAP method
	mg/dl	4.32	3.46	5.18	0.43	0.86	
Glucose	mmol/l	15.8	13.5	18.1	1.15	2.30	Glucose oxidase
	mg/dl	285	243	327	21.00	42.00	
HDL - Cholesterol	mmol/l	2.38	2.02	2.74	0.18	0.36	Direct HDL Immunoseparation
	mg/dl	91.9	78.0	106	6.95	13.90	
LD (LDH)	U/l	633	538	728	47.50	95.00	P->L German methods 37°C
	U/l	457	388	526	34.50	69.00	P->L German methods 30°C
	U/l	321	273	369	24.00	48.00	P->L German methods 25°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	
Phosphate Inorganic	mmol/l	2.32	1.98	2.66	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.19	6.14	8.24	0.53	1.05	
Protein Total	g/l	50.0	40.0	60.0	5.00	10.00	Biuret reaction end point
	g/dl	5.00	4.00	6.00	0.50	1.00	
Triglycerides	mmol/l	2.79	2.35	3.23	0.22	0.44	Lipase/GPO-PAP no correction
	mg/dl	247	208	286	19.50	39.00	
Urea	mmol/l	20.0	17.0	23.0	1.50	3.00	Urease kinetic
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	20.0	17.0	23.0	1.50	3.00	BUN
	mg/dl	56.1	47.7	64.5	4.20	8.40	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	8.87	7.71	10.0	0.58	1.16	

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Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	31.6	26.9	36.3	2.35	4.70	Bromocresol Green
	g/dl	3.16	2.69	3.63	0.24	0.47	
	g/l	28.7	24.4	33.0	2.15	4.30	Bromocresol Purple
	g/dl	2.87	2.44	3.30	0.22	0.43	
	g/l	26.1	22.2	30.0	1.95	3.90	Turbidimetric Assays
	g/dl	2.61	2.22	3.00	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	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 Pancreatic	U/l	251	213	289	19.00	38.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	275	234	316	20.50	41.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	271	231	311	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	132	105	159	13.50	27.00	Tris buffer without P5P 37°C
	U/l	89	71	107	9.00	18.00	Tris buffer without P5P 30°C
	U/l	63	50	76	6.50	13.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	15.7	12.5	18.9	1.60	3.20	Colorimetric
	mmol/l	16.0	12.7	19.3	1.65	3.30	Enzymatic

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bile Acids	µmol/l	49.5	39.6	59.4	4.95	9.90	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	26.9	21.2	32.6	2.85	5.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.57	1.24	1.90	0.17	0.33	
	µmol/l	26.6	21.0	32.2	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.56	1.23	1.89	0.17	0.33	
	µmol/l	16.7	13.2	20.2	1.75	3.50	Roche JG factored
	mg/dl	0.977	0.772	1.18	0.10	0.21	
Bilirubin Total	µmol/l	75.1	59.3	90.9	7.90	15.80	Diazo with Sulphanilic Acid
	mg/dl	4.39	3.47	5.31	0.46	0.92	
	µmol/l	74.5	58.9	90.1	7.80	15.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.36	3.45	5.27	0.46	0.91	
	µmol/l	75.0	59.2	90.8	7.90	15.80	Diazonium ion
	mg/dl	4.39	3.46	5.32	0.47	0.93	
	µmol/l	74.1	58.5	89.7	7.80	15.60	DPD - Roche
	mg/dl	4.33	3.42	5.24	0.46	0.91	
Calcium	mmol/l	3.22	2.90	3.54	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.9	11.6	14.2	0.65	1.30	
Chloride	mmol/l	110	102	118	4.00	8.00	ISE indirect
Cholesterol	mmol/l	7.40	6.44	8.36	0.48	0.96	Cholesterol Oxidase
	mg/dl	286	249	323	18.50	37.00	
Cholinesterase	U/l	5250	4200	6300	525.00	1050.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	608	498	718	55.00	110.00	CK-NAC (IFCC) 37°C
	U/l	381	312	450	34.50	69.00	CK-NAC (IFCC) 30°C
	U/l	258	212	304	23.00	46.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	375	300	450	37.50	75.00	Alkaline picrate no deproteinization
	mg/dl	4.24	3.39	5.09	0.43	0.85	

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Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	389	312	466	38.50	77.00	Randox Enzymatic UV method
	mg/dl	4.40	3.53	5.27	0.44	0.87	
	µmol/l	372	298	446	37.00	74.00	Creatinine PAP method
	mg/dl	4.20	3.37	5.03	0.42	0.83	
	µmol/l	384	307	461	38.50	77.00	Roche Creatinine Plus
	mg/dl	4.34	3.47	5.21	0.44	0.87	
	µmol/l	388	311	465	38.50	77.00	Jaffe rate blanked
	mg/dl	4.38	3.51	5.25	0.44	0.87	
	µmol/l	372	297	447	37.50	75.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.20	3.36	5.04	0.42	0.84	
	µmol/l	368	294	442	37.00	74.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.16	3.32	5.00	0.42	0.84	
D-3-Hydroxybutyrate	mmol/l	1.18	1.00	1.36	0.09	0.18	Tris buffer 100mmol pH 8.5
Free T4	pmol/l	51.3	38.4	64.2	6.45	12.90	Roche Cobas 6000/8000
	ng/dl	4.00	3.00	5.00	0.50	1.00	
	pg/ml	40.0	30.0	50.0	5.00	10.00	Roche Cobas 6000/8000
gamma-GT	U/l	165	140	190	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	130	110	150	10.00	20.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	102	86	118	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	184	157	211	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	145	124	166	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	114	97	131	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	174	147	201	13.50	27.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
	U/l	137	116	158	10.50	21.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 30°C
	U/l	107	91	123	8.00	16.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 25°C

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Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	15.7	13.4	18.0	1.15	2.30	Hexokinase
	mg/dl	283	241	325	21.00	42.00	
	mmol/l	15.9	13.5	18.3	1.20	2.40	Glucose oxidase
	mg/dl	287	243	331	22.00	44.00	
HDL - Cholesterol	mmol/l	4.55	3.87	5.23	0.34	0.68	Direct HDL PEGME
	mg/dl	176	149	203	13.50	27.00	
	mmol/l	4.23	3.60	4.86	0.32	0.63	Direct HDL Roche 3rd generation
	mg/dl	163	139	187	12.00	24.00	
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	38.5	31.6	45.4	3.45	6.90	Colorimetric without ppt.
	µg/dl	215	177	253	19.00	38.00	
Lactate	mmol/l	5.46	4.48	6.44	0.49	0.98	Colorimetric Lactate Oxidase
	mg/dl	49.2	40.4	58.0	4.40	8.80	
LD (LDH)	U/l	628	534	722	47.00	94.00	P->L German methods 37°C
	U/l	453	386	520	33.50	67.00	P->L German methods 30°C
	U/l	318	271	365	23.50	47.00	P->L German methods 25°C
	U/l	633	538	728	47.50	95.00	P->L SFBC 37°C
	U/l	457	388	526	34.50	69.00	P->L SFBC 30°C
	U/l	321	273	369	24.00	48.00	P->L SFBC 25°C
	U/l	430	366	494	32.00	64.00	L->P IFCC 37°C
	U/l	310	264	356	23.00	46.00	L->P IFCC 30°C
	U/l	218	186	250	16.00	32.00	L->P IFCC 25°C
Lipase	U/l	59	47	71	6.00	12.00	Roche Colorimetric 37°C

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lithium	mmol/l	2.06	1.82	2.30	0.12	0.24	Spectrophotometric
	mg/dl	1.43	1.26	1.60	0.09	0.17	
Magnesium	mmol/l	1.72	1.52	1.92	0.10	0.20	Xylidyl Blue
	mg/dl	4.18	3.69	4.67	0.25	0.49	
	mmol/l	1.70	1.50	1.90	0.10	0.20	Chlorphosphonazo III
	mg/dl	4.13	3.65	4.61	0.24	0.48	
Osmolality	mOsm/kg	326	260	392	33.00	66.00	Calculated
Phosphate Inorganic	mmol/l	2.30	1.96	2.64	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	7.13	6.08	8.18	0.53	1.05	
	mmol/l	2.26	1.93	2.59	0.17	0.33	Phosphomolybdate UV
	mg/dl	7.01	5.98	8.04	0.52	1.03	
Potassium	mmol/l	6.03	5.55	6.51	0.24	0.48	ISE method - indirect
Protein Total	g/l	47.1	37.7	56.5	4.70	9.40	Biuret reaction end point
	g/dl	4.71	3.77	5.65	0.47	0.94	
	g/l	47.4	37.9	56.9	4.75	9.50	Biuret reaction kinetic
	g/dl	4.74	3.79	5.69	0.48	0.95	
PSA Total	ng/ml =	30.7	23.0	38.4	3.85	7.70	Roche Cobas 6000/8000
Sodium	mmol/l	154	147	161	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.46	1.17	1.75	0.15	0.29	Roche Cobas 6000/8000
TIBC	µmol/l	46.6	36.8	56.4	4.90	9.80	FE+UIBC(saturation with iron)
	µg/dl	260	206	314	27.00	54.00	
	µmol/l	47.5	37.5	57.5	5.00	10.00	Direct Colorimetric
	µg/dl	266	210	322	28.00	56.00	
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	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	2.81	2.36	3.26	0.23	0.45	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	249	209	289	20.00	40.00	
	mmol/l	2.81	2.36	3.26	0.23	0.45	L/G Kinase EP. no correction
	mg/dl	249	209	289	20.00	40.00	
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	9.11	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	9.12	7.95	10.3	0.59	1.17	
	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	

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Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	
Alkaline Phosphatase	U/l	260	221	299	19.50	39.00	Roche Integra AMP buffer 37°C
	U/l	203	172	234	15.50	31.00	Roche Integra AMP buffer 30°C
	U/l	166	141	191	12.50	25.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	129	103	155	13.00	26.00	Tris buffer without P5P 37°C
	U/l	95	76	114	9.50	19.00	Tris buffer without P5P 30°C
	U/l	73	58	88	7.50	15.00	Tris buffer without P5P 25°C
Amylase Total	U/l	280	238	322	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	134	108	160	13.00	26.00	Tris buffer without P5P 37°C
	U/l	91	73	109	9.00	18.00	Tris buffer without P5P 30°C
	U/l	64	51	77	6.50	13.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	29.3	23.2	35.4	3.05	6.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.71	1.36	2.06	0.18	0.35	
	µmol/l	28.9	22.8	35.0	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.69	1.33	2.05	0.18	0.36	
Bilirubin Total	µmol/l	73.7	58.2	89.2	7.75	15.50	Diazo with Sulphanilic Acid
	mg/dl	4.31	3.40	5.22	0.46	0.91	
	µmol/l	71.6	56.6	86.6	7.50	15.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.19	3.31	5.07	0.44	0.88	
	µmol/l	72.4	57.2	87.6	7.60	15.20	Diazonium ion
	mg/dl	4.24	3.35	5.13	0.45	0.89	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	3.33	3.00	3.66	0.17	0.33	Cresolphthalein complexone
	mg/dl	13.3	12.0	14.6	0.65	1.30	
Chloride	mmol/l	114	104	124	5.00	10.00	ISE indirect
Cholesterol	mmol/l	7.48	6.51	8.45	0.49	0.97	Cholesterol Oxidase
	mg/dl	289	251	327	19.00	38.00	
CK Total	U/l	624	512	736	56.00	112.00	CK-NAC (IFCC) 37°C
	U/l	391	321	461	35.00	70.00	CK-NAC (IFCC) 30°C
	U/l	265	218	312	23.50	47.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	344	275	413	34.50	69.00	Alkaline picrate no deproteinization
	mg/dl	3.89	3.11	4.67	0.39	0.78	
	µmol/l	362	290	434	36.00	72.00	Randox Enzymatic UV method
	mg/dl	4.09	3.28	4.90	0.41	0.81	
	µmol/l	359	287	431	36.00	72.00	Roche Creatinine Plus
	mg/dl	4.06	3.24	4.88	0.41	0.82	
	µmol/l	350	280	420	35.00	70.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	3.96	3.16	4.76	0.40	0.80	
gamma-GT	U/l	165	140	190	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	130	110	150	10.00	20.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	102	86	118	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	187	159	215	14.00	28.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	147	125	169	11.00	22.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	115	98	132	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Hexokinase
	mg/dl	288	245	331	21.50	43.00	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	16.6	14.1	19.1	1.25	2.50	Glucose oxidase
	mg/dl	299	254	344	22.50	45.00	
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	
LD (LDH)	U/l	459	390	528	34.50	69.00	L->P IFCC 37°C
	U/l	331	282	380	24.50	49.00	L->P IFCC 30°C
	U/l	233	198	268	17.50	35.00	L->P IFCC 25°C
Lipase	U/l	57	46	68	5.50	11.00	Roche Colorimetric 37°C
Magnesium	mmol/l	1.75	1.54	1.96	0.11	0.21	Chlorphosphonazo III
	mg/dl	4.25	3.74	4.76	0.26	0.51	
Phosphate Inorganic	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	6.02	5.54	6.50	0.24	0.48	ISE method - indirect
Protein Total	g/l	47.8	38.2	57.4	4.80	9.60	Biuret reaction end point
	g/dl	4.78	3.82	5.74	0.48	0.96	
Sodium	mmol/l	152	144	160	4.00	8.00	ISE method - indirect
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	2.94	2.47	3.41	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	260	219	301	20.50	41.00	
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	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.22	8.03	10.4	0.60	1.19	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.27	8.06	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	9.42	8.20	10.6	0.61	1.22	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	31.5	26.7	36.3	2.40	4.80	Bromocresol Green
	g/dl	3.15	2.67	3.63	0.24	0.48	
	g/l	29.4	25.0	33.8	2.20	4.40	Bromocresol Purple
	g/dl	2.94	2.50	3.38	0.22	0.44	
Alkaline Phosphatase	U/l	474	403	545	35.50	71.00	Diethanolamine buffer DEA 37°C
	U/l	369	314	424	27.50	55.00	Diethanolamine buffer DEA 30°C
	U/l	303	258	348	22.50	45.00	Diethanolamine buffer DEA 25°C
	U/l	261	222	300	19.50	39.00	Roche Integra AMP buffer 37°C
	U/l	203	173	233	15.00	30.00	Roche Integra AMP buffer 30°C
	U/l	167	142	192	12.50	25.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	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
Amylase Total	U/l	279	237	321	21.00	42.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	276	234	318	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	133	106	160	13.50	27.00	Tris buffer without P5P 37°C
	U/l	90	72	108	9.00	18.00	Tris buffer without P5P 30°C
	U/l	63	50	76	6.50	13.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	16.2	12.9	19.5	1.65	3.30	Enzymatic
Bilirubin Direct	µmol/l	25.9	20.4	31.4	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.52	1.19	1.85	0.17	0.33	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Direct	µmol/l	16.2	12.8	19.6	1.70	3.40	Roche JG factored
	mg/dl	0.948	0.749	1.15	0.10	0.20	
Bilirubin Total	µmol/l	73.7	58.2	89.2	7.75	15.50	Diazo with Sulphanilic Acid
	mg/dl	4.31	3.40	5.22	0.46	0.91	
	µmol/l	73.2	57.9	88.5	7.65	15.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.28	3.39	5.17	0.45	0.89	
	µmol/l	74.1	58.5	89.7	7.80	15.60	Diazonium ion
	mg/dl	4.33	3.42	5.24	0.46	0.91	
Calcium	mmol/l	3.27	2.95	3.59	0.16	0.32	Cresolphthalein complexone
	mg/dl	13.1	11.8	14.4	0.65	1.30	
Chloride	mmol/l	110	101	119	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.35	6.39	8.31	0.48	0.96	Cholesterol Oxidase
	mg/dl	284	247	321	18.50	37.00	
CK Total	U/l	606	497	715	54.50	109.00	CK-NAC substrate start (DGKC) 37°C
	U/l	379	311	447	34.00	68.00	CK-NAC substrate start (DGKC) 30°C
	U/l	258	211	305	23.50	47.00	CK-NAC substrate start (DGKC) 25°C
	U/l	607	498	716	54.50	109.00	CK-NAC (IFCC) 37°C
	U/l	380	312	448	34.00	68.00	CK-NAC (IFCC) 30°C
	U/l	258	212	304	23.00	46.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	373	299	447	37.00	74.00	Alkaline picrate no deproteinization
	mg/dl	4.21	3.38	5.04	0.42	0.83	
	µmol/l	389	311	467	39.00	78.00	Roche Creatinine Plus
	mg/dl	4.40	3.51	5.29	0.45	0.89	
	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	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	166	141	191	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	131	111	151	10.00	20.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	102	87	117	7.50	15.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	179	153	205	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	141	121	161	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	110	94	126	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.8	13.5	18.1	1.15	2.30	Hexokinase
	mg/dl	285	243	327	21.00	42.00	
	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	3.97	3.37	4.57	0.30	0.60	Direct HDL Roche 3rd generation
	mg/dl	153	130	176	11.50	23.00	
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	
Lactate	mmol/l	5.63	4.62	6.64	0.51	1.01	Colorimetric Lactate Oxidase
	mg/dl	50.7	41.6	59.8	4.55	9.10	
LD (LDH)	U/l	614	521	707	46.50	93.00	P->L German methods 37°C
	U/l	443	376	510	33.50	67.00	P->L German methods 30°C
	U/l	311	264	358	23.50	47.00	P->L German methods 25°C
	U/l	424	360	488	32.00	64.00	L->P IFCC 37°C
	U/l	306	260	352	23.00	46.00	L->P IFCC 30°C
	U/l	215	183	247	16.00	32.00	L->P IFCC 25°C
Lipase	U/l	58	46	70	6.00	12.00	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	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Magnesium	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	2.29	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	6.00	5.52	6.48	0.24	0.48	ISE method - indirect
Protein Total	g/l	47.1	37.7	56.5	4.70	9.40	Biuret reaction end point
	g/dl	4.71	3.77	5.65	0.47	0.94	
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - indirect
Triglycerides	mmol/l	2.82	2.36	3.28	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	250	209	291	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	0.47	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	0.56	0.48	0.63	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.34	8.13	10.6	0.61	1.21	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.21	8.01	10.4	0.60	1.20	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	31.0	26.3	35.7	2.35	4.70	Bromocresol Green
	g/dl	3.10	2.63	3.57	0.24	0.47	
Alkaline Phosphatase	U/l	228	194	262	17.00	34.00	Roche Integra AMP buffer 37°C
	U/l	178	151	205	13.50	27.00	Roche Integra AMP buffer 30°C
	U/l	146	124	168	11.00	22.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	128	102	154	13.00	26.00	Tris buffer without P5P 37°C
	U/l	95	75	115	10.00	20.00	Tris buffer without P5P 30°C
	U/l	72	57	87	7.50	15.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	252	214	290	19.00	38.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	277	235	319	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	133	107	159	13.00	26.00	Tris buffer without P5P 37°C
	U/l	90	72	108	9.00	18.00	Tris buffer without P5P 30°C
	U/l	63	51	75	6.00	12.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	16.0	12.7	19.3	1.65	3.30	Enzymatic
Bilirubin Direct	µmol/l	27.5	21.7	33.3	2.90	5.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.61	1.27	1.95	0.17	0.34	
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	74.0	58.5	89.5	7.75	15.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.33	3.42	5.24	0.46	0.91	
	µmol/l	73.8	58.3	89.3	7.75	15.50	Diazonium ion
	mg/dl	4.32	3.41	5.23	0.46	0.91	

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Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	3.16	2.84	3.48	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.7	11.4	14.0	0.65	1.30	
Chloride	mmol/l	111	102	120	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.21	6.27	8.15	0.47	0.94	Cholesterol Oxidase
	mg/dl	278	242	314	18.00	36.00	
CK Total	U/l	541	444	638	48.50	97.00	CK-NAC (IFCC) 37°C
	U/l	339	278	400	30.50	61.00	CK-NAC (IFCC) 30°C
	U/l	230	189	271	20.50	41.00	CK-NAC (IFCC) 25°C
Creatinine	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	360	288	432	36.00	72.00	Jaffe rate blanked
	mg/dl	4.07	3.25	4.89	0.41	0.82	
	µmol/l	370	296	444	37.00	74.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.18	3.34	5.02	0.42	0.84	
gamma-GT	U/l	169	143	195	13.00	26.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	133	113	153	10.00	20.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	104	88	120	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	174	148	200	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	137	117	157	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	107	91	123	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.6	13.2	18.0	1.20	2.40	Hexokinase
	mg/dl	281	238	324	21.50	43.00	
HDL - Cholesterol	mmol/l	4.37	3.71	5.03	0.33	0.66	Direct HDL Roche 3rd generation
	mg/dl	169	143	195	13.00	26.00	

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Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	37.9	31.0	44.8	3.45	6.90	Colorimetric without ppt.
	µg/dl	212	173	251	19.50	39.00	
Lactate	mmol/l	5.46	4.47	6.45	0.50	0.99	Colorimetric Lactate Oxidase
	mg/dl	49.2	40.3	58.1	4.45	8.90	
LD (LDH)	U/l	432	367	497	32.50	65.00	L->P IFCC 37°C
	U/l	312	265	359	23.50	47.00	L->P IFCC 30°C
	U/l	219	186	252	16.50	33.00	L->P IFCC 25°C
Lipase	U/l	58	46	70	6.00	12.00	Roche Colorimetric 37°C
Magnesium	mmol/l	1.71	1.50	1.92	0.11	0.21	Xylidyl Blue
	mg/dl	4.16	3.65	4.67	0.26	0.51	
Phosphate Inorganic	mmol/l	2.24	1.90	2.58	0.17	0.34	Phosphomolybdate UV
	mg/dl	6.94	5.89	7.99	0.53	1.05	
Potassium	mmol/l	6.06	5.58	6.54	0.24	0.48	ISE method - indirect
Protein Total	g/l	47.1	37.7	56.5	4.70	9.40	Biuret reaction end point
	g/dl	4.71	3.77	5.65	0.47	0.94	
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - indirect
TIBC	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	2.80	2.35	3.25	0.23	0.45	Lipase/GPO-PAP no correction
	mg/dl	248	208	288	20.00	40.00	
	mmol/l	2.80	2.35	3.25	0.23	0.45	L/G Kinase EP. no correction
	mg/dl	248	208	288	20.00	40.00	
Urea	mmol/l	18.9	16.0	21.8	1.45	2.90	Urease kinetic
	mg/dl	114	96.2	132	8.90	17.80	
	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	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

Analyte	unit	target	Range low	Range high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.55	0.47	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.16	7.96	10.4	0.60	1.20	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.00	7.83	10.2	0.59	1.17	
	mmol/l	0.53	0.47	0.60	0.03	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	8.97	7.81	10.1	0.58	1.16	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	30.4	25.8	35.0	2.30	4.60	Bromocresol Green
	g/dl	3.04	2.58	3.50	0.23	0.46	
Alkaline Phosphatase	U/l	541	460	622	40.50	81.00	Diethanolamine buffer DEA 37°C
	U/l	350	298	402	26.00	52.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	137	110	164	13.50	27.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	285	242	328	21.50	43.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	312	265	359	23.50	47.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	148	118	178	15.00	30.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	15.2	12.1	18.3	1.55	3.10	Enzymatic
Bile Acids	µmol/l	49.7	39.8	59.6	4.95	9.90	5th Generation Colorimetric
Bilirubin Direct	µmol/l	25.6	20.2	31.0	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.50	1.18	1.82	0.16	0.32	
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	
Calcium	mmol/l	3.12	2.81	3.43	0.16	0.31	Arsenazo III
	mg/dl	12.5	11.3	13.7	0.60	1.20	
Chloride	mmol/l	113	104	122	4.50	9.00	ISE direct
Cholesterol	mmol/l	7.31	6.36	8.26	0.48	0.95	Cholesterol Oxidase
	mg/dl	282	245	319	18.50	37.00	
CK Total	U/l	554	454	654	50.00	100.00	CK-NAC substrate start (DGKC) 37°C
	U/l	577	473	681	52.00	104.00	CK-NAC (IFCC) 37°C

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	342	274	410	34.00	68.00	Alkaline picrate no deproteinization
	mg/dl	3.86	3.10	4.62	0.38	0.76	
gamma-GT	U/l	194	165	223	14.50	29.00	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	16.1	13.7	18.5	1.20	2.40	Glucose oxidase
	mg/dl	290	247	333	21.50	43.00	
Iron	µmol/l	40.7	33.4	48.0	3.65	7.30	Colorimetric without ppt.
	µg/dl	228	187	269	20.50	41.00	
Lactate	mmol/l	5.46	4.48	6.44	0.49	0.98	Enzymatic Colorimetric
	mg/dl	49.2	40.4	58.0	4.40	8.80	
LD (LDH)	U/l	804	683	925	60.50	121.00	P->L German methods 37°C
	U/l	461	392	530	34.50	69.00	L->P IFCC 37°C
Lipase	U/l	87	70	104	8.50	17.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.95	1.72	2.18	0.12	0.23	Randox Colorimetric
	mg/dl	1.35	1.19	1.51	0.08	0.16	
Magnesium	mmol/l	1.75	1.54	1.96	0.11	0.21	Xylidyl Blue
	mg/dl	4.25	3.74	4.76	0.26	0.51	
Phosphate Inorganic	mmol/l	2.30	1.96	2.64	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.13	6.08	8.18	0.53	1.05	
Potassium	mmol/l	5.94	5.47	6.41	0.24	0.47	ISE method - direct
	mmol/l	5.94	5.46	6.42	0.24	0.48	Enzymatic
Protein Total	g/l	47.8	38.2	57.4	4.80	9.60	Biuret reaction end point
	g/dl	4.78	3.82	5.74	0.48	0.96	
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - direct

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Sodium	mmol/l	152	144	160	4.00	8.00	Enzymatic
TIBC	µmol/l	49.0	38.7	59.3	5.15	10.30	Direct Colorimetric
	µg/dl	274	216	332	29.00	58.00	
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	
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	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.21	8.01	10.4	0.60	1.20	
	mmol/l	0.54	0.47	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.14	7.95	10.3	0.60	1.19	

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SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	30.0	25.5	34.5	2.25	4.50	Bromocresol Green
	g/dl	3.00	2.55	3.45	0.23	0.45	
Alkaline Phosphatase	U/l	350	298	402	26.00	52.00	AMP optimised to IFCC 37°C
	U/l	353	300	406	26.50	53.00	AMP non-optimsed 37°C
ALT (GPT)	U/l	135	108	162	13.50	27.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	265	225	305	20.00	40.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	280	238	322	21.00	42.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	138	111	165	13.50	27.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	17.6	14.0	21.2	1.80	3.60	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	31.6	25.0	38.2	3.30	6.60	Oxidation to Biliverdin
	mg/dl	1.85	1.46	2.24	0.20	0.39	
Bilirubin Total	µmol/l	90.2	71.3	109	9.45	18.90	Diazo with Sulphanilic Acid
	mg/dl	5.28	4.17	6.39	0.56	1.11	
	µmol/l	77.0	60.8	93.2	8.10	16.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.50	3.56	5.44	0.47	0.94	
	µmol/l	88.1	69.6	107	9.25	18.50	Oxidation to Biliverdin
	mg/dl	5.15	4.07	6.23	0.54	1.08	
Calcium	mmol/l	3.16	2.84	3.48	0.16	0.32	Cresolphthalein complexone
	mg/dl	12.7	11.4	14.0	0.65	1.30	

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Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	3.09	2.78	3.40	0.16	0.31	Arsenazo III
	mg/dl	12.4	11.1	13.7	0.65	1.30	
Chloride	mmol/l	115	106	124	4.50	9.00	ISE indirect
Cholesterol	mmol/l	7.24	6.30	8.18	0.47	0.94	Cholesterol Oxidase
	mg/dl	279	243	315	18.00	36.00	
CK Total	U/l	560	459	661	50.50	101.00	CK-NAC serum start (DGKC) 37°C
	U/l	553	453	653	50.00	100.00	CK-NAC substrate start (DGKC) 37°C
	U/l	558	457	659	50.50	101.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	371	297	445	37.00	74.00	Alkaline picrate no deproteinization
	mg/dl	4.19	3.36	5.02	0.42	0.83	
	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	372	297	447	37.50	75.00	Jaffe rate blanked
	mg/dl	4.20	3.36	5.04	0.42	0.84	
	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	
gamma-GT	U/l	184	156	212	14.00	28.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	15.8	13.5	18.1	1.15	2.30	Hexokinase
	mg/dl	285	243	327	21.00	42.00	
	mmol/l	15.6	13.3	17.9	1.15	2.30	Glucose oxidase
	mg/dl	281	240	322	20.50	41.00	
HDL - Cholesterol	mmol/l	2.69	2.28	3.10	0.21	0.41	Direct HDL Immunoseparation
	mg/dl	104	88.0	120	8.00	16.00	
	mmol/l	2.71	2.30	3.12	0.21	0.41	Direct Clearance Method
	mg/dl	105	88.8	121	8.10	16.20	

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Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
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	
Lactate	mmol/l	5.62	4.61	6.63	0.51	1.01	Colorimetric Lactate Oxidase
	mg/dl	50.6	41.5	59.7	4.55	9.10	
LD (LDH)	U/l	452	384	520	34.00	68.00	L->P 37°C
	U/l	718	610	826	54.00	108.00	P->L German methods 37°C
	U/l	458	389	527	34.50	69.00	L->P IFCC 37°C
Lipase	U/l	78	63	93	7.50	15.00	Other Colorimetric 37°C
Lithium	mmol/l	2.02	1.78	2.26	0.12	0.24	Spectrophotometric
	mg/dl	1.40	1.24	1.56	0.08	0.16	
Magnesium	mmol/l	1.79	1.57	2.01	0.11	0.22	Xylidyl Blue
	mg/dl	4.35	3.82	4.88	0.27	0.53	
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	6.06	5.58	6.54	0.24	0.48	ISE method - indirect
Protein Total	g/l	48.3	38.7	57.9	4.80	9.60	Biuret reaction end point
	g/dl	4.83	3.87	5.79	0.48	0.96	
Sodium	mmol/l	156	148	164	4.00	8.00	ISE method - indirect
TIBC	µmol/l	49.3	39.0	59.6	5.15	10.30	Removal of excess free iron
	µg/dl	276	218	334	29.00	58.00	
	µmol/l	52.5	41.4	63.6	5.55	11.10	FE+UIBC(saturation with iron)
	µg/dl	293	231	355	31.00	62.00	
Triglycerides	mmol/l	2.96	2.49	3.43	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	262	220	304	21.00	42.00	
	mmol/l	2.92	2.45	3.39	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	258	217	299	20.50	41.00	

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Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	19.8	16.8	22.8	1.50	3.00	Urease kinetic
	mg/dl	119	101	137	9.00	18.00	
	mmol/l	19.8	16.8	22.8	1.50	3.00	BUN
	mg/dl	55.6	47.3	63.9	4.15	8.30	
Uric Acid (Urate)	mmol/l	0.56	0.48	0.63	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.34	8.13	10.6	0.61	1.21	
	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	

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SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	28.5	24.3	32.7	2.10	4.20	Bromocresol Green
	g/dl	2.85	2.43	3.27	0.21	0.42	
	g/l	29.0	24.7	33.3	2.15	4.30	Bromocresol Purple
	g/dl	2.90	2.47	3.33	0.22	0.43	
Alkaline Phosphatase	U/l	236	200	272	18.00	36.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	136	108	164	14.00	28.00	Tris buffer with P5P 37°C
	U/l	142	113	171	14.50	29.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	337	286	388	25.50	51.00	Siemens - maltopenta/hexaoside 37°C
	U/l	337	286	388	25.50	51.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	164	131	197	16.50	33.00	Tris buffer with P5P 37°C
	U/l	164	132	196	16.00	32.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	17.0	13.5	20.5	1.75	3.50	Enzymatic
Bilirubin Direct	µmol/l	15.1	11.9	18.3	1.60	3.20	Diazo with Sulphanilic Acid
	mg/dl	0.883	0.696	1.07	0.09	0.19	
Bilirubin Total	µmol/l	78.1	61.7	94.5	8.20	16.40	Diazo with Sulphanilic Acid
	mg/dl	4.57	3.61	5.53	0.48	0.96	
Calcium	mmol/l	3.06	2.76	3.36	0.15	0.30	Cresolphthalein complexone
	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	6.95	6.05	7.85	0.45	0.90	Dimension-Siemens reagents
	mg/dl	268	234	302	17.00	34.00	

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RANDOX

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	537	440	634	48.50	97.00	CK-NAC (IFCC) 37°C
	U/l	547	449	645	49.00	98.00	Dithioerythritol 37°C
	U/l	529	434	624	47.50	95.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	µmol/l	376	301	451	37.50	75.00	Alkaline picrate no deproteinization
	mg/dl	4.25	3.40	5.10	0.43	0.85	
	µmol/l	378	302	454	38.00	76.00	Creatinine PAP method
	mg/dl	4.27	3.41	5.13	0.43	0.86	
	µmol/l	381	305	457	38.00	76.00	Jaffe rate blanked
	mg/dl	4.31	3.45	5.17	0.43	0.86	
	µmol/l	384	307	461	38.50	77.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.34	3.47	5.21	0.44	0.87	
gamma-GT	U/l	191	163	219	14.00	28.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	218	185	251	16.50	33.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	15.7	13.4	18.0	1.15	2.30	Hexokinase
	mg/dl	283	241	325	21.00	42.00	
HDL - Cholesterol	mmol/l	3.90	3.31	4.49	0.30	0.59	Direct HDL PPD
	mg/dl	151	128	174	11.50	23.00	
	mmol/l	3.81	3.23	4.39	0.29	0.58	Direct HDL PEGME
	mg/dl	147	125	169	11.00	22.00	
	mmol/l	3.95	3.36	4.54	0.30	0.59	Direct Clearance Method
	mg/dl	152	130	174	11.00	22.00	
Iron	µmol/l	37.1	30.4	43.8	3.35	6.70	Colorimetric with ppt.
	µg/dl	207	170	244	18.50	37.00	
	µmol/l	37.0	30.4	43.6	3.30	6.60	Colorimetric without ppt.
	µg/dl	207	170	244	18.50	37.00	

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SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lactate	mmol/l	5.37	4.40	6.34	0.49	0.97	UV LDH
	mg/dl	48.4	39.6	57.2	4.40	8.80	
LD (LDH)	U/l	427	363	491	32.00	64.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	430	366	494	32.00	64.00	L->P IFCC 37°C
Lipase	U/l	272	218	326	27.00	54.00	Siemens Dimension Colorimetric (LIP Kit) 37°C
	U/l	266	213	319	26.50	53.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	2.08	1.83	2.33	0.13	0.25	Spectrophotometric
	mg/dl	1.44	1.27	1.61	0.09	0.17	
Magnesium	mmol/l	1.77	1.55	1.99	0.11	0.22	Methylthymol blue
	mg/dl	4.30	3.77	4.83	0.27	0.53	
Phosphate Inorganic	mmol/l	2.25	1.91	2.59	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	6.98	5.92	8.04	0.53	1.06	
	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	6.00	5.52	6.48	0.24	0.48	ISE method - indirect
Protein Total	g/l	48.2	38.6	57.8	4.80	9.60	Biuret reaction end point
	g/dl	4.82	3.86	5.78	0.48	0.96	
Sodium	mmol/l	154	146	162	4.00	8.00	ISE method - indirect
TIBC	µmol/l	43.5	34.4	52.6	4.55	9.10	Removal of excess free iron
	µg/dl	243	192	294	25.50	51.00	
	µmol/l	44.0	34.8	53.2	4.60	9.20	Direct Colorimetric
	µg/dl	246	195	297	25.50	51.00	
Triglycerides	mmol/l	2.88	2.42	3.34	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	255	214	296	20.50	41.00	
	mmol/l	2.93	2.46	3.40	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	259	218	300	20.50	41.00	

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SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	2.94	2.47	3.41	0.24	0.47	Lipase/Glycerol Dehydrogenase
	mg/dl	260	219	301	20.50	41.00	
Urea	mmol/l	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	19.8	16.8	22.8	1.50	3.00	Urease kinetic
	mg/dl	119	101	137	9.00	18.00	
	mmol/l	19.8	16.8	22.8	1.50	3.00	BUN
	mg/dl	55.6	47.3	63.9	4.15	8.30	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.04	0.07	Uricase catalase 340nm
	mg/dl	8.97	7.80	10.1	0.59	1.17	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.09	7.91	10.3	0.59	1.18	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Spectrophotometric at 280-290
	mg/dl	9.11	7.91	10.3	0.60	1.20	
	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	

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Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	29.4	25.0	33.8	2.20	4.40	Bromocresol Purple
	g/dl	2.94	2.50	3.38	0.22	0.44	
ALT (GPT)	U/l	136	109	163	13.50	27.00	Tris buffer with P5P 37°C
	U/l	133	106	160	13.50	27.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	330	280	380	25.00	50.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	163	130	196	16.50	33.00	Tris buffer with P5P 37°C
	U/l	166	133	199	16.50	33.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	16.5	13.1	19.9	1.70	3.40	Enzymatic
Bilirubin Direct	µmol/l	16.0	12.7	19.3	1.65	3.30	Diazo with Sulphanilic Acid
	mg/dl	0.936	0.743	1.13	0.10	0.19	
Bilirubin Total	µmol/l	77.3	61.0	93.6	8.15	16.30	Diazo with Sulphanilic Acid
	mg/dl	4.52	3.57	5.47	0.48	0.95	
Calcium	mmol/l	3.06	2.76	3.36	0.15	0.30	Cresolphthalein complexone
	mg/dl	12.3	11.1	13.5	0.60	1.20	
Chloride	mmol/l	116	107	125	4.50	9.00	ISE indirect
Cholesterol	mmol/l	6.92	6.02	7.82	0.45	0.90	Cholesterol Oxidase
	mg/dl	267	232	302	17.50	35.00	
	mmol/l	7.00	6.09	7.91	0.46	0.91	Dimension-Siemens reagents
	mg/dl	270	235	305	17.50	35.00	
CK Total	U/l	541	443	639	49.00	98.00	CK-NAC (IFCC) 37°C
	U/l	538	441	635	48.50	97.00	Dithioerythritol 37°C

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Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	537	440	634	48.50	97.00	Dithioerythritol (DTE) IFCC correlated 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	369	296	442	36.50	73.00	Randox Enzymatic UV method
	mg/dl	4.17	3.34	5.00	0.42	0.83	
	µmol/l	368	294	442	37.00	74.00	IDMS traceable
	mg/dl	4.16	3.32	5.00	0.42	0.84	
gamma-GT	U/l	207	176	238	15.50	31.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	216	183	249	16.50	33.00	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	3.61	3.07	4.15	0.27	0.54	Direct HDL PEGME
	mg/dl	139	119	159	10.00	20.00	
Iron	µmol/l	37.5	30.8	44.2	3.35	6.70	Colorimetric without ppt.
	µg/dl	210	172	248	19.00	38.00	
Lactate	mmol/l	5.03	4.13	5.93	0.45	0.90	Colorimetric Lactate Oxidase
	mg/dl	45.3	37.2	53.4	4.05	8.10	
	mmol/l	5.28	4.33	6.23	0.48	0.95	UV LDH
	mg/dl	47.6	39.0	56.2	4.30	8.60	
LD (LDH)	U/l	429	365	493	32.00	64.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	436	371	501	32.50	65.00	L->P IFCC 37°C
Lipase	U/l	312	250	374	31.00	62.00	Siemens Dimension Colorimetric (LIP Kit) 37°C
	U/l	295	236	354	29.50	59.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	1.76	1.55	1.97	0.11	0.21	Methylthymol blue
	mg/dl	4.28	3.77	4.79	0.26	0.51	

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Siemens/Dade Dimension Vista

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Phosphate Inorganic	mmol/l	2.21	1.88	2.54	0.17	0.33	Phosphomolybdate UV
	mg/dl	6.85	5.83	7.87	0.51	1.02	
Potassium	mmol/l	5.94	5.47	6.41	0.24	0.47	ISE method - indirect
Protein Total	g/l	48.9	39.1	58.7	4.90	9.80	Biuret reaction end point
	g/dl	4.89	3.91	5.87	0.49	0.98	
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - indirect
Triglycerides	mmol/l	3.03	2.55	3.51	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	268	226	310	21.00	42.00	
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	0.52	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	
	mmol/l	0.52	0.45	0.59	0.03	0.07	Spectrophotometric at 280-290
	mg/dl	8.72	7.59	9.85	0.57	1.13	

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VITALAB FLEXOR®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

Analyte	unit	target	Range low	Range high	1SD	2SD	methods
Albumin	g/l	31.0	26.3	35.7	2.35	4.70	Bromocresol Green
	g/dl	3.10	2.63	3.57	0.24	0.47	
ALT (GPT)	U/l	132	105	159	13.50	27.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	140	112	168	14.00	28.00	Tris buffer without P5P 37°C
Bilirubin Total	µmol/l	80.7	63.8	97.6	8.45	16.90	Diazo with Sulphanilic Acid
	mg/dl	4.72	3.73	5.71	0.50	0.99	
Calcium	mmol/l	2.98	2.68	3.28	0.15	0.30	Arsenazo III
	mg/dl	11.9	10.7	13.1	0.60	1.20	
Cholesterol	mmol/l	7.21	6.27	8.15	0.47	0.94	Cholesterol Oxidase
	mg/dl	278	242	314	18.00	36.00	
Creatinine	µmol/l	353	282	424	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	3.99	3.19	4.79	0.40	0.80	
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	50.0	40.0	60.0	5.00	10.00	Biuret reaction end point
	g/dl	5.00	4.00	6.00	0.50	1.00	
Triglycerides	mmol/l	2.73	2.30	3.16	0.22	0.43	Lipase/GPO-PAP no correction
	mg/dl	242	204	280	19.00	38.00	
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	

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VITALAB SELECTRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	31.2	26.5	35.9	2.35	4.70	Bromocresol Green
	g/dl	3.12	2.65	3.59	0.24	0.47	
Alkaline Phosphatase	U/l	497	423	571	37.00	74.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	134	107	161	13.50	27.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	139	112	166	13.50	27.00	Tris buffer without P5P 37°C
Bilirubin Total	µmol/l	82.8	65.4	100	8.70	17.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.84	3.83	5.85	0.51	1.01	
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	3.06	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	7.40	6.44	8.36	0.48	0.96	Cholesterol Oxidase
	mg/dl	286	249	323	18.50	37.00	
CK Total	U/l	518	424	612	47.00	94.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	351	280	422	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	3.97	3.16	4.78	0.41	0.81	
	µmol/l	365	292	438	36.50	73.00	Jaffe rate blanked
	mg/dl	4.12	3.30	4.94	0.41	0.82	
gamma-GT	U/l	169	144	194	12.50	25.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	15.8	13.4	18.2	1.20	2.40	Glucose oxidase
	mg/dl	285	241	329	22.00	44.00	

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VITALAB SELECTRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	39.3	32.2	46.4	3.55	7.10	Colorimetric without ppt.
	µg/dl	220	180	260	20.00	40.00	
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	
Protein Total	g/l	51.3	41.1	61.5	5.10	10.20	Biuret reaction end point
	g/dl	5.13	4.11	6.15	0.51	1.02	
Triglycerides	mmol/l	2.87	2.41	3.33	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	254	213	295	20.50	41.00	
Urea	mmol/l	19.1	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	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.26	8.05	10.5	0.61	1.21	

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Weiner Lab BT 3000 Plus/CB 350i

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

			Range				
Analyte	**unit**	**target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	30.8	26.1	35.5	2.35	4.70	Bromocresol Green
	g/dl	3.08	2.61	3.55	0.24	0.47	
ALT (GPT)	U/l	134	108	160	13.00	26.00	Tris buffer without P5P 37°C
	U/l	99	80	118	9.50	19.00	Tris buffer without P5P 30°C
	U/l	75	61	89	7.00	14.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	136	109	163	13.50	27.00	Tris buffer without P5P 37°C
	U/l	92	74	110	9.00	18.00	Tris buffer without P5P 30°C
	U/l	65	52	78	6.50	13.00	Tris buffer without P5P 25°C
Calcium	mmol/l	2.87	2.58	3.16	0.15	0.29	Arsenazo III
	mg/dl	11.5	10.3	12.7	0.60	1.20	
Cholesterol	mmol/l	7.26	6.31	8.21	0.48	0.95	Cholesterol Oxidase
	mg/dl	280	244	316	18.00	36.00	
CK Total	U/l	591	484	698	53.50	107.00	CK-NAC (IFCC) 37°C
	U/l	370	303	437	33.50	67.00	CK-NAC (IFCC) 30°C
	U/l	251	206	296	22.50	45.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	329	263	395	33.00	66.00	Alkaline picrate no deproteinization
	mg/dl	3.72	2.97	4.47	0.38	0.75	
gamma-GT	U/l	180	153	207	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	142	121	163	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	111	94	128	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.5	13.2	17.8	1.15	2.30	Glucose oxidase
	mg/dl	279	238	320	20.50	41.00	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot No. 623UE Cat. No. HE1532 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry: 2017-01

Analyte	unit	target	Range low	Range high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	3.21	2.73	3.69	0.24	0.48	Direct Clearance Method
	mg/dl	124	105	143	9.50	19.00	
LD (LDH)	U/l	678	576	780	51.00	102.00	P->L SFBC 37°C
	U/l	490	416	564	37.00	74.00	P->L SFBC 30°C
	U/l	344	292	396	26.00	52.00	P->L SFBC 25°C
Phosphate Inorganic	mmol/l	2.36	2.00	2.72	0.18	0.36	Phosphomolybdate UV
	mg/dl	7.32	6.20	8.44	0.56	1.12	
Protein Total	g/l	49.5	39.6	59.4	4.95	9.90	Biuret reaction end point
	g/dl	4.95	3.96	5.94	0.50	0.99	
Triglycerides	mmol/l	2.83	2.37	3.29	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	250	210	290	20.00	40.00	
	mmol/l	2.83	2.38	3.28	0.23	0.45	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	250	211	289	19.50	39.00	
Urea	mmol/l	19.2	16.4	22.0	1.40	2.80	Urease kinetic
	mg/dl	115	98.6	131	8.20	16.40	
	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	0.44	0.58	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.55	7.44	9.66	0.56	1.11	

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