RANDOX 0843 CE

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

CAT. NO. HN1530 / HS2611 **LOT NO.** 944UN
SIZE: 20 x 5 ml / 5 x 5 ml **EXPIRY:** 2018-06

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

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

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

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

Health and Safety Data Sheets are available on request.

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

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

LIMITATIONS
For Total & Prostatic Acid Phosphatase, the material should be stabilised by adding 1 drop (25 - 30 µl) of 0.7M Acetic acid solution to 1 ml of the serum exactly 30 minutes after reconstitution. After stabilisation Total and Prostatic Acid Phosphatase is stable for 2 hours at +15°C to +25°C, 2 days at +2°C to +8°C, and 28 days when frozen once at –20°C.
Alkaline Phosphatase levels in the reconstituted serum will rise over the stability period. It is recommended that the reconstituted serum is allowed to stand for 1 hour at +15°C to +25°C before measurement.
Bilirubin in the serum is light sensitive and it is recommended that the serum is stored in the dark. Stored in the dark, it is stable for 4 days at +2°C to +8°C. Do not store at +15°C to +25°C. Do not freeze.
NEFA is stable for 1 day at +2°C to +8°C.
Total PSA is stable for 4 days at +2°C to +8°C, or 28 days in aliquots frozen at –20°C.
Bacterial contamination of the reconstituted serum will cause reductions in the stability of many components.
Different lot numbers of this control should not be interchanged, as the values assigned to the controls vary from lot to lot.
The control should not be used as a calibration material.

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

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

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 Services, Northern Ireland, tel: +44 (0) 28 9445 1070 or email Technical.Services@randox.com

NOTES

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

07 Nov '14 ne

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RANDOX

ABBOTT AEROSET®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.4	33.5	45.3	2.95	5.90	Bromocresol Green
	g/dl	3.94	3.35	4.53	0.30	0.59	
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	33	27	39	3.00	6.00	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	18.0	14.2	21.8	1.90	3.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.05	0.831	1.27	0.11	0.22	
Bilirubin Total	µmol/l	27.8	22.0	33.6	2.90	5.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.63	1.29	1.97	0.17	0.34	
	µmol/l	28.7	22.7	34.7	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.68	1.33	2.03	0.18	0.35	
Calcium	mmol/l	2.28	2.06	2.50	0.11	0.22	Cresolphthalein complexone
	mg/dl	9.14	8.26	10.0	0.44	0.88	
	mmol/l	2.30	2.07	2.53	0.12	0.23	Arsenazo III
	mg/dl	9.22	8.30	10.1	0.46	0.92	
Cholesterol	mmol/l	4.06	3.53	4.59	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	136	178	10.50	21.00	
Chloride	mmol/l	97.8	90.0	106	3.90	7.80	ISE direct
Creatinine	µmol/l	123	98.0	148	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.39	1.11	1.67	0.14	0.28	
Glucose	mmol/l	6.24	5.31	7.17	0.47	0.93	Hexokinase
	mg/dl	112	95.7	128	8.15	16.30	

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Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	20.1	16.5	23.7	1.80	3.60	Colorimetric without ppt.
	µg/dl	112	92.2	132	9.90	19.80	
LD (LDH)	U/l	210	179	241	15.50	31.00	L->P IFCC 37°C
Phosphate Inorganic	mmol/l	1.42	1.20	1.64	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.40	3.72	5.08	0.34	0.68	
Potassium	mmol/l	3.95	3.63	4.27	0.16	0.32	ISE method - direct
Protein Total	g/l	59.8	47.8	71.8	6.00	12.00	Biuret reaction end point
	g/dl	5.98	4.78	7.18	0.60	1.20	
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.07	0.90	1.24	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.9	110	7.40	14.80	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.91	5.16	6.66	0.38	0.75	
	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.08	5.29	6.87	0.40	0.79	
Urea	mmol/l	7.36	6.25	8.47	0.56	1.11	Urease kinetic
	mg/dl	44.2	37.6	50.8	3.30	6.60	
	mmol/l	7.55	6.42	8.68	0.57	1.13	Urease hypochlorite
	mg/dl	45.4	38.6	52.2	3.40	6.80	
	mmol/l	7.36	6.26	8.46	0.55	1.10	BUN
	mg/dl	20.7	17.6	23.8	1.55	3.10	

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			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.6	33.7	45.5	2.95	5.90	Bromocresol Green
	g/dl	3.96	3.37	4.55	0.30	0.59	
	g/l	40.3	34.2	46.4	3.05	6.10	Bromocresol Purple
	g/dl	4.03	3.42	4.64	0.31	0.61	
Alkaline Phosphatase	U/l	117	99	135	9.00	18.00	AMP optimised to IFCC 37°C
	U/l	116	98	134	9.00	18.00	AMP optimised to NVKC/SFBC 37°C
	U/l	116	98	134	9.00	18.00	AMP non-optimised 37°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	67	57	77	5.00	10.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	96	82	110	7.00	14.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
Bile Acids	µmol/l	26.0	20.8	31.2	2.60	5.20	Enzymatic Colorimetric
Bicarbonate	mmol/l	12.8	10.2	15.4	1.30	2.60	Enzymatic
Bilirubin Direct	µmol/l	20.2	16.0	24.4	2.10	4.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.18	0.936	1.42	0.12	0.24	
Bilirubin Total	µmol/l	27.6	21.8	33.4	2.90	5.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.61	1.28	1.94	0.17	0.33	
	µmol/l	27.7	21.9	33.5	2.90	5.80	Diazo with Sulphanilic Acid
	mg/dl	1.62	1.28	1.96	0.17	0.34	
	µmol/l	28.8	22.7	34.9	3.05	6.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.68	1.33	2.03	0.18	0.35	

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Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	28.4	22.4	34.4	3.00	6.00	Diazonium ion
	mg/dl	1.66	1.31	2.01	0.18	0.35	
Calcium	mmol/l	2.27	2.04	2.50	0.12	0.23	Arsenazo III
	mg/dl	9.10	8.18	10.0	0.46	0.92	
Cholesterol	mmol/l	4.03	3.50	4.56	0.27	0.53	Cholesterol Oxidase
	mg/dl	156	135	177	10.50	21.00	
Chloride	mmol/l	97.3	89.5	105	3.90	7.80	ISE indirect
CK Total	U/l	182	149	215	16.50	33.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	125	100	150	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	127	102	152	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	125	100	150	12.50	25.00	IDMS traceable
	mg/dl	1.41	1.13	1.69	0.14	0.28	
Free T4	pmol/l	18.3	13.7	22.9	2.30	4.60	Abbott Architect
	ng/dl	1.43	1.07	1.79	0.18	0.36	
	pg/ml	14.3	10.7	17.9	1.80	3.60	Abbott Architect
gamma-GT	U/l	55	47	63	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	54	46	62	4.00	8.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	6.09	5.18	7.00	0.46	0.91	Hexokinase
	mg/dl	110	93.3	127	8.35	16.70	
HDL - Cholesterol	mmol/l	1.32	1.12	1.52	0.10	0.20	Direct HDL PPD
	mg/dl	51.0	43.2	58.8	3.90	7.80	

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Size 20 x 5ml / 5 x 5ml Expiry 2018-06

Analyte	unit	Target	Range low	Range high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.32	1.12	1.52	0.10	0.20	Direct Clearance Method
	mg/dl	51.0	43.2	58.8	3.90	7.80	
	mmol/l	1.33	1.13	1.53	0.10	0.20	HDL - Ultra
	mg/dl	51.3	43.6	59.0	3.85	7.70	
Iron	µmol/l	20.9	17.1	24.7	1.90	3.80	Colorimetric with ppt.
	µg/dl	117	95.6	138	10.70	21.40	
	µmol/l	20.4	16.7	24.1	1.85	3.70	Colorimetric without ppt.
	µg/dl	114	93.4	135	10.30	20.60	
Lactate	mmol/l	1.53	1.26	1.80	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.8	11.4	16.2	1.20	2.40	
LD (LDH)	U/l	219	186	252	16.50	33.00	L->P 37°C
	U/l	216	184	248	16.00	32.00	L->P IFCC 37°C
Lipase	U/l	38	30	46	4.00	8.00	Other Colorimetric 37°C
Lithium	mmol/l	1.08	0.95	1.21	0.07	0.13	Spectrophotometric
	mg/dl	0.750	0.659	0.841	0.05	0.09	
Magnesium	mmol/l	0.89	0.79	1.00	0.05	0.11	Arsenazo III
	mg/dl	2.17	1.91	2.43	0.13	0.26	
	mmol/l	0.88	0.77	0.99	0.05	0.11	Enzymatic
	mg/dl	2.14	1.88	2.40	0.13	0.26	
Osmolality	mOsm/kg	290	232	348	29.00	58.00	Calculated
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.34	3.69	4.99	0.33	0.65	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.31	3.66	4.96	0.33	0.65	

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Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	3.97	3.65	4.29	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.9	47.2	70.6	5.85	11.70	Biuret reaction end point
	g/dl	5.89	4.72	7.06	0.59	1.17	
	g/l	58.3	46.7	69.9	5.80	11.60	Biuret reaction kinetic
	g/dl	5.83	4.67	6.99	0.58	1.16	
PSA Total	ng/ml =	14.3	10.7	17.9	1.80	3.60	Abbott Architect
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.06	0.85	1.27	0.11	0.21	Abbott Architect
TIBC	µmol/l	44.6	35.2	54.0	4.70	9.40	FE+UIBC(saturation with iron)
	µg/dl	249	197	301	26.00	52.00	
Triglycerides	mmol/l	1.02	0.86	1.18	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	90.3	76.2	104	7.05	14.10	
	mmol/l	1.03	0.87	1.19	0.08	0.16	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	91.2	76.6	106	7.30	14.60	
	mmol/l	1.04	0.87	1.21	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	92.0	77.0	107	7.50	15.00	
	mmol/l	1.04	0.87	1.21	0.09	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	92.0	77.0	107	7.50	15.00	
	mmol/l	1.04	0.88	1.20	0.08	0.16	Agappe - GPO - TOPS
	mg/dl	92.0	77.6	106	7.20	14.40	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.88	5.12	6.64	0.38	0.76	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.85	5.07	6.63	0.39	0.78	
	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.86	5.09	6.63	0.39	0.77	

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Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Agappe - Uricase - PAP
	mg/dl	5.91	5.14	6.68	0.39	0.77	
Urea	mmol/l	7.38	6.27	8.49	0.56	1.11	Urease end point
	mg/dl	44.4	37.7	51.1	3.35	6.70	
	mmol/l	7.26	6.17	8.35	0.55	1.09	Urease kinetic
	mg/dl	43.6	37.1	50.1	3.25	6.50	
	mmol/l	7.26	6.17	8.35	0.55	1.09	BUN
	mg/dl	20.4	17.3	23.5	1.55	3.10	

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			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.9	33.9	45.9	3.00	6.00	Bromocresol Green
	g/dl	3.99	3.39	4.59	0.30	0.60	
Alkaline Phosphatase	U/l	120	102	138	9.00	18.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	41	33	49	4.00	8.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	22.6	17.9	27.3	2.35	4.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.32	1.05	1.59	0.14	0.27	
Calcium	mmol/l	2.18	1.96	2.40	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.74	7.86	9.62	0.44	0.88	
Cholesterol	mmol/l	3.95	3.43	4.47	0.26	0.52	Cholesterol Oxidase
	mg/dl	152	132	172	10.00	20.00	
Chloride	mmol/l	95.1	87.4	103	3.85	7.70	ISE direct
CK Total	U/l	198	162	234	18.00	36.00	CK-NAC (IFCC) 37°C
Glucose	mmol/l	6.12	5.20	7.04	0.46	0.92	Glucose oxidase
	mg/dl	110	93.7	126	8.15	16.30	
Magnesium	mmol/l	0.89	0.78	0.99	0.05	0.11	Xylidyl Blue
	mg/dl	2.15	1.90	2.40	0.13	0.25	
Potassium	mmol/l	4.00	3.68	4.32	0.16	0.32	ISE method - direct
Protein Total	g/l	60.3	48.3	72.3	6.00	12.00	Biuret reaction end point
	g/dl	6.03	4.83	7.23	0.60	1.20	
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - direct

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Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.04	0.87	1.21	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.0	77.0	107	7.50	15.00	

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Alfa Wassermann Alfa 600/Analyticon Biolyzer 600 ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.8	35.5	48.1	3.15	6.30	Bromocresol Green
	g/dl	4.18	3.55	4.81	0.32	0.63	
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	37	29	45	4.00	8.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	14	22	2.00	4.00	Tris buffer without P5P 25°C
Calcium	mmol/l	2.28	2.05	2.51	0.12	0.23	Arsenazo III
	mg/dl	9.14	8.22	10.1	0.46	0.92	
Cholesterol	mmol/l	3.97	3.45	4.49	0.26	0.52	Cholesterol Oxidase
	mg/dl	153	133	173	10.00	20.00	
Creatinine	µmol/l	124	99.2	149	12.40	24.80	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
Glucose	mmol/l	6.57	5.58	7.56	0.50	0.99	Hexokinase
	mg/dl	118	101	135	8.50	17.00	
Protein Total	g/l	61.2	48.9	73.5	6.15	12.30	Biuret reaction end point
	g/dl	6.12	4.89	7.35	0.62	1.23	
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.3	111	7.65	15.30	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.96	5.19	6.73	0.39	0.77	

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Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.27	6.18	8.36	0.55	1.09	Urease kinetic
	mg/dl	43.7	37.1	50.3	3.30	6.60	
	mmol/l	7.27	6.18	8.36	0.55	1.09	BUN
	mg/dl	20.4	17.3	23.5	1.55	3.10	

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Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.4	33.5	45.3	2.95	5.90	Bromocresol Green
	g/dl	3.94	3.35	4.53	0.30	0.59	
	g/l	43.0	36.5	49.5	3.25	6.50	Bromocresol Purple
	g/dl	4.30	3.65	4.95	0.33	0.65	
Alkaline Phosphatase	U/l	147	125	169	11.00	22.00	p-Nitrophenylphosphate AMP 37°C
	U/l	207	176	238	15.50	31.00	Diethanolamine buffer DEA 37°C
	U/l	140	119	161	10.50	21.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
Amylase Total	U/l	93	79	107	7.00	14.00	pNP Maltotrioside substrates 37°C
	U/l	93	79	107	7.00	14.00	Biotrol - blocked pNPG7 37°C
	U/l	89	76	102	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	92	78	106	7.00	14.00	Beckman Coulter - blocked pNPG7 37°C
AST (GOT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	13.9	11.0	16.8	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	21.8	17.2	26.4	2.30	4.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.28	1.01	1.55	0.14	0.27	
	µmol/l	21.5	17.0	26.0	2.25	4.50	Diazo with Sulphanilic Acid
	mg/dl	1.26	0.995	1.53	0.13	0.27	
	µmol/l	21.8	17.2	26.4	2.30	4.60	Diazo with Dichloroaniline (DCA)
	mg/dl	1.28	1.01	1.55	0.14	0.27	
Bilirubin Total	µmol/l	26.7	21.1	32.3	2.80	5.60	Diazo with Dichloroaniline (DCA)
	mg/dl	1.56	1.23	1.89	0.17	0.33	

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Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	31.8	25.1	38.5	3.35	6.70	Diazo with Sulphanilic Acid
	mg/dl	1.86	1.47	2.25	0.20	0.39	
	µmol/l	31.5	24.9	38.1	3.30	6.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.84	1.46	2.22	0.19	0.38	
	µmol/l	31.7	25.0	38.4	3.35	6.70	Oxidation to Biliverdin
	mg/dl	1.85	1.46	2.24	0.20	0.39	
Calcium	mmol/l	2.28	2.05	2.51	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.14	8.22	10.1	0.46	0.92	
	mmol/l	2.29	2.06	2.52	0.12	0.23	Arsenazo III
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Cholesterol	mmol/l	4.04	3.51	4.57	0.27	0.53	Cholesterol Oxidase
	mg/dl	156	135	177	10.50	21.00	
Chloride	mmol/l	95.3	87.7	103	3.80	7.60	ISE indirect
Cholinesterase	U/l	5731	4585	6877	573.00	1146.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	193	158	228	17.50	35.00	CK-NAC serum start (DGKC) 37°C
	U/l	190	156	224	17.00	34.00	CK-NAC substrate start (DGKC) 37°C
	U/l	192	158	226	17.00	34.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	127	101	153	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	125	100	150	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	126	100	152	13.00	26.00	Creatinine PAP method
	mg/dl	1.42	1.13	1.71	0.15	0.29	
	µmol/l	127	101	153	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.44	1.14	1.74	0.15	0.30	

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Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	127	102	152	12.50	25.00	Jaffe rate blanked
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	123	98.3	148	12.35	24.70	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	117	93.5	141	11.75	23.50	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.32	1.06	1.58	0.13	0.26	
	µmol/l	116	92.7	139	11.65	23.30	IDMS traceable
	mg/dl	1.31	1.05	1.57	0.13	0.26	
D-3-Hydroxybutyrate	mmol/l	0.30	0.25	0.34	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	58	49	67	4.50	9.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	57	48	66	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
GLDH	U/l	19	15	23	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	6.18	5.25	7.11	0.47	0.93	Hexokinase
	mg/dl	111	94.6	127	8.20	16.40	
	mmol/l	6.30	5.35	7.25	0.48	0.95	Glucose oxidase
	mg/dl	114	96.4	132	8.80	17.60	
HDL - Cholesterol	mmol/l	1.31	1.11	1.51	0.10	0.20	Direct HDL PPD
	mg/dl	50.6	42.8	58.4	3.90	7.80	
	mmol/l	1.24	1.05	1.43	0.10	0.19	Direct HDL Immunoseparation
	mg/dl	47.9	40.5	55.3	3.70	7.40	
	mmol/l	1.20	1.02	1.38	0.09	0.18	Direct HDL PEGME
	mg/dl	46.3	39.4	53.2	3.45	6.90	
	mmol/l	1.32	1.13	1.51	0.10	0.19	Direct Clearance Method
	mg/dl	51.0	43.6	58.4	3.70	7.40	

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HDL - Cholesterol	mmol/l	1.18	1.01	1.35	0.09	0.17	Direct HDL Roche 3rd generation
	mg/dl	45.5	39.0	52.0	3.25	6.50	
Iron	µmol/l	19.8	16.2	23.4	1.80	3.60	Colorimetric with ppt.
	µg/dl	111	90.6	131	10.20	20.40	
	µmol/l	20.0	16.4	23.6	1.80	3.60	Colorimetric without ppt.
	µg/dl	112	91.7	132	10.15	20.30	
Lactate	mmol/l	1.50	1.23	1.77	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.5	11.1	15.9	1.20	2.40	
LD (LDH)	U/l	218	185	251	16.50	33.00	L->P 37°C
	U/l	477	406	548	35.50	71.00	P->L Scandinavian & Dutch 37°C
	U/l	425	362	488	31.50	63.00	P->L German methods 37°C
	U/l	216	183	249	16.50	33.00	L->P IFCC 37°C
Lipase	U/l	35	28	42	3.50	7.00	Other Colorimetric 37°C
	U/l	36	29	43	3.50	7.00	Roche Colorimetric 37°C
	U/l	42	34	50	4.00	8.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.03	0.91	1.15	0.06	0.12	Spectrophotometric
	mg/dl	0.715	0.631	0.799	0.04	0.08	
Magnesium	mmol/l	0.91	0.80	1.02	0.06	0.11	Xylidyl Blue
	mg/dl	2.22	1.95	2.49	0.14	0.27	
Osmolality	mOsm/kg	287	230	344	28.50	57.00	Calculated
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.34	3.69	4.99	0.33	0.65	
	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.31	3.66	4.96	0.33	0.65	
Potassium	mmol/l	3.94	3.62	4.26	0.16	0.32	ISE method - indirect

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Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Protein Total	g/l	57.1	45.7	68.5	5.70	11.40	Biuret reaction end point
	g/dl	5.71	4.57	6.85	0.57	1.14	
Sodium	mmol/l	138	131	145	3.50	7.00	ISE method - indirect
TIBC	µmol/l	45.7	36.1	55.3	4.80	9.60	FE+UIBC(saturation with iron)
	µg/dl	255	202	308	26.50	53.00	
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.4	111	7.60	15.20	
	mmol/l	1.05	0.89	1.21	0.08	0.16	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	92.9	78.4	107	7.25	14.50	
	mmol/l	1.09	0.91	1.27	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	96.5	80.9	112	7.80	15.60	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.81	5.06	6.56	0.38	0.75	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.83	5.07	6.59	0.38	0.76	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.70	4.96	6.44	0.37	0.74	
Urea	mmol/l	7.62	6.48	8.76	0.57	1.14	Urease end point
	mg/dl	45.8	38.9	52.7	3.45	6.90	
	mmol/l	7.42	6.31	8.53	0.56	1.11	Urease kinetic
	mg/dl	44.6	37.9	51.3	3.35	6.70	
	mmol/l	7.42	6.31	8.53	0.56	1.11	BUN
	mg/dl	20.8	17.7	23.9	1.55	3.10	

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Beckman CX4/5/7/9/LX20®/DxC600/800®

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			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	42.0	35.7	48.3	3.15	6.30	Bromocresol Green
	g/dl	4.20	3.57	4.83	0.32	0.63	
	g/l	42.1	35.7	48.5	3.20	6.40	Bromocresol Purple
	g/dl	4.21	3.57	4.85	0.32	0.64	
Alkaline Phosphatase	U/l	127	108	146	9.50	19.00	p-Nitrophenylphosphate AMP 37°C
	U/l	122	104	140	9.00	18.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	36	28	44	4.00	8.00	Tris buffer SCE 37°C
Amylase Pancreatic	U/l	60	51	69	4.50	9.00	Immunoinhibition EPS substrate 37°C
	U/l	58	49	67	4.50	9.00	Beckman Synchron/CX/LXi/DxC 37°C
Amylase Total	U/l	92	78	106	7.00	14.00	Beckman maltotetraose 37°C
	U/l	96	82	110	7.00	14.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	35	28	42	3.50	7.00	Tris buffer SCE 37°C
Bicarbonate	mmol/l	13.8	10.9	16.7	1.45	2.90	Differential rate pH change
	mmol/l	13.9	11.0	16.8	1.45	2.90	Ion selective electrode
Bilirubin Direct	µmol/l	15.1	12.0	18.2	1.55	3.10	Diazo with Sulphanilic Acid
	mg/dl	0.883	0.702	1.06	0.09	0.18	
Bilirubin Total	µmol/l	30.9	24.4	37.4	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.81	1.43	2.19	0.19	0.38	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.86	7.98	9.74	0.44	0.88	

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Calcium	mmol/l	2.23	2.00	2.46	0.12	0.23	Ion selective electrode
	mg/dl	8.94	8.02	9.86	0.46	0.92	
	mmol/l	2.29	2.06	2.52	0.12	0.23	Arsenazo III
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Cholesterol	mmol/l	3.73	3.25	4.21	0.24	0.48	Cholesterol Oxidase
	mg/dl	144	125	163	9.50	19.00	
Chloride	mmol/l	96.7	89.0	104	3.85	7.70	ISE indirect
Cholinesterase	U/l	5648	4519	6777	564.50	1129.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	188	154	222	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	187	154	220	16.50	33.00	Monothioglycerol 37°C
Creatinine	µmol/l	122	97.3	147	12.35	24.70	Alkaline picrate no deproteinization
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	µmol/l	120	96.0	144	12.00	24.00	Randox Enzymatic UV method
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	µmol/l	123	98.6	147	12.20	24.40	Jaffe rate blanked
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	120	96.0	144	12.00	24.00	IDMS traceable
	mg/dl	1.36	1.08	1.64	0.14	0.28	
gamma-GT	U/l	47	40	54	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	47	40	54	3.50	7.00	Gamma glutamyl-4-nitroanilide 37°C
Glucose	mmol/l	6.05	5.14	6.96	0.46	0.91	Hexokinase
	mg/dl	109	92.6	125	8.20	16.40	
	mmol/l	6.01	5.11	6.91	0.45	0.90	Oxygen electrode
	mg/dl	108	92.1	124	7.95	15.90	

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Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	6.00	5.10	6.90	0.45	0.90	Glucose oxidase
	mg/dl	108	91.9	124	8.05	16.10	
HDL - Cholesterol	mmol/l	1.39	1.18	1.60	0.11	0.21	Direct HDL PPD
	mg/dl	53.7	45.5	61.9	4.10	8.20	
Iron	µmol/l	19.3	15.8	22.8	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.3	128	9.85	19.70	
Lactate	mmol/l	1.56	1.28	1.84	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.1	11.5	16.7	1.30	2.60	
LD (LDH)	U/l	181	154	208	13.50	27.00	L->P 37°C
	U/l	557	473	641	42.00	84.00	Pyruvate 1.4 mM - Beckman LD-P 37°C
	U/l	205	174	236	15.50	31.00	L->P IFCC 37°C
Lipase	U/l	34	28	40	3.00	6.00	Other Colorimetric 37°C
Magnesium	mmol/l	0.91	0.80	1.02	0.06	0.11	Calmagite
	mg/dl	2.22	1.95	2.49	0.14	0.27	
Osmolality	mOsm/kg	277	222	332	27.50	55.00	Calculated
Phosphate Inorganic	mmol/l	1.42	1.20	1.64	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.40	3.72	5.08	0.34	0.68	
	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.37	3.72	5.02	0.33	0.65	
Potassium	mmol/l	3.89	3.57	4.21	0.16	0.32	ISE method - indirect
Protein Total	g/l	57.2	45.8	68.6	5.70	11.40	Biuret reaction CX4/5/7
	g/dl	5.72	4.58	6.86	0.57	1.14	
	g/l	58.5	46.8	70.2	5.85	11.70	Biuret reaction end point
	g/dl	5.85	4.68	7.02	0.59	1.17	
	g/l	55.7	44.6	66.8	5.55	11.10	Biuret reaction kinetic
	g/dl	5.57	4.46	6.68	0.56	1.11	

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Beckman CX4/5/7/9/LX20®/DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Sodium	mmol/l	138	131	145	3.50	7.00	ISE method - indirect
TIBC	µmol/l	43.2	34.1	52.3	4.55	9.10	Removal of excess free iron
	µg/dl	241	191	291	25.00	50.00	
	µmol/l	47.8	37.8	57.8	5.00	10.00	FE+UIBC(saturation with iron)
	µg/dl	267	211	323	28.00	56.00	
Triglycerides	mmol/l	1.10	0.93	1.27	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	97.4	82.0	113	7.70	15.40	
	mmol/l	1.12	0.94	1.30	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	99.1	83.2	115	7.95	15.90	
Uric Acid (Urate)	mmol/l	0.33	0.28	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.49	4.77	6.21	0.36	0.72	
Urea	mmol/l	7.54	6.41	8.67	0.57	1.13	Urease end point
	mg/dl	45.3	38.5	52.1	3.40	6.80	
	mmol/l	7.51	6.38	8.64	0.57	1.13	Urease kinetic
	mg/dl	45.1	38.3	51.9	3.40	6.80	
	mmol/l	7.51	6.38	8.64	0.57	1.13	BUN
	mg/dl	21.1	17.9	24.3	1.60	3.20	

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BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	37.7	32.0	43.4	2.85	5.70	Bromocresol Green
	g/dl	3.77	3.20	4.34	0.29	0.57	
AST (GOT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	35.1	27.7	42.5	3.70	7.40	Diazo with Sulphanilic Acid
	mg/dl	2.05	1.62	2.48	0.22	0.43	
Cholesterol	mmol/l	3.96	3.45	4.47	0.26	0.51	Cholesterol Oxidase
	mg/dl	153	133	173	10.00	20.00	
Creatinine	µmol/l	119	95.0	143	12.00	24.00	Alkaline picrate no deproteinization
	mg/dl	1.34	1.07	1.61	0.14	0.27	
Glucose	mmol/l	6.45	5.48	7.42	0.49	0.97	Glucose oxidase
	mg/dl	116	98.7	133	8.65	17.30	
Protein Total	g/l	59.3	47.4	71.2	5.95	11.90	Biuret reaction end point
	g/dl	5.93	4.74	7.12	0.60	1.19	
Triglycerides	mmol/l	1.03	0.86	1.20	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	91.2	76.2	106	7.50	15.00	
Uric Acid (Urate)	mmol/l	0.38	0.33	0.43	0.03	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.42	5.58	7.26	0.42	0.84	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.83	5.07	6.59	0.38	0.76	

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BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.52	6.39	8.65	0.57	1.13	Urease kinetic
	mg/dl	45.2	38.4	52.0	3.40	6.80	
	mmol/l	7.52	6.39	8.65	0.57	1.13	BUN
	mg/dl	21.1	17.9	24.3	1.60	3.20	

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BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	38.1	32.4	43.8	2.85	5.70	Bromocresol Green
	g/dl	3.81	3.24	4.38	0.29	0.57	
Alkaline Phosphatase	U/l	116	99	133	8.50	17.00	AMP optimised to IFCC 37°C
	U/l	90	77	103	6.50	13.00	AMP optimised to IFCC 30°C
	U/l	74	63	85	5.50	11.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	42	33	51	4.50	9.00	Tris buffer without P5P 37°C
	U/l	31	24	38	3.50	7.00	Tris buffer without P5P 30°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	35.9	28.3	43.5	3.80	7.60	Diazo with Sulphanilic Acid
	mg/dl	2.10	1.66	2.54	0.22	0.44	
Calcium	mmol/l	2.25	2.03	2.47	0.11	0.22	Arsenazo III
	mg/dl	9.02	8.14	9.90	0.44	0.88	
Cholesterol	mmol/l	4.21	3.66	4.76	0.28	0.55	Cholesterol Oxidase
	mg/dl	163	141	185	11.00	22.00	
CK Total	U/l	205	168	242	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	128	105	151	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	87	71	103	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	122	97.9	146	12.05	24.10	Alkaline picrate no deproteinization
	mg/dl	1.38	1.11	1.65	0.14	0.27	

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BIOSYSTEMS A25

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Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	6.40	5.44	7.36	0.48	0.96	Glucose oxidase
	mg/dl	115	98.0	132	8.50	17.00	
Protein Total	g/l	57.4	46.0	68.8	5.70	11.40	Biuret reaction end point
	g/dl	5.74	4.60	6.88	0.57	1.14	
Triglycerides	mmol/l	1.02	0.86	1.18	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	90.3	76.2	104	7.05	14.10	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.05	5.26	6.84	0.40	0.79	
	mmol/l	0.38	0.33	0.43	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.33	5.51	7.15	0.41	0.82	
Urea	mmol/l	7.48	6.36	8.60	0.56	1.12	Urease kinetic
	mg/dl	45.0	38.2	51.8	3.40	6.80	
	mmol/l	7.48	6.36	8.60	0.56	1.12	BUN
	mg/dl	21.0	17.9	24.1	1.55	3.10	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.8	35.5	48.1	3.15	6.30	Bromocresol Green
	g/dl	4.18	3.55	4.81	0.32	0.63	
	g/l	40.6	34.5	46.7	3.05	6.10	Bromocresol Purple
	g/dl	4.06	3.45	4.67	0.31	0.61	
	g/l	38.2	32.4	44.0	2.90	5.80	Turbidimetric Assays
	g/dl	3.82	3.24	4.40	0.29	0.58	
Alkaline Phosphatase	U/l	96	81	111	7.50	15.00	Roche Integra AMP buffer 37°C
	U/l	75	63	87	6.00	12.00	Roche Integra AMP buffer 30°C
	U/l	61	52	70	4.50	9.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	70	59	81	5.50	11.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	92	78	106	7.00	14.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	92	78	106	7.00	14.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	13.7	10.9	16.5	1.40	2.80	Enzymatic
Bilirubin Direct	µmol/l	20.8	16.4	25.2	2.20	4.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.22	0.959	1.48	0.13	0.26	

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Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Direct	µmol/l	19.8	15.6	24.0	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.16	0.913	1.41	0.12	0.25	
	µmol/l	20.7	16.3	25.1	2.20	4.40	Diazo with Dichloroaniline (DCA)
	mg/dl	1.21	0.954	1.47	0.13	0.26	
Bilirubin Total	µmol/l	27.2	21.5	32.9	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.59	1.26	1.92	0.17	0.33	
	µmol/l	27.3	21.5	33.1	2.90	5.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.60	1.26	1.94	0.17	0.34	
	µmol/l	27.5	21.7	33.3	2.90	5.80	Diazonium ion
	mg/dl	1.61	1.27	1.95	0.17	0.34	
Calcium	mmol/l	2.26	2.03	2.49	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.06	8.14	9.98	0.46	0.92	
	mmol/l	2.26	2.03	2.49	0.12	0.23	NM-BAPTA
	mg/dl	9.06	8.14	9.98	0.46	0.92	
Cholesterol	mmol/l	4.12	3.59	4.65	0.27	0.53	Cholesterol Oxidase
	mg/dl	159	139	179	10.00	20.00	
Chloride	mmol/l	95.8	88.1	104	3.85	7.70	ISE indirect
Cholinesterase	U/l	5663	4530	6796	566.50	1133.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	196	161	231	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	123	101	145	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	83	68	98	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	118	94.7	141	11.65	23.30	Alkaline picrate with deproteinization
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	µmol/l	117	93.2	141	11.90	23.80	Alkaline picrate no deproteinization
	mg/dl	1.32	1.05	1.59	0.14	0.27	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	119	95.6	142	11.70	23.40	Roche Creatinine Plus
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	µmol/l	113	90.4	136	11.30	22.60	Jaffe rate blanked
	mg/dl	1.28	1.02	1.54	0.13	0.26	
	µmol/l	120	96.4	144	11.80	23.60	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.36	1.09	1.63	0.14	0.27	
	µmol/l	117	93.9	140	11.55	23.10	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.32	1.06	1.58	0.13	0.26	
gamma-GT	U/l	50	43	57	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	34	44	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	57	49	65	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	45	39	51	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.09	5.18	7.00	0.46	0.91	Glucose dehydrogenase
	mg/dl	110	93.3	127	8.35	16.70	
	mmol/l	6.20	5.27	7.13	0.47	0.93	Hexokinase
	mg/dl	112	95.0	129	8.50	17.00	
	mmol/l	6.28	5.34	7.22	0.47	0.94	Glucose oxidase
	mg/dl	113	96.2	130	8.40	16.80	
HDL - Cholesterol	mmol/l	1.27	1.08	1.46	0.10	0.19	Direct HDL PEGME
	mg/dl	49.0	41.7	56.3	3.65	7.30	
	mmol/l	1.23	1.05	1.41	0.09	0.18	Direct HDL Roche 3rd generation
	mg/dl	47.5	40.5	54.5	3.50	7.00	
Iron	µmol/l	20.3	16.6	24.0	1.85	3.70	Colorimetric with ppt.
	µg/dl	113	92.8	133	10.10	20.20	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	20.7	17.0	24.4	1.85	3.70	Colorimetric without ppt.
	µg/dl	116	95.0	137	10.50	21.00	
Lactate	mmol/l	1.60	1.31	1.89	0.15	0.29	Colorimetric Lactate Oxidase
	mg/dl	14.4	11.8	17.0	1.30	2.60	
LD (LDH)	U/l	417	355	479	31.00	62.00	P->L German methods 37°C
	U/l	301	256	346	22.50	45.00	P->L German methods 30°C
	U/l	211	180	242	15.50	31.00	P->L German methods 25°C
	U/l	231	197	265	17.00	34.00	L->P IFCC 37°C
	U/l	167	142	192	12.50	25.00	L->P IFCC 30°C
	U/l	117	100	134	8.50	17.00	L->P IFCC 25°C
Lipase	U/l	38	31	45	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.07	0.95	1.20	0.06	0.13	Ion selective electrode
	mg/dl	0.743	0.656	0.830	0.04	0.09	
Magnesium	mmol/l	0.88	0.78	0.99	0.05	0.11	Methylthymol blue
	mg/dl	2.15	1.89	2.41	0.13	0.26	
	mmol/l	0.91	0.80	1.02	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.22	1.95	2.49	0.14	0.27	
Phosphate Inorganic	mmol/l	1.45	1.24	1.66	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.50	3.84	5.16	0.33	0.66	
	mmol/l	1.45	1.23	1.67	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.50	3.81	5.19	0.35	0.69	
Potassium	mmol/l	3.95	3.63	4.27	0.16	0.32	ISE method - indirect
Protein Total	g/l	56.4	45.1	67.7	5.65	11.30	Biuret reaction end point
	g/dl	5.64	4.51	6.77	0.57	1.13	

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Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Protein Total	g/l	56.1	44.9	67.3	5.60	11.20	Biuret reaction kinetic
	g/dl	5.61	4.49	6.73	0.56	1.12	
Sodium	mmol/l	138	131	145	3.50	7.00	ISE method - indirect
TIBC	µmol/l	45.2	35.7	54.7	4.75	9.50	FE+UIBC(saturation with iron)
	µg/dl	253	200	306	26.50	53.00	
Triglycerides	mmol/l	1.04	0.87	1.21	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.0	77.3	107	7.35	14.70	
	mmol/l	1.03	0.87	1.20	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	91.2	76.6	106	7.30	14.60	
	mmol/l	1.02	0.86	1.19	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	90.3	75.7	105	7.30	14.60	
	mmol/l	1.02	0.85	1.19	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	90.3	75.6	105	7.35	14.70	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.81	5.06	6.56	0.38	0.75	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.78	5.04	6.52	0.37	0.74	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.81	5.06	6.56	0.38	0.75	
Urea	mmol/l	7.03	5.97	8.09	0.53	1.06	Urease kinetic
	mg/dl	42.3	35.9	48.7	3.20	6.40	
	mmol/l	7.03	5.98	8.08	0.53	1.05	BUN
	mg/dl	19.7	16.7	22.7	1.50	3.00	

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RANDOX

ELITech/Vitalab Selectra Pro/E/XL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.6	35.4	47.8	3.10	6.20	Bromocresol Green
	g/dl	4.16	3.54	4.78	0.31	0.62	
Alkaline Phosphatase	U/l	195	166	224	14.50	29.00	Diethanolamine buffer DEA 37°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
Bilirubin Total	µmol/l	30.9	24.4	37.4	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.81	1.43	2.19	0.19	0.38	
Calcium	mmol/l	2.31	2.08	2.54	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.26	8.34	10.2	0.46	0.92	
	mmol/l	2.20	1.98	2.42	0.11	0.22	Arsenazo III
	mg/dl	8.82	7.94	9.70	0.44	0.88	
Cholesterol	mmol/l	4.13	3.59	4.67	0.27	0.54	Cholesterol Oxidase
	mg/dl	159	139	179	10.00	20.00	
CK Total	U/l	199	163	235	18.00	36.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	113	90.2	136	11.40	22.80	Alkaline picrate no deproteinization
	mg/dl	1.28	1.02	1.54	0.13	0.26	
	µmol/l	120	96.2	144	11.90	23.80	Jaffe rate blanked
	mg/dl	1.36	1.09	1.63	0.14	0.27	
gamma-GT	U/l	55	47	63	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.46	5.49	7.43	0.49	0.97	Glucose oxidase
	mg/dl	116	98.9	133	8.55	17.10	

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Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Phosphate Inorganic	mmol/l	1.47	1.25	1.69	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.56	3.88	5.24	0.34	0.68	
Protein Total	g/l	60.9	48.7	73.1	6.10	12.20	Biuret reaction end point
	g/dl	6.09	4.87	7.31	0.61	1.22	
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	84.9	117	8.05	16.10	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.01	5.24	6.78	0.39	0.77	
Urea	mmol/l	7.50	6.37	8.63	0.57	1.13	Urease kinetic
	mg/dl	45.1	38.3	51.9	3.40	6.80	
	mmol/l	7.50	6.38	8.62	0.56	1.12	BUN
	mg/dl	21.1	17.9	24.3	1.60	3.20	

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HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.1	34.9	47.3	3.10	6.20	Bromocresol Green
	g/dl	4.11	3.49	4.73	0.31	0.62	
	g/l	40.3	34.3	46.3	3.00	6.00	Bromocresol Purple
	g/dl	4.03	3.43	4.63	0.30	0.60	
Alkaline Phosphatase	U/l	90	76	104	7.00	14.00	Roche Integra AMP buffer 37°C
	U/l	70	59	81	5.50	11.00	Roche Integra AMP buffer 30°C
	U/l	58	49	67	4.50	9.00	Roche Integra AMP buffer 25°C
	U/l	131	112	150	9.50	19.00	AMP optimised to IFCC 37°C
	U/l	102	87	117	7.50	15.00	AMP optimised to IFCC 30°C
	U/l	84	72	96	6.00	12.00	AMP optimised to IFCC 25°C
	U/l	126	107	145	9.50	19.00	Randox AMP 37°C
	U/l	98	83	113	7.50	15.00	Randox AMP 30°C
	U/l	81	68	94	6.50	13.00	Randox AMP 25°C
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	68	58	78	5.00	10.00	Roche liquid stable pNPG7 37°C
	U/l	78	66	90	6.00	12.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	89	75	103	7.00	14.00	Roche liquid stable pNPG7 37°C
	U/l	102	87	117	7.50	15.00	Randox liquid stable pNPG7 37°C
Acid Phosphatase (non-prostatic)	U/l	5.36	3.59	7.13	0.89	1.77	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Acid Phosphatase (non-prostatic)	U/l	7.13	4.78	9.48	1.18	2.35	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Prostatic)	U/l	13.6	9.11	18.1	2.25	4.49	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	7.17	4.80	9.54	1.19	2.37	1-Naphthyl Phosphate substrate Kinetic 37°C
Acid Phosphatase (Total)	U/l	19.0	12.7	25.3	3.15	6.30	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
	U/l	14.3	9.58	19.0	2.36	4.72	1-Naphthyl Phosphate substrate Kinetic 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	24.1	19.3	28.9	2.40	4.80	5th Generation Colorimetric
Bicarbonate	mmol/l	14.0	11.1	16.9	1.45	2.90	Colorimetric
	mmol/l	14.1	11.2	17.0	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	20.2	16.0	24.4	2.10	4.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.18	0.936	1.42	0.12	0.24	
	µmol/l	20.3	16.1	24.5	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.19	0.942	1.44	0.12	0.25	
Bilirubin Total	µmol/l	28.3	22.3	34.3	3.00	6.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.66	1.30	2.02	0.18	0.36	
	µmol/l	28.0	22.1	33.9	2.95	5.90	Diazo with Sulphanilic Acid
	mg/dl	1.64	1.29	1.99	0.18	0.35	
	µmol/l	26.8	21.2	32.4	2.80	5.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.57	1.24	1.90	0.17	0.33	
	µmol/l	26.9	21.3	32.5	2.80	5.60	Diazonium ion
	mg/dl	1.57	1.25	1.89	0.16	0.32	
	µmol/l	29.5	23.3	35.7	3.10	6.20	Oxidation to Biliverdin
	mg/dl	1.73	1.36	2.10	0.19	0.37	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	2.26	2.03	2.49	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.06	8.14	9.98	0.46	0.92	
	mmol/l	2.28	2.05	2.51	0.12	0.23	Arsenazo III
	mg/dl	9.14	8.22	10.1	0.46	0.92	
	mmol/l	2.28	2.05	2.51	0.12	0.23	NM-BAPTA
	mg/dl	9.14	8.22	10.1	0.46	0.92	
Cholesterol	mmol/l	4.03	3.51	4.55	0.26	0.52	Cholesterol Oxidase
	mg/dl	156	135	177	10.50	21.00	
Chloride	mmol/l	92.6	85.2	100	3.70	7.40	ISE indirect
Cholinesterase	U/l	5666	4533	6799	566.50	1133.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	185	151	219	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	116	95	137	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	79	64	94	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	125	99.7	150	12.65	25.30	Alkaline picrate no deproteinization
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	127	101	153	13.00	26.00	Randox Enzymatic UV method
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	127	101	153	13.00	26.00	Creatinine PAP method
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	127	102	152	12.50	25.00	Roche Creatinine Plus
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	127	102	152	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.44	1.15	1.73	0.15	0.29	
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	26	34	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

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HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	55	46	64	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	34	28	40	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	60	51	69	4.50	9.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	47	40	54	3.50	7.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	37	31	43	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	24	19	29	2.50	5.00	Triethanolamine buffer 50 mmol 37°C
	U/l	18	15	21	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	15	12	18	1.50	3.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	6.13	5.21	7.05	0.46	0.92	Hexokinase
	mg/dl	110	93.9	126	8.05	16.10	
	mmol/l	6.33	5.38	7.28	0.48	0.95	Glucose oxidase
	mg/dl	114	96.9	131	8.55	17.10	
alpha-HBDH	U/l	260	205	315	27.50	55.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	196	155	237	20.50	41.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	147	116	178	15.50	31.00	Oxobutyrate < 10 mmol/l 25°C
HDL - Cholesterol	mmol/l	1.24	1.06	1.42	0.09	0.18	Direct HDL Immunoseparation
	mg/dl	47.9	40.9	54.9	3.50	7.00	
	mmol/l	1.28	1.09	1.47	0.10	0.19	Direct HDL PEGME
	mg/dl	49.4	42.1	56.7	3.65	7.30	
	mmol/l	1.21	1.03	1.39	0.09	0.18	Direct HDL Roche 3rd generation
	mg/dl	46.7	39.8	53.6	3.45	6.90	
Iron	µmol/l	19.7	16.2	23.2	1.75	3.50	Colorimetric without ppt.
	µg/dl	110	90.6	129	9.70	19.40	

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HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lactate	mmol/l	1.52	1.25	1.79	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.7	11.3	16.1	1.20	2.40	
LD (LDH)	U/l	429	365	493	32.00	64.00	P->L German methods 37°C
	U/l	310	264	356	23.00	46.00	P->L German methods 30°C
	U/l	218	185	251	16.50	33.00	P->L German methods 25°C
	U/l	214	182	246	16.00	32.00	L->P IFCC 37°C
	U/l	155	131	179	12.00	24.00	L->P IFCC 30°C
	U/l	108	92	124	8.00	16.00	L->P IFCC 25°C
Lipase	U/l	38	30	46	4.00	8.00	Other Colorimetric 37°C
	U/l	36	29	43	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.05	0.92	1.18	0.06	0.13	Spectrophotometric
	mg/dl	0.729	0.640	0.818	0.04	0.09	
Magnesium	mmol/l	0.91	0.80	1.02	0.06	0.11	Xylidyl Blue
	mg/dl	2.22	1.95	2.49	0.14	0.27	
	mmol/l	0.89	0.78	1.00	0.05	0.11	Enzymatic
	mg/dl	2.16	1.90	2.42	0.13	0.26	
Osmolality	mOsm/kg	292	234	350	29.00	58.00	Calculated
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	4.00	3.68	4.32	0.16	0.32	ISE method - indirect
Protein Total	g/l	57.6	46.1	69.1	5.75	11.50	Biuret reaction end point
	g/dl	5.76	4.61	6.91	0.58	1.15	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	µmol/l	42.8	33.8	51.8	4.50	9.00	FE+UIBC(saturation with iron)
	µg/dl	239	189	289	25.00	50.00	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.04	0.87	1.21	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.0	77.3	107	7.35	14.70	
	mmol/l	1.01	0.85	1.17	0.08	0.16	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	89.4	75.2	104	7.10	14.20	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.71	4.97	6.45	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.75	5.01	6.49	0.37	0.74	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.66	4.92	6.40	0.37	0.74	
Urea	mmol/l	7.40	6.29	8.51	0.56	1.11	Urease kinetic
	mg/dl	44.5	37.8	51.2	3.35	6.70	
	mmol/l	7.40	6.29	8.51	0.56	1.11	BUN
	mg/dl	20.8	17.7	23.9	1.55	3.10	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.1	34.1	46.1	3.00	6.00	Bromocresol Green
	g/dl	4.01	3.41	4.61	0.30	0.60	
Alkaline Phosphatase	U/l	129	110	148	9.50	19.00	AMP optimised to IFCC 37°C
	U/l	100	86	114	7.00	14.00	AMP optimised to IFCC 30°C
	U/l	82	70	94	6.00	12.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	25.3	20.2	30.4	2.55	5.10	Enzymatic Colorimetric
Bilirubin Total	µmol/l	31.8	25.1	38.5	3.35	6.70	Diazo with Sulphanilic Acid
	mg/dl	1.86	1.47	2.25	0.20	0.39	
Calcium	mmol/l	2.32	2.09	2.55	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.30	8.38	10.2	0.46	0.92	
Cholesterol	mmol/l	3.92	3.41	4.43	0.26	0.51	Cholesterol Oxidase
	mg/dl	151	132	170	9.50	19.00	
Chloride	mmol/l	94.1	86.6	102	3.75	7.50	ISE indirect
CK Total	U/l	176	145	207	15.50	31.00	CK-NAC (IFCC) 37°C
	U/l	110	91	129	9.50	19.00	CK-NAC (IFCC) 30°C
	U/l	75	62	88	6.50	13.00	CK-NAC (IFCC) 25°C

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RANDOX

ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	128	102	154	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.45	1.15	1.75	0.15	0.30	
D-3-Hydroxybutyrate	mmol/l	0.28	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	50	42	58	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	26	36	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.25	5.31	7.19	0.47	0.94	Hexokinase
	mg/dl	113	95.7	130	8.65	17.30	
	mmol/l	6.18	5.25	7.11	0.47	0.93	Glucose oxidase
	mg/dl	111	94.6	127	8.20	16.40	
HDL - Cholesterol	mmol/l	1.16	0.99	1.33	0.09	0.17	Direct HDL Immunoseparation
	mg/dl	44.8	38.1	51.5	3.35	6.70	
Iron	µmol/l	20.3	16.7	23.9	1.80	3.60	Colorimetric without ppt.
	µg/dl	113	93.4	133	9.80	19.60	
LD (LDH)	U/l	429	365	493	32.00	64.00	P->L German methods 37°C
	U/l	310	264	356	23.00	46.00	P->L German methods 30°C
	U/l	218	185	251	16.50	33.00	P->L German methods 25°C
Magnesium	mmol/l	0.96	0.84	1.07	0.06	0.12	Xylidyl Blue
	mg/dl	2.33	2.05	2.61	0.14	0.28	
Phosphate Inorganic	mmol/l	1.43	1.21	1.65	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.43	3.75	5.11	0.34	0.68	

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ILab 600®/650®/Aries®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	4.07	3.75	4.39	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.0	46.4	69.6	5.80	11.60	Biuret reaction end point
	g/dl	5.80	4.64	6.96	0.58	1.16	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.05	0.88	1.22	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	77.7	108	7.60	15.20	
	mmol/l	1.04	0.88	1.20	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	92.0	77.6	106	7.20	14.40	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.81	5.06	6.56	0.38	0.75	
Urea	mmol/l	7.40	6.29	8.51	0.56	1.11	Urease end point
	mg/dl	44.5	37.8	51.2	3.35	6.70	
	mmol/l	7.40	6.29	8.51	0.56	1.11	BUN
	mg/dl	20.8	17.7	23.9	1.55	3.10	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	38.4	32.6	44.2	2.90	5.80	Ortho Vitros Microslide Systems
	g/dl	3.84	3.26	4.42	0.29	0.58	
Alkaline Phosphatase	U/l	104	88	120	8.00	16.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	45	36	54	4.50	9.00	Ortho Vitros Microslide Systems 37°C
Amylase Total	U/l	64	55	73	4.50	9.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	49	39	59	5.00	10.00	Ortho Vitros Microslide visible slide 37°C
Bicarbonate	mmol/l	14.4	11.4	17.4	1.50	3.00	Ortho Vitros Microslide Systems
Bilirubin Direct	µmol/l	11.8	9.34	14.3	1.23	2.46	Vitros Total Bil - BU
	mg/dl	0.690	0.546	0.834	0.07	0.14	
Bilirubin Total	µmol/l	25.2	19.9	30.5	2.65	5.30	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.47	1.16	1.78	0.16	0.31	
	µmol/l	26.4	20.9	31.9	2.75	5.50	Vitros 250/500/700/950 Total BUBC
	mg/dl	1.54	1.22	1.86	0.16	0.32	
Calcium	mmol/l	2.31	2.08	2.54	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	9.26	8.34	10.2	0.46	0.92	
	mmol/l	2.31	2.08	2.54	0.12	0.23	Vitros DT60/DT60 II/DTSC II
	mg/dl	9.26	8.34	10.2	0.46	0.92	
Cholesterol	mmol/l	3.77	3.28	4.26	0.25	0.49	Ortho Vitros Microslide Systems
	mg/dl	146	127	165	9.50	19.00	
	mmol/l	4.02	3.50	4.54	0.26	0.52	Vitros DT60/DT60 II
	mg/dl	155	135	175	10.00	20.00	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Chloride	mmol/l	96.5	88.8	104	3.85	7.70	Ortho Vitros Microslide Systems
	mmol/l	96.3	88.6	104	3.85	7.70	Vitros DT60/DT60 II/DTE II
Cholinesterase	U/l	5591	4473	6709	559.00	1118.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	167	137	197	15.00	30.00	Ortho Vitros Microslide Systems 37°C
Creatinine	µmol/l	132	106	158	13.00	26.00	Vitros DT60/DT60 II/DTSC II
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	µmol/l	124	99.2	149	12.40	24.80	Vitros IDMS Traceable
	mg/dl	1.40	1.12	1.68	0.14	0.28	
Free T4	pmol/l	34.5	25.9	43.1	4.30	8.60	Vitros ECi
	ng/dl	2.69	2.02	3.36	0.34	0.67	
	pg/ml	26.9	20.2	33.6	3.35	6.70	Vitros ECi
gamma-GT	U/l	68	58	78	5.00	10.00	Ortho Vitros Microslide Systems 37°C
	U/l	69	59	79	5.00	10.00	Vitros DT60/DT60 II/DTSC II 37°C
Glucose	mmol/l	5.90	5.02	6.78	0.44	0.88	Ortho Vitros Microslide Systems
	mg/dl	106	90.5	122	7.75	15.50	
	mmol/l	5.82	4.94	6.70	0.44	0.88	Vitros DT60/DT60 II
	mg/dl	105	89.0	121	8.00	16.00	
HDL - Cholesterol	mmol/l	1.21	1.03	1.39	0.09	0.18	Vitros Magnetic HDL
	mg/dl	46.7	39.8	53.6	3.45	6.90	
	mmol/l	1.25	1.06	1.44	0.10	0.19	Vitros 5.1 FS microtip assay
	mg/dl	48.3	40.9	55.7	3.70	7.40	
	mmol/l	1.21	1.03	1.39	0.09	0.18	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	46.7	39.8	53.6	3.45	6.90	
Iron	µmol/l	20.3	16.6	24.0	1.85	3.70	Ortho Vitros Microslide Systems
	µg/dl	113	92.8	133	10.10	20.20	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lactate	mmol/l	1.43	1.17	1.69	0.13	0.26	Ortho Vitros Microslide Systems
	mg/dl	12.9	10.5	15.3	1.20	2.40	
LD (LDH)	U/l	621	528	714	46.50	93.00	Ortho Vitros Microslide Systems 37°C
Lipase	U/l	264	212	316	26.00	52.00	Ortho Vitros Microslide Systems 37°C
	U/l	263	211	315	26.00	52.00	Vitros DT60/DT60 II/DTSC II 37°C
Lithium	mmol/l	1.25	1.10	1.40	0.08	0.15	Ortho Vitros Microslide Systems
	mg/dl	0.868	0.764	0.972	0.05	0.10	
Magnesium	mmol/l	0.90	0.79	1.01	0.05	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.18	1.92	2.44	0.13	0.26	
	mmol/l	0.86	0.76	0.97	0.05	0.10	Vitros DT60/DT60 II
	mg/dl	2.10	1.85	2.35	0.13	0.25	
Phosphate Inorganic	mmol/l	1.52	1.29	1.75	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	4.71	4.00	5.42	0.36	0.71	
Potassium	mmol/l	4.01	3.69	4.33	0.16	0.32	Ortho Vitros Microslide Systems
	mmol/l	3.88	3.57	4.19	0.16	0.31	Vitros DT60/DT60 II/DTE II
Protein Total	g/l	57.9	46.3	69.5	5.80	11.60	Ortho Vitros Microslide Systems
	g/dl	5.79	4.63	6.95	0.58	1.16	
PSA Total	ng/ml =	16.4	12.3	20.5	2.05	4.10	Ortho Vitros 3600/5600/ECi PSA II
Sodium	mmol/l	139	132	146	3.50	7.00	Ortho Vitros Microslide Systems
	mmol/l	139	132	146	3.50	7.00	Vitros DT60/DT60 II/DTE II
Thyroid Stimulating Hormone	µU/ml =	1.35	1.08	1.62	0.14	0.27	Vitros ECi
Total T3	nmol/l	3.93	2.95	4.91	0.49	0.98	Vitros ECi
	ng/ml	2.56	1.92	3.20	0.32	0.64	
	ng/dl	256	192	320	32.00	64.00	Vitros ECi
Triglycerides	mmol/l	1.16	0.98	1.34	0.09	0.18	Ortho Vitros Microslide Systems
	mg/dl	103	86.6	119	8.20	16.40	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Vitros DT60/DT60 II
	mg/dl	100	84.3	116	7.85	15.70	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.53	4.80	6.26	0.37	0.73	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Vitros DT60/DT60 II
	mg/dl	5.73	4.99	6.47	0.37	0.74	
Urea	mmol/l	6.85	5.82	7.88	0.52	1.03	Ortho Vitros Microslide Systems
	mg/dl	41.2	35.0	47.4	3.10	6.20	
	mmol/l	7.12	6.05	8.19	0.54	1.07	Vitros DT60/DT60 II
	mg/dl	42.8	36.4	49.2	3.20	6.40	
	mmol/l	6.85	5.82	7.88	0.52	1.03	BUN
	mg/dl	19.2	16.3	22.1	1.45	2.90	

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Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	38.6	32.8	44.4	2.90	5.80	Bromocresol Green
	g/dl	3.86	3.28	4.44	0.29	0.58	
Alkaline Phosphatase	U/l	122	104	140	9.00	18.00	AMP optimised to NVKC/SFBC 37°C
	U/l	95	81	109	7.00	14.00	AMP optimised to NVKC/SFBC 30°C
	U/l	78	66	90	6.00	12.00	AMP optimised to NVKC/SFBC 25°C
ALT (GPT)	U/l	39	32	46	3.50	7.00	Tris buffer without P5P 37°C
	U/l	29	24	34	2.50	5.00	Tris buffer without P5P 30°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	83	71	95	6.00	12.00	bioMerieux 2-chloro-pNPG3 37°C
AST (GOT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	27.5	22.0	33.0	2.75	5.50	Enzymatic Colorimetric
Bicarbonate	mmol/l	14.0	11.1	16.9	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	19.5	15.4	23.6	2.05	4.10	Diazo with Sulphanilic Acid
	mg/dl	1.14	0.901	1.38	0.12	0.24	
Bilirubin Total	µmol/l	28.8	22.7	34.9	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.68	1.33	2.03	0.18	0.35	
	µmol/l	25.8	20.4	31.2	2.70	5.40	Nitrobenzenediazonium salt
	mg/dl	1.51	1.19	1.83	0.16	0.32	
Calcium	mmol/l	2.30	2.07	2.53	0.12	0.23	Arsenazo III
	mg/dl	9.22	8.30	10.1	0.46	0.92	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Cholesterol	mmol/l	3.93	3.42	4.44	0.26	0.51	Cholesterol Oxidase
	mg/dl	152	132	172	10.00	20.00	
Chloride	mmol/l	99.6	91.6	108	4.00	8.00	ISE direct
CK Total	U/l	193	159	227	17.00	34.00	CK-NAC serum start (DGKC) 37°C
	U/l	121	100	142	10.50	21.00	CK-NAC serum start (DGKC) 30°C
	U/l	82	68	96	7.00	14.00	CK-NAC serum start (DGKC) 25°C
	U/l	190	156	224	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	119	98	140	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	125	99.7	150	12.65	25.30	Alkaline picrate no deproteinization
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	123	98.0	148	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	127	101	153	13.00	26.00	Creatinine PAP method
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	123	98.6	147	12.20	24.40	Jaffe rate blanked
	mg/dl	1.39	1.11	1.67	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.28	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	56	48	64	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	44	38	50	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.45	5.48	7.42	0.49	0.97	Hexokinase
	mg/dl	116	98.7	133	8.65	17.30	
	mmol/l	6.24	5.31	7.17	0.47	0.93	Glucose oxidase
	mg/dl	112	95.7	128	8.15	16.30	

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Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
HDL - Cholesterol	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct HDL PEGME
	mg/dl	45.9	39.0	52.8	3.45	6.90	
	mmol/l	1.29	1.10	1.48	0.10	0.19	Direct Clearance Method
	mg/dl	49.8	42.5	57.1	3.65	7.30	
Iron	µmol/l	23.3	19.1	27.5	2.10	4.20	Colorimetric without ppt.
	µg/dl	130	107	153	11.50	23.00	
LD (LDH)	U/l	455	387	523	34.00	68.00	P->L Scandinavian & Dutch 37°C
	U/l	329	279	379	25.00	50.00	P->L Scandinavian & Dutch 30°C
	U/l	231	196	266	17.50	35.00	P->L Scandinavian & Dutch 25°C
	U/l	447	380	514	33.50	67.00	P->L German methods 37°C
	U/l	323	274	372	24.50	49.00	P->L German methods 30°C
	U/l	227	193	261	17.00	34.00	P->L German methods 25°C
Magnesium	mmol/l	0.98	0.86	1.09	0.06	0.12	Calmagite
	mg/dl	2.37	2.09	2.65	0.14	0.28	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Xylidyl Blue
	mg/dl	2.20	1.94	2.46	0.13	0.26	
Phosphate Inorganic	mmol/l	1.44	1.23	1.65	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.46	3.81	5.11	0.33	0.65	
Potassium	mmol/l	3.84	3.54	4.14	0.15	0.30	ISE method - direct
Protein Total	g/l	59.9	48.0	71.8	5.95	11.90	Biuret reaction end point
	g/dl	5.99	4.80	7.18	0.60	1.19	
Sodium	mmol/l	136	129	143	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.08	0.91	1.25	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.6	111	7.50	15.00	

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Konelab 20/30/60®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.37	0.32	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.13	5.33	6.93	0.40	0.80	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.85	5.09	6.61	0.38	0.76	
	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.08	5.29	6.87	0.40	0.79	
Urea	mmol/l	7.36	6.25	8.47	0.56	1.11	Urease kinetic
	mg/dl	44.2	37.6	50.8	3.30	6.60	
	mmol/l	7.36	6.26	8.46	0.55	1.10	BUN
	mg/dl	20.7	17.6	23.8	1.55	3.10	

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.5	34.4	46.6	3.05	6.10	Bromocresol Green
	g/dl	4.05	3.44	4.66	0.31	0.61	
	g/l	41.4	35.2	47.6	3.10	6.20	Bromocresol Purple
	g/dl	4.14	3.52	4.76	0.31	0.62	
	g/l	38.4	32.6	44.2	2.90	5.80	Ortho Vitros Microslide Systems
	g/dl	3.84	3.26	4.42	0.29	0.58	
	g/l	38.3	32.6	44.0	2.85	5.70	Turbidimetric Assays
	g/dl	3.83	3.26	4.40	0.29	0.57	
Alkaline Phosphatase	U/l	127	108	146	9.50	19.00	p-Nitrophenylphosphate AMP 37°C
	U/l	99	84	114	7.50	15.00	p-Nitrophenylphosphate AMP 30°C
	U/l	81	69	93	6.00	12.00	p-Nitrophenylphosphate AMP 25°C
	U/l	104	88	120	8.00	16.00	Ortho Vitros Microslide Systems 37°C
	U/l	226	192	260	17.00	34.00	Diethanolamine buffer DEA 37°C
	U/l	176	150	202	13.00	26.00	Diethanolamine buffer DEA 30°C
	U/l	144	123	165	10.50	21.00	Diethanolamine buffer DEA 25°C
	U/l	128	109	147	9.50	19.00	AMP optimised to IFCC 37°C
	U/l	100	85	115	7.50	15.00	AMP optimised to IFCC 30°C
	U/l	82	70	94	6.00	12.00	AMP optimised to IFCC 25°C
	U/l	120	102	138	9.00	18.00	AMP optimised to NVKC/SFBC 37°C
	U/l	93	79	107	7.00	14.00	AMP optimised to NVKC/SFBC 30°C
	U/l	77	65	89	6.00	12.00	AMP optimised to NVKC/SFBC 25°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
ALT (GPT)	U/l	45	36	54	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	43	34	52	4.50	9.00	Tris buffer with P5P 37°C
	U/l	32	25	39	3.50	7.00	Tris buffer with P5P 30°C
	U/l	24	19	29	2.50	5.00	Tris buffer with P5P 25°C
	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
	U/l	36	29	43	3.50	7.00	Tris buffer SCE 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer SCE 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer SCE 25°C
	U/l	38	31	45	3.50	7.00	Agappe - IFCC 37°C
	U/l	28	23	33	2.50	5.00	Agappe - IFCC 30°C
	U/l	21	17	25	2.00	4.00	Agappe - IFCC 25°C
Amylase Pancreatic	U/l	66	56	76	5.00	10.00	Immunoinhibition EPS substrate 37°C
	U/l	78	66	90	6.00	12.00	Randox liquid stable pNPG7 37°C
	U/l	68	58	78	5.00	10.00	Roche liquid stable pNPG7 37°C
Amylase Total	U/l	92	78	106	7.00	14.00	pNP Maltotrioside substrates 37°C
	U/l	92	78	106	7.00	14.00	Siemens - blocked pNPG7 37°C
	U/l	93	79	107	7.00	14.00	Biotrol - blocked pNPG7 37°C
	U/l	96	81	111	7.50	15.00	I.L. - blocked pNPG7 37°C
	U/l	75	64	86	5.50	11.00	Randox - Ethylidene pNPG7 37°C
	U/l	102	87	117	7.50	15.00	Randox liquid stable pNPG7 37°C
	U/l	90	76	104	7.00	14.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	91	78	104	6.50	13.00	Beckman maltotetraose 37°C
	U/l	98	83	113	7.50	15.00	Siemens - maltopenta/hexaoside 37°C

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Amylase Total	U/l	101	86	116	7.50	15.00	Siemens 2-chloro-pNP linked substrate 37°C
	U/l	92	78	106	7.00	14.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	64	55	73	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	90	77	103	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	90	77	103	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	100	85	115	7.50	15.00	Siemens 2-chloro-pNPG3 37°C
	U/l	84	71	97	6.50	13.00	bioMerieux 2-chloro-pNPG3 37°C
	U/l	91	78	104	6.50	13.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	96	82	110	7.00	14.00	Beckman Synchron AMY7 37°C
Apolipoprotein A-1	g/l	1.06	0.87	1.25	0.10	0.19	Immunoturbidimetric
	mg/dl	106	86.9	125	9.55	19.10	
Apolipoprotein B	g/l	0.61	0.50	0.72	0.06	0.11	Immunoturbidimetric
	mg/dl	60.9	49.9	71.9	5.50	11.00	
Acid Phosphatase (non-prostatic)	U/l	7.13	4.78	9.48	1.18	2.35	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	5.36	3.59	7.13	0.89	1.77	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Prostatic)	U/l	7.17	4.80	9.54	1.19	2.37	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	13.6	9.11	18.1	2.25	4.49	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Acid Phosphatase (Total)	U/l	14.3	9.58	19.0	2.36	4.72	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	19.0	12.7	25.3	3.15	6.30	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
AST (GOT)	U/l	49	39	59	5.00	10.00	Ortho Vitros Microslide visible slide 37°C
	U/l	52	42	62	5.00	10.00	Tris buffer with P5P 37°C
	U/l	35	28	42	3.50	7.00	Tris buffer with P5P 30°C
	U/l	25	20	30	2.50	5.00	Tris buffer with P5P 25°C
	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer SCE 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer SCE 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer SCE 25°C
Bile Acids	µmol/l	26.7	21.4	32.0	2.65	5.30	4th Generation Colorimetric
	µmol/l	24.1	19.3	28.9	2.40	4.80	5th Generation Colorimetric
Bicarbonate	mmol/l	13.9	11.0	16.8	1.45	2.90	Colorimetric
	mmol/l	14.4	11.4	17.4	1.50	3.00	Ortho Vitros Microslide Systems
	mmol/l	13.8	10.9	16.7	1.45	2.90	Differential rate pH change
	mmol/l	14.1	11.2	17.0	1.45	2.90	Enzymatic
	mmol/l	13.7	10.9	16.5	1.40	2.80	Ion selective electrode
Bilirubin Direct	µmol/l	21.2	16.8	25.6	2.20	4.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.24	0.983	1.50	0.13	0.26	
	µmol/l	21.0	16.6	25.4	2.20	4.40	Diazo with Sulphanilic Acid
	mg/dl	1.23	0.971	1.49	0.13	0.26	
	µmol/l	11.8	9.34	14.3	1.23	2.46	Vitros Total Bil - BU
	mg/dl	0.690	0.546	0.834	0.07	0.14	
	µmol/l	20.9	16.5	25.3	2.20	4.40	Roche JG factored
	mg/dl	1.22	0.965	1.48	0.13	0.26	
	µmol/l	20.4	16.1	24.7	2.15	4.30	Diazo with Dichloroaniline (DCA)
	mg/dl	1.19	0.942	1.44	0.12	0.25	
	µmol/l	19.2	15.1	23.3	2.05	4.10	Oxidation to Biliverdin
	mg/dl	1.12	0.883	1.36	0.12	0.24	
	µmol/l	18.5	14.6	22.4	1.95	3.90	Modified Jendrassik
	mg/dl	1.08	0.854	1.31	0.11	0.23	

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	25.2	19.9	30.5	2.65	5.30	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.47	1.16	1.78	0.16	0.31	
	µmol/l	26.4	20.9	31.9	2.75	5.50	Vitros 250/500/700/950 Total BUBC
	mg/dl	1.54	1.22	1.86	0.16	0.32	
	µmol/l	37.7	29.8	45.6	3.95	7.90	Diazo with Dichloroaniline (DCA)
	mg/dl	2.21	1.74	2.68	0.24	0.47	
	µmol/l	29.8	23.5	36.1	3.15	6.30	Diazo with Sulphanilic Acid
	mg/dl	1.74	1.37	2.11	0.19	0.37	
	µmol/l	29.9	23.6	36.2	3.15	6.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.75	1.38	2.12	0.19	0.37	
	µmol/l	25.8	20.4	31.2	2.70	5.40	Nitrobenzenediazonium salt
	mg/dl	1.51	1.19	1.83	0.16	0.32	
	µmol/l	27.1	21.4	32.8	2.85	5.70	Diazonium ion
	mg/dl	1.59	1.25	1.93	0.17	0.34	
	µmol/l	30.6	24.2	37.0	3.20	6.40	Oxidation to Biliverdin
	mg/dl	1.79	1.42	2.16	0.19	0.37	
	µmol/l	36.4	28.8	44.0	3.80	7.60	Modified Jendrassik
	mg/dl	2.13	1.68	2.58	0.23	0.45	
Calcium	mmol/l	2.24	2.02	2.46	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.98	8.10	9.86	0.44	0.88	
	mmol/l	2.31	2.08	2.54	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	9.26	8.34	10.2	0.46	0.92	
	mmol/l	2.23	2.01	2.45	0.11	0.22	Ion selective electrode
	mg/dl	8.94	8.06	9.82	0.44	0.88	
	mmol/l	2.34	2.11	2.57	0.12	0.23	Methylthymol blue
	mg/dl	9.38	8.46	10.3	0.46	0.92	

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Calcium	mmol/l	2.28	2.05	2.51	0.12	0.23	Arsenazo III
	mg/dl	9.14	8.22	10.1	0.46	0.92	
	mmol/l	2.27	2.04	2.50	0.12	0.23	NM-BAPTA
	mg/dl	9.10	8.18	10.0	0.46	0.92	
Cholesterol	mmol/l	3.77	3.28	4.26	0.25	0.49	Ortho Vitros Microslide Systems
	mg/dl	146	127	165	9.50	19.00	
	mmol/l	4.03	3.50	4.56	0.27	0.53	Cholesterol Oxidase
	mg/dl	156	135	177	10.50	21.00	
	mmol/l	4.12	3.58	4.66	0.27	0.54	Agappe - CHOD-PAP
	mg/dl	159	138	180	10.50	21.00	
Chloride	mmol/l	98.4	90.5	106	3.95	7.90	Colorimetric
	mmol/l	96.5	88.8	104	3.85	7.70	Ortho Vitros Microslide Systems
	mmol/l	94.3	86.8	102	3.75	7.50	ISE indirect
	mmol/l	96.9	89.2	105	3.85	7.70	ISE direct
Cholinesterase	U/l	5750	4600	6900	575.00	1150.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	167	137	197	15.00	30.00	Ortho Vitros Microslide Systems 37°C
	U/l	190	156	224	17.00	34.00	CK-NAC serum start (DGKC) 37°C
	U/l	119	98	140	10.50	21.00	CK-NAC serum start (DGKC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC serum start (DGKC) 25°C
	U/l	187	153	221	17.00	34.00	CK-NAC substrate start (DGKC) 37°C
	U/l	117	96	138	10.50	21.00	CK-NAC substrate start (DGKC) 30°C
	U/l	79	65	93	7.00	14.00	CK-NAC substrate start (DGKC) 25°C
	U/l	190	156	224	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	119	98	140	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC (IFCC) 25°C

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	187	153	221	17.00	34.00	Monothioglycerol 37°C
	U/l	117	96	138	10.50	21.00	Monothioglycerol 30°C
	U/l	79	65	93	7.00	14.00	Monothioglycerol 25°C
	U/l	177	145	209	16.00	32.00	Dithioerythritol 37°C
	U/l	111	91	131	10.00	20.00	Dithioerythritol 30°C
	U/l	75	62	88	6.50	13.00	Dithioerythritol 25°C
	U/l	179	147	211	16.00	32.00	Dithioerythritol (DTE) IFCC correlated 37°C
	U/l	112	92	132	10.00	20.00	Dithioerythritol (DTE) IFCC correlated 30°C
	U/l	76	62	90	7.00	14.00	Dithioerythritol (DTE) IFCC correlated 25°C
Copper	µmol/l	16.6	13.3	19.9	1.65	3.30	Atomic absorption
	µg/dl	106	84.6	127	10.70	21.40	
	µmol/l	16.0	12.8	19.2	1.60	3.20	Colorimetric
	µg/dl	102	81.4	123	10.30	20.60	
Cortisol	nmol/l	489	367	611	61.00	122.00	Roche Cobas E411
	µg/dl	17.6	13.2	22.0	2.20	4.40	
Creatinine	µmol/l	119	94.9	143	12.05	24.10	Alkaline picrate with deproteinization
	mg/dl	1.34	1.07	1.61	0.14	0.27	
	µmol/l	123	98.4	148	12.30	24.60	Alkaline picrate no deproteinization
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	134	107	161	13.50	27.00	Randox Enzymatic UV method
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	µmol/l	126	101	151	12.50	25.00	Creatinine PAP method
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	126	101	151	12.50	25.00	Roche Creatinine Plus
	mg/dl	1.42	1.14	1.70	0.14	0.28	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	125	100	150	12.50	25.00	Jaffe rate blanked
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	125	100	150	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	119	95.1	143	11.95	23.90	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.34	1.07	1.61	0.14	0.27	
	µmol/l	124	99.2	149	12.40	24.80	Vitros IDMS Traceable
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	119	95.4	143	11.80	23.60	IDMS traceable
	mg/dl	1.34	1.08	1.60	0.13	0.26	
D-3-Hydroxybutyrate	mmol/l	0.28	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	2.19	1.75	2.63	0.22	0.44	Immunoturbidimetric
	ng/ml	1.71	1.37	2.05	0.17	0.34	
Folate	nmol/l	35.8	27.2	44.4	4.30	8.60	Roche Cobas E411
	ng/ml	15.8	12.0	19.6	1.90	3.80	
Free T4	pmol/l	18.1	13.6	22.6	2.25	4.50	Abbott Architect
	ng/dl	1.41	1.06	1.76	0.18	0.35	
	pg/ml	14.1	10.6	17.6	1.75	3.50	Abbott Architect
	pmol/l	18.4	13.8	23.0	2.30	4.60	Siemens Centaur XP/Classic
	ng/dl	1.44	1.08	1.80	0.18	0.36	
	pg/ml	14.4	10.8	18.0	1.80	3.60	Siemens Centaur XP/Classic
	pmol/l	18.5	13.9	23.1	2.30	4.60	Beckman Access
	ng/dl	1.44	1.08	1.80	0.18	0.36	
	pg/ml	14.4	10.8	18.0	1.80	3.60	Beckman Access

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RANDOX

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Free T4	pmol/l	21.2	15.9	26.5	2.65	5.30	Siemens Immulite 1000
	ng/dl	1.65	1.24	2.06	0.21	0.41	
	pg/ml	16.5	12.4	20.6	2.05	4.10	Siemens Immulite 1000
	pmol/l	34.5	25.9	43.1	4.30	8.60	Vitros ECi
	ng/dl	2.69	2.02	3.36	0.34	0.67	
	pg/ml	26.9	20.2	33.6	3.35	6.70	Vitros ECi
	pmol/l	23.1	17.3	28.9	2.90	5.80	Roche Elecsys
	ng/dl	1.80	1.35	2.25	0.23	0.45	
	pg/ml	18.0	13.5	22.5	2.25	4.50	Roche Elecsys
	pmol/l	22.0	16.5	27.5	2.75	5.50	Roche Modular E170
	ng/dl	1.72	1.29	2.15	0.22	0.43	
	pg/ml	17.2	12.9	21.5	2.15	4.30	Roche Modular E170
	pmol/l	22.8	17.1	28.5	2.85	5.70	Roche Cobas E411
	ng/dl	1.78	1.33	2.23	0.23	0.45	
	pg/ml	17.8	13.3	22.3	2.25	4.50	Roche Cobas E411
	pmol/l	22.2	16.7	27.7	2.75	5.50	Roche Cobas 6000/8000
	ng/dl	1.73	1.30	2.16	0.22	0.43	
	pg/ml	17.3	13.0	21.6	2.15	4.30	Roche Cobas 6000/8000
Gentamicin	µmol/l	7.41	5.93	8.89	0.74	1.48	Immunoturbidimetric
	µg/ml	3.54	2.83	4.25	0.36	0.71	
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	41	35	47	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	32	27	37	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	68	58	78	5.00	10.00	Ortho Vitros Microslide Systems 37°C
	U/l	47	40	54	3.50	7.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	37	32	42	2.50	5.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	29	25	33	2.00	4.00	Gamma glutamyl-4-nitroanilide 25°C

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	57	48	66	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	45	38	52	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	51	43	59	4.00	8.00	Agappe - Szasz Kinetic 37°C
	U/l	40	34	46	3.00	6.00	Agappe - Szasz Kinetic 30°C
	U/l	31	27	35	2.00	4.00	Agappe - Szasz Kinetic 25°C
	U/l	60	51	69	4.50	9.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	47	40	54	3.50	7.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	37	31	43	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	17	13	21	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
	U/l	13	10	16	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	11	8	14	1.50	3.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	5.90	5.02	6.78	0.44	0.88	Ortho Vitros Microslide Systems
	mg/dl	106	90.5	122	7.75	15.50	
	mmol/l	6.22	5.29	7.15	0.47	0.93	Glucose dehydrogenase
	mg/dl	112	95.3	129	8.35	16.70	
	mmol/l	6.15	5.23	7.07	0.46	0.92	Hexokinase
	mg/dl	111	94.2	128	8.40	16.80	
	mmol/l	6.01	5.11	6.91	0.45	0.90	Oxygen electrode
	mg/dl	108	92.1	124	7.95	15.90	
	mmol/l	6.30	5.35	7.25	0.48	0.95	Glucose oxidase
	mg/dl	114	96.4	132	8.80	17.60	
	mmol/l	6.12	5.20	7.04	0.46	0.92	Agappe - GOD-PAP
	mg/dl	110	93.7	126	8.15	16.30	

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
alpha-HBDH	U/l	260	205	315	27.50	55.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	196	155	237	20.50	41.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	147	116	178	15.50	31.00	Oxobutyrate < 10 mmol/l 25°C
HDL - Cholesterol	mmol/l	1.35	1.14	1.56	0.11	0.21	Direct HDL PPD
	mg/dl	52.1	44.0	60.2	4.05	8.10	
	mmol/l	1.21	1.03	1.39	0.09	0.18	Direct HDL Immunoseparation
	mg/dl	46.7	39.8	53.6	3.45	6.90	
	mmol/l	1.21	1.03	1.39	0.09	0.18	Vitros Magnetic HDL
	mg/dl	46.7	39.8	53.6	3.45	6.90	
	mmol/l	1.23	1.04	1.42	0.10	0.19	Direct HDL PEGME
	mg/dl	47.5	40.1	54.9	3.70	7.40	
	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct Clearance Method
	mg/dl	45.9	39.0	52.8	3.45	6.90	
	mmol/l	1.21	1.03	1.39	0.09	0.18	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	46.7	39.8	53.6	3.45	6.90	
	mmol/l	1.20	1.02	1.38	0.09	0.18	Direct HDL Roche 3rd generation
	mg/dl	46.3	39.4	53.2	3.45	6.90	
	mmol/l	1.33	1.13	1.53	0.10	0.20	HDL - Ultra
	mg/dl	51.3	43.6	59.0	3.85	7.70	
Immunoglobulin A	g/l	1.81	1.36	2.26	0.23	0.45	Immunoturbidimetric
	mg/dl	181	136	226	22.50	45.00	
Immunoglobulin G	g/l	6.73	5.52	7.94	0.61	1.21	Immunoturbidimetric
	mg/dl	673	552	794	60.50	121.00	
Immunoglobulin M	g/l	0.62	0.50	0.75	0.06	0.12	Immunoturbidimetric
	mg/dl	62.2	49.8	74.6	6.20	12.40	

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	20.2	16.5	23.9	1.85	3.70	Colorimetric with ppt.
	µg/dl	113	92.2	134	10.40	20.80	
	µmol/l	20.0	16.4	23.6	1.80	3.60	Colorimetric without ppt.
	µg/dl	112	91.7	132	10.15	20.30	
	µmol/l	20.3	16.6	24.0	1.85	3.70	Ortho Vitros Microslide Systems
	µg/dl	113	92.8	133	10.10	20.20	
Lactate	mmol/l	1.52	1.24	1.80	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	13.7	11.2	16.2	1.25	2.50	
	mmol/l	1.43	1.17	1.69	0.13	0.26	Ortho Vitros Microslide Systems
	mg/dl	12.9	10.5	15.3	1.20	2.40	
	mmol/l	1.44	1.18	1.70	0.13	0.26	UV LDH
	mg/dl	13.0	10.6	15.4	1.20	2.40	
LAP	U/l	17	14	20	1.50	3.00	NAGEL 37°C
LD (LDH)	U/l	621	528	714	46.50	93.00	Ortho Vitros Microslide Systems 37°C
	U/l	195	166	224	14.50	29.00	L->P 37°C
	U/l	141	120	162	10.50	21.00	L->P 30°C
	U/l	99	84	114	7.50	15.00	L->P 25°C
	U/l	475	403	547	36.00	72.00	P->L Scandinavian & Dutch 37°C
	U/l	343	291	395	26.00	52.00	P->L Scandinavian & Dutch 30°C
	U/l	241	204	278	18.50	37.00	P->L Scandinavian & Dutch 25°C
	U/l	427	363	491	32.00	64.00	P->L German methods 37°C
	U/l	308	262	354	23.00	46.00	P->L German methods 30°C
	U/l	216	184	248	16.00	32.00	P->L German methods 25°C
	U/l	434	369	499	32.50	65.00	P->L SFBC 37°C
	U/l	313	266	360	23.50	47.00	P->L SFBC 30°C
	U/l	220	187	253	16.50	33.00	P->L SFBC 25°C

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	217	185	249	16.00	32.00	L->P IFCC 37°C
	U/l	157	134	180	11.50	23.00	L->P IFCC 30°C
	U/l	110	94	126	8.00	16.00	L->P IFCC 25°C
Lipase	U/l	37	30	44	3.50	7.00	Other Colorimetric 37°C
	U/l	264	212	316	26.00	52.00	Ortho Vitros Microslide Systems 37°C
	U/l	36	29	43	3.50	7.00	Roche Colorimetric 37°C
	U/l	167	134	200	16.50	33.00	Randox Turbidimetric with colipase 37°C
	U/l	39	31	47	4.00	8.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.25	1.10	1.40	0.08	0.15	Ortho Vitros Microslide Systems
	mg/dl	0.868	0.764	0.972	0.05	0.10	
	mmol/l	1.04	0.91	1.17	0.06	0.13	Flame photometry
	mg/dl	0.722	0.635	0.809	0.04	0.09	
	mmol/l	1.07	0.94	1.20	0.06	0.13	Ion selective electrode
	mg/dl	0.743	0.654	0.832	0.04	0.09	
	mmol/l	1.09	0.96	1.22	0.07	0.13	Spectrophotometric
	mg/dl	0.757	0.665	0.849	0.05	0.09	
	mmol/l	1.09	0.96	1.22	0.07	0.13	Randox Colorimetric
	mg/dl	0.757	0.666	0.848	0.05	0.09	
Magnesium	mmol/l	0.89	0.78	1.00	0.05	0.11	Arsenazo III
	mg/dl	2.16	1.90	2.42	0.13	0.26	
	mmol/l	0.90	0.79	1.01	0.05	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.18	1.92	2.44	0.13	0.26	
	mmol/l	0.93	0.82	1.04	0.06	0.11	Atomic absorption
	mg/dl	2.25	1.98	2.52	0.14	0.27	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Calmagite
	mg/dl	2.23	1.96	2.50	0.14	0.27	
	mmol/l	0.91	0.80	1.02	0.06	0.11	Xylidyl Blue
	mg/dl	2.22	1.95	2.49	0.14	0.27	
	mmol/l	0.87	0.77	0.98	0.05	0.10	Methylthymol blue
	mg/dl	2.12	1.86	2.38	0.13	0.26	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.22	1.96	2.48	0.13	0.26	
	mmol/l	0.89	0.78	0.99	0.05	0.11	Enzymatic
	mg/dl	2.15	1.89	2.41	0.13	0.26	
NEFA	mmol/l	1.52	1.29	1.75	0.12	0.23	Colorimetric
Osmolality	mOsm/kg	282	225	339	28.50	57.00	Calculated
	mOsm/kg	297	237	357	30.00	60.00	Freezing point depression
Paracetamol	mmol/l	0.07	0.06	0.09	0.01	0.02	Colorimetric
	mg/l	11.0	8.78	13.2	1.11	2.22	
Phosphate Inorganic	mmol/l	1.52	1.29	1.75	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	4.71	4.00	5.42	0.36	0.71	
	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.40	3.75	5.05	0.33	0.65	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	4.01	3.69	4.33	0.16	0.32	Ortho Vitros Microslide Systems
	mmol/l	4.04	3.72	4.36	0.16	0.32	Enzymatic
	mmol/l	3.95	3.63	4.27	0.16	0.32	Flame photometry

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	3.90	3.59	4.21	0.16	0.31	ISE method - direct
	mmol/l	3.95	3.63	4.27	0.16	0.32	ISE method - indirect
Protein Total	g/l	57.9	46.3	69.5	5.80	11.60	Ortho Vitros Microslide Systems
	g/dl	5.79	4.63	6.95	0.58	1.16	
	g/l	58.0	46.4	69.6	5.80	11.60	Biuret reaction end point
	g/dl	5.80	4.64	6.96	0.58	1.16	
	g/l	56.5	45.2	67.8	5.65	11.30	Biuret reaction kinetic
	g/dl	5.65	4.52	6.78	0.57	1.13	
PSA Total	ng/ml =	11.2	8.42	14.0	1.39	2.78	Tosoh AIA360
	ng/ml =	15.7	11.8	19.6	1.95	3.90	Roche Elecsys Modular E170
	ng/ml =	16.2	12.1	20.3	2.05	4.10	Beckman Access standardised to Hybritech
	ng/ml =	14.5	10.9	18.1	1.80	3.60	bioMerieux VIDAS TPSA
	ng/ml =	13.1	9.84	16.4	1.63	3.26	Siemens Centaur XP/Classic
	ng/ml =	13.8	10.4	17.2	1.70	3.40	Abbott Architect
	ng/ml =	16.7	12.6	20.8	2.05	4.10	Cobas E411
	ng/ml =	16.8	12.6	21.0	2.10	4.20	Roche Cobas 6000/8000
	ng/ml =	16.4	12.3	20.5	2.05	4.10	Ortho Vitros 3600/5600/ECi PSA II
Salicylate	mmol/l	0.38	0.30	0.45	0.04	0.08	Enzymatic
	mg/dl	5.22	4.17	6.27	0.53	1.05	
Sodium	mmol/l	139	132	146	3.50	7.00	Ortho Vitros Microslide Systems
	mmol/l	141	134	148	3.50	7.00	Enzymatic
	mmol/l	140	133	147	3.50	7.00	Flame photometry
	mmol/l	138	131	145	3.50	7.00	ISE method - direct
	mmol/l	139	132	146	3.50	7.00	ISE method - indirect
Theophylline	µmol/l	28.0	22.4	33.6	2.80	5.60	Immunoturbidimetric
	µg/ml	5.05	4.04	6.06	0.51	1.01	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Thyroid Stimulating Hormone	µU/ml =	1.05	0.84	1.26	0.11	0.21	Abbott Architect
	µU/ml =	1.26	1.01	1.51	0.13	0.25	Beckman Access hyperTSH 3rd Generation
	µU/ml =	1.48	1.18	1.78	0.15	0.30	bioMerieux VIDAS TSH
	µU/ml =	1.39	1.11	1.67	0.14	0.28	Siemens Immulite 1000
	µU/ml =	1.35	1.08	1.62	0.14	0.27	Vitros ECi
	µU/ml =	1.49	1.19	1.79	0.15	0.30	Roche Elecsys
	µU/ml =	1.54	1.23	1.85	0.16	0.31	Roche Modular E170
	µU/ml =	1.53	1.22	1.84	0.16	0.31	Roche Cobas E411
	µU/ml =	1.51	1.21	1.81	0.15	0.30	Roche Cobas 6000/8000
	µU/ml =	1.23	0.99	1.47	0.12	0.24	Siemens Centaur XP/Classic TSH3-Ultra
TIBC	µmol/l	44.3	35.0	53.6	4.65	9.30	Removal of excess free iron
	µg/dl	248	196	300	26.00	52.00	
	µmol/l	44.2	35.0	53.4	4.60	9.20	FE+UIBC(saturation with iron)
	µg/dl	247	196	298	25.50	51.00	
	µmol/l	45.7	36.1	55.3	4.80	9.60	Direct Colorimetric
	µg/dl	255	202	308	26.50	53.00	
	µmol/l	49.3	38.9	59.7	5.20	10.40	Randox Direct
	µg/dl	276	217	335	29.50	59.00	
Tobramycin	µmol/l	5.60	4.48	6.72	0.56	1.12	Immunoturbidimetric
	µg/ml	2.62	2.10	3.14	0.26	0.52	
Total T3	nmol/l	2.60	1.95	3.25	0.33	0.65	Abbott Architect
	ng/ml	1.69	1.27	2.11	0.21	0.42	
	ng/dl	169	127	211	21.00	42.00	Abbott Architect
	nmol/l	2.63	1.97	3.29	0.33	0.66	BioMerieux Vidas
	ng/ml	1.71	1.28	2.14	0.22	0.43	
	ng/dl	171	128	214	21.50	43.00	BioMerieux Vidas

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RANDOX

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Total T3	nmol/l	3.93	2.95	4.91	0.49	0.98	Vitros ECi
	ng/ml	2.56	1.92	3.20	0.32	0.64	
	ng/dl	256	192	320	32.00	64.00	Vitros ECi
	nmol/l	2.98	2.24	3.72	0.37	0.74	Roche Cobas E411
	ng/ml	1.94	1.46	2.42	0.24	0.48	
	ng/dl	194	146	242	24.00	48.00	Roche Cobas E411
	nmol/l	2.61	1.96	3.26	0.33	0.65	Roche Cobas 6000/8000
	ng/ml	1.70	1.28	2.12	0.21	0.42	
	ng/dl	170	128	212	21.00	42.00	Roche Cobas 6000/8000
Total T4	nmol/l	86.6	64.9	108	10.85	21.70	Abbott Architect
	µg/dl	6.75	5.06	8.44	0.85	1.69	
	ng/ml	67.5	50.6	84.4	8.45	16.90	Abbott Architect
	nmol/l	85.6	64.2	107	10.70	21.40	BioMerieux Vidas
	µg/dl	6.68	5.01	8.35	0.84	1.67	
	ng/ml	66.8	50.1	83.5	8.35	16.70	BioMerieux Vidas
	nmol/l	91.8	68.8	115	11.50	23.00	Siemens Immulite 1000
	µg/dl	7.16	5.37	8.95	0.90	1.79	
	ng/ml	71.6	53.7	89.5	8.95	17.90	Siemens Immulite 1000
	nmol/l	92.0	69.0	115	11.50	23.00	Roche Cobas E411
	µg/dl	7.18	5.38	8.98	0.90	1.80	
	ng/ml	71.8	53.8	89.8	9.00	18.00	Roche Cobas E411
Transferrin	g/l	1.96	1.57	2.35	0.20	0.39	Immunoturbidimetric
	mg/dl	196	157	235	19.50	39.00	

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MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	78.9	109	7.45	14.90	
	mmol/l	1.04	0.88	1.21	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	92.0	77.4	107	7.30	14.60	
	mmol/l	1.07	0.90	1.24	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	94.7	79.3	110	7.70	15.40	
	mmol/l	1.09	0.92	1.26	0.09	0.17	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	96.5	81.2	112	7.65	15.30	
	mmol/l	1.01	0.85	1.17	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	89.4	75.0	104	7.20	14.40	
	mmol/l	1.16	0.98	1.34	0.09	0.18	Ortho Vitros Microslide Systems
	mg/dl	103	86.6	119	8.20	16.40	
	mmol/l	0.97	0.81	1.12	0.08	0.15	Lipase/GPO-PAP free glycerol correction
	mg/dl	85.4	71.8	99.0	6.80	13.60	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.53	4.80	6.26	0.37	0.73	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.76	5.02	6.50	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.78	5.04	6.52	0.37	0.74	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.71	4.97	6.45	0.37	0.74	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.64	4.91	6.37	0.37	0.73	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.86	5.11	6.61	0.38	0.75	

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RANDOX

MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	6.85	5.82	7.88	0.52	1.03	Ortho Vitros Microslide Systems
	mg/dl	41.2	35.0	47.4	3.10	6.20	
	mmol/l	7.32	6.22	8.42	0.55	1.10	Urease end point
	mg/dl	44.0	37.4	50.6	3.30	6.60	
	mmol/l	7.29	6.20	8.38	0.55	1.09	Urease kinetic
	mg/dl	43.8	37.3	50.3	3.25	6.50	
	mmol/l	7.16	6.09	8.23	0.54	1.07	Urease hypochlorite
	mg/dl	43.0	36.6	49.4	3.20	6.40	
	mmol/l	7.25	6.16	8.34	0.55	1.09	Agappe - Urease GLDH
	mg/dl	43.6	37.0	50.2	3.30	6.60	
	mmol/l	7.53	6.40	8.66	0.57	1.13	Urease Berthelot
	mg/dl	45.3	38.5	52.1	3.40	6.80	
	mmol/l	7.29	6.20	8.38	0.55	1.09	BUN
	mg/dl	20.5	17.4	23.6	1.55	3.10	
Vitamin B12	pmol/l	523	418	628	52.50	105.00	Roche Cobas E411
	pg/ml	709	566	852	71.50	143.00	
Zinc	µmol/l	22.0	17.6	26.4	2.20	4.40	Atomic absorption
	µg/dl	144	115	173	14.50	29.00	
	µmol/l	23.7	19.0	28.4	2.35	4.70	Colorimetric with deproteinisation
	µg/dl	155	124	186	15.50	31.00	

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MEAN OF ALL INSTRUMENTS (Elec.)

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
alpha-1-globulin		6.3	4.8	7.8	0.76	1.51	% of total Protein (Beckman Capillary)
alpha-2-globulin		6.7	5.1	8.3	0.81	1.61	% of total Protein (Beckman Capillary)
Albumin (electrophoresis)		65.3	58.8	71.8	3.25	6.50	% of total Protein (Beckman Capillary)
beta-globulin		9.6	7.3	11.9	1.15	2.30	% of total Protein (Beckman Capillary)
gamma-globulin		12.1	9.2	15.0	1.45	2.90	% of total Protein (Beckman Capillary)

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MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.9	35.6	48.2	3.15	6.30	Bromocresol Green
	g/dl	4.19	3.56	4.82	0.32	0.63	
Alkaline Phosphatase	U/l	128	108	148	10.00	20.00	AMP optimised to IFCC 37°C
	U/l	100	84	116	8.00	16.00	AMP optimised to IFCC 30°C
	U/l	82	69	95	6.50	13.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
	U/l	28	23	33	2.50	5.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	15	21	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	21.1	16.7	25.5	2.20	4.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.23	0.977	1.48	0.13	0.25	
Calcium	mmol/l	2.32	2.08	2.56	0.12	0.24	Cresolphthalein complexone
	mg/dl	9.30	8.34	10.3	0.48	0.96	
	mmol/l	2.33	2.10	2.56	0.12	0.23	Arsenazo III
	mg/dl	9.34	8.42	10.3	0.46	0.92	
Cholesterol	mmol/l	4.06	3.53	4.59	0.27	0.53	Cholesterol Oxidase
	mg/dl	157	136	178	10.50	21.00	
CK Total	U/l	187	154	220	16.50	33.00	CK-NAC (IFCC) 37°C
	U/l	117	96	138	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	79	65	93	7.00	14.00	CK-NAC (IFCC) 25°C

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MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	116	93.1	139	11.45	22.90	Alkaline picrate with deproteinization
	mg/dl	1.31	1.05	1.57	0.13	0.26	
	µmol/l	113	90.6	135	11.20	22.40	Alkaline picrate no deproteinization
	mg/dl	1.28	1.02	1.54	0.13	0.26	
	µmol/l	118	94.1	142	11.95	23.90	Randox Enzymatic UV method
	mg/dl	1.33	1.06	1.60	0.14	0.27	
	µmol/l	127	101	153	13.00	26.00	Jaffe rate blanked
	mg/dl	1.44	1.14	1.74	0.15	0.30	
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.59	5.60	7.58	0.50	0.99	Glucose oxidase
	mg/dl	119	101	137	9.00	18.00	
HDL - Cholesterol	mmol/l	1.27	1.08	1.46	0.10	0.19	Direct HDL PPD
	mg/dl	49.0	41.7	56.3	3.65	7.30	
	mmol/l	1.25	1.06	1.44	0.10	0.19	Direct Clearance Method
	mg/dl	48.3	40.9	55.7	3.70	7.40	
Iron	µmol/l	20.5	16.8	24.2	1.85	3.70	Colorimetric without ppt.
	µg/dl	115	93.9	136	10.55	21.10	
LD (LDH)	U/l	431	366	496	32.50	65.00	P->L SFBC 37°C
	U/l	311	264	358	23.50	47.00	P->L SFBC 30°C
	U/l	219	186	252	16.50	33.00	P->L SFBC 25°C
	U/l	221	188	254	16.50	33.00	L->P IFCC 37°C
	U/l	160	136	184	12.00	24.00	L->P IFCC 30°C
	U/l	112	95	129	8.50	17.00	L->P IFCC 25°C

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MINDRAY BS-200/300/400

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Magnesium	mmol/l	0.89	0.79	1.00	0.05	0.11	Xylidyl Blue
	mg/dl	2.17	1.91	2.43	0.13	0.26	
Phosphate Inorganic	mmol/l	1.58	1.34	1.82	0.12	0.24	Phosphomolybdate UV
	mg/dl	4.90	4.15	5.65	0.38	0.75	
Potassium	mmol/l	3.92	3.61	4.23	0.16	0.31	ISE method - direct
Protein Total	g/l	59.1	47.3	70.9	5.90	11.80	Biuret reaction end point
	g/dl	5.91	4.73	7.09	0.59	1.18	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.4	113	8.00	16.00	
Uric Acid (Urate)	mmol/l	0.39	0.34	0.44	0.03	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.47	5.63	7.31	0.42	0.84	
	mmol/l	0.39	0.34	0.44	0.03	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.55	5.71	7.39	0.42	0.84	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.83	5.07	6.59	0.38	0.76	
Urea	mmol/l	7.37	6.27	8.47	0.55	1.10	Urease end point
	mg/dl	44.3	37.7	50.9	3.30	6.60	
	mmol/l	7.56	6.43	8.69	0.57	1.13	Urease kinetic
	mg/dl	45.4	38.6	52.2	3.40	6.80	
	mmol/l	7.33	6.23	8.43	0.55	1.10	Urease hypochlorite
	mg/dl	44.1	37.4	50.8	3.35	6.70	
	mmol/l	7.56	6.43	8.69	0.57	1.13	BUN
	mg/dl	21.2	18.0	24.4	1.60	3.20	

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RANDOX

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.7	34.6	46.8	3.05	6.10	Bromocresol Green
	g/dl	4.07	3.46	4.68	0.31	0.61	
Alkaline Phosphatase	U/l	178	151	205	13.50	27.00	Diethanolamine buffer DEA 37°C
	U/l	139	118	160	10.50	21.00	Diethanolamine buffer DEA 30°C
	U/l	114	96	132	9.00	18.00	Diethanolamine buffer DEA 25°C
	U/l	120	102	138	9.00	18.00	AMP optimised to IFCC 37°C
	U/l	93	79	107	7.00	14.00	AMP optimised to IFCC 30°C
	U/l	77	65	89	6.00	12.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
	U/l	28	22	34	3.00	6.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	14	22	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	20.1	15.9	24.3	2.10	4.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.18	0.930	1.43	0.13	0.25	
Bilirubin Total	µmol/l	29.2	23.1	35.3	3.05	6.10	Diazo with Dichloroaniline (DCA)
	mg/dl	1.71	1.35	2.07	0.18	0.36	
Calcium	mmol/l	2.32	2.09	2.55	0.12	0.23	Arsenazo III
	mg/dl	9.30	8.38	10.2	0.46	0.92	
Cholesterol	mmol/l	4.13	3.59	4.67	0.27	0.54	Cholesterol Oxidase
	mg/dl	159	139	179	10.00	20.00	

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RANDOX

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	194	159	229	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	121	100	142	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	82	68	96	7.00	14.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	114	91.4	137	11.30	22.60	Alkaline picrate no deproteinization
	mg/dl	1.29	1.03	1.55	0.13	0.26	
	µmol/l	132	105	159	13.50	27.00	Creatinine PAP method
	mg/dl	1.49	1.19	1.79	0.15	0.30	
Glucose	mmol/l	6.59	5.60	7.58	0.50	0.99	Glucose oxidase
	mg/dl	119	101	137	9.00	18.00	
HDL - Cholesterol	mmol/l	1.13	0.96	1.30	0.09	0.17	Direct HDL Immunoseparation
	mg/dl	43.6	37.0	50.2	3.30	6.60	
Phosphate Inorganic	mmol/l	1.39	1.18	1.60	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.31	3.66	4.96	0.33	0.65	
Protein Total	g/l	55.6	44.5	66.7	5.55	11.10	Biuret reaction end point
	g/dl	5.56	4.45	6.67	0.56	1.11	
Triglycerides	mmol/l	1.09	0.92	1.26	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	96.5	81.2	112	7.65	15.30	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.68	4.94	6.42	0.37	0.74	
Urea	mmol/l	7.13	6.06	8.20	0.54	1.07	Urease kinetic
	mg/dl	42.9	36.4	49.4	3.25	6.50	
	mmol/l	7.13	6.06	8.20	0.54	1.07	BUN
	mg/dl	20.0	17.0	23.0	1.50	3.00	

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Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.2	35.0	47.4	3.10	6.20	Bromocresol Green
	g/dl	4.12	3.50	4.74	0.31	0.62	
	g/l	41.1	34.9	47.3	3.10	6.20	Bromocresol Purple
	g/dl	4.11	3.49	4.73	0.31	0.62	
	g/l	38.8	33.0	44.6	2.90	5.80	Turbidimetric Assays
	g/dl	3.88	3.30	4.46	0.29	0.58	
Alkaline Phosphatase	U/l	96	82	110	7.00	14.00	Roche Integra AMP buffer 37°C
	U/l	75	64	86	5.50	11.00	Roche Integra AMP buffer 30°C
	U/l	61	52	70	4.50	9.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	33	27	39	3.00	6.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	67	57	77	5.00	10.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	91	77	105	7.00	14.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	90	76	104	7.00	14.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	90	76	104	7.00	14.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	16	12	20	2.00	4.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	25.7	20.5	30.9	2.60	5.20	Enzymatic Colorimetric
Bicarbonate	mmol/l	13.8	10.9	16.7	1.45	2.90	Colorimetric

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bicarbonate	mmol/l	14.1	11.2	17.0	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	21.0	16.6	25.4	2.20	4.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.23	0.971	1.49	0.13	0.26	
	µmol/l	21.0	16.6	25.4	2.20	4.40	Diazo with Sulphanilic Acid
	mg/dl	1.23	0.971	1.49	0.13	0.26	
	µmol/l	21.4	16.9	25.9	2.25	4.50	Diazo with Dichloroaniline (DCA)
	mg/dl	1.25	0.989	1.51	0.13	0.26	
Bilirubin Total	µmol/l	27.1	21.4	32.8	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.59	1.25	1.93	0.17	0.34	
	µmol/l	26.8	21.2	32.4	2.80	5.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.57	1.24	1.90	0.17	0.33	
	µmol/l	26.8	21.2	32.4	2.80	5.60	Diazonium ion
	mg/dl	1.57	1.24	1.90	0.17	0.33	
Calcium	mmol/l	2.27	2.04	2.50	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.10	8.18	10.0	0.46	0.92	
	mmol/l	2.28	2.05	2.51	0.12	0.23	NM-BAPTA
	mg/dl	9.14	8.22	10.1	0.46	0.92	
Cholesterol	mmol/l	4.05	3.52	4.58	0.27	0.53	Cholesterol Oxidase
	mg/dl	156	136	176	10.00	20.00	
Chloride	mmol/l	90.3	83.1	97.5	3.60	7.20	ISE indirect
Cholinesterase	U/l	5634	4507	6761	563.50	1127.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	197	161	233	18.00	36.00	CK-NAC substrate start (DGKC) 37°C
	U/l	123	101	145	11.00	22.00	CK-NAC substrate start (DGKC) 30°C
	U/l	84	68	100	8.00	16.00	CK-NAC substrate start (DGKC) 25°C
	U/l	196	161	231	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	123	101	145	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	83	68	98	7.50	15.00	CK-NAC (IFCC) 25°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

Analyte	unit	Target	Range low	Range high	1SD	2SD	methods
Creatinine	µmol/l	127	101	153	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	129	103	155	13.00	26.00	Randox Enzymatic UV method
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	129	103	155	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	126	100	152	13.00	26.00	Jaffe rate blanked
	mg/dl	1.42	1.13	1.71	0.15	0.29	
	µmol/l	124	99.3	149	12.35	24.70	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	124	99.1	149	12.45	24.90	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.40	1.12	1.68	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.28	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
Free T4	pmol/l	22.2	16.7	27.7	2.75	5.50	Roche Cobas 6000/8000
	ng/dl	1.73	1.30	2.16	0.22	0.43	
	pg/ml	17.3	13.0	21.6	2.15	4.30	Roche Cobas 6000/8000
gamma-GT	U/l	50	42	58	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	26	36	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	57	48	66	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	45	38	52	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
GLDH	U/l	16	13	19	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
	U/l	12	10	14	1.00	2.00	Triethanolamine buffer 50 mmol 30°C
	U/l	10	8	12	1.00	2.00	Triethanolamine buffer 50 mmol 25°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	6.12	5.20	7.04	0.46	0.92	Hexokinase
	mg/dl	110	93.7	126	8.15	16.30	
	mmol/l	6.15	5.23	7.07	0.46	0.92	Glucose oxidase
	mg/dl	111	94.2	128	8.40	16.80	
HDL - Cholesterol	mmol/l	1.20	1.02	1.38	0.09	0.18	Direct HDL PEGME
	mg/dl	46.3	39.4	53.2	3.45	6.90	
	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct HDL Roche 3rd generation
	mg/dl	45.9	39.0	52.8	3.45	6.90	
Iron	µmol/l	19.8	16.2	23.4	1.80	3.60	Colorimetric with ppt.
	µg/dl	111	90.6	131	10.20	20.40	
	µmol/l	20.2	16.5	23.9	1.85	3.70	Colorimetric without ppt.
	µg/dl	113	92.2	134	10.40	20.80	
Lactate	mmol/l	1.51	1.24	1.78	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.6	11.2	16.0	1.20	2.40	
LD (LDH)	U/l	428	364	492	32.00	64.00	P->L German methods 37°C
	U/l	309	263	355	23.00	46.00	P->L German methods 30°C
	U/l	217	185	249	16.00	32.00	P->L German methods 25°C
	U/l	432	367	497	32.50	65.00	P->L SFBC 37°C
	U/l	312	265	359	23.50	47.00	P->L SFBC 30°C
	U/l	219	186	252	16.50	33.00	P->L SFBC 25°C
	U/l	215	183	247	16.00	32.00	L->P IFCC 37°C
	U/l	155	132	178	11.50	23.00	L->P IFCC 30°C
	U/l	109	93	125	8.00	16.00	L->P IFCC 25°C

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Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Lipase	U/l	35	28	42	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.10	0.97	1.23	0.07	0.13	Spectrophotometric
	mg/dl	0.764	0.671	0.857	0.05	0.09	
Magnesium	mmol/l	0.91	0.80	1.02	0.06	0.11	Xylidyl Blue
	mg/dl	2.22	1.95	2.49	0.14	0.27	
	mmol/l	0.92	0.81	1.02	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.22	1.96	2.48	0.13	0.26	
Osmolality	mOsm/kg	284	227	341	28.50	57.00	Calculated
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.34	3.69	4.99	0.33	0.65	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	3.99	3.67	4.31	0.16	0.32	ISE method - indirect
Protein Total	g/l	57.2	45.8	68.6	5.70	11.40	Biuret reaction end point
	g/dl	5.72	4.58	6.86	0.57	1.14	
	g/l	57.1	45.7	68.5	5.70	11.40	Biuret reaction kinetic
	g/dl	5.71	4.57	6.85	0.57	1.14	
PSA Total	ng/ml =	16.8	12.6	21.0	2.10	4.20	Roche Cobas 6000/8000
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.51	1.21	1.81	0.15	0.30	Roche Cobas 6000/8000
TIBC	µmol/l	43.0	33.9	52.1	4.55	9.10	FE+UIBC(saturation with iron)
	µg/dl	240	190	290	25.00	50.00	
	µmol/l	43.9	34.7	53.1	4.60	9.20	Direct Colorimetric
	µg/dl	245	194	296	25.50	51.00	
Total T3	nmol/l	2.61	1.96	3.26	0.33	0.65	Roche Cobas 6000/8000
	ng/ml	1.70	1.28	2.12	0.21	0.42	
	ng/dl	170	128	212	21.00	42.00	Roche Cobas 6000/8000

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.05	0.88	1.22	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	77.9	108	7.50	15.00	
	mmol/l	1.04	0.87	1.21	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	92.0	77.1	107	7.45	14.90	
	mmol/l	1.03	0.87	1.19	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	91.2	76.8	106	7.20	14.40	
	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	92.9	78.1	108	7.40	14.80	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.66	4.94	6.38	0.36	0.72	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.61	4.89	6.33	0.36	0.72	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.70	4.96	6.44	0.37	0.74	
Urea	mmol/l	6.94	5.90	7.98	0.52	1.04	Urease end point
	mg/dl	41.7	35.5	47.9	3.10	6.20	
	mmol/l	7.16	6.09	8.23	0.54	1.07	Urease kinetic
	mg/dl	43.0	36.6	49.4	3.20	6.40	
	mmol/l	7.16	6.09	8.23	0.54	1.07	BUN
	mg/dl	20.1	17.1	23.1	1.50	3.00	

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Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.2	35.0	47.4	3.10	6.20	Bromocresol Green
	g/dl	4.12	3.50	4.74	0.31	0.62	
Alkaline Phosphatase	U/l	94	80	108	7.00	14.00	Roche Integra AMP buffer 37°C
	U/l	73	62	84	5.50	11.00	Roche Integra AMP buffer 30°C
	U/l	60	51	69	4.50	9.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	91	78	104	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	34	28	40	3.00	6.00	Tris buffer without P5P 37°C
	U/l	23	19	27	2.00	4.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	20.4	16.2	24.6	2.10	4.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.19	0.948	1.43	0.12	0.24	
	µmol/l	20.0	15.8	24.2	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.17	0.924	1.42	0.12	0.25	
	µmol/l	20.3	16.0	24.6	2.15	4.30	Diazo with Dichloroaniline (DCA)
	mg/dl	1.19	0.936	1.44	0.13	0.25	
Bilirubin Total	µmol/l	27.2	21.5	32.9	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.59	1.26	1.92	0.17	0.33	
	µmol/l	27.7	21.9	33.5	2.90	5.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.62	1.28	1.96	0.17	0.34	

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Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	27.9	22.1	33.7	2.90	5.80	Diazonium ion
	mg/dl	1.63	1.29	1.97	0.17	0.34	
Calcium	mmol/l	2.26	2.03	2.49	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.06	8.14	9.98	0.46	0.92	
	mmol/l	2.25	2.03	2.47	0.11	0.22	NM-BAPTA
	mg/dl	9.02	8.14	9.90	0.44	0.88	
Cholesterol	mmol/l	4.16	3.62	4.70	0.27	0.54	Cholesterol Oxidase
	mg/dl	161	140	182	10.50	21.00	
Chloride	mmol/l	96.7	89.0	104	3.85	7.70	ISE indirect
CK Total	U/l	189	155	223	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	118	97	139	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	80	66	94	7.00	14.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	117	93.5	141	11.75	23.50	Alkaline picrate no deproteinization
	mg/dl	1.32	1.06	1.58	0.13	0.26	
	µmol/l	119	94.8	143	12.10	24.20	Roche Creatinine Plus
	mg/dl	1.34	1.07	1.61	0.14	0.27	
	µmol/l	123	98.6	147	12.20	24.40	Jaffe rate blanked
	mg/dl	1.39	1.11	1.67	0.14	0.28	
	µmol/l	116	92.6	139	11.70	23.40	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.31	1.05	1.57	0.13	0.26	
gamma-GT	U/l	55	47	63	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	37	49	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	34	29	39	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.23	5.30	7.16	0.47	0.93	Hexokinase
	mg/dl	112	95.5	129	8.25	16.50	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Glucose	mmol/l	6.29	5.35	7.23	0.47	0.94	Glucose oxidase
	mg/dl	113	96.4	130	8.30	16.60	
HDL - Cholesterol	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct HDL PEGME
	mg/dl	45.9	39.0	52.8	3.45	6.90	
	mmol/l	1.22	1.04	1.40	0.09	0.18	Direct HDL Roche 3rd generation
	mg/dl	47.1	40.1	54.1	3.50	7.00	
Iron	µmol/l	20.5	16.8	24.2	1.85	3.70	Colorimetric without ppt.
	µg/dl	115	93.9	136	10.55	21.10	
LD (LDH)	U/l	226	192	260	17.00	34.00	L->P IFCC 37°C
	U/l	163	139	187	12.00	24.00	L->P IFCC 30°C
	U/l	115	97	133	9.00	18.00	L->P IFCC 25°C
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.24	1.97	2.51	0.14	0.27	
Phosphate Inorganic	mmol/l	1.45	1.23	1.67	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.50	3.81	5.19	0.35	0.69	
Potassium	mmol/l	3.93	3.62	4.24	0.16	0.31	ISE method - indirect
Protein Total	g/l	58.5	46.8	70.2	5.85	11.70	Biuret reaction end point
	g/dl	5.85	4.68	7.02	0.59	1.17	
Sodium	mmol/l	137	130	144	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.06	0.89	1.23	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	78.6	109	7.60	15.20	
	mmol/l	1.06	0.89	1.23	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	93.8	78.5	109	7.65	15.30	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.75	4.99	6.51	0.38	0.76	

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Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.81	5.06	6.56	0.38	0.75	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.98	5.21	6.75	0.39	0.77	
Urea	mmol/l	6.99	5.94	8.04	0.53	1.05	Urease kinetic
	mg/dl	42.0	35.7	48.3	3.15	6.30	
	mmol/l	7.36	6.26	8.46	0.55	1.10	Urease hypochlorite
	mg/dl	44.2	37.6	50.8	3.30	6.60	
	mmol/l	7.16	6.08	8.24	0.54	1.08	Agappe - Urease GLDH
	mg/dl	43.0	36.5	49.5	3.25	6.50	
	mmol/l	6.99	5.94	8.04	0.53	1.05	BUN
	mg/dl	19.6	16.7	22.5	1.45	2.90	

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Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.0	34.8	47.2	3.10	6.20	Bromocresol Green
	g/dl	4.10	3.48	4.72	0.31	0.62	
	g/l	41.1	35.0	47.2	3.05	6.10	Bromocresol Purple
	g/dl	4.11	3.50	4.72	0.31	0.61	
Alkaline Phosphatase	U/l	96	82	110	7.00	14.00	Roche Integra AMP buffer 37°C
	U/l	75	64	86	5.50	11.00	Roche Integra AMP buffer 30°C
	U/l	61	52	70	4.50	9.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	91	78	104	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.0	11.1	16.9	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	21.7	17.2	26.2	2.25	4.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.27	1.01	1.53	0.13	0.26	
	µmol/l	21.8	17.2	26.4	2.30	4.60	Diazo with Sulphanilic Acid
	mg/dl	1.28	1.01	1.55	0.14	0.27	
	µmol/l	21.4	16.9	25.9	2.25	4.50	Diazo with Dichloroaniline (DCA)
	mg/dl	1.25	0.989	1.51	0.13	0.26	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	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	27.0	21.3	32.7	2.85	5.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.58	1.25	1.91	0.17	0.33	
	µmol/l	27.2	21.5	32.9	2.85	5.70	Diazonium ion
	mg/dl	1.59	1.26	1.92	0.17	0.33	
Calcium	mmol/l	2.28	2.05	2.51	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.14	8.22	10.1	0.46	0.92	
	mmol/l	2.20	1.98	2.42	0.11	0.22	Arsenazo III
	mg/dl	8.82	7.94	9.70	0.44	0.88	
	mmol/l	2.28	2.05	2.51	0.12	0.23	NM-BAPTA
	mg/dl	9.14	8.22	10.1	0.46	0.92	
Cholesterol	mmol/l	4.07	3.55	4.59	0.26	0.52	Cholesterol Oxidase
	mg/dl	157	137	177	10.00	20.00	
Chloride	mmol/l	90.4	83.1	97.7	3.65	7.30	ISE indirect
CK Total	U/l	197	162	232	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	123	101	145	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	84	69	99	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	122	97.6	146	12.20	24.40	Alkaline picrate no deproteinization
	mg/dl	1.38	1.10	1.66	0.14	0.28	
	µmol/l	128	102	154	13.00	26.00	Randox Enzymatic UV method
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	129	104	154	12.50	25.00	Roche Creatinine Plus
	mg/dl	1.46	1.18	1.74	0.14	0.28	
	µmol/l	129	103	155	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.46	1.16	1.76	0.15	0.30	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	41	35	47	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	32	27	37	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	57	49	65	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	45	39	51	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.16	5.24	7.08	0.46	0.92	Hexokinase
	mg/dl	111	94.4	128	8.30	16.60	
	mmol/l	6.14	5.22	7.06	0.46	0.92	Glucose oxidase
	mg/dl	111	94.1	128	8.45	16.90	
HDL - Cholesterol	mmol/l	1.18	1.01	1.35	0.09	0.17	Direct HDL Roche 3rd generation
	mg/dl	45.5	39.0	52.0	3.25	6.50	
Iron	µmol/l	20.2	16.6	23.8	1.80	3.60	Colorimetric without ppt.
	µg/dl	113	92.8	133	10.10	20.20	
LD (LDH)	U/l	215	183	247	16.00	32.00	L->P IFCC 37°C
	U/l	155	132	178	11.50	23.00	L->P IFCC 30°C
	U/l	109	93	125	8.00	16.00	L->P IFCC 25°C
Lipase	U/l	35	28	42	3.50	7.00	Roche Colorimetric 37°C
Magnesium	mmol/l	0.91	0.80	1.02	0.06	0.11	Xylidyl Blue
	mg/dl	2.22	1.95	2.49	0.14	0.27	
	mmol/l	0.94	0.82	1.05	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.27	2.00	2.54	0.14	0.27	
Phosphate Inorganic	mmol/l	1.45	1.23	1.67	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.50	3.81	5.19	0.35	0.69	

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Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Phosphate Inorganic	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.37	3.72	5.02	0.33	0.65	
Potassium	mmol/l	4.01	3.69	4.33	0.16	0.32	ISE method - indirect
Protein Total	g/l	57.8	46.2	69.4	5.80	11.60	Biuret reaction end point
	g/dl	5.78	4.62	6.94	0.58	1.16	
	g/l	57.2	45.7	68.7	5.75	11.50	Biuret reaction kinetic
	g/dl	5.72	4.57	6.87	0.58	1.15	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	µmol/l	44.8	35.4	54.2	4.70	9.40	FE+UIBC(saturation with iron)
	µg/dl	250	198	302	26.00	52.00	
Triglycerides	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.2	108	7.35	14.70	
	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	94.7	79.6	110	7.55	15.10	
	mmol/l	1.03	0.87	1.19	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	91.2	76.7	106	7.25	14.50	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.78	5.02	6.54	0.38	0.76	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.81	5.06	6.56	0.38	0.75	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.80	5.04	6.56	0.38	0.76	
Urea	mmol/l	7.29	6.20	8.38	0.55	1.09	Urease kinetic
	mg/dl	43.8	37.3	50.3	3.25	6.50	
	mmol/l	7.29	6.20	8.38	0.55	1.09	BUN
	mg/dl	20.5	17.4	23.6	1.55	3.10	

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RANDOX

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.8	34.7	46.9	3.05	6.10	Bromocresol Green
	g/dl	4.08	3.47	4.69	0.31	0.61	
Alkaline Phosphatase	U/l	88	74	102	7.00	14.00	Roche Integra AMP buffer 37°C
	U/l	69	58	80	5.50	11.00	Roche Integra AMP buffer 30°C
	U/l	56	47	65	4.50	9.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	68	58	78	5.00	10.00	Randox EPS Liquid and BM/Roche EPS Liquid 37°C
Amylase Total	U/l	90	77	103	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	34	28	40	3.00	6.00	Tris buffer without P5P 37°C
	U/l	23	19	27	2.00	4.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	25.6	20.4	30.8	2.60	5.20	Enzymatic Colorimetric
Bicarbonate	mmol/l	14.2	11.2	17.2	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	21.3	16.8	25.8	2.25	4.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.25	0.983	1.52	0.13	0.27	
Bilirubin Total	µmol/l	26.2	20.7	31.7	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.53	1.21	1.85	0.16	0.32	
	µmol/l	26.3	20.8	31.8	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.54	1.22	1.86	0.16	0.32	

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Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Bilirubin Total	µmol/l	26.0	20.6	31.4	2.70	5.40	Diazonium ion
	mg/dl	1.52	1.21	1.83	0.16	0.31	
Calcium	mmol/l	2.27	2.04	2.50	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.10	8.18	10.0	0.46	0.92	
	mmol/l	2.26	2.03	2.49	0.12	0.23	NM-BAPTA
	mg/dl	9.06	8.14	9.98	0.46	0.92	
Cholesterol	mmol/l	3.95	3.44	4.46	0.26	0.51	Cholesterol Oxidase
	mg/dl	152	133	171	9.50	19.00	
Chloride	mmol/l	90.4	83.2	97.6	3.60	7.20	ISE indirect
CK Total	U/l	179	147	211	16.00	32.00	CK-NAC (IFCC) 37°C
	U/l	112	92	132	10.00	20.00	CK-NAC (IFCC) 30°C
	U/l	76	62	90	7.00	14.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	133	106	160	13.50	27.00	Roche Creatinine Plus
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	µmol/l	129	103	155	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.46	1.16	1.76	0.15	0.30	
gamma-GT	U/l	49	41	57	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	32	46	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	25	35	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	57	49	65	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	45	39	51	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.09	5.17	7.01	0.46	0.92	Hexokinase
	mg/dl	110	93.2	127	8.40	16.80	
HDL - Cholesterol	mmol/l	1.18	1.01	1.35	0.09	0.17	Direct HDL Roche 3rd generation
	mg/dl	45.5	39.0	52.0	3.25	6.50	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.9	127	9.55	19.10	
Lactate	mmol/l	1.50	1.23	1.77	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.5	11.1	15.9	1.20	2.40	
LD (LDH)	U/l	216	183	249	16.50	33.00	L->P IFCC 37°C
	U/l	156	132	180	12.00	24.00	L->P IFCC 30°C
	U/l	110	93	127	8.50	17.00	L->P IFCC 25°C
Lipase	U/l	36	29	43	3.50	7.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.10	0.97	1.23	0.07	0.13	Spectrophotometric
	mg/dl	0.764	0.674	0.854	0.05	0.09	
Magnesium	mmol/l	0.90	0.80	1.01	0.05	0.11	Xylidyl Blue
	mg/dl	2.20	1.93	2.47	0.14	0.27	
Phosphate Inorganic	mmol/l	1.37	1.16	1.58	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.25	3.60	4.90	0.33	0.65	
Potassium	mmol/l	4.02	3.70	4.34	0.16	0.32	ISE method - indirect
Protein Total	g/l	56.8	45.4	68.2	5.70	11.40	Biuret reaction end point
	g/dl	5.68	4.54	6.82	0.57	1.14	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	µmol/l	44.4	35.0	53.8	4.70	9.40	FE+UIBC(saturation with iron)
	µg/dl	248	196	300	26.00	52.00	
Triglycerides	mmol/l	1.02	0.86	1.19	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	90.3	75.7	105	7.30	14.60	
	mmol/l	1.03	0.87	1.19	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	91.2	76.6	106	7.30	14.60	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.63	4.91	6.35	0.36	0.72	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.64	4.91	6.37	0.37	0.73	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.58	4.86	6.30	0.36	0.72	
Urea	mmol/l	7.07	6.01	8.13	0.53	1.06	Urease kinetic
	mg/dl	42.5	36.1	48.9	3.20	6.40	
	mmol/l	7.07	6.01	8.13	0.53	1.06	BUN
	mg/dl	19.8	16.8	22.8	1.50	3.00	

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RANDOX

RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.5	33.6	45.4	2.95	5.90	Bromocresol Green
	g/dl	3.95	3.36	4.54	0.30	0.59	
Alkaline Phosphatase	U/l	226	192	260	17.00	34.00	Diethanolamine buffer DEA 37°C
	U/l	126	107	145	9.50	19.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	78	66	90	6.00	12.00	Randox liquid stable pNPG7 37°C
Amylase Total	U/l	102	87	117	7.50	15.00	Randox liquid stable pNPG7 37°C
AST (GOT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
Bile Acids	µmol/l	24.1	19.3	28.9	2.40	4.80	5th Generation Colorimetric
Bicarbonate	mmol/l	15.1	12.0	18.2	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	21.6	17.1	26.1	2.25	4.50	Diazo with Sulphanilic Acid
	mg/dl	1.26	1.00	1.52	0.13	0.26	
	µmol/l	20.9	16.5	25.3	2.20	4.40	Vanadate Oxidation
	mg/dl	1.22	0.965	1.48	0.13	0.26	
Bilirubin Total	µmol/l	33.3	26.3	40.3	3.50	7.00	Diazo with Sulphanilic Acid
	mg/dl	1.95	1.54	2.36	0.21	0.41	
	µmol/l	30.0	23.7	36.3	3.15	6.30	Vanadate Oxidation
	mg/dl	1.76	1.39	2.13	0.19	0.37	
Calcium	mmol/l	2.33	2.10	2.56	0.12	0.23	Arsenazo III
	mg/dl	9.34	8.42	10.3	0.46	0.92	
Cholesterol	mmol/l	4.01	3.49	4.53	0.26	0.52	Cholesterol Oxidase
	mg/dl	155	135	175	10.00	20.00	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Chloride	mmol/l	93.2	85.7	101	3.75	7.50	ISE direct
CK Total	U/l	188	154	222	17.00	34.00	CK-NAC substrate start (DGKC) 37°C
	U/l	204	167	241	18.50	37.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	121	96.8	145	12.10	24.20	Alkaline picrate no deproteinization
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	µmol/l	130	104	156	13.00	26.00	Randox Enzymatic UV method
	mg/dl	1.47	1.18	1.76	0.15	0.29	
gamma-GT	U/l	60	51	69	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.33	5.38	7.28	0.48	0.95	Hexokinase
	mg/dl	114	96.9	131	8.55	17.10	
	mmol/l	6.44	5.48	7.40	0.48	0.96	Glucose oxidase
	mg/dl	116	98.7	133	8.65	17.30	
Iron	µmol/l	20.5	16.8	24.2	1.85	3.70	Colorimetric without ppt.
	µg/dl	115	93.9	136	10.55	21.10	
Lactate	mmol/l	1.49	1.22	1.76	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.4	11.0	15.8	1.20	2.40	
LD (LDH)	U/l	422	359	485	31.50	63.00	P->L German methods 37°C
	U/l	223	190	256	16.50	33.00	L->P IFCC 37°C
Lipase	U/l	39	31	47	4.00	8.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.09	0.96	1.22	0.07	0.13	Colorimetric
	mg/dl	0.757	0.666	0.848	0.05	0.09	
Magnesium	mmol/l	0.94	0.83	1.05	0.06	0.11	Xylidyl Blue
	mg/dl	2.28	2.01	2.55	0.14	0.27	
Phosphate Inorganic	mmol/l	1.44	1.22	1.66	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.46	3.78	5.14	0.34	0.68	

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RX DAYTONA®/IMOLA®/SUZUKA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Potassium	mmol/l	4.02	3.70	4.34	0.16	0.32	Enzymatic
	mmol/l	3.96	3.64	4.28	0.16	0.32	ISE method - direct
Protein Total	g/l	59.5	47.6	71.4	5.95	11.90	Biuret reaction end point
	g/dl	5.95	4.76	7.14	0.60	1.19	
Sodium	mmol/l	145	138	152	3.50	7.00	Enzymatic
	mmol/l	139	132	146	3.50	7.00	ISE method - direct
TIBC	µmol/l	49.3	38.9	59.7	5.20	10.40	Direct Colorimetric
	µg/dl	276	217	335	29.50	59.00	
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.4	111	7.60	15.20	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.76	5.01	6.51	0.38	0.75	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.91	5.14	6.68	0.39	0.77	
Urea	mmol/l	7.34	6.24	8.44	0.55	1.10	Urease kinetic
	mg/dl	44.1	37.5	50.7	3.30	6.60	
	mmol/l	7.34	6.24	8.44	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	

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SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.0	33.2	44.8	2.90	5.80	Bromocresol Green
	g/dl	3.90	3.32	4.48	0.29	0.58	
	g/l	43.5	37.0	50.0	3.25	6.50	Bromocresol Purple
	g/dl	4.35	3.70	5.00	0.33	0.65	
Alkaline Phosphatase	U/l	125	106	144	9.50	19.00	AMP optimised to IFCC 37°C
	U/l	126	107	145	9.50	19.00	AMP non-optimised 37°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	70	59	81	5.50	11.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	92	78	106	7.00	14.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
Bile Acids	µmol/l	25.2	20.2	30.2	2.50	5.00	Enzymatic Colorimetric
Bicarbonate	mmol/l	15.4	12.2	18.6	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	19.2	15.2	23.2	2.00	4.00	Oxidation to Biliverdin
	mg/dl	1.12	0.889	1.35	0.12	0.23	
Bilirubin Total	µmol/l	30.5	24.1	36.9	3.20	6.40	Oxidation to Biliverdin
	mg/dl	1.78	1.41	2.15	0.19	0.37	
Calcium	mmol/l	2.23	2.01	2.45	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.94	8.06	9.82	0.44	0.88	
	mmol/l	2.27	2.04	2.50	0.12	0.23	Arsenazo III
	mg/dl	9.10	8.18	10.0	0.46	0.92	
Cholesterol	mmol/l	3.94	3.42	4.46	0.26	0.52	Cholesterol Oxidase
	mg/dl	152	132	172	10.00	20.00	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Chloride	mmol/l	96.7	88.9	105	3.90	7.80	ISE indirect
CK Total	U/l	184	151	217	16.50	33.00	CK-NAC substrate start (DGKC) 37°C
	U/l	185	151	219	17.00	34.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	129	103	155	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	120	95.8	144	12.10	24.20	Randox Enzymatic UV method
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	µmol/l	120	96.2	144	11.90	23.80	Jaffe rate blanked
	mg/dl	1.36	1.09	1.63	0.14	0.27	
	µmol/l	119	95.0	143	12.00	24.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.34	1.07	1.61	0.14	0.27	
gamma-GT	U/l	57	49	65	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.08	5.17	6.99	0.46	0.91	Hexokinase
	mg/dl	110	93.2	127	8.40	16.80	
	mmol/l	6.19	5.26	7.12	0.47	0.93	Glucose oxidase
	mg/dl	112	94.8	129	8.60	17.20	
HDL - Cholesterol	mmol/l	1.11	0.95	1.28	0.08	0.17	Direct HDL Immunoseparation
	mg/dl	42.8	36.5	49.1	3.15	6.30	
	mmol/l	1.07	0.91	1.23	0.08	0.16	Direct Clearance Method
	mg/dl	41.3	35.0	47.6	3.15	6.30	
Iron	µmol/l	20.1	16.5	23.7	1.80	3.60	Colorimetric without ppt.
	µg/dl	112	92.2	132	9.90	19.80	
Lactate	mmol/l	1.36	1.11	1.61	0.13	0.25	Colorimetric Lactate Oxidase
	mg/dl	12.3	10.0	14.6	1.15	2.30	

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
LD (LDH)	U/l	216	184	248	16.00	32.00	L->P 37°C
	U/l	434	369	499	32.50	65.00	P->L German methods 37°C
	U/l	222	189	255	16.50	33.00	L->P IFCC 37°C
Lipase	U/l	41	33	49	4.00	8.00	Other Colorimetric 37°C
Lithium	mmol/l	1.13	0.99	1.27	0.07	0.14	Spectrophotometric
	mg/dl	0.785	0.690	0.880	0.05	0.10	
Magnesium	mmol/l	0.93	0.82	1.04	0.06	0.11	Xylidyl Blue
	mg/dl	2.26	1.99	2.53	0.14	0.27	
Phosphate Inorganic	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.37	3.72	5.02	0.33	0.65	
Potassium	mmol/l	3.98	3.66	4.30	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.0	46.4	69.6	5.80	11.60	Biuret reaction end point
	g/dl	5.80	4.64	6.96	0.58	1.16	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	µmol/l	46.5	36.8	56.2	4.85	9.70	FE+UIBC(saturation with iron)
	µg/dl	260	206	314	27.00	54.00	
Triglycerides	mmol/l	1.08	0.90	1.26	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.0	111	7.80	15.60	
	mmol/l	1.08	0.91	1.25	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	95.6	80.2	111	7.70	15.40	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.80	5.04	6.56	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.95	5.17	6.73	0.39	0.78	
Urea	mmol/l	7.56	6.43	8.69	0.57	1.13	Urease kinetic
	mg/dl	45.4	38.6	52.2	3.40	6.80	

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SIEMENS ADVIA 1200/1650/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Urea	mmol/l	7.56	6.43	8.69	0.57	1.13	BUN
	mg/dl	21.2	18.0	24.4	1.60	3.20	

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Siemens Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.6	35.3	47.9	3.15	6.30	Bromocresol Purple
	g/dl	4.16	3.53	4.79	0.32	0.63	
Alkaline Phosphatase	U/l	116	99	133	8.50	17.00	Siemens Dimension AMP buffer 37°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer with P5P 37°C
	U/l	46	37	55	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	101	86	116	7.50	15.00	Siemens 2-chloro-pNP linked substrate 37°C
	U/l	101	86	116	7.50	15.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	46	36	56	5.00	10.00	Tris buffer with P5P 37°C
	U/l	48	38	58	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	15.3	12.1	18.5	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	14.2	11.2	17.2	1.50	3.00	Diazo with Sulphanilic Acid
	mg/dl	0.831	0.655	1.01	0.09	0.18	
Bilirubin Total	µmol/l	29.7	23.4	36.0	3.15	6.30	Diazo with Sulphanilic Acid
	mg/dl	1.74	1.37	2.11	0.19	0.37	
Calcium	mmol/l	2.20	1.98	2.42	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.82	7.94	9.70	0.44	0.88	
Cholesterol	mmol/l	3.33	2.90	3.76	0.22	0.43	Cholesterol Oxidase
	mg/dl	129	112	146	8.50	17.00	
	mmol/l	3.46	3.01	3.91	0.23	0.45	Dimension-Siemens reagents
	mg/dl	134	116	152	9.00	18.00	
Chloride	mmol/l	94.6	87.1	102	3.75	7.50	ISE indirect

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Siemens Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	177	145	209	16.00	32.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	131	105	157	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	134	107	161	13.50	27.00	IDMS traceable
	mg/dl	1.51	1.21	1.81	0.15	0.30	
gamma-GT	U/l	61	52	70	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	73	62	84	5.50	11.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.26	5.32	7.20	0.47	0.94	Hexokinase
	mg/dl	113	95.9	130	8.55	17.10	
Iron	µmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.9	127	9.55	19.10	
LD (LDH)	U/l	214	182	246	16.00	32.00	L->P IFCC 37°C
Lipase	U/l	153	123	183	15.00	30.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	1.07	0.94	1.20	0.06	0.13	Spectrophotometric
	mg/dl	0.743	0.654	0.832	0.04	0.09	
Magnesium	mmol/l	0.87	0.76	0.97	0.05	0.10	Methylthymol blue
	mg/dl	2.11	1.86	2.36	0.13	0.25	
Phosphate Inorganic	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Potassium	mmol/l	3.91	3.60	4.22	0.16	0.31	ISE method - indirect
Protein Total	g/l	60.0	48.0	72.0	6.00	12.00	Biuret reaction end point
	g/dl	6.00	4.80	7.20	0.60	1.20	
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.03	0.86	1.20	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	91.2	76.5	106	7.35	14.70	

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Siemens Dimension EXL

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	0.98	0.83	1.14	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	87.0	73.1	101	6.95	13.90	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.81	5.06	6.56	0.38	0.75	
	mmol/l	0.34	0.30	0.39	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.76	5.01	6.51	0.38	0.75	
Urea	mmol/l	7.35	6.25	8.45	0.55	1.10	Urease kinetic
	mg/dl	44.2	37.6	50.8	3.30	6.60	
	mmol/l	7.35	6.25	8.45	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	

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SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.9	35.6	48.2	3.15	6.30	Bromocresol Green
	g/dl	4.19	3.56	4.82	0.32	0.63	
	g/l	41.3	35.1	47.5	3.10	6.20	Bromocresol Purple
	g/dl	4.13	3.51	4.75	0.31	0.62	
Alkaline Phosphatase	U/l	108	92	124	8.00	16.00	Siemens Dimension AMP buffer 37°C
	U/l	117	99	135	9.00	18.00	AMP optimised to IFCC 37°C
	U/l	118	100	136	9.00	18.00	Randox AMP 37°C
ALT (GPT)	U/l	44	35	53	4.50	9.00	Tris buffer with P5P 37°C
	U/l	49	39	59	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	99	84	114	7.50	15.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	48	38	58	5.00	10.00	Tris buffer with P5P 37°C
	U/l	49	39	59	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bilirubin Direct	µmol/l	13.8	10.9	16.7	1.45	2.90	Diazo with Sulphanilic Acid
	mg/dl	0.807	0.638	0.976	0.08	0.17	
Bilirubin Total	µmol/l	29.7	23.5	35.9	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.74	1.37	2.11	0.19	0.37	
Calcium	mmol/l	2.18	1.96	2.40	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.74	7.86	9.62	0.44	0.88	
Cholesterol	mmol/l	3.35	2.91	3.79	0.22	0.44	Dimension-Siemens reagents
	mg/dl	129	112	146	8.50	17.00	
Chloride	mmol/l	93.9	86.4	101	3.75	7.50	ISE indirect

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
CK Total	U/l	175	143	207	16.00	32.00	CK-NAC (IFCC) 37°C
	U/l	182	149	215	16.50	33.00	Dithioerythritol 37°C
	U/l	180	147	213	16.50	33.00	Dithioerythritol (DTE) IFCC correlated 37°C
Creatinine	µmol/l	135	108	162	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.53	1.22	1.84	0.16	0.31	
	µmol/l	121	96.9	145	12.05	24.10	Randox Enzymatic UV method
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	µmol/l	129	104	154	12.50	25.00	Creatinine PAP method
	mg/dl	1.46	1.18	1.74	0.14	0.28	
	µmol/l	136	109	163	13.50	27.00	Jaffe rate blanked
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	µmol/l	140	112	168	14.00	28.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.58	1.27	1.89	0.16	0.31	
	µmol/l	130	104	156	13.00	26.00	IDMS traceable
	mg/dl	1.47	1.18	1.76	0.15	0.29	
gamma-GT	U/l	62	53	71	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	71	60	82	5.50	11.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.24	5.30	7.18	0.47	0.94	Hexokinase
	mg/dl	112	95.5	129	8.25	16.50	
HDL - Cholesterol	mmol/l	1.30	1.10	1.50	0.10	0.20	Direct HDL PPD
	mg/dl	50.2	42.5	57.9	3.85	7.70	
	mmol/l	1.25	1.06	1.44	0.10	0.19	Direct HDL PEGME
	mg/dl	48.3	40.9	55.7	3.70	7.40	
	mmol/l	1.24	1.06	1.42	0.09	0.18	Direct Clearance Method
	mg/dl	47.9	40.9	54.9	3.50	7.00	

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SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Iron	µmol/l	20.0	16.4	23.6	1.80	3.60	Colorimetric with ppt.
	µg/dl	112	91.7	132	10.15	20.30	
	µmol/l	18.8	15.4	22.2	1.70	3.40	Colorimetric without ppt.
	µg/dl	105	86.1	124	9.45	18.90	
LD (LDH)	U/l	222	189	255	16.50	33.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	216	184	248	16.00	32.00	L->P IFCC 37°C
Lipase	U/l	157	126	188	15.50	31.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.88	0.77	0.99	0.05	0.11	Methylthymol blue
	mg/dl	2.14	1.88	2.40	0.13	0.26	
Phosphate Inorganic	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.37	3.72	5.02	0.33	0.65	
	mmol/l	1.39	1.19	1.59	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.31	3.69	4.93	0.31	0.62	
Potassium	mmol/l	3.89	3.57	4.21	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.3	47.4	71.2	5.95	11.90	Biuret reaction end point
	g/dl	5.93	4.74	7.12	0.60	1.19	
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - indirect
TIBC	µmol/l	43.2	34.1	52.3	4.55	9.10	Removal of excess free iron
	µg/dl	241	191	291	25.00	50.00	
	µmol/l	40.6	32.1	49.1	4.25	8.50	Direct Colorimetric
	µg/dl	227	179	275	24.00	48.00	
Triglycerides	mmol/l	1.00	0.84	1.16	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	88.4	74.3	103	7.05	14.10	
	mmol/l	0.98	0.83	1.14	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	86.9	73.0	101	6.95	13.90	

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SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	0.99	0.84	1.15	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	88.0	73.9	102	7.05	14.10	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.75	5.01	6.49	0.37	0.74	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.66	4.92	6.40	0.37	0.74	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.66	4.92	6.40	0.37	0.74	
Urea	mmol/l	7.35	6.25	8.45	0.55	1.10	Urease end point
	mg/dl	44.2	37.6	50.8	3.30	6.60	
	mmol/l	7.44	6.32	8.56	0.56	1.12	Urease kinetic
	mg/dl	44.7	38.0	51.4	3.35	6.70	
	mmol/l	7.44	6.32	8.56	0.56	1.12	BUN
	mg/dl	20.9	17.8	24.0	1.55	3.10	

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Siemens Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	41.7	35.4	48.0	3.15	6.30	Bromocresol Purple
	g/dl	4.17	3.54	4.80	0.32	0.63	
Alkaline Phosphatase	U/l	117	99	135	9.00	18.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer with P5P 37°C
	U/l	39	32	46	3.50	7.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	99	84	114	7.50	15.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	47	37	57	5.00	10.00	Tris buffer with P5P 37°C
	U/l	45	36	54	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	14.8	11.7	17.9	1.55	3.10	Enzymatic
Bilirubin Direct	µmol/l	13.9	11.0	16.8	1.45	2.90	Diazo with Sulphanilic Acid
	mg/dl	0.813	0.644	0.982	0.08	0.17	
Bilirubin Total	µmol/l	29.1	23.0	35.2	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.70	1.35	2.05	0.18	0.35	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.86	7.98	9.74	0.44	0.88	
Cholesterol	mmol/l	3.38	2.94	3.82	0.22	0.44	Dimension-Siemens reagents
	mg/dl	130	113	147	8.50	17.00	
Chloride	mmol/l	97.7	89.9	106	3.90	7.80	ISE indirect
CK Total	U/l	183	150	216	16.50	33.00	CK-NAC (IFCC) 37°C
	U/l	176	144	208	16.00	32.00	Dithioerythritol 37°C
	U/l	179	146	212	16.50	33.00	Dithioerythritol (DTE) IFCC correlated 37°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Creatinine	µmol/l	137	110	164	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.55	1.24	1.86	0.16	0.31	
	µmol/l	127	102	152	12.50	25.00	Randox Enzymatic UV method
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	128	102	154	13.00	26.00	IDMS traceable
	mg/dl	1.45	1.15	1.75	0.15	0.30	
gamma-GT	U/l	68	58	78	5.00	10.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	69	58	80	5.50	11.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	5.97	5.07	6.87	0.45	0.90	Hexokinase
	mg/dl	108	91.4	125	8.30	16.60	
HDL - Cholesterol	mmol/l	1.26	1.07	1.45	0.10	0.19	Direct HDL PEGME
	mg/dl	48.6	41.3	55.9	3.65	7.30	
Iron	µmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.9	127	9.55	19.10	
Lactate	mmol/l	1.45	1.19	1.71	0.13	0.26	UV LDH
	mg/dl	13.1	10.7	15.5	1.20	2.40	
LD (LDH)	U/l	222	188	256	17.00	34.00	L->P IFCC 37°C
Lipase	U/l	160	128	192	16.00	32.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	1.11	0.97	1.25	0.07	0.14	Spectrophotometric
	mg/dl	0.771	0.675	0.867	0.05	0.10	
Magnesium	mmol/l	0.84	0.74	0.94	0.05	0.10	Methylthymol blue
	mg/dl	2.04	1.79	2.29	0.13	0.25	
Phosphate Inorganic	mmol/l	1.37	1.17	1.57	0.10	0.20	Phosphomolybdate UV
	mg/dl	4.25	3.63	4.87	0.31	0.62	
Potassium	mmol/l	3.87	3.56	4.18	0.16	0.31	ISE method - indirect

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Siemens Dimension Vista

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Protein Total	g/l	59.2	47.3	71.1	5.95	11.90	Biuret reaction end point
	g/dl	5.92	4.73	7.11	0.60	1.19	
Sodium	mmol/l	138	131	145	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	84.8	117	8.10	16.20	
Uric Acid (Urate)	mmol/l	0.32	0.28	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.44	4.74	6.14	0.35	0.70	
	mmol/l	0.32	0.28	0.36	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.33	4.64	6.02	0.35	0.69	
Urea	mmol/l	7.48	6.36	8.60	0.56	1.12	Urease kinetic
	mg/dl	45.0	38.2	51.8	3.40	6.80	
	mmol/l	7.48	6.36	8.60	0.56	1.12	BUN
	mg/dl	21.0	17.9	24.1	1.55	3.10	

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VITALAB FLEXOR®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	40.5	34.4	46.6	3.05	6.10	Bromocresol Green
	g/dl	4.05	3.44	4.66	0.31	0.61	
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	20.0	15.8	24.2	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.17	0.924	1.42	0.12	0.25	
Bilirubin Total	µmol/l	32.6	25.8	39.4	3.40	6.80	Diazo with Sulphanilic Acid
	mg/dl	1.91	1.51	2.31	0.20	0.40	
Calcium	mmol/l	2.25	2.03	2.47	0.11	0.22	Cresolphthalein complexone
	mg/dl	9.02	8.14	9.90	0.44	0.88	
	mmol/l	2.33	2.09	2.57	0.12	0.24	Arsenazo III
	mg/dl	9.34	8.38	10.3	0.48	0.96	
Cholesterol	mmol/l	4.12	3.59	4.65	0.27	0.53	Cholesterol Oxidase
	mg/dl	159	139	179	10.00	20.00	
Creatinine	µmol/l	120	96.1	144	11.95	23.90	Alkaline picrate no deproteinization
	mg/dl	1.36	1.09	1.63	0.14	0.27	
gamma-GT	U/l	52	45	59	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	6.48	5.50	7.46	0.49	0.98	Glucose oxidase
	mg/dl	117	99.1	135	8.95	17.90	
LD (LDH)	U/l	209	178	240	15.50	31.00	L->P IFCC 37°C
Protein Total	g/l	62.3	49.8	74.8	6.25	12.50	Biuret reaction end point
	g/dl	6.23	4.98	7.48	0.63	1.25	

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Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.3	111	7.65	15.30	
Urea	mmol/l	7.59	6.45	8.73	0.57	1.14	Urease kinetic
	mg/dl	45.6	38.8	52.4	3.40	6.80	
	mmol/l	7.59	6.45	8.73	0.57	1.14	BUN
	mg/dl	21.3	18.1	24.5	1.60	3.20	

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Wiener Lab CB 350i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Albumin	g/l	39.8	33.8	45.8	3.00	6.00	Bromocresol Green
	g/dl	3.98	3.38	4.58	0.30	0.60	
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
	U/l	28	22	34	3.00	6.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	24.7	19.5	29.9	2.60	5.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.44	1.14	1.74	0.15	0.30	
Cholesterol	mmol/l	3.85	3.35	4.35	0.25	0.50	Cholesterol Oxidase
	mg/dl	149	129	169	10.00	20.00	
Creatinine	µmol/l	122	97.7	146	12.15	24.30	Alkaline picrate no deproteinization
	mg/dl	1.38	1.10	1.66	0.14	0.28	
Glucose	mmol/l	6.17	5.25	7.09	0.46	0.92	Glucose oxidase
	mg/dl	111	94.6	127	8.20	16.40	
HDL - Cholesterol	mmol/l	1.22	1.04	1.40	0.09	0.18	Direct Clearance Method
	mg/dl	47.1	40.1	54.1	3.50	7.00	
Protein Total	g/l	62.0	49.6	74.4	6.20	12.40	Biuret reaction end point
	g/dl	6.20	4.96	7.44	0.62	1.24	
Triglycerides	mmol/l	0.97	0.81	1.13	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	85.8	72.0	99.6	6.90	13.80	

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RANDOX

Wiener Lab CB 350i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 944UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2018-06

			Range				
Analyte	**unit**	**Target**	**low**	**high**	**1SD**	**2SD**	**methods**
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.03	5.24	6.82	0.40	0.79	
Urea	mmol/l	7.05	6.00	8.10	0.53	1.05	Urease kinetic
	mg/dl	42.4	36.1	48.7	3.15	6.30	
	mmol/l	7.05	5.99	8.11	0.53	1.06	BUN
	mg/dl	19.8	16.8	22.8	1.50	3.00	

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