

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

CAT. NO.	HN1530	GTIN:	05055273203783	SIZE	20 x 5ml
CAT. NO.	HS2611	GTIN:	05055273203813	SIZE	5 x 5ml
LOT NO.	1665UN	EXPIRY:	2027-07-28		

INTENDED USE

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

DEVICE DESCRIPTION

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

SAFETY PRECAUTIONS AND WARNINGS

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

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

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

Health and Safety Data Sheets are available on request.

STORAGE AND STABILITY

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

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

LIMITATIONS

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

Alkaline Phosphatase levels in the reconstituted serum will rise over the stability period. It is recommended that the reconstituted serum 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.

GLDH is stable for 2 days at +2°C to +8°C.

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

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

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

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

The control should not be used as a calibration material.

Due to the zinc content in some batches of rubber stoppers, the QC and calibrator material should be aliquoted into polypropylene tubes and stored at +2°C to +8°C to ensure stable zinc levels throughout the stability period.

PREPARATION FOR USE

The Human Assayed Multi-sera is supplied lyophilised.

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

MATERIALS PROVIDED

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

MATERIALS REQUIRED BUT NOT PROVIDED

Volumetric pipette

ASSIGNED VALUES

Due to the variation caused by test equipment, test reagents and laboratory technique, the quoted ranges are provided for guidance. It is recommended that these ranges are used until each laboratory has established its own ranges, based on individual laboratory requirements.

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

With each batch, a control range is provided for individual parameters and each parameter method. The control range is equivalent to the assigned mean $\pm 2S.D.$

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

NOTES

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



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METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

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	
	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	
	g/l	41.0	34.8	47.2	3.10	6.20	Ortho Vitros Microslide Systems
	g/dl	4.10	3.48	4.72	0.31	0.62	
	g/l	39.5	33.6	45.4	2.95	5.90	Turbidimetric Assays
	g/dl	3.95	3.36	4.54	0.30	0.59	
Alkaline Phosphatase	U/l	160	136	184	12.00	24.00	Ortho Vitros Microslide Systems 37°C
	U/l	280	238	322	21.00	42.00	Diethanolamine buffer DEA 37°C
	U/l	218	185	251	16.50	33.00	Diethanolamine buffer DEA 30°C
	U/l	179	152	206	13.50	27.00	Diethanolamine buffer DEA 25°C
	U/l	183	155	211	14.00	28.00	AMP optimised to IFCC 37°C
	U/l	143	121	165	11.00	22.00	AMP optimised to IFCC 30°C
	U/l	117	99	135	9.00	18.00	AMP optimised to IFCC 25°C
	U/l	180	153	207	13.50	27.00	AMP non-optimised 37°C
	U/l	140	119	161	10.50	21.00	AMP non-optimised 30°C
	U/l	115	98	132	8.50	17.00	AMP non-optimised 25°C
	U/l	168	143	193	12.50	25.00	Colorimetric 37°C
	U/l	131	111	151	10.00	20.00	Colorimetric 30°C
	U/l	107	91	123	8.00	16.00	Colorimetric 25°C

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Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
ALT (GPT)	U/l	38	30	46	4.00	8.00	Colorimetric 37°C
	U/l	28	22	34	3.00	6.00	Colorimetric 30°C
	U/l	21	17	25	2.00	4.00	Colorimetric 25°C
	U/l	45	36	54	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	41	33	49	4.00	8.00	Tris buffer with P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer with P5P 30°C
	U/l	23	19	27	2.00	4.00	Tris buffer with P5P 25°C
	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
	U/l	28	22	34	3.00	6.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
	U/l	44	35	53	4.50	9.00	Tris buffer with P5P NVKC 37°C
	U/l	33	26	40	3.50	7.00	Tris buffer with P5P NVKC 30°C
	U/l	25	20	30	2.50	5.00	Tris buffer with P5P NVKC 25°C
	U/l	45	36	54	4.50	9.00	Ortho Vitros MicroSlide visible 37°C
Amylase Pancreatic	U/l	61	51	71	5.00	10.00	Immunoinhibition EPS substrate 37°C
	U/l	61	52	70	4.50	9.00	Roche EPS Liquid 37°C
	U/l	74	63	85	5.50	11.00	Randox Liquid Ethylidene pNPG7 37°C
Amylase Total	U/l	90	77	103	6.50	13.00	pNP Maltotriose substrates 37°C
	U/l	94	80	108	7.00	14.00	Siemens - blocked pNPG7 37°C
	U/l	99	84	114	7.50	15.00	Randox Liquid Ethylidene pNPG7 37°C
	U/l	86	73	99	6.50	13.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	86	73	99	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	70	59	81	5.50	11.00	Ortho Vitros Microslide Systems 37°C
	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	92	79	105	6.50	13.00	Siemens 2-chloro-pNPG3 37°C

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Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Total	U/l	90	76	104	7.00	14.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	89	75	103	7.00	14.00	Abbott Architect / Alinity cal factor 3431 37°C
	U/l	78	66	90	6.00	12.00	Beckman CNPG3 (Extinction Coeff) 37°C
	U/l	89	76	102	6.50	13.00	Abbott Architect 37°C
Apolipoprotein A-1	g/l	1.11	0.91	1.31	0.10	0.20	Immunoturbidimetric
	mg/dl	111	91.0	131	10.00	20.00	
Apolipoprotein B	g/l	0.64	0.53	0.76	0.06	0.12	Immunoturbidimetric
	mg/dl	64.4	52.8	76.0	5.80	11.60	
Acid Phosphatase (Total)	U/l	11.2	7.50	14.9	1.85	3.70	1-Naphthyl Phosphate substrate Kinetic 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Colorimetric 37°C
	U/l	24	19	29	2.50	5.00	Colorimetric 30°C
	U/l	17	13	21	2.00	4.00	Colorimetric 25°C
	U/l	52	42	62	5.00	10.00	Ortho Vitros Microslide visible slide 37°C
	U/l	49	40	58	4.50	9.00	Tris buffer with P5P 37°C
	U/l	33	27	39	3.00	6.00	Tris buffer with P5P 30°C
	U/l	23	19	27	2.00	4.00	Tris buffer with P5P 25°C
	U/l	36	28	44	4.00	8.00	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
	U/l	45	36	54	4.50	9.00	Tris buffer with P5P NVKC 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer with P5P NVKC 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer with P5P NVKC 25°C
Bile Acids	µmol/l	23.1	18.5	27.7	2.30	4.60	4th Generation Colorimetric
	µmol/l	24.7	19.8	29.6	2.45	4.90	5th Generation Colorimetric
Bicarbonate	mmol/l	12.6	10.0	15.2	1.30	2.60	Colorimetric

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Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Bicarbonate	mmol/l	14.6	11.6	17.6	1.50	3.00	Ortho Vitros Microslide Systems
	mmol/l	13.7	10.8	16.6	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	20.2	15.9	24.5	2.15	4.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.18	0.930	1.43	0.13	0.25	
	µmol/l	20.6	16.3	24.9	2.15	4.30	Diazo with Sulphanilic Acid
	mg/dl	1.21	0.954	1.47	0.13	0.26	
	µmol/l	19.2	15.2	23.2	2.00	4.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.12	0.889	1.35	0.12	0.23	
	µmol/l	18.3	14.5	22.1	1.90	3.80	Oxidation to Biliverdin/Vanadate
	mg/dl	1.07	0.848	1.29	0.11	0.22	
Bilirubin Total	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	
	µmol/l	24.1	19.0	29.2	2.55	5.10	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.41	1.11	1.71	0.15	0.30	
	µmol/l	26.8	21.2	32.4	2.80	5.60	Diazo with Dichloroaniline (DCA)
	mg/dl	1.57	1.24	1.90	0.17	0.33	
	µmol/l	30.7	24.3	37.1	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.80	1.42	2.18	0.19	0.38	
	µmol/l	25.6	20.2	31.0	2.70	5.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.50	1.18	1.82	0.16	0.32	
	µmol/l	25.7	20.3	31.1	2.70	5.40	Nitrobenzenediazonium salt
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	µmol/l	25.7	20.3	31.1	2.70	5.40	Diazonium ion
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	µmol/l	31.0	24.5	37.5	3.25	6.50	Oxidation to Biliverdin/Vanadate
	mg/dl	1.81	1.43	2.19	0.19	0.38	

METHOD		ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)					
Lot. No. 1665UN Cat. No. HN1530 / HS2611							
Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	35.6	28.1	43.1	3.75	7.50	Modified Jendrassik
	mg/dl	2.08	1.64	2.52	0.22	0.44	
Calcium	mmol/l	2.08	1.87	2.29	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.34	7.49	9.19	0.43	0.85	
	mmol/l	2.08	1.87	2.29	0.11	0.21	Ortho Vitros Microslide Systems
	mg/dl	8.34	7.49	9.19	0.43	0.85	
	mmol/l	2.11	1.90	2.32	0.11	0.21	Arsenazo III
	mg/dl	8.46	7.62	9.30	0.42	0.84	
	mmol/l	2.11	1.90	2.32	0.11	0.21	NM-BAPTA
	mg/dl	8.46	7.62	9.30	0.42	0.84	
Cholesterol	mmol/l	0.72	0.65	0.79	0.04	0.07	Ionised calcium
	mg/dl	2.89	2.61	3.17	0.14	0.28	
	mmol/l	3.93	3.42	4.44	0.26	0.51	Ortho Vitros Microslide Systems
	mg/dl	152	132	172	10.00	20.00	
	mmol/l	3.98	3.46	4.50	0.26	0.52	Cholesterol Oxidase - Abell Kendall
	mg/dl	154	134	174	10.00	20.00	
	mmol/l	4.03	3.51	4.55	0.26	0.52	Cholesterol Oxidase - IDMS
	mg/dl	156	135	177	10.50	21.00	
Chloride	mmol/l	3.97	3.45	4.49	0.26	0.52	Cholesterol Dehydrogenase
	mg/dl	153	133	173	10.00	20.00	
	mmol/l	103	97.4	109	2.80	5.60	Colorimetric
	mmol/l	98.7	93.8	104	2.45	4.90	Ortho Vitros Microslide Systems
	mmol/l	95.6	90.8	100	2.40	4.80	ISE indirect
	mmol/l	97.0	92.2	102	2.40	4.80	ISE direct

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Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholinesterase	U/l	6396	5117	7675	639.50	1279.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	180	148	212	16.00	32.00	Ortho Vitros Microslide Systems 37°C
	U/l	186	153	219	16.50	33.00	CK-NAC serum start (DGKC) 37°C
	U/l	116	96	136	10.00	20.00	CK-NAC serum start (DGKC) 30°C
	U/l	79	65	93	7.00	14.00	CK-NAC serum start (DGKC) 25°C
	U/l	192	158	226	17.00	34.00	CK-NAC substrate start (DGKC) 37°C
	U/l	120	99	141	10.50	21.00	CK-NAC substrate start (DGKC) 30°C
	U/l	82	67	97	7.50	15.00	CK-NAC substrate start (DGKC) 25°C
	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
Copper	μmol/l	18.4	14.7	22.1	1.85	3.70	Atomic absorption
	μg/dl	117	93.5	141	11.75	23.50	
	μmol/l	17.4	13.9	20.9	1.75	3.50	Colorimetric
	μg/dl	111	88.4	134	11.30	22.60	
Cortisol	nmol/l	513	385	641	64.00	128.00	Roche Cobas e402/e801
	μg/dl	18.5	13.9	23.1	2.30	4.60	
Creatinine	μmol/l	121	97.2	145	11.90	23.80	Alkaline picrate with deproteinization
	mg/dl	1.37	1.10	1.64	0.14	0.27	
	μmol/l	124	99.3	149	12.35	24.70	Alkaline picrate no deproteinization
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	μmol/l	126	101	151	12.50	25.00	Enzymatic UV method
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	μmol/l	126	101	151	12.50	25.00	Creatinine PAP method
	mg/dl	1.42	1.14	1.70	0.14	0.28	

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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	124	99.1	149	12.45	24.90	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	μmol/l	119	95.4	143	11.80	23.60	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.34	1.08	1.60	0.13	0.26	
	μmol/l	120	95.9	144	12.05	24.10	Vitros IDMS Traceable
	mg/dl	1.36	1.08	1.64	0.14	0.28	
	μmol/l	121	96.6	145	12.20	24.40	IDMS traceable
	mg/dl	1.37	1.09	1.65	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.29	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	2.17	1.73	2.60	0.22	0.44	Immunoturbidimetric
	ng/ml	1.69	1.35	2.03	0.17	0.34	
Folate	nmol/l	29.0	22.0	36.0	3.50	7.00	Roche Cobas e402/e801
	ng/ml	12.8	9.70	15.9	1.55	3.10	
Free T4	pmol/l	14.9	11.2	18.6	1.85	3.70	Abbott Architect
	ng/dl	1.16	0.874	1.45	0.14	0.29	
	pg/ml	11.6	8.74	14.5	1.43	2.86	Abbott Architect
	pmol/l	15.9	11.9	19.9	2.00	4.00	Beckman Access
	ng/dl	1.24	0.928	1.55	0.16	0.31	
	pg/ml	12.4	9.28	15.5	1.56	3.12	Beckman Access
	pmol/l	18.5	13.9	23.1	2.30	4.60	Roche Cobas 4000/E411
	ng/dl	1.44	1.08	1.80	0.18	0.36	
	pg/ml	14.4	10.8	18.0	1.80	3.60	Roche Cobas 4000/E411
	pmol/l	18.9	14.2	23.6	2.35	4.70	Roche Cobas e601/602
	ng/dl	1.47	1.11	1.83	0.18	0.36	
	pg/ml	14.7	11.1	18.3	1.80	3.60	Roche Cobas e601/602

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Analyte	unit	Target	low	high	1SD	2SD	methods
Free T4	pmol/l	18.9	14.2	23.6	2.35	4.70	Roche Cobas e601/602
	ng/dl	1.47	1.11	1.83	0.18	0.36	
	pg/ml	14.7	11.1	18.3	1.80	3.60	Roche Cobas e601/602
	pmol/l	17.0	12.8	21.2	2.10	4.20	Biomerieux Vidas FT4N Kit
	ng/dl	1.33	0.998	1.66	0.17	0.33	
	pg/ml	13.3	9.98	16.6	1.66	3.32	Biomerieux Vidas FT4N Kit
	pmol/l	19.3	14.5	24.1	2.40	4.80	Roche Cobas e402/e801
	ng/dl	1.51	1.13	1.89	0.19	0.38	
Gentamicin	µmol/l	7.11	5.69	8.53	0.71	1.42	Gravimetric
	µg/ml	3.40	2.72	4.08	0.34	0.68	
gamma-GT	U/l	47	40	54	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	37	32	42	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	29	25	33	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	54	46	62	4.00	8.00	Ortho Vitros Microslide Systems 37°C
	U/l	52	44	60	4.00	8.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	41	35	47	3.00	6.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	32	27	37	2.50	5.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	50	42	58	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	26	36	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	58	49	67	4.50	9.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	46	39	53	3.50	7.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	36	30	42	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

METHOD							
ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)							
Lot. No. 1665UN Cat. No. HN1530 / HS2611							
Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28							
Analyte	unit	Target	Range		1SD	2SD	methods
GLDH	U/l	16	12	19	1.80	3.60	Triethanolamine buffer 50 mmol 37°C
	U/l	12	9	15	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	10	7	13	1.50	3.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	5.85	4.97	6.73	0.44	0.88	Ortho Vitros Microslide Systems
	mg/dl	105	89.6	120	7.70	15.40	
	mmol/l	5.82	4.94	6.70	0.44	0.88	Hexokinase
	mg/dl	105	89.0	121	8.00	16.00	
	mmol/l	6.03	5.13	6.93	0.45	0.90	Glucose oxidase
	mg/dl	109	92.4	126	8.30	16.60	
alpha-HBDH	U/l	207	164	250	21.50	43.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	156	124	188	16.00	32.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	117	93	141	12.00	24.00	Oxobutyrate < 10 mmol/l 25°C
HDL - Cholesterol	mmol/l	1.34	1.14	1.54	0.10	0.20	Direct HDL PPD
	mg/dl	51.7	44.0	59.4	3.85	7.70	
	mmol/l	1.15	0.97	1.33	0.09	0.18	Direct HDL Immunoseparation
	mg/dl	44.4	37.6	51.2	3.40	6.80	
	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	
	mmol/l	1.27	1.08	1.46	0.10	0.19	Direct Clearance Method
	mg/dl	49.0	41.7	56.3	3.65	7.30	
	mmol/l	1.19	1.01	1.37	0.09	0.18	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	45.9	39.0	52.8	3.45	6.90	
	mmol/l	1.37	1.17	1.57	0.10	0.20	HDL - Ultra
	mg/dl	52.9	45.2	60.6	3.85	7.70	
	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct HDL Roche 4th Generation
	mg/dl	45.9	39.0	52.8	3.45	6.90	

METHOD		ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)					
Lot. No. 1665UN Cat. No. HN1530 / HS2611							
Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Immunoglobulin G	g/l	8.01	6.57	9.45	0.72	1.44	Immunoturbidimetric
	mg/dl	801	657	945	72.00	144.00	
Immunoglobulin M	g/l	0.67	0.54	0.80	0.07	0.13	Immunoturbidimetric
	mg/dl	66.9	53.5	80.3	6.70	13.40	
Iron	µmol/l	19.8	16.3	23.3	1.75	3.50	Colorimetric with ppt.
	µg/dl	111	91.1	131	9.95	19.90	
	µmol/l	19.6	16.1	23.1	1.75	3.50	Colorimetric without ppt.
	µg/dl	110	90.0	130	10.00	20.00	
	µmol/l	19.5	16.0	23.0	1.75	3.50	Ortho Vitros Microslide Systems
	µg/dl	109	89.4	129	9.80	19.60	
Lactate	mmol/l	1.76	1.44	2.08	0.16	0.32	Ion selective electrode
	mg/dl	15.9	13.0	18.8	1.45	2.90	
	mmol/l	1.54	1.27	1.81	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.9	11.4	16.4	1.25	2.50	
	mmol/l	1.51	1.24	1.78	0.14	0.27	Ortho Vitros Microslide Systems
	mg/dl	13.6	11.2	16.0	1.20	2.40	
	mmol/l	1.43	1.17	1.69	0.13	0.26	UV LDH
	mg/dl	12.9	10.5	15.3	1.20	2.40	
LD (LDH)	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	412	350	474	31.00	62.00	P->L Scandinavian & Dutch 37°C
	U/l	297	253	341	22.00	44.00	P->L Scandinavian & Dutch 30°C
	U/l	209	177	241	16.00	32.00	P->L Scandinavian & Dutch 25°C

METHOD		ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)					
Lot. No. 1665UN Cat. No. HN1530 / HS2611							
Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	395	336	454	29.50	59.00	P->L German methods 37°C
	U/l	285	243	327	21.00	42.00	P->L German methods 30°C
	U/l	200	170	230	15.00	30.00	P->L German methods 25°C
	U/l	374	318	430	28.00	56.00	P->L SFBC 37°C
	U/l	270	230	310	20.00	40.00	P->L SFBC 30°C
	U/l	190	161	219	14.50	29.00	P->L SFBC 25°C
	U/l	197	167	227	15.00	30.00	L->P IFCC 37°C
	U/l	142	121	163	10.50	21.00	L->P IFCC 30°C
	U/l	100	85	115	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	223	190	256	16.50	33.00	Ortho Vitros IFCC Traceable 37°C
	U/l	37	30	44	3.50	7.00	Other Colorimetric 37°C
	U/l	272	218	326	27.00	54.00	Ortho Vitros Microslide Systems 37°C
	U/l	38	30	46	4.00	8.00	Roche Colorimetric 37°C
Lithium	U/l	45	36	54	4.50	9.00	Randox Colorimetric 37°C
	mmol/l	0.98	0.86	1.09	0.06	0.12	Ion selective electrode
	mg/dl	0.678	0.597	0.759	0.04	0.08	
	mmol/l	1.00	0.88	1.12	0.06	0.12	Spectrophotometric
	mg/dl	0.694	0.611	0.777	0.04	0.08	
Magnesium	mmol/l	0.91	0.80	1.01	0.05	0.11	Arsenazo III
	mg/dl	2.20	1.93	2.47	0.14	0.27	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.21	1.94	2.48	0.14	0.27	
	mmol/l	0.95	0.84	1.06	0.06	0.11	Calmagite
	mg/dl	2.31	2.03	2.59	0.14	0.28	
	mmol/l	0.94	0.82	1.05	0.06	0.11	Xylidyl Blue
	mg/dl	2.27	2.00	2.54	0.14	0.27	

METHOD		ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)					
Lot. No. 1665UN Cat. No. HN1530 / HS2611							
Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Methylthymol blue
	mg/dl	2.21	1.94	2.48	0.14	0.27	
	mmol/l	0.94	0.83	1.06	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.29	2.02	2.56	0.14	0.27	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Enzymatic
	mg/dl	2.21	1.94	2.48	0.14	0.27	
NEFA	mmol/l	1.19	0.95	1.43	0.12	0.24	Colorimetric
Osmolality	mOsm/kg	292	234	350	29.00	58.00	Calculated
	mOsm/kg	294	235	353	29.50	59.00	Freezing point depression
Paracetamol	mmol/l	0.09	0.07	0.10	0.01	0.02	Gravimetric
	mg/l	13.0	10.4	15.6	1.30	2.60	
Phosphate Inorganic	mmol/l	1.51	1.28	1.74	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	4.68	3.97	5.39	0.36	0.71	
	mmol/l	1.44	1.23	1.65	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.46	3.81	5.11	0.33	0.65	
	mmol/l	1.46	1.24	1.68	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.53	3.84	5.22	0.35	0.69	
Potassium	mmol/l	4.34	4.12	4.56	0.11	0.22	Enzymatic
	mmol/l	3.96	3.76	4.16	0.10	0.20	ISE method - direct
	mmol/l	4.02	3.82	4.22	0.10	0.20	ISE method - indirect
Protein Total	g/l	59.9	47.9	71.9	6.00	12.00	Ortho Vitros Microslide Systems
	g/dl	5.99	4.79	7.19	0.60	1.20	
	g/l	57.9	46.3	69.5	5.80	11.60	Biuret reaction end point
	g/dl	5.79	4.63	6.95	0.58	1.16	

METHOD		ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)					
Lot. No. 1665UN Cat. No. HN1530 / HS2611							
Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Protein Total	g/l	57.8	46.2	69.4	5.80	11.60	Biuret reaction kinetic
	g/dl	5.78	4.62	6.94	0.58	1.16	
PSA Total	ng/ml =	8.11	6.08	10.1	1.02	2.03	bioMerieux VIDAS TPSA
	ng/ml =	7.80	5.85	9.75	0.98	1.95	Siemens Immulite 2000 1st Generation
	ng/ml =	6.81	5.11	8.51	0.85	1.70	Abbott Architect
	ng/ml =	8.53	6.40	10.7	1.07	2.13	Cobas E411
	ng/ml =	8.36	6.27	10.5	1.05	2.09	Roche Cobas 6000/8000
Salicylate	mmol/l	0.43	0.35	0.52	0.04	0.09	Gravimetric
	mg/dl	5.99	4.79	7.19	0.60	1.20	
Sodium	mmol/l	141	134	148	3.50	7.00	Enzymatic
	mmol/l	139	132	146	3.50	7.00	ISE method - direct
	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
Theophylline	μmol/l	28.3	22.6	34.0	2.85	5.70	Gravimetric
	μg/ml	5.10	4.07	6.13	0.52	1.03	
Thyroid Stimulating Hormone	μU/ml =	1.15	0.92	1.38	0.11	0.23	Abbott Architect
	μU/ml =	1.57	1.26	1.88	0.16	0.31	bioMerieux VIDAS TSH
	μU/ml =	1.60	1.28	1.92	0.16	0.32	Roche Cobas 4000/E411
	μU/ml =	1.66	1.33	1.99	0.17	0.33	Roche Cobas e601/602
	μU/ml =	1.30	1.04	1.56	0.13	0.26	Beckman Dxl 600/800 Access (3rd IS)
	μU/ml =	1.55	1.24	1.86	0.16	0.31	Roche Cobas e402/e801
TIBC	μmol/l	44.2	34.9	53.5	4.65	9.30	FE+UIBC(saturation with iron)
	μg/dl	247	195	299	26.00	52.00	
	μmol/l	49.1	38.7	59.5	5.20	10.40	Direct Colorimetric
	μg/dl	274	216	332	29.00	58.00	
	μmol/l	47.3	37.3	57.3	5.00	10.00	Calculated from Transferrin
	μg/dl	264	209	319	27.50	55.00	

METHOD		ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)					
Lot. No. 1665UN Cat. No. HN1530 / HS2611							
Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
TIBC	μmol/l	51.2	40.4	62.0	5.40	10.80	Randox Direct
	μg/dl	286	226	346	30.00	60.00	
Tobramycin	μmol/l	6.30	5.04	7.56	0.63	1.26	Gravimetric
	μg/ml	2.95	2.36	3.54	0.30	0.59	
Total T3	nmol/l	1.69	1.27	2.11	0.21	0.42	Abbott Architect
	ng/ml	1.10	0.827	1.37	0.14	0.27	
	ng/dl	110	82.7	137	13.65	27.30	
	nmol/l	2.14	1.61	2.67	0.27	0.53	Roche Cobas 4000/E411
	ng/ml	1.39	1.05	1.73	0.17	0.34	
	ng/dl	139	105	173	17.00	34.00	Roche Cobas 4000/E411
	nmol/l	2.05	1.54	2.56	0.26	0.51	Roche Cobas e601/602
	ng/ml	1.33	1.00	1.66	0.17	0.33	
Total T4	ng/dl	133	100	166	16.50	33.00	Roche Cobas e601/602
	nmol/l	83.6	62.7	105	10.45	20.90	Abbott Architect
	μg/dl	6.52	4.89	8.15	0.82	1.63	
	ng/ml	65.2	48.9	81.5	8.15	16.30	
	nmol/l	94.9	71.2	119	11.85	23.70	Roche Cobas 4000/E411
	μg/dl	7.40	5.55	9.25	0.93	1.85	
	ng/ml	74.0	55.5	92.5	9.25	18.50	Roche Cobas 4000/E411
	nmol/l	86.6	65.0	108	10.80	21.60	Roche Cobas e601/602
Transferrin	μg/dl	6.75	5.07	8.43	0.84	1.68	
	ng/ml	67.5	50.7	84.3	8.40	16.80	Roche Cobas e601/602
Transferrin	g/l	1.94	1.55	2.33	0.20	0.39	Immunoturbidimetric
	mg/dl	194	155	233	19.50	39.00	

METHOD		ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)					
Lot. No. 1665UN Cat. No. HN1530 / HS2611							
Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.10	0.93	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.9	113	7.75	15.50	
	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	97.4	81.5	113	7.95	15.90	
	mmol/l	1.08	0.90	1.26	0.09	0.18	L/G Kinase EP. 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	Lipase/Glycerol Dehydrogenase
	mg/dl	95.6	80.2	111	7.70	15.40	
	mmol/l	1.30	1.09	1.51	0.11	0.21	Ortho Vitros Microslide Systems
	mg/dl	115	96.5	134	9.25	18.50	
	mmol/l	0.33	0.29	0.37	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.51	4.80	6.22	0.36	0.71	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.58	4.86	6.30	0.36	0.72	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.73	4.99	6.47	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.73	4.97	6.49	0.38	0.76	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Spectrophotometric at 280-290
	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 with ascorbate oxidase @ 546nm
	mg/dl	5.68	4.94	6.42	0.37	0.74	
	mmol/l	7.65	6.50	8.80	0.58	1.15	Ortho Vitros Microslide Systems
	mg/dl	46.0	39.1	52.9	3.45	6.90	
Urea	mmol/l	7.69	6.54	8.84	0.58	1.15	Urease end point
	mg/dl	46.2	39.3	53.1	3.45	6.90	

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.75	6.59	8.91	0.58	1.16	Urease kinetic
	mg/dl	46.6	39.6	53.6	3.50	7.00	
	mmol/l	7.75	6.59	8.91	0.58	1.16	BUN
	mg/dl	21.8	18.5	25.1	1.65	3.30	
Vitamin B12	pmol/l	459	367	551	46.00	92.00	Roche Cobas e402/e801
	pg/ml	622	497	747	62.50	125.00	
Zinc	μmol/l	19.2	15.4	23.0	1.90	3.80	Atomic absorption
	μg/dl	125	101	149	12.00	24.00	
	μmol/l	23.3	18.6	28.0	2.35	4.70	Colorimetric with deproteinisation
	μg/dl	152	121	183	15.50	31.00	

Abbott Alinity/ Architect c/ci Svstems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	40.4	34.4	46.4	3.00	6.00	Bromocresol Green
	g/dl	4.04	3.44	4.64	0.30	0.60	
	g/l	41.5	35.3	47.7	3.10	6.20	Bromocresol Purple
	g/dl	4.15	3.53	4.77	0.31	0.62	
Alkaline Phosphatase	U/l	182	155	209	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	182	154	210	14.00	28.00	AMP non-optimised 37°C
ALT (GPT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	61	52	70	4.50	9.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	89	76	102	6.50	13.00	Abbott Architect Non-IFCC Cal. 37°C
	U/l	100	85	115	7.50	15.00	Abbott Architect IFCC Cal. 37°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Bile Acids	µmol/l	24.6	19.7	29.5	2.45	4.90	Enzymatic Colorimetric
Bicarbonate	mmol/l	12.6	9.95	15.3	1.33	2.65	Enzymatic
Bilirubin Direct	µmol/l	18.9	14.9	22.9	2.00	4.00	Diazo with Sulphanilic Acid
	mg/dl	1.11	0.872	1.35	0.12	0.24	
	µmol/l	19.1	15.1	23.1	2.00	4.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.12	0.883	1.36	0.12	0.24	
Bilirubin Total	µmol/l	26.3	20.8	31.8	2.75	5.50	Diazo with Dichloroaniline (DCA)
	mg/dl	1.54	1.22	1.86	0.16	0.32	
	µmol/l	27.0	21.4	32.6	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.58	1.25	1.91	0.17	0.33	

Abbott Alinity/ Architect c/ci Svstems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	μmol/l	26.0	20.5	31.5	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.52	1.20	1.84	0.16	0.32	
	μmol/l	26.3	20.8	31.8	2.75	5.50	Diazonium ion
	mg/dl	1.54	1.22	1.86	0.16	0.32	
Calcium	mmol/l	2.07	1.86	2.28	0.11	0.21	Arsenazo III
	mg/dl	8.30	7.45	9.15	0.43	0.85	
Cholesterol	mmol/l	3.93	3.42	4.44	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	152	132	172	10.00	20.00	
Chloride	mmol/l	98.2	93.3	103	2.45	4.90	ISE indirect
Cholinesterase	U/l	7443	5954	8932	744.50	1489.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	188	154	222	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	191	157	225	17.00	34.00	Abbott 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	99.9	150	12.55	25.10	Enzymatic UV method
	mg/dl	1.41	1.13	1.69	0.14	0.28	
gamma-GT	U/l	48	41	55	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	48	41	55	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	5.75	4.89	6.61	0.43	0.86	Hexokinase
	mg/dl	104	88.1	120	7.95	15.90	
HDL - Cholesterol	mmol/l	1.38	1.17	1.59	0.11	0.21	Direct HDL PPD
	mg/dl	53.3	45.2	61.4	4.05	8.10	
	mmol/l	1.36	1.16	1.56	0.10	0.20	HDL - Ultra
	mg/dl	52.5	44.8	60.2	3.85	7.70	
Iron	μmol/l	21.4	17.5	25.3	1.95	3.90	Colorimetric with ppt.
	μg/dl	120	97.8	142	11.10	22.20	

Abbott Alinity/ Architect c/ci Svstems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	µmol/l	20.9	17.2	24.6	1.85	3.70	Colorimetric without ppt.
	µg/dl	117	96.1	138	10.45	20.90	
Lactate	mmol/l	1.59	1.31	1.87	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.3	11.8	16.8	1.25	2.50	
LD (LDH)	U/l	192	163	221	14.50	29.00	L->P 37°C
	U/l	190	162	218	14.00	28.00	L->P IFCC 37°C
Lipase	U/l	38	31	45	3.50	7.00	Other Colorimetric 37°C
Lithium	mmol/l	0.98	0.86	1.10	0.06	0.12	Spectrophotometric
	mg/dl	0.682	0.600	0.764	0.04	0.08	
Magnesium	mmol/l	0.89	0.78	0.99	0.05	0.11	Arsenazo III
	mg/dl	2.16	1.90	2.42	0.13	0.26	
	mmol/l	0.90	0.80	1.01	0.05	0.11	Enzymatic
	mg/dl	2.19	1.93	2.45	0.13	0.26	
Osmolality	mOsm/kg	297	237	357	30.00	60.00	Calculated
Phosphate Inorganic	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	1.44	1.22	1.66	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.46	3.78	5.14	0.34	0.68	
Potassium	mmol/l	4.02	3.82	4.22	0.10	0.20	ISE method - indirect
Protein Total	g/l	59.6	47.7	71.5	5.95	11.90	Biuret reaction end point
	g/dl	5.96	4.77	7.15	0.60	1.19	
	g/l	60.4	48.3	72.5	6.05	12.10	Biuret reaction kinetic
	g/dl	6.04	4.83	7.25	0.61	1.21	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect

Abbott Alinity/ Architect c/ci Svstems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
TIBC	μmol/l	43.3	34.2	52.4	4.55	9.10	FE+UIBC(saturation with iron)
	μg/dl	242	191	293	25.50	51.00	
	μmol/l	49.0	38.7	59.3	5.15	10.30	Calculated from Transferrin
	μg/dl	274	216	332	29.00	58.00	
Triglycerides	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.1	108	7.40	14.80	
	mmol/l	1.02	0.86	1.18	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	90.3	75.8	105	7.25	14.50	
	mmol/l	1.00	0.84	1.16	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	88.5	74.5	103	7.00	14.00	
	mmol/l	1.07	0.90	1.24	0.09	0.17	Abbott Architect 2000i
	mg/dl	94.7	79.7	110	7.50	15.00	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.71	4.96	6.46	0.38	0.75	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.73	4.99	6.47	0.37	0.74	
Urea	mmol/l	7.94	6.75	9.13	0.60	1.19	Urease kinetic
	mg/dl	47.7	40.6	54.8	3.55	7.10	
	mmol/l	7.94	6.75	9.13	0.60	1.19	BUN
	mg/dl	22.3	19.0	25.6	1.65	3.30	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	39.5	33.5	45.5	3.00	6.00	Bromocresol Green
	g/dl	3.95	3.35	4.55	0.30	0.60	
Alkaline Phosphatase	U/l	275	233	317	21.00	42.00	Diethanolamine buffer DEA 37°C
	U/l	198	168	228	15.00	30.00	AMP optimised to IFCC 37°C
	U/l	185	157	213	14.00	28.00	Beckman (Extinction Coefficient) 37°C
ALT (GPT)	U/l	42	34	50	4.00	8.00	Beckman Mod. IFCC Ref. without P5P 37°C
	U/l	41	33	49	4.00	8.00	Beckman (Extinction Coefficient) 37°C
Amylase Total	U/l	81	69	93	6.00	12.00	pNP Maltotriose substrates 37°C
	U/l	90	76	104	7.00	14.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	78	66	90	6.00	12.00	Beckman CNPG3 (Extinction Coeff) 37°C
	U/l	80	68	92	6.00	12.00	Other 2-chloro-pNPG3 37°C
AST (GOT)	U/l	39	31	47	4.00	8.00	Beckman Mod. IFCC Ref. without P5P 37°C
	U/l	38	30	46	4.00	8.00	Beckman (Extinction Coefficient) 37°C
Bile Acids	µmol/l	23.7	18.9	28.5	2.40	4.80	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	20.1	15.9	24.3	2.10	4.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.18	0.930	1.43	0.13	0.25	
Bilirubin Total	µmol/l	30.2	23.9	36.5	3.15	6.30	Diazo with Sulphanilic Acid
	mg/dl	1.77	1.40	2.14	0.19	0.37	
	µmol/l	29.1	23.0	35.2	3.05	6.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.70	1.35	2.05	0.18	0.35	
	µmol/l	29.9	23.6	36.2	3.15	6.30	DPD (Beckman AU)
	mg/dl	1.75	1.38	2.12	0.19	0.37	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.16	1.95	2.37	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.66	7.82	9.50	0.42	0.84	
	mmol/l	2.15	1.93	2.37	0.11	0.22	Arsenazo III
	mg/dl	8.62	7.74	9.50	0.44	0.88	
Cholesterol	mmol/l	3.92	3.41	4.43	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	151	132	170	9.50	19.00	
	mmol/l	4.12	3.59	4.65	0.27	0.53	Cholesterol Oxidase - IDMS
	mg/dl	159	139	179	10.00	20.00	
	mmol/l	3.96	3.44	4.48	0.26	0.52	Cholesterol Dehydrogenase
	mg/dl	153	133	173	10.00	20.00	
Chloride	mmol/l	95.5	90.7	100	2.40	4.80	ISE indirect
Cholinesterase	U/l	5804	4643	6965	580.50	1161.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	207	170	244	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	192	157	227	17.50	35.00	Beckman CK-NAC (Extinction Coeff) 37°C
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	
	μmol/l	128	102	154	13.00	26.00	Enzymatic UV method
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	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	116	92.8	139	11.60	23.20	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.31	1.05	1.57	0.13	0.26	
	μmol/l	120	95.6	144	12.20	24.40	IDMS traceable
	mg/dl	1.36	1.08	1.64	0.14	0.28	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
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	49	42	56	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	50	43	57	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
GLDH	U/l	14	11	17	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	5.79	4.92	6.66	0.44	0.87	Hexokinase
	mg/dl	104	88.7	119	7.65	15.30	
	mmol/l	5.62	4.77	6.47	0.43	0.85	Glucose oxidase
	mg/dl	101	86.0	116	7.50	15.00	
HDL - Cholesterol	mmol/l	1.15	0.98	1.33	0.09	0.18	Direct HDL PPD
	mg/dl	44.4	37.6	51.2	3.40	6.80	
	mmol/l	1.15	0.98	1.32	0.09	0.17	Direct HDL Immunoseparation
	mg/dl	44.4	37.7	51.1	3.35	6.70	
	mmol/l	1.39	1.18	1.60	0.11	0.21	HDL - Ultra
	mg/dl	53.7	45.5	61.9	4.10	8.20	
Iron	µmol/l	19.6	16.1	23.1	1.75	3.50	Colorimetric with ppt.
	µg/dl	110	90.0	130	10.00	20.00	
	µmol/l	19.6	16.1	23.1	1.75	3.50	Colorimetric without ppt.
	µg/dl	110	90.0	130	10.00	20.00	
Lactate	mmol/l	1.49	1.23	1.75	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	13.4	11.1	15.7	1.15	2.30	
LD (LDH)	U/l	413	351	475	31.00	62.00	P->L Scandinavian & Dutch 37°C
	U/l	191	163	219	14.00	28.00	L->P IFCC 37°C
	U/l	177	150	204	13.50	27.00	L to P Beckman (Extinction Coeff) 37°C
Lipase	U/l	35	28	42	3.50	7.00	Other Colorimetric 37°C
Lithium	mmol/l	1.00	0.88	1.12	0.06	0.12	Spectrophotometric
	mg/dl	0.694	0.613	0.775	0.04	0.08	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
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	
Osmolality	mOsm/kg	293	234	352	29.50	59.00	Calculated
Phosphate Inorganic	mmol/l	1.45	1.24	1.66	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.50	3.84	5.16	0.33	0.66	
	mmol/l	1.47	1.25	1.69	0.11	0.22	Beckman PHOSm (365nm)
	mg/dl	4.55	3.88	5.22	0.34	0.67	
Potassium	mmol/l	3.98	3.78	4.18	0.10	0.20	ISE method - indirect
Protein Total	g/l	57.5	46.0	69.0	5.75	11.50	Biuret reaction end point
	g/dl	5.75	4.60	6.90	0.58	1.15	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	µmol/l	47.4	37.4	57.4	5.00	10.00	FE+UIBC(saturation with iron)
	µg/dl	265	209	321	28.00	56.00	
	µmol/l	48.8	38.5	59.1	5.15	10.30	Direct Colorimetric
	µg/dl	273	215	331	29.00	58.00	
Triglycerides	mmol/l	1.08	0.91	1.26	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.1	111	7.75	15.50	
	mmol/l	1.08	0.91	1.25	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	95.6	80.6	111	7.50	15.00	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.73	4.99	6.47	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.75	4.99	6.51	0.38	0.76	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.68	4.94	6.42	0.37	0.74	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.72	6.56	8.88	0.58	1.16	Urease end point
	mg/dl	46.4	39.4	53.4	3.50	7.00	
	mmol/l	7.86	6.68	9.04	0.59	1.18	Urease kinetic
	mg/dl	47.2	40.1	54.3	3.55	7.10	
	mmol/l	7.86	6.68	9.04	0.59	1.18	BUN
	mg/dl	22.1	18.8	25.4	1.65	3.30	
Zinc	µmol/l	23.1	18.5	27.7	2.30	4.60	Colorimetric without deprot.
	µg/dl	151	121	181	15.00	30.00	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	42.5	36.1	48.9	3.20	6.40	Bromocresol Green
	g/dl	4.25	3.61	4.89	0.32	0.64	
Alkaline Phosphatase	U/l	170	144	196	13.00	26.00	Roche Integra AMP buffer 37°C
	U/l	132	112	152	10.00	20.00	Roche Integra AMP buffer 30°C
	U/l	109	92	126	8.50	17.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	87	74	100	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	33	27	39	3.00	6.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	13.1	10.4	15.8	1.35	2.70	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	21.1	16.7	25.5	2.20	4.40	Diazo with Sulphanilic Acid
	mg/dl	1.23	0.977	1.48	0.13	0.25	
	µmol/l	20.9	16.5	25.3	2.20	4.40	Roche DPD JG standardised
	mg/dl	1.22	0.965	1.48	0.13	0.26	
	µmol/l	16.3	12.9	19.7	1.70	3.40	Roche DPD Doumas standardised
	mg/dl	0.954	0.755	1.15	0.10	0.20	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	26.7	21.1	32.3	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.56	1.23	1.89	0.17	0.33	
	µmol/l	26.5	20.9	32.1	2.80	5.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.55	1.22	1.88	0.17	0.33	
	µmol/l	27.3	21.6	33.0	2.85	5.70	Diazonium ion
	mg/dl	1.60	1.26	1.94	0.17	0.34	
Calcium	mmol/l	2.08	1.88	2.28	0.10	0.20	Cresolphthalein complexone
	mg/dl	8.34	7.54	9.14	0.40	0.80	
	mmol/l	2.08	1.88	2.28	0.10	0.20	NM-BAPTA
	mg/dl	8.34	7.54	9.14	0.40	0.80	
Cholesterol	mmol/l	3.93	3.42	4.44	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	152	132	172	10.00	20.00	
	mmol/l	3.95	3.44	4.46	0.26	0.51	Cholesterol Oxidase - IDMS
	mg/dl	152	133	171	9.50	19.00	
Chloride	mmol/l	96.1	91.3	101	2.40	4.80	ISE indirect
CK Total	U/l	183	150	216	16.50	33.00	CK-NAC (IFCC) 37°C
	U/l	115	94	136	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	78	64	92	7.00	14.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	121	96.6	145	12.20	24.40	Alkaline picrate with deproteinization
	mg/dl	1.37	1.09	1.65	0.14	0.28	
	µmol/l	127	102	152	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	128	102	154	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.45	1.15	1.75	0.15	0.30	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	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	120	95.7	144	12.15	24.30	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.36	1.08	1.64	0.14	0.28	
gamma-GT	U/l	46	39	53	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	36	31	41	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	24	32	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	50	42	58	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	26	36	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	5.97	5.07	6.87	0.45	0.90	Hexokinase
	mg/dl	108	91.4	125	8.30	16.60	
Iron	μmol/l	20.5	16.8	24.2	1.85	3.70	Colorimetric with ppt.
	μg/dl	115	93.9	136	10.55	21.10	
	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	1.55	1.27	1.83	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.0	11.4	16.6	1.30	2.60	
LD (LDH)	U/l	202	172	232	15.00	30.00	L->P IFCC 37°C
	U/l	146	124	168	11.00	22.00	L->P IFCC 30°C
	U/l	102	87	117	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	36	28	44	4.00	8.00	Roche Colorimetric 37°C
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	
	mmol/l	0.94	0.83	1.06	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.29	2.01	2.57	0.14	0.28	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Phosphate Inorganic	mmol/l	1.47	1.25	1.69	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.56	3.88	5.24	0.34	0.68	
	mmol/l	1.51	1.28	1.74	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.68	3.97	5.39	0.36	0.71	
Potassium	mmol/l	3.95	3.75	4.15	0.10	0.20	ISE method - indirect
Protein Total	g/l	55.3	44.3	66.3	5.50	11.00	Biuret reaction end point
	g/dl	5.53	4.43	6.63	0.55	1.10	
	g/l	56.3	45.0	67.6	5.65	11.30	Biuret reaction kinetic
	g/dl	5.63	4.50	6.76	0.57	1.13	
Sodium	mmol/l	138	131	145	3.50	7.00	ISE method - indirect
TIBC	µmol/l	42.9	33.9	51.9	4.50	9.00	FE+UIBC(saturation with iron)
	µg/dl	240	190	290	25.00	50.00	
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.7	113	7.85	15.70	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.85	5.09	6.61	0.38	0.76	
	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.88	5.11	6.65	0.39	0.77	
Urea	mmol/l	7.49	6.37	8.61	0.56	1.12	Urease kinetic
	mg/dl	45.0	38.3	51.7	3.35	6.70	
	mmol/l	7.49	6.37	8.61	0.56	1.12	BUN
	mg/dl	21.0	17.9	24.1	1.55	3.10	

**HITACHI SERIES®****ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	93.4	88.8	98.0	2.30	4.60	ISE indirect
Potassium	mmol/l	4.05	3.85	4.25	0.10	0.20	ISE method - indirect
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect

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

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	38.7	32.9	44.5	2.90	5.80	Bromocresol Green
	g/dl	3.87	3.29	4.45	0.29	0.58	
Alkaline Phosphatase	U/l	191	162	220	14.50	29.00	AMP optimised to IFCC 37°C
	U/l	149	126	172	11.50	23.00	AMP optimised to IFCC 30°C
	U/l	122	104	140	9.00	18.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	41	33	49	4.00	8.00	Tris buffer without P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30°C
	U/l	23	19	27	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	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
Bilirubin Total	µmol/l	26.1	20.6	31.6	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.53	1.21	1.85	0.16	0.32	
Calcium	mmol/l	2.16	1.94	2.38	0.11	0.22	Arsenazo III
	mg/dl	8.66	7.78	9.54	0.44	0.88	
Cholesterol	mmol/l	4.10	3.57	4.63	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	158	138	178	10.00	20.00	
Chloride	mmol/l	101	96.3	106	2.35	4.70	ISE direct
CK Total	U/l	220	180	260	20.00	40.00	CK-NAC (IFCC) 37°C
	U/l	138	113	163	12.50	25.00	CK-NAC (IFCC) 30°C
	U/l	94	77	111	8.50	17.00	CK-NAC (IFCC) 25°C

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

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	126	100	152	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.42	1.13	1.71	0.15	0.29	
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	26	34	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	5.84	4.96	6.72	0.44	0.88	Glucose oxidase
	mg/dl	105	89.4	121	7.80	15.60	
HDL - Cholesterol	mmol/l	1.17	1.00	1.34	0.09	0.17	Direct HDL PEGME
	mg/dl	45.2	38.5	51.9	3.35	6.70	
Iron	μmol/l	21.8	17.9	25.7	1.95	3.90	Colorimetric without ppt.
	μg/dl	122	100	144	11.00	22.00	
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	1.52	1.29	1.75	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.71	4.00	5.42	0.36	0.71	
Potassium	mmol/l	3.90	3.71	4.09	0.10	0.19	ISE method - direct
Protein Total	g/l	57.8	46.3	69.3	5.75	11.50	Biuret reaction end point
	g/dl	5.78	4.63	6.93	0.58	1.15	
Sodium	mmol/l	137	130	144	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.16	0.97	1.35	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	103	85.9	120	8.55	17.10	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.01	5.22	6.80	0.40	0.79	
	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	

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

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	8.04	6.84	9.24	0.60	1.20	Urease kinetic
	mg/dl	48.3	41.1	55.5	3.60	7.20	
	mmol/l	8.04	6.83	9.25	0.61	1.21	BUN
	mg/dl	22.6	19.2	26.0	1.70	3.40	

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.0	34.9	47.1	3.05	6.10	Bromocresol Green
	g/dl	4.10	3.49	4.71	0.31	0.61	
Alkaline Phosphatase	U/l	261	221	301	20.00	40.00	Diethanolamine buffer DEA 37°C
	U/l	203	172	234	15.50	31.00	Diethanolamine buffer DEA 30°C
	U/l	167	141	193	13.00	26.00	Diethanolamine buffer DEA 25°C
	U/l	186	158	214	14.00	28.00	AMP optimised to IFCC 37°C
	U/l	145	123	167	11.00	22.00	AMP optimised to IFCC 30°C
	U/l	119	101	137	9.00	18.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	42	34	50	4.00	8.00	Tris buffer without P5P 37°C
	U/l	31	25	37	3.00	6.00	Tris buffer without P5P 30°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 25°C
Amylase Total	U/l	92	78	106	7.00	14.00	pNP Maltotriose substrates 37°C
AST (GOT)	U/l	41	33	49	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	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Total	μmol/l	31.0	24.5	37.5	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.81	1.43	2.19	0.19	0.38	
	μmol/l	27.2	21.5	32.9	2.85	5.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.59	1.26	1.92	0.17	0.33	
Calcium	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	

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	4.01	3.49	4.53	0.26	0.52	Cholesterol Oxidase - Abell Kendall
	mg/dl	155	135	175	10.00	20.00	
CK Total	U/l	202	166	238	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	126	104	148	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	86	71	101	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	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	131	104	158	13.50	27.00	Creatinine PAP method
	mg/dl	1.48	1.18	1.78	0.15	0.30	
gamma-GT	U/l	48	41	55	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	38	32	44	3.00	6.00	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	50	43	57	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	34	44	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.18	5.26	7.10	0.46	0.92	Glucose oxidase
	mg/dl	111	94.8	127	8.10	16.20	
HDL - Cholesterol	mmol/l	1.18	1.01	1.35	0.09	0.17	Direct Clearance Method
	mg/dl	45.5	39.0	52.0	3.25	6.50	
LD (LDH)	U/l	406	345	467	30.50	61.00	P->L German methods 37°C
	U/l	293	249	337	22.00	44.00	P->L German methods 30°C
	U/l	206	175	237	15.50	31.00	P->L German methods 25°C
	U/l	391	332	450	29.50	59.00	P->L SFBC 37°C
	U/l	282	240	324	21.00	42.00	P->L SFBC 30°C
	U/l	198	168	228	15.00	30.00	P->L SFBC 25°C

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	202	172	232	15.00	30.00	L->P IFCC 37°C
	U/l	146	124	168	11.00	22.00	L->P IFCC 30°C
	U/l	102	87	117	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	38	31	45	3.50	7.00	Other Colorimetric 37°C
Magnesium	mmol/l	1.01	0.89	1.13	0.06	0.12	Xylidyl Blue
	mg/dl	2.45	2.16	2.74	0.15	0.29	
Phosphate Inorganic	mmol/l	1.65	1.40	1.90	0.13	0.25	Phosphomolybdate UV
	mg/dl	5.12	4.34	5.90	0.39	0.78	
Protein Total	g/l	59.7	47.8	71.6	5.95	11.90	Biuret reaction end point
	g/dl	5.97	4.78	7.16	0.60	1.19	
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.3	114	7.95	15.90	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.64	4.92	6.36	0.36	0.72	
	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	
Urea	mmol/l	7.98	6.79	9.17	0.60	1.19	Urease kinetic
	mg/dl	48.0	40.8	55.2	3.60	7.20	
	mmol/l	7.98	6.78	9.18	0.60	1.20	BUN
	mg/dl	22.4	19.0	25.8	1.70	3.40	

Ortho VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.0	34.9	47.1	3.05	6.10	Ortho Vitros Microslide Systems
	g/dl	4.10	3.49	4.71	0.31	0.61	
Alkaline Phosphatase	U/l	160	136	184	12.00	24.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	45	36	54	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	45	36	54	4.50	9.00	Ortho Vitros MicroSlide visible 37°C
Amylase Total	U/l	70	59	81	5.50	11.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	52	42	62	5.00	10.00	Ortho Vitros Microslide visible slide 37°C
Bicarbonate	mmol/l	13.9	11.0	16.8	1.45	2.90	Ortho Vitros Microslide Systems
Bilirubin Total	µmol/l	24.1	19.0	29.2	2.55	5.10	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.41	1.11	1.71	0.15	0.30	
Bilirubin, Unconjugated Vitros BU	µmol/l	14.8	11.7	17.9	1.55	3.10	BuBc Vitros Slide
	mg/dl	0.866	0.684	1.05	0.09	0.18	
Calcium	mmol/l	2.08	1.87	2.29	0.11	0.21	Ortho Vitros Microslide Systems
	mg/dl	8.34	7.49	9.19	0.43	0.85	
Cholesterol	mmol/l	3.93	3.42	4.44	0.26	0.51	Ortho Vitros Microslide Systems
	mg/dl	152	132	172	10.00	20.00	
Chloride	mmol/l	98.7	93.8	104	2.45	4.90	Ortho Vitros Microslide Systems
CK Total	U/l	180	148	212	16.00	32.00	Ortho Vitros Microslide Systems 37°C
Creatinine	µmol/l	120	96.0	144	12.00	24.00	Vitros IDMS Traceable
	mg/dl	1.36	1.08	1.64	0.14	0.28	
gamma-GT	U/l	54	46	62	4.00	8.00	Ortho Vitros Microslide Systems 37°C

Ortho VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	5.85	4.97	6.73	0.44	0.88	Ortho Vitros Microslide Systems
	mg/dl	105	89.6	120	7.70	15.40	
HDL - Cholesterol	mmol/l	1.19	1.01	1.37	0.09	0.18	Vitros dHDL PTA/MgCl ₂ direct precipitation
	mg/dl	45.9	39.0	52.8	3.45	6.90	
Iron	µmol/l	19.5	16.0	23.0	1.75	3.50	Ortho Vitros Microslide Systems
	µg/dl	109	89.4	129	9.80	19.60	
Lactate	mmol/l	1.50	1.23	1.77	0.14	0.27	Ortho Vitros Microslide Systems
	mg/dl	13.5	11.1	15.9	1.20	2.40	
LD (LDH)	U/l	223	190	256	16.50	33.00	Ortho Vitros IFCC Traceable 37°C
Lipase	U/l	272	218	326	27.00	54.00	Ortho Vitros Microslide Systems 37°C
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.21	1.94	2.48	0.14	0.27	
Phosphate Inorganic	mmol/l	1.51	1.28	1.74	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	4.68	3.97	5.39	0.36	0.71	
Potassium	mmol/l	4.02	3.82	4.22	0.10	0.20	Ortho Vitros Microslide Systems
Protein Total	g/l	59.9	47.9	71.9	6.00	12.00	Ortho Vitros Microslide Systems
	g/dl	5.99	4.79	7.19	0.60	1.20	
Sodium	mmol/l	138	131	145	3.50	7.00	Ortho Vitros Microslide Systems
Triglycerides	mmol/l	1.30	1.09	1.51	0.11	0.21	Ortho Vitros Microslide Systems
	mg/dl	115	96.5	134	9.25	18.50	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.51	4.80	6.22	0.36	0.71	
Urea	mmol/l	7.65	6.50	8.80	0.58	1.15	Ortho Vitros Microslide Systems
	mg/dl	46.0	39.1	52.9	3.45	6.90	
	mmol/l	7.65	6.50	8.80	0.58	1.15	BUN
	mg/dl	21.5	18.3	24.7	1.60	3.20	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	42.0	35.7	48.3	3.15	6.30	Bromocresol Green
	g/dl	4.20	3.57	4.83	0.32	0.63	
Alkaline Phosphatase	U/l	169	144	194	12.50	25.00	Roche Integra AMP buffer 37°C
	U/l	132	112	152	10.00	20.00	Roche Integra AMP buffer 30°C
	U/l	108	92	124	8.00	16.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	36	28	44	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	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
Bilirubin Direct	µmol/l	20.0	15.8	24.2	2.10	4.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.17	0.924	1.42	0.12	0.25	
	µmol/l	20.1	15.9	24.3	2.10	4.20	Roche DPD JG standardised
	mg/dl	1.18	0.930	1.43	0.13	0.25	
Bilirubin Total	µmol/l	26.4	20.8	32.0	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.54	1.22	1.86	0.16	0.32	
	µmol/l	26.5	20.9	32.1	2.80	5.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.55	1.22	1.88	0.17	0.33	
Calcium	mmol/l	2.14	1.93	2.35	0.11	0.21	NM-BAPTA
	mg/dl	8.58	7.74	9.42	0.42	0.84	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	3.93	3.42	4.44	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	152	132	172	10.00	20.00	
	mmol/l	3.82	3.32	4.32	0.25	0.50	Cholesterol Oxidase - IDMS
	mg/dl	147	128	166	9.50	19.00	
CK Total	U/l	190	155	225	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	119	97	141	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	128	103	153	12.50	25.00	Roche Creatinine Plus
	mg/dl	1.45	1.16	1.74	0.15	0.29	
gamma-GT	U/l	47	40	54	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	37	32	42	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	29	25	33	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.01	5.11	6.91	0.45	0.90	Hexokinase
	mg/dl	108	92.1	124	7.95	15.90	
HDL - Cholesterol	mmol/l	1.14	0.97	1.31	0.08	0.17	Direct HDL Roche 4th Generation
	mg/dl	44.0	37.5	50.5	3.25	6.50	
LD (LDH)	U/l	204	173	235	15.50	31.00	L->P IFCC 37°C
	U/l	147	125	169	11.00	22.00	L->P IFCC 30°C
	U/l	103	88	118	7.50	15.00	L->P IFCC 25°C
Magnesium	mmol/l	0.95	0.84	1.07	0.06	0.11	Xylidyl Blue
	mg/dl	2.31	2.04	2.58	0.14	0.27	
Phosphate Inorganic	mmol/l	1.46	1.24	1.68	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.53	3.84	5.22	0.35	0.69	
Triglycerides	mmol/l	1.11	0.94	1.28	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.8	114	7.70	15.40	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

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 with ascorbate oxidase
	mg/dl	5.83	5.07	6.59	0.38	0.76	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.64	4.92	6.36	0.36	0.72	
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	

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.3	35.1	47.5	3.10	6.20	Bromocresol Green
	g/dl	4.13	3.51	4.75	0.31	0.62	
	g/l	40.3	34.2	46.4	3.05	6.10	Turbidimetric Assays
	g/dl	4.03	3.42	4.64	0.31	0.61	
Alkaline Phosphatase	U/l	169	144	194	12.50	25.00	Roche Integra AMP buffer 37°C
	U/l	132	112	152	10.00	20.00	Roche Integra AMP buffer 30°C
	U/l	108	92	124	8.00	16.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	62	53	71	4.50	9.00	Roche EPS Liquid 37°C
Amylase Total	U/l	85	72	98	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	86	73	99	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bile Acids	μmol/l	24.0	19.2	28.8	2.40	4.80	Enzymatic Colorimetric
Bicarbonate	mmol/l	12.8	10.1	15.5	1.35	2.70	Colorimetric
	mmol/l	13.9	11.0	16.8	1.45	2.90	Enzymatic
Bilirubin Direct	μmol/l	20.3	16.0	24.6	2.15	4.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.19	0.936	1.44	0.13	0.25	

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Bilirubin Direct	µmol/l	20.2	15.9	24.5	2.15	4.30	Diazo with Sulphanilic Acid
	mg/dl	1.18	0.930	1.43	0.13	0.25	
	µmol/l	20.8	16.4	25.2	2.20	4.40	Roche DPD JG standardised
	mg/dl	1.22	0.959	1.48	0.13	0.26	
	µmol/l	17.4	13.7	21.1	1.85	3.70	Roche DPD Dumas standardised
	mg/dl	1.02	0.801	1.24	0.11	0.22	
Bilirubin Total	µmol/l	25.7	20.3	31.1	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	µmol/l	25.6	20.2	31.0	2.70	5.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.50	1.18	1.82	0.16	0.32	
	µmol/l	25.7	20.3	31.1	2.70	5.40	Diazonium ion
	mg/dl	1.50	1.19	1.81	0.16	0.31	
Calcium	mmol/l	2.11	1.89	2.33	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.46	7.58	9.34	0.44	0.88	
	mmol/l	2.11	1.90	2.32	0.11	0.21	NM-BAPTA
	mg/dl	8.46	7.62	9.30	0.42	0.84	
Cholesterol	mmol/l	3.99	3.48	4.50	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	154	134	174	10.00	20.00	
	mmol/l	4.01	3.49	4.53	0.26	0.52	Cholesterol Oxidase - IDMS
	mg/dl	155	135	175	10.00	20.00	
Chloride	mmol/l	93.2	88.6	97.8	2.30	4.60	ISE indirect
Cholinesterase	U/l	5971	4777	7165	597.00	1194.00	Colorimetric Butyrylthiocholine 37°C
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

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	126	101	151	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	μmol/l	130	104	156	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	μmol/l	124	99.6	148	12.20	24.40	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.40	1.13	1.67	0.14	0.27	
	μmol/l	125	99.8	150	12.60	25.20	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.41	1.13	1.69	0.14	0.28	
D-3-Hydroxybutyrate	mmol/l	0.29	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	44	38	50	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	30	40	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	23	31	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	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
GLDH	U/l	14	11	17	1.50	3.00	Triethanolamine buffer 50 mmol 37°C
	U/l	11	8	14	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	9	7	11	1.00	2.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	5.85	4.97	6.73	0.44	0.88	Hexokinase
	mg/dl	105	89.6	120	7.70	15.40	
HDL - Cholesterol	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct HDL Roche 4th 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	19.3	15.8	22.8	1.75	3.50	Colorimetric without ppt.
	μg/dl	108	88.3	128	9.85	19.70	

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Lactate	mmol/l	1.54	1.26	1.82	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	13.9	11.4	16.4	1.25	2.50	
LD (LDH)	U/l	201	171	231	15.00	30.00	L->P 37°C
	U/l	145	123	167	11.00	22.00	L->P 30°C
	U/l	102	87	117	7.50	15.00	L->P 25°C
	U/l	197	168	226	14.50	29.00	L->P IFCC 37°C
	U/l	142	121	163	10.50	21.00	L->P IFCC 30°C
	U/l	100	85	115	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	38	30	46	4.00	8.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.03	0.90	1.16	0.06	0.13	Spectrophotometric
	mg/dl	0.715	0.628	0.802	0.04	0.09	
Magnesium	mmol/l	0.94	0.82	1.05	0.06	0.11	Xylidyl Blue
	mg/dl	2.27	2.00	2.54	0.14	0.27	
	mmol/l	0.95	0.83	1.06	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.30	2.02	2.58	0.14	0.28	
Osmolality	mOsm/kg	288	231	345	28.50	57.00	Calculated
Phosphate Inorganic	mmol/l	1.49	1.26	1.72	0.12	0.23	Phosphomolybdate enzymatic
	mg/dl	4.62	3.91	5.33	0.36	0.71	
	mmol/l	1.46	1.24	1.68	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.53	3.84	5.22	0.35	0.69	
Potassium	mmol/l	4.06	3.86	4.26	0.10	0.20	ISE method - indirect
Protein Total	g/l	57.4	45.9	68.9	5.75	11.50	Biuret reaction end point
	g/dl	5.74	4.59	6.89	0.58	1.15	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
TIBC	μmol/l	43.0	34.0	52.0	4.50	9.00	FE+UIBC(saturation with iron)
	μg/dl	240	190	290	25.00	50.00	
	μmol/l	49.7	39.3	60.1	5.20	10.40	Calculated from Transferrin
	μg/dl	278	220	336	29.00	58.00	
Triglycerides	mmol/l	1.11	0.94	1.28	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.8	114	7.70	15.40	
	mmol/l	1.14	0.96	1.32	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	101	84.8	117	8.10	16.20	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.66	4.92	6.40	0.37	0.74	
	mmol/l	0.34	0.29	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	0.30	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
Urea	mg/dl	5.70	4.96	6.44	0.37	0.74	
	mmol/l	7.75	6.59	8.91	0.58	1.16	Urease kinetic
	mg/dl	46.6	39.6	53.6	3.50	7.00	
	mmol/l	7.75	6.59	8.91	0.58	1.16	BUN
	mg/dl	21.8	18.5	25.1	1.65	3.30	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.4	35.2	47.6	3.10	6.20	Bromocresol Green
	g/dl	4.14	3.52	4.76	0.31	0.62	
	g/l	41.5	35.3	47.7	3.10	6.20	Bromocresol Purple
	g/dl	4.15	3.53	4.77	0.31	0.62	
Alkaline Phosphatase	U/l	168	143	193	12.50	25.00	Roche Integra AMP buffer 37°C
	U/l	131	111	151	10.00	20.00	Roche Integra AMP buffer 30°C
	U/l	107	91	123	8.00	16.00	Roche Integra AMP buffer 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
Amylase Total	U/l	86	73	99	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	88	75	101	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	12.6	10.0	15.2	1.30	2.60	Enzymatic
Bilirubin Direct	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	
	µmol/l	20.6	16.3	24.9	2.15	4.30	Roche DPD JG standardised
	mg/dl	1.21	0.954	1.47	0.13	0.26	
Bilirubin Total	µmol/l	25.4	20.1	30.7	2.65	5.30	Diazo with Sulphanilic Acid
	mg/dl	1.49	1.18	1.80	0.16	0.31	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	25.5	20.1	30.9	2.70	5.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.49	1.18	1.80	0.16	0.31	
	µmol/l	24.9	19.7	30.1	2.60	5.20	Diazonium ion
	mg/dl	1.46	1.15	1.77	0.16	0.31	
Calcium	mmol/l	2.10	1.89	2.31	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.42	7.58	9.26	0.42	0.84	
	mmol/l	2.13	1.91	2.35	0.11	0.22	NM-BAPTA
	mg/dl	8.54	7.66	9.42	0.44	0.88	
Cholesterol	mmol/l	4.00	3.48	4.52	0.26	0.52	Cholesterol Oxidase - Abell Kendall
	mg/dl	154	134	174	10.00	20.00	
	mmol/l	4.05	3.53	4.57	0.26	0.52	Cholesterol Oxidase - IDMS
	mg/dl	156	136	176	10.00	20.00	
Chloride	mmol/l	93.6	88.9	98.3	2.35	4.70	ISE indirect
CK Total	U/l	193	158	228	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	121	99	143	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	82	67	97	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	131	105	157	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	132	106	158	13.00	26.00	Jaffe rate blanked
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.42	1.14	1.70	0.14	0.28	
gamma-GT	U/l	43	37	49	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	34	29	39	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	23	31	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (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	5.88	5.00	6.76	0.44	0.88	Hexokinase
	mg/dl	106	90.1	122	7.95	15.90	
	mmol/l	5.81	4.94	6.68	0.44	0.87	Glucose oxidase
	mg/dl	105	89.0	121	8.00	16.00	
HDL - Cholesterol	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct HDL Roche 4th Generation
	mg/dl	45.9	39.0	52.8	3.45	6.90	
Iron	µmol/l	19.2	15.7	22.7	1.75	3.50	Colorimetric without ppt.
	µg/dl	107	87.8	126	9.60	19.20	
Lactate	mmol/l	1.51	1.23	1.79	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	13.6	11.1	16.1	1.25	2.50	
LD (LDH)	U/l	198	168	228	15.00	30.00	L->P IFCC 37°C
	U/l	143	121	165	11.00	22.00	L->P IFCC 30°C
	U/l	100	85	115	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	38	30	46	4.00	8.00	Roche Colorimetric 37°C
Magnesium	mmol/l	0.94	0.83	1.05	0.06	0.11	Xylidyl Blue
	mg/dl	2.28	2.00	2.56	0.14	0.28	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.23	1.96	2.50	0.14	0.27	
Phosphate Inorganic	mmol/l	1.48	1.25	1.71	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.59	3.88	5.30	0.36	0.71	
Potassium	mmol/l	4.07	3.87	4.27	0.10	0.20	ISE method - indirect

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
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	141	134	148	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	99.1	83.0	115	8.05	16.10	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.73	4.99	6.47	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	0.35	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	
	mmol/l	7.89	6.71	9.07	0.59	1.18	Urease kinetic
	mg/dl	47.4	40.3	54.5	3.55	7.10	
Urea	mmol/l	7.89	6.71	9.07	0.59	1.18	BUN
	mg/dl	22.1	18.8	25.4	1.65	3.30	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.3	35.1	47.5	3.10	6.20	Bromocresol Green
	g/dl	4.13	3.51	4.75	0.31	0.62	
	g/l	40.9	34.8	47.0	3.05	6.10	Bromocresol Purple
	g/dl	4.09	3.48	4.70	0.31	0.61	
	g/l	38.8	32.9	44.7	2.95	5.90	Turbidimetric Assays
	g/dl	3.88	3.29	4.47	0.30	0.59	
Alkaline Phosphatase	U/l	164	139	189	12.50	25.00	Roche Integra AMP buffer 37°C
	U/l	128	108	148	10.00	20.00	Roche Integra AMP buffer 30°C
	U/l	105	89	121	8.00	16.00	Roche Integra AMP buffer 25°C
	U/l	167	142	192	12.50	25.00	Colorimetric 37°C
	U/l	130	111	149	9.50	19.00	Colorimetric 30°C
	U/l	107	91	123	8.00	16.00	Colorimetric 25°C
ALT (GPT)	U/l	37	29	45	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	21	16	26	2.50	5.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	61	52	70	4.50	9.00	Roche EPS Liquid 37°C
Amylase Total	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	13.9	11.0	16.8	1.45	2.90	Enzymatic

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Direct	µmol/l	19.9	15.7	24.1	2.10	4.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.16	0.918	1.40	0.12	0.24	
	µmol/l	20.4	16.1	24.7	2.15	4.30	Roche DPD JG standardised
	mg/dl	1.19	0.942	1.44	0.12	0.25	
Bilirubin Total	µmol/l	25.8	20.4	31.2	2.70	5.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.51	1.19	1.83	0.16	0.32	
	µmol/l	25.6	20.2	31.0	2.70	5.40	Diazonium ion
	mg/dl	1.50	1.18	1.82	0.16	0.32	
Calcium	mmol/l	2.12	1.91	2.33	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.50	7.66	9.34	0.42	0.84	
	mmol/l	2.10	1.89	2.31	0.11	0.21	NM-BAPTA
	mg/dl	8.42	7.58	9.26	0.42	0.84	
Cholesterol	mmol/l	3.99	3.47	4.51	0.26	0.52	Cholesterol Oxidase - Abell Kendall
	mg/dl	154	134	174	10.00	20.00	
	mmol/l	4.02	3.50	4.54	0.26	0.52	Cholesterol Oxidase - IDMS
	mg/dl	155	135	175	10.00	20.00	
Chloride	mmol/l	93.1	88.4	97.8	2.35	4.70	ISE indirect
Cholinesterase	U/l	5958	4766	7150	596.00	1192.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	192	157	227	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	120	98	142	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	82	67	97	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	131	105	157	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.42	1.14	1.70	0.14	0.28	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	44	38	50	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	35	30	40	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	27	23	31	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	50	42	58	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	26	36	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	5.80	4.93	6.67	0.44	0.87	Hexokinase
	mg/dl	105	88.8	121	8.10	16.20	
HDL - Cholesterol	mmol/l	1.19	1.01	1.37	0.09	0.18	Direct HDL Roche 4th Generation
	mg/dl	45.9	39.0	52.8	3.45	6.90	
Iron	µmol/l	18.5	15.2	21.8	1.65	3.30	Colorimetric without ppt.
	µg/dl	103	85.0	121	9.00	18.00	
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	197	167	227	15.00	30.00	L->P IFCC 37°C
	U/l	142	121	163	10.50	21.00	L->P IFCC 30°C
	U/l	100	85	115	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	38	30	46	4.00	8.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.02	0.89	1.15	0.06	0.13	Spectrophotometric
	mg/dl	0.708	0.620	0.796	0.04	0.09	
Magnesium	mmol/l	0.95	0.84	1.07	0.06	0.11	Xylidyl Blue
	mg/dl	2.31	2.04	2.58	0.14	0.27	
Phosphate Inorganic	mmol/l	1.44	1.22	1.66	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.46	3.78	5.14	0.34	0.68	
Potassium	mmol/l	4.01	3.81	4.21	0.10	0.20	ISE method - indirect

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

		Range					
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	140	133	147	3.50	7.00	ISE method - indirect
TIBC	μmol/l	43.9	34.7	53.1	4.60	9.20	FE+UIBC(saturation with iron)
	μg/dl	245	194	296	25.50	51.00	
Triglycerides	mmol/l	1.10	0.93	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.9	113	7.75	15.50	
	mmol/l	1.10	0.92	1.28	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	97.4	81.8	113	7.80	15.60	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.51	4.79	6.23	0.36	0.72	
	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.56	4.84	6.28	0.36	0.72	
	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.54	4.82	6.26	0.36	0.72	
Urea	mmol/l	7.58	6.45	8.71	0.57	1.13	Urease kinetic
	mg/dl	45.6	38.8	52.4	3.40	6.80	
	mmol/l	7.58	6.44	8.72	0.57	1.14	BUN
	mg/dl	21.3	18.1	24.5	1.60	3.20	

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	39.8	33.8	45.8	3.00	6.00	Bromocresol Green
	g/dl	3.98	3.38	4.58	0.30	0.60	
Alkaline Phosphatase	U/l	315	268	362	23.50	47.00	Diethanolamine buffer DEA 37°C
	U/l	190	162	218	14.00	28.00	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	74	63	85	5.50	11.00	Randox Liquid Ethylidene pNPG7 37°C
Amylase Total	U/l	99	84	114	7.50	15.00	Randox Liquid Ethylidene pNPG7 37°C
AST (GOT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
Bile Acids	μmol/l	24.7	19.8	29.6	2.45	4.90	5th Generation Colorimetric
Bicarbonate	mmol/l	16.7	13.2	20.2	1.75	3.50	Enzymatic
Bilirubin Direct	μmol/l	20.5	16.2	24.8	2.15	4.30	Diazo with Sulphanilic Acid
	mg/dl	1.20	0.948	1.45	0.13	0.25	
	μmol/l	17.3	13.7	20.9	1.80	3.60	Oxidation to Biliverdin/Vanadate
	mg/dl	1.01	0.801	1.22	0.10	0.21	
Bilirubin Total	μmol/l	31.4	24.8	38.0	3.30	6.60	Diazo with Sulphanilic Acid
	mg/dl	1.84	1.45	2.23	0.20	0.39	
	μmol/l	29.3	23.1	35.5	3.10	6.20	Oxidation to Biliverdin/Vanadate
	mg/dl	1.71	1.35	2.07	0.18	0.36	
Calcium	mmol/l	2.13	1.92	2.34	0.11	0.21	Arsenazo III
	mg/dl	8.54	7.70	9.38	0.42	0.84	
Cholesterol	mmol/l	4.28	3.72	4.84	0.28	0.56	Cholesterol Oxidase - Abell Kendall
	mg/dl	165	144	186	10.50	21.00	

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	94.8	90.1	99.5	2.35	4.70	ISE direct
CK Total	U/l	207	170	244	18.50	37.00	CK-NAC substrate start (DGKC) 37°C
	U/l	215	176	254	19.50	39.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	118	94.4	142	11.80	23.60	Alkaline picrate no deproteinization
	mg/dl	1.33	1.07	1.59	0.13	0.26	
	μmol/l	131	105	157	13.00	26.00	Enzymatic UV method
	mg/dl	1.48	1.19	1.77	0.15	0.29	
gamma-GT	U/l	58	49	67	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	5.93	5.04	6.82	0.45	0.89	Hexokinase
	mg/dl	107	90.8	123	8.10	16.20	
	mmol/l	5.94	5.05	6.83	0.45	0.89	Glucose oxidase
	mg/dl	107	91.0	123	8.00	16.00	
Iron	μmol/l	21.7	17.8	25.6	1.95	3.90	Colorimetric without ppt.
	μg/dl	121	99.5	143	10.75	21.50	
Lactate	mmol/l	1.54	1.26	1.82	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	13.9	11.4	16.4	1.25	2.50	
LD (LDH)	U/l	391	332	450	29.50	59.00	P->L German methods 37°C
	U/l	195	166	224	14.50	29.00	L->P IFCC 37°C
Lipase	U/l	45	36	54	4.50	9.00	Randox Colorimetric 37°C
Magnesium	mmol/l	0.92	0.81	1.03	0.06	0.11	Xylidyl Blue
	mg/dl	2.23	1.97	2.49	0.13	0.26	
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	4.08	3.88	4.28	0.10	0.20	ISE method - direct

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Protein Total	g/l	59.7	47.8	71.6	5.95	11.90	Biuret reaction end point
	g/dl	5.97	4.78	7.16	0.60	1.19	
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - direct
TIBC	μmol/l	51.2	40.4	62.0	5.40	10.80	Direct Colorimetric
	μg/dl	286	226	346	30.00	60.00	
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.8	113	7.80	15.60	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.68	4.94	6.42	0.37	0.74	
	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	
Urea	mmol/l	7.70	6.55	8.85	0.58	1.15	Urease kinetic
	mg/dl	46.3	39.4	53.2	3.45	6.90	
	mmol/l	7.70	6.55	8.85	0.58	1.15	BUN
	mg/dl	21.6	18.4	24.8	1.60	3.20	

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	39.1	33.2	45.0	2.95	5.90	Bromocresol Green
	g/dl	3.91	3.32	4.50	0.30	0.59	
Alkaline Phosphatase	U/l	161	137	185	12.00	24.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	45	36	54	4.50	9.00	Tris buffer without P5P 37°C
Amylase Total	U/l	86	73	99	6.50	13.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	15.4	12.2	18.6	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	18.6	14.7	22.5	1.95	3.90	Oxidation to Biliverdin/Vanadate
	mg/dl	1.09	0.860	1.32	0.12	0.23	
Bilirubin Total	µmol/l	30.8	24.4	37.2	3.20	6.40	Oxidation to Biliverdin/Vanadate
	mg/dl	1.80	1.43	2.17	0.19	0.37	
Calcium	mmol/l	2.06	1.86	2.26	0.10	0.20	Cresolphthalein complexone
	mg/dl	8.26	7.45	9.07	0.41	0.81	
	mmol/l	2.10	1.89	2.31	0.11	0.21	Arsenazo III
	mg/dl	8.42	7.58	9.26	0.42	0.84	
Cholesterol	mmol/l	3.94	3.43	4.45	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	152	132	172	10.00	20.00	
Chloride	mmol/l	97.8	92.9	103	2.45	4.90	ISE indirect
CK Total	U/l	189	155	223	17.00	34.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	122	97.2	147	12.40	24.80	Enzymatic UV method
	mg/dl	1.38	1.10	1.66	0.14	0.28	

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	120	96.3	144	11.85	23.70	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.36	1.09	1.63	0.14	0.27	
gamma-GT	U/l	45	38	52	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	35	30	40	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	28	23	33	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	5.74	4.88	6.60	0.43	0.86	Hexokinase
	mg/dl	103	87.9	118	7.55	15.10	
	mmol/l	5.82	4.95	6.69	0.44	0.87	Glucose oxidase
	mg/dl	105	89.2	121	7.90	15.80	
HDL - Cholesterol	mmol/l	1.10	0.94	1.26	0.08	0.16	Direct Clearance Method
	mg/dl	42.5	36.1	48.9	3.20	6.40	
Iron	μmol/l	18.9	15.5	22.3	1.70	3.40	Colorimetric without ppt.
	μg/dl	106	86.6	125	9.70	19.40	
Lactate	mmol/l	1.41	1.15	1.67	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	12.7	10.4	15.0	1.15	2.30	
LD (LDH)	U/l	196	167	225	14.50	29.00	L->P IFCC 37°C
Lipase	U/l	42	33	51	4.50	9.00	Other Colorimetric 37°C
Magnesium	mmol/l	0.89	0.78	1.00	0.05	0.11	Xylidyl Blue
	mg/dl	2.16	1.90	2.42	0.13	0.26	
Phosphate Inorganic	mmol/l	1.46	1.24	1.68	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.53	3.84	5.22	0.35	0.69	
Potassium	mmol/l	4.03	3.83	4.23	0.10	0.20	ISE method - indirect
Protein Total	g/l	57.0	45.6	68.4	5.70	11.40	Biuret reaction end point
	g/dl	5.70	4.56	6.84	0.57	1.14	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.15	0.96	1.34	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	102	85.2	119	8.40	16.80	
Uric Acid (Urate)	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	
Urea	mmol/l	8.08	6.87	9.29	0.61	1.21	Urease kinetic
	mg/dl	48.6	41.3	55.9	3.65	7.30	
	mmol/l	8.08	6.87	9.29	0.61	1.21	BUN
	mg/dl	22.7	19.3	26.1	1.70	3.40	

Siemens Atellica Solution

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	39.7	33.8	45.6	2.95	5.90	Bromocresol Green
	g/dl	3.97	3.38	4.56	0.30	0.59	
	g/l	40.7	34.6	46.8	3.05	6.10	Bromocresol Purple
	g/dl	4.07	3.46	4.68	0.31	0.61	
Alkaline Phosphatase	U/l	161	137	185	12.00	24.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	42	34	50	4.00	8.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	68	58	78	5.00	10.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	97	83	111	7.00	14.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	15.2	12.0	18.4	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	19.0	15.0	23.0	2.00	4.00	Oxidation to Biliverdin/Vanadate
	mg/dl	1.11	0.878	1.34	0.12	0.23	
Bilirubin Total	µmol/l	31.2	24.6	37.8	3.30	6.60	Oxidation to Biliverdin/Vanadate
	mg/dl	1.83	1.44	2.22	0.20	0.39	
Calcium	mmol/l	2.05	1.84	2.26	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.22	7.37	9.07	0.43	0.85	
	mmol/l	2.14	1.93	2.35	0.11	0.21	Arsenazo III
	mg/dl	8.58	7.74	9.42	0.42	0.84	
Cholesterol	mmol/l	4.01	3.49	4.53	0.26	0.52	Cholesterol Oxidase - Abell Kendall
	mg/dl	155	135	175	10.00	20.00	
	mmol/l	3.99	3.47	4.51	0.26	0.52	Cholesterol Oxidase - IDMS
	mg/dl	154	134	174	10.00	20.00	

Siemens Atellica Solution

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	98.9	93.9	104	2.50	5.00	ISE indirect
Cholinesterase	U/l	8307	6645	9969	831.00	1662.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	181	149	213	16.00	32.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	123	98.0	148	12.50	25.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.39	1.11	1.67	0.14	0.28	
gamma-GT	U/l	48	41	55	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	5.82	4.94	6.70	0.44	0.88	Hexokinase
	mg/dl	105	89.0	121	8.00	16.00	
	mmol/l	6.08	5.17	6.99	0.46	0.91	Glucose oxidase
	mg/dl	110	93.2	127	8.40	16.80	
HDL - Cholesterol	mmol/l	1.43	1.22	1.64	0.11	0.21	Direct Clearance Method
	mg/dl	55.2	47.1	63.3	4.05	8.10	
Iron	μmol/l	18.9	15.5	22.3	1.70	3.40	Colorimetric without ppt.
	μg/dl	106	86.6	125	9.70	19.40	
Lactate	mmol/l	1.40	1.15	1.65	0.13	0.25	Colorimetric Lactate Oxidase
	mg/dl	12.6	10.4	14.8	1.10	2.20	
LD (LDH)	U/l	191	163	219	14.00	28.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	200	170	230	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	42	33	51	4.50	9.00	Other Colorimetric 37°C
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	
Phosphate Inorganic	mmol/l	1.49	1.27	1.71	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.62	3.94	5.30	0.34	0.68	
Potassium	mmol/l	3.95	3.76	4.14	0.10	0.19	ISE method - indirect

Siemens Atellica Solution

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Protein Total	g/l	57.3	45.9	68.7	5.70	11.40	Biuret reaction end point
	g/dl	5.73	4.59	6.87	0.57	1.14	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
TIBC	μmol/l	48.9	38.6	59.2	5.15	10.30	Direct Colorimetric
	μg/dl	273	216	330	28.50	57.00	
Triglycerides	mmol/l	1.16	0.98	1.34	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	103	86.6	119	8.20	16.40	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.76	5.01	6.51	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	
Urea	mmol/l	8.10	6.89	9.31	0.61	1.21	Urease kinetic
	mg/dl	48.7	41.4	56.0	3.65	7.30	
	mmol/l	8.10	6.89	9.31	0.61	1.21	BUN
	mg/dl	22.7	19.3	26.1	1.70	3.40	

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.8	35.6	48.0	3.10	6.20	Bromocresol Purple
	g/dl	4.18	3.56	4.80	0.31	0.62	
Alkaline Phosphatase	U/l	168	143	193	12.50	25.00	Siemens Dimension AMP buffer 37°C
ALT (GPT)	U/l	48	38	58	5.00	10.00	Tris buffer with P5P 37°C
Amylase Total	U/l	93	79	107	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	47	37	57	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	13.3	10.5	16.1	1.40	2.80	Diazo/Sulphanilic Siemens Dimension
	mg/dl	0.778	0.614	0.942	0.08	0.16	
Bilirubin Total	µmol/l	29.5	23.3	35.7	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.73	1.36	2.10	0.19	0.37	
Calcium	mmol/l	2.02	1.82	2.22	0.10	0.20	Cresolphthalein complexone
	mg/dl	8.10	7.29	8.91	0.41	0.81	
Cholesterol	mmol/l	3.47	3.02	3.92	0.23	0.45	Dimension-Siemens reagents
	mg/dl	134	117	151	8.50	17.00	
Chloride	mmol/l	94.9	90.2	99.6	2.35	4.70	ISE indirect
CK Total	U/l	181	148	214	16.50	33.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	130	104	156	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	131	105	157	13.00	26.00	Jaffe rate blanked
	mg/dl	1.48	1.19	1.77	0.15	0.29	

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	58	49	67	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	62	53	71	4.50	9.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.12	5.20	7.04	0.46	0.92	Hexokinase
	mg/dl	110	93.7	126	8.15	16.30	
HDL - Cholesterol	mmol/l	1.30	1.11	1.49	0.10	0.19	Direct HDL PEGME
	mg/dl	50.2	42.8	57.6	3.70	7.40	
Iron	µmol/l	18.6	15.2	22.0	1.70	3.40	Colorimetric without ppt.
	µg/dl	104	85.0	123	9.50	19.00	
LD (LDH)	U/l	187	159	215	14.00	28.00	L->P IFCC 37°C
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Methylthymol blue
	mg/dl	2.21	1.95	2.47	0.13	0.26	
Phosphate Inorganic	mmol/l	1.55	1.32	1.78	0.12	0.23	Phosphomolybdate enzymatic
	mg/dl	4.81	4.09	5.53	0.36	0.72	
	mmol/l	1.57	1.34	1.80	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.87	4.15	5.59	0.36	0.72	
Potassium	mmol/l	3.97	3.77	4.17	0.10	0.20	ISE method - indirect
Protein Total	g/l	60.2	48.1	72.3	6.05	12.10	Biuret reaction end point
	g/dl	6.02	4.81	7.23	0.61	1.21	
Sodium	mmol/l	141	134	148	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	77.9	108	7.50	15.00	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.78	5.02	6.54	0.38	0.76	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Spectrophotometric at 280-290
	mg/dl	5.61	4.89	6.33	0.36	0.72	

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.95	6.76	9.14	0.60	1.19	Urease kinetic
	mg/dl	47.8	40.6	55.0	3.60	7.20	
	mmol/l	7.95	6.76	9.14	0.60	1.19	BUN
	mg/dl	22.3	19.0	25.6	1.65	3.30	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1665UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2027-07-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Alkaline Phosphatase	U/l	168	142	194	13.00	26.00	Siemens Dimension AMP buffer 37°C
Amylase Total	U/l	92	78	106	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
Bilirubin Total	µmol/l	28.1	22.2	34.0	2.95	5.90	Diazo with Sulphanilic Acid
	mg/dl	1.64	1.30	1.98	0.17	0.34	
Calcium	mmol/l	2.07	1.86	2.28	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.30	7.45	9.15	0.43	0.85	
Chloride	mmol/l	94.9	90.2	99.6	2.35	4.70	ISE indirect
CK Total	U/l	189	155	223	17.00	34.00	CK-NAC (IFCC) 37°C
Glucose	mmol/l	6.16	5.23	7.09	0.47	0.93	Hexokinase
	mg/dl	111	94.2	128	8.40	16.80	
Magnesium	mmol/l	0.90	0.79	1.01	0.05	0.11	Methylthymol blue
	mg/dl	2.19	1.93	2.45	0.13	0.26	
Potassium	mmol/l	4.01	3.81	4.21	0.10	0.20	ISE method - indirect
Protein Total	g/l	59.2	47.4	71.0	5.90	11.80	Biuret reaction end point
	g/dl	5.92	4.74	7.10	0.59	1.18	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.5	110	7.60	15.20	
Urea	mmol/l	7.74	6.58	8.90	0.58	1.16	Urease kinetic
	mg/dl	46.5	39.5	53.5	3.50	7.00	
	mmol/l	7.74	6.58	8.90	0.58	1.16	BUN
	mg/dl	21.7	18.4	25.0	1.65	3.30	