

RANDOX

PRODUCT INFORMATION

HN1530

1589UN

Please note that for 1589UN - Human Assayed Sera Level 2, the following values are currently unavailable and will be updated in due course:

METHOD (Elec.)

- Albumin (electrophoresis)
- alpha-1-globulin
- alpha-1-globulin
- beta-globulin
- gamma-globulin

INC1994

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

CAT. NO. HNI530
CAT. NO. HS2611
LOT NO. 1589UN

GTIN: 05055273203783
GTIN: 05055273203813
EXPIRY: 2026-05-28

SIZE: 20 x 5ml
SIZE: 5 x 5ml

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 2-8°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.

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

MATERIALS PROVIDED

Human Assayed Multi-sera - Level 2 20 x 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.

EC	REP
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METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

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	
	g/l	41.8	35.5	48.1	3.15	6.30	Bromocresol Purple
	g/dl	4.18	3.55	4.81	0.32	0.63	
	g/l	41.4	35.2	47.6	3.10	6.20	Ortho Vitros Microslide Systems
	g/dl	4.14	3.52	4.76	0.31	0.62	
	g/l	41.7	35.5	47.9	3.10	6.20	Turbidimetric Assays
	g/dl	4.17	3.55	4.79	0.31	0.62	
Alkaline Phosphatase	U/l	166	141	191	12.50	25.00	Ortho Vitros Microslide Systems 37°C
	U/l	246	209	283	18.50	37.00	Diethanolamine buffer DEA 37°C
	U/l	192	163	221	14.50	29.00	Diethanolamine buffer DEA 30°C
	U/l	157	134	180	11.50	23.00	Diethanolamine buffer DEA 25°C
	U/l	187	159	215	14.00	28.00	AMP optimised to IFCC 37°C
	U/l	146	124	168	11.00	22.00	AMP optimised to IFCC 30°C
	U/l	119	102	136	8.50	17.00	AMP optimised to IFCC 25°C
	U/l	189	161	217	14.00	28.00	AMP non-optimised 37°C
	U/l	147	125	169	11.00	22.00	AMP non-optimised 30°C
	U/l	121	103	139	9.00	18.00	AMP non-optimised 25°C
	U/l	182	155	209	13.50	27.00	Colorimetric 37°C
	U/l	142	121	163	10.50	21.00	Colorimetric 30°C
	U/l	116	99	133	8.50	17.00	Colorimetric 25°C

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Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

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	38	30	46	4.00	8.00	Ortho Vitros Microslide Systems 37°C
	U/l	39	32	46	3.50	7.00	Tris buffer with P5P 37°C
	U/l	29	24	34	2.50	5.00	Tris buffer with P5P 30°C
	U/l	22	18	26	2.00	4.00	Tris buffer with P5P 25°C
	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
	U/l	35	28	42	3.50	7.00	Tris buffer with P5P NVKC 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer with P5P NVKC 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer with P5P NVKC 25°C
	U/l	36	28	44	4.00	8.00	Tris buffer SCE 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer SCE 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer SCE 25°C
Amylase Pancreatic	U/l	38	30	46	4.00	8.00	Ortho Vitros MicroSlide visible 37°C
	U/l	65	55	75	5.00	10.00	Immunoinhibition EPS substrate 37°C
	U/l	64	54	74	5.00	10.00	Roche EPS Liquid 37°C
Amylase Total	U/l	74	63	85	5.50	11.00	Randox Liquid Ethylidene pNPG7 37°C
	U/l	92	78	106	7.00	14.00	pNP Maltotrioxide substrates 37°C
	U/l	96	82	110	7.00	14.00	Siemens - blocked pNPG7 37°C
	U/l	95	81	109	7.00	14.00	Randox Lyo. Ethylidene pNPG7 37°C
	U/l	95	81	109	7.00	14.00	Randox Liquid Ethylidene pNPG7 37°C
	U/l	88	75	101	6.50	13.00	Beckman Synchron CX4/CX5/CX7 37°C

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Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Total	U/I	93	79	107	7.00	14.00	Siemens - maltopenta/hexaoside 37°C
	U/I	86	73	99	6.50	13.00	Saccharogenic 37°C
	U/I	89	76	102	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/I	72	61	83	5.50	11.00	Ortho Vitros Microslide Systems 37°C
	U/I	90	77	103	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/I	89	75	103	7.00	14.00	Roche liquid stable pNPG7 37°C
	U/I	95	81	109	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
	U/I	94	80	108	7.00	14.00	bioMerieux 2-chloro-pNPG3 37°C
	U/I	91	77	105	7.00	14.00	Beckman Coulter - blocked pNPG7 37°C
	U/I	93	79	107	7.00	14.00	Beckman Synchron AMY7 37°C
	U/I	82	70	94	6.00	12.00	Agappe - CNPG3 37°C
	U/I	84	71	97	6.50	13.00	Weiner Amilokit (AU/dl) 37°C
	U/I	88	74	102	7.00	14.00	I.L. 2-chloro-pNPG3 37°C
	U/I	97	83	111	7.00	14.00	Abbott Architect IFCC Cal. 37°C
	U/I	93	79	107	7.00	14.00	Abbott Architect Non-IFCC Cal. 37°C
	U/I	85	72	98	6.50	13.00	Beckman CNPG3 (Extinction Coeff) 37°C
	U/I	89	76	102	6.50	13.00	BM/Roche Colorimetric pNPG7 37°C
Apolipoprotein A-1	g/l	1.17	0.96	1.38	0.11	0.21	Immunoturbidimetric
	mg/dl	117	95.9	138	10.55	21.10	
Apolipoprotein B	g/l	0.66	0.54	0.77	0.06	0.12	Immunoturbidimetric
	mg/dl	65.5	53.7	77.3	5.90	11.80	
Acid Phosphatase (Total)	U/I	18.6	12.5	24.7	3.05	6.10	1-Naphthyl Phosphate substrate Kinetic 37°C
AST (GOT)	U/I	35	28	42	3.50	7.00	Colorimetric 37°C
	U/I	24	19	29	2.50	5.00	Colorimetric 30°C
	U/I	17	13	21	2.00	4.00	Colorimetric 25°C

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
AST (GOT)	U/l	46	37	55	4.50	9.00	Ortho Vitros Microslide visible slide 37°C
	U/l	41	33	49	4.00	8.00	Tris buffer with P5P 37°C
	U/l	28	22	34	3.00	6.00	Tris buffer with P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer with P5P 25°C
	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
	U/l	32	26	38	3.00	6.00	Tris buffer with P5P NVKC 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer with P5P NVKC 30°C
	U/l	15	12	18	1.50	3.00	Tris buffer with P5P NVKC 25°C
	U/l	37	29	45	4.00	8.00	Tris buffer SCE 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer SCE 30°C
	U/l	18	14	22	2.00	4.00	Tris buffer SCE 25°C
Bile Acids	μmol/l	24.1	19.3	28.9	2.40	4.80	4th Generation Colorimetric
	μmol/l	24.2	19.4	29.0	2.40	4.80	5th Generation Colorimetric
Bicarbonate	mmol/l	12.1	9.63	14.6	1.24	2.47	Colorimetric
	mmol/l	11.9	9.47	14.3	1.22	2.43	Ortho Vitros Microslide Systems
	mmol/l	12.6	9.97	15.2	1.32	2.63	Enzymatic
	mmol/l	12.9	10.2	15.6	1.35	2.70	Manometric
Bilirubin Direct	μmol/l	19.3	15.2	23.4	2.05	4.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.13	0.889	1.37	0.12	0.24	
	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	19.3	15.3	23.3	2.00	4.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.13	0.895	1.37	0.12	0.24	

METHOD

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Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Direct	μmol/l	17.4	13.8	21.0	1.80	3.60	Oxidation to Biliverdin/Vanadate
	mg/dl	1.02	0.807	1.23	0.11	0.21	
	μmol/l	17.2	13.6	20.8	1.80	3.60	Modified Jendrassik
	mg/dl	1.01	0.796	1.22	0.11	0.21	
Bilirubin Total	μmol/l	24.3	19.2	29.4	2.55	5.10	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.42	1.12	1.72	0.15	0.30	
	μmol/l	27.4	21.7	33.1	2.85	5.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.60	1.27	1.93	0.17	0.33	
	μmol/l	28.6	22.6	34.6	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.67	1.32	2.02	0.18	0.35	
	μmol/l	26.6	21.0	32.2	2.80	5.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.56	1.23	1.89	0.17	0.33	
	μmol/l	24.7	19.5	29.9	2.60	5.20	Nitrobenzenediazonium salt
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	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	30.2	23.8	36.6	3.20	6.40	Oxidation to Biliverdin/Vanadate
	mg/dl	1.77	1.39	2.15	0.19	0.38	
	μmol/l	35.8	28.3	43.3	3.75	7.50	Modified Jendrassik
	mg/dl	2.09	1.66	2.52	0.22	0.43	
Calcium	mmol/l	2.18	1.97	2.39	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.74	7.90	9.58	0.42	0.84	
	mmol/l	2.19	1.97	2.41	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	8.78	7.90	9.66	0.44	0.88	
	mmol/l	2.23	2.00	2.46	0.12	0.23	Ion selective electrode
	mg/dl	8.94	8.02	9.86	0.46	0.92	

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

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Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.27	2.04	2.50	0.12	0.23	Methylthymol blue
	mg/dl	9.10	8.18	10.0	0.46	0.92	
	mmol/l	2.24	2.01	2.47	0.12	0.23	Arsenazo III
	mg/dl	8.98	8.06	9.90	0.46	0.92	
	mmol/l	2.17	1.95	2.39	0.11	0.22	Phosphonazo
	mg/dl	8.70	7.82	9.58	0.44	0.88	
	mmol/l	2.23	2.01	2.45	0.11	0.22	NM-BAPTA
	mg/dl	8.94	8.06	9.82	0.44	0.88	
Cholesterol	mmol/l	4.03	3.51	4.55	0.26	0.52	Ortho Vitros Microslide Systems
	mg/dl	156	135	177	10.50	21.00	
	mmol/l	4.14	3.60	4.68	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	160	139	181	10.50	21.00	
	mmol/l	4.18	3.64	4.72	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	161	141	181	10.00	20.00	
	mmol/l	4.16	3.62	4.70	0.27	0.54	Cholesterol Dehydrogenase
	mg/dl	161	140	182	10.50	21.00	
Chloride	mmol/l	99.5	91.6	107	3.95	7.90	Colorimetric
	mmol/l	96.7	89.0	104	3.85	7.70	Ortho Vitros Microslide Systems
	mmol/l	94.8	87.3	102	3.75	7.50	ISE indirect
	mmol/l	97.3	89.5	105	3.90	7.80	ISE direct
Cholinesterase	U/l	5388	4311	6465	538.50	1077.00	Colorimetric Benzoylcholine 37°C
	U/l	5643	4515	6771	564.00	1128.00	Colorimetric Butyrylthiocholine 37°C
	U/l	5181	4144	6218	518.50	1037.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	184	151	217	16.50	33.00	Ortho Vitros Microslide Systems 37°C

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Range

Analyte	unit	Target	low	high	1SD	2SD	methods
CK Total	U/l	196	161	231	17.50	35.00	CK-NAC serum start (DGKC) 37°C
	U/l	123	101	145	11.00	22.00	CK-NAC serum start (DGKC) 30°C
	U/l	83	68	98	7.50	15.00	CK-NAC serum start (DGKC) 25°C
	U/l	190	156	224	17.00	34.00	CK-NAC substrate start (DGKC) 37°C
	U/l	119	98	140	10.50	21.00	CK-NAC substrate start (DGKC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC substrate start (DGKC) 25°C
	U/l	194	159	229	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	121	100	142	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	82	68	96	7.00	14.00	CK-NAC (IFCC) 25°C
	U/l	211	173	249	19.00	38.00	Monothioglycerol 37°C
	U/l	132	108	156	12.00	24.00	Monothioglycerol 30°C
	U/l	90	74	106	8.00	16.00	Monothioglycerol 25°C
	U/l	194	159	229	17.50	35.00	Creatinine phosphate substrate Start 37°C
	U/l	121	100	142	10.50	21.00	Creatinine phosphate substrate Start 30°C
	U/l	82	68	96	7.00	14.00	Creatinine phosphate substrate Start 25°C
Copper	µmol/l	16.1	12.9	19.3	1.60	3.20	Atomic absorption
	µg/dl	102	82.0	122	10.00	20.00	
	µmol/l	15.4	12.3	18.5	1.55	3.10	Colorimetric
	µg/dl	97.9	78.2	118	9.85	19.70	
Cortisol	nmol/l	555	416	694	69.50	139.00	Roche Cobas 6000/8000
	µg/dl	20.0	15.0	25.0	2.50	5.00	
Creatinine	µmol/l	137	110	164	13.50	27.00	Alkaline picrate with deproteinization
	mg/dl	1.55	1.24	1.86	0.16	0.31	
	µmol/l	138	111	165	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.56	1.25	1.87	0.16	0.31	

METHOD		ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)					
Lot. No. 1589UN Cat. No. HN1530 / HS2611							
Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	140	112	168	14.00	28.00	Enzymatic UV method
	mg/dl	1.58	1.27	1.89	0.16	0.31	
	μmol/l	140	112	168	14.00	28.00	Creatinine PAP method
	mg/dl	1.58	1.27	1.89	0.16	0.31	
	μmol/l	137	109	165	14.00	28.00	Jaffe rate blanked
	mg/dl	1.55	1.23	1.87	0.16	0.32	
	μmol/l	139	112	166	13.50	27.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.57	1.27	1.87	0.15	0.30	
	μmol/l	133	107	159	13.00	26.00	Vitros DT60/DT60 II/DTSC II
	mg/dl	1.50	1.21	1.79	0.15	0.29	
	μmol/l	136	109	163	13.50	27.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	μmol/l	135	108	162	13.50	27.00	Vitros IDMS Traceable
	mg/dl	1.53	1.22	1.84	0.16	0.31	
	μmol/l	138	110	166	14.00	28.00	IDMS traceable
	mg/dl	1.56	1.24	1.88	0.16	0.32	
D-3-Hydroxybutyrate	mmol/l	0.30	0.25	0.34	0.02	0.04	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	2.37	1.90	2.84	0.24	0.47	Immunoturbidimetric
	ng/ml	1.85	1.48	2.22	0.19	0.37	
Folate	nmol/l	21.2	16.1	26.3	2.55	5.10	Roche Cobas 6000/8000 Folate III
	ng/ml	9.35	7.10	11.6	1.13	2.25	
Free T4	pmol/l	16.0	12.0	20.0	2.00	4.00	Abbott Architect
	ng/dl	1.25	0.936	1.56	0.16	0.31	
	pg/ml	12.5	9.36	15.6	1.57	3.14	Abbott Architect
	pmol/l	17.6	13.2	22.0	2.20	4.40	Siemens Centaur XP/XPT/Classic
	ng/dl	1.37	1.03	1.71	0.17	0.34	
	pg/ml	13.7	10.3	17.1	1.70	3.40	Siemens Centaur XP/XPT/Classic

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Free T4	pmol/l	19.5	14.6	24.4	2.45	4.90	Siemens Immulite 2000/2500
	ng/dl	1.52	1.14	1.90	0.19	0.38	
	pg/ml	15.2	11.4	19.0	1.90	3.80	Siemens Immulite 2000/2500
	pmol/l	21.5	16.1	26.9	2.70	5.40	Siemens Immulite 1000
	ng/dl	1.68	1.26	2.10	0.21	0.42	
	pg/ml	16.8	12.6	21.0	2.10	4.20	Siemens Immulite 1000
	pmol/l	16.8	12.6	21.0	2.10	4.20	Beckman Dxl800
	ng/dl	1.31	0.983	1.64	0.16	0.33	
	pg/ml	13.1	9.83	16.4	1.64	3.27	Beckman Dxl800
	pmol/l	20.9	15.6	26.2	2.65	5.30	Roche Elecsys
	ng/dl	1.63	1.22	2.04	0.21	0.41	
	pg/ml	16.3	12.2	20.4	2.05	4.10	Roche Elecsys
	pmol/l	18.1	13.5	22.7	2.30	4.60	Beckman Access
	ng/dl	1.41	1.05	1.77	0.18	0.36	
	pg/ml	14.1	10.5	17.7	1.80	3.60	Beckman Access
	pmol/l	22.8	17.1	28.5	2.85	5.70	Tosoh Series
	ng/dl	1.78	1.33	2.23	0.23	0.45	
	pg/ml	17.8	13.3	22.3	2.25	4.50	Tosoh Series
	pmol/l	34.8	26.1	43.5	4.35	8.70	Vitros ECi
	ng/dl	2.71	2.04	3.38	0.34	0.67	
	pg/ml	27.1	20.4	33.8	3.35	6.70	Vitros ECi
	pmol/l	21.1	15.9	26.3	2.60	5.20	Roche Cobas 4000/E411
	ng/dl	1.65	1.24	2.06	0.21	0.41	
	pg/ml	16.5	12.4	20.6	2.05	4.10	Roche Cobas 4000/E411

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Free T4	pmol/l	21.1	15.8	26.4	2.65	5.30	Roche Cobas e601/602
	ng/dl	1.65	1.23	2.07	0.21	0.42	
	pg/ml	16.5	12.3	20.7	2.10	4.20	Roche Cobas e601/602
	pmol/l	21.8	16.3	27.3	2.75	5.50	SNIBE Maglumi Analysers
	ng/dl	1.70	1.27	2.13	0.22	0.43	
	pg/ml	17.0	12.7	21.3	2.15	4.30	SNIBE Maglumi Analysers
	pmol/l	19.7	14.7	24.7	2.50	5.00	Biomerieux Vidas FT4N Kit
	ng/dl	1.54	1.15	1.93	0.20	0.39	
	pg/ml	15.4	11.5	19.3	1.95	3.90	Biomerieux Vidas FT4N Kit
	pmol/l	19.2	14.4	24.0	2.40	4.80	Siemens Dimension Exl LOCI
	ng/dl	1.50	1.12	1.88	0.19	0.38	
	pg/ml	15.0	11.2	18.8	1.90	3.80	Siemens Dimension Exl LOCI
	pmol/l	20.6	15.4	25.8	2.60	5.20	Roche Cobas e402/e801
	ng/dl	1.61	1.20	2.02	0.21	0.41	
	pg/ml	16.1	12.0	20.2	2.05	4.10	Roche Cobas e402/e801
	pmol/l	18.3	13.7	22.9	2.30	4.60	Siemens Atellica IM
	ng/dl	1.43	1.07	1.79	0.18	0.36	
	pg/ml	14.3	10.7	17.9	1.80	3.60	Siemens Atellica IM
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	51	43	59	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	40	34	46	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	64	54	74	5.00	10.00	Ortho Vitros Microslide Systems 37°C

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	30	26	34	2.00	4.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	53	45	61	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	42	35	49	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	56	48	64	4.00	8.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	44	38	50	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	35	30	40	2.50	5.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	18	14	22	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
	U/l	14	11	17	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	11	9	13	1.00	2.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	6.19	5.26	7.12	0.47	0.93	Ortho Vitros Microslide Systems
	mg/dl	112	94.8	129	8.60	17.20	
	mmol/l	6.24	5.31	7.17	0.47	0.93	Glucose dehydrogenase
	mg/dl	112	95.7	128	8.15	16.30	
	mmol/l	6.16	5.23	7.09	0.47	0.93	Hexokinase
	mg/dl	111	94.2	128	8.40	16.80	
	mmol/l	6.11	5.19	7.03	0.46	0.92	Oxygen electrode
	mg/dl	110	93.5	127	8.25	16.50	
alpha-HBDH	mmol/l	6.23	5.30	7.16	0.47	0.93	Glucose oxidase
	mg/dl	112	95.5	129	8.25	16.50	
alpha-HBDH	U/l	215	170	260	22.50	45.00	Oxobutyrates < 10 mmol/l 37°C
	U/l	162	128	196	17.00	34.00	Oxobutyrates < 10 mmol/l 30°C
	U/l	122	96	148	13.00	26.00	Oxobutyrates < 10 mmol/l 25°C

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.37	1.16	1.58	0.11	0.21	Direct HDL PPD
	mg/dl	52.9	44.8	61.0	4.05	8.10	
	mmol/l	1.30	1.10	1.50	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	50.2	42.5	57.9	3.85	7.70	
	mmol/l	1.34	1.14	1.54	0.10	0.20	Vitros Magnetic HDL
	mg/dl	51.7	44.0	59.4	3.85	7.70	
	mmol/l	1.38	1.17	1.59	0.11	0.21	Vitros 5.1 FS microtip assay
	mg/dl	53.3	45.2	61.4	4.05	8.10	
	mmol/l	1.36	1.16	1.56	0.10	0.20	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	52.5	44.8	60.2	3.85	7.70	
	mmol/l	1.42	1.20	1.64	0.11	0.22	HDL - Ultra
	mg/dl	54.8	46.3	63.3	4.25	8.50	
	mmol/l	1.41	1.20	1.62	0.11	0.21	Agappe - Selective Inhibition
	mg/dl	54.4	46.3	62.5	4.05	8.10	
	mmol/l	1.36	1.16	1.56	0.10	0.20	Direct HDL Roche 4th Generation
	mg/dl	52.5	44.8	60.2	3.85	7.70	
Immunoglobulin A	g/l	1.98	1.49	2.47	0.25	0.49	Immunoturbidimetric
	mg/dl	198	149	247	24.50	49.00	
Immunoglobulin G	g/l	7.08	5.81	8.35	0.64	1.27	Immunoturbidimetric
	mg/dl	708	581	835	63.50	127.00	
Immunoglobulin M	g/l	0.70	0.56	0.84	0.07	0.14	Immunoturbidimetric
	mg/dl	70.2	56.2	84.2	7.00	14.00	
Iron	μmol/l	18.9	15.5	22.3	1.70	3.40	Colorimetric with ppt.
	μg/dl	106	86.6	125	9.70	19.40	
	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	

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	μmol/l	18.3	15.0	21.6	1.65	3.30	Ortho Vitros Microslide Systems
	μg/dl	102	83.9	120	9.05	18.10	
Lactate	mmol/l	1.62	1.33	1.91	0.15	0.29	Colorimetric Lactate Oxidase
	mg/dl	14.6	12.0	17.2	1.30	2.60	
	mmol/l	1.54	1.27	1.81	0.14	0.27	Ortho Vitros Microslide Systems
	mg/dl	13.9	11.4	16.4	1.25	2.50	
	mmol/l	1.64	1.35	1.93	0.15	0.29	Enzymatic Electrode
	mg/dl	14.8	12.2	17.4	1.30	2.60	
	mmol/l	1.68	1.38	1.98	0.15	0.30	Ion selective electrode
	mg/dl	15.1	12.4	17.8	1.35	2.70	
	mmol/l	1.57	1.28	1.86	0.15	0.29	UV LDH
	mg/dl	14.1	11.5	16.7	1.30	2.60	
LD (LDH)	U/l	225	191	259	17.00	34.00	Ortho Vitros Microslide Systems 37°C
	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	421	358	484	31.50	63.00	P->L Scandinavian & Dutch 37°C
	U/l	304	258	350	23.00	46.00	P->L Scandinavian & Dutch 30°C
	U/l	213	182	244	15.50	31.00	P->L Scandinavian & Dutch 25°C
	U/l	404	343	465	30.50	61.00	P->L German methods 37°C
	U/l	292	248	336	22.00	44.00	P->L German methods 30°C
	U/l	205	174	236	15.50	31.00	P->L German methods 25°C
	U/l	401	341	461	30.00	60.00	P->L SFBC 37°C
	U/l	290	246	334	22.00	44.00	P->L SFBC 30°C
	U/l	203	173	233	15.00	30.00	P->L SFBC 25°C

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	205	175	235	15.00	30.00	L->P IFCC 37°C
	U/l	148	126	170	11.00	22.00	L->P IFCC 30°C
	U/l	104	89	119	7.50	15.00	L->P IFCC 25°C
	U/l	226	192	260	17.00	34.00	Ortho Vitros IFCC Traceable 37°C
Lipase	U/l	33	26	40	3.50	7.00	Other Colorimetric 37°C
	U/l	212	170	254	21.00	42.00	Ortho Vitros Microslide Systems 37°C
	U/l	33	27	39	3.00	6.00	Roche Colorimetric 37°C
	U/l	42	34	50	4.00	8.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.19	1.05	1.33	0.07	0.14	Ortho Vitros Microslide Systems
	mg/dl	0.826	0.729	0.923	0.05	0.10	
	mmol/l	0.95	0.84	1.07	0.06	0.11	Ion selective electrode
	mg/dl	0.662	0.583	0.741	0.04	0.08	
	mmol/l	1.01	0.89	1.14	0.06	0.13	Spectrophotometric
	mg/dl	0.701	0.615	0.787	0.04	0.09	
Magnesium	mmol/l	0.94	0.83	1.05	0.06	0.11	Arsenazo III
	mg/dl	2.28	2.01	2.55	0.14	0.27	
	mmol/l	0.95	0.84	1.06	0.06	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.31	2.03	2.59	0.14	0.28	
	mmol/l	0.96	0.85	1.08	0.06	0.12	Atomic absorption
	mg/dl	2.34	2.06	2.62	0.14	0.28	
	mmol/l	0.94	0.83	1.05	0.06	0.11	Calmagite
	mg/dl	2.29	2.01	2.57	0.14	0.28	
	mmol/l	0.97	0.85	1.08	0.06	0.12	Xylidyl Blue
	mg/dl	2.35	2.07	2.63	0.14	0.28	

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	0.96	0.85	1.08	0.06	0.12	Methylthymol blue
	mg/dl	2.34	2.06	2.62	0.14	0.28	
	mmol/l	0.97	0.85	1.08	0.06	0.12	Chlorphosphonazo III
	mg/dl	2.35	2.07	2.63	0.14	0.28	
	mmol/l	0.95	0.84	1.06	0.06	0.11	Enzymatic
	mg/dl	2.31	2.03	2.59	0.14	0.28	
NEFA	mmol/l	1.40	1.12	1.68	0.14	0.28	Colorimetric
Osmolality	mOsm/kg	293	234	352	29.50	59.00	Calculated
	mOsm/kg	301	241	361	30.00	60.00	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	1.55	1.32	1.78	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	4.81	4.09	5.53	0.36	0.72	
	mmol/l	1.50	1.28	1.72	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.65	3.97	5.33	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	4.02	3.70	4.34	0.16	0.32	Ortho Vitros Microslide Systems
	mmol/l	4.20	3.86	4.54	0.17	0.34	Enzymatic
	mmol/l	3.88	3.57	4.19	0.16	0.31	Flame photometry
	mmol/l	3.92	3.60	4.24	0.16	0.32	ISE method - direct
	mmol/l	3.99	3.67	4.31	0.16	0.32	ISE method - indirect
	mmol/l	3.87	3.56	4.18	0.16	0.31	Colorimetric
Protein Total	g/l	59.0	47.2	70.8	5.90	11.80	Ortho Vitros Microslide Systems
	g/dl	5.90	4.72	7.08	0.59	1.18	

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Protein Total	g/l	58.9	47.1	70.7	5.90	11.80	Biuret reaction end point
	g/dl	5.89	4.71	7.07	0.59	1.18	
	g/l	58.5	46.8	70.2	5.85	11.70	Biuret reaction kinetic
	g/dl	5.85	4.68	7.02	0.59	1.17	
PSA Total	ng/ml =	7.78	5.83	9.73	0.98	1.95	Tosoh Series
	ng/ml =	11.1	8.36	13.8	1.37	2.74	Beckman Access standardised to Hybritech
	ng/ml =	10.3	7.73	12.9	1.29	2.57	bioMerieux VIDAS TPSA
	ng/ml =	11.0	8.22	13.8	1.39	2.78	Siemens Immulite 2000 1st Generation
	ng/ml =	8.57	6.42	10.7	1.08	2.15	Abbott Architect
	ng/ml =	9.87	7.40	12.3	1.24	2.47	Ortho Vitros ECI
	ng/ml =	10.5	7.90	13.1	1.30	2.60	Siemens Dimension
	ng/ml =	10.5	7.89	13.1	1.31	2.61	Cobas E411
	ng/ml =	10.6	7.99	13.2	1.31	2.61	Roche Cobas 6000/8000
	ng/ml =	11.1	8.32	13.9	1.39	2.78	Beckman DXI standardised to Hybritech
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	Ortho Vitros Microslide Systems
	mmol/l	143	136	150	3.50	7.00	Enzymatic
	mmol/l	140	133	147	3.50	7.00	Flame photometry
	mmol/l	140	133	147	3.50	7.00	ISE method - direct
	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
	mmol/l	140	133	147	3.50	7.00	Colorimetric
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 =	1.18	0.94	1.42	0.12	0.24	Abbott Architect

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Thyroid Stimulating Hormone	μU/ml =	1.62	1.29	1.95	0.17	0.33	bioMerieux VIDAS TSH
	μU/ml =	1.44	1.15	1.73	0.15	0.29	Siemens Centaur XP/XPT/Classic
	μU/ml =	1.50	1.20	1.80	0.15	0.30	Siemens Immulite 2000/2500
	μU/ml =	1.69	1.35	2.03	0.17	0.34	Roche Elecsys
	μU/ml =	1.37	1.10	1.64	0.14	0.27	Beckman Access hyperTSH 3rd Generation
	μU/ml =	1.45	1.16	1.74	0.15	0.29	Tosoh Series
	μU/ml =	1.37	1.09	1.65	0.14	0.28	Vitros ECI
	μU/ml =	1.70	1.36	2.04	0.17	0.34	Roche Cobas 4000/E411
	μU/ml =	1.67	1.33	2.01	0.17	0.34	Roche Cobas e601/602
	μU/ml =	1.49	1.19	1.79	0.15	0.30	SNIBE Maglumi Analysers
	μU/ml =	1.33	1.06	1.60	0.14	0.27	Siemens Dimension ExI LOCI
	μU/ml =	1.29	1.03	1.55	0.13	0.26	Siemens Centaur CP
	μU/ml =	1.39	1.11	1.67	0.14	0.28	Beckman Dxl 600/800 Access (3rd IS)
	μU/ml =	1.89	1.51	2.27	0.19	0.38	Mindray CL-2000i
	μU/ml =	1.63	1.30	1.96	0.17	0.33	Roche Cobas e402/e801
	μU/ml =	1.37	1.10	1.64	0.14	0.27	Siemens Atellica IM
TIBC	μmol/l	47.8	37.8	57.8	5.00	10.00	Ortho Vitros Microslide Systems
	μg/dl	267	211	323	28.00	56.00	
	μmol/l	40.5	32.0	49.0	4.25	8.50	Removal of excess free iron
	μg/dl	226	179	273	23.50	47.00	
	μmol/l	42.7	33.7	51.7	4.50	9.00	FE+UIBC(saturation with iron)
	μg/dl	239	188	290	25.50	51.00	
	μmol/l	43.5	34.4	52.6	4.55	9.10	Direct Colorimetric
	μg/dl	243	192	294	25.50	51.00	
	μmol/l	42.9	33.9	51.9	4.50	9.00	Calculated from Transferrin
	μg/dl	240	190	290	25.00	50.00	

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
TIBC	μmol/l	51.4	40.6	62.2	5.40	10.80	Randox Direct
	μg/dl	287	227	347	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	1.94	1.45	2.43	0.25	0.49	Abbott Architect
	ng/ml	1.26	0.944	1.58	0.16	0.32	
	ng/dl	126	94.4	158	15.80	31.60	
	nmol/l	2.04	1.53	2.55	0.26	0.51	BioMerieux Vidas
	ng/ml	1.33	0.996	1.66	0.17	0.33	
	ng/dl	133	99.6	166	16.70	33.40	
	nmol/l	2.21	1.66	2.76	0.28	0.55	Siemens Centaur XP/XPT/Classic
	ng/ml	1.44	1.08	1.80	0.18	0.36	
	ng/dl	144	108	180	18.00	36.00	
	nmol/l	2.03	1.52	2.54	0.26	0.51	Tosoh Series
	ng/ml	1.32	0.990	1.65	0.17	0.33	
	ng/dl	132	99.0	165	16.50	33.00	
	nmol/l	2.51	1.89	3.13	0.31	0.62	Vitros ECi
	ng/ml	1.63	1.23	2.03	0.20	0.40	
	ng/dl	163	123	203	20.00	40.00	
	nmol/l	2.39	1.79	2.99	0.30	0.60	Roche Cobas 4000/E411
	ng/ml	1.56	1.17	1.95	0.20	0.39	
	ng/dl	156	117	195	19.50	39.00	
	nmol/l	2.34	1.75	2.93	0.30	0.59	Roche Cobas e601/602
	ng/ml	1.52	1.14	1.90	0.19	0.38	
	ng/dl	152	114	190	19.00	38.00	

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Total T3	nmol/l	2.05	1.54	2.56	0.26	0.51	SNIBE Maglumi Analysers
	ng/ml	1.33	1.00	1.66	0.17	0.33	
	ng/dl	133	100	166	16.50	33.00	SNIBE Maglumi Analysers
	nmol/l	2.08	1.56	2.60	0.26	0.52	Mindray CL Series
	ng/ml	1.35	1.02	1.68	0.17	0.33	
	ng/dl	135	102	168	16.50	33.00	Mindray CL Series
	nmol/l	2.48	1.86	3.10	0.31	0.62	Roche Cobas e402/e801
	ng/ml	1.61	1.21	2.01	0.20	0.40	
Total T4	ng/dl	161	121	201	20.00	40.00	Roche Cobas e402/e801
	nmol/l	88.4	66.3	111	11.05	22.10	Abbott Architect
	µg/dl	6.90	5.17	8.63	0.87	1.73	
	ng/ml	69.0	51.7	86.3	8.65	17.30	Abbott Architect
	nmol/l	83.7	62.7	105	10.50	21.00	BioMerieux Vidas
	µg/dl	6.53	4.89	8.17	0.82	1.64	
	ng/ml	65.3	48.9	81.7	8.20	16.40	BioMerieux Vidas
	nmol/l	89.5	67.2	112	11.15	22.30	Siemens Centaur XP/XPT/Classic
	µg/dl	6.98	5.24	8.72	0.87	1.74	
	ng/ml	69.8	52.4	87.2	8.70	17.40	Siemens Centaur XP/XPT/Classic
	nmol/l	91.0	68.2	114	11.40	22.80	Siemens Immulite 2000/2500
	µg/dl	7.10	5.32	8.88	0.89	1.78	
	ng/ml	71.0	53.2	88.8	8.90	17.80	Siemens Immulite 2000/2500
	nmol/l	97.6	73.2	122	12.20	24.40	Beckman Access
	µg/dl	7.61	5.71	9.51	0.95	1.90	
	ng/ml	76.1	57.1	95.1	9.50	19.00	Beckman Access

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Total T4	nmol/l	84.4	63.3	106	10.55	21.10	Vitros ECI
	µg/dl	6.58	4.94	8.22	0.82	1.64	
	ng/ml	65.8	49.4	82.2	8.20	16.40	Vitros ECI
	nmol/l	92.1	69.1	115	11.50	23.00	Roche Cobas 4000/E411
	µg/dl	7.18	5.39	8.97	0.90	1.79	
	ng/ml	71.8	53.9	89.7	8.95	17.90	Roche Cobas 4000/E411
	nmol/l	91.8	68.9	115	11.45	22.90	Roche Cobas e601/602
	µg/dl	7.16	5.37	8.95	0.90	1.79	
	ng/ml	71.6	53.7	89.5	8.95	17.90	Roche Cobas e601/602
	nmol/l	92.9	69.7	116	11.60	23.20	Monobind Inc. ELISA / CLIA
	µg/dl	7.25	5.44	9.06	0.91	1.81	
	ng/ml	72.5	54.4	90.6	9.05	18.10	Monobind Inc. ELISA / CLIA
	nmol/l	106	79.4	133	13.30	26.60	SNIBE Maglumi Analysers
	µg/dl	8.27	6.19	10.4	1.04	2.08	
	ng/ml	82.7	61.9	104	10.40	20.80	SNIBE Maglumi Analysers
	nmol/l	88.4	66.3	111	11.05	22.10	Roche Cobas e402/e801
	µg/dl	6.90	5.17	8.63	0.87	1.73	
	ng/ml	69.0	51.7	86.3	8.65	17.30	Roche Cobas e402/e801
Transferrin	g/l	1.94	1.55	2.33	0.20	0.39	Immunoturbidimetric
	mg/dl	194	155	233	19.50	39.00	
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	
	mmol/l	1.10	0.93	1.27	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	97.4	82.1	113	7.65	15.30	
	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	

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	98.2	82.4	114	7.90	15.80	
	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	97.4	81.4	113	8.00	16.00	
	mmol/l	1.31	1.10	1.52	0.11	0.21	Ortho Vitros Microslide Systems
	mg/dl	116	97.4	135	9.30	18.60	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.70	4.96	6.44	0.37	0.74	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.37	0.32	0.41	0.02	0.05	Reduction methods
	mg/dl	6.17	5.38	6.96	0.40	0.79	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.03	5.24	6.82	0.40	0.79	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.98	5.21	6.75	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.90	5.12	6.68	0.39	0.78	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.95	5.17	6.73	0.39	0.78	
Urea	mmol/l	7.07	6.01	8.13	0.53	1.06	Ortho Vitros Microslide Systems
	mg/dl	42.5	36.1	48.9	3.20	6.40	
	mmol/l	7.43	6.31	8.55	0.56	1.12	Urease end point
	mg/dl	44.7	37.9	51.5	3.40	6.80	

METHOD

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.43	6.31	8.55	0.56	1.12	Urease kinetic
	mg/dl	44.7	37.9	51.5	3.40	6.80	
	mmol/l	7.36	6.26	8.46	0.55	1.10	Urease hypochlorite
	mg/dl	44.2	37.6	50.8	3.30	6.60	
	mmol/l	7.43	6.32	8.54	0.56	1.11	BUN
	mg/dl	20.9	17.8	24.0	1.55	3.10	
Vitamin B12	pmol/l	411	329	493	41.00	82.00	Roche Cobas 6000/8000
	pg/ml	557	446	668	55.50	111.00	
Zinc	μmol/l	25.4	20.3	30.5	2.55	5.10	Atomic absorption
	μg/dl	166	133	199	16.50	33.00	
	μmol/l	27.2	21.8	32.6	2.70	5.40	Colorimetric with deproteinisation
	μg/dl	178	142	214	18.00	36.00	

Abbott Alinity/ Architect c/ci Svstems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	40.9	34.7	47.1	3.10	6.20	Bromocresol Green
	g/dl	4.09	3.47	4.71	0.31	0.62	
	g/l	41.6	35.4	47.8	3.10	6.20	Bromocresol Purple
	g/dl	4.16	3.54	4.78	0.31	0.62	
Alkaline Phosphatase	U/l	180	153	207	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	177	151	203	13.00	26.00	AMP non-optimised 37°C
	U/l	167	142	192	12.50	25.00	Colorimetric 37°C
ALT (GPT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	62	53	71	4.50	9.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	96	82	110	7.00	14.00	Abbott Architect IFCC Cal. 37°C
	U/l	93	79	107	7.00	14.00	Abbott Architect Non-IFCC Cal. 37°C
AST (GOT)	U/l	32	26	38	3.00	6.00	Tris buffer without P5P 37°C
Bile Acids	μmol/l	24.7	19.8	29.6	2.45	4.90	Enzymatic Colorimetric
Bicarbonate	mmol/l	11.7	9.27	14.1	1.22	2.43	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	
	μmol/l	20.0	15.8	24.2	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.17	0.924	1.42	0.12	0.25	
	μmol/l	19.8	15.6	24.0	2.10	4.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.16	0.913	1.41	0.12	0.25	
Bilirubin Total	μmol/l	26.9	21.3	32.5	2.80	5.60	Diazo with Dichloroaniline (DCA)
	mg/dl	1.57	1.25	1.89	0.16	0.32	

Abbott Alinity/ Architect c/ci Svstems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	μmol/l	27.7	21.9	33.5	2.90	5.80	Diazo with Sulphanilic Acid
	mg/dl	1.62	1.28	1.96	0.17	0.34	
	μmol/l	28.1	22.2	34.0	2.95	5.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.64	1.30	1.98	0.17	0.34	
	μmol/l	26.9	21.3	32.5	2.80	5.60	Diazonium ion
	mg/dl	1.57	1.25	1.89	0.16	0.32	
Calcium	mmol/l	2.17	1.95	2.39	0.11	0.22	Arsenazo III
	mg/dl	8.70	7.82	9.58	0.44	0.88	
Cholesterol	mmol/l	4.13	3.59	4.67	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	159	139	179	10.00	20.00	
	mmol/l	4.13	3.59	4.67	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	159	139	179	10.00	20.00	
	mmol/l	4.12	3.59	4.65	0.27	0.53	Cholesterol Dehydrogenase
	mg/dl	159	139	179	10.00	20.00	
Chloride	mmol/l	96.6	88.9	104	3.85	7.70	ISE indirect
Cholinesterase	U/l	6671	5337	8005	667.00	1334.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	200	164	236	18.00	36.00	CK-NAC serum start (DGKC) 37°C
	U/l	194	159	229	17.50	35.00	CK-NAC substrate start (DGKC) 37°C
	U/l	200	164	236	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	204	167	241	18.50	37.00	Monothioglycerol 37°C
	U/l	198	163	233	17.50	35.00	Abbott CK-NAC (IFCC) 37°C
Creatinine	μmol/l	143	114	172	14.50	29.00	Alkaline picrate with deproteinization
	mg/dl	1.62	1.29	1.95	0.17	0.33	
	μmol/l	141	113	169	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.59	1.28	1.90	0.16	0.31	

Abbott Alinity/ Architect c/ci Svstems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	139	111	167	14.00	28.00	Enzymatic UV method
	mg/dl	1.57	1.25	1.89	0.16	0.32	
	μmol/l	143	114	172	14.50	29.00	Jaffe rate blanked
	mg/dl	1.62	1.29	1.95	0.17	0.33	
	μmol/l	141	112	170	14.50	29.00	IDMS traceable
	mg/dl	1.59	1.27	1.91	0.16	0.32	
Free T4	pmol/l	16.2	12.1	20.3	2.05	4.10	Abbott Architect
	ng/dl	1.26	0.944	1.58	0.16	0.32	
	pg/ml	12.6	9.44	15.8	1.58	3.16	Abbott Architect
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma glutamyl-3-carboxy-4-nitroanilide 37°C
	U/l	52	45	59	3.50	7.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	52	45	59	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	53	45	61	4.00	8.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	6.07	5.16	6.98	0.46	0.91	Hexokinase
	mg/dl	109	93.0	125	8.00	16.00	
	mmol/l	6.07	5.16	6.98	0.46	0.91	Glucose oxidase
	mg/dl	109	93.0	125	8.00	16.00	
HDL - Cholesterol	mmol/l	1.46	1.24	1.68	0.11	0.22	Direct HDL PPD
	mg/dl	56.4	47.9	64.9	4.25	8.50	
	mmol/l	1.41	1.20	1.62	0.11	0.21	Direct HDL Immunoseparation
	mg/dl	54.4	46.3	62.5	4.05	8.10	
	mmol/l	1.42	1.21	1.63	0.11	0.21	Direct Clearance Method
	mg/dl	54.8	46.7	62.9	4.05	8.10	
	mmol/l	1.42	1.21	1.63	0.11	0.21	HDL - Ultra
	mg/dl	54.8	46.7	62.9	4.05	8.10	

Abbott Alinity/ Architect c/ci Svstems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	μmol/l	20.1	16.5	23.7	1.80	3.60	Colorimetric with ppt.
	μg/dl	112	92.2	132	9.90	19.80	
	μmol/l	20.2	16.6	23.8	1.80	3.60	Colorimetric without ppt.
	μg/dl	113	92.8	133	10.10	20.20	
Lactate	mmol/l	1.71	1.40	2.02	0.16	0.31	Colorimetric Lactate Oxidase
	mg/dl	15.4	12.6	18.2	1.40	2.80	
LD (LDH)	U/l	197	167	227	15.00	30.00	L->P 37°C
	U/l	196	166	226	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	32	26	38	3.00	6.00	Other Colorimetric 37°C
Lithium	mmol/l	1.06	0.93	1.19	0.07	0.13	Spectrophotometric
	mg/dl	0.736	0.645	0.827	0.05	0.09	
Magnesium	mmol/l	0.93	0.82	1.04	0.06	0.11	Arsenazo III
	mg/dl	2.26	1.99	2.53	0.14	0.27	
	mmol/l	0.95	0.84	1.07	0.06	0.11	Xylidyl Blue
	mg/dl	2.31	2.03	2.59	0.14	0.28	
	mmol/l	0.94	0.82	1.05	0.06	0.11	Enzymatic
	mg/dl	2.28	2.00	2.56	0.14	0.28	
Osmolality	mOsm/kg	304	243	365	30.50	61.00	Calculated
Phosphate Inorganic	mmol/l	1.49	1.27	1.71	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.62	3.94	5.30	0.34	0.68	
	mmol/l	1.49	1.26	1.72	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.62	3.91	5.33	0.36	0.71	
Potassium	mmol/l	3.98	3.66	4.30	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.9	47.9	71.9	6.00	12.00	Biuret reaction end point
	g/dl	5.99	4.79	7.19	0.60	1.20	

Abbott Alinity/ Architect c/ci Svstems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Protein Total	g/l	59.6	47.7	71.5	5.95	11.90	Biuret reaction kinetic
	g/dl	5.96	4.77	7.15	0.60	1.19	
PSA Total	ng/ml =	8.85	6.64	11.1	1.11	2.21	Abbott Architect
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	μU/ml =	1.16	0.93	1.39	0.11	0.23	Abbott Architect
TIBC	μmol/l	41.7	32.9	50.5	4.40	8.80	FE+UIBC(saturation with iron)
	μg/dl	233	184	282	24.50	49.00	
	μmol/l	44.7	35.3	54.1	4.70	9.40	Calculated from Transferrin
	μg/dl	250	197	303	26.50	53.00	
Triglycerides	mmol/l	1.06	0.89	1.23	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	78.6	109	7.60	15.20	
	mmol/l	1.05	0.88	1.22	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	92.9	77.9	108	7.50	15.00	
	mmol/l	1.05	0.89	1.21	0.08	0.16	L/G Kinase EP. no correction
	mg/dl	92.9	78.4	107	7.25	14.50	
Uric Acid (Urate)	mmol/l	1.06	0.89	1.23	0.09	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	93.8	78.5	109	7.65	15.30	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.00	5.21	6.79	0.40	0.79	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.96	5.19	6.73	0.39	0.77	
Urea	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.01	5.24	6.78	0.39	0.77	
Urea	mmol/l	7.40	6.29	8.51	0.56	1.11	Urease end point
	mg/dl	44.5	37.8	51.2	3.35	6.70	

**Abbott Alinity/ Architect c/ci Svstems®**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.51	6.38	8.64	0.57	1.13	Urease kinetic
	mg/dl	45.1	38.3	51.9	3.40	6.80	
	mmol/l	7.51	6.38	8.64	0.57	1.13	BUN
	mg/dl	21.1	17.9	24.3	1.60	3.20	

ABX Pentra 400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	39.8	33.8	45.8	3.00	6.00	Bromocresol Green
	g/dl	3.98	3.38	4.58	0.30	0.60	
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
Bilirubin Direct	μmol/l	21.1	16.7	25.5	2.20	4.40	Diazo with Dichloroaniline (DCA)
	mg/dl	1.23	0.977	1.48	0.13	0.25	
Bilirubin Total	μmol/l	28.7	22.7	34.7	3.00	6.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.68	1.33	2.03	0.18	0.35	
	μmol/l	27.3	21.6	33.0	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.60	1.26	1.94	0.17	0.34	
Calcium	mmol/l	2.27	2.05	2.49	0.11	0.22	Arsenazo III
	mg/dl	9.10	8.22	9.98	0.44	0.88	
Cholesterol	mmol/l	4.29	3.73	4.85	0.28	0.56	Cholesterol Oxidase - Abell Kendall
	mg/dl	166	144	188	11.00	22.00	
	mmol/l	4.17	3.63	4.71	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	161	140	182	10.50	21.00	
Chloride	mmol/l	96.6	88.8	104	3.90	7.80	ISE direct
CK Total	U/l	193	158	228	17.50	35.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	139	111	167	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.57	1.25	1.89	0.16	0.32	
	μmol/l	135	108	162	13.50	27.00	Jaffe rate blanked
	mg/dl	1.53	1.22	1.84	0.16	0.31	

ABX Pentra 400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.35	5.39	7.31	0.48	0.96	Hexokinase
	mg/dl	114	97.1	131	8.45	16.90	
	mmol/l	6.32	5.38	7.26	0.47	0.94	Glucose oxidase
	mg/dl	114	96.9	131	8.55	17.10	
HDL - Cholesterol	mmol/l	1.45	1.23	1.67	0.11	0.22	Direct HDL PPD
	mg/dl	56.0	47.5	64.5	4.25	8.50	
	mmol/l	1.43	1.22	1.64	0.11	0.21	HDL - Ultra
	mg/dl	55.2	47.1	63.3	4.05	8.10	
Iron	µmol/l	18.7	15.3	22.1	1.70	3.40	Colorimetric without ppt.
	µg/dl	105	85.5	125	9.75	19.50	
LD (LDH)	U/l	403	343	463	30.00	60.00	P->L German methods 37°C
	U/l	210	178	242	16.00	32.00	L->P IFCC 37°C
Magnesium	mmol/l	0.95	0.84	1.07	0.06	0.11	Xylidyl Blue
	mg/dl	2.32	2.04	2.60	0.14	0.28	
Phosphate Inorganic	mmol/l	1.74	1.48	2.00	0.13	0.26	Phosphomolybdate UV
	mg/dl	5.39	4.59	6.19	0.40	0.80	
Potassium	mmol/l	3.94	3.63	4.25	0.16	0.31	ISE method - direct
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	140	133	147	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	100	84.3	116	7.85	15.70	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.78	5.02	6.54	0.38	0.76	

ABX Pentra 400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
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	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.80	5.04	6.56	0.38	0.76	
Urea	mmol/l	6.94	5.90	7.98	0.52	1.04	Urease kinetic
	mg/dl	41.7	35.5	47.9	3.10	6.20	
	mmol/l	6.94	5.90	7.98	0.52	1.04	BUN
	mg/dl	19.5	16.6	22.4	1.45	2.90	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	39.6	33.6	45.6	3.00	6.00	Bromocresol Green
	g/dl	3.96	3.36	4.56	0.30	0.60	
	g/l	39.5	33.5	45.5	3.00	6.00	Bromocresol Purple
	g/dl	3.95	3.35	4.55	0.30	0.60	
Alkaline Phosphatase	U/l	201	171	231	15.00	30.00	AMP optimised to IFCC 37°C
	U/l	193	164	222	14.50	29.00	AMP non-optimised 37°C
ALT (GPT)	U/l	42	33	51	4.50	9.00	Colorimetric 37°C
	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
	U/l	40	32	48	4.00	8.00	Tris buffer SCE 37°C
	U/l	44	35	53	4.50	9.00	Agappee - IFCC 37°C
	U/l	38	31	45	3.50	7.00	Beckman Mod. IFCC Ref. without P5P 37°C
	U/l	37	30	44	3.50	7.00	Beckman (Extinction Coefficient) 37°C
Amylase Pancreatic	U/l	60	51	69	4.50	9.00	Immunoinhibition EPS substrate 37°C
	U/l	65	55	75	5.00	10.00	Roche EPS Liquid 37°C
Amylase Total	U/l	92	78	106	7.00	14.00	pNP Maltotriose substrates 37°C
	U/l	98	83	113	7.50	15.00	Randox Liquid Ethylidene pNPG7 37°C
	U/l	88	75	101	6.50	13.00	Beckman Synchron CX4/CX5/CX7 37°C
	U/l	89	76	102	6.50	13.00	bioMerieux 2-chloro-pNPG3 37°C
	U/l	91	77	105	7.00	14.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	93	79	107	7.00	14.00	Beckman Synchron AMY7 37°C
	U/l	83	71	95	6.00	12.00	Agappe - CNPG3 37°C

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Total	U/l	87	74	100	6.50	13.00	Beckman CNPG3 (Extinction Coeff) 37°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	36	29	43	3.50	7.00	Tris buffer SCE 37°C
	U/l	36	28	44	4.00	8.00	Agappee - IFCC 37°C
	U/l	36	29	43	3.50	7.00	Beckman Mod. IFCC Ref. without P5P 37°C
	U/l	35	28	42	3.50	7.00	Beckman (Extinction Coefficient) 37°C
Bicarbonate	mmol/l	12.7	10.1	15.3	1.30	2.60	Enzymatic
Bilirubin Total	μmol/l	28.8	22.7	34.9	3.05	6.10	Diazo with Dichloroaniline (DCA)
	mg/dl	1.68	1.33	2.03	0.18	0.35	
	μmol/l	29.8	23.6	36.0	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.74	1.38	2.10	0.18	0.36	
	μmol/l	30.4	24.0	36.8	3.20	6.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.78	1.40	2.16	0.19	0.38	
	μmol/l	30.8	24.3	37.3	3.25	6.50	Diazonium ion
	mg/dl	1.80	1.42	2.18	0.19	0.38	
	μmol/l	30.9	24.4	37.4	3.25	6.50	Oxidation to Biliverdin/Vanadate
	mg/dl	1.81	1.43	2.19	0.19	0.38	
Calcium	μmol/l	30.4	24.0	36.8	3.20	6.40	DPD (Beckman AU)
	mg/dl	1.78	1.40	2.16	0.19	0.38	
	mmol/l	2.25	2.02	2.48	0.12	0.23	Cresolphthalein complexone
	mg/dl	9.02	8.10	9.94	0.46	0.92	
	mmol/l	2.25	2.03	2.47	0.11	0.22	Ion selective electrode
	mg/dl	9.02	8.14	9.90	0.44	0.88	
	mmol/l	2.25	2.03	2.47	0.11	0.22	Arsenazo III
	mg/dl	9.02	8.14	9.90	0.44	0.88	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	4.17	3.62	4.72	0.28	0.55	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	140	182	10.50	21.00	
	mmol/l	4.26	3.71	4.81	0.28	0.55	Cholesterol Oxidase - IDMS
	mg/dl	164	143	185	10.50	21.00	
	mmol/l	4.08	3.55	4.61	0.27	0.53	Agappe - CHOD-PAP
	mg/dl	157	137	177	10.00	20.00	
	mmol/l	4.27	3.72	4.82	0.28	0.55	Cholesterol Dehydrogenase
	mg/dl	165	144	186	10.50	21.00	
Chloride	mmol/l	95.0	87.4	103	3.80	7.60	ISE indirect
Cholinesterase	U/l	5461	4369	6553	546.00	1092.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	203	166	240	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	214	176	252	19.00	38.00	Monothioglycerol 37°C
	U/l	193	158	228	17.50	35.00	Agappe - IFCC/Kinetic 37°C
	U/l	200	164	236	18.00	36.00	Beckman CK-NAC (Extinction Coeff) 37°C
	U/l	216	177	255	19.50	39.00	Abbott CK-NAC (IFCC) 37°C
Creatinine	μmol/l	138	111	165	13.50	27.00	Alkaline picrate with deproteinization
	mg/dl	1.56	1.25	1.87	0.16	0.31	
	μmol/l	137	110	164	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.55	1.24	1.86	0.16	0.31	
	μmol/l	142	113	171	14.50	29.00	Enzymatic UV method
	mg/dl	1.60	1.28	1.92	0.16	0.32	
	μmol/l	145	116	174	14.50	29.00	Creatinine PAP method
	mg/dl	1.64	1.31	1.97	0.17	0.33	
	μmol/l	139	111	167	14.00	28.00	Jaffe rate blanked
	mg/dl	1.57	1.25	1.89	0.16	0.32	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	138	111	165	13.50	27.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.56	1.25	1.87	0.16	0.31	
	μmol/l	136	109	163	13.50	27.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	μmol/l	134	107	161	13.50	27.00	IDMS traceable
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	μmol/l	135	108	162	13.50	27.00	Agappe - Enzymatic
	mg/dl	1.53	1.22	1.84	0.16	0.31	
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	52	45	59	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	54	46	62	4.00	8.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	55	47	63	4.00	8.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
	U/l	53	45	61	4.00	8.00	Beckman Szasz (Extinction Coeff) 37°C
GLDH	U/l	18	14	22	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	6.17	5.25	7.09	0.46	0.92	GOD/02-Beckman method
	mg/dl	111	94.6	127	8.20	16.40	
	mmol/l	6.22	5.29	7.15	0.47	0.93	Glucose dehydrogenase
	mg/dl	112	95.3	129	8.35	16.70	
	mmol/l	6.19	5.26	7.12	0.47	0.93	Hexokinase
	mg/dl	112	94.8	129	8.60	17.20	
	mmol/l	6.32	5.37	7.27	0.48	0.95	Glucose oxidase
	mg/dl	114	96.8	131	8.60	17.20	
	mmol/l	6.62	5.63	7.61	0.50	0.99	Agappe - GOD-PAP
	mg/dl	119	101	137	9.00	18.00	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	1.31	1.11	1.51	0.10	0.20	Direct HDL PPD
	mg/dl	50.6	42.8	58.4	3.90	7.80	
	mmol/l	1.30	1.10	1.50	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	50.2	42.5	57.9	3.85	7.70	
	mmol/l	1.31	1.12	1.50	0.10	0.19	Direct Clearance Method
	mg/dl	50.6	43.2	58.0	3.70	7.40	
Iron	mmol/l	1.34	1.14	1.54	0.10	0.20	HDL - Ultra
	mg/dl	51.7	44.0	59.4	3.85	7.70	
	μmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric with ppt.
	μg/dl	108	88.9	127	9.55	19.10	
Lactate	μmol/l	19.2	15.8	22.6	1.70	3.40	Colorimetric without ppt.
	μg/dl	107	88.3	126	9.35	18.70	
	mmol/l	1.57	1.29	1.85	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.1	11.6	16.6	1.25	2.50	
LD (LDH)	U/l	204	173	235	15.50	31.00	L->P 37°C
	U/l	436	370	502	33.00	66.00	P->L Scandinavian & Dutch 37°C
	U/l	422	359	485	31.50	63.00	P->L SFBC 37°C
	U/l	203	172	234	15.50	31.00	L->P IFCC 37°C
	U/l	202	172	232	15.00	30.00	L to P Beckman (Extinction Coeff) 37°C
Lipase	U/l	31	25	37	3.00	6.00	Other Colorimetric 37°C
Lithium	mmol/l	0.96	0.85	1.08	0.06	0.12	Ion selective electrode
	mg/dl	0.667	0.587	0.747	0.04	0.08	
	mmol/l	1.01	0.89	1.13	0.06	0.12	Spectrophotometric
	mg/dl	0.701	0.615	0.787	0.04	0.09	
Magnesium	mmol/l	0.97	0.86	1.09	0.06	0.12	Arsenazo III
	mg/dl	2.37	2.08	2.66	0.15	0.29	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	0.97	0.85	1.09	0.06	0.12	Calmagite
	mg/dl	2.35	2.07	2.63	0.14	0.28	
	mmol/l	0.97	0.85	1.09	0.06	0.12	Xylidyl Blue
	mg/dl	2.36	2.08	2.64	0.14	0.28	
	mmol/l	0.94	0.83	1.05	0.06	0.11	Methylthymol blue
	mg/dl	2.28	2.01	2.55	0.14	0.27	
	mmol/l	0.99	0.87	1.11	0.06	0.12	Enzymatic
	mg/dl	2.41	2.12	2.70	0.15	0.29	
Osmolality	mOsm/kg	301	241	361	30.00	60.00	Calculated
Phosphate Inorganic	mmol/l	1.49	1.27	1.71	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.62	3.94	5.30	0.34	0.68	
	mmol/l	1.48	1.26	1.70	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.59	3.91	5.27	0.34	0.68	
	mmol/l	1.49	1.27	1.71	0.11	0.22	Beckman PHOSm (365nm)
	mg/dl	4.62	3.94	5.30	0.34	0.68	
Potassium	mmol/l	3.97	3.65	4.29	0.16	0.32	ISE method - indirect
Protein Total	g/l	57.6	46.1	69.1	5.75	11.50	Biuret reaction CX4/5/7
	g/dl	5.76	4.61	6.91	0.58	1.15	
	g/l	58.2	46.6	69.8	5.80	11.60	Biuret reaction end point
	g/dl	5.82	4.66	6.98	0.58	1.16	
	g/l	57.2	45.8	68.6	5.70	11.40	Biuret reaction kinetic
	g/dl	5.72	4.58	6.86	0.57	1.14	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
TIBC	μmol/l	45.7	36.1	55.3	4.80	9.60	FE+UIBC(saturation with iron)
	μg/dl	255	202	308	26.50	53.00	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
TIBC	μmol/l	47.2	37.3	57.1	4.95	9.90	Direct Colorimetric
	μg/dl	264	209	319	27.50	55.00	
Triglycerides	mmol/l	1.09	0.92	1.27	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	96.5	81.0	112	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	81.6	113	7.90	15.80	
	mmol/l	1.09	0.92	1.26	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	96.5	81.2	112	7.65	15.30	
	mmol/l	1.09	0.92	1.27	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	96.5	81.0	112	7.75	15.50	
	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	97.4	81.5	113	7.95	15.90	
	mmol/l	1.08	0.91	1.25	0.09	0.17	Agappe - GPO - TOPS
	mg/dl	95.6	80.4	111	7.60	15.20	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.06	5.28	6.84	0.39	0.78	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.05	5.26	6.84	0.40	0.79	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	6.00	5.21	6.79	0.40	0.79	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.06	5.28	6.84	0.39	0.78	
Urea	mmol/l	7.62	6.47	8.77	0.58	1.15	Beckman-Conductivity
	mg/dl	45.8	38.9	52.7	3.45	6.90	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.56	6.42	8.70	0.57	1.14	Urease end point
	mg/dl	45.4	38.6	52.2	3.40	6.80	
	mmol/l	7.52	6.40	8.64	0.56	1.12	Urease kinetic
	mg/dl	45.2	38.5	51.9	3.35	6.70	
	mmol/l	7.59	6.45	8.73	0.57	1.14	Urease hypochlorite
	mg/dl	45.6	38.8	52.4	3.40	6.80	
	mmol/l	7.52	6.39	8.65	0.57	1.13	BUN
	mg/dl	21.1	17.9	24.3	1.60	3.20	
Zinc	μmol/l	26.1	20.9	31.3	2.60	5.20	Colorimetric with deproteinisation
	μg/dl	170	136	204	17.00	34.00	
	μmol/l	26.0	20.8	31.2	2.60	5.20	Colorimetric without deprot.
	μg/dl	170	136	204	17.00	34.00	

Beckman DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	41.9	35.6	48.2	3.15	6.30	Bromocresol Purple
	g/dl	4.19	3.56	4.82	0.32	0.63	
Alkaline Phosphatase	U/l	186	158	214	14.00	28.00	AMP optimised to IFCC 37°C
	U/l	186	158	214	14.00	28.00	AMP non-optimised 37°C
ALT (GPT)	U/l	37	29	45	4.00	8.00	Beckman Mod. IFCC Ref. without P5P 37°C
Amylase Total	U/l	96	81	111	7.50	15.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	95	81	109	7.00	14.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Beckman Mod. IFCC Ref. without P5P 37°C
Bilirubin Direct	µmol/l	13.4	10.6	16.2	1.40	2.80	Diazo/ Sulphanilic Beckman DxC
	mg/dl	0.784	0.620	0.948	0.08	0.16	
Bilirubin Total	µmol/l	30.5	24.1	36.9	3.20	6.40	Diazo with Sulphanilic Acid
	mg/dl	1.78	1.41	2.15	0.19	0.37	
Calcium	mmol/l	2.18	1.96	2.40	0.11	0.22	Ion selective electrode
	mg/dl	8.74	7.86	9.62	0.44	0.88	
Cholesterol	mmol/l	3.98	3.47	4.49	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	154	134	174	10.00	20.00	
Chloride	mmol/l	95.1	87.5	103	3.80	7.60	ISE indirect
Cholinesterase	U/l	5440	4352	6528	544.00	1088.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	191	157	225	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	206	169	243	18.50	37.00	Monothioglycerol 37°C
	U/l	199	163	235	18.00	36.00	Creatinine phosphate substrate Start 37°C

Beckman DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	137	110	164	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.55	1.24	1.86	0.16	0.31	
	μmol/l	137	109	165	14.00	28.00	Jaffe rate blanked
	mg/dl	1.55	1.23	1.87	0.16	0.32	
	μmol/l	136	109	163	13.50	27.00	IDMS traceable
	mg/dl	1.54	1.23	1.85	0.16	0.31	
gamma-GT	U/l	41	35	47	3.00	6.00	Gamma glutamyl-4-nitroanilide 37°C
Glucose	mmol/l	5.87	4.99	6.75	0.44	0.88	GOD/02-Beckman method
	mg/dl	106	89.9	122	8.05	16.10	
	mmol/l	6.03	5.13	6.93	0.45	0.90	Hexokinase
	mg/dl	109	92.4	126	8.30	16.60	
HDL - Cholesterol	mmol/l	1.40	1.19	1.61	0.11	0.21	Direct HDL PPD
	mg/dl	54.0	45.9	62.1	4.05	8.10	
	mmol/l	1.44	1.22	1.66	0.11	0.22	HDL - Ultra
	mg/dl	55.6	47.1	64.1	4.25	8.50	
Iron	μmol/l	17.9	14.7	21.1	1.60	3.20	Colorimetric without ppt.
	μg/dl	100	82.2	118	8.90	17.80	
LD (LDH)	U/l	516	439	593	38.50	77.00	Pyruvate 1.4 mM - Beckman LD-P 37°C
Lipase	U/l	37	30	44	3.50	7.00	Other Colorimetric 37°C
Magnesium	mmol/l	0.98	0.86	1.10	0.06	0.12	Calmagite
	mg/dl	2.39	2.10	2.68	0.15	0.29	
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	3.90	3.59	4.21	0.16	0.31	ISE method - indirect
Protein Total	g/l	56.0	44.8	67.2	5.60	11.20	Biuret reaction CX4/5/7
	g/dl	5.60	4.48	6.72	0.56	1.12	

Beckman DxC600/800®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Protein Total	g/l	58.3	46.6	70.0	5.85	11.70	Biuret reaction end point
	g/dl	5.83	4.66	7.00	0.59	1.17	
	g/l	59.0	47.2	70.8	5.90	11.80	Biuret reaction kinetic
	g/dl	5.90	4.72	7.08	0.59	1.18	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - indirect
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	
	mmol/l	1.09	0.92	1.26	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	96.5	81.3	112	7.60	15.20	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.86	5.09	6.63	0.39	0.77	
Urea	mmol/l	7.46	6.34	8.58	0.56	1.12	Beckman-Conductivity
	mg/dl	44.8	38.1	51.5	3.35	6.70	
	mmol/l	7.81	6.64	8.98	0.59	1.17	Urease kinetic
	mg/dl	46.9	39.9	53.9	3.50	7.00	
	mmol/l	7.81	6.64	8.98	0.59	1.17	BUN
	mg/dl	21.9	18.6	25.2	1.65	3.30	

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.3	35.9	48.7	3.20	6.40	Bromocresol Green
	g/dl	4.23	3.59	4.87	0.32	0.64	
Alkaline Phosphatase	U/l	218	186	250	16.00	32.00	Diethanolamine buffer DEA 37°C
	U/l	170	145	195	12.50	25.00	Diethanolamine buffer DEA 30°C
	U/l	139	119	159	10.00	20.00	Diethanolamine buffer DEA 25°C
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
	U/l	29	23	35	3.00	6.00	Tris buffer without P5P 30°C
	U/l	22	17	27	2.50	5.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	14	22	2.00	4.00	Tris buffer without P5P 25°C
Calcium	mmol/l	2.24	2.02	2.46	0.11	0.22	Arsenazo III
	mg/dl	8.98	8.10	9.86	0.44	0.88	
Cholesterol	mmol/l	4.16	3.62	4.70	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	140	182	10.50	21.00	
Creatinine	μmol/l	142	114	170	14.00	28.00	Jaffe rate blanked
	mg/dl	1.60	1.29	1.91	0.16	0.31	
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.21	5.28	7.14	0.47	0.93	Glucose oxidase
	mg/dl	112	95.1	129	8.45	16.90	

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Protein Total	g/l	60.5	48.4	72.6	6.05	12.10	Biuret reaction end point
	g/dl	6.05	4.84	7.26	0.61	1.21	
Triglycerides	mmol/l	1.08	0.91	1.25	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.4	111	7.60	15.20	
Uric Acid (Urate)	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.10	5.31	6.89	0.40	0.79	
	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.23	5.41	7.05	0.41	0.82	
	mmol/l	0.40	0.35	0.45	0.03	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.69	5.81	7.57	0.44	0.88	
Urea	mmol/l	6.92	5.88	7.96	0.52	1.04	Urease end point
	mg/dl	41.6	35.3	47.9	3.15	6.30	
	mmol/l	7.34	6.24	8.44	0.55	1.10	Urease kinetic
	mg/dl	44.1	37.5	50.7	3.30	6.60	
	mmol/l	7.34	6.24	8.44	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.5	36.2	48.8	3.15	6.30	Bromocresol Green
	g/dl	4.25	3.62	4.88	0.32	0.63	
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
Calcium	mmol/l	2.26	2.04	2.48	0.11	0.22	Arsenazo III
	mg/dl	9.06	8.18	9.94	0.44	0.88	
Cholesterol	mmol/l	4.18	3.64	4.72	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	141	181	10.00	20.00	
Creatinine	μmol/l	134	107	161	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	μmol/l	130	104	156	13.00	26.00	Jaffe rate blanked
	mg/dl	1.47	1.18	1.76	0.15	0.29	
gamma-GT	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.17	5.24	7.10	0.47	0.93	Glucose oxidase
	mg/dl	111	94.4	128	8.30	16.60	
Protein Total	g/l	60.3	48.2	72.4	6.05	12.10	Biuret reaction end point
	g/dl	6.03	4.82	7.24	0.61	1.21	
Uric Acid (Urate)	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.22	5.41	7.03	0.41	0.81	

**BIOSYSTEMS A25**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.38	0.33	0.42	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.30	5.49	7.11	0.41	0.81	
Urea	mmol/l	7.19	6.11	8.27	0.54	1.08	Urease end point
	mg/dl	43.2	36.7	49.7	3.25	6.50	
	mmol/l	7.19	6.11	8.27	0.54	1.08	BUN
	mg/dl	20.2	17.2	23.2	1.50	3.00	

Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	40.8	34.7	46.9	3.05	6.10	Bromocresol Green
	g/dl	4.08	3.47	4.69	0.31	0.61	
Alkaline Phosphatase	U/l	275	234	316	20.50	41.00	Diethanolamine buffer DEA 37°C
	U/l	214	182	246	16.00	32.00	Diethanolamine buffer DEA 30°C
	U/l	176	150	202	13.00	26.00	Diethanolamine buffer DEA 25°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	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
Calcium	mmol/l	2.17	1.95	2.39	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.70	7.82	9.58	0.44	0.88	
	mmol/l	2.27	2.04	2.50	0.12	0.23	Arsenazo III
	mg/dl	9.10	8.18	10.0	0.46	0.92	
Cholesterol	mmol/l	4.12	3.59	4.65	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	159	139	179	10.00	20.00	
	mmol/l	4.22	3.67	4.77	0.28	0.55	Cholesterol Oxidase - IDMS
	mg/dl	163	142	184	10.50	21.00	
Chloride	mmol/l	98.4	90.5	106	3.95	7.90	Colorimetric
Cholinesterase	U/l	5464	4371	6557	546.50	1093.00	Colorimetric Butyrylthiocholine 37°C

Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
CK Total	U/l	204	167	241	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	128	105	151	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	87	71	103	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	141	113	169	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.59	1.28	1.90	0.16	0.31	
	μmol/l	135	108	162	13.50	27.00	Creatinine PAP method
	mg/dl	1.53	1.22	1.84	0.16	0.31	
	μmol/l	139	111	167	14.00	28.00	Jaffe rate blanked
	mg/dl	1.57	1.25	1.89	0.16	0.32	
gamma-GT	U/l	51	43	59	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	40	34	46	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	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	6.14	5.22	7.06	0.46	0.92	Glucose oxidase
	mg/dl	111	94.1	128	8.45	16.90	
HDL - Cholesterol	mmol/l	1.30	1.10	1.50	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	50.2	42.5	57.9	3.85	7.70	
	mmol/l	1.43	1.21	1.65	0.11	0.22	Direct HDL PEGME
	mg/dl	55.2	46.7	63.7	4.25	8.50	
	mmol/l	1.31	1.12	1.50	0.10	0.19	Direct Clearance Method
	mg/dl	50.6	43.2	58.0	3.70	7.40	
	mmol/l	1.48	1.26	1.70	0.11	0.22	HDL - Ultra
	mg/dl	57.1	48.6	65.6	4.25	8.50	

Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	379	322	436	28.50	57.00	P->L Scandinavian & Dutch 37°C
	U/l	274	232	316	21.00	42.00	P->L Scandinavian & Dutch 30°C
	U/l	192	163	221	14.50	29.00	P->L Scandinavian & Dutch 25°C
	U/l	361	307	415	27.00	54.00	P->L German methods 37°C
	U/l	261	222	300	19.50	39.00	P->L German methods 30°C
	U/l	183	156	210	13.50	27.00	P->L German methods 25°C
	U/l	414	352	476	31.00	62.00	P->L SFBC 37°C
	U/l	299	254	344	22.50	45.00	P->L SFBC 30°C
Magnesium	mmol/l	0.99	0.87	1.11	0.06	0.12	Xylidyl Blue
	mg/dl	2.41	2.12	2.70	0.15	0.29	
Phosphate Inorganic	mmol/l	1.62	1.38	1.86	0.12	0.24	Phosphomolybdate UV
	mg/dl	5.02	4.28	5.76	0.37	0.74	
Potassium	mmol/l	3.97	3.65	4.29	0.16	0.32	ISE method - direct
Protein Total	g/l	63.5	50.8	76.2	6.35	12.70	Biuret reaction end point
	g/dl	6.35	5.08	7.62	0.64	1.27	
Sodium	mmol/l	138	131	145	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	94.7	79.7	110	7.50	15.00	
Uric Acid (Urate)	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.12	5.33	6.91	0.40	0.79	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.06	5.28	6.84	0.39	0.78	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.00	5.22	6.78	0.39	0.78	

**Biotechnica/Wiener BT and CB Series**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.49	6.36	8.62	0.57	1.13	Urease kinetic
	mg/dl	45.0	38.2	51.8	3.40	6.80	
	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	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.2	36.7	49.7	3.25	6.50	Bromocresol Green
	g/dl	4.32	3.67	4.97	0.33	0.65	
	g/l	41.8	35.5	48.1	3.15	6.30	Turbidimetric Assays
	g/dl	4.18	3.55	4.81	0.32	0.63	
Alkaline Phosphatase	U/l	175	149	201	13.00	26.00	Roche Integra AMP buffer 37°C
	U/l	136	116	156	10.00	20.00	Roche Integra AMP buffer 30°C
	U/l	112	95	129	8.50	17.00	Roche Integra AMP buffer 25°C
	U/l	178	151	205	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	139	118	160	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	114	96	132	9.00	18.00	AMP optimised to IFCC 25°C
	U/l	179	152	206	13.50	27.00	Colorimetric 37°C
	U/l	139	118	160	10.50	21.00	Colorimetric 30°C
ALT (GPT)	U/l	114	97	131	8.50	17.00	Colorimetric 25°C
	U/l	32	26	38	3.00	6.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
Amylase Total	U/l	18	15	21	1.50	3.00	Tris buffer without P5P 25°C
	U/l	91	77	105	7.00	14.00	pNP Maltotrioxide substrates 37°C
	U/l	90	76	104	7.00	14.00	Roche Integra 2-chloro-pNPG7 37°C
AST (GOT)	U/l	91	78	104	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	31	25	37	3.00	6.00	Tris buffer without P5P 37°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 30°C
	U/l	15	12	18	1.50	3.00	Tris buffer without P5P 25°C

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Direct	μmol/l	19.3	15.2	23.4	2.05	4.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.13	0.889	1.37	0.12	0.24	
	μmol/l	19.2	15.2	23.2	2.00	4.00	Diazo with Sulphanilic Acid
	mg/dl	1.12	0.889	1.35	0.12	0.23	
	μmol/l	19.1	15.1	23.1	2.00	4.00	Roche DPD JG standardised
	mg/dl	1.12	0.883	1.36	0.12	0.24	
	μmol/l	19.0	15.0	23.0	2.00	4.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.11	0.878	1.34	0.12	0.23	
Bilirubin Total	μmol/l	19.3	15.2	23.4	2.05	4.10	Roche DPD Dumas standardised
	mg/dl	1.13	0.889	1.37	0.12	0.24	
	μmol/l	26.7	21.1	32.3	2.80	5.60	Diazo with Dichloroaniline (DCA)
	mg/dl	1.56	1.23	1.89	0.17	0.33	
	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	26.3	20.8	31.8	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.54	1.22	1.86	0.16	0.32	
Calcium	μmol/l	26.3	20.7	31.9	2.80	5.60	Diazonium ion
	mg/dl	1.54	1.21	1.87	0.17	0.33	
	mmol/l	2.20	1.98	2.42	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.82	7.94	9.70	0.44	0.88	
	mmol/l	2.22	2.00	2.44	0.11	0.22	Arsenazo III
	mg/dl	8.90	8.02	9.78	0.44	0.88	
	mmol/l	2.22	2.00	2.44	0.11	0.22	NM-BAPTA
	mg/dl	8.90	8.02	9.78	0.44	0.88	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	4.11	3.57	4.65	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	159	138	180	10.50	21.00	
	mmol/l	4.12	3.59	4.65	0.27	0.53	Cholesterol Oxidase - IDMS
	mg/dl	159	139	179	10.00	20.00	
Chloride	mmol/l	96.0	88.3	104	3.85	7.70	ISE indirect
CK Total	U/l	187	153	221	17.00	34.00	CK-NAC serum start (DGKC) 37°C
	U/l	117	96	138	10.50	21.00	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	191	157	225	17.00	34.00	CK-NAC substrate start (DGKC) 37°C
	U/l	120	98	142	11.00	22.00	CK-NAC substrate start (DGKC) 30°C
	U/l	81	67	95	7.00	14.00	CK-NAC substrate start (DGKC) 25°C
	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
	U/l	196	161	231	17.50	35.00	Creatinine phosphate substrate Start 37°C
	U/l	123	101	145	11.00	22.00	Creatinine phosphate substrate Start 30°C
	U/l	83	68	98	7.50	15.00	Creatinine phosphate substrate Start 25°C
Creatinine	μmol/l	136	109	163	13.50	27.00	Alkaline picrate with deproteinization
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	μmol/l	135	108	162	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.53	1.22	1.84	0.16	0.31	
	μmol/l	141	113	169	14.00	28.00	Roche Creatinine Plus
	mg/dl	1.59	1.28	1.90	0.16	0.31	
	μmol/l	133	107	159	13.00	26.00	Jaffe rate blanked
	mg/dl	1.50	1.21	1.79	0.15	0.29	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	133	107	159	13.00	26.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.50	1.21	1.79	0.15	0.29	
	μmol/l	134	107	161	13.50	27.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	μmol/l	137	110	164	13.50	27.00	IDMS traceable
	mg/dl	1.55	1.24	1.86	0.16	0.31	
	U/l	52	44	60	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	41	35	47	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
gamma-GT	U/l	32	27	37	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	mmol/l	6.25	5.32	7.18	0.47	0.93	Hexokinase
	mg/dl	113	95.9	130	8.55	17.10	
Glucose	mmol/l	6.29	5.35	7.23	0.47	0.94	Glucose oxidase
	mg/dl	113	96.4	130	8.30	16.60	
	μmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric with ppt.
	μg/dl	108	88.9	127	9.55	19.10	
Iron	μmol/l	19.3	15.8	22.8	1.75	3.50	Colorimetric without ppt.
	μg/dl	108	88.3	128	9.85	19.70	
	U/l	210	179	241	15.50	31.00	L->P 37°C
	U/l	152	129	175	11.50	23.00	L->P 30°C
LD (LDH)	U/l	106	91	121	7.50	15.00	L->P 25°C
	U/l	212	181	243	15.50	31.00	L->P IFCC 37°C
	U/l	153	131	175	11.00	22.00	L->P IFCC 30°C
	U/l	107	92	122	7.50	15.00	L->P IFCC 25°C
	U/l	152	129	175	11.50	23.00	L->P 30°C
	U/l	106	91	121	7.50	15.00	L->P 25°C

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lipase	U/l	33	26	40	3.50	7.00	Roche Colorimetric 37°C
	U/l	33	26	40	3.50	7.00	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	0.98	0.86	1.09	0.06	0.12	Ion selective electrode
	mg/dl	0.677	0.596	0.758	0.04	0.08	
Magnesium	mmol/l	0.97	0.85	1.08	0.06	0.12	Xylidyl Blue
	mg/dl	2.35	2.07	2.63	0.14	0.28	
	mmol/l	0.97	0.86	1.09	0.06	0.12	Chlorphosphonazo III
	mg/dl	2.36	2.08	2.64	0.14	0.28	
Phosphate Inorganic	mmol/l	1.54	1.31	1.77	0.12	0.23	Phosphomolybdate enzymatic
	mg/dl	4.77	4.06	5.48	0.36	0.71	
	mmol/l	1.55	1.32	1.78	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.81	4.09	5.53	0.36	0.72	
Potassium	mmol/l	3.97	3.65	4.29	0.16	0.32	ISE method - indirect
Protein Total	g/l	56.5	45.2	67.8	5.65	11.30	Biuret reaction end point
	g/dl	5.65	4.52	6.78	0.57	1.13	
	g/l	57.1	45.7	68.5	5.70	11.40	Biuret reaction kinetic
	g/dl	5.71	4.57	6.85	0.57	1.14	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
TIBC	μmol/l	42.2	33.4	51.0	4.40	8.80	FE+UIBC(saturation with iron)
	μg/dl	236	187	285	24.50	49.00	
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.7	114	7.75	15.50	
	mmol/l	1.11	0.94	1.28	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	98.2	82.8	114	7.70	15.40	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Triglycerides	mmol/l	1.11	0.94	1.29	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	98.2	82.7	114	7.75	15.50	
	mmol/l	1.11	0.94	1.28	0.09	0.17	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	98.2	82.8	114	7.70	15.40	
	mmol/l	1.11	0.94	1.28	0.09	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	98.2	82.8	114	7.70	15.40	
Uric Acid (Urate)	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.10	5.31	6.89	0.40	0.79	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.06	5.28	6.84	0.39	0.78	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.03	5.24	6.82	0.40	0.79	
Urea	mmol/l	7.21	6.13	8.29	0.54	1.08	Urease end point
	mg/dl	43.3	36.8	49.8	3.25	6.50	
	mmol/l	7.15	6.08	8.22	0.54	1.07	Urease kinetic
	mg/dl	43.0	36.5	49.5	3.25	6.50	
	mmol/l	7.15	6.08	8.22	0.54	1.07	BUN
	mg/dl	20.1	17.1	23.1	1.50	3.00	

Elitech/Vitalab Selectra Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

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	
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
Calcium	mmol/l	2.24	2.01	2.47	0.12	0.23	Arsenazo III
	mg/dl	8.98	8.06	9.90	0.46	0.92	
Cholesterol	mmol/l	4.14	3.60	4.68	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	160	139	181	10.50	21.00	
	mmol/l	4.09	3.55	4.63	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	158	137	179	10.50	21.00	
CK Total	U/l	187	153	221	17.00	34.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	138	110	166	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.56	1.24	1.88	0.16	0.32	
	μmol/l	135	108	162	13.50	27.00	Creatinine PAP method
	mg/dl	1.53	1.22	1.84	0.16	0.31	
	μmol/l	137	110	164	13.50	27.00	Jaffe rate blanked
	mg/dl	1.55	1.24	1.86	0.16	0.31	
gamma-GT	U/l	53	45	61	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.13	5.21	7.05	0.46	0.92	Hexokinase
	mg/dl	110	93.9	126	8.05	16.10	
	mmol/l	6.28	5.34	7.22	0.47	0.94	Glucose oxidase
	mg/dl	113	96.2	130	8.40	16.80	

Elitech/Vitalab Selectra Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.39	1.18	1.60	0.11	0.21	Direct HDL PPD
	mg/dl	53.7	45.5	61.9	4.10	8.20	
Iron	μmol/l	18.1	14.9	21.3	1.60	3.20	Colorimetric without ppt.
	μg/dl	101	83.3	119	8.85	17.70	
LD (LDH)	U/l	197	168	226	14.50	29.00	L->P IFCC 37°C
Phosphate Inorganic	mmol/l	1.57	1.33	1.81	0.12	0.24	Phosphomolybdate UV
	mg/dl	4.87	4.12	5.62	0.38	0.75	
Protein Total	g/l	59.5	47.6	71.4	5.95	11.90	Biuret reaction end point
	g/dl	5.95	4.76	7.14	0.60	1.19	
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	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.93	5.16	6.70	0.39	0.77	
Urea	mmol/l	7.34	6.24	8.44	0.55	1.10	Urease kinetic
	mg/dl	44.1	37.5	50.7	3.30	6.60	
	mmol/l	7.34	6.24	8.44	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	40.9	34.8	47.0	3.05	6.10	Bromocresol Green
	g/dl	4.09	3.48	4.70	0.31	0.61	
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	17	14	20	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	18.1	14.3	21.9	1.90	3.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.06	0.837	1.28	0.11	0.22	
Bilirubin Total	µmol/l	28.3	22.3	34.3	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.66	1.30	2.02	0.18	0.36	
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	2.27	2.05	2.49	0.11	0.22	Arsenazo III
	mg/dl	9.10	8.22	9.98	0.44	0.88	
Cholesterol	mmol/l	4.17	3.63	4.71	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	140	182	10.50	21.00	
	mmol/l	4.06	3.53	4.59	0.27	0.53	Cholesterol Oxidase - IDMS
	mg/dl	157	136	178	10.50	21.00	
	mmol/l	4.10	3.57	4.63	0.27	0.53	Cholesterol Dehydrogenase
	mg/dl	158	138	178	10.00	20.00	
Chloride	mmol/l	92.6	85.2	100	3.70	7.40	ISE indirect
Cholinesterase	U/l	5332	4265	6399	533.50	1067.00	Colorimetric Butyrylthiocholine 37°C

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	133	106	160	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	μmol/l	137	109	165	14.00	28.00	Jaffe rate blanked
	mg/dl	1.55	1.23	1.87	0.16	0.32	
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	26	34	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.42	5.46	7.38	0.48	0.96	Glucose oxidase
	mg/dl	116	98.4	134	8.80	17.60	
Iron	μmol/l	18.3	15.0	21.6	1.65	3.30	Colorimetric without ppt.
	μg/dl	102	83.9	120	9.05	18.10	
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	210	178	242	16.00	32.00	L->P IFCC 37°C
	U/l	152	129	175	11.50	23.00	L->P IFCC 30°C
	U/l	106	90	122	8.00	16.00	L->P IFCC 25°C
Magnesium	mmol/l	0.97	0.85	1.08	0.06	0.12	Xylidyl Blue
	mg/dl	2.35	2.07	2.63	0.14	0.28	
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	
Potassium	mmol/l	4.02	3.70	4.34	0.16	0.32	ISE method - indirect

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Protein Total	g/l	58.4	46.7	70.1	5.85	11.70	Biuret reaction end point
	g/dl	5.84	4.67	7.01	0.59	1.17	
Sodium	mmol/l	143	135	151	4.00	8.00	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	
	mmol/l	1.17	0.98	1.36	0.09	0.19	L/G Kinase EP. no correction
	mg/dl	104	86.8	121	8.60	17.20	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.06	5.28	6.84	0.39	0.78	
	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.10	5.31	6.89	0.40	0.79	
	mmol/l	0.38	0.33	0.43	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.33	5.51	7.15	0.41	0.82	
	mmol/l	7.21	6.13	8.29	0.54	1.08	Urease end point
	mg/dl	43.3	36.8	49.8	3.25	6.50	
Urea	mmol/l	7.39	6.28	8.50	0.56	1.11	Urease kinetic
	mg/dl	44.4	37.7	51.1	3.35	6.70	
	mmol/l	7.39	6.28	8.50	0.56	1.11	BUN
	mg/dl	20.7	17.6	23.8	1.55	3.10	

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	40.6	34.5	46.7	3.05	6.10	Bromocresol Green
	g/dl	4.06	3.45	4.67	0.31	0.61	
Alkaline Phosphatase	U/l	192	163	221	14.50	29.00	AMP optimised to IFCC 37°C
	U/l	150	127	173	11.50	23.00	AMP optimised to IFCC 30°C
	U/l	123	104	142	9.50	19.00	AMP optimised to IFCC 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	I.L. 2-chloro-pNPG3 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	13.2	10.4	16.0	1.40	2.80	Diazo with Sulphanilic Acid
	mg/dl	0.772	0.608	0.936	0.08	0.16	
Bilirubin Total	µmol/l	29.9	23.7	36.1	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.75	1.39	2.11	0.18	0.36	
	µmol/l	26.6	21.0	32.2	2.80	5.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.56	1.23	1.89	0.17	0.33	
Calcium	mmol/l	2.13	1.92	2.34	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.54	7.70	9.38	0.42	0.84	
	mmol/l	2.23	2.01	2.45	0.11	0.22	Arsenazo III
	mg/dl	8.94	8.06	9.82	0.44	0.88	

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	4.22	3.67	4.77	0.28	0.55	Cholesterol Oxidase - Abell Kendall
	mg/dl	163	142	184	10.50	21.00	
Chloride	mmol/l	93.0	85.5	101	3.75	7.50	ISE indirect
Cholinesterase	U/l	5601	4481	6721	560.00	1120.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	198	162	234	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	124	101	147	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	84	69	99	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	139	111	167	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.57	1.25	1.89	0.16	0.32	
	µmol/l	136	108	164	14.00	28.00	Enzymatic UV method
	mg/dl	1.54	1.22	1.86	0.16	0.32	
	µmol/l	142	113	171	14.50	29.00	Creatinine PAP method
	mg/dl	1.60	1.28	1.92	0.16	0.32	
gamma-GT	U/l	51	43	59	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	40	34	46	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	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	6.32	5.37	7.27	0.48	0.95	Glucose oxidase
	mg/dl	114	96.8	131	8.60	17.20	
HDL - Cholesterol	mmol/l	1.17	1.00	1.34	0.09	0.17	Direct HDL Immunoseparation
	mg/dl	45.2	38.4	52.0	3.40	6.80	
Iron	µmol/l	19.1	15.7	22.5	1.70	3.40	Colorimetric without ppt.
	µg/dl	107	87.8	126	9.60	19.20	

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	398	338	458	30.00	60.00	P->L German methods 37°C
	U/l	287	244	330	21.50	43.00	P->L German methods 30°C
	U/l	202	171	233	15.50	31.00	P->L German methods 25°C
Lipase	U/l	33	27	39	3.00	6.00	Other Colorimetric 37°C
Magnesium	mmol/l	0.97	0.85	1.09	0.06	0.12	Xylidyl Blue
	mg/dl	2.36	2.08	2.64	0.14	0.28	
	mmol/l	0.97	0.86	1.09	0.06	0.12	Enzymatic
	mg/dl	2.36	2.08	2.64	0.14	0.28	
Phosphate Inorganic	mmol/l	1.50	1.27	1.73	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.65	3.94	5.36	0.36	0.71	
Potassium	mmol/l	4.05	3.73	4.37	0.16	0.32	ISE method - indirect
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	143	136	150	3.50	7.00	ISE method - indirect
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	
	mmol/l	1.12	0.95	1.30	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	99.1	83.6	115	7.75	15.50	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.80	5.04	6.56	0.38	0.76	
	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.10	5.31	6.89	0.40	0.79	
Urea	mmol/l	7.69	6.54	8.84	0.58	1.15	Urease kinetic
	mg/dl	46.2	39.3	53.1	3.45	6.90	

**ILab 600®/650®/Aries/Taurus**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.69	6.54	8.84	0.58	1.15	BUN
	mg/dl	21.6	18.4	24.8	1.60	3.20	

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

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	40.3	34.2	46.4	3.05	6.10	Bromocresol Green
	g/dl	4.03	3.42	4.64	0.31	0.61	
Alkaline Phosphatase	U/l	182	155	209	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	142	121	163	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	116	99	133	8.50	17.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
	U/l	28	23	33	2.50	5.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	17	14	20	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	16.0	12.7	19.3	1.65	3.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.936	0.743	1.13	0.10	0.19	
Bilirubin Total	µmol/l	23.6	18.7	28.5	2.45	4.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.38	1.09	1.67	0.15	0.29	
	µmol/l	24.3	19.2	29.4	2.55	5.10	Nitrobenzenediazonium salt
	mg/dl	1.42	1.12	1.72	0.15	0.30	
Calcium	mmol/l	2.24	2.02	2.46	0.11	0.22	Arsenazo III
	mg/dl	8.98	8.10	9.86	0.44	0.88	
Cholesterol	mmol/l	4.06	3.53	4.59	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	157	136	178	10.50	21.00	

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

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Cholesterol	mmol/l	3.99	3.47	4.51	0.26	0.52	Cholesterol Oxidase - IDMS
	mg/dl	154	134	174	10.00	20.00	
Chloride	mmol/l	99.9	91.9	108	4.00	8.00	ISE direct
CK Total	U/l	191	156	226	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	81	66	96	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	138	110	166	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.56	1.24	1.88	0.16	0.32	
	μmol/l	147	117	177	15.00	30.00	Enzymatic UV method
	mg/dl	1.66	1.32	2.00	0.17	0.34	
	μmol/l	140	112	168	14.00	28.00	Creatinine PAP method
	mg/dl	1.58	1.27	1.89	0.16	0.31	
	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	143	115	171	14.00	28.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.62	1.30	1.94	0.16	0.32	
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.18	5.25	7.11	0.47	0.93	Hexokinase
	mg/dl	111	94.6	127	8.20	16.40	
	mmol/l	6.24	5.30	7.18	0.47	0.94	Glucose oxidase
	mg/dl	112	95.5	129	8.25	16.50	
HDL - Cholesterol	mmol/l	1.37	1.16	1.58	0.11	0.21	Direct HDL PEGME
	mg/dl	52.9	44.8	61.0	4.05	8.10	

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

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	1.34	1.14	1.54	0.10	0.20	Direct Clearance Method
	mg/dl	51.7	44.0	59.4	3.85	7.70	
Iron	µmol/l	21.4	17.5	25.3	1.95	3.90	Colorimetric without ppt.
	µg/dl	120	97.8	142	11.10	22.20	
LD (LDH)	U/l	213	181	245	16.00	32.00	L->P IFCC 37°C
	U/l	154	131	177	11.50	23.00	L->P IFCC 30°C
	U/l	108	92	124	8.00	16.00	L->P IFCC 25°C
Magnesium	mmol/l	0.99	0.87	1.11	0.06	0.12	Xylidyl Blue
	mg/dl	2.40	2.12	2.68	0.14	0.28	
Phosphate Inorganic	mmol/l	1.58	1.34	1.82	0.12	0.24	Phosphomolybdate enzymatic
	mg/dl	4.90	4.15	5.65	0.38	0.75	
	mmol/l	1.54	1.31	1.77	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.77	4.06	5.48	0.36	0.71	
Potassium	mmol/l	3.90	3.58	4.22	0.16	0.32	ISE method - direct
Protein Total	g/l	59.9	47.9	71.9	6.00	12.00	Biuret reaction end point
	g/dl	5.99	4.79	7.19	0.60	1.20	
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	99.1	83.5	115	7.80	15.60	
	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	98.2	82.3	114	7.95	15.90	
Uric Acid (Urate)	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.08	5.29	6.87	0.40	0.79	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.00	5.22	6.78	0.39	0.78	

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

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.01	5.22	6.80	0.40	0.79	
Urea	mmol/l	7.16	6.09	8.23	0.54	1.07	Urease end point
	mg/dl	43.0	36.6	49.4	3.20	6.40	
	mmol/l	7.36	6.26	8.46	0.55	1.10	Urease kinetic
	mg/dl	44.2	37.6	50.8	3.30	6.60	
	mmol/l	7.36	6.26	8.46	0.55	1.10	BUN
	mg/dl	20.7	17.6	23.8	1.55	3.10	

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	40.6	34.5	46.7	3.05	6.10	Bromocresol Green
	g/dl	4.06	3.45	4.67	0.31	0.61	
Alkaline Phosphatase	U/l	194	165	223	14.50	29.00	AMP optimised to IFCC 37°C
	U/l	151	129	173	11.00	22.00	AMP optimised to IFCC 30°C
	U/l	124	105	143	9.50	19.00	AMP optimised to IFCC 25°C
	U/l	183	155	211	14.00	28.00	Colorimetric 37°C
	U/l	143	121	165	11.00	22.00	Colorimetric 30°C
	U/l	117	99	135	9.00	18.00	Colorimetric 25°C
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	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
	U/l	29	23	35	3.00	6.00	Tris buffer without P5P 30°C
	U/l	22	17	27	2.50	5.00	Tris buffer without P5P 25°C
Amylase Total	U/l	91	77	105	7.00	14.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	20	28	2.00	4.00	Tris buffer without P5P 30°C
	U/l	17	14	20	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Direct	μmol/l	19.5	15.4	23.6	2.05	4.10	Diazo with Dichloroaniline (DCA)
	mg/dl	1.14	0.901	1.38	0.12	0.24	
	μmol/l	17.2	13.6	20.8	1.80	3.60	Oxidation to Biliverdin/Vanadate
	mg/dl	1.01	0.796	1.22	0.11	0.21	

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Bilirubin Total	μmol/l	28.0	22.1	33.9	2.95	5.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.64	1.29	1.99	0.18	0.35	
	μmol/l	28.6	22.6	34.6	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.67	1.32	2.02	0.18	0.35	
	μmol/l	25.4	20.1	30.7	2.65	5.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.49	1.18	1.80	0.16	0.31	
Calcium	μmol/l	28.4	22.5	34.3	2.95	5.90	Oxidation to Biliverdin/Vanadate
	mg/dl	1.66	1.32	2.00	0.17	0.34	
	mmol/l	2.25	2.03	2.47	0.11	0.22	Cresolphthalein complexone
	mg/dl	9.02	8.14	9.90	0.44	0.88	
Cholesterol	mmol/l	2.26	2.03	2.49	0.12	0.23	Arsenazo III
	mg/dl	9.06	8.14	9.98	0.46	0.92	
	mmol/l	4.12	3.58	4.66	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	159	138	180	10.50	21.00	
Cholinesterase	mmol/l	4.15	3.61	4.69	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	160	139	181	10.50	21.00	
	mmol/l	4.18	3.64	4.72	0.27	0.54	Cholesterol Dehydrogenase
	mg/dl	161	141	181	10.00	20.00	
Chloride	mmol/l	96.4	88.7	104	3.85	7.70	ISE indirect
Cholinesterase	U/l	5574	4460	6688	557.00	1114.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	233	191	275	21.00	42.00	CK-NAC serum start (DGKC) 37°C
	U/l	146	120	172	13.00	26.00	CK-NAC serum start (DGKC) 30°C
	U/l	99	81	117	9.00	18.00	CK-NAC serum start (DGKC) 25°C
	U/l	181	148	214	16.50	33.00	CK-NAC substrate start (DGKC) 37°C
	U/l	113	93	133	10.00	20.00	CK-NAC substrate start (DGKC) 30°C
	U/l	77	63	91	7.00	14.00	CK-NAC substrate start (DGKC) 25°C

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
CK Total	U/l	199	163	235	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	125	102	148	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	85	69	101	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	137	109	165	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.55	1.23	1.87	0.16	0.32	
	μmol/l	141	113	169	14.00	28.00	Enzymatic UV method
	mg/dl	1.59	1.28	1.90	0.16	0.31	
	μmol/l	137	110	164	13.50	27.00	Creatinine PAP method
	mg/dl	1.55	1.24	1.86	0.16	0.31	
gamma-GT	μmol/l	138	111	165	13.50	27.00	Jaffe rate blanked
	mg/dl	1.56	1.25	1.87	0.16	0.31	
	U/l	54	46	62	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	43	36	50	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	33	28	38	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	53	45	61	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	U/l	42	35	49	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	mmol/l	6.12	5.20	7.04	0.46	0.92	Glucose dehydrogenase
	mg/dl	110	93.7	126	8.15	16.30	
	mmol/l	6.19	5.26	7.12	0.47	0.93	Hexokinase
	mg/dl	112	94.8	129	8.60	17.20	
	mmol/l	6.33	5.38	7.28	0.48	0.95	Glucose oxidase
	mg/dl	114	96.9	131	8.55	17.10	

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	1.30	1.11	1.49	0.10	0.19	Direct HDL PPD
	mg/dl	50.2	42.8	57.6	3.70	7.40	
	mmol/l	1.29	1.10	1.48	0.10	0.19	Direct HDL Immunoseparation
	mg/dl	49.8	42.5	57.1	3.65	7.30	
	mmol/l	1.32	1.12	1.52	0.10	0.20	Direct HDL PEGME
	mg/dl	51.0	43.2	58.8	3.90	7.80	
	mmol/l	1.30	1.11	1.49	0.10	0.19	Direct Clearance Method
	mg/dl	50.2	42.8	57.6	3.70	7.40	
	mmol/l	1.38	1.17	1.59	0.11	0.21	HDL - Ultra
	mg/dl	53.3	45.2	61.4	4.05	8.10	
Iron	μmol/l	19.1	15.7	22.5	1.70	3.40	Colorimetric with ppt.
	μg/dl	107	87.8	126	9.60	19.20	
Lactate	mmol/l	1.74	1.43	2.05	0.16	0.31	Colorimetric Lactate Oxidase
	mg/dl	15.7	12.9	18.5	1.40	2.80	
LD (LDH)	U/l	424	360	488	32.00	64.00	P->L Scandinavian & Dutch 37°C
	U/l	306	260	352	23.00	46.00	P->L Scandinavian & Dutch 30°C
	U/l	215	183	247	16.00	32.00	P->L Scandinavian & Dutch 25°C
	U/l	413	351	475	31.00	62.00	P->L German methods 37°C
	U/l	298	253	343	22.50	45.00	P->L German methods 30°C
	U/l	209	178	240	15.50	31.00	P->L German methods 25°C
	U/l	394	335	453	29.50	59.00	P->L SFBC 37°C
	U/l	284	242	326	21.00	42.00	P->L SFBC 30°C
	U/l	200	170	230	15.00	30.00	P->L SFBC 25°C
	U/l	205	175	235	15.00	30.00	L->P IFCC 37°C
	U/l	148	126	170	11.00	22.00	L->P IFCC 30°C
	U/l	104	89	119	7.50	15.00	L->P IFCC 25°C

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	1.00	0.88	1.12	0.06	0.12	Xylidyl Blue
	mg/dl	2.42	2.13	2.71	0.15	0.29	
	mmol/l	1.05	0.92	1.18	0.06	0.13	Enzymatic
	mg/dl	2.55	2.24	2.86	0.16	0.31	
Phosphate Inorganic	mmol/l	1.49	1.27	1.71	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.62	3.94	5.30	0.34	0.68	
	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	4.03	3.71	4.35	0.16	0.32	ISE method - indirect
Protein Total	g/l	60.3	48.2	72.4	6.05	12.10	Biuret reaction end point
	g/dl	6.03	4.82	7.24	0.61	1.21	
	g/l	58.6	46.9	70.3	5.85	11.70	Biuret reaction kinetic
	g/dl	5.86	4.69	7.03	0.59	1.17	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
TIBC	μmol/l	41.0	32.4	49.6	4.30	8.60	FE+UIBC(saturation with iron)
	μg/dl	229	181	277	24.00	48.00	
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.1	114	8.05	16.10	
	mmol/l	1.10	0.93	1.27	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	97.4	82.0	113	7.70	15.40	
	mmol/l	1.10	0.92	1.28	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	97.4	81.5	113	7.95	15.90	
	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	98.2	82.3	114	7.95	15.90	

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
UIBC	μmol/l	23.9	19.6	28.2	2.15	4.30	Direct Colorimetric
	μg/dl	134	110	158	12.00	24.00	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.05	5.26	6.84	0.40	0.79	
	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.08	5.29	6.87	0.40	0.79	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.80	5.04	6.56	0.38	0.76	
Urea	mmol/l	7.43	6.31	8.55	0.56	1.12	Urease end point
	mg/dl	44.7	37.9	51.5	3.40	6.80	
	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	

Ortho VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.4	35.2	47.6	3.10	6.20	Ortho Vitros Microslide Systems
	g/dl	4.14	3.52	4.76	0.31	0.62	
Alkaline Phosphatase	U/l	166	141	191	12.50	25.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	38	30	46	4.00	8.00	Ortho Vitros Microslide Systems 37°C
	U/l	38	30	46	4.00	8.00	Ortho Vitros MicroSlide visible 37°C
Amylase Total	U/l	72	61	83	5.50	11.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	46	37	55	4.50	9.00	Ortho Vitros Microslide Systems 37°C
Bilirubin Total	μmol/l	24.3	19.2	29.4	2.55	5.10	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.42	1.12	1.72	0.15	0.30	
Calcium	mmol/l	2.19	1.97	2.41	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	8.78	7.90	9.66	0.44	0.88	
Cholesterol	mmol/l	4.03	3.51	4.55	0.26	0.52	Ortho Vitros Microslide Systems
	mg/dl	156	135	177	10.50	21.00	
Chloride	mmol/l	96.7	89.0	104	3.85	7.70	Ortho Vitros Microslide Systems
Cholinesterase	U/l	5181	4144	6218	518.50	1037.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	184	151	217	16.50	33.00	Ortho Vitros Microslide Systems 37°C
Creatinine	μmol/l	133	107	159	13.00	26.00	Vitros DT60/DT60 II/DTSC II
	mg/dl	1.50	1.21	1.79	0.15	0.29	
	μmol/l	135	108	162	13.50	27.00	Vitros IDMS Traceable
	mg/dl	1.53	1.22	1.84	0.16	0.31	
Free T4	pmol/l	34.8	26.1	43.5	4.35	8.70	Vitros ECi
	ng/dl	2.71	2.04	3.38	0.34	0.67	
	pg/ml	27.1	20.4	33.8	3.35	6.70	

Ortho VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
gamma-GT	U/l	64	54	74	5.00	10.00	Ortho Vitros Microslide Systems 37°C
Glucose	mmol/l	6.19	5.26	7.12	0.47	0.93	Ortho Vitros Microslide Systems
	mg/dl	112	94.8	129	8.60	17.20	
HDL - Cholesterol	mmol/l	1.34	1.14	1.54	0.10	0.20	Vitros Magnetic HDL
	mg/dl	51.7	44.0	59.4	3.85	7.70	
	mmol/l	1.38	1.17	1.59	0.11	0.21	Vitros 5.1 FS microtip assay
	mg/dl	53.3	45.2	61.4	4.05	8.10	
	mmol/l	1.36	1.16	1.56	0.10	0.20	Vitros dHDL PTA/MgCl ₂ direct precipitation
	mg/dl	52.5	44.8	60.2	3.85	7.70	
Iron	µmol/l	18.3	15.0	21.6	1.65	3.30	Ortho Vitros Microslide Systems
	µg/dl	102	83.9	120	9.05	18.10	
Lactate	mmol/l	1.54	1.27	1.81	0.14	0.27	Ortho Vitros Microslide Systems
	mg/dl	13.9	11.4	16.4	1.25	2.50	
LD (LDH)	U/l	225	191	259	17.00	34.00	Ortho Vitros Microslide Systems 37°C
	U/l	226	192	260	17.00	34.00	Ortho Vitros IFCC Traceable 37°C
Lipase	U/l	212	170	254	21.00	42.00	Ortho Vitros Microslide Systems 37°C
Lithium	mmol/l	1.19	1.05	1.33	0.07	0.14	Ortho Vitros Microslide Systems
	mg/dl	0.826	0.729	0.923	0.05	0.10	
Magnesium	mmol/l	0.95	0.84	1.06	0.06	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.31	2.03	2.59	0.14	0.28	
Phosphate Inorganic	mmol/l	1.55	1.32	1.78	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	4.81	4.09	5.53	0.36	0.72	
Potassium	mmol/l	4.02	3.70	4.34	0.16	0.32	Ortho Vitros Microslide Systems

Ortho VITROS®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Protein Total	g/l	59.0	47.2	70.8	5.90	11.80	Ortho Vitros Microslide Systems
	g/dl	5.90	4.72	7.08	0.59	1.18	
PSA Total	ng/ml =	9.87	7.40	12.3	1.24	2.47	Ortho Vitros ECi
Sodium	mmol/l	141	134	148	3.50	7.00	Ortho Vitros Microslide Systems
Thyroid Stimulating Hormone	μU/ml =	1.37	1.09	1.65	0.14	0.28	Vitros ECi
TIBC	μmol/l	47.8	37.8	57.8	5.00	10.00	Ortho Vitros Microslide Systems
	μg/dl	267	211	323	28.00	56.00	
Total T3	nmol/l	2.51	1.89	3.13	0.31	0.62	Vitros ECi
	ng/ml	1.63	1.23	2.03	0.20	0.40	
	ng/dl	163	123	203	20.00	40.00	Vitros ECi
Total T4	nmol/l	84.4	63.3	106	10.55	21.10	Vitros ECi
	μg/dl	6.58	4.94	8.22	0.82	1.64	
	ng/ml	65.8	49.4	82.2	8.20	16.40	Vitros ECi
Triglycerides	mmol/l	1.31	1.10	1.52	0.11	0.21	Ortho Vitros Microslide Systems
	mg/dl	116	97.4	135	9.30	18.60	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.70	4.96	6.44	0.37	0.74	
Urea	mmol/l	7.07	6.01	8.13	0.53	1.06	Ortho Vitros Microslide Systems
	mg/dl	42.5	36.1	48.9	3.20	6.40	
	mmol/l	7.07	6.01	8.13	0.53	1.06	BUN
	mg/dl	19.8	16.8	22.8	1.50	3.00	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.9	35.6	48.2	3.15	6.30	Bromocresol Green
	g/dl	4.19	3.56	4.82	0.32	0.63	
Alkaline Phosphatase	U/l	273	232	314	20.50	41.00	Diethanolamine buffer DEA 37°C
	U/l	213	181	245	16.00	32.00	Diethanolamine buffer DEA 30°C
	U/l	174	148	200	13.00	26.00	Diethanolamine buffer DEA 25°C
ALT (GPT)	U/l	40	32	48	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	18	28	2.50	5.00	Tris buffer without P5P 25°C
	U/l	43	34	52	4.50	9.00	Agappee - IFCC 37°C
	U/l	32	25	39	3.50	7.00	Agappee - IFCC 30°C
	U/l	24	19	29	2.50	5.00	Agappee - IFCC 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 Direct	µmol/l	19.4	15.3	23.5	2.05	4.10	Diazo with Dichloroaniline (DCA)
	mg/dl	1.13	0.895	1.37	0.12	0.24	
Bilirubin Total	µmol/l	29.3	23.2	35.4	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.71	1.36	2.06	0.18	0.35	
	µmol/l	29.7	23.5	35.9	3.10	6.20	Oxidation to Biliverdin/Vanadate
	mg/dl	1.74	1.37	2.11	0.19	0.37	
Calcium	mmol/l	2.27	2.04	2.50	0.12	0.23	Arsenazo III
	mg/dl	9.10	8.18	10.0	0.46	0.92	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	4.22	3.67	4.77	0.28	0.55	Cholesterol Oxidase - Abell Kendall
	mg/dl	163	142	184	10.50	21.00	
	mmol/l	4.29	3.73	4.85	0.28	0.56	Cholesterol Oxidase - IDMS
	mg/dl	166	144	188	11.00	22.00	
	mmol/l	4.06	3.53	4.59	0.27	0.53	Agappe - CHOD-PAP
	mg/dl	157	136	178	10.50	21.00	
Creatinine	μmol/l	136	108	164	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.54	1.22	1.86	0.16	0.32	
	μmol/l	128	103	153	12.50	25.00	Jaffe rate blanked
	mg/dl	1.45	1.16	1.74	0.15	0.29	
gamma-GT	U/l	51	44	58	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	35	45	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	6.60	5.61	7.59	0.50	0.99	Glucose oxidase
	mg/dl	119	101	137	9.00	18.00	
	mmol/l	6.76	5.75	7.77	0.51	1.01	Agappe - GOD-PAP
	mg/dl	122	104	140	9.00	18.00	
Iron	μmol/l	19.5	16.0	23.0	1.75	3.50	Colorimetric without ppt.
	μg/dl	109	89.4	129	9.80	19.60	
Lactate	mmol/l	1.82	1.49	2.15	0.17	0.33	Colorimetric Lactate Oxidase
	mg/dl	16.4	13.4	19.4	1.50	3.00	
LD (LDH)	U/l	416	353	479	31.50	63.00	P->L German methods 37°C
	U/l	300	255	345	22.50	45.00	P->L German methods 30°C
	U/l	211	179	243	16.00	32.00	P->L German methods 25°C

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Protein Total	g/l	60.1	48.1	72.1	6.00	12.00	Biuret reaction end point
	g/dl	6.01	4.81	7.21	0.60	1.20	
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	1.18	1.00	1.37	0.09	0.19	L/G Kinase EP. no correction
	mg/dl	104	88.1	120	7.95	15.90	
	mmol/l	1.12	0.94	1.30	0.09	0.18	Agappe - GPO - TOPS
	mg/dl	99.1	83.3	115	7.90	15.80	
Uric Acid (Urate)	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.20	5.39	7.01	0.41	0.81	
	mmol/l	0.37	0.33	0.42	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.28	5.46	7.10	0.41	0.82	
Urea	mmol/l	7.29	6.20	8.38	0.55	1.09	Urease kinetic
	mg/dl	43.8	37.3	50.3	3.25	6.50	
	mmol/l	7.29	6.20	8.38	0.55	1.09	BUN
	mg/dl	20.5	17.4	23.6	1.55	3.10	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.9	36.5	49.3	3.20	6.40	Bromocresol Green
	g/dl	4.29	3.65	4.93	0.32	0.64	
Alkaline Phosphatase	U/l	176	149	203	13.50	27.00	Roche Integra AMP buffer 37°C
	U/l	137	116	158	10.50	21.00	Roche Integra AMP buffer 30°C
	U/l	112	95	129	8.50	17.00	Roche Integra AMP buffer 25°C
	U/l	174	148	200	13.00	26.00	AMP optimised to IFCC 37°C
	U/l	136	115	157	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	111	95	127	8.00	16.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	33	26	40	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	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	93	79	107	7.00	14.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	91	77	105	7.00	14.00	Roche liquid stable pNPG7 37°C
	U/l	95	81	109	7.00	14.00	BM/Roche Colorimetric pNPG7 37°C
AST (GOT)	U/l	32	26	38	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	15	12	18	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	19.1	15.1	23.1	2.00	4.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.12	0.883	1.36	0.12	0.24	
	µmol/l	18.7	14.7	22.7	2.00	4.00	Diazo with Sulphanilic Acid
	mg/dl	1.09	0.860	1.32	0.12	0.23	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Direct	µmol/l	19.6	15.5	23.7	2.05	4.10	Roche DPD JG standardised
	mg/dl	1.15	0.907	1.39	0.12	0.24	
	µmol/l	17.1	13.5	20.7	1.80	3.60	Diazo with Dichloroaniline (DCA)
	mg/dl	1.00	0.790	1.21	0.11	0.21	
Bilirubin Total	µmol/l	27.9	22.1	33.7	2.90	5.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.63	1.29	1.97	0.17	0.34	
	µmol/l	26.2	20.7	31.7	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.53	1.21	1.85	0.16	0.32	
	µmol/l	26.2	20.7	31.7	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.53	1.21	1.85	0.16	0.32	
Calcium	µmol/l	26.1	20.6	31.6	2.75	5.50	Diazonium ion
	mg/dl	1.53	1.21	1.85	0.16	0.32	
	mmol/l	2.21	1.99	2.43	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.86	7.98	9.74	0.44	0.88	
	mmol/l	2.21	1.99	2.43	0.11	0.22	Arsenazo III
	mg/dl	8.86	7.98	9.74	0.44	0.88	
Cholesterol	mmol/l	2.23	2.00	2.46	0.12	0.23	NM-BAPTA
	mg/dl	8.94	8.02	9.86	0.46	0.92	
	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	
	mmol/l	3.97	3.45	4.49	0.26	0.52	Cholesterol Oxidase - IDMS
	mg/dl	153	133	173	10.00	20.00	
Chloride	mmol/l	99.6	91.7	108	3.95	7.90	ISE indirect
CK Total	U/l	184	151	217	16.50	33.00	CK-NAC (IFCC) 37°C
	U/l	115	95	135	10.00	20.00	CK-NAC (IFCC) 30°C
	U/l	78	64	92	7.00	14.00	CK-NAC (IFCC) 25°C

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
CK Total	U/l	194	159	229	17.50	35.00	Creatinine phosphate substrate Start 37°C
	U/l	121	100	142	10.50	21.00	Creatinine phosphate substrate Start 30°C
	U/l	82	68	96	7.00	14.00	Creatinine phosphate substrate Start 25°C
Creatinine	μmol/l	136	109	163	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	μmol/l	136	109	163	13.50	27.00	Roche Creatinine Plus
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	μmol/l	137	110	164	13.50	27.00	Jaffe rate blanked
	mg/dl	1.55	1.24	1.86	0.16	0.31	
	μmol/l	136	109	163	13.50	27.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.54	1.23	1.85	0.16	0.31	
gamma-GT	μmol/l	135	108	162	13.50	27.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.53	1.22	1.84	0.16	0.31	
	U/l	49	42	56	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	26	34	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.28	5.34	7.22	0.47	0.94	Hexokinase
	mg/dl	113	96.2	130	8.40	16.80	
	mmol/l	6.29	5.35	7.23	0.47	0.94	Glucose oxidase
	mg/dl	113	96.4	130	8.30	16.60	
HDL - Cholesterol	mmol/l	1.40	1.19	1.61	0.11	0.21	Direct HDL PEGME
	mg/dl	54.0	45.9	62.1	4.05	8.10	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	1.36	1.16	1.56	0.10	0.20	Direct HDL Roche 4th Generation
	mg/dl	52.5	44.8	60.2	3.85	7.70	
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	
LD (LDH)	U/l	210	178	242	16.00	32.00	L->P IFCC 37°C
	U/l	152	129	175	11.50	23.00	L->P IFCC 30°C
	U/l	106	90	122	8.00	16.00	L->P IFCC 25°C
Lipase	U/l	31	25	37	3.00	6.00	Roche Colorimetric 37°C
Magnesium	mmol/l	0.97	0.85	1.09	0.06	0.12	Xylidyl Blue
	mg/dl	2.36	2.08	2.64	0.14	0.28	
	mmol/l	0.94	0.83	1.05	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.28	2.01	2.55	0.14	0.27	
Phosphate Inorganic	mmol/l	1.46	1.24	1.68	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.53	3.84	5.22	0.35	0.69	
	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	3.98	3.66	4.30	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.9	47.1	70.7	5.90	11.80	Biuret reaction end point
	g/dl	5.89	4.71	7.07	0.59	1.18	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.2	114	8.00	16.00	
	mmol/l	1.23	1.03	1.43	0.10	0.20	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	109	91.2	127	8.90	17.80	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	100	84.2	116	7.90	15.80	
	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	97.4	81.7	113	7.85	15.70	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.98	5.19	6.77	0.40	0.79	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.96	5.19	6.73	0.39	0.77	
Urea	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.86	5.11	6.61	0.38	0.75	
	mmol/l	7.24	6.15	8.33	0.55	1.09	Urease end point
	mg/dl	43.5	37.0	50.0	3.25	6.50	
Urea	mmol/l	7.08	6.02	8.14	0.53	1.06	Urease kinetic
	mg/dl	42.6	36.2	49.0	3.20	6.40	
	mmol/l	7.08	6.02	8.14	0.53	1.06	BUN
	mg/dl	19.9	16.9	22.9	1.50	3.00	

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	42.6	36.2	49.0	3.20	6.40	Bromocresol Green
	g/dl	4.26	3.62	4.90	0.32	0.64	
	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	41.9	35.6	48.2	3.15	6.30	Turbidimetric Assays
	g/dl	4.19	3.56	4.82	0.32	0.63	
Alkaline Phosphatase	U/l	175	149	201	13.00	26.00	Roche Integra AMP buffer 37°C
	U/l	136	116	156	10.00	20.00	Roche Integra AMP buffer 30°C
	U/l	112	95	129	8.50	17.00	Roche Integra AMP buffer 25°C
	U/l	176	149	203	13.50	27.00	AMP optimised to IFCC 37°C
	U/l	137	116	158	10.50	21.00	AMP optimised to IFCC 30°C
	U/l	112	95	129	8.50	17.00	AMP optimised to IFCC 25°C
	U/l	174	148	200	13.00	26.00	Colorimetric 37°C
	U/l	136	115	157	10.50	21.00	Colorimetric 30°C
	U/l	111	95	127	8.00	16.00	Colorimetric 25°C
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	63	54	72	4.50	9.00	Immunoinhibition EPS substrate 37°C
	U/l	64	54	74	5.00	10.00	Roche EPS Liquid 37°C
Amylase Total	U/l	88	75	101	6.50	13.00	Randox Liquid Ethylidene pNPG7 37°C

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Total	U/l	88	75	101	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	89	76	102	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	88	75	101	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	88	75	101	6.50	13.00	BM/Roche Colorimetric pNPG7 37°C
AST (GOT)	U/l	31	25	37	3.00	6.00	Tris buffer without P5P 37°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 30°C
	U/l	15	12	18	1.50	3.00	Tris buffer without P5P 25°C
Bile Acids	μmol/l	24.7	19.8	29.6	2.45	4.90	Enzymatic Colorimetric
Bicarbonate	mmol/l	12.3	9.75	14.9	1.28	2.55	Colorimetric
	mmol/l	12.2	9.68	14.7	1.26	2.52	Enzymatic
Bilirubin Direct	μmol/l	19.4	15.3	23.5	2.05	4.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.13	0.895	1.37	0.12	0.24	
	μmol/l	19.6	15.5	23.7	2.05	4.10	Diazo with Sulphanilic Acid
	mg/dl	1.15	0.907	1.39	0.12	0.24	
	μmol/l	19.7	15.6	23.8	2.05	4.10	Roche DPD JG standardised
	mg/dl	1.15	0.913	1.39	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	
	μmol/l	18.1	14.3	21.9	1.90	3.80	Roche DPD Dumas standardised
	mg/dl	1.06	0.837	1.28	0.11	0.22	
Bilirubin Total	μmol/l	25.1	19.9	30.3	2.60	5.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.47	1.16	1.78	0.16	0.31	
	μmol/l	25.1	19.9	30.3	2.60	5.20	Diazo with Sulphanilic Acid
	mg/dl	1.47	1.16	1.78	0.16	0.31	
	μmol/l	25.4	20.0	30.8	2.70	5.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.49	1.17	1.81	0.16	0.32	

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	μmol/l	24.6	19.4	29.8	2.60	5.20	Nitrobenzenediazonium salt
	mg/dl	1.44	1.13	1.75	0.16	0.31	
	μmol/l	25.2	19.9	30.5	2.65	5.30	Diazonium ion
	mg/dl	1.47	1.16	1.78	0.16	0.31	
Calcium	mmol/l	2.23	2.00	2.46	0.12	0.23	Cresolphthalein complexone
	mg/dl	8.94	8.02	9.86	0.46	0.92	
	mmol/l	2.25	2.02	2.48	0.12	0.23	Arsenazo III
	mg/dl	9.02	8.10	9.94	0.46	0.92	
Cholesterol	mmol/l	4.16	3.62	4.70	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	140	182	10.50	21.00	
	mmol/l	4.16	3.62	4.70	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	161	140	182	10.50	21.00	
	mmol/l	4.04	3.51	4.57	0.27	0.53	Cholesterol Dehydrogenase
	mg/dl	156	135	177	10.50	21.00	
Chloride	mmol/l	92.2	84.9	99.5	3.65	7.30	ISE indirect
Cholinesterase	U/l	5255	4204	6306	525.50	1051.00	Colorimetric Benzoylcholine 37°C
	U/l	5352	4281	6423	535.50	1071.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	189	155	223	17.00	34.00	CK-NAC serum start (DGKC) 37°C
	U/l	118	97	139	10.50	21.00	CK-NAC serum start (DGKC) 30°C
	U/l	80	66	94	7.00	14.00	CK-NAC serum start (DGKC) 25°C
	U/l	190	156	224	17.00	34.00	CK-NAC substrate start (DGKC) 37°C
	U/l	119	98	140	10.50	21.00	CK-NAC substrate start (DGKC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC substrate start (DGKC) 25°C
	U/l	194	159	229	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	121	100	142	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	82	68	96	7.00	14.00	CK-NAC (IFCC) 25°C

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
CK Total	U/l	189	155	223	17.00	34.00	Creatinine phosphate substrate Start 37°C
	U/l	118	97	139	10.50	21.00	Creatinine phosphate substrate Start 30°C
	U/l	80	66	94	7.00	14.00	Creatinine phosphate substrate Start 25°C
Creatinine	μmol/l	139	111	167	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.57	1.25	1.89	0.16	0.32	
	μmol/l	143	115	171	14.00	28.00	Enzymatic UV method
	mg/dl	1.62	1.30	1.94	0.16	0.32	
	μmol/l	145	116	174	14.50	29.00	Creatinine PAP method
	mg/dl	1.64	1.31	1.97	0.17	0.33	
	μmol/l	143	115	171	14.00	28.00	Roche Creatinine Plus
	mg/dl	1.62	1.30	1.94	0.16	0.32	
	μmol/l	140	112	168	14.00	28.00	Jaffe rate blanked
	mg/dl	1.58	1.27	1.89	0.16	0.31	
	μmol/l	139	111	167	14.00	28.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.57	1.25	1.89	0.16	0.32	
Free T4	μmol/l	137	109	165	14.00	28.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.55	1.23	1.87	0.16	0.32	
	μmol/l	143	115	171	14.00	28.00	IDMS traceable
	mg/dl	1.62	1.30	1.94	0.16	0.32	
	pmol/l	20.8	15.6	26.0	2.60	5.20	Roche Cobas e601/602
	ng/dl	1.62	1.22	2.02	0.20	0.40	
gamma-GT	pg/ml	16.2	12.2	20.2	2.00	4.00	Roche Cobas e601/602
	U/l	50	42	58	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	26	36	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	30	26	34	2.00	4.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.04	5.14	6.94	0.45	0.90	Glucose dehydrogenase
	mg/dl	109	92.6	125	8.20	16.40	
	mmol/l	6.14	5.22	7.06	0.46	0.92	Hexokinase
	mg/dl	111	94.1	128	8.45	16.90	
	mmol/l	6.09	5.17	7.01	0.46	0.92	Glucose oxidase
	mg/dl	110	93.2	127	8.40	16.80	
HDL - Cholesterol	mmol/l	1.33	1.13	1.53	0.10	0.20	Direct HDL PPD
	mg/dl	51.3	43.6	59.0	3.85	7.70	
	mmol/l	1.33	1.13	1.53	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	51.3	43.6	59.0	3.85	7.70	
	mmol/l	1.35	1.15	1.55	0.10	0.20	Direct HDL PEGME
	mg/dl	52.1	44.4	59.8	3.85	7.70	
Iron	mmol/l	1.37	1.16	1.58	0.11	0.21	Direct HDL Roche 4th Generation
	mg/dl	52.9	44.8	61.0	4.05	8.10	
	μmol/l	19.1	15.7	22.5	1.70	3.40	Colorimetric with ppt.
	μg/dl	107	87.8	126	9.60	19.20	
	μmol/l	19.0	15.6	22.4	1.70	3.40	Colorimetric without ppt.
	μg/dl	106	87.2	125	9.40	18.80	

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Lactate	mmol/l	1.63	1.34	1.92	0.15	0.29	Colorimetric Lactate Oxidase
	mg/dl	14.7	12.1	17.3	1.30	2.60	
LD (LDH)	U/l	208	177	239	15.50	31.00	L->P 37°C
	U/l	150	128	172	11.00	22.00	L->P 30°C
	U/l	105	90	120	7.50	15.00	L->P 25°C
	U/l	208	177	239	15.50	31.00	L->P IFCC 37°C
	U/l	150	128	172	11.00	22.00	L->P IFCC 30°C
	U/l	105	90	120	7.50	15.00	L->P IFCC 25°C
Lipase	U/l	33	26	40	3.50	7.00	Other Colorimetric 37°C
	U/l	33	27	39	3.00	6.00	Roche Colorimetric 37°C
	U/l	33	27	39	3.00	6.00	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	0.95	0.83	1.06	0.06	0.11	Ion selective electrode
	mg/dl	0.656	0.577	0.735	0.04	0.08	
	mmol/l	1.01	0.89	1.13	0.06	0.12	Spectrophotometric
	mg/dl	0.701	0.615	0.787	0.04	0.09	
Magnesium	mmol/l	0.96	0.85	1.08	0.06	0.12	Atomic absorption
	mg/dl	2.34	2.06	2.62	0.14	0.28	
	mmol/l	0.97	0.86	1.09	0.06	0.12	Xylidyl Blue
	mg/dl	2.36	2.08	2.64	0.14	0.28	
	mmol/l	0.95	0.84	1.06	0.06	0.11	Methylthymol blue
	mg/dl	2.31	2.03	2.59	0.14	0.28	
	mmol/l	0.97	0.85	1.09	0.06	0.12	Chlorphosphonazo III
	mg/dl	2.35	2.07	2.63	0.14	0.28	
	mmol/l	0.98	0.86	1.09	0.06	0.12	Enzymatic
	mg/dl	2.37	2.09	2.65	0.14	0.28	

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Osmolality	mOsm/kg	292	234	350	29.00	58.00	Calculated
Phosphate Inorganic	mmol/l	1.50	1.27	1.73	0.12	0.23	Phosphomolybdate enzymatic
	mg/dl	4.65	3.94	5.36	0.36	0.71	
	mmol/l	1.50	1.27	1.73	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.65	3.94	5.36	0.36	0.71	
Potassium	mmol/l	4.02	3.70	4.34	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.0	46.4	69.6	5.80	11.60	Biuret reaction end point
	g/dl	5.80	4.64	6.96	0.58	1.16	
	g/l	58.3	46.6	70.0	5.85	11.70	Biuret reaction kinetic
	g/dl	5.83	4.66	7.00	0.59	1.17	
PSA Total	ng/ml =	10.5	7.84	13.2	1.33	2.66	Roche Cobas 6000/8000
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	μU/ml =	1.67	1.34	2.00	0.17	0.33	Roche Cobas e601/602
TIBC	μmol/l	41.9	33.1	50.7	4.40	8.80	FE+UIBC(saturation with iron)
	μg/dl	234	185	283	24.50	49.00	
	μmol/l	41.7	32.9	50.5	4.40	8.80	Direct Colorimetric
	μg/dl	233	184	282	24.50	49.00	
	μmol/l	44.6	35.2	54.0	4.70	9.40	Calculated from Transferrin
	μg/dl	249	197	301	26.00	52.00	
Total T3	nmol/l	2.31	1.73	2.89	0.29	0.58	Roche Cobas e601/602
	ng/ml	1.50	1.13	1.87	0.19	0.37	
	ng/dl	150	113	187	18.50	37.00	Roche Cobas e601/602
Total T4	nmol/l	99.1	74.3	124	12.40	24.80	Roche Cobas e601/602
	μg/dl	7.73	5.80	9.66	0.97	1.93	
	ng/ml	77.3	58.0	96.6	9.65	19.30	Roche Cobas e601/602

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.13	0.95	1.32	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	100	83.6	116	8.20	16.40	
	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	100	84.3	116	7.85	15.70	
	mmol/l	1.12	0.94	1.30	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	99.1	83.1	115	8.00	16.00	
	mmol/l	1.13	0.95	1.31	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	100	84.0	116	8.00	16.00	
UIBC	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	100	83.9	116	8.05	16.10	
UIBC	μmol/l	22.9	18.8	27.0	2.05	4.10	Direct Colorimetric
	μg/dl	128	105	151	11.50	23.00	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.88	5.12	6.64	0.38	0.76	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.85	5.09	6.61	0.38	0.76	
	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.86	5.09	6.63	0.39	0.77	
Urea	mmol/l	7.48	6.35	8.61	0.57	1.13	Urease end point
	mg/dl	45.0	38.2	51.8	3.40	6.80	
	mmol/l	7.40	6.29	8.51	0.56	1.11	Urease kinetic
	mg/dl	44.5	37.8	51.2	3.35	6.70	

**Roche Cobas c303/501/502/503**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.40	6.29	8.51	0.56	1.11	BUN
	mg/dl	20.8	17.7	23.9	1.55	3.10	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		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	
	g/l	42.2	35.9	48.5	3.15	6.30	Bromocresol Purple
	g/dl	4.22	3.59	4.85	0.32	0.63	
	g/l	43.2	36.7	49.7	3.25	6.50	Turbidimetric Assays
	g/dl	4.32	3.67	4.97	0.33	0.65	
Alkaline Phosphatase	U/l	173	147	199	13.00	26.00	Roche Integra AMP buffer 37°C
	U/l	135	115	155	10.00	20.00	Roche Integra AMP buffer 30°C
	U/l	111	94	128	8.50	17.00	Roche Integra AMP buffer 25°C
	U/l	171	145	197	13.00	26.00	AMP optimised to IFCC 37°C
	U/l	133	113	153	10.00	20.00	AMP optimised to IFCC 30°C
	U/l	109	93	125	8.00	16.00	AMP optimised to IFCC 25°C
	U/l	174	147	201	13.50	27.00	Colorimetric 37°C
	U/l	136	115	157	10.50	21.00	Colorimetric 30°C
	U/l	111	94	128	8.50	17.00	Colorimetric 25°C
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	64	54	74	5.00	10.00	Roche EPS Liquid 37°C
Amylase Total	U/l	87	74	100	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	91	78	104	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C

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ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Total	U/l	89	76	102	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	90	76	104	7.00	14.00	BM/Roche Colorimetric pNPG7 37°C
AST (GOT)	U/l	32	26	38	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	15	12	18	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Direct	μmol/l	19.5	15.4	23.6	2.05	4.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.14	0.901	1.38	0.12	0.24	
	μmol/l	20.0	15.8	24.2	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.17	0.924	1.42	0.12	0.25	
	μmol/l	19.2	15.1	23.3	2.05	4.10	Roche DPD JG standardised
	mg/dl	1.12	0.883	1.36	0.12	0.24	
	μmol/l	19.9	15.7	24.1	2.10	4.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.16	0.918	1.40	0.12	0.24	
	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	
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	25.4	20.1	30.7	2.65	5.30	Diazonium ion
	mg/dl	1.49	1.18	1.80	0.16	0.31	
Calcium	mmol/l	2.23	2.01	2.45	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.94	8.06	9.82	0.44	0.88	
	mmol/l	2.25	2.03	2.47	0.11	0.22	Arsenazo III
	mg/dl	9.02	8.14	9.90	0.44	0.88	
	mmol/l	2.23	2.01	2.45	0.11	0.22	NM-BAPTA
	mg/dl	8.94	8.06	9.82	0.44	0.88	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	4.17	3.63	4.71	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	140	182	10.50	21.00	
	mmol/l	4.18	3.64	4.72	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	161	141	181	10.00	20.00	
	mmol/l	4.10	3.57	4.63	0.27	0.53	Cholesterol Dehydrogenase
	mg/dl	158	138	178	10.00	20.00	
Chloride	mmol/l	92.0	84.7	99.3	3.65	7.30	ISE indirect
Cholinesterase	U/l	5199	4159	6239	520.00	1040.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	195	160	230	17.50	35.00	CK-NAC substrate start (DGKC) 37°C
	U/l	122	100	144	11.00	22.00	CK-NAC substrate start (DGKC) 30°C
	U/l	83	68	98	7.50	15.00	CK-NAC substrate start (DGKC) 25°C
	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
	U/l	200	164	236	18.00	36.00	Creatinine phosphate substrate Start 37°C
	U/l	125	103	147	11.00	22.00	Creatinine phosphate substrate Start 30°C
	U/l	85	70	100	7.50	15.00	Creatinine phosphate substrate Start 25°C
Creatinine	μmol/l	139	112	166	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.57	1.27	1.87	0.15	0.30	
	μmol/l	144	115	173	14.50	29.00	Enzymatic UV method
	mg/dl	1.63	1.30	1.96	0.17	0.33	
	μmol/l	143	114	172	14.50	29.00	Roche Creatinine Plus
	mg/dl	1.62	1.29	1.95	0.17	0.33	
	μmol/l	143	114	172	14.50	29.00	Jaffe rate blanked
	mg/dl	1.62	1.29	1.95	0.17	0.33	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	141	113	169	14.00	28.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.59	1.28	1.90	0.16	0.31	
	μmol/l	142	113	171	14.50	29.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.60	1.28	1.92	0.16	0.32	
	μmol/l	144	115	173	14.50	29.00	IDMS traceable
	mg/dl	1.63	1.30	1.96	0.17	0.33	
gamma-GT	U/l	51	43	59	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	40	34	46	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	51	43	59	4.00	8.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	40	34	46	3.00	6.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	43	36	50	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.15	5.23	7.07	0.46	0.92	Hexokinase
	mg/dl	111	94.2	128	8.40	16.80	
	mmol/l	6.18	5.25	7.11	0.47	0.93	Glucose oxidase
	mg/dl	111	94.6	127	8.20	16.40	
HDL - Cholesterol	mmol/l	1.36	1.16	1.56	0.10	0.20	Direct HDL PPD
	mg/dl	52.5	44.8	60.2	3.85	7.70	
	mmol/l	1.34	1.14	1.54	0.10	0.20	Direct HDL PEGME
	mg/dl	51.7	44.0	59.4	3.85	7.70	
	mmol/l	1.33	1.13	1.53	0.10	0.20	Direct Clearance Method
	mg/dl	51.3	43.6	59.0	3.85	7.70	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
HDL - Cholesterol	mmol/l	1.35	1.15	1.55	0.10	0.20	Direct HDL Roche 4th Generation
	mg/dl	52.1	44.4	59.8	3.85	7.70	
Iron	µmol/l	19.0	15.6	22.4	1.70	3.40	Colorimetric with ppt.
	µg/dl	106	87.2	125	9.40	18.80	
	µmol/l	18.8	15.4	22.2	1.70	3.40	Colorimetric without ppt.
	µg/dl	105	86.1	124	9.45	18.90	
Lactate	mmol/l	1.64	1.35	1.93	0.15	0.29	Colorimetric Lactate Oxidase
	mg/dl	14.8	12.2	17.4	1.30	2.60	
LD (LDH)	U/l	213	181	245	16.00	32.00	L->P 37°C
	U/l	154	131	177	11.50	23.00	L->P 30°C
	U/l	108	92	124	8.00	16.00	L->P 25°C
	U/l	208	176	240	16.00	32.00	L->P IFCC 37°C
	U/l	150	127	173	11.50	23.00	L->P IFCC 30°C
	U/l	105	89	121	8.00	16.00	L->P IFCC 25°C
Lipase	U/l	33	27	39	3.00	6.00	Roche Colorimetric 37°C
	U/l	32	26	38	3.00	6.00	Roche Turbidimetric with colipase 37°C
Magnesium	mmol/l	0.96	0.85	1.08	0.06	0.12	Atomic absorption
	mg/dl	2.34	2.06	2.62	0.14	0.28	
	mmol/l	0.96	0.85	1.08	0.06	0.12	Xylidyl Blue
	mg/dl	2.34	2.06	2.62	0.14	0.28	
	mmol/l	0.96	0.85	1.08	0.06	0.12	Chlorphosphonazo III
	mg/dl	2.34	2.06	2.62	0.14	0.28	
Phosphate Inorganic	mmol/l	1.51	1.28	1.74	0.12	0.23	Phosphomolybdate enzymatic
	mg/dl	4.68	3.97	5.39	0.36	0.71	
	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	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Potassium	mmol/l	4.03	3.70	4.36	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.3	46.6	70.0	5.85	11.70	Biuret reaction end point
	g/dl	5.83	4.66	7.00	0.59	1.17	
	g/l	58.8	47.0	70.6	5.90	11.80	Biuret reaction kinetic
	g/dl	5.88	4.70	7.06	0.59	1.18	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
TIBC	μmol/l	43.2	34.1	52.3	4.55	9.10	FE+UIBC(saturation with iron)
	μg/dl	241	191	291	25.00	50.00	
	μmol/l	43.0	34.0	52.0	4.50	9.00	Direct Colorimetric
	μg/dl	240	190	290	25.00	50.00	
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	100	84.2	116	7.90	15.80	
	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	100	83.7	116	8.15	16.30	
	mmol/l	1.13	0.95	1.31	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	100	83.7	116	8.15	16.30	
	mmol/l	1.12	0.94	1.30	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	99.1	82.9	115	8.10	16.20	
UIBC	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	100	83.8	116	8.10	16.20	
Uric Acid (Urate)	μmol/l	24.8	20.3	29.3	2.25	4.50	Direct Colorimetric
	μg/dl	139	113	165	13.00	26.00	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase catalase 340nm
	mg/dl	6.05	5.26	6.84	0.40	0.79	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.91	5.14	6.68	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.91	5.14	6.68	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.95	5.17	6.73	0.39	0.78	
Urea	mmol/l	7.55	6.42	8.68	0.57	1.13	Urease end point
	mg/dl	45.4	38.6	52.2	3.40	6.80	
	mmol/l	7.52	6.39	8.65	0.57	1.13	Urease kinetic
	mg/dl	45.2	38.4	52.0	3.40	6.80	
	mmol/l	7.52	6.39	8.65	0.57	1.13	BUN
	mg/dl	21.1	17.9	24.3	1.60	3.20	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	42.4	36.0	48.8	3.20	6.40	Bromocresol Green
	g/dl	4.24	3.60	4.88	0.32	0.64	
Alkaline Phosphatase	U/l	167	142	192	12.50	25.00	Roche Integra AMP buffer 37°C
	U/l	130	111	149	9.50	19.00	Roche Integra AMP buffer 30°C
	U/l	107	91	123	8.00	16.00	Roche Integra AMP buffer 25°C
	U/l	169	144	194	12.50	25.00	Colorimetric 37°C
	U/l	132	112	152	10.00	20.00	Colorimetric 30°C
	U/l	108	92	124	8.00	16.00	Colorimetric 25°C
ALT (GPT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	19	15	23	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	64	54	74	5.00	10.00	Immunoinhibition EPS substrate 37°C
	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	Randox Liquid Ethylidene pNPG7 37°C
	U/l	88	75	101	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	32	26	38	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	15	12	18	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	19.3	15.3	23.3	2.00	4.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.13	0.895	1.37	0.12	0.24	
	µmol/l	19.8	15.7	23.9	2.05	4.10	Roche DPD JG standardised
	mg/dl	1.16	0.918	1.40	0.12	0.24	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	μmol/l	25.3	20.0	30.6	2.65	5.30	Diazo with Sulphanilic Acid
	mg/dl	1.48	1.17	1.79	0.16	0.31	
	μmol/l	25.2	19.9	30.5	2.65	5.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.47	1.16	1.78	0.16	0.31	
	μmol/l	25.4	20.1	30.7	2.65	5.30	Diazonium ion
	mg/dl	1.49	1.18	1.80	0.16	0.31	
Calcium	mmol/l	2.20	1.98	2.42	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.82	7.94	9.70	0.44	0.88	
	mmol/l	2.22	2.00	2.44	0.11	0.22	NM-BAPTA
	mg/dl	8.90	8.02	9.78	0.44	0.88	
Cholesterol	mmol/l	4.14	3.61	4.67	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	160	139	181	10.50	21.00	
	mmol/l	4.17	3.63	4.71	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	161	140	182	10.50	21.00	
Chloride	mmol/l	93.2	85.8	101	3.70	7.40	ISE indirect
Cholinesterase	U/l	5275	4220	6330	527.50	1055.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	182	149	215	16.50	33.00	CK-NAC substrate start (DGKC) 37°C
	U/l	114	93	135	10.50	21.00	CK-NAC substrate start (DGKC) 30°C
	U/l	77	63	91	7.00	14.00	CK-NAC substrate start (DGKC) 25°C
	U/l	187	154	220	16.50	33.00	CK-NAC (IFCC) 37°C
	U/l	117	96	138	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	79	65	93	7.00	14.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	144	115	173	14.50	29.00	Enzymatic UV method
	mg/dl	1.63	1.30	1.96	0.17	0.33	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Creatinine	μmol/l	146	117	175	14.50	29.00	Roche Creatinine Plus
	mg/dl	1.65	1.32	1.98	0.17	0.33	
	μmol/l	140	112	168	14.00	28.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.58	1.27	1.89	0.16	0.31	
	μmol/l	144	115	173	14.50	29.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.63	1.30	1.96	0.17	0.33	
gamma-GT	μmol/l	146	117	175	14.50	29.00	IDMS traceable
	mg/dl	1.65	1.32	1.98	0.17	0.33	
	U/l	52	44	60	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	41	35	47	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	32	27	37	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	54	46	62	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.09	5.18	7.00	0.46	0.91	Hexokinase
	mg/dl	110	93.3	127	8.35	16.70	
HDL - Cholesterol	mmol/l	1.35	1.15	1.55	0.10	0.20	Direct HDL Roche 4th Generation
	mg/dl	52.1	44.4	59.8	3.85	7.70	
Iron	μmol/l	17.8	14.6	21.0	1.60	3.20	Colorimetric without ppt.
	μg/dl	99.5	81.6	117	8.95	17.90	
Lactate	mmol/l	1.60	1.31	1.89	0.15	0.29	Colorimetric Lactate Oxidase
	mg/dl	14.4	11.8	17.0	1.30	2.60	
LD (LDH)	U/l	207	176	238	15.50	31.00	L->P IFCC 37°C
	U/l	149	127	171	11.00	22.00	L->P IFCC 30°C
	U/l	105	89	121	8.00	16.00	L->P IFCC 25°C

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Lithium	mmol/l	1.01	0.89	1.13	0.06	0.12	Spectrophotometric
	mg/dl	0.701	0.617	0.785	0.04	0.08	
Magnesium	mmol/l	0.99	0.87	1.10	0.06	0.12	Xylidyl Blue
	mg/dl	2.39	2.11	2.67	0.14	0.28	
	mmol/l	0.99	0.87	1.10	0.06	0.12	Chlorphosphonazo III
	mg/dl	2.39	2.11	2.67	0.14	0.28	
Osmolality	mOsm/kg	294	235	353	29.50	59.00	Calculated
Phosphate Inorganic	mmol/l	1.48	1.26	1.70	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.59	3.91	5.27	0.34	0.68	
Potassium	mmol/l	4.03	3.70	4.36	0.17	0.33	ISE method - indirect
Protein Total	g/l	57.7	46.2	69.2	5.75	11.50	Biuret reaction end point
	g/dl	5.77	4.62	6.92	0.58	1.15	
	g/l	58.4	46.7	70.1	5.85	11.70	Biuret reaction kinetic
	g/dl	5.84	4.67	7.01	0.59	1.17	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
TIBC	μmol/l	42.1	33.2	51.0	4.45	8.90	FE+UIBC(saturation with iron)
	μg/dl	235	186	284	24.50	49.00	
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	
	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	98.2	82.4	114	7.90	15.80	
	mmol/l	1.12	0.94	1.30	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	99.1	83.0	115	8.05	16.10	
	mmol/l	1.10	0.92	1.28	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	97.4	81.5	113	7.95	15.90	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Triglycerides	mmol/l	1.15	0.97	1.33	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	102	85.6	118	8.20	16.40	
UIBC	μmol/l	24.4	20.0	28.8	2.20	4.40	Direct Colorimetric
	μg/dl	136	112	160	12.00	24.00	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.71	4.97	6.45	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.75	5.01	6.49	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.78	5.02	6.54	0.38	0.76	
Urea	mmol/l	7.29	6.20	8.38	0.55	1.09	Urease kinetic
	mg/dl	43.8	37.3	50.3	3.25	6.50	
	mmol/l	7.29	6.20	8.38	0.55	1.09	BUN
	mg/dl	20.5	17.4	23.6	1.55	3.10	

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Albumin	g/l	41.0	34.8	47.2	3.10	6.20	Bromocresol Green
	g/dl	4.10	3.48	4.72	0.31	0.62	
Alkaline Phosphatase	U/l	300	255	345	22.50	45.00	Diethanolamine buffer DEA 37°C
	U/l	183	156	210	13.50	27.00	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	37	29	45	4.00	8.00	Tris buffer without P5P 37°C
Bile Acids	µmol/l	24.2	19.4	29.0	2.40	4.80	5th Generation Colorimetric
Bicarbonate	mmol/l	11.1	8.80	13.4	1.15	2.30	Enzymatic
Bilirubin Direct	µmol/l	17.8	14.1	21.5	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.04	0.825	1.26	0.11	0.22	
	µmol/l	15.7	12.4	19.0	1.65	3.30	Oxidation to Biliverdin/Vanadate
	mg/dl	0.918	0.725	1.11	0.10	0.19	
Bilirubin Total	µmol/l	31.8	25.1	38.5	3.35	6.70	Diazo with Sulphanilic Acid
	mg/dl	1.86	1.47	2.25	0.20	0.39	
	µmol/l	30.0	23.7	36.3	3.15	6.30	Oxidation to Biliverdin/Vanadate
	mg/dl	1.76	1.39	2.13	0.19	0.37	
Calcium	mmol/l	2.27	2.04	2.50	0.12	0.23	Arsenazo III
	mg/dl	9.10	8.18	10.0	0.46	0.92	
Cholesterol	mmol/l	4.40	3.82	4.98	0.29	0.58	Cholesterol Oxidase - Abell Kendall
	mg/dl	170	147	193	11.50	23.00	

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	95.1	87.5	103	3.80	7.60	ISE direct
CK Total	U/l	218	179	257	19.50	39.00	CK-NAC substrate start (DGKC) 37°C
	U/l	226	186	266	20.00	40.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	131	105	157	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	μmol/l	144	115	173	14.50	29.00	Enzymatic UV method
	mg/dl	1.63	1.30	1.96	0.17	0.33	
gamma-GT	U/l	56	47	65	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.35	5.40	7.30	0.48	0.95	Hexokinase
	mg/dl	114	97.3	131	8.35	16.70	
	mmol/l	6.49	5.52	7.46	0.49	0.97	Glucose oxidase
	mg/dl	117	99.5	135	8.75	17.50	
Iron	μmol/l	19.9	16.4	23.4	1.75	3.50	Colorimetric without ppt.
	μg/dl	111	91.7	130	9.65	19.30	
Lactate	mmol/l	1.65	1.35	1.95	0.15	0.30	Colorimetric Lactate Oxidase
	mg/dl	14.9	12.2	17.6	1.35	2.70	
LD (LDH)	U/l	418	356	480	31.00	62.00	P->L German methods 37°C
	U/l	201	171	231	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	42	34	50	4.00	8.00	Randox Colorimetric 37°C
Magnesium	mmol/l	0.97	0.85	1.09	0.06	0.12	Xylidyl Blue
	mg/dl	2.36	2.08	2.64	0.14	0.28	
Phosphate Inorganic	mmol/l	1.54	1.31	1.77	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.77	4.06	5.48	0.36	0.71	
Potassium	mmol/l	4.20	3.99	4.41	0.11	0.21	Enzymatic

RX SERIES®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Potassium	mmol/l	3.98	3.66	4.30	0.16	0.32	ISE method - direct
Protein Total	g/l	59.5	47.6	71.4	5.95	11.90	Biuret reaction end point
	g/dl	5.95	4.76	7.14	0.60	1.19	
Sodium	mmol/l	143	136	150	3.50	7.00	Enzymatic
	mmol/l	140	133	147	3.50	7.00	ISE method - direct
TIBC	μmol/l	51.4	40.6	62.2	5.40	10.80	Direct Colorimetric
	μg/dl	287	227	347	30.00	60.00	
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	100	84.3	116	7.85	15.70	
Uric Acid (Urate)	mmol/l	0.37	0.32	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.13	5.34	6.92	0.40	0.79	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.03	5.26	6.80	0.39	0.77	
Urea	mmol/l	7.23	6.14	8.32	0.55	1.09	Urease kinetic
	mg/dl	43.5	36.9	50.1	3.30	6.60	
	mmol/l	7.23	6.15	8.31	0.54	1.08	BUN
	mg/dl	20.3	17.3	23.3	1.50	3.00	

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	40.2	34.1	46.3	3.05	6.10	Bromocresol Green
	g/dl	4.02	3.41	4.63	0.31	0.61	
Alkaline Phosphatase	U/l	176	149	203	13.50	27.00	Diethanolamine buffer DEA 37°C
	U/l	168	143	193	12.50	25.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	67	57	77	5.00	10.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	91	78	104	6.50	13.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
Bile Acids	μmol/l	24.6	19.7	29.5	2.45	4.90	Enzymatic Colorimetric
Bilirubin Direct	μmol/l	17.4	13.8	21.0	1.80	3.60	Oxidation to Biliverdin/Vanadate
	mg/dl	1.02	0.807	1.23	0.11	0.21	
Bilirubin Total	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	
Calcium	mmol/l	2.23	2.01	2.45	0.11	0.22	Arsenazo III
	mg/dl	8.94	8.06	9.82	0.44	0.88	
Cholesterol	mmol/l	4.19	3.65	4.73	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	162	141	183	10.50	21.00	
	mmol/l	4.25	3.69	4.81	0.28	0.56	Cholesterol Oxidase - IDMS
	mg/dl	164	142	186	11.00	22.00	
Chloride	mmol/l	96.7	89.0	104	3.85	7.70	ISE indirect
CK Total	U/l	201	165	237	18.00	36.00	CK-NAC (IFCC) 37°C

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
CK Total	U/l	200	164	236	18.00	36.00	Creatinine phosphate substrate Start 37°C
Creatinine	μmol/l	138	110	166	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.56	1.24	1.88	0.16	0.32	
	μmol/l	140	112	168	14.00	28.00	Enzymatic UV method
	mg/dl	1.58	1.27	1.89	0.16	0.31	
	μmol/l	136	109	163	13.50	27.00	Creatinine PAP method
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	μmol/l	139	112	166	13.50	27.00	Jaffe rate blanked
	mg/dl	1.57	1.27	1.87	0.15	0.30	
	μmol/l	143	115	171	14.00	28.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.62	1.30	1.94	0.16	0.32	
	μmol/l	146	117	175	14.50	29.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.65	1.32	1.98	0.17	0.33	
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.05	5.14	6.96	0.46	0.91	Hexokinase
	mg/dl	109	92.6	125	8.20	16.40	
	mmol/l	6.22	5.29	7.15	0.47	0.93	Glucose oxidase
	mg/dl	112	95.3	129	8.35	16.70	
HDL - Cholesterol	mmol/l	1.18	1.01	1.35	0.09	0.17	Direct HDL Immunoseparation
	mg/dl	45.5	39.0	52.0	3.25	6.50	
	mmol/l	1.18	1.00	1.36	0.09	0.18	Direct Clearance Method
	mg/dl	45.5	38.6	52.4	3.45	6.90	
Iron	μmol/l	18.4	15.1	21.7	1.65	3.30	Colorimetric without ppt.
	μg/dl	103	84.4	122	9.30	18.60	

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lactate	mmol/l	1.46	1.20	1.72	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	13.2	10.8	15.6	1.20	2.40	
LD (LDH)	U/l	209	178	240	15.50	31.00	L->P 37°C
	U/l	207	176	238	15.50	31.00	L->P IFCC 37°C
Lipase	U/l	39	31	47	4.00	8.00	Other Colorimetric 37°C
Magnesium	mmol/l	0.93	0.82	1.04	0.06	0.11	Xylidyl Blue
	mg/dl	2.26	1.99	2.53	0.14	0.27	
Phosphate Inorganic	mmol/l	1.53	1.30	1.76	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.74	4.03	5.45	0.36	0.71	
Potassium	mmol/l	4.01	3.69	4.33	0.16	0.32	ISE method - indirect
Protein Total	g/l	57.2	45.8	68.6	5.70	11.40	Biuret reaction end point
	g/dl	5.72	4.58	6.86	0.57	1.14	
	g/l	57.5	46.0	69.0	5.75	11.50	Biuret reaction kinetic
	g/dl	5.75	4.60	6.90	0.58	1.15	
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
TIBC	μmol/l	46.5	36.7	56.3	4.90	9.80	FE+UIBC(saturation with iron)
	μg/dl	260	205	315	27.50	55.00	
	μmol/l	44.9	35.5	54.3	4.70	9.40	Direct Colorimetric
	μg/dl	251	198	304	26.50	53.00	
Triglycerides	mmol/l	1.15	0.97	1.33	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	102	85.7	118	8.15	16.30	
	mmol/l	1.16	0.97	1.35	0.09	0.19	L/G Kinase EP. 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	6.06	5.28	6.84	0.39	0.78	

**SIEMENS ADVIA 1200/1650/1800/2400®****ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.01	5.22	6.80	0.40	0.79	
	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.27	5.44	7.10	0.42	0.83	
Urea	mmol/l	7.62	6.47	8.77	0.58	1.15	Urease end point
	mg/dl	45.8	38.9	52.7	3.45	6.90	
	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 Atellica Solution

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	40.5	34.4	46.6	3.05	6.10	Bromocresol Green
	g/dl	4.05	3.44	4.66	0.31	0.61	
	g/l	41.4	35.2	47.6	3.10	6.20	Bromocresol Purple
	g/dl	4.14	3.52	4.76	0.31	0.62	
Alkaline Phosphatase	U/l	169	143	195	13.00	26.00	Siemens Dimension AMP buffer 37°C
	U/l	167	142	192	12.50	25.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
	U/l	40	32	48	4.00	8.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Pancreatic	U/l	70	59	81	5.50	11.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	100	85	115	7.50	15.00	Siemens - blocked pNPG7 37°C
	U/l	97	82	112	7.50	15.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	37	29	45	4.00	8.00	Tris buffer without P5P 37°C
	U/l	37	30	44	3.50	7.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	13.5	10.7	16.3	1.40	2.80	Enzymatic
Bilirubin Direct	µmol/l	17.4	13.8	21.0	1.80	3.60	Oxidation to Biliverdin/Vanadate
	mg/dl	1.02	0.807	1.23	0.11	0.21	
Bilirubin Total	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	
Calcium	mmol/l	2.19	1.97	2.41	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.78	7.90	9.66	0.44	0.88	
	mmol/l	2.26	2.04	2.48	0.11	0.22	Arsenazo III
	mg/dl	9.06	8.18	9.94	0.44	0.88	

Siemens Atellica Solution

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
Cholesterol	mmol/l	4.18	3.64	4.72	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	161	141	181	10.00	20.00	
	mmol/l	4.17	3.63	4.71	0.27	0.54	Dimension-Siemens reagents
	mg/dl	161	140	182	10.50	21.00	
	mmol/l	4.19	3.65	4.73	0.27	0.54	Cholesterol Oxidase - IDMS
	mg/dl	162	141	183	10.50	21.00	
Chloride	mmol/l	97.6	89.8	105	3.90	7.80	ISE indirect
Cholinesterase	U/l	6886	5509	8263	688.50	1377.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	195	160	230	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	197	162	232	17.50	35.00	Creatinine phosphate substrate Start 37°C
Creatinine	μmol/l	140	112	168	14.00	28.00	Alkaline picrate no deproteinization
	mg/dl	1.58	1.27	1.89	0.16	0.31	
	μmol/l	139	111	167	14.00	28.00	Enzymatic UV method
	mg/dl	1.57	1.25	1.89	0.16	0.32	
	μmol/l	143	114	172	14.50	29.00	Creatinine PAP method
	mg/dl	1.62	1.29	1.95	0.17	0.33	
	μmol/l	141	113	169	14.00	28.00	Jaffe rate blanked
	mg/dl	1.59	1.28	1.90	0.16	0.31	
	μmol/l	138	111	165	13.50	27.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.56	1.25	1.87	0.16	0.31	
Free T4	pmol/l	18.3	13.7	22.9	2.30	4.60	Siemens Atellica IM
	ng/dl	1.43	1.07	1.79	0.18	0.36	
	pg/ml	14.3	10.7	17.9	1.80	3.60	Siemens Atellica IM

Siemens Atellica Solution

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	50	43	57	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	51	44	58	3.50	7.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	50	43	57	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	52	44	60	4.00	8.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.05	5.15	6.95	0.45	0.90	Hexokinase
	mg/dl	109	92.8	125	8.10	16.20	
	mmol/l	6.21	5.28	7.14	0.47	0.93	Glucose oxidase
	mg/dl	112	95.1	129	8.45	16.90	
HDL - Cholesterol	mmol/l	1.22	1.04	1.40	0.09	0.18	Direct HDL PPD
	mg/dl	47.1	40.1	54.1	3.50	7.00	
	mmol/l	1.21	1.02	1.40	0.10	0.19	Direct HDL Immunoseparation
	mg/dl	46.7	39.4	54.0	3.65	7.30	
	mmol/l	1.27	1.08	1.46	0.10	0.19	Direct HDL PEGME
	mg/dl	49.0	41.7	56.3	3.65	7.30	
Iron	mmol/l	1.22	1.04	1.40	0.09	0.18	Direct Clearance Method
	mg/dl	47.1	40.1	54.1	3.50	7.00	
	μmol/l	18.1	14.9	21.3	1.60	3.20	Colorimetric with ppt.
	μg/dl	101	83.3	119	8.85	17.70	
Lactate	μmol/l	18.3	15.0	21.6	1.65	3.30	Colorimetric without ppt.
	μg/dl	102	83.9	120	9.05	18.10	
	mmol/l	1.50	1.23	1.77	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.5	11.1	15.9	1.20	2.40	
LD (LDH)	U/l	203	173	233	15.00	30.00	L->P 37°C
	U/l	205	174	236	15.50	31.00	Siemens Dimension L-P Non IFCC 37°C

Siemens Atellica Solution

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Analyte	unit	Target	Range		1SD	2SD	methods
			low	high			
LD (LDH)	U/l	206	175	237	15.50	31.00	L->P IFCC 37°C
Lipase	U/l	39	31	47	4.00	8.00	Other Colorimetric 37°C
Lithium	mmol/l	1.03	0.91	1.15	0.06	0.12	Spectrophotometric
	mg/dl	0.715	0.629	0.801	0.04	0.09	
Magnesium	mmol/l	0.93	0.82	1.04	0.06	0.11	Xylidyl Blue
	mg/dl	2.25	1.98	2.52	0.14	0.27	
	mmol/l	0.93	0.82	1.04	0.06	0.11	Methylthymol blue
	mg/dl	2.25	1.98	2.52	0.14	0.27	
Osmolality	mOsm/kg	291	233	349	29.00	58.00	Calculated
Phosphate Inorganic	mmol/l	1.53	1.30	1.76	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.74	4.03	5.45	0.36	0.71	
Potassium	mmol/l	3.89	3.58	4.20	0.16	0.31	ISE method - indirect
Protein Total	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	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	μU/ml =	1.37	1.10	1.64	0.14	0.27	Siemens Atellica IM
TIBC	μmol/l	49.2	38.8	59.6	5.20	10.40	FE+UIBC(saturation with iron)
	μg/dl	275	217	333	29.00	58.00	
	μmol/l	49.0	38.7	59.3	5.15	10.30	Direct Colorimetric
	μg/dl	274	216	332	29.00	58.00	
Triglycerides	mmol/l	1.18	1.00	1.37	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	104	88.1	120	7.95	15.90	
	mmol/l	1.15	0.97	1.33	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	102	85.8	118	8.10	16.20	
	mmol/l	1.18	0.99	1.37	0.10	0.19	Lipase/Glycerol Dehydrogenase
	mg/dl	104	87.6	120	8.20	16.40	

Siemens Atellica Solution

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.36	0.32	0.41	0.02	0.05	Uricase catalase 340nm
	mg/dl	6.10	5.31	6.89	0.40	0.79	
	mmol/l	0.37	0.32	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.13	5.33	6.93	0.40	0.80	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	6.05	5.28	6.82	0.39	0.77	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.98	5.21	6.75	0.39	0.77	
Urea	mmol/l	7.73	6.57	8.89	0.58	1.16	Urease end point
	mg/dl	46.5	39.5	53.5	3.50	7.00	
	mmol/l	7.78	6.62	8.94	0.58	1.16	Urease kinetic
	mg/dl	46.8	39.8	53.8	3.50	7.00	
	mmol/l	7.59	6.45	8.73	0.57	1.14	Urease hypochlorite
	mg/dl	45.6	38.8	52.4	3.40	6.80	
	mmol/l	7.78	6.61	8.95	0.59	1.17	BUN
	mg/dl	21.8	18.5	25.1	1.65	3.30	

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	40.9	34.7	47.1	3.10	6.20	Bromocresol Green
	g/dl	4.09	3.47	4.71	0.31	0.62	
	g/l	42.3	36.0	48.6	3.15	6.30	Bromocresol Purple
	g/dl	4.23	3.60	4.86	0.32	0.63	
Alkaline Phosphatase	U/l	171	145	197	13.00	26.00	Siemens Dimension AMP buffer 37°C
	U/l	174	148	200	13.00	26.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	45	36	54	4.50	9.00	Tris buffer with P5P 37°C
	U/l	46	37	55	4.50	9.00	Tris buffer without P5P 37°C
	U/l	44	35	53	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	95	81	109	7.00	14.00	Siemens - blocked pNPG7 37°C
	U/l	92	78	106	7.00	14.00	Siemens - maltopenta/hexaoside 37°C
	U/l	95	80	110	7.50	15.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	42	34	50	4.00	8.00	Tris buffer with P5P 37°C
	U/l	45	36	54	4.50	9.00	Tris buffer without P5P 37°C
	U/l	43	34	52	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	13.5	10.7	16.3	1.40	2.80	Enzymatic
Bilirubin Direct	µmol/l	13.6	10.8	16.4	1.40	2.80	Diazo with Sulphanilic Acid
	mg/dl	0.796	0.632	0.960	0.08	0.16	
	µmol/l	13.1	10.4	15.8	1.35	2.70	Diazo/Sulphanilic Siemens Dimension
	mg/dl	0.766	0.608	0.924	0.08	0.16	
Bilirubin Total	µmol/l	28.8	22.7	34.9	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.68	1.33	2.03	0.18	0.35	

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	μmol/l	28.5	22.5	34.5	3.00	6.00	Oxidation to Biliverdin/Vanadate
	mg/dl	1.67	1.32	2.02	0.18	0.35	
Calcium	mmol/l	2.13	1.92	2.34	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.54	7.70	9.38	0.42	0.84	
	mmol/l	2.09	1.89	2.29	0.10	0.20	Arsenazo III
	mg/dl	8.38	7.58	9.18	0.40	0.80	
Cholesterol	mmol/l	3.69	3.21	4.17	0.24	0.48	Cholesterol Oxidase - Abell Kendall
	mg/dl	142	124	160	9.00	18.00	
	mmol/l	3.71	3.23	4.19	0.24	0.48	Dimension-Siemens reagents
	mg/dl	143	125	161	9.00	18.00	
Chloride	mmol/l	95.3	87.7	103	3.80	7.60	ISE indirect
Cholinesterase	U/l	9780	7824	10000	978.00	1956.00	Colorimetric - Butyrythiochol. Dimension 37°C
CK Total	U/l	192	158	226	17.00	34.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	147	117	177	15.00	30.00	Alkaline picrate with deproteinization
	mg/dl	1.66	1.32	2.00	0.17	0.34	
	μmol/l	143	114	172	14.50	29.00	Alkaline picrate no deproteinization
	mg/dl	1.62	1.29	1.95	0.17	0.33	
	μmol/l	140	112	168	14.00	28.00	Enzymatic UV method
	mg/dl	1.58	1.27	1.89	0.16	0.31	
	μmol/l	142	113	171	14.50	29.00	Creatinine PAP method
	mg/dl	1.60	1.28	1.92	0.16	0.32	
	μmol/l	145	116	174	14.50	29.00	Jaffe rate blanked
	mg/dl	1.64	1.31	1.97	0.17	0.33	
	μmol/l	143	115	171	14.00	28.00	IDMS traceable
	mg/dl	1.62	1.30	1.94	0.16	0.32	

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Free T4	pmol/l	19.2	14.4	24.0	2.40	4.80	Siemens Dimension Exl LOCI
	ng/dl	1.50	1.12	1.88	0.19	0.38	
	pg/ml	15.0	11.2	18.8	1.90	3.80	Siemens Dimension Exl LOCI
gamma-GT	U/l	58	50	66	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	67	57	77	5.00	10.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.29	5.34	7.24	0.48	0.95	Hexokinase
	mg/dl	113	96.2	130	8.40	16.80	
	mmol/l	6.26	5.32	7.20	0.47	0.94	Oxygen electrode
	mg/dl	113	95.9	130	8.55	17.10	
	mmol/l	6.34	5.39	7.29	0.48	0.95	Glucose oxidase
	mg/dl	114	97.1	131	8.45	16.90	
HDL - Cholesterol	mmol/l	1.45	1.23	1.67	0.11	0.22	Direct HDL PPD
	mg/dl	56.0	47.5	64.5	4.25	8.50	
	mmol/l	1.43	1.21	1.65	0.11	0.22	Direct HDL PEGME
	mg/dl	55.2	46.7	63.7	4.25	8.50	
	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	17.9	14.7	21.1	1.60	3.20	Colorimetric with ppt.
	µg/dl	100	82.2	118	8.90	17.80	
	µmol/l	17.9	14.7	21.1	1.60	3.20	Colorimetric without ppt.
	µg/dl	100	82.2	118	8.90	17.80	
Lactate	mmol/l	1.53	1.26	1.80	0.14	0.27	UV LDH
	mg/dl	13.8	11.4	16.2	1.20	2.40	
LD (LDH)	U/l	195	166	224	14.50	29.00	Siemens Dimension L-P Non IFCC 37°C

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	197	167	227	15.00	30.00	L->P IFCC 37°C
Magnesium	mmol/l	0.96	0.84	1.07	0.06	0.12	Xylidyl Blue
	mg/dl	2.32	2.04	2.60	0.14	0.28	
	mmol/l	0.96	0.85	1.08	0.06	0.12	Methylthymol blue
	mg/dl	2.34	2.06	2.62	0.14	0.28	
Osmolality	mOsm/kg	287	230	344	28.50	57.00	Calculated
Phosphate Inorganic	mmol/l	1.58	1.34	1.82	0.12	0.24	Phosphomolybdate enzymatic
	mg/dl	4.90	4.15	5.65	0.38	0.75	
	mmol/l	1.58	1.34	1.82	0.12	0.24	Phosphomolybdate UV
	mg/dl	4.90	4.15	5.65	0.38	0.75	
Potassium	mmol/l	3.94	3.62	4.26	0.16	0.32	ISE method - indirect
Protein Total	g/l	60.1	48.1	72.1	6.00	12.00	Biuret reaction end point
	g/dl	6.01	4.81	7.21	0.60	1.20	
	g/l	61.3	49.0	73.6	6.15	12.30	Biuret reaction kinetic
	g/dl	6.13	4.90	7.36	0.62	1.23	
PSA Total	ng/ml =	10.5	7.90	13.1	1.30	2.60	Siemens Dimension
Sodium	mmol/l	143	135	151	4.00	8.00	ISE method - indirect
Thyroid Stimulating Hormone	μU/ml =	1.33	1.06	1.60	0.14	0.27	Siemens Dimension Exl LOCI
TIBC	μmol/l	40.6	32.0	49.2	4.30	8.60	Removal of excess free iron
	μg/dl	227	179	275	24.00	48.00	
	μmol/l	40.3	31.9	48.7	4.20	8.40	FE+UIBC(saturation with iron)
	μg/dl	225	178	272	23.50	47.00	
	μmol/l	39.1	30.9	47.3	4.10	8.20	Direct Colorimetric
	μg/dl	219	173	265	23.00	46.00	
Triglycerides	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	78.9	109	7.45	14.90	

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.06	0.89	1.23	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	93.8	78.5	109	7.65	15.30	
	mmol/l	1.08	0.91	1.26	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	95.6	80.1	111	7.75	15.50	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.91	5.14	6.68	0.39	0.77	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.06	5.28	6.84	0.39	0.78	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.90	5.12	6.68	0.39	0.78	
Urea	mmol/l	0.35	0.31	0.40	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.88	5.12	6.64	0.38	0.76	
	mmol/l	7.47	6.35	8.59	0.56	1.12	Urease end point
	mg/dl	44.9	38.2	51.6	3.35	6.70	
	mmol/l	7.55	6.42	8.68	0.57	1.13	Urease kinetic
	mg/dl	45.4	38.6	52.2	3.40	6.80	
	mmol/l	7.55	6.42	8.68	0.57	1.13	BUN
	mg/dl	21.2	18.0	24.4	1.60	3.20	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

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	
	g/l	42.1	35.8	48.4	3.15	6.30	Bromocresol Purple
	g/dl	4.21	3.58	4.84	0.32	0.63	
Alkaline Phosphatase	U/l	171	145	197	13.00	26.00	Siemens Dimension AMP buffer 37°C
	U/l	171	145	197	13.00	26.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	45	36	54	4.50	9.00	Tris buffer with P5P 37°C
	U/l	45	36	54	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	96	82	110	7.00	14.00	Siemens - maltopenta/hexaoside 37°C
	U/l	95	81	109	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	43	35	51	4.00	8.00	Tris buffer with P5P 37°C
	U/l	37	29	45	4.00	8.00	Tris buffer without P5P 37°C
	U/l	43	34	52	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	14.3	11.3	17.3	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	13.6	10.8	16.4	1.40	2.80	Diazo with Sulphanilic Acid
	mg/dl	0.796	0.632	0.960	0.08	0.16	
	µmol/l	13.1	10.3	15.9	1.40	2.80	Diazo/Sulphanilic Siemens Dimension
	mg/dl	0.766	0.603	0.929	0.08	0.16	
Bilirubin Total	µmol/l	28.8	22.8	34.8	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.68	1.33	2.03	0.18	0.35	
Calcium	mmol/l	2.13	1.92	2.34	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.54	7.70	9.38	0.42	0.84	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	3.73	3.25	4.21	0.24	0.48	Cholesterol Oxidase - Abell Kendall
	mg/dl	144	125	163	9.50	19.00	
	mmol/l	3.70	3.22	4.18	0.24	0.48	Dimension-Siemens reagents
	mg/dl	143	124	162	9.50	19.00	
Chloride	mmol/l	95.1	87.5	103	3.80	7.60	ISE indirect
Cholinesterase	U/l	9655	7724	10000	965.50	1931.00	Colorimetric - Butyrythiochol. Dimension 37°C
CK Total	U/l	194	159	229	17.50	35.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	143	114	172	14.50	29.00	Alkaline picrate no deproteinization
	mg/dl	1.62	1.29	1.95	0.17	0.33	
	μmol/l	140	112	168	14.00	28.00	Creatinine PAP method
	mg/dl	1.58	1.27	1.89	0.16	0.31	
	μmol/l	142	114	170	14.00	28.00	Jaffe rate blanked
	mg/dl	1.60	1.29	1.91	0.16	0.31	
	μmol/l	145	116	174	14.50	29.00	IDMS traceable
	mg/dl	1.64	1.31	1.97	0.17	0.33	
gamma-GT	U/l	59	51	67	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	64	55	73	4.50	9.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.34	5.39	7.29	0.48	0.95	Glucose dehydrogenase
	mg/dl	114	97.1	131	8.45	16.90	
	mmol/l	6.30	5.36	7.24	0.47	0.94	Hexokinase
	mg/dl	114	96.6	131	8.70	17.40	
	mmol/l	6.21	5.28	7.14	0.47	0.93	Glucose oxidase
	mg/dl	112	95.1	129	8.45	16.90	
HDL - Cholesterol	mmol/l	1.41	1.20	1.62	0.11	0.21	Direct HDL PPD
	mg/dl	54.4	46.3	62.5	4.05	8.10	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

		Range					
Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.42	1.21	1.63	0.11	0.21	Direct HDL PEGME
	mg/dl	54.8	46.7	62.9	4.05	8.10	
	mmol/l	1.42	1.21	1.63	0.11	0.21	Direct Clearance Method
	mg/dl	54.8	46.7	62.9	4.05	8.10	
	mmol/l	1.50	1.27	1.73	0.12	0.23	HDL - Ultra
	mg/dl	57.9	49.0	66.8	4.45	8.90	
Iron	µmol/l	18.0	14.7	21.3	1.65	3.30	Colorimetric with ppt.
	µg/dl	101	82.2	120	9.40	18.80	
	µmol/l	17.9	14.7	21.1	1.60	3.20	Colorimetric without ppt.
	µg/dl	100	82.2	118	8.90	17.80	
Lactate	mmol/l	1.57	1.28	1.86	0.15	0.29	UV LDH
	mg/dl	14.1	11.5	16.7	1.30	2.60	
LD (LDH)	U/l	203	172	234	15.50	31.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	200	170	230	15.00	30.00	L->P IFCC 37°C
Lithium	mmol/l	1.04	0.91	1.17	0.06	0.13	Spectrophotometric
	mg/dl	0.722	0.634	0.810	0.04	0.09	
Magnesium	mmol/l	0.97	0.85	1.08	0.06	0.12	Methylthymol blue
	mg/dl	2.35	2.07	2.63	0.14	0.28	
Phosphate Inorganic	mmol/l	1.57	1.33	1.81	0.12	0.24	Phosphomolybdate enzymatic
	mg/dl	4.87	4.12	5.62	0.38	0.75	
	mmol/l	1.56	1.33	1.79	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.84	4.12	5.56	0.36	0.72	
Potassium	mmol/l	3.91	3.60	4.22	0.16	0.31	ISE method - indirect
Protein Total	g/l	59.9	47.9	71.9	6.00	12.00	Biuret reaction end point
	g/dl	5.99	4.79	7.19	0.60	1.20	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Sodium	mmol/l	142	134	150	4.00	8.00	ISE method - indirect
TIBC	μmol/l	40.3	31.8	48.8	4.25	8.50	Removal of excess free iron
	μg/dl	225	178	272	23.50	47.00	
	μmol/l	40.4	31.9	48.9	4.25	8.50	FE+UIBC(saturation with iron)
	μg/dl	226	178	274	24.00	48.00	
	μmol/l	39.8	31.4	48.2	4.20	8.40	Direct Colorimetric
	μg/dl	222	176	268	23.00	46.00	
Triglycerides	mmol/l	1.04	0.88	1.20	0.08	0.16	Lipase/GPO-PAP no correction
	mg/dl	92.0	77.6	106	7.20	14.40	
	mmol/l	1.05	0.88	1.22	0.08	0.17	L/G Kinase EP. no correction
	mg/dl	92.9	78.2	108	7.35	14.70	
Uric Acid (Urate)	mmol/l	1.05	0.88	1.22	0.08	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	92.9	78.2	108	7.35	14.70	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.88	5.12	6.64	0.38	0.76	
	mmol/l	0.34	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	0.35	0.31	0.40	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.90	5.14	6.66	0.38	0.76	
	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.88	5.11	6.65	0.39	0.77	

**SIEMENS DIMENSION RxL/Max/Xpand®**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1589UN Cat. No. HN1530 / HS2611

Size: 20 x 5ml / 5 x 5ml Expiry 2026-05-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.54	6.41	8.67	0.57	1.13	Urease kinetic
	mg/dl	45.3	38.5	52.1	3.40	6.80	
	mmol/l	7.54	6.41	8.67	0.57	1.13	BUN
	mg/dl	21.2	18.0	24.4	1.60	3.20	