

PRODUCT INFORMATION

HE1532

1318UE

Please note that for Human Assayed Multi-Sera Level 3 lot 1318UE,
AST (GOT) is stable for **4 days** at +2°C to +8°C.
AST (GOT) is also stable for 8 hours at +15°C to +25°C,
and 28 days when frozen once at –18°C to –24°C.

Please note that for Human Assayed Multi-Sera Level 3 lot 1318UE, 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

CCS INC235 / CCS INC120

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

CAT. NO. HE1532	GTIN: 05055273203608	SIZE 20 x 5ml
CAT. NO. HS2611	GTIN: 05055273203813	SIZE 5 x 5ml
LOT NO. 1318UE	EXPIRY: 2027-03-28	

INTENDED USE

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

DEVICE DESCRIPTION

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

SAFETY PRECAUTIONS AND WARNINGS

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

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

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

Health and Safety Data Sheets are available on request.

STORAGE AND STABILITY

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

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

LIMITATIONS

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

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

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

GLDH is stable for 2 days at 2 - 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.

AST (GOT) is stable for 4 days at +2°C to +8°C, 8 hours at +15°C to +25°C and 28 days when frozen once at -18°C to -24°C.

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

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

The control should not be used as a calibration material.

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

PREPARATION FOR USE

The Human Assayed Multi-sera is supplied lyophilised.

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

MATERIALS PROVIDED

Human Assayed Multi-sera - Level 3 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

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

EC	REP	Randox Teoranta, Meenmore, Dungloe, Donegal, F94 TV06, Ireland
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METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	30.4	25.9	34.9	2.25	4.50	Bromocresol Green
	g/dl	3.04	2.59	3.49	0.23	0.45	
	g/l	28.7	24.4	33.0	2.15	4.30	Bromocresol Purple
	g/dl	2.87	2.44	3.30	0.22	0.43	
	g/l	29.5	25.1	33.9	2.20	4.40	Ortho Vitros Microslide Systems
	g/dl	2.95	2.51	3.39	0.22	0.44	
g/l	30.3	25.8	34.8	2.25	4.50	Turbidimetric Assays	
g/dl	3.03	2.58	3.48	0.23	0.45		
Alkaline Phosphatase	U/l	304	259	349	22.50	45.00	Ortho Vitros Microslide Systems 37°C
	U/l	362	308	416	27.00	54.00	AMP optimised to IFCC 37°C
	U/l	282	240	324	21.00	42.00	AMP optimised to IFCC 30°C
	U/l	231	197	265	17.00	34.00	AMP optimised to IFCC 25°C
	U/l	361	307	415	27.00	54.00	AMP non-optimised 37°C
	U/l	281	239	323	21.00	42.00	AMP non-optimised 30°C
	U/l	231	196	266	17.50	35.00	AMP non-optimised 25°C
	U/l	346	295	397	25.50	51.00	Colorimetric 37°C
	U/l	270	230	310	20.00	40.00	Colorimetric 30°C
U/l	221	189	253	16.00	32.00	Colorimetric 25°C	
ALT (GPT)	U/l	142	113	171	14.50	29.00	Colorimetric 37°C
	U/l	105	84	126	10.50	21.00	Colorimetric 30°C
	U/l	80	64	96	8.00	16.00	Colorimetric 25°C

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
ALT (GPT)	U/l	152	122	182	15.00	30.00	Ortho Vitros Microslide Systems 37°C
	U/l	146	117	175	14.50	29.00	Tris buffer with P5P 37°C
	U/l	108	87	129	10.50	21.00	Tris buffer with P5P 30°C
	U/l	82	66	98	8.00	16.00	Tris buffer with P5P 25°C
	U/l	139	111	167	14.00	28.00	Tris buffer without P5P 37°C
	U/l	103	82	124	10.50	21.00	Tris buffer without P5P 30°C
	U/l	78	62	94	8.00	16.00	Tris buffer without P5P 25°C
	U/l	144	115	173	14.50	29.00	Phosphate buffer DGKC 37°C
	U/l	107	85	129	11.00	22.00	Phosphate buffer DGKC 30°C
	U/l	81	65	97	8.00	16.00	Phosphate buffer DGKC 25°C
	U/l	140	112	168	14.00	28.00	Tris buffer with P5P NVKC 37°C
	U/l	104	83	125	10.50	21.00	Tris buffer with P5P NVKC 30°C
	U/l	79	63	95	8.00	16.00	Tris buffer with P5P NVKC 25°C
	U/l	152	121	183	15.50	31.00	Ortho Vitros MicroSlide visible 37°C
	U/l	134	107	161	13.50	27.00	Tris buffer SCE 37°C
U/l	99	79	119	10.00	20.00	Tris buffer SCE 30°C	
U/l	75	60	90	7.50	15.00	Tris buffer SCE 25°C	
Amylase Pancreatic	U/l	257	218	296	19.50	39.00	Immunoinhibition EPS substrate 37°C
	U/l	249	211	287	19.00	38.00	Roche EPS Liquid 37°C
	U/l	288	245	331	21.50	43.00	Randox Liquid Ethylidene pNPG7 37°C
Amylase Total	U/l	299	254	344	22.50	45.00	pNP Maltotriose substrates 37°C
	U/l	310	263	357	23.50	47.00	Siemens - blocked pNPG7 37°C
	U/l	295	251	339	22.00	44.00	Randox Lyo. Ethylidene pNPG7 37°C
	U/l	310	264	356	23.00	46.00	Randox Liquid Ethylidene pNPG7 37°C
	U/l	333	283	383	25.00	50.00	Siemens - maltopenta/hexaoxide 37°C

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Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Total	U/l	277	236	318	20.50	41.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	176	149	203	13.50	27.00	Ortho Vitros Microslide Systems 37°C
	U/l	275	234	316	20.50	41.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	273	232	314	20.50	41.00	Roche liquid stable pNPG7 37°C
	U/l	329	280	378	24.50	49.00	Siemens 2-chloro-pNPG3 37°C
	U/l	295	251	339	22.00	44.00	bioMerieux 2-chloro-pNPG3 37°C
	U/l	289	246	332	21.50	43.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	292	248	336	22.00	44.00	Beckman Synchron AMY7 37°C
	U/l	299	254	344	22.50	45.00	I.L. 2-chloro-pNPG3 37°C
	U/l	315	268	362	23.50	47.00	Abbott Architect / Alinity cal factor 3806 37°C
	U/l	307	261	353	23.00	46.00	Abbott Architect / Alinity cal factor 3431 37°C
	U/l	291	247	335	22.00	44.00	Beckman CNPG3 (Extinction Coeff) 37°C
	U/l	275	233	317	21.00	42.00	BM/Roche Colorimetric pNPG7 37°C
	U/l	301	256	346	22.50	45.00	Abbott - blocked pNPG7 37°C
	U/l	304	258	350	23.00	46.00	Abbott Alinity Amylase 2 37°C
U/l	304	259	349	22.50	45.00	Abbott Architect 37°C	
Apolipoprotein A-1	g/l	1.14	0.94	1.35	0.10	0.21	Immunoturbidimetric
	mg/dl	114	93.5	135	10.25	20.50	
Apolipoprotein B	g/l	0.70	0.58	0.83	0.06	0.13	Immunoturbidimetric
	mg/dl	70.3	57.6	83.0	6.35	12.70	
AST (GOT)	U/l	136	109	163	13.50	27.00	Colorimetric 37°C
	U/l	92	74	110	9.00	18.00	Colorimetric 30°C
	U/l	65	52	78	6.50	13.00	Colorimetric 25°C
	U/l	172	138	206	17.00	34.00	Ortho Vitros Microslide visible slide 37°C
	U/l	155	124	186	15.50	31.00	Tris buffer with P5P 37°C
	U/l	105	84	126	10.50	21.00	Tris buffer with P5P 30°C
	U/l	74	59	89	7.50	15.00	Tris buffer with P5P 25°C

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
AST (GOT)	U/l	132	105	159	13.50	27.00	Tris buffer without P5P 37°C
	U/l	89	71	107	9.00	18.00	Tris buffer without P5P 30°C
	U/l	63	50	76	6.50	13.00	Tris buffer without P5P 25°C
	U/l	137	109	165	14.00	28.00	Phosphate buffer DGKC 37°C
	U/l	93	74	112	9.50	19.00	Phosphate buffer DGKC 30°C
	U/l	65	52	78	6.50	13.00	Phosphate buffer DGKC 25°C
	U/l	131	105	157	13.00	26.00	Tris buffer SCE 37°C
	U/l	89	71	107	9.00	18.00	Tris buffer SCE 30°C
	U/l	62	50	74	6.00	12.00	Tris buffer SCE 25°C
Bile Acids	µmol/l	40.2	32.2	48.2	4.00	8.00	4th Generation Colorimetric
	µmol/l	41.8	33.4	50.2	4.20	8.40	5th Generation Colorimetric
Bicarbonate	mmol/l	18.5	14.7	22.3	1.90	3.80	Colorimetric
	mmol/l	21.1	16.7	25.5	2.20	4.40	Ortho Vitros Microslide Systems
	mmol/l	19.2	15.3	23.1	1.95	3.90	Enzymatic
Bilirubin Direct	µmol/l	27.2	21.5	32.9	2.85	5.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.59	1.26	1.92	0.17	0.33	
	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	
	µmol/l	29.4	23.2	35.6	3.10	6.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.72	1.36	2.08	0.18	0.36	
	µmol/l	30.1	23.8	36.4	3.15	6.30	Oxidation to Biliverdin/Vanadate
	mg/dl	1.76	1.39	2.13	0.19	0.37	
	µmol/l	33.2	26.2	40.2	3.50	7.00	Modified Jendrassik
	mg/dl	1.94	1.53	2.35	0.21	0.41	

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ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	74.3	58.7	89.9	7.80	15.60	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	4.35	3.43	5.27	0.46	0.92	
	µmol/l	83.0	65.5	101	8.75	17.50	Diazo with Dichloroaniline (DCA)
	mg/dl	4.86	3.83	5.89	0.52	1.03	
	µmol/l	80.8	63.8	97.8	8.50	17.00	Diazo with Sulphanilic Acid
	mg/dl	4.73	3.73	5.73	0.50	1.00	
	µmol/l	77.2	61.0	93.4	8.10	16.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.52	3.57	5.47	0.48	0.95	
	µmol/l	77.9	61.5	94.3	8.20	16.40	Nitrobenzenediazonium salt
	mg/dl	4.56	3.60	5.52	0.48	0.96	
	µmol/l	76.2	60.2	92.2	8.00	16.00	Diazonium ion
	mg/dl	4.46	3.52	5.40	0.47	0.94	
	µmol/l	89.3	70.6	108	9.35	18.70	Oxidation to Biliverdin/Vanadate
	mg/dl	5.22	4.13	6.31	0.55	1.09	
µmol/l	91.1	72.0	110	9.55	19.10	Modified Jendrassik	
mg/dl	5.33	4.21	6.45	0.56	1.12		
Calcium	mmol/l	3.77	3.39	4.15	0.19	0.38	Cresolphthalein complexone
	mg/dl	15.1	13.6	16.6	0.75	1.50	
	mmol/l	3.66	3.29	4.03	0.19	0.37	Ortho Vitros Microslide Systems
	mg/dl	14.7	13.2	16.2	0.75	1.50	
	mmol/l	3.73	3.36	4.10	0.19	0.37	Methylthymol blue
	mg/dl	14.9	13.5	16.3	0.70	1.40	
	mmol/l	3.82	3.44	4.20	0.19	0.38	Arsenazo III
	mg/dl	15.3	13.8	16.8	0.75	1.50	

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Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Calcium	mmol/l	3.78	3.40	4.16	0.19	0.38	Phosphonazo
	mg/dl	15.2	13.6	16.8	0.80	1.60	
	mmol/l	3.90	3.51	4.29	0.20	0.39	NM-BAPTA
	mg/dl	15.6	14.1	17.1	0.75	1.50	
Cholesterol	mmol/l	6.99	6.08	7.90	0.46	0.91	Ortho Vitros Microslide Systems
	mg/dl	270	235	305	17.50	35.00	
	mmol/l	7.36	6.40	8.32	0.48	0.96	Cholesterol Oxidase - Abell Kendall
	mg/dl	284	247	321	18.50	37.00	
	mmol/l	7.40	6.43	8.37	0.49	0.97	Cholesterol Oxidase - IDMS
	mg/dl	286	248	324	19.00	38.00	
	mmol/l	7.37	6.41	8.33	0.48	0.96	Cholesterol Dehydrogenase
	mg/dl	284	247	321	18.50	37.00	
Chloride	mmol/l	111	106	116	2.50	5.00	Colorimetric
	mmol/l	115	109	121	3.00	6.00	Ortho Vitros Microslide Systems
	mmol/l	113	107	119	3.00	6.00	ISE indirect
	mmol/l	114	108	120	3.00	6.00	ISE direct
Cholinesterase	U/l	5437	4349	6525	544.00	1088.00	Colorimetric Butyrylthiocholine 37°C
	U/l	5218	4174	6262	522.00	1044.00	Ortho Vitros Microslide Systems 37°C
	U/l	9332	7465	11198	933.50	1867.00	Colorimetric - Butyrythiochol. Dimension 37°C
CK Total	U/l	390	320	460	35.00	70.00	Ortho Vitros Microslide Systems 37°C
	U/l	514	421	607	46.50	93.00	CK-NAC serum start (DGKC) 37°C
	U/l	322	264	380	29.00	58.00	CK-NAC serum start (DGKC) 30°C
	U/l	218	179	257	19.50	39.00	CK-NAC serum start (DGKC) 25°C
	U/l	511	419	603	46.00	92.00	CK-NAC substrate start (DGKC) 37°C
	U/l	320	262	378	29.00	58.00	CK-NAC substrate start (DGKC) 30°C
	U/l	217	178	256	19.50	39.00	CK-NAC substrate start (DGKC) 25°C

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Range

Analyte	unit	Target	low	high	1SD	2SD	methods
CK Total	U/l	510	418	602	46.00	92.00	CK-NAC (IFCC) 37°C
	U/l	319	262	376	28.50	57.00	CK-NAC (IFCC) 30°C
	U/l	217	178	256	19.50	39.00	CK-NAC (IFCC) 25°C
	U/l	558	458	658	50.00	100.00	Monothioglycerol 37°C
	U/l	349	287	411	31.00	62.00	Monothioglycerol 30°C
	U/l	237	195	279	21.00	42.00	Monothioglycerol 25°C
Copper	µmol/l	24.7	19.7	29.7	2.50	5.00	Atomic absorption
	µg/dl	157	125	189	16.00	32.00	
	µmol/l	24.0	19.2	28.8	2.40	4.80	Colorimetric
	µg/dl	153	122	184	15.50	31.00	
Cortisol	nmol/l	985	739	1231	123.00	246.00	Roche Cobas e402/e801
	µg/dl	35.5	26.6	44.4	4.45	8.90	
Creatinine	µmol/l	356	284	428	36.00	72.00	Alkaline picrate with deproteinization
	mg/dl	4.02	3.21	4.83	0.41	0.81	
	µmol/l	357	286	428	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	4.03	3.23	4.83	0.40	0.80	
	µmol/l	374	299	449	37.50	75.00	Enzymatic UV method
	mg/dl	4.23	3.38	5.08	0.43	0.85	
	µmol/l	372	298	446	37.00	74.00	Creatinine PAP method
	mg/dl	4.20	3.37	5.03	0.42	0.83	
	µmol/l	346	277	415	34.50	69.00	Jaffe rate blanked
	mg/dl	3.91	3.13	4.69	0.39	0.78	
	µmol/l	366	293	439	36.50	73.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.14	3.31	4.97	0.42	0.83	

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Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	µmol/l	374	299	449	37.50	75.00	Vitros DT60/DT60 II/DTSC II
	mg/dl	4.23	3.38	5.08	0.43	0.85	
	µmol/l	355	284	426	35.50	71.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.01	3.21	4.81	0.40	0.80	
	µmol/l	370	296	444	37.00	74.00	Vitros IDMS Traceable
	mg/dl	4.18	3.34	5.02	0.42	0.84	
D-3-Hydroxybutyrate	mmol/l	1.14	0.97	1.31	0.09	0.17	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	2.99	2.39	3.59	0.30	0.60	Immunoturbidimetric
	ng/ml	2.34	1.87	2.81	0.24	0.47	
Folate	nmol/l	5.49	4.17	6.81	0.66	1.32	Roche Cobas e402/e801
	ng/ml	2.42	1.84	3.00	0.29	0.58	
Free T4	pmol/l	49.0	36.7	61.3	6.15	12.30	Abbott Architect
	ng/dl	3.82	2.86	4.78	0.48	0.96	
	pg/ml	38.2	28.6	47.8	4.80	9.60	Abbott Architect
	pmol/l	66.6	49.9	83.3	8.35	16.70	
	ng/dl	5.19	3.89	6.49	0.65	1.30	Siemens Centaur XP/XPT/Classic
	pg/ml	51.9	38.9	64.9	6.50	13.00	
	pmol/l	72.4	54.3	90.5	9.05	18.10	Siemens Immulite 2000/2500
	ng/dl	5.65	4.24	7.06	0.71	1.41	
	pg/ml	56.5	42.4	70.6	7.05	14.10	Siemens Immulite 2000/2500
	pmol/l	75.5	56.6	94.4	9.45	18.90	
	ng/dl	5.89	4.41	7.37	0.74	1.48	Siemens Immulite 1000
	pg/ml	58.9	44.1	73.7	7.40	14.80	
	pmol/l	65.7	49.3	82.1	8.20	16.40	Beckman Dxl800
	ng/dl	5.12	3.85	6.39	0.64	1.27	
pg/ml	51.2	38.5	63.9	6.35	12.70	Beckman Dxl800	

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Free T4	pmol/l	62.1	46.6	77.6	7.75	15.50	Beckman Access
	ng/dl	4.84	3.63	6.05	0.61	1.21	
	pg/ml	48.4	36.3	60.5	6.05	12.10	Beckman Access
	pmol/l	80.6	60.5	101	10.05	20.10	Tosoh Series
	ng/dl	6.29	4.72	7.86	0.79	1.57	
	pg/ml	62.9	47.2	78.6	7.85	15.70	Tosoh Series
	pmol/l	92.8	69.6	116	11.60	23.20	Vitros ECi
	ng/dl	7.24	5.43	9.05	0.91	1.81	
	pg/ml	72.4	54.3	90.5	9.05	18.10	Vitros ECi
	pmol/l	77.2	57.9	96.5	9.65	19.30	Roche Cobas 4000/E411
	ng/dl	6.02	4.52	7.52	0.75	1.50	
	pg/ml	60.2	45.2	75.2	7.50	15.00	Roche Cobas 4000/E411
	pmol/l	76.8	57.6	96.0	9.60	19.20	Roche Cobas e601/602
	ng/dl	5.99	4.49	7.49	0.75	1.50	
	pg/ml	59.9	44.9	74.9	7.50	15.00	Roche Cobas e601/602
	pmol/l	76.7	57.6	95.8	9.55	19.10	Biomerieux Vidas FT4N Kit
	ng/dl	5.98	4.49	7.47	0.75	1.49	
	pg/ml	59.8	44.9	74.7	7.45	14.90	Biomerieux Vidas FT4N Kit
	pmol/l	81.0	60.8	101	10.10	20.20	Siemens Dimension Exl LOCI
	ng/dl	6.32	4.74	7.90	0.79	1.58	
	pg/ml	63.2	47.4	79.0	7.90	15.80	Siemens Dimension Exl LOCI
	pmol/l	69.6	52.2	87.0	8.70	17.40	Siemens Centaur CP
	ng/dl	5.43	4.07	6.79	0.68	1.36	
	pg/ml	54.3	40.7	67.9	6.80	13.60	Siemens Centaur CP

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Free T4	pmol/l	55.6	41.7	69.5	6.95	13.90	Mindray CL 8000i/6000i/2000i/1200i/1000i
	ng/dl	4.34	3.25	5.43	0.55	1.09	
	pg/ml	43.4	32.5	54.3	5.45	10.90	Mindray CL 8000i/6000i/2000i/1200i/1000i
	pmol/l	79.0	59.2	98.8	9.90	19.80	Roche Cobas e402/e801
	ng/dl	6.16	4.62	7.70	0.77	1.54	
	pg/ml	61.6	46.2	77.0	7.70	15.40	Roche Cobas e402/e801
Gentamicin	µmol/l	19.0	15.2	22.8	1.90	3.80	Gravimetric
	µg/ml	9.08	7.27	10.9	0.91	1.81	
gamma-GT	U/l	172	146	198	13.00	26.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	136	115	157	10.50	21.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	106	90	122	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	201	171	231	15.00	30.00	Ortho Vitros Microslide Systems 37°C
	U/l	173	147	199	13.00	26.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	136	116	156	10.00	20.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	107	91	123	8.00	16.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	179	152	206	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	141	120	162	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	110	94	126	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	187	159	215	14.00	28.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	147	125	169	11.00	22.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	115	98	132	8.50	17.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	34	26	41	3.75	7.50	Triethanolamine buffer 50 mmol 37°C
	U/l	26	20	32	3.00	6.00	Triethanolamine buffer 50 mmol 30°C
	U/l	21	16	26	2.50	5.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	15.1	12.8	17.4	1.15	2.30	Ortho Vitros Microslide Systems
	mg/dl	272	231	313	20.50	41.00	

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Glucose dehydrogenase
	mg/dl	288	245	331	21.50	43.00	
	mmol/l	15.9	13.6	18.2	1.15	2.30	Hexokinase
	mg/dl	287	245	329	21.00	42.00	
	mmol/l	15.7	13.4	18.0	1.15	2.30	Oxygen electrode
	mg/dl	283	241	325	21.00	42.00	
	mmol/l	15.9	13.5	18.3	1.20	2.40	Glucose oxidase
	mg/dl	287	243	331	22.00	44.00	
alpha-HBDH	U/l	387	306	468	40.50	81.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	292	231	353	30.50	61.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	219	173	265	23.00	46.00	Oxobutyrate < 10 mmol/l 25°C
HDL - Cholesterol	mmol/l	2.67	2.27	3.07	0.20	0.40	Direct HDL PPD
	mg/dl	103	87.6	118	7.70	15.40	
	mmol/l	2.49	2.12	2.86	0.19	0.37	Direct HDL Immunoseparation
	mg/dl	96.1	81.8	110	7.15	14.30	
	mmol/l	2.51	2.14	2.88	0.19	0.37	Vitros Magnetic HDL
	mg/dl	96.9	82.6	111	7.15	14.30	
	mmol/l	2.43	2.07	2.79	0.18	0.36	Direct Clearance Method
	mg/dl	93.8	79.9	108	6.95	13.90	
	mmol/l	2.51	2.13	2.89	0.19	0.38	Vitros dHDL PTA/MgCl ₂ direct precipitation
	mg/dl	96.9	82.2	112	7.35	14.70	
	mmol/l	2.66	2.27	3.05	0.20	0.39	HDL - Ultra
	mg/dl	103	87.6	118	7.70	15.40	
	mmol/l	2.99	2.54	3.44	0.23	0.45	Direct HDL Roche 4th Generation
	mg/dl	115	98.0	132	8.50	17.00	

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
Immunoglobulin A	g/l	1.94	1.46	2.42	0.24	0.48	Immunoturbidimetric	
	mg/dl	194	146	242	24.00	48.00		
Immunoglobulin G	g/l	6.14	5.03	7.25	0.56	1.11	Immunoturbidimetric	
	mg/dl	614	503	725	55.50	111.00		
Immunoglobulin M	g/l	0.65	0.52	0.78	0.07	0.13	Immunoturbidimetric	
	mg/dl	65.1	52.1	78.1	6.50	13.00		
Iron	µmol/l	38.7	31.8	45.6	3.45	6.90	Colorimetric with ppt.	
	µg/dl	216	178	254	19.00	38.00		
	µmol/l	39.2	32.1	46.3	3.55	7.10	Colorimetric without ppt.	
	µg/dl	219	179	259	20.00	40.00		
	µmol/l	36.2	29.7	42.7	3.25	6.50	Ortho Vitros Microslide Systems	
	µg/dl	202	166	238	18.00	36.00		
	Lactate	mmol/l	5.98	4.90	7.06	0.54	1.08	Colorimetric Lactate Oxidase
		mg/dl	53.9	44.1	63.7	4.90	9.80	
mmol/l		5.50	4.51	6.49	0.50	0.99	Ortho Vitros Microslide Systems	
mg/dl		49.6	40.6	58.6	4.50	9.00		
mmol/l		6.05	4.96	7.14	0.55	1.09	Ion selective electrode	
mg/dl		54.5	44.7	64.3	4.90	9.80		
mmol/l		5.60	4.59	6.61	0.51	1.01	UV LDH	
mg/dl		50.5	41.4	59.6	4.55	9.10		
LD (LDH)	U/l	363	308	418	27.50	55.00	L->P 37°C	
	U/l	262	222	302	20.00	40.00	L->P 30°C	
	U/l	184	156	212	14.00	28.00	L->P 25°C	
	U/l	737	627	847	55.00	110.00	P->L Scandinavian & Dutch 37°C	
	U/l	532	453	611	39.50	79.00	P->L Scandinavian & Dutch 30°C	
	U/l	374	318	430	28.00	56.00	P->L Scandinavian & Dutch 25°C	

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	713	606	820	53.50	107.00	P->L German methods 37°C
	U/l	515	438	592	38.50	77.00	P->L German methods 30°C
	U/l	361	307	415	27.00	54.00	P->L German methods 25°C
	U/l	718	610	826	54.00	108.00	P->L SFBC 37°C
	U/l	518	440	596	39.00	78.00	P->L SFBC 30°C
	U/l	364	309	419	27.50	55.00	P->L SFBC 25°C
	U/l	364	310	418	27.00	54.00	L->P IFCC 37°C
	U/l	263	224	302	19.50	39.00	L->P IFCC 30°C
	U/l	185	157	213	14.00	28.00	L->P IFCC 25°C
Lipase	U/l	403	343	463	30.00	60.00	Ortho Vitros IFCC Traceable 37°C
	U/l	72	58	86	7.00	14.00	Other Colorimetric 37°C
	U/l	827	663	991	82.00	164.00	Ortho Vitros Microslide Systems 37°C
	U/l	77	61	93	8.00	16.00	Roche Colorimetric 37°C
Lithium	U/l	102	82	122	10.00	20.00	Randox Colorimetric 37°C
	mmol/l	2.41	2.12	2.70	0.15	0.29	Ortho Vitros Microslide Systems
	mg/dl	1.67	1.47	1.87	0.10	0.20	
	mmol/l	1.95	1.72	2.18	0.12	0.23	Flame photometry
	mg/dl	1.35	1.19	1.51	0.08	0.16	
	mmol/l	2.04	1.79	2.29	0.13	0.25	Ion selective electrode
Magnesium	mg/dl	1.42	1.24	1.60	0.09	0.18	
	mmol/l	2.01	1.77	2.25	0.12	0.24	Spectrophotometric
	mg/dl	1.40	1.23	1.57	0.09	0.17	
	mmol/l	2.00	1.76	2.24	0.12	0.24	Arsenazo III
	mg/dl	4.86	4.28	5.44	0.29	0.58	

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	2.03	1.79	2.27	0.12	0.24	Ortho Vitros Microslide Systems
	mg/dl	4.93	4.35	5.51	0.29	0.58	
	mmol/l	2.03	1.78	2.28	0.13	0.25	Atomic absorption
	mg/dl	4.93	4.33	5.53	0.30	0.60	
	mmol/l	1.88	1.65	2.11	0.12	0.23	Calmagite
	mg/dl	4.57	4.01	5.13	0.28	0.56	
	mmol/l	2.00	1.76	2.24	0.12	0.24	Xylidyl Blue
	mg/dl	4.86	4.28	5.44	0.29	0.58	
	mmol/l	2.03	1.78	2.28	0.13	0.25	Methylthymol blue
	mg/dl	4.93	4.33	5.53	0.30	0.60	
	mmol/l	2.02	1.78	2.26	0.12	0.24	Chlorphosphonazo III
	mg/dl	4.91	4.33	5.49	0.29	0.58	
	mmol/l	2.03	1.79	2.27	0.12	0.24	Enzymatic
	mg/dl	4.93	4.35	5.51	0.29	0.58	
NEFA	mmol/l	0.47	0.38	0.56	0.05	0.09	Colorimetric
Osmolality	mOsm/kg	346	277	415	34.50	69.00	Calculated
	mOsm/kg	373	299	447	37.00	74.00	Freezing point depression
Paracetamol	mmol/l	0.59	0.48	0.71	0.06	0.12	Gravimetric
	mg/l	90.0	72.0	108	9.00	18.00	
Phosphate Inorganic	mmol/l	2.16	1.84	2.48	0.16	0.32	Ortho Vitros Microslide Systems
	mg/dl	6.70	5.70	7.70	0.50	1.00	
	mmol/l	2.23	1.89	2.57	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	6.91	5.86	7.96	0.53	1.05	
	mmol/l	2.25	1.91	2.59	0.17	0.34	Phosphomolybdate UV
	mg/dl	6.98	5.92	8.04	0.53	1.06	

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Potassium	mmol/l	5.92	5.62	6.22	0.15	0.30	Ortho Vitros Microslide Systems
	mmol/l	6.18	5.87	6.49	0.16	0.31	Enzymatic
	mmol/l	5.63	5.35	5.91	0.14	0.28	Flame photometry
	mmol/l	5.90	5.61	6.19	0.15	0.29	ISE method - direct
	mmol/l	6.03	5.73	6.33	0.15	0.30	ISE method - indirect
	mmol/l	5.62	5.34	5.90	0.14	0.28	Colorimetric
Protein Total	g/l	47.8	38.3	57.3	4.75	9.50	Ortho Vitros Microslide Systems
	g/dl	4.78	3.83	5.73	0.48	0.95	
	g/l	46.8	37.4	56.2	4.70	9.40	Biuret reaction end point
	g/dl	4.68	3.74	5.62	0.47	0.94	
	g/l	45.6	36.5	54.7	4.55	9.10	Biuret reaction kinetic
	g/dl	4.56	3.65	5.47	0.46	0.91	
PSA Total	ng/ml =	15.3	11.5	19.1	1.90	3.80	Tosoh Series
	ng/ml =	23.8	17.8	29.8	3.00	6.00	Beckman Access standardised to Hybritech
	ng/ml =	20.2	15.2	25.2	2.50	5.00	bioMerieux VIDAS TPSA
	ng/ml =	16.1	12.1	20.1	2.00	4.00	Abbott Architect
	ng/ml =	20.1	15.1	25.1	2.50	5.00	Ortho Vitros ECi
	ng/ml =	19.9	14.9	24.9	2.50	5.00	Siemens Dimension
	ng/ml =	21.2	15.9	26.5	2.65	5.30	Cobas E411
	ng/ml =	20.9	15.7	26.1	2.60	5.20	Roche Cobas 6000/8000
Salicylate	mmol/l	0.87	0.70	1.04	0.09	0.17	Gravimetric
	mg/dl	12.0	9.60	14.4	1.20	2.40	
Sodium	mmol/l	154	146	162	4.00	8.00	Ortho Vitros Microslide Systems
	mmol/l	157	149	165	4.00	8.00	Enzymatic

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Sodium	mmol/l	156	148	164	4.00	8.00	Flame photometry
	mmol/l	155	147	163	4.00	8.00	ISE method - direct
	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
	mmol/l	151	143	159	4.00	8.00	Colorimetric
Theophylline	µmol/l	139	111	167	14.00	28.00	Gravimetric
	µg/ml	25.0	20.0	30.0	2.50	5.00	
Thyroid Stimulating Hormone	µU/ml =	1.05	0.84	1.26	0.10	0.21	Abbott Architect
	µU/ml =	1.45	1.16	1.74	0.15	0.29	bioMerieux VIDAS TSH
	µU/ml =	1.41	1.12	1.70	0.15	0.29	Siemens Immulite 1000
	µU/ml =	1.47	1.18	1.76	0.15	0.29	Roche Elecsys
	µU/ml =	1.29	1.03	1.55	0.13	0.26	Beckman Access Fast TSH
	µU/ml =	1.27	1.01	1.53	0.13	0.26	Beckman Access hyperTSH 3rd Generation
	µU/ml =	1.31	1.04	1.58	0.14	0.27	Tosoh Series
	µU/ml =	1.30	1.04	1.56	0.13	0.26	Vitros ECI
	µU/ml =	1.52	1.22	1.82	0.15	0.30	Roche Cobas 4000/E411
	µU/ml =	1.48	1.18	1.78	0.15	0.30	Roche Cobas e601/602
	µU/ml =	1.31	1.04	1.58	0.14	0.27	Monobind Inc. ELISA / CLIA
	µU/ml =	1.18	0.95	1.41	0.12	0.23	Siemens Dimension Exl LOCI
	µU/ml =	1.27	1.01	1.53	0.13	0.26	Beckman Dxl 600/800 Access (3rd IS)
	µU/ml =	1.46	1.17	1.75	0.15	0.29	Roche Cobas e402/e801
µU/ml =	1.23	0.98	1.48	0.12	0.25	Siemens Atellica IM	
TIBC	µmol/l	35.9	28.4	43.4	3.75	7.50	Ortho Vitros Microslide Systems
	µg/dl	201	159	243	21.00	42.00	
	µmol/l	37.8	29.8	45.8	4.00	8.00	Removal of excess free iron
	µg/dl	211	167	255	22.00	44.00	

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
TIBC	µmol/l	41.6	32.8	50.4	4.40	8.80	FE+UIBC(saturation with iron)
	µg/dl	233	183	283	25.00	50.00	
	µmol/l	39.0	30.8	47.2	4.10	8.20	Calculated from Transferrin
	µg/dl	218	172	264	23.00	46.00	
Tobramycin	µmol/l	15.6	12.5	18.7	1.55	3.10	Gravimetric
	µg/ml	7.30	5.85	8.75	0.73	1.45	
Total T3	nmol/l	2.51	1.88	3.14	0.32	0.63	Abbott Architect
	ng/ml	1.63	1.22	2.04	0.21	0.41	
	ng/dl	163	122	204	20.50	41.00	Abbott Architect
	nmol/l	3.08	2.31	3.85	0.39	0.77	BioMerieux Vidas
	ng/ml	2.01	1.50	2.52	0.26	0.51	
	ng/dl	201	150	252	25.50	51.00	BioMerieux Vidas
	nmol/l	3.59	2.69	4.49	0.45	0.90	Siemens Centaur XP/XPT/Classic
	ng/ml	2.34	1.75	2.93	0.30	0.59	
	ng/dl	234	175	293	29.50	59.00	Siemens Centaur XP/XPT/Classic
	nmol/l	2.91	2.18	3.64	0.37	0.73	Beckman Dxl800
	ng/ml	1.89	1.42	2.36	0.24	0.47	
	ng/dl	189	142	236	23.50	47.00	Beckman Dxl800
	nmol/l	3.65	2.74	4.56	0.46	0.91	Roche Elecsys
	ng/ml	2.38	1.78	2.98	0.30	0.60	
	ng/dl	238	178	298	30.00	60.00	Roche Elecsys
	nmol/l	3.12	2.34	3.90	0.39	0.78	Beckman Access
	ng/ml	2.03	1.52	2.54	0.26	0.51	
	ng/dl	203	152	254	25.50	51.00	Beckman Access
nmol/l	2.67	2.00	3.34	0.34	0.67	Tosoh Series	
ng/ml	1.74	1.30	2.18	0.22	0.44		
ng/dl	174	130	218	22.00	44.00	Tosoh Series	

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Total T3	nmol/l	4.28	3.21	5.35	0.54	1.07	Vitros ECi
	ng/ml	2.79	2.09	3.49	0.35	0.70	
	ng/dl	279	209	349	35.00	70.00	Vitros ECi
	nmol/l	3.55	2.66	4.44	0.45	0.89	Roche Cobas 4000/E411
	ng/ml	2.31	1.73	2.89	0.29	0.58	
	ng/dl	231	173	289	29.00	58.00	Roche Cobas 4000/E411
	nmol/l	3.51	2.63	4.39	0.44	0.88	Roche Cobas e601/602
	ng/ml	2.29	1.71	2.87	0.29	0.58	
	ng/dl	229	171	287	29.00	58.00	Roche Cobas e601/602
	nmol/l	3.67	2.75	4.59	0.46	0.92	Siemens Centaur CP
	ng/ml	2.39	1.79	2.99	0.30	0.60	
	ng/dl	239	179	299	30.00	60.00	Siemens Centaur CP
	nmol/l	3.68	2.76	4.60	0.46	0.92	Roche Cobas e402/e801
	ng/ml	2.40	1.80	3.00	0.30	0.60	
	ng/dl	240	180	300	30.00	60.00	Roche Cobas e402/e801
Total T4	nmol/l	234	176	292	29.00	58.00	Abbott Architect
	µg/dl	18.3	13.7	22.9	2.30	4.60	
	ng/ml	183	137	229	23.00	46.00	Abbott Architect
	nmol/l	216	162	270	27.00	54.00	BioMerieux Vidas
	µg/dl	16.8	12.6	21.0	2.10	4.20	
	ng/ml	168	126	210	21.00	42.00	BioMerieux Vidas
	nmol/l	254	190	318	32.00	64.00	Siemens Centaur XP/XPT/Classic
	µg/dl	19.8	14.8	24.8	2.50	5.00	
	ng/ml	198	148	248	25.00	50.00	Siemens Centaur XP/XPT/Classic

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Total T4	nmol/l	278	209	347	34.50	69.00	Beckman Access
	µg/dl	21.7	16.3	27.1	2.70	5.40	
	ng/ml	217	163	271	27.00	54.00	Beckman Access
	nmol/l	222	166	278	28.00	56.00	Tosoh Series
	µg/dl	17.3	12.9	21.7	2.20	4.40	
	ng/ml	173	129	217	22.00	44.00	Tosoh Series
	nmol/l	240	180	300	30.00	60.00	Vitros ECi
	µg/dl	18.7	14.0	23.4	2.35	4.70	
	ng/ml	187	140	234	23.50	47.00	Vitros ECi
	nmol/l	223	167	279	28.00	56.00	Roche Cobas 4000/E411
	µg/dl	17.4	13.0	21.8	2.20	4.40	
	ng/ml	174	130	218	22.00	44.00	Roche Cobas 4000/E411
	nmol/l	216	162	270	27.00	54.00	Roche Cobas e601/602
	µg/dl	16.8	12.6	21.0	2.10	4.20	
	ng/ml	168	126	210	21.00	42.00	Roche Cobas e601/602
	nmol/l	260	195	325	32.50	65.00	Siemens Centaur CP
	µg/dl	20.3	15.2	25.4	2.55	5.10	
	ng/ml	203	152	254	25.50	51.00	Siemens Centaur CP
nmol/l	208	156	260	26.00	52.00	Roche Cobas e402/e801	
µg/dl	16.2	12.2	20.2	2.00	4.00		
ng/ml	162	122	202	20.00	40.00	Roche Cobas e402/e801	
Transferrin	g/l	1.79	1.43	2.15	0.18	0.36	Immunoturbidimetric
	mg/dl	179	143	215	18.00	36.00	
Triglycerides	mmol/l	2.95	2.48	3.42	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	261	219	303	21.00	42.00	

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	2.94	2.47	3.41	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	260	219	301	20.50	41.00	
	mmol/l	2.97	2.50	3.44	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	263	221	305	21.00	42.00	
	mmol/l	2.97	2.49	3.45	0.24	0.48	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	263	220	306	21.50	43.00	
	mmol/l	2.97	2.50	3.44	0.24	0.47	Lipase/Glycerol Dehydrogenase
	mg/dl	263	221	305	21.00	42.00	
	mmol/l	3.49	2.93	4.05	0.28	0.56	Ortho Vitros Microslide Systems
	mg/dl	309	259	359	25.00	50.00	
Uric Acid (Urate)	mmol/l	0.52	0.45	0.58	0.03	0.07	Ortho Vitros Microslide Systems
	mg/dl	8.67	7.54	9.80	0.57	1.13	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase catalase 340nm
	mg/dl	9.11	7.93	10.3	0.59	1.18	
	mmol/l	0.56	0.49	0.63	0.04	0.07	Reduction methods
	mg/dl	9.37	8.15	10.6	0.61	1.22	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.19	8.00	10.4	0.60	1.19	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.11	7.93	10.3	0.59	1.18	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Spectrophotometric at 280-290
	mg/dl	9.07	7.90	10.2	0.59	1.17	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.04	7.86	10.2	0.59	1.18	

METHOD

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	18.7	15.9	21.5	1.40	2.80	Ortho Vitros Microslide Systems
	mg/dl	112	95.6	128	8.20	16.40	
	mmol/l	19.2	16.3	22.1	1.45	2.90	Urease end point
	mg/dl	115	98.0	132	8.50	17.00	
	mmol/l	19.3	16.4	22.2	1.45	2.90	Urease kinetic
	mg/dl	116	98.6	133	8.70	17.40	
	mmol/l	18.7	15.9	21.5	1.40	2.80	Urease hypochlorite
	mg/dl	112	95.6	128	8.20	16.40	
mmol/l	19.3	16.4	22.2	1.45	2.90	BUN	
mg/dl	54.2	46.1	62.3	4.05	8.10		
Vitamin B12	pmol/l	296	237	355	29.50	59.00	Roche Cobas e402/e801
	pg/ml	401	321	481	40.00	80.00	
Zinc	µmol/l	32.0	25.6	38.4	3.20	6.40	Atomic absorption
	µg/dl	209	167	251	21.00	42.00	
	µmol/l	32.0	25.6	38.4	3.20	6.40	Colorimetric with deproteinisation
	µg/dl	209	167	251	21.00	42.00	

Abbott Alinity/ Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	29.5	25.1	33.9	2.20	4.40	Bromocresol Green
	g/dl	2.95	2.51	3.39	0.22	0.44	
	g/l	28.6	24.3	32.9	2.15	4.30	Bromocresol Purple
	g/dl	2.86	2.43	3.29	0.22	0.43	
Alkaline Phosphatase	U/l	353	300	406	26.50	53.00	AMP optimised to IFCC 37°C
	U/l	352	299	405	26.50	53.00	AMP non-optimised 37°C
	U/l	345	293	397	26.00	52.00	Colorimetric 37°C
ALT (GPT)	U/l	137	110	164	13.50	27.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	251	214	288	18.50	37.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	314	267	361	23.50	47.00	Abbott Architect / Alinity cal factor 3806 37°C
	U/l	308	262	354	23.00	46.00	Abbott Architect / Alinity cal factor 3431 37°C
	U/l	312	265	359	23.50	47.00	Abbott - blocked pNPG7 37°C
AST (GOT)	U/l	125	100	150	12.50	25.00	Tris buffer without P5P 37°C
Bile Acids	µmol/l	44.2	35.4	53.0	4.40	8.80	Enzymatic Colorimetric
Bicarbonate	mmol/l	16.8	13.3	20.3	1.75	3.50	Enzymatic
Bilirubin Direct	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	31.0	24.5	37.5	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.81	1.43	2.19	0.19	0.38	
	µmol/l	31.4	24.8	38.0	3.30	6.60	Diazo with Dichloroaniline (DCA)
	mg/dl	1.84	1.45	2.23	0.20	0.39	

Abbott Alinity/ Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	85.2	67.3	103	8.95	17.90	Diazo with Dichloroaniline (DCA)
	mg/dl	4.98	3.94	6.02	0.52	1.04	
	µmol/l	86.4	68.2	105	9.10	18.20	Diazo with Sulphanilic Acid
	mg/dl	5.05	3.99	6.11	0.53	1.06	
Calcium	mmol/l	3.80	3.42	4.18	0.19	0.38	Cresolphthalein complexone
	mg/dl	15.2	13.7	16.7	0.75	1.50	
	mmol/l	3.83	3.45	4.21	0.19	0.38	Arsenazo III
	mg/dl	15.4	13.8	17.0	0.80	1.60	
Cholesterol	mmol/l	7.26	6.32	8.20	0.47	0.94	Cholesterol Oxidase - Abell Kendall
	mg/dl	280	244	316	18.00	36.00	
	mmol/l	7.36	6.40	8.32	0.48	0.96	Cholesterol Oxidase - IDMS
	mg/dl	284	247	321	18.50	37.00	
	mmol/l	7.41	6.45	8.37	0.48	0.96	Cholesterol Dehydrogenase
	mg/dl	286	249	323	18.50	37.00	
Chloride	mmol/l	114	108	120	3.00	6.00	ISE indirect
Cholinesterase	U/l	6165	4932	7398	616.50	1233.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	517	424	610	46.50	93.00	CK-NAC serum start (DGKC) 37°C
	U/l	522	428	616	47.00	94.00	CK-NAC substrate start (DGKC) 37°C
	U/l	520	427	613	46.50	93.00	CK-NAC (IFCC) 37°C
	U/l	525	431	619	47.00	94.00	Abbott CK-NAC (IFCC) 37°C
Creatinine	µmol/l	369	296	442	36.50	73.00	Alkaline picrate with deproteinization
	mg/dl	4.17	3.34	5.00	0.42	0.83	
	µmol/l	380	304	456	38.00	76.00	Alkaline picrate no deproteinization
	mg/dl	4.29	3.44	5.14	0.43	0.85	
	µmol/l	376	301	451	37.50	75.00	Enzymatic UV method
	mg/dl	4.25	3.40	5.10	0.43	0.85	

Abbott Alinity/ Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	µmol/l	393	315	471	39.00	78.00	IDMS traceable
	mg/dl	4.44	3.56	5.32	0.44	0.88	
gamma-GT	U/l	176	150	202	13.00	26.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	177	150	204	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	174	148	200	13.00	26.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Hexokinase
	mg/dl	288	245	331	21.50	43.00	
	mmol/l	16.1	13.6	18.6	1.25	2.50	Glucose oxidase
	mg/dl	290	245	335	22.50	45.00	
HDL - Cholesterol	mmol/l	2.71	2.30	3.12	0.21	0.41	Direct HDL PPD
	mg/dl	105	88.8	121	8.10	16.20	
	mmol/l	2.48	2.11	2.85	0.19	0.37	Direct HDL Immunoseparation
	mg/dl	95.7	81.4	110	7.15	14.30	
	mmol/l	2.71	2.30	3.12	0.21	0.41	Direct Clearance Method
	mg/dl	105	88.8	121	8.10	16.20	
	mmol/l	2.67	2.27	3.07	0.20	0.40	HDL - Ultra
	mg/dl	103	87.6	118	7.70	15.40	
Iron	µmol/l	41.7	34.2	49.2	3.75	7.50	Colorimetric with ppt.
	µg/dl	233	191	275	21.00	42.00	
	µmol/l	41.6	34.1	49.1	3.75	7.50	Colorimetric without ppt.
	µg/dl	233	191	275	21.00	42.00	
Lactate	mmol/l	6.32	5.18	7.46	0.57	1.14	Colorimetric Lactate Oxidase
	mg/dl	56.9	46.7	67.1	5.10	10.20	
LD (LDH)	U/l	358	304	412	27.00	54.00	L->P 37°C

Abbott Alinity/ Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	354	301	407	26.50	53.00	L->P IFCC 37°C
Lipase	U/l	68	54	82	7.00	14.00	Other Colorimetric 37°C
Lithium	mmol/l	1.98	1.75	2.21	0.12	0.23	Spectrophotometric
	mg/dl	1.37	1.22	1.52	0.08	0.15	
Magnesium	mmol/l	2.02	1.78	2.26	0.12	0.24	Arsenazo III
	mg/dl	4.91	4.33	5.49	0.29	0.58	
	mmol/l	1.97	1.73	2.21	0.12	0.24	Xylidyl Blue
	mg/dl	4.79	4.20	5.38	0.30	0.59	
Magnesium	mmol/l	2.02	1.78	2.26	0.12	0.24	Enzymatic
	mg/dl	4.91	4.33	5.49	0.29	0.58	
Osmolality	mOsm/kg	349	279	419	35.00	70.00	Calculated
Phosphate Inorganic	mmol/l	2.22	1.88	2.56	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	6.88	5.83	7.93	0.53	1.05	
	mmol/l	2.21	1.88	2.54	0.17	0.33	Phosphomolybdate UV
	mg/dl	6.85	5.83	7.87	0.51	1.02	
Potassium	mmol/l	6.01	5.71	6.31	0.15	0.30	ISE method - indirect
Protein Total	g/l	47.4	38.0	56.8	4.70	9.40	Biuret reaction end point
	g/dl	4.74	3.80	5.68	0.47	0.94	
	g/l	47.2	37.8	56.6	4.70	9.40	Biuret reaction kinetic
	g/dl	4.72	3.78	5.66	0.47	0.94	
PSA Total	ng/ml =	15.7	11.8	19.6	1.95	3.90	Abbott Architect
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.05	0.84	1.26	0.10	0.21	Abbott Architect
TIBC	µmol/l	45.4	35.9	54.9	4.75	9.50	FE+UIBC(saturation with iron)
	µg/dl	254	201	307	26.50	53.00	

Abbott Alinity/ Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	2.94	2.47	3.41	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	260	219	301	20.50	41.00	
	mmol/l	2.93	2.46	3.40	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	259	218	300	20.50	41.00	
	mmol/l	2.89	2.43	3.35	0.23	0.46	L/G Kinase EP. no correction
	mg/dl	256	215	297	20.50	41.00	
Uric Acid (Urate)	mmol/l	2.95	2.48	3.42	0.24	0.47	Lipase/Glycerol Dehydrogenase
	mg/dl	261	219	303	21.00	42.00	
	mmol/l	2.95	2.48	3.42	0.24	0.47	Abbott Architect 2000i
	mg/dl	261	219	303	21.00	42.00	
	mmol/l	0.54	0.47	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.14	7.95	10.3	0.60	1.19	
Urea	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.14	7.96	10.3	0.59	1.18	
	mmol/l	0.53	0.46	0.60	0.03	0.07	Spectrophotometric at 280-290
	mg/dl	8.90	7.74	10.1	0.58	1.16	
	mmol/l	0.54	0.47	0.61	0.03	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.02	7.86	10.2	0.58	1.16	
Urea	mmol/l	19.9	16.9	22.9	1.50	3.00	Urease end point
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	19.8	16.8	22.8	1.50	3.00	Urease kinetic
	mg/dl	119	101	137	9.00	18.00	
	mmol/l	19.8	16.8	22.8	1.50	3.00	BUN
	mg/dl	55.6	47.3	63.9	4.15	8.30	

ABX Pentra 400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	29.8	25.3	34.3	2.25	4.50	Bromocresol Green
	g/dl	2.98	2.53	3.43	0.23	0.45	
ALT (GPT)	U/l	149	119	179	15.00	30.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	149	120	178	14.50	29.00	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	28.9	22.9	34.9	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.69	1.34	2.04	0.18	0.35	
	µmol/l	28.9	22.8	35.0	3.05	6.10	Diazo with Dichloroaniline (DCA)
	mg/dl	1.69	1.33	2.05	0.18	0.36	
Bilirubin Total	µmol/l	90.3	71.4	109	9.45	18.90	Diazo with Dichloroaniline (DCA)
	mg/dl	5.28	4.18	6.38	0.55	1.10	
	µmol/l	90.4	71.4	109	9.50	19.00	Diazo with Sulphanilic Acid
	mg/dl	5.29	4.18	6.40	0.56	1.11	
Calcium	mmol/l	4.05	3.64	4.46	0.21	0.41	Arsenazo III
	mg/dl	16.2	14.6	17.8	0.80	1.60	
Cholesterol	mmol/l	7.60	6.62	8.58	0.49	0.98	Cholesterol Oxidase - Abell Kendall
	mg/dl	293	256	330	18.50	37.00	
Chloride	mmol/l	113	107	119	3.00	6.00	ISE direct
CK Total	U/l	510	418	602	46.00	92.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	345	276	414	34.50	69.00	Alkaline picrate no deproteinization
	mg/dl	3.90	3.12	4.68	0.39	0.78	
	µmol/l	342	274	410	34.00	68.00	Jaffe rate blanked
	mg/dl	3.86	3.10	4.62	0.38	0.76	


ABX Pentra 400®
ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
gamma-GT	U/l	175	148	202	13.50	27.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C	
	U/l	178	151	205	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C	
Glucose	mmol/l	16.2	13.8	18.6	1.20	2.40	Hexokinase	
	mg/dl	292	249	335	21.50	43.00		
	mmol/l	16.6	14.1	19.1	1.25	2.50	Glucose oxidase	
	mg/dl	299	254	344	22.50	45.00		
HDL - Cholesterol	mmol/l	2.76	2.35	3.17	0.21	0.41	Direct HDL PPD	
	mg/dl	107	90.7	123	8.15	16.30		
	mmol/l	2.81	2.39	3.23	0.21	0.42	Direct HDL PEGME	
	mg/dl	108	92.3	124	7.85	15.70		
	mmol/l	2.66	2.26	3.06	0.20	0.40	HDL - Ultra	
	mg/dl	103	87.2	119	7.90	15.80		
	Iron	µmol/l	38.8	31.8	45.8	3.50	7.00	Colorimetric with ppt.
		µg/dl	217	178	256	19.50	39.00	
µmol/l		40.1	32.9	47.3	3.60	7.20	Colorimetric without ppt.	
µg/dl		224	184	264	20.00	40.00		
LD (LDH)	U/l	386	328	444	29.00	58.00	L->P IFCC 37°C	
Lipase	U/l	68	55	81	6.50	13.00	Other Colorimetric 37°C	
Magnesium	mmol/l	1.92	1.69	2.15	0.12	0.23	Xylidyl Blue	
	mg/dl	4.67	4.11	5.23	0.28	0.56		
Phosphate Inorganic	mmol/l	2.61	2.22	3.00	0.20	0.39	Phosphomolybdate UV	
	mg/dl	8.09	6.88	9.30	0.61	1.21		
Potassium	mmol/l	5.75	5.47	6.03	0.14	0.28	ISE method - direct	
Protein Total	g/l	50.0	40.0	60.0	5.00	10.00	Biuret reaction end point	
	g/dl	5.00	4.00	6.00	0.50	1.00		

ABX Pentra 400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
Sodium	mmol/l	154	146	162	4.00	8.00	ISE method - direct	
Triglycerides	mmol/l	3.08	2.59	3.57	0.25	0.49	Lipase/GPO-PAP no correction	
	mg/dl	273	229	317	22.00	44.00		
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase	
	mg/dl	9.06	7.88	10.2	0.59	1.18		
	mmol/l	0.54	0.47	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase	
	mg/dl	9.14	7.95	10.3	0.60	1.19		
Urea	mmol/l	0.52	0.45	0.59	0.03	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm	
	mg/dl	8.75	7.61	9.89	0.57	1.14		
	Urea	mmol/l	18.1	15.4	20.8	1.35	2.70	Urease kinetic
		mg/dl	109	92.6	125	8.20	16.40	
Urea	mmol/l	18.1	15.4	20.8	1.35	2.70	BUN	
	mg/dl	50.8	43.2	58.4	3.80	7.60		



Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	29.2	24.9	33.5	2.15	4.30	Bromocresol Green
	g/dl	2.92	2.49	3.35	0.22	0.43	
	g/l	29.2	24.8	33.6	2.20	4.40	Bromocresol Purple
	g/dl	2.92	2.48	3.36	0.22	0.44	
Alkaline Phosphatase	U/l	398	339	457	29.50	59.00	AMP optimised to IFCC 37°C
	U/l	395	335	455	30.00	60.00	AMP non-optimised 37°C
ALT (GPT)	U/l	146	117	175	14.50	29.00	Colorimetric 37°C
	U/l	147	117	177	15.00	30.00	Tris buffer without P5P 37°C
	U/l	144	115	173	14.50	29.00	Beckman Mod. IFCC Ref. without P5P 37°C
	U/l	147	118	176	14.50	29.00	Beckman (Extinction Coefficient) 37°C
Amylase Pancreatic	U/l	249	212	286	18.50	37.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	285	242	328	21.50	43.00	pNP Maltotriose substrates 37°C
	U/l	293	249	337	22.00	44.00	Beckman Synchron CX4/CX5/CX7 37°C
	U/l	291	247	335	22.00	44.00	Beckman AS - dyed amylopectin 37°C
	U/l	289	246	332	21.50	43.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	291	247	335	22.00	44.00	Beckman Synchron AMY7 37°C
	U/l	291	248	334	21.50	43.00	Beckman CNPG3 (Extinction Coeff) 37°C
AST (GOT)	U/l	137	109	165	14.00	28.00	Colorimetric 37°C
	U/l	138	110	166	14.00	28.00	Tris buffer without P5P 37°C
	U/l	134	107	161	13.50	27.00	Tris buffer SCE 37°C
Bicarbonate	mmol/l	20.1	15.9	24.3	2.10	4.20	Enzymatic

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
Bilirubin Direct	µmol/l	23.4	18.5	28.3	2.45	4.90	Dichlorophenyl Diazonium (DPD)	
	mg/dl	1.37	1.08	1.66	0.15	0.29		
	µmol/l	30.6	24.2	37.0	3.20	6.40	Oxidation to Biliverdin/Vanadate	
	mg/dl	1.79	1.42	2.16	0.19	0.37		
	µmol/l	23.5	18.6	28.4	2.45	4.90	Diazo/ Sulphanilic Beckman DxC	
	mg/dl	1.37	1.09	1.65	0.14	0.28		
	Bilirubin Total	µmol/l	82.8	65.4	100	8.70	17.40	Diazo with Dichloroaniline (DCA)
		mg/dl	4.84	3.83	5.85	0.51	1.01	
µmol/l		85.1	67.2	103	8.95	17.90	Diazo with Sulphanilic Acid	
mg/dl		4.98	3.93	6.03	0.53	1.05		
µmol/l		83.9	66.3	102	8.80	17.60	Dichlorophenyl Diazonium (DPD)	
mg/dl		4.91	3.88	5.94	0.52	1.03		
µmol/l		84.8	67.0	103	8.90	17.80	Diazonium ion	
mg/dl		4.96	3.92	6.00	0.52	1.04		
µmol/l		89.6	70.8	108	9.40	18.80	Oxidation to Biliverdin/Vanadate	
mg/dl		5.24	4.14	6.34	0.55	1.10		
µmol/l		83.2	65.7	101	8.75	17.50	DPD (Beckman AU)	
mg/dl		4.87	3.84	5.90	0.52	1.03		
Calcium	mmol/l	3.82	3.44	4.20	0.19	0.38	Cresolphthalein complexone	
	mg/dl	15.3	13.8	16.8	0.75	1.50		
	mmol/l	3.88	3.49	4.27	0.20	0.39	Ion selective electrode	
	mg/dl	15.6	14.0	17.2	0.80	1.60		
	mmol/l	3.87	3.49	4.25	0.19	0.38	Arsenazo III	
	mg/dl	15.5	14.0	17.0	0.75	1.50		
	mmol/l	3.86	3.47	4.25	0.20	0.39	NM-BAPTA	
	mg/dl	15.5	13.9	17.1	0.80	1.60		



Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	7.43	6.46	8.40	0.49	0.97	Cholesterol Oxidase - Abell Kendall
	mg/dl	287	249	325	19.00	38.00	
	mmol/l	7.52	6.54	8.50	0.49	0.98	Cholesterol Oxidase - IDMS
	mg/dl	290	252	328	19.00	38.00	
	mmol/l	7.55	6.56	8.54	0.50	0.99	Cholesterol Dehydrogenase
	mg/dl	291	253	329	19.00	38.00	
Chloride	mmol/l	113	107	119	3.00	6.00	ISE indirect
Cholinesterase	U/l	5018	4015	6021	501.50	1003.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	552	452	652	50.00	100.00	CK-NAC (IFCC) 37°C
	U/l	561	460	662	50.50	101.00	Monothioglycerol 37°C
	U/l	543	445	641	49.00	98.00	Beckman CK-NAC (Extinction Coeff) 37°C
Copper	µmol/l	25.3	20.2	30.4	2.55	5.10	Colorimetric
	µg/dl	161	128	194	16.50	33.00	
Creatinine	µmol/l	354	283	425	35.50	71.00	Alkaline picrate with deproteinization
	mg/dl	4.00	3.20	4.80	0.40	0.80	
	µmol/l	352	281	423	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	3.98	3.18	4.78	0.40	0.80	
	µmol/l	367	294	440	36.50	73.00	Enzymatic UV method
	mg/dl	4.15	3.32	4.98	0.42	0.83	
	µmol/l	380	304	456	38.00	76.00	Creatinine PAP method
	mg/dl	4.29	3.44	5.14	0.43	0.85	
	µmol/l	347	277	417	35.00	70.00	Jaffe rate blanked
	mg/dl	3.92	3.13	4.71	0.40	0.79	
	µmol/l	358	287	429	35.50	71.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.05	3.24	4.86	0.41	0.81	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
Creatinine	µmol/l	352	282	422	35.00	70.00	Jaffe rate blanked compensated (-18 µmol/l)	
	mg/dl	3.98	3.19	4.77	0.40	0.79		
	µmol/l	361	289	433	36.00	72.00	IDMS traceable	
	mg/dl	4.08	3.27	4.89	0.41	0.81		
D-3-Hydroxybutyrate	mmol/l	1.17	1.00	1.34	0.09	0.17	Tris buffer 100mmol pH 8.5	
gamma-GT	U/l	175	149	201	13.00	26.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C	
	U/l	181	154	208	13.50	27.00	Gamma glutamyl-4-nitroanilide 37°C	
	U/l	181	153	209	14.00	28.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C	
	U/l	179	152	206	13.50	27.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C	
	U/l	178	152	204	13.00	26.00	Beckman Szasz (Extinction Coeff) 37°C	
Glucose	mmol/l	16.1	13.6	18.6	1.25	2.50	GOD/02-Beckman method	
	mg/dl	290	245	335	22.50	45.00		
	mmol/l	15.8	13.4	18.2	1.20	2.40	Glucose dehydrogenase	
	mg/dl	285	241	329	22.00	44.00		
	mmol/l	15.9	13.5	18.3	1.20	2.40	Hexokinase	
	mg/dl	287	243	331	22.00	44.00		
	mmol/l	16.1	13.7	18.5	1.20	2.40	Glucose oxidase	
	mg/dl	290	247	333	21.50	43.00		
	HDL - Cholesterol	mmol/l	2.53	2.15	2.91	0.19	0.38	Direct HDL PPD
		mg/dl	97.7	83.0	112	7.35	14.70	
mmol/l		2.51	2.13	2.89	0.19	0.38	Direct HDL Immunoseparation	
mg/dl		96.9	82.2	112	7.35	14.70		
mmol/l		2.37	2.01	2.73	0.18	0.36	Direct HDL PEGME	
mg/dl		91.5	77.6	105	6.95	13.90		

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	2.46	2.09	2.83	0.19	0.37	Direct Clearance Method
	mg/dl	95.0	80.7	109	7.15	14.30	
	mmol/l	2.56	2.18	2.94	0.19	0.38	HDL - Ultra
	mg/dl	98.8	84.1	114	7.35	14.70	
	mmol/l	2.73	2.32	3.14	0.21	0.41	Direct HDL Roche 4th Generation
	mg/dl	105	89.6	120	7.70	15.40	
Iron	µmol/l	39.6	32.5	46.7	3.55	7.10	Colorimetric with ppt.
	µg/dl	221	182	260	19.50	39.00	
	µmol/l	39.4	32.3	46.5	3.55	7.10	Colorimetric without ppt.
	µg/dl	220	181	259	19.50	39.00	
Lactate	mmol/l	5.88	4.82	6.94	0.53	1.06	Colorimetric Lactate Oxidase
	mg/dl	53.0	43.4	62.6	4.80	9.60	
LD (LDH)	U/l	369	314	424	27.50	55.00	L->P 37°C
	U/l	780	663	897	58.50	117.00	P->L Scandinavian & Dutch 37°C
	U/l	740	629	851	55.50	111.00	P->L German methods 37°C
	U/l	362	308	416	27.00	54.00	L->P IFCC 37°C
	U/l	370	314	426	28.00	56.00	L to P Beckman (Extinction Coeff) 37°C
Lipase	U/l	71	57	85	7.00	14.00	Other Colorimetric 37°C
Lithium	mmol/l	2.03	1.79	2.27	0.12	0.24	Spectrophotometric
	mg/dl	1.41	1.24	1.58	0.09	0.17	
Magnesium	mmol/l	1.95	1.72	2.18	0.12	0.23	Arsenazo III
	mg/dl	4.74	4.18	5.30	0.28	0.56	
	mmol/l	2.01	1.77	2.25	0.12	0.24	Calmagite
	mg/dl	4.88	4.30	5.46	0.29	0.58	
	mmol/l	2.01	1.77	2.25	0.12	0.24	Xylidyl Blue
	mg/dl	4.88	4.30	5.46	0.29	0.58	

Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	2.11	1.86	2.36	0.13	0.25	Methylthymol blue
	mg/dl	5.13	4.52	5.74	0.31	0.61	
Osmolality	mOsm/kg	356	285	427	35.50	71.00	Calculated
Phosphate Inorganic	mmol/l	2.22	1.89	2.55	0.17	0.33	Phosphomolybdate enzymatic
	mg/dl	6.88	5.86	7.90	0.51	1.02	
	mmol/l	2.25	1.91	2.59	0.17	0.34	Phosphomolybdate UV
	mg/dl	6.98	5.92	8.04	0.53	1.06	
Potassium	mmol/l	2.26	1.92	2.60	0.17	0.34	Beckman PHOSm (365nm)
	mg/dl	7.01	5.95	8.07	0.53	1.06	
Protein Total	mmol/l	6.00	5.70	6.30	0.15	0.30	ISE method - indirect
	g/l	45.3	36.2	54.4	4.55	9.10	Biuret reaction CX4/5/7
g/dl	4.53	3.62	5.44	0.46	0.91		
Sodium	g/l	45.8	36.6	55.0	4.60	9.20	Biuret reaction end point
	g/dl	4.58	3.66	5.50	0.46	0.92	
	g/l	45.5	36.4	54.6	4.55	9.10	Biuret reaction kinetic
	g/dl	4.55	3.64	5.46	0.46	0.91	
TIBC	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
	µmol/l	42.6	33.7	51.5	4.45	8.90	FE+UIBC(saturation with iron)
µg/dl	238	188	288	25.00	50.00		
Triglycerides	µmol/l	43.1	34.0	52.2	4.55	9.10	Direct Colorimetric
	µg/dl	241	190	292	25.50	51.00	
	µmol/l	36.9	29.1	44.7	3.90	7.80	Calculated from Transferrin
	µg/dl	206	163	249	21.50	43.00	
Triglycerides	mmol/l	2.95	2.48	3.42	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	261	219	303	21.00	42.00	



Beckman Coulter AU Series®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	2.91	2.44	3.38	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	258	216	300	21.00	42.00	
	mmol/l	2.97	2.50	3.44	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	263	221	305	21.00	42.00	
	mmol/l	2.91	2.45	3.37	0.23	0.46	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	258	217	299	20.50	41.00	
	mmol/l	2.96	2.49	3.43	0.24	0.47	Lipase/Glycerol Dehydrogenase
	mg/dl	262	220	304	21.00	42.00	
Uric Acid (Urate)	mmol/l	0.56	0.49	0.64	0.04	0.07	Reduction methods
	mg/dl	9.44	8.22	10.7	0.61	1.22	
	mmol/l	0.56	0.48	0.63	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.32	8.11	10.5	0.61	1.21	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.27	8.08	10.5	0.60	1.19	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Spectrophotometric at 280-290
	mg/dl	9.09	7.91	10.3	0.59	1.18	
Urea	mmol/l	19.5	16.6	22.4	1.45	2.90	Beckman-Conductivity
	mg/dl	117	99.8	134	8.60	17.20	
	mmol/l	19.3	16.4	22.2	1.45	2.90	Urease end point
	mg/dl	116	98.6	133	8.70	17.40	
	mmol/l	19.4	16.5	22.3	1.45	2.90	Urease kinetic
	mg/dl	117	99.2	135	8.90	17.80	

**Beckman Coulter AU Series®**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	19.4	16.5	22.3	1.45	2.90	Urease hypochlorite
	mg/dl	117	99.2	135	8.90	17.80	
	mmol/l	19.4	16.5	22.3	1.45	2.90	BUN
	mg/dl	54.4	46.2	62.6	4.10	8.20	
Zinc	µmol/l	30.9	24.7	37.1	3.10	6.20	Colorimetric with deproteinisation
	µg/dl	202	161	243	20.50	41.00	

Beckman DxC600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	29.6	25.2	34.0	2.20	4.40	Bromocresol Purple
	g/dl	2.96	2.52	3.40	0.22	0.44	
Alkaline Phosphatase	U/l	366	311	421	27.50	55.00	AMP optimised to IFCC 37°C
	U/l	369	314	424	27.50	55.00	AMP non-optimised 37°C
ALT (GPT)	U/l	136	109	163	13.50	27.00	Beckman Mod. IFCC Ref. without P5P 37°C
Amylase Total	U/l	294	250	338	22.00	44.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	128	103	153	12.50	25.00	Beckman Mod. IFCC Ref. without P5P 37°C
Bilirubin Total	µmol/l	82.3	65.0	99.6	8.65	17.30	Diazo with Sulphanilic Acid
	mg/dl	4.81	3.80	5.82	0.51	1.01	
Calcium	mmol/l	3.83	3.45	4.21	0.19	0.38	Ion selective electrode
	mg/dl	15.4	13.8	17.0	0.80	1.60	
Cholesterol	mmol/l	7.38	6.42	8.34	0.48	0.96	Cholesterol Oxidase - Abell Kendall
	mg/dl	285	248	322	18.50	37.00	
Chloride	mmol/l	114	108	120	3.00	6.00	ISE indirect
Cholinesterase	U/l	5382	4306	6458	538.00	1076.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	554	454	654	50.00	100.00	Monothioglycerol 37°C
Creatinine	µmol/l	357	286	428	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	4.03	3.23	4.83	0.40	0.80	
	µmol/l	375	300	450	37.50	75.00	Jaffe rate blanked
	mg/dl	4.24	3.39	5.09	0.43	0.85	
	µmol/l	371	297	445	37.00	74.00	IDMS traceable
	mg/dl	4.19	3.36	5.02	0.42	0.83	

Beckman DxC600/800®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	15.7	13.3	18.1	1.20	2.40	Hexokinase
	mg/dl	283	240	326	21.50	43.00	
HDL - Cholesterol	mmol/l	2.56	2.17	2.95	0.20	0.39	Direct HDL PPD
	mg/dl	98.8	83.8	114	7.50	15.00	
Iron	µmol/l	39.3	32.2	46.4	3.55	7.10	Colorimetric without ppt.
	µg/dl	220	180	260	20.00	40.00	
Lactate	mmol/l	5.72	4.69	6.75	0.52	1.03	Colorimetric Lactate Oxidase
	mg/dl	51.5	42.3	60.7	4.60	9.20	
LD (LDH)	U/l	308	261	355	23.50	47.00	L->P 37°C
Lipase	U/l	79	63	95	8.00	16.00	Other Colorimetric 37°C
Magnesium	mmol/l	1.96	1.73	2.19	0.12	0.23	Calmagite
	mg/dl	4.76	4.20	5.32	0.28	0.56	
Phosphate Inorganic	mmol/l	2.29	1.95	2.63	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.10	6.05	8.15	0.53	1.05	
Potassium	mmol/l	6.03	5.73	6.33	0.15	0.30	ISE method - indirect
Protein Total	g/l	46.2	37.0	55.4	4.60	9.20	Biuret reaction end point
	g/dl	4.62	3.70	5.54	0.46	0.92	
Sodium	mmol/l	157	149	165	4.00	8.00	ISE method - indirect
Triglycerides	mmol/l	3.09	2.59	3.59	0.25	0.50	Lipase/GPO-PAP no correction
	mg/dl	273	229	317	22.00	44.00	
	mmol/l	2.88	2.42	3.34	0.23	0.46	L/G Kinase EP. no correction
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.07	7.88	10.3	0.60	1.19	

**Beckman DxC600/800®**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	19.3	16.4	22.2	1.45	2.90	Beckman-Conductivity
	mg/dl	116	98.6	133	8.70	17.40	
	mmol/l	19.5	16.5	22.5	1.50	3.00	Urease kinetic
	mg/dl	117	99.2	135	8.90	17.80	
	mmol/l	19.5	16.6	22.4	1.45	2.90	BUN
	mg/dl	54.7	46.5	62.9	4.10	8.20	

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	31.7	26.9	36.5	2.40	4.80	Bromocresol Green
	g/dl	3.17	2.69	3.65	0.24	0.48	
Alkaline Phosphatase	U/l	362	308	416	27.00	54.00	AMP optimised to IFCC 37°C
	U/l	282	240	324	21.00	42.00	AMP optimised to IFCC 30°C
	U/l	231	197	265	17.00	34.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	145	116	174	14.50	29.00	Tris buffer without P5P 37°C
	U/l	107	86	128	10.50	21.00	Tris buffer without P5P 30°C
	U/l	82	65	99	8.50	17.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	140	112	168	14.00	28.00	Tris buffer without P5P 37°C
	U/l	95	76	114	9.50	19.00	Tris buffer without P5P 30°C
	U/l	67	53	81	7.00	14.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	83.1	65.7	101	8.70	17.40	Diazo with Sulphanilic Acid
	mg/dl	4.86	3.84	5.88	0.51	1.02	
	µmol/l	81.5	64.4	98.6	8.55	17.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.77	3.77	5.77	0.50	1.00	
Calcium	mmol/l	3.50	3.15	3.85	0.18	0.35	Arsenazo III
	mg/dl	14.0	12.6	15.4	0.70	1.40	
Cholesterol	mmol/l	7.47	6.50	8.44	0.49	0.97	Cholesterol Oxidase - Abell Kendall
	mg/dl	288	251	325	18.50	37.00	
	mmol/l	7.37	6.41	8.33	0.48	0.96	Cholesterol Oxidase - IDMS
	mg/dl	284	247	321	18.50	37.00	

BIOSYSTEMS A15

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	345	276	414	34.50	69.00	Alkaline picrate no deproteinization
	mg/dl	3.90	3.12	4.68	0.39	0.78	
	μmol/l	357	286	428	35.50	71.00	Jaffe rate blanked
	mg/dl	4.03	3.23	4.83	0.40	0.80	
gamma-GT	U/l	174	148	200	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	137	117	157	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	107	91	123	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.8	13.4	18.2	1.20	2.40	Glucose oxidase
	mg/dl	285	241	329	22.00	44.00	
Phosphate Inorganic	mmol/l	2.31	1.97	2.65	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.16	6.11	8.21	0.53	1.05	
Protein Total	g/l	49.2	39.4	59.0	4.90	9.80	Biuret reaction end point
	g/dl	4.92	3.94	5.90	0.49	0.98	
Triglycerides	mmol/l	2.92	2.45	3.39	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	258	217	299	20.50	41.00	
Uric Acid (Urate)	mmol/l	0.57	0.49	0.64	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.51	8.28	10.7	0.62	1.23	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.11	7.91	10.3	0.60	1.20	
	mmol/l	0.55	0.48	0.63	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.29	8.08	10.5	0.61	1.21	
Urea	mmol/l	17.0	14.4	19.6	1.30	2.60	Urease end point
	mg/dl	102	86.5	118	7.75	15.50	
	mmol/l	19.0	16.2	21.8	1.40	2.80	Urease kinetic
	mg/dl	114	97.4	131	8.30	16.60	

**BIOSYSTEMS A15**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	19.0	16.2	21.8	1.40	2.80	BUN
	mg/dl	53.3	45.3	61.3	4.00	8.00	

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	31.7	26.9	36.5	2.40	4.80	Bromocresol Green
	g/dl	3.17	2.69	3.65	0.24	0.48	
ALT (GPT)	U/l	151	121	181	15.00	30.00	Tris buffer without P5P 37°C
	U/l	112	90	134	11.00	22.00	Tris buffer without P5P 30°C
	U/l	85	68	102	8.50	17.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	143	114	172	14.50	29.00	Tris buffer without P5P 37°C
	U/l	97	77	117	10.00	20.00	Tris buffer without P5P 30°C
	U/l	68	54	82	7.00	14.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	81.4	64.3	98.5	8.55	17.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.76	3.76	5.76	0.50	1.00	
Cholesterol	mmol/l	7.47	6.50	8.44	0.49	0.97	Cholesterol Oxidase - Abell Kendall
	mg/dl	288	251	325	18.50	37.00	
	mmol/l	7.19	6.25	8.13	0.47	0.94	Cholesterol Oxidase - IDMS
	mg/dl	278	241	315	18.50	37.00	
Creatinine	µmol/l	361	289	433	36.00	72.00	Alkaline picrate no deproteinization
	mg/dl	4.08	3.27	4.89	0.41	0.81	
	µmol/l	347	278	416	34.50	69.00	Jaffe rate blanked
	mg/dl	3.92	3.14	4.70	0.39	0.78	
gamma-GT	U/l	180	153	207	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	142	121	163	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	111	94	128	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

BIOSYSTEMS A25

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
Glucose	mmol/l	15.8	13.4	18.2	1.20	2.40	Glucose oxidase	
	mg/dl	285	241	329	22.00	44.00		
HDL - Cholesterol	mmol/l	2.42	2.06	2.78	0.18	0.36	Direct Clearance Method	
	mg/dl	93.4	79.5	107	6.95	13.90		
Phosphate Inorganic	mmol/l	2.40	2.04	2.76	0.18	0.36	Phosphomolybdate UV	
	mg/dl	7.44	6.32	8.56	0.56	1.12		
Protein Total	g/l	49.2	39.3	59.1	4.95	9.90	Biuret reaction end point	
	g/dl	4.92	3.93	5.91	0.50	0.99		
Triglycerides	mmol/l	2.81	2.36	3.26	0.23	0.45	Lipase/GPO-PAP no correction	
	mg/dl	249	209	289	20.00	40.00		
	mmol/l	2.96	2.49	3.43	0.24	0.47	L/G Kinase EP. no correction	
	mg/dl	262	220	304	21.00	42.00		
	mmol/l	2.86	2.40	3.32	0.23	0.46	Lipase/Glycerol Dehydrogenase	
	mg/dl	253	212	294	20.50	41.00		
Uric Acid (Urate)	mmol/l	0.56	0.49	0.64	0.04	0.07	Uricase peroxidase with ascorbate oxidase	
	mg/dl	9.46	8.23	10.7	0.62	1.23		
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase	
	mg/dl	9.26	8.06	10.5	0.60	1.20		
	Urea	mmol/l	17.9	15.2	20.6	1.35	2.70	Urease kinetic
		mg/dl	108	91.4	125	8.30	16.60	
mmol/l		17.9	15.2	20.6	1.35	2.70	BUN	
mg/dl		50.2	42.7	57.7	3.75	7.50		

Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	30.7	26.1	35.3	2.30	4.60	Bromocresol Green
	g/dl	3.07	2.61	3.53	0.23	0.46	
Alkaline Phosphatase	U/l	365	310	420	27.50	55.00	AMP optimised to IFCC 37°C
	U/l	284	241	327	21.50	43.00	AMP optimised to IFCC 30°C
	U/l	233	198	268	17.50	35.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	140	112	168	14.00	28.00	Tris buffer without P5P 37°C
	U/l	104	83	125	10.50	21.00	Tris buffer without P5P 30°C
	U/l	79	63	95	8.00	16.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	134	107	161	13.50	27.00	Tris buffer without P5P 37°C
	U/l	91	72	110	9.50	19.00	Tris buffer without P5P 30°C
	U/l	64	51	77	6.50	13.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	31.0	24.5	37.5	3.25	6.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.81	1.43	2.19	0.19	0.38	
	µmol/l	27.4	21.6	33.2	2.90	5.80	Diazo with Sulphanilic Acid
	mg/dl	1.60	1.26	1.94	0.17	0.34	
	µmol/l	25.4	20.1	30.7	2.65	5.30	
mg/dl	1.49	1.18	1.80	0.16	0.31	Diazo with Dichloroaniline (DCA)	
Bilirubin Total	µmol/l	83.2	65.7	101	8.75	17.50	Diazo with Dichloroaniline (DCA)
	mg/dl	4.87	3.84	5.90	0.52	1.03	
	µmol/l	75.3	59.5	91.1	7.90	15.80	Diazo with Sulphanilic Acid
	mg/dl	4.41	3.48	5.34	0.47	0.93	

Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	76.5	60.4	92.6	8.05	16.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.48	3.53	5.43	0.48	0.95	
Calcium	mmol/l	3.82	3.44	4.20	0.19	0.38	Cresolphthalein complexone
	mg/dl	15.3	13.8	16.8	0.75	1.50	
	mmol/l	3.63	3.27	3.99	0.18	0.36	Arsenazo III
	mg/dl	14.5	13.1	15.9	0.70	1.40	
Cholesterol	mmol/l	7.35	6.39	8.31	0.48	0.96	Cholesterol Oxidase - Abell Kendall
	mg/dl	284	247	321	18.50	37.00	
	mmol/l	7.43	6.47	8.39	0.48	0.96	Cholesterol Oxidase - IDMS
	mg/dl	287	250	324	18.50	37.00	
Chloride	mmol/l	110	105	115	2.50	5.00	Colorimetric
Cholinesterase	U/l	5198	4158	6238	520.00	1040.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	518	425	611	46.50	93.00	CK-NAC (IFCC) 37°C
	U/l	324	266	382	29.00	58.00	CK-NAC (IFCC) 30°C
	U/l	220	181	259	19.50	39.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	349	280	418	34.50	69.00	Alkaline picrate no deproteinization
	mg/dl	3.94	3.16	4.72	0.39	0.78	
	µmol/l	398	319	477	39.50	79.00	Creatinine PAP method
	mg/dl	4.50	3.60	5.40	0.45	0.90	
	µmol/l	341	273	409	34.00	68.00	Jaffe rate blanked
	mg/dl	3.85	3.08	4.62	0.39	0.77	
gamma-GT	U/l	173	147	199	13.00	26.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	136	116	156	10.00	20.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	107	91	123	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	170	144	196	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	134	113	155	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	105	89	121	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	15.8	13.5	18.1	1.15	2.30	Glucose oxidase
	mg/dl	285	243	327	21.00	42.00	
HDL - Cholesterol	mmol/l	2.55	2.16	2.94	0.20	0.39	Direct HDL PPD
	mg/dl	98.4	83.4	113	7.50	15.00	
	mmol/l	2.56	2.18	2.94	0.19	0.38	Direct Clearance Method
	mg/dl	98.8	84.1	114	7.35	14.70	
Iron	µmol/l	35.9	29.5	42.3	3.20	6.40	Colorimetric with ppt.
	µg/dl	201	165	237	18.00	36.00	
LD (LDH)	U/l	631	536	726	47.50	95.00	P->L German methods 37°C
	U/l	456	387	525	34.50	69.00	P->L German methods 30°C
	U/l	320	272	368	24.00	48.00	P->L German methods 25°C
Phosphate Inorganic	mmol/l	2.39	2.04	2.74	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.41	6.32	8.50	0.55	1.09	
Potassium	mmol/l	6.09	5.78	6.40	0.16	0.31	ISE method - direct
Protein Total	g/l	50.9	40.7	61.1	5.10	10.20	Biuret reaction end point
	g/dl	5.09	4.07	6.11	0.51	1.02	
Sodium	mmol/l	157	150	164	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	2.91	2.45	3.37	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	258	217	299	20.50	41.00	
Uric Acid (Urate)	mmol/l	0.55	0.47	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.16	7.96	10.4	0.60	1.20	
	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
mg/dl	8.95	7.80	10.1	0.58	1.15		

**Biotechnica/Wiener BT and CB Series**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.11	7.93	10.3	0.59	1.18	
Urea	mmol/l	18.9	16.1	21.7	1.40	2.80	Urease kinetic
	mg/dl	114	96.8	131	8.60	17.20	
	mmol/l	18.9	16.1	21.7	1.40	2.80	BUN
	mg/dl	53.0	45.1	60.9	3.95	7.90	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	30.1	25.6	34.6	2.25	4.50	Bromocresol Purple
	g/dl	3.01	2.56	3.46	0.23	0.45	
	g/l	31.6	26.9	36.3	2.35	4.70	Turbidimetric Assays
	g/dl	3.16	2.69	3.63	0.24	0.47	
Alkaline Phosphatase	U/l	347	295	399	26.00	52.00	Roche Integra AMP buffer 37°C
	U/l	270	230	310	20.00	40.00	Roche Integra AMP buffer 30°C
	U/l	222	189	255	16.50	33.00	Roche Integra AMP buffer 25°C
	U/l	345	293	397	26.00	52.00	AMP optimised to IFCC 37°C
	U/l	269	228	310	20.50	41.00	AMP optimised to IFCC 30°C
	U/l	220	187	253	16.50	33.00	AMP optimised to IFCC 25°C
	U/l	343	291	395	26.00	52.00	Colorimetric 37°C
	U/l	267	227	307	20.00	40.00	Colorimetric 30°C
ALT (GPT)	U/l	132	106	158	13.00	26.00	Tris buffer without P5P 37°C
	U/l	98	78	118	10.00	20.00	Tris buffer without P5P 30°C
	U/l	74	60	88	7.00	14.00	Tris buffer without P5P 25°C
Amylase Total	U/l	281	239	323	21.00	42.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	281	239	323	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	126	101	151	12.50	25.00	Tris buffer without P5P 37°C
	U/l	85	68	102	8.50	17.00	Tris buffer without P5P 30°C
	U/l	60	48	72	6.00	12.00	Tris buffer without P5P 25°C

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bicarbonate	mmol/l	18.8	14.9	22.7	1.95	3.90	Enzymatic
	mmol/l	17.7	14.1	21.3	1.80	3.60	
Bilirubin Direct	µmol/l	31.7	25.0	38.4	3.35	6.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.85	1.46	2.24	0.20	0.39	
	µmol/l	31.9	25.2	38.6	3.35	6.70	Diazo with Sulphanilic Acid
	mg/dl	1.87	1.47	2.27	0.20	0.40	
	µmol/l	32.0	25.3	38.7	3.35	6.70	Roche DPD JG standardised
	mg/dl	1.87	1.48	2.26	0.20	0.39	
	µmol/l	31.0	24.5	37.5	3.25	6.50	Diazo with Dichloroaniline (DCA)
	mg/dl	1.81	1.43	2.19	0.19	0.38	
µmol/l	32.0	25.3	38.7	3.35	6.70	Roche DPD Dumas standardised	
mg/dl	1.87	1.48	2.26	0.20	0.39		
Bilirubin Total	µmol/l	75.3	59.5	91.1	7.90	15.80	Diazo with Dichloroaniline (DCA)
	mg/dl	4.41	3.48	5.34	0.47	0.93	
	µmol/l	76.2	60.2	92.2	8.00	16.00	Diazo with Sulphanilic Acid
	mg/dl	4.46	3.52	5.40	0.47	0.94	
	µmol/l	76.3	60.3	92.3	8.00	16.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.46	3.53	5.39	0.47	0.93	
	µmol/l	76.4	60.3	92.5	8.05	16.10	Diazonium ion
	mg/dl	4.47	3.53	5.41	0.47	0.94	
Calcium	mmol/l	3.89	3.50	4.28	0.20	0.39	Cresolphthalein complexone
	mg/dl	15.6	14.0	17.2	0.80	1.60	
	mmol/l	3.87	3.49	4.25	0.19	0.38	Arsenazo III
	mg/dl	15.5	14.0	17.0	0.75	1.50	
	mmol/l	3.92	3.53	4.31	0.20	0.39	NM-BAPTA
	mg/dl	15.7	14.1	17.3	0.80	1.60	


COBAS INTEGRA®
ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	7.30	6.35	8.25	0.48	0.95	Cholesterol Oxidase - Abell Kendall
	mg/dl	282	245	319	18.50	37.00	
	mmol/l	7.27	6.32	8.22	0.48	0.95	Cholesterol Oxidase - IDMS
	mg/dl	281	244	318	18.50	37.00	
Chloride	mmol/l	114	109	119	2.50	5.00	ISE indirect
CK Total	U/l	508	416	600	46.00	92.00	CK-NAC serum start (DGKC) 37°C
	U/l	318	260	376	29.00	58.00	CK-NAC serum start (DGKC) 30°C
	U/l	216	177	255	19.50	39.00	CK-NAC serum start (DGKC) 25°C
	U/l	505	414	596	45.50	91.00	CK-NAC substrate start (DGKC) 37°C
	U/l	316	259	373	28.50	57.00	CK-NAC substrate start (DGKC) 30°C
	U/l	215	176	254	19.50	39.00	CK-NAC substrate start (DGKC) 25°C
	U/l	508	416	600	46.00	92.00	CK-NAC (IFCC) 37°C
	U/l	318	260	376	29.00	58.00	CK-NAC (IFCC) 30°C
	U/l	216	177	255	19.50	39.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	351	281	421	35.00	70.00	Alkaline picrate with deproteinization
	mg/dl	3.97	3.18	4.76	0.40	0.79	
	µmol/l	365	292	438	36.50	73.00	Alkaline picrate no deproteinization
	mg/dl	4.12	3.30	4.94	0.41	0.82	
	µmol/l	377	302	452	37.50	75.00	Roche Creatinine Plus
	mg/dl	4.26	3.41	5.11	0.43	0.85	
	µmol/l	334	268	400	33.00	66.00	Jaffe rate blanked
	mg/dl	3.77	3.03	4.51	0.37	0.74	
	µmol/l	354	283	425	35.50	71.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.00	3.20	4.80	0.40	0.80	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	µmol/l	353	283	423	35.00	70.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	3.99	3.20	4.78	0.40	0.79	
	µmol/l	366	293	439	36.50	73.00	IDMS traceable
	mg/dl	4.14	3.31	4.97	0.42	0.83	
gamma-GT	U/l	176	149	203	13.50	27.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	139	117	161	11.00	22.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	109	92	126	8.50	17.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	183	155	211	14.00	28.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	144	122	166	11.00	22.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	113	96	130	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	16.3	13.8	18.8	1.25	2.50	Hexokinase
	mg/dl	294	249	339	22.50	45.00	
	mmol/l	16.2	13.7	18.7	1.25	2.50	Glucose oxidase
	mg/dl	292	247	337	22.50	45.00	
Iron	µmol/l	39.0	32.0	46.0	3.50	7.00	Colorimetric with ppt.
	µg/dl	218	179	257	19.50	39.00	
	µmol/l	39.6	32.5	46.7	3.55	7.10	Colorimetric without ppt.
	µg/dl	221	182	260	19.50	39.00	
LD (LDH)	U/l	374	318	430	28.00	56.00	L->P 37°C
	U/l	270	230	310	20.00	40.00	L->P 30°C
	U/l	190	161	219	14.50	29.00	L->P 25°C
	U/l	373	317	429	28.00	56.00	L->P IFCC 37°C
	U/l	269	229	309	20.00	40.00	L->P IFCC 30°C
	U/l	189	161	217	14.00	28.00	L->P IFCC 25°C
Lipase	U/l	72	58	86	7.00	14.00	Roche Colorimetric 37°C

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lithium	mmol/l	2.13	1.88	2.38	0.13	0.25	Ion selective electrode
	mg/dl	1.48	1.31	1.65	0.09	0.17	
Magnesium	mmol/l	1.96	1.73	2.19	0.12	0.23	Xylidyl Blue
	mg/dl	4.76	4.20	5.32	0.28	0.56	
	mmol/l	1.96	1.73	2.19	0.12	0.23	Chlorphosphonazo III
	mg/dl	4.76	4.20	5.32	0.28	0.56	
Phosphate Inorganic	mmol/l	2.27	1.93	2.61	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	7.04	5.98	8.10	0.53	1.06	
	mmol/l	2.29	1.94	2.64	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.10	6.01	8.19	0.55	1.09	
Potassium	mmol/l	6.04	5.74	6.34	0.15	0.30	ISE method - indirect
Protein Total	g/l	44.2	35.4	53.0	4.40	8.80	Biuret reaction end point
	g/dl	4.42	3.54	5.30	0.44	0.88	
	g/l	45.0	36.0	54.0	4.50	9.00	Biuret reaction kinetic
	g/dl	4.50	3.60	5.40	0.45	0.90	
Sodium	mmol/l	157	149	165	4.00	8.00	ISE method - indirect
TIBC	µmol/l	40.7	32.1	49.3	4.30	8.60	FE+UIBC(saturation with iron)
	µg/dl	228	179	277	24.50	49.00	
Triglycerides	mmol/l	3.03	2.55	3.51	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	268	226	310	21.00	42.00	
	mmol/l	2.95	2.48	3.42	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	261	219	303	21.00	42.00	
	mmol/l	2.96	2.48	3.44	0.24	0.48	L/G Kinase EP. no correction
	mg/dl	262	219	305	21.50	43.00	
	mmol/l	3.04	2.56	3.52	0.24	0.48	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	269	227	311	21.00	42.00	

COBAS INTEGRA®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
Triglycerides	mmol/l	3.03	2.55	3.51	0.24	0.48	Lipase/Glycerol Dehydrogenase	
	mg/dl	268	226	310	21.00	42.00		
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase	
	mg/dl	9.22	8.01	10.4	0.61	1.21		
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase	
	mg/dl	9.22	8.03	10.4	0.60	1.19		
Urea	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm	
	mg/dl	9.24	8.03	10.5	0.61	1.21		
	Urea	mmol/l	18.6	15.8	21.4	1.40	2.80	Urease end point
		mg/dl	112	95.0	129	8.50	17.00	
Urea	mmol/l	18.8	16.0	21.6	1.40	2.80	Urease kinetic	
	mg/dl	113	96.2	130	8.40	16.80		
Urea	mmol/l	18.8	16.0	21.6	1.40	2.80	BUN	
	mg/dl	52.8	44.9	60.7	3.95	7.90		

Elitech/Vitalab Selectra Series

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	31.2	26.5	35.9	2.35	4.70	Bromocresol Green
	g/dl	3.12	2.65	3.59	0.24	0.47	
ALT (GPT)	U/l	142	113	171	14.50	29.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	135	108	162	13.50	27.00	Tris buffer without P5P 37°C
Bilirubin Total	µmol/l	75.0	59.2	90.8	7.90	15.80	Diazo with Sulphanilic Acid
	mg/dl	4.39	3.46	5.32	0.47	0.93	
Calcium	mmol/l	3.79	3.41	4.17	0.19	0.38	Arsenazo III
	mg/dl	15.2	13.7	16.7	0.75	1.50	
Cholesterol	mmol/l	7.34	6.38	8.30	0.48	0.96	Cholesterol Oxidase - Abell Kendall
	mg/dl	283	246	320	18.50	37.00	
	mmol/l	7.45	6.48	8.42	0.49	0.97	Cholesterol Oxidase - IDMS
	mg/dl	288	250	326	19.00	38.00	
CK Total	U/l	534	437	631	48.50	97.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	357	286	428	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	4.03	3.23	4.83	0.40	0.80	
	µmol/l	368	295	441	36.50	73.00	Creatinine PAP method
	mg/dl	4.16	3.33	4.99	0.42	0.83	
	µmol/l	363	291	435	36.00	72.00	Jaffe rate blanked
	mg/dl	4.10	3.29	4.91	0.41	0.81	
gamma-GT	U/l	178	151	205	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	15.5	13.2	17.8	1.15	2.30	Hexokinase
	mg/dl	279	238	320	20.50	41.00	

Elitech/Vitalab Selectra Series

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Glucose oxidase
	mg/dl	288	245	331	21.50	43.00	
Iron	µmol/l	35.5	29.1	41.9	3.20	6.40	Colorimetric without ppt.
	µg/dl	198	163	233	17.50	35.00	
LD (LDH)	U/l	377	320	434	28.50	57.00	L->P IFCC 37°C
Phosphate Inorganic	mmol/l	2.33	1.98	2.68	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.22	6.14	8.30	0.54	1.08	
Protein Total	g/l	50.6	40.5	60.7	5.05	10.10	Biuret reaction end point
	g/dl	5.06	4.05	6.07	0.51	1.01	
Triglycerides	mmol/l	2.97	2.49	3.45	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	263	220	306	21.50	43.00	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.26	8.06	10.5	0.60	1.20	
	mmol/l	0.57	0.50	0.65	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.64	8.40	10.9	0.62	1.24	
Urea	mmol/l	18.9	16.1	21.7	1.40	2.80	Urease kinetic
	mg/dl	114	96.8	131	8.60	17.20	
	mmol/l	18.9	16.1	21.7	1.40	2.80	BUN
	mg/dl	53.0	45.1	60.9	3.95	7.90	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	30.2	25.7	34.7	2.25	4.50	Bromocresol Green
	g/dl	3.02	2.57	3.47	0.23	0.45	
ALT (GPT)	U/l	144	115	173	14.50	29.00	Tris buffer without P5P 37°C
	U/l	107	85	129	11.00	22.00	Tris buffer without P5P 30°C
	U/l	81	65	97	8.00	16.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	137	109	165	14.00	28.00	Tris buffer without P5P 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer without P5P 30°C
	U/l	65	52	78	6.50	13.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	27.4	21.6	33.2	2.90	5.80	Diazo with Sulphanilic Acid
	mg/dl	1.60	1.26	1.94	0.17	0.34	
	µmol/l	27.3	21.6	33.0	2.85	5.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.60	1.26	1.94	0.17	0.34	
Bilirubin Total	µmol/l	83.6	66.1	101	8.75	17.50	Diazo with Dichloroaniline (DCA)
	mg/dl	4.89	3.87	5.91	0.51	1.02	
	µmol/l	84.3	66.6	102	8.85	17.70	Diazo with Sulphanilic Acid
	mg/dl	4.93	3.90	5.96	0.52	1.03	
Calcium	mmol/l	3.97	3.57	4.37	0.20	0.40	Cresolphthalein complexone
	mg/dl	15.9	14.3	17.5	0.80	1.60	
	mmol/l	3.79	3.41	4.17	0.19	0.38	Arsenazo III
	mg/dl	15.2	13.7	16.7	0.75	1.50	
Cholesterol	mmol/l	7.38	6.42	8.34	0.48	0.96	Cholesterol Oxidase - Abell Kendall
	mg/dl	285	248	322	18.50	37.00	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	7.37	6.41	8.33	0.48	0.96	Cholesterol Oxidase - IDMS
	mg/dl	284	247	321	18.50	37.00	
	mmol/l	7.49	6.52	8.46	0.49	0.97	Cholesterol Dehydrogenase
	mg/dl	289	252	326	18.50	37.00	
Chloride	mmol/l	114	108	120	3.00	6.00	Colorimetric
	mmol/l	112	106	118	3.00	6.00	ISE indirect
CK Total	U/l	525	431	619	47.00	94.00	CK-NAC (IFCC) 37°C
	U/l	329	270	388	29.50	59.00	CK-NAC (IFCC) 30°C
	U/l	223	183	263	20.00	40.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	345	276	414	34.50	69.00	Alkaline picrate with deproteinization
	mg/dl	3.90	3.12	4.68	0.39	0.78	
	µmol/l	349	279	419	35.00	70.00	Alkaline picrate no deproteinization
	mg/dl	3.94	3.15	4.73	0.40	0.79	
	µmol/l	343	275	411	34.00	68.00	Jaffe rate blanked
	mg/dl	3.88	3.11	4.65	0.39	0.77	
gamma-GT	U/l	169	144	194	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	133	113	153	10.00	20.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	104	89	119	7.50	15.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	172	146	198	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	136	115	157	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	106	90	122	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Glucose oxidase
	mg/dl	288	245	331	21.50	43.00	
Iron	µmol/l	38.6	31.7	45.5	3.45	6.90	Colorimetric without ppt.
	µg/dl	216	177	255	19.50	39.00	

HITACHI SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
Lactate	mmol/l	5.67	4.65	6.69	0.51	1.02	Colorimetric Lactate Oxidase	
	mg/dl	51.1	41.9	60.3	4.60	9.20		
LD (LDH)	U/l	727	618	836	54.50	109.00	P->L German methods 37°C	
	U/l	525	446	604	39.50	79.00	P->L German methods 30°C	
	U/l	369	313	425	28.00	56.00	P->L German methods 25°C	
Phosphate Inorganic	mmol/l	2.38	2.02	2.74	0.18	0.36	Phosphomolybdate UV	
	mg/dl	7.38	6.26	8.50	0.56	1.12		
Potassium	mmol/l	6.08	5.78	6.38	0.15	0.30	ISE method - indirect	
Protein Total	g/l	46.8	37.4	56.2	4.70	9.40	Biuret reaction end point	
	g/dl	4.68	3.74	5.62	0.47	0.94		
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect	
Triglycerides	mmol/l	2.93	2.46	3.40	0.24	0.47	Lipase/GPO-PAP no correction	
	mg/dl	259	218	300	20.50	41.00		
	mmol/l	2.94	2.47	3.41	0.24	0.47	Lipase/Glycerol Dehydrogenase	
	mg/dl	260	219	301	20.50	41.00		
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase	
	mg/dl	9.14	7.96	10.3	0.59	1.18		
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase	
	mg/dl	9.02	7.85	10.2	0.59	1.17		
	mmol/l	0.54	0.47	0.60	0.03	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm	
	mg/dl	8.99	7.83	10.2	0.58	1.16		
	Urea	mmol/l	18.9	16.1	21.7	1.40	2.80	Urease end point
		mg/dl	114	96.8	131	8.60	17.20	
mmol/l		19.8	16.8	22.8	1.50	3.00	Urease kinetic	
mg/dl		119	101	137	9.00	18.00		

**HITACHI SERIES®**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	19.8	16.8	22.8	1.50	3.00	BUN
	mg/dl	55.6	47.3	63.9	4.15	8.30	

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	30.5	25.9	35.1	2.30	4.60	Bromocresol Green
	g/dl	3.05	2.59	3.51	0.23	0.46	
Alkaline Phosphatase	U/l	380	323	437	28.50	57.00	AMP optimised to IFCC 37°C
	U/l	296	252	340	22.00	44.00	AMP optimised to IFCC 30°C
	U/l	243	206	280	18.50	37.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	133	106	160	13.50	27.00	Tris buffer without P5P 37°C
	U/l	98	78	118	10.00	20.00	Tris buffer without P5P 30°C
	U/l	75	60	90	7.50	15.00	Tris buffer without P5P 25°C
Amylase Total	U/l	296	251	341	22.50	45.00	I.L. 2-chloro-pNPG3 37°C
AST (GOT)	U/l	123	98	148	12.50	25.00	Tris buffer without P5P 37°C
	U/l	83	66	100	8.50	17.00	Tris buffer without P5P 30°C
	U/l	59	47	71	6.00	12.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	81.9	64.7	99.1	8.60	17.20	Diazo with Sulphanilic Acid
	mg/dl	4.79	3.78	5.80	0.51	1.01	
	µmol/l	88.5	69.9	107	9.30	18.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.18	4.09	6.27	0.55	1.09	
Calcium	mmol/l	3.93	3.54	4.32	0.20	0.39	Cresolphthalein complexone
	mg/dl	15.8	14.2	17.4	0.80	1.60	
	mmol/l	3.99	3.60	4.38	0.20	0.39	Arsenazo III
	mg/dl	16.0	14.4	17.6	0.80	1.60	
Cholesterol	mmol/l	7.35	6.39	8.31	0.48	0.96	Cholesterol Oxidase - Abell Kendall
	mg/dl	284	247	321	18.50	37.00	


ILab 600®/650®/Aries/Taurus
ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	7.29	6.35	8.23	0.47	0.94	Cholesterol Oxidase - IDMS
	mg/dl	281	245	317	18.00	36.00	
Chloride	mmol/l	111	105	117	3.00	6.00	ISE indirect
Cholinesterase	U/l	5334	4267	6401	533.50	1067.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	506	415	597	45.50	91.00	CK-NAC (IFCC) 37°C
	U/l	317	260	374	28.50	57.00	CK-NAC (IFCC) 30°C
	U/l	215	176	254	19.50	39.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	383	307	459	38.00	76.00	Enzymatic UV method
	mg/dl	4.33	3.47	5.19	0.43	0.86	
	µmol/l	373	299	447	37.00	74.00	Creatinine PAP method
	mg/dl	4.21	3.38	5.04	0.42	0.83	
gamma-GT	µmol/l	377	301	453	38.00	76.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.26	3.40	5.12	0.43	0.86	
	U/l	167	142	192	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	132	112	152	10.00	20.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	103	88	118	7.50	15.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	172	146	198	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	136	115	157	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
Glucose	mmol/l	15.7	13.4	18.0	1.15	2.30	Glucose oxidase
	mg/dl	283	241	325	21.00	42.00	
HDL - Cholesterol	mmol/l	1.96	1.67	2.25	0.15	0.29	Direct HDL Immunoseparation
	mg/dl	75.7	64.5	86.9	5.60	11.20	
	mmol/l	2.67	2.27	3.07	0.20	0.40	HDL - Ultra
mg/dl	103	87.6	118	7.70	15.40		

ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	µmol/l	38.6	31.6	45.6	3.50	7.00	Colorimetric without ppt.
	µg/dl	216	177	255	19.50	39.00	
LD (LDH)	U/l	696	592	800	52.00	104.00	P->L German methods 37°C
	U/l	503	427	579	38.00	76.00	P->L German methods 30°C
	U/l	353	300	406	26.50	53.00	P->L German methods 25°C
	U/l	748	636	860	56.00	112.00	P->L SFBC 37°C
	U/l	540	459	621	40.50	81.00	P->L SFBC 30°C
	U/l	379	322	436	28.50	57.00	P->L SFBC 25°C
Lipase	U/l	76	61	91	7.50	15.00	Other Colorimetric 37°C
Magnesium	mmol/l	2.03	1.78	2.28	0.13	0.25	Enzymatic
	mg/dl	4.93	4.33	5.53	0.30	0.60	
Phosphate Inorganic	mmol/l	2.22	1.88	2.56	0.17	0.34	Phosphomolybdate UV
	mg/dl	6.88	5.83	7.93	0.53	1.05	
Potassium	mmol/l	6.03	5.73	6.33	0.15	0.30	ISE method - indirect
Protein Total	g/l	46.3	37.1	55.5	4.60	9.20	Biuret reaction end point
	g/dl	4.63	3.71	5.55	0.46	0.92	
Sodium	mmol/l	159	151	167	4.00	8.00	ISE method - indirect
Triglycerides	mmol/l	3.06	2.57	3.55	0.25	0.49	Lipase/GPO-PAP no correction
	mg/dl	271	227	315	22.00	44.00	
	mmol/l	3.05	2.56	3.54	0.25	0.49	L/G Kinase EP. no correction
	mg/dl	270	227	313	21.50	43.00	
Uric Acid (Urate)	mmol/l	0.52	0.45	0.58	0.03	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	8.65	7.53	9.77	0.56	1.12	
	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.95	7.80	10.1	0.58	1.15	

**ILab 600®/650®/Aries/Taurus**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	20.5	17.4	23.6	1.55	3.10	Urease end point
	mg/dl	123	105	141	9.00	18.00	
	mmol/l	19.8	16.8	22.8	1.50	3.00	Urease kinetic
	mg/dl	119	101	137	9.00	18.00	
	mmol/l	19.8	16.8	22.8	1.50	3.00	BUN
	mg/dl	55.6	47.3	63.9	4.15	8.30	

Konelab 20/30/60®/Thermo Scientific Indiko Plus ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	30.0	25.5	34.5	2.25	4.50	Bromocresol Green
	g/dl	3.00	2.55	3.45	0.23	0.45	
Alkaline Phosphatase	U/l	351	298	404	26.50	53.00	AMP optimised to IFCC 37°C
	U/l	273	232	314	20.50	41.00	AMP optimised to IFCC 30°C
	U/l	224	190	258	17.00	34.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	155	124	186	15.50	31.00	Colorimetric 37°C
	U/l	115	92	138	11.50	23.00	Colorimetric 30°C
	U/l	87	70	104	8.50	17.00	Colorimetric 25°C
	U/l	147	118	176	14.50	29.00	Tris buffer without P5P 37°C
	U/l	109	87	131	11.00	22.00	Tris buffer without P5P 30°C
	U/l	83	66	100	8.50	17.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	145	116	174	14.50	29.00	Tris buffer without P5P 37°C
	U/l	98	78	118	10.00	20.00	Tris buffer without P5P 30°C
	U/l	69	55	83	7.00	14.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	25.2	19.9	30.5	2.65	5.30	Diazo with Sulphanilic Acid
	mg/dl	1.47	1.16	1.78	0.16	0.31	
	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	
Bilirubin Total	µmol/l	82.3	65.1	99.5	8.60	17.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.81	3.81	5.81	0.50	1.00	
	µmol/l	79.2	62.6	95.8	8.30	16.60	Nitrobenzenediazonium salt
	mg/dl	4.63	3.66	5.60	0.49	0.97	


Konelab 20/30/60®/Thermo Scientific Indiko Plus ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Calcium	mmol/l	3.75	3.37	4.13	0.19	0.38	Arsenazo III
	mg/dl	15.0	13.5	16.5	0.75	1.50	
Cholesterol	mmol/l	7.31	6.36	8.26	0.48	0.95	Cholesterol Oxidase - Abell Kendall
	mg/dl	282	245	319	18.50	37.00	
	mmol/l	7.50	6.52	8.48	0.49	0.98	Cholesterol Oxidase - IDMS
	mg/dl	290	252	328	19.00	38.00	
Chloride	mmol/l	116	111	121	2.50	5.00	ISE direct
CK Total	U/l	497	407	587	45.00	90.00	CK-NAC (IFCC) 37°C
	U/l	311	255	367	28.00	56.00	CK-NAC (IFCC) 30°C
	U/l	211	173	249	19.00	38.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	370	296	444	37.00	74.00	Enzymatic UV method
	mg/dl	4.18	3.34	5.02	0.42	0.84	
	µmol/l	373	299	447	37.00	74.00	Creatinine PAP method
	mg/dl	4.21	3.38	5.04	0.42	0.83	
	µmol/l	352	281	423	35.50	71.00	Jaffe rate blanked
	mg/dl	3.98	3.18	4.78	0.40	0.80	
	µmol/l	334	267	401	33.50	67.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	3.77	3.02	4.52	0.38	0.75	
	µmol/l	310	248	372	31.00	62.00	IDMS traceable
	mg/dl	3.50	2.80	4.20	0.35	0.70	
gamma-GT	U/l	180	153	207	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	142	121	163	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	111	94	128	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	16.3	13.8	18.8	1.25	2.50	Hexokinase
	mg/dl	294	249	339	22.50	45.00	

Konelab 20/30/60®/Thermo Scientific Indiko Plus ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	15.9	13.5	18.3	1.20	2.40	Glucose oxidase
	mg/dl	287	243	331	22.00	44.00	
HDL - Cholesterol	mmol/l	2.82	2.40	3.24	0.21	0.42	Direct HDL PEGME
	mg/dl	109	92.6	125	8.20	16.40	
	mmol/l	2.57	2.18	2.96	0.20	0.39	Direct Clearance Method
	mg/dl	99.2	84.1	114	7.55	15.10	
Iron	µmol/l	40.6	33.3	47.9	3.65	7.30	Colorimetric without ppt.
	µg/dl	227	186	268	20.50	41.00	
LD (LDH)	U/l	376	320	432	28.00	56.00	L->P IFCC 37°C
	U/l	271	231	311	20.00	40.00	L->P IFCC 30°C
	U/l	191	162	220	14.50	29.00	L->P IFCC 25°C
Phosphate Inorganic	mmol/l	2.33	1.98	2.68	0.18	0.35	Phosphomolybdate enzymatic
	mg/dl	7.22	6.14	8.30	0.54	1.08	
	mmol/l	2.31	1.97	2.65	0.17	0.34	Phosphomolybdate UV
mg/dl	7.16	6.11	8.21	0.53	1.05		
Potassium	mmol/l	5.92	5.63	6.21	0.15	0.29	ISE method - direct
Protein Total	g/l	47.2	37.8	56.6	4.70	9.40	Biuret reaction end point
	g/dl	4.72	3.78	5.66	0.47	0.94	
Sodium	mmol/l	154	146	162	4.00	8.00	ISE method - direct
Triglycerides	mmol/l	3.09	2.60	3.58	0.25	0.49	Lipase/GPO-PAP no correction
	mg/dl	273	230	316	21.50	43.00	
	mmol/l	3.14	2.64	3.64	0.25	0.50	Lipase/Glycerol Dehydrogenase
	mg/dl	278	234	322	22.00	44.00	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.14	7.96	10.3	0.59	1.18	

**Konelab 20/30/60®/Thermo Scientific Indiko Plus ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)**

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.02	7.86	10.2	0.58	1.16	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.21	8.01	10.4	0.60	1.20	
Urea	mmol/l	19.0	16.1	21.9	1.45	2.90	Urease end point
	mg/dl	114	96.8	131	8.60	17.20	
	mmol/l	18.8	16.0	21.6	1.40	2.80	Urease kinetic
	mg/dl	113	96.2	130	8.40	16.80	
	mmol/l	18.8	16.0	21.6	1.40	2.80	BUN
	mg/dl	52.8	44.9	60.7	3.95	7.90	

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	29.9	25.4	34.4	2.25	4.50	Bromocresol Green
	g/dl	2.99	2.54	3.44	0.23	0.45	
	g/l	29.4	24.9	33.9	2.25	4.50	Bromocresol Purple
	g/dl	2.94	2.49	3.39	0.23	0.45	
Alkaline Phosphatase	U/l	384	326	442	29.00	58.00	AMP optimised to IFCC 37°C
	U/l	299	254	344	22.50	45.00	AMP optimised to IFCC 30°C
	U/l	245	208	282	18.50	37.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	148	118	178	15.00	30.00	Tris buffer without P5P 37°C
	U/l	110	87	133	11.50	23.00	Tris buffer without P5P 30°C
	U/l	83	66	100	8.50	17.00	Tris buffer without P5P 25°C
Amylase Total	U/l	303	258	348	22.50	45.00	pNP Maltotriose substrates 37°C
AST (GOT)	U/l	136	109	163	13.50	27.00	Colorimetric 37°C
	U/l	92	74	110	9.00	18.00	Colorimetric 30°C
	U/l	65	52	78	6.50	13.00	Colorimetric 25°C
	U/l	138	110	166	14.00	28.00	Tris buffer without P5P 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer without P5P 30°C
	U/l	66	52	80	7.00	14.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	19.3	15.3	23.3	2.00	4.00	Enzymatic
Bilirubin Direct	µmol/l	29.8	23.5	36.1	3.15	6.30	Diazo with Sulphanilic Acid
	mg/dl	1.74	1.37	2.11	0.19	0.37	
	µmol/l	29.1	23.0	35.2	3.05	6.10	Oxidation to Biliverdin/Vanadate
	mg/dl	1.70	1.35	2.05	0.18	0.35	

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods		
Bilirubin Total	µmol/l	84.8	67.0	103	8.90	17.80	Diazo with Sulphanilic Acid		
	mg/dl	4.96	3.92	6.00	0.52	1.04			
	µmol/l	80.6	63.6	97.6	8.50	17.00	Dichlorophenyl Diazonium (DPD)		
	mg/dl	4.72	3.72	5.72	0.50	1.00			
	µmol/l	81.9	64.7	99.1	8.60	17.20	Oxidation to Biliverdin/Vanadate		
	mg/dl	4.79	3.78	5.80	0.51	1.01			
Calcium	mmol/l	4.19	3.77	4.61	0.21	0.42	Ion selective electrode		
	mg/dl	16.8	15.1	18.5	0.85	1.70			
	mmol/l	3.81	3.43	4.19	0.19	0.38	Arsenazo III		
	mg/dl	15.3	13.7	16.9	0.80	1.60			
	Cholesterol	mmol/l	7.30	6.35	8.25	0.48		0.95	Cholesterol Oxidase - Abell Kendall
		mg/dl	282	245	319	18.50		37.00	
mmol/l		7.31	6.36	8.26	0.48	0.95	Cholesterol Oxidase - IDMS		
mg/dl		282	245	319	18.50	37.00			
Cholesterol	mmol/l	7.22	6.28	8.16	0.47	0.94	Cholesterol Dehydrogenase		
	mg/dl	279	242	316	18.50	37.00			
	Chloride	mmol/l	110	104	116	3.00	6.00	Colorimetric	
		mmol/l	115	109	121	3.00	6.00	ISE indirect	
Cholinesterase	U/l	5481	4384	6578	548.50	1097.00	Colorimetric Butyrylthiocholine 37°C		
CK Total	U/l	541	444	638	48.50	97.00	CK-NAC serum start (DGKC) 37°C		
	U/l	339	278	400	30.50	61.00	CK-NAC serum start (DGKC) 30°C		
	U/l	230	189	271	20.50	41.00	CK-NAC serum start (DGKC) 25°C		
	U/l	560	459	661	50.50	101.00	CK-NAC substrate start (DGKC) 37°C		
	U/l	351	287	415	32.00	64.00	CK-NAC substrate start (DGKC) 30°C		
	U/l	238	195	281	21.50	43.00	CK-NAC substrate start (DGKC) 25°C		

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
CK Total	U/l	535	439	631	48.00	96.00	CK-NAC (IFCC) 37°C	
	U/l	335	275	395	30.00	60.00	CK-NAC (IFCC) 30°C	
	U/l	227	187	267	20.00	40.00	CK-NAC (IFCC) 25°C	
Creatinine	µmol/l	352	282	422	35.00	70.00	Alkaline picrate with deproteinization	
	mg/dl	3.98	3.19	4.77	0.40	0.79		
	µmol/l	350	280	420	35.00	70.00	Alkaline picrate no deproteinization	
	mg/dl	3.96	3.16	4.76	0.40	0.80		
	µmol/l	380	304	456	38.00	76.00	Enzymatic UV method	
	mg/dl	4.29	3.44	5.14	0.43	0.85		
	µmol/l	376	300	452	38.00	76.00	Creatinine PAP method	
	mg/dl	4.25	3.39	5.11	0.43	0.86		
gamma-GT	µmol/l	354	283	425	35.50	71.00	Jaffe rate blanked	
	mg/dl	4.00	3.20	4.80	0.40	0.80		
	µmol/l	372	298	446	37.00	74.00	Jaffe rate blanked comp. (-26 µmol/l)	
	mg/dl	4.20	3.37	5.03	0.42	0.83		
	gamma-GT	U/l	178	151	205	13.50	27.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
		U/l	140	119	161	10.50	21.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
		U/l	110	93	127	8.50	17.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
		U/l	176	150	202	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
U/l		139	118	160	10.50	21.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C	
U/l		109	93	125	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C	
Glucose	mmol/l	16.1	13.7	18.5	1.20	2.40	Glucose dehydrogenase	
	mg/dl	290	247	333	21.50	43.00		
	mmol/l	16.2	13.8	18.6	1.20	2.40	Hexokinase	
mg/dl	292	249	335	21.50	43.00			



MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
Glucose	mmol/l	16.1	13.7	18.5	1.20	2.40	Glucose oxidase	
	mg/dl	290	247	333	21.50	43.00		
HDL - Cholesterol	mmol/l	2.48	2.11	2.85	0.19	0.37	Direct HDL PPD	
	mg/dl	95.7	81.4	110	7.15	14.30		
	mmol/l	2.46	2.09	2.83	0.19	0.37	Direct HDL PEGME	
	mg/dl	95.0	80.7	109	7.15	14.30		
	mmol/l	2.46	2.09	2.83	0.19	0.37	Direct Clearance Method	
	mg/dl	95.0	80.7	109	7.15	14.30		
LD (LDH)	mmol/l	2.69	2.28	3.10	0.21	0.41	HDL - Ultra	
	mg/dl	104	88.0	120	8.00	16.00		
	Iron	µmol/l	37.5	30.8	44.2	3.35	6.70	Colorimetric with ppt.
		µg/dl	210	172	248	19.00	38.00	
		µmol/l	38.6	31.6	45.6	3.50	7.00	Colorimetric without ppt.
		µg/dl	216	177	255	19.50	39.00	
LD (LDH)	U/l	734	624	844	55.00	110.00	P->L German methods 37°C	
	U/l	530	451	609	39.50	79.00	P->L German methods 30°C	
	U/l	372	316	428	28.00	56.00	P->L German methods 25°C	
	U/l	698	593	803	52.50	105.00	P->L SFBC 37°C	
	U/l	504	428	580	38.00	76.00	P->L SFBC 30°C	
	U/l	354	301	407	26.50	53.00	P->L SFBC 25°C	
	U/l	367	312	422	27.50	55.00	L->P IFCC 37°C	
	U/l	265	225	305	20.00	40.00	L->P IFCC 30°C	
Lipase	U/l	186	158	214	14.00	28.00	L->P IFCC 25°C	
	U/l	71	57	85	7.00	14.00	Other Colorimetric 37°C	

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	1.98	1.74	2.22	0.12	0.24	Xylidyl Blue
	mg/dl	4.81	4.23	5.39	0.29	0.58	
	mmol/l	2.14	1.89	2.39	0.13	0.25	Enzymatic
	mg/dl	5.20	4.59	5.81	0.31	0.61	
Phosphate Inorganic	mmol/l	2.15	1.83	2.47	0.16	0.32	Phosphomolybdate enzymatic
	mg/dl	6.67	5.67	7.67	0.50	1.00	
	mmol/l	2.12	1.81	2.43	0.16	0.31	Phosphomolybdate UV
	mg/dl	6.57	5.61	7.53	0.48	0.96	
Potassium	mmol/l	6.11	5.80	6.42	0.16	0.31	ISE method - indirect
Protein Total	g/l	48.0	38.4	57.6	4.80	9.60	Biuret reaction end point
	g/dl	4.80	3.84	5.76	0.48	0.96	
	g/l	46.5	37.2	55.8	4.65	9.30	Biuret reaction kinetic
	g/dl	4.65	3.72	5.58	0.47	0.93	
Sodium	mmol/l	160	152	168	4.00	8.00	ISE method - indirect
TIBC	μmol/l	39.3	31.1	47.5	4.10	8.20	FE+UIBC(saturation with iron)
	μg/dl	220	174	266	23.00	46.00	
Triglycerides	mmol/l	2.89	2.43	3.35	0.23	0.46	Lipase/GPO-PAP no correction
	mg/dl	256	215	297	20.50	41.00	
	mmol/l	2.87	2.41	3.33	0.23	0.46	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	254	213	295	20.50	41.00	
	mmol/l	2.93	2.46	3.40	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	259	218	300	20.50	41.00	
	mmol/l	2.89	2.43	3.35	0.23	0.46	Lipase/Glycerol Dehydrogenase
	mg/dl	256	215	297	20.50	41.00	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.14	7.95	10.3	0.60	1.19	

MINDRAY BS SERIES

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.09	7.91	10.3	0.59	1.18	
	mmol/l	0.54	0.47	0.61	0.03	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.02	7.86	10.2	0.58	1.16	
Urea	mmol/l	19.5	16.6	22.4	1.45	2.90	Urease end point
	mg/dl	117	99.8	134	8.60	17.20	
	mmol/l	19.6	16.6	22.6	1.50	3.00	Urease kinetic
	mg/dl	118	99.8	136	9.10	18.20	
	mmol/l	19.6	16.7	22.5	1.45	2.90	BUN
	mg/dl	55.0	46.8	63.2	4.10	8.20	


Ortho VITROS®
ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	29.5	25.1	33.9	2.20	4.40	Ortho Vitros Microslide Systems
	g/dl	2.95	2.51	3.39	0.22	0.44	
Alkaline Phosphatase	U/l	304	259	349	22.50	45.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	152	122	182	15.00	30.00	Ortho Vitros Microslide Systems 37°C
	U/l	152	121	183	15.50	31.00	Ortho Vitros MicroSlide visible 37°C
Amylase Total	U/l	176	149	203	13.50	27.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	172	138	206	17.00	34.00	Ortho Vitros Microslide visible slide 37°C
Bicarbonate	mmol/l	21.1	16.7	25.5	2.20	4.40	Ortho Vitros Microslide Systems
Bilirubin Total	µmol/l	74.3	58.7	89.9	7.80	15.60	Vitros 250/500/700/950 Total Bilirubin
Calcium	mmol/l	3.66	3.29	4.03	0.19	0.37	Ortho Vitros Microslide Systems
	mg/dl	14.7	13.2	16.2	0.75	1.50	
Cholesterol	mmol/l	6.99	6.08	7.90	0.46	0.91	Ortho Vitros Microslide Systems
	mg/dl	270	235	305	17.50	35.00	
Chloride	mmol/l	115	109	121	3.00	6.00	Ortho Vitros Microslide Systems
Cholinesterase	U/l	5218	4174	6262	522.00	1044.00	Ortho Vitros Microslide Systems 37°C
Creatinine	µmol/l	374	299	449	37.50	75.00	Vitros DT60/DT60 II/DTSC II
	mg/dl	4.23	3.38	5.08	0.43	0.85	
	µmol/l	370	296	444	37.00	74.00	Vitros IDMS Traceable
	mg/dl	4.18	3.34	5.02	0.42	0.84	
Free T4	pmol/l	92.8	69.6	116	11.60	23.20	Vitros ECi
	ng/dl	7.24	5.43	9.05	0.91	1.81	
	pg/ml	72.4	54.3	90.5	9.05	18.10	Vitros ECi


Ortho VITROS®
ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	201	171	231	15.00	30.00	Ortho Vitros Microslide Systems 37°C
Glucose	mmol/l	15.1	12.8	17.4	1.15	2.30	Ortho Vitros Microslide Systems
	mg/dl	272	231	313	20.50	41.00	
HDL - Cholesterol	mmol/l	2.51	2.14	2.88	0.19	0.37	Vitros Magnetic HDL
	mg/dl	96.9	82.6	111	7.15	14.30	
	mmol/l	2.51	2.13	2.89	0.19	0.38	Vitros dHDL PTA/MgCl ₂ direct precipitation
	mg/dl	96.9	82.2	112	7.35	14.70	
Iron	µmol/l	36.2	29.7	42.7	3.25	6.50	Ortho Vitros Microslide Systems
	µg/dl	202	166	238	18.00	36.00	
Lactate	mmol/l	5.50	4.51	6.49	0.50	0.99	Ortho Vitros Microslide Systems
	mg/dl	49.6	40.6	58.6	4.50	9.00	
LD (LDH)	U/l	403	343	463	30.00	60.00	Ortho Vitros IFCC Traceable 37°C
Lipase	U/l	827	663	991	82.00	164.00	Ortho Vitros Microslide Systems 37°C
Lithium	mmol/l	2.41	2.12	2.70	0.15	0.29	Ortho Vitros Microslide Systems
	mg/dl	1.67	1.47	1.87	0.10	0.20	
Magnesium	mmol/l	2.03	1.79	2.27	0.12	0.24	Ortho Vitros Microslide Systems
	mg/dl	4.93	4.35	5.51	0.29	0.58	
Phosphate Inorganic	mmol/l	2.16	1.84	2.48	0.16	0.32	Ortho Vitros Microslide Systems
	mg/dl	6.70	5.70	7.70	0.50	1.00	
Potassium	mmol/l	5.92	5.62	6.22	0.15	0.30	Ortho Vitros Microslide Systems
Protein Total	g/l	47.8	38.3	57.3	4.75	9.50	Ortho Vitros Microslide Systems
	g/dl	4.79	3.83	5.75	0.48	0.96	
PSA Total	ng/ml =	20.1	15.1	25.1	2.50	5.00	Ortho Vitros ECi
Sodium	mmol/l	154	146	162	4.00	8.00	Ortho Vitros Microslide Systems

Ortho VITROS®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Thyroid Stimulating Hormone	µU/ml =	1.30	1.04	1.56	0.13	0.26	Vitros ECi
TIBC	µmol/l	35.9	28.4	43.4	3.75	7.50	Ortho Vitros Microslide Systems
	µg/dl	201	159	243	21.00	42.00	
Total T3	nmol/l	4.28	3.21	5.35	0.54	1.07	Vitros ECi
	ng/ml	2.79	2.09	3.49	0.35	0.70	
	ng/dl	279	209	349	35.00	70.00	Vitros ECi
Total T4	nmol/l	240	180	300	30.00	60.00	Vitros ECi
	µg/dl	18.7	14.0	23.4	2.35	4.70	
	ng/ml	187	140	234	23.50	47.00	Vitros ECi
Triglycerides	mmol/l	3.49	2.93	4.05	0.28	0.56	Ortho Vitros Microslide Systems
	mg/dl	309	259	359	25.00	50.00	
Uric Acid (Urate)	mmol/l	0.52	0.45	0.58	0.03	0.07	Ortho Vitros Microslide Systems
	mg/dl	8.67	7.54	9.80	0.57	1.13	
Urea	mmol/l	18.7	15.9	21.5	1.40	2.80	Ortho Vitros Microslide Systems
	mg/dl	112	95.6	128	8.20	16.40	
	mmol/l	18.7	15.9	21.5	1.40	2.80	BUN
	mg/dl	52.5	44.6	60.4	3.95	7.90	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	31.1	26.4	35.8	2.35	4.70	Bromocresol Green
	g/dl	3.11	2.64	3.58	0.24	0.47	
ALT (GPT)	U/l	149	120	178	14.50	29.00	Tris buffer without P5P 37°C
	U/l	110	89	131	10.50	21.00	Tris buffer without P5P 30°C
	U/l	84	68	100	8.00	16.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	137	110	164	13.50	27.00	Tris buffer without P5P 37°C
	U/l	93	74	112	9.50	19.00	Tris buffer without P5P 30°C
	U/l	65	52	78	6.50	13.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	86.0	68.0	104	9.00	18.00	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.03	3.98	6.08	0.53	1.05	
Calcium	mmol/l	3.56	3.21	3.91	0.18	0.35	Arsenazo III
	mg/dl	14.3	12.9	15.7	0.70	1.40	
Cholesterol	mmol/l	7.45	6.48	8.42	0.49	0.97	Cholesterol Oxidase - Abell Kendall
	mg/dl	288	250	326	19.00	38.00	
	mmol/l	7.19	6.26	8.12	0.47	0.93	Cholesterol Oxidase - IDMS
	mg/dl	278	242	314	18.00	36.00	
CK Total	U/l	555	455	655	50.00	100.00	CK-NAC (IFCC) 37°C
	U/l	347	285	409	31.00	62.00	CK-NAC (IFCC) 30°C
	U/l	236	193	279	21.50	43.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	331	264	398	33.50	67.00	Alkaline picrate no deproteinization
	mg/dl	3.74	2.98	4.50	0.38	0.76	

PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	µmol/l	346	277	415	34.50	69.00	Jaffe rate blanked
	mg/dl	3.91	3.13	4.69	0.39	0.78	
gamma-GT	U/l	172	146	198	13.00	26.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	136	115	157	10.50	21.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	106	90	122	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	181	154	208	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	143	121	165	11.00	22.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	112	95	129	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	16.2	13.7	18.7	1.25	2.50	Glucose oxidase
	mg/dl	292	247	337	22.50	45.00	
Iron	µmol/l	37.0	30.3	43.7	3.35	6.70	Colorimetric without ppt.
	µg/dl	207	169	245	19.00	38.00	
LD (LDH)	U/l	715	608	822	53.50	107.00	P->L German methods 37°C
	U/l	516	439	593	38.50	77.00	P->L German methods 30°C
	U/l	363	308	418	27.50	55.00	P->L German methods 25°C
Magnesium	mmol/l	1.67	1.47	1.87	0.10	0.20	Xylidyl Blue
	mg/dl	4.06	3.57	4.55	0.25	0.49	
Phosphate Inorganic	mmol/l	2.43	2.06	2.80	0.19	0.37	Phosphomolybdate UV
	mg/dl	7.53	6.39	8.67	0.57	1.14	
Protein Total	g/l	47.6	38.1	57.1	4.75	9.50	Biuret reaction end point
	g/dl	4.76	3.81	5.71	0.48	0.95	
Triglycerides	mmol/l	2.92	2.45	3.39	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	258	217	299	20.50	41.00	
Uric Acid (Urate)	mmol/l	0.56	0.49	0.63	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.41	8.18	10.6	0.62	1.23	

**PRESTIGE 24i**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.56	0.48	0.63	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.32	8.10	10.5	0.61	1.22	
Urea	mmol/l	18.5	15.7	21.3	1.40	2.80	Urease kinetic
	mg/dl	111	94.4	128	8.30	16.60	
	mmol/l	18.5	15.7	21.3	1.40	2.80	BUN
	mg/dl	51.9	44.1	59.7	3.90	7.80	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	31.4	26.7	36.1	2.35	4.70	Bromocresol Green
	g/dl	3.14	2.67	3.61	0.24	0.47	
Alkaline Phosphatase	U/l	338	288	388	25.00	50.00	Roche Integra AMP buffer 37°C
	U/l	263	224	302	19.50	39.00	Roche Integra AMP buffer 30°C
	U/l	216	184	248	16.00	32.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	129	104	154	12.50	25.00	Tris buffer without P5P 37°C
	U/l	95	77	113	9.00	18.00	Tris buffer without P5P 30°C
	U/l	73	59	87	7.00	14.00	Tris buffer without P5P 25°C
Amylase Total	U/l	286	243	329	21.50	43.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	277	235	319	21.00	42.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	125	100	150	12.50	25.00	Tris buffer without P5P 37°C
	U/l	85	68	102	8.50	17.00	Tris buffer without P5P 30°C
	U/l	60	48	72	6.00	12.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	32.4	25.6	39.2	3.40	6.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.90	1.50	2.30	0.20	0.40	
	µmol/l	33.0	26.0	40.0	3.50	7.00	Diazo with Sulphanilic Acid
	mg/dl	1.93	1.52	2.34	0.21	0.41	
	µmol/l	33.0	26.0	40.0	3.50	7.00	Roche DPD JG standardised
	mg/dl	1.93	1.52	2.34	0.21	0.41	
	µmol/l	33.3	26.3	40.3	3.50	7.00	Roche DPD Dumas standardised
	mg/dl	1.95	1.54	2.36	0.21	0.41	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	74.9	59.2	90.6	7.85	15.70	Diazo with Sulphanilic Acid
	mg/dl	4.38	3.46	5.30	0.46	0.92	
	µmol/l	77.6	61.3	93.9	8.15	16.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.54	3.59	5.49	0.48	0.95	
	µmol/l	75.3	59.5	91.1	7.90	15.80	Diazonium ion
	mg/dl	4.41	3.48	5.34	0.47	0.93	
Calcium	mmol/l	3.91	3.52	4.30	0.20	0.39	Cresolphthalein complexone
	mg/dl	15.7	14.1	17.3	0.80	1.60	
	mmol/l	3.85	3.46	4.24	0.20	0.39	Arsenazo III
	mg/dl	15.4	13.9	16.9	0.75	1.50	
	mmol/l	3.86	3.48	4.24	0.19	0.38	NM-BAPTA
	mg/dl	15.5	13.9	17.1	0.80	1.60	
Cholesterol	mmol/l	7.31	6.36	8.26	0.48	0.95	Cholesterol Oxidase - Abell Kendall
	mg/dl	282	245	319	18.50	37.00	
	mmol/l	6.88	5.98	7.78	0.45	0.90	Cholesterol Dehydrogenase
	mg/dl	266	231	301	17.50	35.00	
Chloride	mmol/l	116	110	122	3.00	6.00	ISE indirect
CK Total	U/l	502	411	593	45.50	91.00	CK-NAC (IFCC) 37°C
	U/l	314	257	371	28.50	57.00	CK-NAC (IFCC) 30°C
	U/l	213	175	251	19.00	38.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	355	284	426	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	4.01	3.21	4.81	0.40	0.80	
	µmol/l	356	285	427	35.50	71.00	Roche Creatinine Plus
	mg/dl	4.02	3.22	4.82	0.40	0.80	
	µmol/l	356	285	427	35.50	71.00	Jaffe rate blanked
	mg/dl	4.02	3.22	4.82	0.40	0.80	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	µmol/l	352	282	422	35.00	70.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	3.98	3.19	4.77	0.40	0.79	
	µmol/l	357	285	429	36.00	72.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.03	3.22	4.84	0.41	0.81	
gamma-GT	U/l	170	145	195	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	134	114	154	10.00	20.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	105	89	121	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	174	148	200	13.00	26.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	137	117	157	10.00	20.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	107	91	123	8.00	16.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	16.2	13.7	18.7	1.25	2.50	Hexokinase
	mg/dl	292	247	337	22.50	45.00	
	mmol/l	16.5	14.0	19.0	1.25	2.50	Glucose oxidase
	mg/dl	297	252	342	22.50	45.00	
HDL - Cholesterol	mmol/l	2.95	2.51	3.39	0.22	0.44	Direct HDL PEGME
	mg/dl	114	96.9	131	8.55	17.10	
	mmol/l	3.08	2.62	3.54	0.23	0.46	Direct HDL Roche 4th Generation
	mg/dl	119	101	137	9.00	18.00	
Iron	µmol/l	39.5	32.4	46.6	3.55	7.10	Colorimetric without ppt.
	µg/dl	221	181	261	20.00	40.00	
LD (LDH)	U/l	375	318	432	28.50	57.00	L->P IFCC 37°C
	U/l	271	230	312	20.50	41.00	L->P IFCC 30°C
	U/l	190	161	219	14.50	29.00	L->P IFCC 25°C
Magnesium	mmol/l	2.02	1.77	2.27	0.13	0.25	Xylidyl Blue
	mg/dl	4.91	4.30	5.52	0.31	0.61	

Roche Cobas C111®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	1.96	1.73	2.19	0.12	0.23	Chlorphosphonazo III
	mg/dl	4.76	4.20	5.32	0.28	0.56	
Phosphate Inorganic	mmol/l	2.23	1.90	2.56	0.17	0.33	Phosphomolybdate enzymatic
	mg/dl	6.91	5.89	7.93	0.51	1.02	
	mmol/l	2.27	1.93	2.61	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.04	5.98	8.10	0.53	1.06	
Potassium	mmol/l	6.05	5.75	6.35	0.15	0.30	ISE method - indirect
Protein Total	g/l	46.6	37.3	55.9	4.65	9.30	Biuret reaction end point
	g/dl	4.66	3.73	5.59	0.47	0.93	
Sodium	mmol/l	155	147	163	4.00	8.00	ISE method - direct
Triglycerides	mmol/l	3.03	2.55	3.51	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	268	226	310	21.00	42.00	
	mmol/l	3.11	2.61	3.61	0.25	0.50	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	275	231	319	22.00	44.00	
	mmol/l	3.00	2.52	3.48	0.24	0.48	L/G Kinase EP. no correction
	mg/dl	266	223	309	21.50	43.00	
	mmol/l	2.98	2.50	3.46	0.24	0.48	Lipase/Glycerol Dehydrogenase
	mg/dl	264	221	307	21.50	43.00	
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	8.90	7.74	10.1	0.58	1.16	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.06	7.88	10.2	0.59	1.18	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.12	7.93	10.3	0.60	1.19	

**Roche Cobas C111®**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	18.3	15.6	21.0	1.35	2.70	Urease kinetic
	mg/dl	110	93.8	126	8.10	16.20	
	mmol/l	18.3	15.6	21.0	1.35	2.70	BUN
	mg/dl	51.4	43.7	59.1	3.85	7.70	

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	31.6	26.9	36.3	2.35	4.70	Bromocresol Green
	g/dl	3.16	2.69	3.63	0.24	0.47	
	g/l	30.7	26.1	35.3	2.30	4.60	Bromocresol Purple
	g/dl	3.07	2.61	3.53	0.23	0.46	
	g/l	28.1	23.9	32.3	2.10	4.20	Turbidimetric Assays
	g/dl	2.81	2.39	3.23	0.21	0.42	
Alkaline Phosphatase	U/l	340	289	391	25.50	51.00	Roche Integra AMP buffer 37°C
	U/l	265	225	305	20.00	40.00	Roche Integra AMP buffer 30°C
	U/l	217	185	249	16.00	32.00	Roche Integra AMP buffer 25°C
	U/l	340	289	391	25.50	51.00	AMP optimised to IFCC 37°C
	U/l	265	225	305	20.00	40.00	AMP optimised to IFCC 30°C
	U/l	217	185	249	16.00	32.00	AMP optimised to IFCC 25°C
	U/l	338	288	388	25.00	50.00	Colorimetric 37°C
	U/l	263	224	302	19.50	39.00	Colorimetric 30°C
	U/l	216	184	248	16.00	32.00	Colorimetric 25°C
ALT (GPT)	U/l	133	106	160	13.50	27.00	Tris buffer without P5P 37°C
	U/l	98	78	118	10.00	20.00	Tris buffer without P5P 30°C
	U/l	75	60	90	7.50	15.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	245	208	282	18.50	37.00	Immunoinhibition EPS substrate 37°C
	U/l	246	209	283	18.50	37.00	Roche EPS Liquid 37°C
Amylase Total	U/l	265	225	305	20.00	40.00	Randox Liquid Ethylidene pNPG7 37°C

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Total	U/l	273	232	314	20.50	41.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	272	231	313	20.50	41.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	272	231	313	20.50	41.00	Roche liquid stable pNPG7 37°C
	U/l	273	232	314	20.50	41.00	BM/Roche Colorimetric pNPG7 37°C
AST (GOT)	U/l	126	101	151	12.50	25.00	Tris buffer without P5P 37°C
	U/l	85	68	102	8.50	17.00	Tris buffer without P5P 30°C
	U/l	60	48	72	6.00	12.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	18.2	14.5	21.9	1.85	3.70	Colorimetric
	mmol/l	18.4	14.6	22.2	1.90	3.80	Enzymatic
Bilirubin Direct	µmol/l	30.9	24.4	37.4	3.25	6.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.81	1.43	2.19	0.19	0.38	
	µmol/l	30.9	24.4	37.4	3.25	6.50	Diazo with Sulphanilic Acid
	mg/dl	1.81	1.43	2.19	0.19	0.38	
	µmol/l	31.2	24.6	37.8	3.30	6.60	Roche DPD JG standardised
	mg/dl	1.83	1.44	2.22	0.20	0.39	
Bilirubin Total	µmol/l	30.5	24.1	36.9	3.20	6.40	Diazo with Dichloroaniline (DCA)
	mg/dl	1.78	1.41	2.15	0.19	0.37	
	µmol/l	74.0	58.4	89.6	7.80	15.60	Diazo with Dichloroaniline (DCA)
	mg/dl	4.33	3.42	5.24	0.46	0.91	
	µmol/l	73.4	57.9	88.9	7.75	15.50	Diazo with Sulphanilic Acid
	mg/dl	4.29	3.39	5.19	0.45	0.90	
Bilirubin Total	µmol/l	73.8	58.3	89.3	7.75	15.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.32	3.41	5.23	0.46	0.91	
	µmol/l	74.4	58.7	90.1	7.85	15.70	Diazonium ion
	mg/dl	4.35	3.43	5.27	0.46	0.92	

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Calcium	mmol/l	3.90	3.51	4.29	0.20	0.39	Cresolphthalein complexone
	mg/dl	15.6	14.1	17.1	0.75	1.50	
	mmol/l	3.87	3.48	4.26	0.20	0.39	Arsenazo III
	mg/dl	15.5	13.9	17.1	0.80	1.60	
	mmol/l	3.89	3.50	4.28	0.20	0.39	NM-BAPTA
	mg/dl	15.6	14.0	17.2	0.80	1.60	
Cholesterol	mmol/l	7.32	6.37	8.27	0.48	0.95	Cholesterol Oxidase - Abell Kendall
	mg/dl	283	246	320	18.50	37.00	
	mmol/l	7.32	6.37	8.27	0.48	0.95	Cholesterol Oxidase - IDMS
	mg/dl	283	246	320	18.50	37.00	
	mmol/l	7.35	6.39	8.31	0.48	0.96	Cholesterol Dehydrogenase
	mg/dl	284	247	321	18.50	37.00	
Chloride	mmol/l	111	105	117	3.00	6.00	ISE indirect
Cholinesterase	U/l	5310	4248	6372	531.00	1062.00	Colorimetric Benzoylcholine 37°C
	U/l	5327	4261	6393	533.00	1066.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	507	416	598	45.50	91.00	CK-NAC serum start (DGKC) 37°C
	U/l	317	260	374	28.50	57.00	CK-NAC serum start (DGKC) 30°C
	U/l	215	177	253	19.00	38.00	CK-NAC serum start (DGKC) 25°C
	U/l	498	408	588	45.00	90.00	CK-NAC substrate start (DGKC) 37°C
	U/l	312	255	369	28.50	57.00	CK-NAC substrate start (DGKC) 30°C
	U/l	212	173	251	19.50	39.00	CK-NAC substrate start (DGKC) 25°C
	U/l	504	413	595	45.50	91.00	CK-NAC (IFCC) 37°C
	U/l	316	259	373	28.50	57.00	CK-NAC (IFCC) 30°C
	U/l	214	176	252	19.00	38.00	CK-NAC (IFCC) 25°C
Copper	µmol/l	24.4	19.5	29.3	2.45	4.90	Colorimetric
	µg/dl	155	124	186	15.50	31.00	

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	360	288	432	36.00	72.00	Alkaline picrate with deproteinization
	mg/dl	4.07	3.25	4.89	0.41	0.82	
	μmol/l	367	293	441	37.00	74.00	Alkaline picrate no deproteinization
	mg/dl	4.15	3.31	4.99	0.42	0.84	
	μmol/l	375	300	450	37.50	75.00	Enzymatic UV method
	mg/dl	4.24	3.39	5.09	0.43	0.85	
	μmol/l	381	305	457	38.00	76.00	Creatinine PAP method
	mg/dl	4.31	3.45	5.17	0.43	0.86	
	μmol/l	376	301	451	37.50	75.00	Roche Creatinine Plus
	mg/dl	4.25	3.40	5.10	0.43	0.85	
	μmol/l	369	295	443	37.00	74.00	Jaffe rate blanked
	mg/dl	4.17	3.33	5.01	0.42	0.84	
Free T4	pmol/l	79.4	59.6	99.2	9.90	19.80	Roche Cobas e601/602
	ng/dl	6.19	4.65	7.73	0.77	1.54	
	pg/ml	61.9	46.5	77.3	7.70	15.40	Roche Cobas e601/602
gamma-GT	U/l	166	142	190	12.00	24.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	131	112	150	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	102	88	116	7.00	14.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
gamma-GT	U/l	182	154	210	14.00	28.00	Gamma glutamyl-4-nitroanilide 37°C	
	U/l	143	121	165	11.00	22.00	Gamma glutamyl-4-nitroanilide 30°C	
	U/l	112	95	129	8.50	17.00	Gamma glutamyl-4-nitroanilide 25°C	
	U/l	184	156	212	14.00	28.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C	
	U/l	145	123	167	11.00	22.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C	
	U/l	114	96	132	9.00	18.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C	
Glucose	mmol/l	15.8	13.4	18.2	1.20	2.40	Glucose dehydrogenase	
	mg/dl	285	241	329	22.00	44.00		
	mmol/l	15.9	13.5	18.3	1.20	2.40	Hexokinase	
	mg/dl	287	243	331	22.00	44.00		
	mmol/l	15.8	13.4	18.2	1.20	2.40	Glucose oxidase	
	mg/dl	285	241	329	22.00	44.00		
	HDL - Cholesterol	mmol/l	2.92	2.48	3.36	0.22	0.44	Direct HDL PPD
		mg/dl	113	95.7	130	8.65	17.30	
mmol/l		2.79	2.37	3.21	0.21	0.42	Direct HDL Immunoseparation	
mg/dl		108	91.5	125	8.25	16.50		
mmol/l		3.02	2.57	3.47	0.23	0.45	Direct HDL PEGME	
mg/dl		117	99.2	135	8.90	17.80		
mmol/l		2.99	2.54	3.44	0.23	0.45	Direct HDL Roche 4th Generation	
mg/dl		115	98.0	132	8.50	17.00		
Iron		µmol/l	39.0	31.9	46.1	3.55	7.10	Colorimetric with ppt.
		µg/dl	218	178	258	20.00	40.00	
	µmol/l	39.3	32.2	46.4	3.55	7.10	Colorimetric without ppt.	
	µg/dl	220	180	260	20.00	40.00		
Lactate	mmol/l	5.96	4.89	7.03	0.54	1.07	Colorimetric Lactate Oxidase	
	mg/dl	53.7	44.1	63.3	4.80	9.60		

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	365	310	420	27.50	55.00	L->P 37°C
	U/l	264	224	304	20.00	40.00	L->P 30°C
	U/l	185	157	213	14.00	28.00	L->P 25°C
	U/l	366	311	421	27.50	55.00	L->P IFCC 37°C
	U/l	264	225	303	19.50	39.00	L->P IFCC 30°C
	U/l	186	158	214	14.00	28.00	L->P IFCC 25°C
Lipase	U/l	78	63	93	7.50	15.00	Other Colorimetric 37°C
	U/l	77	62	92	7.50	15.00	Roche Colorimetric 37°C
	U/l	77	62	92	7.50	15.00	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	2.01	1.77	2.25	0.12	0.24	Ion selective electrode
	mg/dl	1.40	1.23	1.57	0.09	0.17	
	mmol/l	2.02	1.78	2.26	0.12	0.24	Spectrophotometric
	mg/dl	1.40	1.24	1.56	0.08	0.16	
Magnesium	mmol/l	2.05	1.80	2.30	0.13	0.25	Arsenazo III
	mg/dl	4.98	4.37	5.59	0.31	0.61	
	mmol/l	2.05	1.80	2.30	0.13	0.25	Atomic absorption
	mg/dl	4.98	4.37	5.59	0.31	0.61	
	mmol/l	2.05	1.80	2.30	0.13	0.25	Xylidyl Blue
	mg/dl	4.98	4.37	5.59	0.31	0.61	
	mmol/l	2.00	1.76	2.24	0.12	0.24	Methylthymol blue
	mg/dl	4.86	4.28	5.44	0.29	0.58	
	mmol/l	2.04	1.79	2.29	0.13	0.25	Chlorphosphonazo III
	mg/dl	4.96	4.35	5.57	0.31	0.61	
	mmol/l	2.05	1.80	2.30	0.13	0.25	Enzymatic
	mg/dl	4.98	4.37	5.59	0.31	0.61	

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Osmolality	mOsm/kg	348	279	417	34.50	69.00	Calculated
Phosphate Inorganic	mmol/l	2.23	1.89	2.57	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	6.91	5.86	7.96	0.53	1.05	
	mmol/l	2.22	1.89	2.55	0.17	0.33	Phosphomolybdate UV
	mg/dl	6.88	5.86	7.90	0.51	1.02	
Potassium	mmol/l	6.07	5.77	6.37	0.15	0.30	ISE method - indirect
Protein Total	g/l	45.6	36.5	54.7	4.55	9.10	Biuret reaction end point
	g/dl	4.56	3.65	5.47	0.46	0.91	
	g/l	45.1	36.1	54.1	4.50	9.00	Biuret reaction kinetic
	g/dl	4.51	3.61	5.41	0.45	0.90	
PSA Total	ng/ml =	21.2	15.9	26.5	2.65	5.30	Roche Cobas 6000/8000
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
Thyroid Stimulating Hormone	μU/ml =	1.46	1.17	1.75	0.15	0.29	Roche Cobas e601/602
Total T3	nmol/l	3.56	2.67	4.45	0.45	0.89	Roche Cobas e601/602
	ng/ml	2.32	1.74	2.90	0.29	0.58	
	ng/dl	232	174	290	29.00	58.00	Roche Cobas e601/602
Total T4	nmol/l	229	172	286	28.50	57.00	Roche Cobas e601/602
	μg/dl	17.9	13.4	22.4	2.25	4.50	
	ng/ml	179	134	224	22.50	45.00	Roche Cobas e601/602
Triglycerides	mmol/l	2.99	2.51	3.47	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	265	222	308	21.50	43.00	
	mmol/l	2.98	2.50	3.46	0.24	0.48	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	264	221	307	21.50	43.00	
	mmol/l	2.98	2.51	3.45	0.24	0.47	L/G Kinase EP. no correction
	mg/dl	264	222	306	21.00	42.00	

Roche Cobas c303/501/502/503

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	3.01	2.53	3.49	0.24	0.48	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	266	224	308	21.00	42.00	
	mmol/l	3.00	2.52	3.48	0.24	0.48	Lipase/Glycerol Dehydrogenase
	mg/dl	266	223	309	21.50	43.00	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.62	0.04	0.07	Uricase catalase 340nm
	mg/dl	9.14	7.95	10.3	0.60	1.19	
	mmol/l	0.53	0.46	0.60	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	8.95	7.78	10.1	0.59	1.17	
	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.89	7.74	10.0	0.58	1.15	
	mmol/l	0.53	0.46	0.60	0.03	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	8.90	7.74	10.1	0.58	1.16	
Urea	mmol/l	19.1	16.2	22.0	1.45	2.90	Urease end point
	mg/dl	115	97.4	133	8.80	17.60	
	mmol/l	19.3	16.4	22.2	1.45	2.90	Urease kinetic
	mg/dl	116	98.6	133	8.70	17.40	
	mmol/l	19.3	16.4	22.2	1.45	2.90	BUN
	mg/dl	54.2	46.1	62.3	4.05	8.10	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	31.4	26.7	36.1	2.35	4.70	Bromocresol Green
	g/dl	3.14	2.67	3.61	0.24	0.47	
	g/l	30.9	26.3	35.5	2.30	4.60	Bromocresol Purple
	g/dl	3.09	2.63	3.55	0.23	0.46	
Alkaline Phosphatase	U/l	334	284	384	25.00	50.00	Roche Integra AMP buffer 37°C
	U/l	260	221	299	19.50	39.00	Roche Integra AMP buffer 30°C
	U/l	213	181	245	16.00	32.00	Roche Integra AMP buffer 25°C
	U/l	332	282	382	25.00	50.00	AMP optimised to IFCC 37°C
	U/l	259	220	298	19.50	39.00	AMP optimised to IFCC 30°C
	U/l	212	180	244	16.00	32.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	134	108	160	13.00	26.00	Tris buffer without P5P 37°C
	U/l	99	80	118	9.50	19.00	Tris buffer without P5P 30°C
	U/l	75	61	89	7.00	14.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	275	234	316	20.50	41.00	Immunoinhibition EPS substrate 37°C
	U/l	249	212	286	18.50	37.00	Roche EPS Liquid 37°C
Amylase Total	U/l	274	232	316	21.00	42.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	276	234	318	21.00	42.00	Roche liquid stable pNPG7 37°C
	U/l	274	233	315	20.50	41.00	BM/Roche Colorimetric pNPG7 37°C
AST (GOT)	U/l	127	102	152	12.50	25.00	Tris buffer without P5P 37°C
	U/l	86	69	103	8.50	17.00	Tris buffer without P5P 30°C
	U/l	60	49	71	5.50	11.00	Tris buffer without P5P 25°C

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bicarbonate	mmol/l	18.3	14.5	22.1	1.90	3.80	Enzymatic
Bilirubin Direct	µmol/l	30.0	23.7	36.3	3.15	6.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.76	1.39	2.13	0.19	0.37	
	µmol/l	30.4	24.0	36.8	3.20	6.40	Roche DPD JG standardised
	mg/dl	1.78	1.40	2.16	0.19	0.38	
	µmol/l	28.2	22.3	34.1	2.95	5.90	Roche DPD Doumas standardised
	mg/dl	1.65	1.30	2.00	0.18	0.35	
Bilirubin Total	µmol/l	74.6	58.9	90.3	7.85	15.70	Diazo with Sulphanilic Acid
	mg/dl	4.36	3.45	5.27	0.46	0.91	
	µmol/l	74.3	58.7	89.9	7.80	15.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.35	3.43	5.27	0.46	0.92	
	µmol/l	74.9	59.2	90.6	7.85	15.70	Diazonium ion
	mg/dl	4.38	3.46	5.30	0.46	0.92	
Calcium	mmol/l	3.92	3.53	4.31	0.20	0.39	Cresolphthalein complexone
	mg/dl	15.7	14.1	17.3	0.80	1.60	
	mmol/l	3.93	3.54	4.32	0.20	0.39	Arsenazo III
	mg/dl	15.8	14.2	17.4	0.80	1.60	
	mmol/l	3.91	3.52	4.30	0.20	0.39	NM-BAPTA
	mg/dl	15.7	14.1	17.3	0.80	1.60	
Cholesterol	mmol/l	7.36	6.41	8.31	0.48	0.95	Cholesterol Oxidase - Abell Kendall
	mg/dl	284	247	321	18.50	37.00	
	mmol/l	7.38	6.42	8.34	0.48	0.96	Cholesterol Oxidase - IDMS
	mg/dl	285	248	322	18.50	37.00	
	mmol/l	7.29	6.34	8.24	0.48	0.95	Cholesterol Dehydrogenase
	mg/dl	281	245	317	18.00	36.00	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	111	105	117	3.00	6.00	ISE indirect
Cholinesterase	U/l	5355	4284	6426	535.50	1071.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	504	414	594	45.00	90.00	CK-NAC substrate start (DGKC) 37°C
	U/l	316	259	373	28.50	57.00	CK-NAC substrate start (DGKC) 30°C
	U/l	214	176	252	19.00	38.00	CK-NAC substrate start (DGKC) 25°C
	U/l	506	415	597	45.50	91.00	CK-NAC (IFCC) 37°C
	U/l	317	260	374	28.50	57.00	CK-NAC (IFCC) 30°C
	U/l	215	176	254	19.50	39.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	371	297	445	37.00	74.00	Alkaline picrate no deproteinization
	mg/dl	4.19	3.36	5.02	0.42	0.83	
	µmol/l	397	318	476	39.50	79.00	Enzymatic UV method
	mg/dl	4.49	3.59	5.39	0.45	0.90	
	µmol/l	375	300	450	37.50	75.00	Roche Creatinine Plus
	mg/dl	4.24	3.39	5.09	0.43	0.85	
	µmol/l	378	302	454	38.00	76.00	Jaffe rate blanked
	mg/dl	4.27	3.41	5.13	0.43	0.86	
	µmol/l	370	296	444	37.00	74.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.18	3.34	5.02	0.42	0.84	
	µmol/l	368	294	442	37.00	74.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.16	3.32	5.00	0.42	0.84	
gamma-GT	U/l	168	143	193	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	132	113	151	9.50	19.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	104	88	120	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	184	156	212	14.00	28.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	145	123	167	11.00	22.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	114	96	132	9.00	18.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Hexokinase
	mg/dl	288	245	331	21.50	43.00	
	mmol/l	16.2	13.7	18.7	1.25	2.50	Glucose oxidase
	mg/dl	292	247	337	22.50	45.00	
HDL - Cholesterol	mmol/l	2.79	2.37	3.21	0.21	0.42	Direct HDL PEGME
	mg/dl	108	91.5	125	8.25	16.50	
	mmol/l	3.01	2.56	3.46	0.23	0.45	Direct Clearance Method
	mg/dl	116	98.8	133	8.60	17.20	
	mmol/l	2.96	2.52	3.40	0.22	0.44	Direct HDL Roche 4th Generation
	mg/dl	114	97.3	131	8.35	16.70	
Iron	µmol/l	38.7	31.7	45.7	3.50	7.00	Colorimetric with ppt.
	µg/dl	216	177	255	19.50	39.00	
	µmol/l	39.0	32.0	46.0	3.50	7.00	Colorimetric without ppt.
	µg/dl	218	179	257	19.50	39.00	
Lactate	mmol/l	5.95	4.88	7.02	0.54	1.07	Colorimetric Lactate Oxidase
	mg/dl	53.6	44.0	63.2	4.80	9.60	
LD (LDH)	U/l	366	311	421	27.50	55.00	L->P 37°C
	U/l	264	225	303	19.50	39.00	L->P 30°C
	U/l	186	158	214	14.00	28.00	L->P 25°C
	U/l	366	311	421	27.50	55.00	L->P IFCC 37°C
	U/l	264	225	303	19.50	39.00	L->P IFCC 30°C
	U/l	186	158	214	14.00	28.00	L->P IFCC 25°C

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lipase	U/l	76	61	91	7.50	15.00	Roche Colorimetric 37°C
	U/l	76	61	91	7.50	15.00	Roche Turbidimetric with colipase 37°C
Magnesium	mmol/l	2.02	1.77	2.27	0.13	0.25	Atomic absorption
	mg/dl	4.91	4.30	5.52	0.31	0.61	
	mmol/l	2.02	1.78	2.26	0.12	0.24	Xylidyl Blue
	mg/dl	4.91	4.33	5.49	0.29	0.58	
	mmol/l	2.01	1.77	2.25	0.12	0.24	Methylthymol blue
	mg/dl	4.88	4.30	5.46	0.29	0.58	
mmol/l	2.05	1.80	2.30	0.13	0.25	Chlorphosphonazo III	
mg/dl	4.98	4.37	5.59	0.31	0.61		
Phosphate Inorganic	mmol/l	2.25	1.91	2.59	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	6.98	5.92	8.04	0.53	1.06	
	mmol/l	2.24	1.90	2.58	0.17	0.34	Phosphomolybdate UV
	mg/dl	6.94	5.89	7.99	0.53	1.05	
Potassium	mmol/l	6.06	5.75	6.37	0.16	0.31	ISE method - indirect
Protein Total	g/l	45.5	36.4	54.6	4.55	9.10	Biuret reaction end point
	g/dl	4.55	3.64	5.46	0.46	0.91	
	g/l	45.5	36.4	54.6	4.55	9.10	Biuret reaction kinetic
	g/dl	4.55	3.64	5.46	0.46	0.91	
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
TIBC	μmol/l	41.3	32.6	50.0	4.35	8.70	FE+UIBC(saturation with iron)
	μg/dl	231	182	280	24.50	49.00	
	μmol/l	40.5	32.0	49.0	4.25	8.50	Direct Colorimetric
	μg/dl	226	179	273	23.50	47.00	
Triglycerides	mmol/l	3.01	2.53	3.49	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	266	224	308	21.00	42.00	

Roche Cobas C311®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	3.00	2.52	3.48	0.24	0.48	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	266	223	309	21.50	43.00	
	mmol/l	3.01	2.53	3.49	0.24	0.48	L/G Kinase EP. no correction
	mg/dl	266	224	308	21.00	42.00	
	mmol/l	2.91	2.44	3.38	0.24	0.47	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	258	216	300	21.00	42.00	
	mmol/l	3.01	2.53	3.49	0.24	0.48	Lipase/Glycerol Dehydrogenase
	mg/dl	266	224	308	21.00	42.00	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase catalase 340nm
	mg/dl	9.21	8.01	10.4	0.60	1.20	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.00	7.83	10.2	0.59	1.17	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.99	7.81	10.2	0.59	1.18	
	mmol/l	0.51	0.44	0.58	0.03	0.07	Spectrophotometric at 280-290
	mg/dl	8.55	7.44	9.66	0.56	1.11	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.02	7.85	10.2	0.59	1.17	
Urea	mmol/l	19.4	16.5	22.3	1.45	2.90	Urease end point
	mg/dl	117	99.2	135	8.90	17.80	
	mmol/l	19.4	16.5	22.3	1.45	2.90	Urease kinetic
	mg/dl	117	99.2	135	8.90	17.80	
	mmol/l	19.4	16.5	22.3	1.45	2.90	BUN
	mg/dl	54.4	46.2	62.6	4.10	8.20	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	31.4	26.7	36.1	2.35	4.70	Bromocresol Green
	g/dl	3.14	2.67	3.61	0.24	0.47	
	g/l	28.6	24.3	32.9	2.15	4.30	Bromocresol Purple
	g/dl	2.86	2.43	3.29	0.22	0.43	
Alkaline Phosphatase	U/l	326	277	375	24.50	49.00	Roche Integra AMP buffer 37°C
	U/l	254	216	292	19.00	38.00	Roche Integra AMP buffer 30°C
	U/l	208	177	239	15.50	31.00	Roche Integra AMP buffer 25°C
	U/l	347	295	399	26.00	52.00	AMP optimised to IFCC 37°C
	U/l	270	230	310	20.00	40.00	AMP optimised to IFCC 30°C
	U/l	222	189	255	16.50	33.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	135	108	162	13.50	27.00	Tris buffer without P5P 37°C
	U/l	100	80	120	10.00	20.00	Tris buffer without P5P 30°C
	U/l	76	61	91	7.50	15.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	249	212	286	18.50	37.00	Immunoinhibition EPS substrate 37°C
	U/l	248	211	285	18.50	37.00	Roche EPS Liquid 37°C
Amylase Total	U/l	273	232	314	20.50	41.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	127	101	153	13.00	26.00	Tris buffer without P5P 37°C
	U/l	86	68	104	9.00	18.00	Tris buffer without P5P 30°C
	U/l	60	48	72	6.00	12.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	41.2	32.9	49.5	4.15	8.30	Enzymatic Colorimetric
Bicarbonate	mmol/l	18.8	14.9	22.7	1.95	3.90	Enzymatic

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Direct	µmol/l	30.5	24.1	36.9	3.20	6.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.78	1.41	2.15	0.19	0.37	
	µmol/l	31.7	25.0	38.4	3.35	6.70	Roche DPD JG standardised
	mg/dl	1.85	1.46	2.24	0.20	0.39	
Bilirubin Total	µmol/l	74.6	59.0	90.2	7.80	15.60	Diazo with Sulphanilic Acid
	mg/dl	4.36	3.45	5.27	0.46	0.91	
	µmol/l	74.3	58.7	89.9	7.80	15.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	4.35	3.43	5.27	0.46	0.92	
Calcium	µmol/l	74.3	58.7	89.9	7.80	15.60	Diazonium ion
	mg/dl	4.35	3.43	5.27	0.46	0.92	
	mmol/l	3.87	3.49	4.25	0.19	0.38	Cresolphthalein complexone
	mg/dl	15.5	14.0	17.0	0.75	1.50	
Cholesterol	mmol/l	3.87	3.48	4.26	0.20	0.39	NM-BAPTA
	mg/dl	15.5	13.9	17.1	0.80	1.60	
	mmol/l	7.31	6.36	8.26	0.48	0.95	Cholesterol Oxidase - Abell Kendall
	mg/dl	282	245	319	18.50	37.00	
Cholesterol	mmol/l	7.32	6.37	8.27	0.48	0.95	Cholesterol Oxidase - IDMS
	mg/dl	283	246	320	18.50	37.00	
	mmol/l	112	106	118	3.00	6.00	ISE indirect
	U/l	5191	4153	6229	519.00	1038.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	480	394	566	43.00	86.00	CK-NAC substrate start (DGKC) 37°C
	U/l	300	247	353	26.50	53.00	CK-NAC substrate start (DGKC) 30°C
	U/l	204	167	241	18.50	37.00	CK-NAC substrate start (DGKC) 25°C
	U/l	498	408	588	45.00	90.00	CK-NAC (IFCC) 37°C
	U/l	312	255	369	28.50	57.00	CK-NAC (IFCC) 30°C
	U/l	212	173	251	19.50	39.00	CK-NAC (IFCC) 25°C
	U/l						

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	µmol/l	377	301	453	38.00	76.00	Roche Creatinine Plus
	mg/dl	4.26	3.40	5.12	0.43	0.86	
	µmol/l	371	297	445	37.00	74.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.19	3.36	5.02	0.42	0.83	
	µmol/l	372	298	446	37.00	74.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	4.20	3.37	5.03	0.42	0.83	
gamma-GT	U/l	175	149	201	13.00	26.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	138	117	159	10.50	21.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	108	92	124	8.00	16.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	181	154	208	13.50	27.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	143	121	165	11.00	22.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	112	95	129	8.50	17.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	15.9	13.5	18.3	1.20	2.40	Hexokinase
	mg/dl	287	243	331	22.00	44.00	
HDL - Cholesterol	mmol/l	2.93	2.49	3.37	0.22	0.44	Direct HDL Roche 4th Generation
	mg/dl	113	96.1	130	8.45	16.90	
Iron	µmol/l	38.0	31.1	44.9	3.45	6.90	Colorimetric without ppt.
	µg/dl	212	174	250	19.00	38.00	
Lactate	mmol/l	5.89	4.83	6.95	0.53	1.06	Colorimetric Lactate Oxidase
	mg/dl	53.1	43.5	62.7	4.80	9.60	
LD (LDH)	U/l	364	310	418	27.00	54.00	L->P IFCC 37°C
	U/l	263	224	302	19.50	39.00	L->P IFCC 30°C
	U/l	185	157	213	14.00	28.00	L->P IFCC 25°C

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lipase	U/l	78	62	94	8.00	16.00	Roche Colorimetric 37°C
Lithium	mmol/l	2.05	1.81	2.29	0.12	0.24	Spectrophotometric
	mg/dl	1.42	1.26	1.58	0.08	0.16	
Magnesium	mmol/l	2.05	1.80	2.30	0.13	0.25	Xylidyl Blue
	mg/dl	4.98	4.37	5.59	0.31	0.61	
	mmol/l	2.06	1.81	2.31	0.13	0.25	Chlorphosphonazo III
	mg/dl	5.01	4.40	5.62	0.31	0.61	
Osmolality	mOsm/kg	343	274	412	34.50	69.00	Calculated
Phosphate Inorganic	mmol/l	2.20	1.87	2.53	0.17	0.33	Phosphomolybdate UV
	mg/dl	6.82	5.80	7.84	0.51	1.02	
Potassium	mmol/l	6.08	5.78	6.38	0.15	0.30	ISE method - indirect
Protein Total	g/l	45.5	36.4	54.6	4.55	9.10	Biuret reaction end point
	g/dl	4.55	3.64	5.46	0.46	0.91	
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect
TIBC	µmol/l	39.9	31.5	48.3	4.20	8.40	FE+UIBC(saturation with iron)
	µg/dl	223	176	270	23.50	47.00	
Triglycerides	mmol/l	2.99	2.51	3.47	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	265	222	308	21.50	43.00	
	mmol/l	2.95	2.48	3.42	0.24	0.47	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	261	219	303	21.00	42.00	
	mmol/l	3.03	2.54	3.52	0.25	0.49	L/G Kinase EP. no correction
	mg/dl	268	225	311	21.50	43.00	
	mmol/l	3.01	2.52	3.50	0.25	0.49	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	266	223	309	21.50	43.00	

Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	3.02	2.54	3.50	0.24	0.48	Lipase/Glycerol Dehydrogenase
	mg/dl	267	225	309	21.00	42.00	
Uric Acid (Urate)	mmol/l	0.51	0.45	0.58	0.03	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	8.64	7.51	9.77	0.57	1.13	
	mmol/l	0.52	0.45	0.59	0.03	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.75	7.63	9.87	0.56	1.12	
Urea	mmol/l	0.52	0.46	0.59	0.03	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	8.79	7.64	9.94	0.58	1.15	
	mmol/l	19.1	16.2	22.0	1.45	2.90	Urease kinetic
	mg/dl	115	97.4	133	8.80	17.60	
	mmol/l	19.1	16.2	22.0	1.45	2.90	BUN
	mg/dl	53.6	45.6	61.6	4.00	8.00	

RX SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	30.4	25.8	35.0	2.30	4.60	Bromocresol Green
	g/dl	3.04	2.58	3.50	0.23	0.46	
Alkaline Phosphatase	U/l	564	479	649	42.50	85.00	Diethanolamine buffer DEA 37°C
	U/l	380	323	437	28.50	57.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	157	126	188	15.50	31.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	288	245	331	21.50	43.00	Randox Liquid Ethylidene pNPG7 37°C
Amylase Total	U/l	310	264	356	23.00	46.00	Randox Liquid Ethylidene pNPG7 37°C
AST (GOT)	U/l	141	113	169	14.00	28.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	21.7	17.2	26.2	2.25	4.50	Enzymatic
Bilirubin Direct	µmol/l	29.7	23.5	35.9	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.74	1.37	2.11	0.19	0.37	
	µmol/l	28.4	22.4	34.4	3.00	6.00	Oxidation to Biliverdin/Vanadate
	mg/dl	1.66	1.31	2.01	0.18	0.35	
Bilirubin Total	µmol/l	80.2	63.4	97.0	8.40	16.80	Diazo with Sulphanilic Acid
	mg/dl	4.69	3.71	5.67	0.49	0.98	
	µmol/l	87.1	68.8	105	9.15	18.30	Oxidation to Biliverdin/Vanadate
	mg/dl	5.10	4.02	6.18	0.54	1.08	
Calcium	mmol/l	3.75	3.38	4.12	0.19	0.37	Arsenazo III
	mg/dl	15.0	13.5	16.5	0.75	1.50	
Cholesterol	mmol/l	7.87	6.85	8.89	0.51	1.02	Cholesterol Oxidase - Abell Kendall
	mg/dl	304	264	344	20.00	40.00	

RX SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	111	105	117	3.00	6.00	ISE direct
CK Total	U/l	575	472	678	51.50	103.00	CK-NAC substrate start (DGKC) 37°C
	U/l	587	481	693	53.00	106.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	330	264	396	33.00	66.00	Alkaline picrate no deproteinization
	mg/dl	3.73	2.98	4.48	0.38	0.75	
	µmol/l	382	306	458	38.00	76.00	Enzymatic UV method
	mg/dl	4.32	3.46	5.18	0.43	0.86	
gamma-GT	U/l	187	159	215	14.00	28.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	15.7	13.3	18.1	1.20	2.40	Hexokinase
	mg/dl	283	240	326	21.50	43.00	
	mmol/l	16.0	13.6	18.4	1.20	2.40	Glucose oxidase
	mg/dl	288	245	331	21.50	43.00	
Iron	µmol/l	39.7	32.6	46.8	3.55	7.10	Colorimetric without ppt.
	µg/dl	222	182	262	20.00	40.00	
Lactate	mmol/l	6.02	4.94	7.10	0.54	1.08	Colorimetric Lactate Oxidase
	mg/dl	54.2	44.5	63.9	4.85	9.70	
LD (LDH)	U/l	718	610	826	54.00	108.00	P->L German methods 37°C
	U/l	360	306	414	27.00	54.00	L->P IFCC 37°C
Lipase	U/l	102	82	122	10.00	20.00	Randox Colorimetric 37°C
Magnesium	mmol/l	2.01	1.77	2.25	0.12	0.24	Xylidyl Blue
	mg/dl	4.88	4.30	5.46	0.29	0.58	
Phosphate Inorganic	mmol/l	2.15	1.83	2.47	0.16	0.32	Phosphomolybdate UV
	mg/dl	6.67	5.67	7.67	0.50	1.00	
Potassium	mmol/l	6.18	5.87	6.49	0.16	0.31	Enzymatic
	mmol/l	5.98	5.68	6.28	0.15	0.30	ISE method - direct

RX SERIES®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Protein Total	g/l	47.5	38.0	57.0	4.75	9.50	Biuret reaction end point
	g/dl	4.75	3.80	5.70	0.48	0.95	
Sodium	mmol/l	157	149	165	4.00	8.00	Enzymatic
	mmol/l	159	151	167	4.00	8.00	ISE method - direct
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	3.01	2.53	3.49	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	266	224	308	21.00	42.00	
Uric Acid (Urate)	mmol/l	0.58	0.51	0.66	0.04	0.08	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.79	8.52	11.1	0.64	1.27	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.07	7.90	10.2	0.59	1.17	
Urea	mmol/l	17.9	15.2	20.6	1.35	2.70	Urease kinetic
	mg/dl	108	91.4	125	8.30	16.60	
	mmol/l	17.9	15.2	20.6	1.35	2.70	BUN
	mg/dl	50.2	42.7	57.7	3.75	7.50	


SIEMENS ADVIA 1200/1650/1800/2400®
ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	29.6	25.1	34.1	2.25	4.50	Bromocresol Green
	g/dl	2.96	2.51	3.41	0.23	0.45	
Alkaline Phosphatase	U/l	323	274	372	24.50	49.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	153	123	183	15.00	30.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	260	221	299	19.50	39.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	285	242	328	21.50	43.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	140	112	168	14.00	28.00	Tris buffer without P5P 37°C
Bile Acids	µmol/l	40.2	32.2	48.2	4.00	8.00	Enzymatic Colorimetric
Bicarbonate	mmol/l	19.7	15.6	23.8	2.05	4.10	Enzymatic
Bilirubin Direct	µmol/l	29.5	23.3	35.7	3.10	6.20	Oxidation to Biliverdin/Vanadate
	mg/dl	1.73	1.36	2.10	0.19	0.37	
Bilirubin Total	µmol/l	87.6	69.2	106	9.20	18.40	Diazo with Sulphanilic Acid
	mg/dl	5.12	4.05	6.19	0.54	1.07	
	µmol/l	91.1	71.9	110	9.60	19.20	Oxidation to Biliverdin/Vanadate
	mg/dl	5.33	4.21	6.45	0.56	1.12	
Calcium	mmol/l	3.76	3.38	4.14	0.19	0.38	Arsenazo III
	mg/dl	15.1	13.5	16.7	0.80	1.60	
Cholesterol	mmol/l	7.37	6.41	8.33	0.48	0.96	Cholesterol Oxidase - Abell Kendall
	mg/dl	284	247	321	18.50	37.00	
	mmol/l	7.37	6.41	8.33	0.48	0.96	Cholesterol Oxidase - IDMS
	mg/dl	284	247	321	18.50	37.00	

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	115	109	121	3.00	6.00	ISE indirect
CK Total	U/l	517	424	610	46.50	93.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	349	279	419	35.00	70.00	Alkaline picrate with deproteinization
	mg/dl	3.94	3.15	4.73	0.40	0.79	
	μmol/l	357	286	428	35.50	71.00	Alkaline picrate no deproteinization
	mg/dl	4.03	3.23	4.83	0.40	0.80	
	μmol/l	376	301	451	37.50	75.00	Enzymatic UV method
	mg/dl	4.25	3.40	5.10	0.43	0.85	
	μmol/l	366	293	439	36.50	73.00	Creatinine PAP method
	mg/dl	4.14	3.31	4.97	0.42	0.83	
	μmol/l	371	297	445	37.00	74.00	Jaffe rate blanked
	mg/dl	4.19	3.36	5.02	0.42	0.83	
μmol/l	364	291	437	36.50	73.00	Jaffe rate blanked comp. (-26 μmol/l)	
mg/dl	4.11	3.29	4.93	0.41	0.82		
γ-GT	U/l	179	152	206	13.50	27.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	164	140	188	12.00	24.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	15.7	13.3	18.1	1.20	2.40	Hexokinase
	mg/dl	283	240	326	21.50	43.00	
	mmol/l	15.9	13.5	18.3	1.20	2.40	Glucose oxidase
	mg/dl	287	243	331	22.00	44.00	
HDL - Cholesterol	mmol/l	2.37	2.01	2.73	0.18	0.36	Direct HDL Immunoseparation
	mg/dl	91.5	77.6	105	6.95	13.90	
	mmol/l	2.41	2.05	2.77	0.18	0.36	Direct Clearance Method
	mg/dl	93.0	79.1	107	6.95	13.90	

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	µmol/l	38.6	31.7	45.5	3.45	6.90	Colorimetric without ppt.
	µg/dl	216	177	255	19.50	39.00	
Lactate	mmol/l	5.78	4.74	6.82	0.52	1.04	Colorimetric Lactate Oxidase
	mg/dl	52.1	42.7	61.5	4.70	9.40	
LD (LDH)	U/l	369	314	424	27.50	55.00	L->P 37°C
	U/l	362	308	416	27.00	54.00	L->P IFCC 37°C
Lipase	U/l	88	71	105	8.50	17.00	Other Colorimetric 37°C
Lithium	mmol/l	1.98	1.74	2.22	0.12	0.24	Spectrophotometric
	mg/dl	1.37	1.21	1.53	0.08	0.16	
Magnesium	mmol/l	1.91	1.68	2.14	0.12	0.23	Xylidyl Blue
	mg/dl	4.64	4.08	5.20	0.28	0.56	
Phosphate Inorganic	mmol/l	2.32	1.98	2.66	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.19	6.14	8.24	0.53	1.05	
Potassium	mmol/l	6.10	5.79	6.41	0.16	0.31	ISE method - indirect
Protein Total	g/l	45.6	36.5	54.7	4.55	9.10	Biuret reaction end point
	g/dl	4.56	3.65	5.47	0.46	0.91	
	g/l	45.8	36.6	55.0	4.60	9.20	Biuret reaction kinetic
	g/dl	4.58	3.66	5.50	0.46	0.92	
Sodium	mmol/l	160	152	168	4.00	8.00	ISE method - indirect
TIBC	µmol/l	45.2	35.7	54.7	4.75	9.50	FE+UIBC(saturation with iron)
	µg/dl	253	200	306	26.50	53.00	
	µmol/l	44.5	35.1	53.9	4.70	9.40	Direct Colorimetric
	µg/dl	249	196	302	26.50	53.00	
Triglycerides	mmol/l	3.04	2.56	3.52	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	269	227	311	21.00	42.00	

SIEMENS ADVIA 1200/1650/1800/2400®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	2.99	2.51	3.47	0.24	0.48	L/G Kinase EP. no correction
	mg/dl	265	222	308	21.50	43.00	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.63	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.31	8.10	10.5	0.61	1.21	
	mmol/l	0.55	0.47	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.16	7.96	10.4	0.60	1.20	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.00	7.83	10.2	0.59	1.17	
Urea	mmol/l	19.5	16.5	22.5	1.50	3.00	Urease end point
	mg/dl	117	99.2	135	8.90	17.80	
	mmol/l	19.4	16.5	22.3	1.45	2.90	Urease kinetic
	mg/dl	117	99.2	135	8.90	17.80	
	mmol/l	19.4	16.5	22.3	1.45	2.90	BUN
	mg/dl	54.4	46.2	62.6	4.10	8.20	

Siemens Atellica Solution

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	29.5	25.0	34.0	2.25	4.50	Bromocresol Green
	g/dl	2.95	2.50	3.40	0.23	0.45	
	g/l	29.2	24.8	33.6	2.20	4.40	Bromocresol Purple
	g/dl	2.92	2.48	3.36	0.22	0.44	
Alkaline Phosphatase	U/l	324	275	373	24.50	49.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	155	124	186	15.50	31.00	Tris buffer without P5P 37°C
	U/l	156	125	187	15.50	31.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Pancreatic	U/l	288	245	331	21.50	43.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	319	272	366	23.50	47.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	139	112	166	13.50	27.00	Tris buffer without P5P 37°C
	U/l	140	112	168	14.00	28.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	20.3	16.1	24.5	2.10	4.20	Enzymatic
Bilirubin Direct	µmol/l	31.1	24.6	37.6	3.25	6.50	Oxidation to Biliverdin/Vanadate
	mg/dl	1.82	1.44	2.20	0.19	0.38	
Bilirubin Total	µmol/l	91.3	72.1	111	9.60	19.20	Oxidation to Biliverdin/Vanadate
	mg/dl	5.34	4.22	6.46	0.56	1.12	
Calcium	mmol/l	4.04	3.63	4.45	0.21	0.41	Cresolphthalein complexone
	mg/dl	16.2	14.5	17.9	0.85	1.70	
	mmol/l	3.78	3.41	4.15	0.19	0.37	Arsenazo III
	mg/dl	15.2	13.7	16.7	0.75	1.50	
Cholesterol	mmol/l	7.32	6.37	8.27	0.48	0.95	Cholesterol Oxidase - Abell Kendall
	mg/dl	283	246	320	18.50	37.00	

Siemens Atellica Solution

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	7.34	6.39	8.29	0.48	0.95	Cholesterol Oxidase - IDMS
	mg/dl	283	247	319	18.00	36.00	
Chloride	mmol/l	115	109	121	3.00	6.00	ISE indirect
Cholinesterase	U/l	6761	5409	8113	676.00	1352.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	507	416	598	45.50	91.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	366	293	439	36.50	73.00	Alkaline picrate no deproteinization
	mg/dl	4.14	3.31	4.97	0.42	0.83	
	µmol/l	375	300	450	37.50	75.00	Enzymatic UV method
	mg/dl	4.24	3.39	5.09	0.43	0.85	
	µmol/l	375	300	450	37.50	75.00	Creatinine PAP method
	mg/dl	4.24	3.39	5.09	0.43	0.85	
	µmol/l	363	290	436	36.50	73.00	Jaffe rate blanked
	mg/dl	4.10	3.28	4.92	0.41	0.82	
	µmol/l	363	291	435	36.00	72.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	4.10	3.29	4.91	0.41	0.81	
gamma-GT	U/l	167	142	192	12.50	25.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	164	140	188	12.00	24.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	15.7	13.3	18.1	1.20	2.40	Hexokinase
	mg/dl	283	240	326	21.50	43.00	
	mmol/l	15.9	13.5	18.3	1.20	2.40	Glucose oxidase
	mg/dl	287	243	331	22.00	44.00	
HDL - Cholesterol	mmol/l	2.83	2.40	3.26	0.22	0.43	Direct HDL PPD
	mg/dl	109	92.6	125	8.20	16.40	
	mmol/l	2.86	2.43	3.29	0.22	0.43	Direct HDL Immunoseparation
	mg/dl	110	93.8	126	8.10	16.20	

Siemens Atellica Solution

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	2.92	2.48	3.36	0.22	0.44	Direct Clearance Method
	mg/dl	113	95.7	130	8.65	17.30	
Iron	μmol/l	39.0	31.9	46.1	3.55	7.10	Colorimetric with ppt.
	μg/dl	218	178	258	20.00	40.00	
	μmol/l	38.8	31.8	45.8	3.50	7.00	Colorimetric without ppt.
	μg/dl	217	178	256	19.50	39.00	
Lactate	mmol/l	6.01	4.93	7.09	0.54	1.08	Colorimetric Lactate Oxidase
	mg/dl	54.2	44.4	64.0	4.90	9.80	
LD (LDH)	U/l	362	307	417	27.50	55.00	L->P 37°C
	U/l	361	307	415	27.00	54.00	L->P IFCC 37°C
Lipase	U/l	88	70	106	9.00	18.00	Other Colorimetric 37°C
Lithium	mmol/l	1.98	1.74	2.22	0.12	0.24	Spectrophotometric
	mg/dl	1.37	1.21	1.53	0.08	0.16	
Magnesium	mmol/l	1.99	1.75	2.23	0.12	0.24	Xylidyl Blue
	mg/dl	4.84	4.25	5.43	0.30	0.59	
Osmolality	mOsm/kg	345	276	414	34.50	69.00	Calculated
Phosphate Inorganic	mmol/l	2.30	1.96	2.64	0.17	0.34	Phosphomolybdate UV
	mg/dl	7.13	6.08	8.18	0.53	1.05	
Potassium	mmol/l	5.98	5.68	6.28	0.15	0.30	ISE method - indirect
Protein Total	g/l	46.1	36.9	55.3	4.60	9.20	Biuret reaction end point
	g/dl	4.61	3.69	5.53	0.46	0.92	
Sodium	mmol/l	157	149	165	4.00	8.00	ISE method - indirect
Thyroid Stimulating Hormone	μU/ml =	1.23	0.98	1.48	0.12	0.25	Siemens Atellica IM
TIBC	μmol/l	47.0	37.1	56.9	4.95	9.90	Direct Colorimetric
	μg/dl	263	207	319	28.00	56.00	

Siemens Atellica Solution

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	3.03	2.55	3.51	0.24	0.48	Lipase/GPO-PAP no correction
	mg/dl	268	226	310	21.00	42.00	
	mmol/l	3.08	2.58	3.58	0.25	0.50	L/G Kinase EP. no correction
	mg/dl	273	228	318	22.50	45.00	
Uric Acid (Urate)	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase with ascorbate oxidase
	mg/dl	9.19	8.00	10.4	0.60	1.19	
	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	9.19	8.00	10.4	0.60	1.19	
Urea	mmol/l	0.55	0.48	0.62	0.04	0.07	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	9.22	8.03	10.4	0.60	1.19	
	mmol/l	19.2	16.3	22.1	1.45	2.90	Urease end point
	mg/dl	115	98.0	132	8.50	17.00	
Urea	mmol/l	19.0	16.1	21.9	1.45	2.90	Urease kinetic
	mg/dl	114	96.8	131	8.60	17.20	
	mmol/l	19.1	16.2	22.0	1.45	2.90	Urease hypochlorite
	mg/dl	115	97.4	133	8.80	17.60	
Urea	mmol/l	19.0	16.2	21.8	1.40	2.80	BUN
	mg/dl	53.3	45.3	61.3	4.00	8.00	

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	27.6	23.5	31.7	2.05	4.10	Bromocresol Green
	g/dl	2.76	2.35	3.17	0.21	0.41	
	g/l	28.2	24.0	32.4	2.10	4.20	Bromocresol Purple
	g/dl	2.82	2.40	3.24	0.21	0.42	
Alkaline Phosphatase	U/l	332	282	382	25.00	50.00	Siemens Dimension AMP buffer 37°C
	U/l	333	283	383	25.00	50.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	153	122	184	15.50	31.00	Tris buffer with P5P 37°C
	U/l	155	124	186	15.50	31.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	327	278	376	24.50	49.00	Siemens - maltopenta/hexaoside 37°C
	U/l	329	279	379	25.00	50.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	158	127	189	15.50	31.00	Tris buffer with P5P 37°C
	U/l	162	130	194	16.00	32.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	20.7	16.4	25.0	2.15	4.30	Enzymatic
Bilirubin Direct	µmol/l	19.1	15.1	23.1	2.00	4.00	Diazo with Sulphanilic Acid
	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/Sulphanilic Siemens Dimension
	mg/dl	1.11	0.878	1.34	0.12	0.23	
Bilirubin Total	µmol/l	80.8	63.8	97.8	8.50	17.00	Diazo with Sulphanilic Acid
	mg/dl	4.73	3.73	5.73	0.50	1.00	
Calcium	mmol/l	3.85	3.46	4.24	0.20	0.39	Cresolphthalein complexone
	mg/dl	15.4	13.9	16.9	0.75	1.50	

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	7.00	6.09	7.91	0.46	0.91	Cholesterol Oxidase - Abell Kendall
	mg/dl	270	235	305	17.50	35.00	
	mmol/l	7.07	6.15	7.99	0.46	0.92	Dimension-Siemens reagents
	mg/dl	273	237	309	18.00	36.00	
Chloride	mmol/l	113	108	118	2.50	5.00	ISE indirect
Cholinesterase	U/l	9320	7456	11184	932.00	1864.00	Colorimetric - Butyrylthiochol. Dimension 37°C
CK Total	U/l	500	410	590	45.00	90.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	374	300	448	37.00	74.00	Alkaline picrate with deproteinization
	mg/dl	4.23	3.39	5.07	0.42	0.84	
	µmol/l	375	300	450	37.50	75.00	Alkaline picrate no deproteinization
	mg/dl	4.24	3.39	5.09	0.43	0.85	
	µmol/l	376	301	451	37.50	75.00	Enzymatic UV method
	mg/dl	4.25	3.40	5.10	0.43	0.85	
	µmol/l	373	298	448	37.50	75.00	Creatinine PAP method
	mg/dl	4.21	3.37	5.05	0.42	0.84	
	µmol/l	374	299	449	37.50	75.00	Jaffe rate blanked
	mg/dl	4.23	3.38	5.08	0.43	0.85	
Free T4	µmol/l	81.0	60.8	101	10.10	20.20	Siemens Dimension Exl LOCI
	ng/dl	6.32	4.74	7.90	0.79	1.58	
	pg/ml	63.2	47.4	79.0	7.90	15.80	Siemens Dimension Exl LOCI
gamma-GT	U/l	186	158	214	14.00	28.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	214	182	246	16.00	32.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	16.0	13.6	18.4	1.20	2.40	Hexokinase
	mg/dl	288	245	331	21.50	43.00	

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	15.8	13.4	18.2	1.20	2.40	Oxygen electrode
	mg/dl	285	241	329	22.00	44.00	
HDL - Cholesterol	mmol/l	2.96	2.51	3.41	0.23	0.45	Direct HDL PPD
	mg/dl	114	96.9	131	8.55	17.10	
	mmol/l	2.92	2.48	3.36	0.22	0.44	Direct HDL PEGME
	mg/dl	113	95.7	130	8.65	17.30	
Iron	µmol/l	36.9	30.2	43.6	3.35	6.70	Colorimetric with ppt.
	µg/dl	206	169	243	18.50	37.00	
	µmol/l	36.5	29.9	43.1	3.30	6.60	Colorimetric without ppt.
	µg/dl	204	167	241	18.50	37.00	
Lactate	mmol/l	5.63	4.62	6.64	0.51	1.01	UV LDH
	mg/dl	50.7	41.6	59.8	4.55	9.10	
LD (LDH)	U/l	346	294	398	26.00	52.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	352	299	405	26.50	53.00	L->P IFCC 37°C
Lipase	U/l	77	61	93	8.00	16.00	Siemens Dimension Colorimetric (LIP Kit) 37°C
Magnesium	mmol/l	2.02	1.78	2.26	0.12	0.24	Methylthymol blue
	mg/dl	4.91	4.33	5.49	0.29	0.58	
Osmolality	mOsm/kg	338	270	406	34.00	68.00	Calculated
Phosphate Inorganic	mmol/l	2.31	1.96	2.66	0.18	0.35	Phosphomolybdate enzymatic
	mg/dl	7.16	6.08	8.24	0.54	1.08	
	mmol/l	2.32	1.97	2.67	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.19	6.11	8.27	0.54	1.08	
Potassium	mmol/l	6.03	5.73	6.33	0.15	0.30	ISE method - indirect
Protein Total	g/l	47.2	37.8	56.6	4.70	9.40	Biuret reaction end point
	g/dl	4.72	3.78	5.66	0.47	0.94	

SIEMENS DIMENSION EXL®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
PSA Total	ng/ml =	19.9	14.9	24.9	2.50	5.00	Siemens Dimension	
Sodium	mmol/l	158	150	166	4.00	8.00	ISE method - indirect	
Thyroid Stimulating Hormone	µU/ml =	1.18	0.95	1.41	0.12	0.23	Siemens Dimension Exl LOCI	
TIBC	µmol/l	36.3	28.6	44.0	3.85	7.70	Removal of excess free iron	
	µg/dl	203	160	246	21.50	43.00		
	µmol/l	36.3	28.7	43.9	3.80	7.60	FE+UIBC(saturation with iron)	
	µg/dl	203	160	246	21.50	43.00		
	µmol/l	37.6	29.7	45.5	3.95	7.90		Direct Colorimetric
Triglycerides	µg/dl	210	166	254	22.00	44.00	Lipase/GPO-PAP no correction	
	mmol/l	2.96	2.49	3.43	0.24	0.47		
	mg/dl	262	220	304	21.00	42.00	L/G Kinase EP. no correction	
	mmol/l	2.96	2.48	3.44	0.24	0.48		
	mg/dl	262	219	305	21.50	43.00		
	mmol/l	2.94	2.47	3.41	0.24	0.47		Lipase/Glycerol Dehydrogenase
Uric Acid (Urate)	mg/dl	260	219	301	20.50	41.00	Uricase catalase 340nm	
	mmol/l	0.54	0.47	0.61	0.04	0.07		
	mg/dl	9.11	7.91	10.3	0.60	1.20	Uricase peroxidase with ascorbate oxidase	
	mmol/l	0.55	0.48	0.62	0.04	0.07		
	mg/dl	9.21	8.01	10.4	0.60	1.20	Uricase peroxidase no ascorbate oxidase	
	mmol/l	0.54	0.47	0.61	0.04	0.07		
	mg/dl	9.06	7.88	10.2	0.59	1.18		
	mmol/l	0.54	0.47	0.61	0.04	0.07		Spectrophotometric at 280-290
	Urea	mg/dl	9.11	7.93	10.3	0.59	1.18	Urease end point
		mmol/l	19.5	16.5	22.5	1.50	3.00	
Urea	mg/dl	117	99.2	135	8.90	17.80		
	mmol/l							

**SIEMENS DIMENSION EXL®**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	20.0	17.0	23.0	1.50	3.00	Urease kinetic
	mg/dl	120	102	138	9.00	18.00	
	mmol/l	20.0	17.0	23.0	1.50	3.00	BUN
	mg/dl	56.1	47.7	64.5	4.20	8.40	

SIEMENS DIMENSION RxL/Max/Xpand®

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	27.6	23.5	31.7	2.05	4.10	Bromocresol Green
	g/dl	2.76	2.35	3.17	0.21	0.41	
	g/l	28.2	24.0	32.4	2.10	4.20	Bromocresol Purple
	g/dl	2.82	2.40	3.24	0.21	0.42	
Alkaline Phosphatase	U/l	329	280	378	24.50	49.00	Siemens Dimension AMP buffer 37°C
	U/l	332	282	382	25.00	50.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	153	123	183	15.00	30.00	Tris buffer with P5P 37°C
	U/l	153	123	183	15.00	30.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	331	281	381	25.00	50.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	161	129	193	16.00	32.00	Tris buffer with P5P 37°C
	U/l	159	127	191	16.00	32.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	21.5	17.0	26.0	2.25	4.50	Enzymatic
Bilirubin Direct	µmol/l	20.1	15.9	24.3	2.10	4.20	Diazo with Sulphanilic Acid
	mg/dl	1.18	0.930	1.43	0.13	0.25	
	µmol/l	18.9	14.9	22.9	2.00	4.00	Diazo/Sulphanilic Siemens Dimension
	mg/dl	1.11	0.872	1.35	0.12	0.24	
Bilirubin Total	µmol/l	80.3	63.4	97.2	8.45	16.90	Diazo with Sulphanilic Acid
	mg/dl	4.70	3.71	5.69	0.50	0.99	
Calcium	mmol/l	3.86	3.48	4.24	0.19	0.38	Cresolphthalein complexone
	mg/dl	15.5	13.9	17.1	0.80	1.60	
Cholesterol	mmol/l	7.16	6.23	8.09	0.47	0.93	Cholesterol Oxidase - Abell Kendall
	mg/dl	276	240	312	18.00	36.00	


SIEMENS DIMENSION RxL/Max/Xpand®
ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	6.98	6.08	7.88	0.45	0.90	Dimension-Siemens reagents
	mg/dl	269	235	303	17.00	34.00	
Chloride	mmol/l	114	108	120	3.00	6.00	ISE indirect
CK Total	U/l	507	416	598	45.50	91.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	375	300	450	37.50	75.00	Alkaline picrate no deproteinization
	mg/dl	4.24	3.39	5.09	0.43	0.85	
	μmol/l	377	301	453	38.00	76.00	Creatinine PAP method
	mg/dl	4.26	3.40	5.12	0.43	0.86	
	μmol/l	367	293	441	37.00	74.00	Jaffe rate blanked
	mg/dl	4.15	3.31	4.99	0.42	0.84	
μmol/l	377	301	453	38.00	76.00	IDMS traceable	
mg/dl	4.26	3.40	5.12	0.43	0.86		
gamma-GT	U/l	192	164	220	14.00	28.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	206	175	237	15.50	31.00	
Glucose	mmol/l	16.1	13.6	18.6	1.25	2.50	Hexokinase
	mg/dl	290	245	335	22.50	45.00	
HDL - Cholesterol	mmol/l	3.01	2.56	3.46	0.23	0.45	Direct HDL PPD
	mg/dl	116	98.8	133	8.60	17.20	
	mmol/l	2.93	2.49	3.37	0.22	0.44	Direct HDL PEGME
	mg/dl	113	96.1	130	8.45	16.90	
Iron	μmol/l	36.8	30.2	43.4	3.30	6.60	Colorimetric with ppt.
	μg/dl	206	169	243	18.50	37.00	
	μmol/l	37.1	30.4	43.8	3.35	6.70	Colorimetric without ppt.
	μg/dl	207	170	244	18.50	37.00	


SIEMENS DIMENSION RxL/Max/Xpand®
ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	341	290	392	25.50	51.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	352	299	405	26.50	53.00	L->P IFCC 37°C
Magnesium	mmol/l	2.03	1.79	2.27	0.12	0.24	Methylthymol blue
	mg/dl	4.93	4.35	5.51	0.29	0.58	
Phosphate Inorganic	mmol/l	2.27	1.93	2.61	0.17	0.34	Phosphomolybdate enzymatic
	mg/dl	7.04	5.98	8.10	0.53	1.06	
	mmol/l	2.32	1.97	2.67	0.18	0.35	Phosphomolybdate UV
	mg/dl	7.19	6.11	8.27	0.54	1.08	
Potassium	mmol/l	5.99	5.69	6.29	0.15	0.30	ISE method - indirect
Protein Total	g/l	47.2	37.7	56.7	4.75	9.50	Biuret reaction end point
	g/dl	4.72	3.77	5.67	0.48	0.95	
Sodium	mmol/l	157	149	165	4.00	8.00	ISE method - indirect
TIBC	µmol/l	37.6	29.7	45.5	3.95	7.90	Removal of excess free iron
	µg/dl	210	166	254	22.00	44.00	
	µmol/l	36.0	28.4	43.6	3.80	7.60	FE+UIBC(saturation with iron)
	µg/dl	201	159	243	21.00	42.00	
	µmol/l	36.3	28.6	44.0	3.85	7.70	Direct Colorimetric
	µg/dl	203	160	246	21.50	43.00	
Triglycerides	mmol/l	2.93	2.46	3.40	0.24	0.47	Lipase/GPO-PAP no correction
	mg/dl	259	218	300	20.50	41.00	
	mmol/l	2.95	2.47	3.43	0.24	0.48	L/G Kinase EP. no correction
	mg/dl	261	219	303	21.00	42.00	
	mmol/l	2.89	2.43	3.35	0.23	0.46	Lipase/Glycerol Dehydrogenase
	mg/dl	256	215	297	20.50	41.00	
Uric Acid (Urate)	mmol/l	0.54	0.47	0.61	0.04	0.07	Uricase catalase 340nm
	mg/dl	9.06	7.88	10.2	0.59	1.18	

**SIEMENS DIMENSION RxL/Max/Xpand®**

ASSAYED HUMAN SERA LEVEL 3 (HUM ASY CONTROL 3)

Lot. No. 1318UE Cat. No. HE1532 / HS2611

Size 20 x 5 ml / 5 x 5 ml Expiry 2027-03-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.53	0.46	0.60	0.04	0.07	Uricase peroxidase no ascorbate oxidase
	mg/dl	8.97	7.80	10.1	0.59	1.17	
	mmol/l	0.54	0.47	0.61	0.04	0.07	Spectrophotometric at 280-290
	mg/dl	9.09	7.90	10.3	0.60	1.19	
Urea	mmol/l	20.6	17.5	23.7	1.55	3.10	Urease end point
	mg/dl	124	105	143	9.50	19.00	
	mmol/l	20.1	17.1	23.1	1.50	3.00	Urease kinetic
	mg/dl	121	103	139	9.00	18.00	
	mmol/l	20.1	17.1	23.1	1.50	3.00	BUN
	mg/dl	56.4	47.9	64.9	4.25	8.50	