

## Abbott Alinity/ Architect c/ci Systems®

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.9	35.6	48.2	3.15	6.30	Bromocresol Green
	g/dl	4.19	3.56	4.82	0.32	0.63	
	g/l	43.3	36.8	49.8	3.25	6.50	Bromocresol Purple
	g/dl	4.33	3.68	4.98	0.33	0.65	
Alkaline Phosphatase	U/l	147	125	169	11.00	22.00	AMP optimised to IFCC 37°C
	U/l	144	122	166	11.00	22.00	AMP non-optimised 37°C
	U/l	144	122	166	11.00	22.00	Colorimetric 37°C
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	67	57	77	5.00	10.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	103	88	118	7.50	15.00	Abbott Architect IFCC Cal. 37°C
	U/l	98	83	113	7.50	15.00	Abbott Architect Non-IFCC Cal. 37°C
AST (GOT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	13.9	11.0	16.8	1.45	2.90	Enzymatic
Bile Acids	µmol/l	25.7	20.6	30.8	2.55	5.10	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	19.4	15.3	23.5	2.05	4.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.13	0.895	1.37	0.12	0.24	
	µmol/l	19.4	15.3	23.5	2.05	4.10	Diazo with Sulphanilic Acid
	mg/dl	1.13	0.895	1.37	0.12	0.24	
	µmol/l	19.3	15.2	23.4	2.05	4.10	Diazo with Dichloroaniline (DCA)
	mg/dl	1.13	0.889	1.37	0.12	0.24	
Bilirubin Total	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	

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Bilirubin Total	µmol/l	27.6	21.8	33.4	2.90	5.80	Diazo with Sulphanilic Acid
	mg/dl	1.61	1.28	1.94	0.17	0.33	
	µmol/l	28.1	22.2	34.0	2.95	5.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.64	1.30	1.98	0.17	0.34	
	µmol/l	27.0	21.3	32.7	2.85	5.70	Diazonium ion
	mg/dl	1.58	1.25	1.91	0.17	0.33	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.86	7.98	9.74	0.44	0.88	
	mmol/l	2.21	1.99	2.43	0.11	0.22	Arsenazo III
mg/dl	8.86	7.98	9.74	0.44	0.88		
Chloride	mmol/l	101	92.9	109	4.05	8.10	ISE indirect
Cholesterol	mmol/l	4.02	3.50	4.54	0.26	0.52	Cholesterol Oxidase - Abell Kendall
	mg/dl	155	135	175	10.00	20.00	
	mmol/l	4.01	3.49	4.53	0.26	0.52	Cholesterol Dehydrogenase
mg/dl	155	135	175	10.00	20.00		
Cholinesterase	U/l	6586	5269	7903	658.50	1317.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	193	158	228	17.50	35.00	CK-NAC serum start (DGKC) 37°C
	U/l	198	162	234	18.00	36.00	CK-NAC substrate start (DGKC) 37°C
	U/l	194	159	229	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	203	166	240	18.50	37.00	Monothioglycerol 37°C
Copper	µmol/l	13.3	10.7	15.9	1.30	2.60	Colorimetric
	µg/dl	84.6	68.1	101	8.25	16.50	
Creatinine	µmol/l	133	107	159	13.00	26.00	Alkaline picrate with deproteinization
	mg/dl	1.50	1.21	1.79	0.15	0.29	


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Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	132	105	159	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.49	1.19	1.79	0.15	0.30	
	μmol/l	128	103	153	12.50	25.00	Enzymatic UV method
	mg/dl	1.45	1.16	1.74	0.15	0.29	
	μmol/l	133	106	160	13.50	27.00	Jaffe rate blanked
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	μmol/l	131	105	157	13.00	26.00	IDMS traceable
	mg/dl	1.48	1.19	1.77	0.15	0.29	
Free T4	pmol/l	17.2	12.9	21.5	2.15	4.30	Abbott Architect
	ng/dl	1.34	1.01	1.67	0.17	0.33	
	pg/ml	13.4	10.1	16.7	1.65	3.30	Abbott Architect
gamma-GT	U/l	51	44	58	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	51	44	58	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	52	44	60	4.00	8.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	5.89	5.01	6.77	0.44	0.88	Hexokinase
	mg/dl	106	90.3	122	7.85	15.70	
	mmol/l	6.05	5.14	6.96	0.46	0.91	Glucose oxidase
	mg/dl	109	92.6	125	8.20	16.40	
HDL - Cholesterol	mmol/l	1.54	1.31	1.77	0.12	0.23	Direct HDL PPD
	mg/dl	59.4	50.6	68.2	4.40	8.80	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Direct HDL Immunoseparation
	mg/dl	54.0	45.9	62.1	4.05	8.10	
	mmol/l	1.52	1.29	1.75	0.12	0.23	Direct Clearance Method
	mg/dl	58.7	49.8	67.6	4.45	8.90	
	mmol/l	1.50	1.27	1.73	0.12	0.23	HDL - Ultra
	mg/dl	57.9	49.0	66.8	4.45	8.90	

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Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	µmol/l	19.7	16.2	23.2	1.75	3.50	Colorimetric with ppt.
	µg/dl	110	90.6	129	9.70	19.40	
	µmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.9	127	9.55	19.10	
Lactate	mmol/l	1.55	1.27	1.83	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.0	11.4	16.6	1.30	2.60	
LD (LDH)	U/l	202	172	232	15.00	30.00	L->P 37°C
	U/l	206	175	237	15.50	31.00	L->P IFCC 37°C
Lipase	U/l	33	27	39	3.00	6.00	Other Colorimetric 37°C
Lithium	mmol/l	1.03	0.91	1.15	0.06	0.12	Spectrophotometric
	mg/dl	0.715	0.630	0.800	0.04	0.09	
Magnesium	mmol/l	0.87	0.77	0.97	0.05	0.10	Arsenazo III
	mg/dl	2.11	1.86	2.36	0.13	0.25	
	mmol/l	0.90	0.79	1.00	0.05	0.11	Xylidyl Blue
	mg/dl	2.18	1.91	2.45	0.14	0.27	
Magnesium	mmol/l	0.88	0.77	0.98	0.05	0.11	Enzymatic
	mg/dl	2.13	1.88	2.38	0.13	0.25	
Osmolality	mOsm/kg	298	239	357	29.50	59.00	Calculated
Phosphate Inorganic	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.40	3.75	5.05	0.33	0.65	
	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.40	3.75	5.05	0.33	0.65	
Potassium	mmol/l	3.99	3.67	4.31	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.6	46.9	70.3	5.85	11.70	Biuret reaction end point
	g/dl	5.86	4.69	7.03	0.59	1.17	

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Analyte	unit	Target	low	high	1SD	2SD	methods	
Protein Total	g/l	58.7	47.0	70.4	5.85	11.70	Biuret reaction kinetic	
	g/dl	5.87	4.70	7.04	0.59	1.17		
PSA Total	ng/ml =	12.1	9.04	15.2	1.53	3.06	Abbott Architect	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect	
Thyroid Stimulating Hormone	µU/ml =	0.98	0.78	1.17	0.10	0.20	Abbott Architect	
TIBC	µmol/l	37.6	29.7	45.5	3.95	7.90	FE+UIBC(saturation with iron)	
	µg/dl	210	166	254	22.00	44.00		
	µmol/l	42.7	33.7	51.7	4.50	9.00	Calculated from Transferrin	
	µg/dl	239	188	290	25.50	51.00		
Triglycerides	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/GPO-PAP no correction	
	mg/dl	94.7	79.5	110	7.60	15.20		
	mmol/l	1.09	0.91	1.27	0.09	0.18	L/G Kinase EP. no correction	
	mg/dl	96.5	80.9	112	7.80	15.60		
	mmol/l	1.07	0.90	1.24	0.09	0.17	Lipase/Glycerol Dehydrogenase	
	mg/dl	94.7	79.4	110	7.65	15.30		
	UIBC	µmol/l	17.8	14.6	21.0	1.60	3.20	Direct Colorimetric
		µg/dl	99.5	81.6	117	8.95	17.90	
Urea	mmol/l	7.15	6.08	8.22	0.54	1.07	Urease end point	
	mg/dl	43.0	36.5	49.5	3.25	6.50		
	mmol/l	7.13	6.06	8.20	0.54	1.07	Urease kinetic	
	mg/dl	42.9	36.4	49.4	3.25	6.50		
	mmol/l	7.13	6.06	8.20	0.54	1.07	BUN	
	mg/dl	20.0	17.0	23.0	1.50	3.00		
	Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
		mg/dl	5.88	5.12	6.64	0.38	0.76	

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Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.85	5.09	6.61	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.90	5.12	6.68	0.39	0.78	
Zinc	µmol/l	24.3	19.4	29.2	2.45	4.90	Colorimetric with deproteinisation
	µg/dl	159	127	191	16.00	32.00	

## ABX Pentra 400®

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Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	40.7	34.6	46.8	3.05	6.10	Bromocresol Green
	g/dl	4.07	3.46	4.68	0.31	0.61	
Alkaline Phosphatase	U/l	162	138	186	12.00	24.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	42	34	50	4.00	8.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	20.0	15.8	24.2	2.10	4.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.17	0.924	1.42	0.12	0.25	
Bilirubin Total	µmol/l	28.4	22.4	34.4	3.00	6.00	Diazo with Dichloroaniline (DCA)
	mg/dl	1.66	1.31	2.01	0.18	0.35	
Calcium	mmol/l	2.24	2.02	2.46	0.11	0.22	Arsenazo III
	mg/dl	8.98	8.10	9.86	0.44	0.88	
Chloride	mmol/l	97.5	89.7	105	3.90	7.80	ISE direct
Cholesterol	mmol/l	4.13	3.59	4.67	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	159	139	179	10.00	20.00	
CK Total	U/l	196	160	232	18.00	36.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	135	108	162	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.53	1.22	1.84	0.16	0.31	
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
Glucose	mmol/l	6.21	5.28	7.14	0.47	0.93	Hexokinase
	mg/dl	112	95.1	129	8.45	16.90	
	mmol/l	6.10	5.19	7.01	0.46	0.91	Glucose oxidase
	mg/dl	110	93.5	127	8.25	16.50	


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Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.46	1.25	1.67	0.11	0.21	HDL - Ultra
	mg/dl	56.4	48.3	64.5	4.05	8.10	
Iron	µmol/l	18.0	14.7	21.3	1.65	3.30	Colorimetric without ppt.
	µg/dl	101	82.2	120	9.40	18.80	
LD (LDH)	U/l	386	328	444	29.00	58.00	P->L German methods 37°C
	U/l	221	188	254	16.50	33.00	L->P IFCC 37°C
Lipase	U/l	27	22	32	2.50	5.00	Other Colorimetric 37°C
Magnesium	mmol/l	0.88	0.77	0.98	0.05	0.11	Xylidyl Blue
	mg/dl	2.13	1.88	2.38	0.13	0.25	
Phosphate Inorganic	mmol/l	1.54	1.31	1.77	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.77	4.06	5.48	0.36	0.71	
Potassium	mmol/l	3.93	3.61	4.25	0.16	0.32	ISE method - direct
Protein Total	g/l	58.4	46.7	70.1	5.85	11.70	Biuret reaction end point
	g/dl	5.84	4.67	7.01	0.59	1.17	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.16	0.98	1.34	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	103	86.4	120	8.30	16.60	
Urea	mmol/l	6.74	5.73	7.75	0.51	1.01	Urease kinetic
	mg/dl	40.5	34.4	46.6	3.05	6.10	
	mmol/l	6.74	5.73	7.75	0.51	1.01	BUN
	mg/dl	18.9	16.1	21.7	1.40	2.80	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.58	4.86	6.30	0.36	0.72	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.71	4.97	6.45	0.37	0.74	



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Albumin	g/l	40.1	34.1	46.1	3.00	6.00	Bromocresol Green
	g/dl	4.01	3.41	4.61	0.30	0.60	
	g/l	39.7	33.8	45.6	2.95	5.90	Bromocresol Purple
	g/dl	3.97	3.38	4.56	0.30	0.59	
Alkaline Phosphatase	U/l	174	148	200	13.00	26.00	AMP optimised to IFCC 37°C
	U/l	166	141	191	12.50	25.00	AMP non-optimised 37°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	42	34	50	4.00	8.00	Beckman (Extinction Coefficient) 37°C
Amylase Pancreatic	U/l	63	53	73	5.00	10.00	Immuno-inhibition EPS substrate 37°C
Amylase Total	U/l	88	75	101	6.50	13.00	pNP Maltotriose substrates 37°C
	U/l	88	75	101	6.50	13.00	Randox Lyo. Ethylidene pNPG7 37°C
	U/l	92	78	106	7.00	14.00	Randox Liquid Ethylidene pNPG7 37°C
	U/l	91	78	104	6.50	13.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	91	77	105	7.00	14.00	Beckman Synchron AMY7 37°C
	U/l	89	75	103	7.00	14.00	Beckman CNPG3 (Extinction Coeff) 37°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Colorimetric 37°C
	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
	U/l	37	29	45	4.00	8.00	Beckman (Extinction Coefficient) 37°C
Bicarbonate	mmol/l	14.4	11.4	17.4	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	18.4	14.5	22.3	1.95	3.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.08	0.848	1.31	0.12	0.23	



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Bilirubin Direct	µmol/l	18.3	14.5	22.1	1.90	3.80	Diazo with Sulphanilic Acid
	mg/dl	1.07	0.848	1.29	0.11	0.22	
	µmol/l	18.6	14.7	22.5	1.95	3.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.09	0.860	1.32	0.12	0.23	
Bilirubin Total	µmol/l	29.3	23.1	35.5	3.10	6.20	Diazo with Dichloroaniline (DCA)
	mg/dl	1.71	1.35	2.07	0.18	0.36	
	µmol/l	30.0	23.7	36.3	3.15	6.30	Diazo with Sulphanilic Acid
	mg/dl	1.76	1.39	2.13	0.19	0.37	
	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	31.6	25.0	38.2	3.30	6.60	Diazonium ion
	mg/dl	1.85	1.46	2.24	0.20	0.39	
	µmol/l	30.7	24.3	37.1	3.20	6.40	Oxidation to Biliverdin/Vanadate
	mg/dl	1.80	1.42	2.18	0.19	0.38	
	µmol/l	30.7	24.2	37.2	3.25	6.50	DPD (Beckman AU)
	mg/dl	1.80	1.42	2.18	0.19	0.38	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.86	7.98	9.74	0.44	0.88	
	mmol/l	2.26	2.04	2.48	0.11	0.22	Ion selective electrode
	mg/dl	9.06	8.18	9.94	0.44	0.88	
	mmol/l	2.26	2.03	2.49	0.12	0.23	Arsenazo III
	mg/dl	9.06	8.14	9.98	0.46	0.92	
Chloride	mmol/l	103	94.3	112	4.35	8.70	Colorimetric
	mmol/l	99.1	91.2	107	3.95	7.90	ISE indirect
Cholesterol	mmol/l	4.08	3.55	4.61	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	157	137	177	10.00	20.00	

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Cholesterol	mmol/l	4.00	3.48	4.52	0.26	0.52	Cholesterol Dehydrogenase
	mg/dl	154	134	174	10.00	20.00	
Cholinesterase	U/l	5385	4308	6462	538.50	1077.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	207	170	244	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	209	172	246	18.50	37.00	Beckman CK-NAC (Extinction Coeff) 37°C
Creatinine	µmol/l	126	101	151	12.50	25.00	Alkaline picrate with deproteinization
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	128	102	154	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	132	106	158	13.00	26.00	Enzymatic UV method
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	µmol/l	133	107	159	13.00	26.00	Creatinine PAP method
	mg/dl	1.50	1.21	1.79	0.15	0.29	
	µmol/l	130	104	156	13.00	26.00	Jaffe rate blanked
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	131	105	157	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	124	99.2	149	12.40	24.80	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.40	1.12	1.68	0.14	0.28	
µmol/l	126	101	151	12.50	25.00	IDMS traceable	
mg/dl	1.42	1.14	1.70	0.14	0.28		
D-3-Hydroxybutyrate	mmol/l	0.29	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
gamma-GT	U/l	53	45	61	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	50	43	57	3.50	7.00	Gamma glutamyl-4-nitroanilide 37°C



### Beckman Coulter AU Series®

### ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

#### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	52	45	59	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	53	45	61	4.00	8.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
	U/l	51	44	58	3.50	7.00	Beckman Szasz (Extinction Coeff) 37°C
GLDH	U/l	20	16	24	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
Glucose	mmol/l	6.01	5.11	6.91	0.45	0.90	GOD/02-Beckman method
	mg/dl	108	92.1	124	7.95	15.90	
	mmol/l	6.08	5.17	6.99	0.46	0.91	Glucose dehydrogenase
	mg/dl	110	93.2	127	8.40	16.80	
	mmol/l	6.09	5.18	7.00	0.46	0.91	Hexokinase
	mg/dl	110	93.3	127	8.35	16.70	
HDL - Cholesterol	mmol/l	1.46	1.24	1.68	0.11	0.22	Direct HDL PPD
	mg/dl	56.4	47.9	64.9	4.25	8.50	
	mmol/l	1.45	1.23	1.67	0.11	0.22	Direct HDL Immunoseparation
	mg/dl	56.0	47.5	64.5	4.25	8.50	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Direct HDL PEGME
	mg/dl	54.0	45.9	62.1	4.05	8.10	
	mmol/l	1.46	1.24	1.68	0.11	0.22	Direct Clearance Method
	mg/dl	56.4	47.9	64.9	4.25	8.50	
	mmol/l	1.37	1.17	1.57	0.10	0.20	HDL - Ultra
	mg/dl	52.9	45.2	60.6	3.85	7.70	
	mmol/l	1.48	1.26	1.70	0.11	0.22	Direct HDL Roche 4th Generation
	mg/dl	57.1	48.6	65.6	4.25	8.50	
Iron	µmol/l	19.7	16.1	23.3	1.80	3.60	Colorimetric with ppt.
	µg/dl	110	90.0	130	10.00	20.00	

## Beckman Coulter AU Series®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	µmol/l	19.6	16.1	23.1	1.75	3.50	Colorimetric without ppt.
	µg/dl	110	90.0	130	10.00	20.00	
Lactate	mmol/l	1.50	1.23	1.77	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.5	11.1	15.9	1.20	2.40	
LD (LDH)	U/l	209	177	241	16.00	32.00	L->P 37°C
	U/l	444	377	511	33.50	67.00	P->L Scandinavian & Dutch 37°C
	U/l	399	339	459	30.00	60.00	P->L German methods 37°C
	U/l	208	177	239	15.50	31.00	L->P IFCC 37°C
	U/l	210	179	241	15.50	31.00	L to P Beckman (Extinction Coeff) 37°C
Lipase	U/l	31	25	37	3.00	6.00	Other Colorimetric 37°C
	U/l	29	23	35	3.00	6.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.03	0.90	1.16	0.06	0.13	Ion selective electrode
	mg/dl	0.715	0.627	0.803	0.04	0.09	
	mmol/l	1.02	0.90	1.14	0.06	0.12	Spectrophotometric
Magnesium	mg/dl	0.708	0.624	0.792	0.04	0.08	Xylidyl Blue
	mmol/l	0.91	0.80	1.02	0.06	0.11	
	mg/dl	2.22	1.95	2.49	0.14	0.27	Methylthymol blue
	mmol/l	0.94	0.83	1.05	0.06	0.11	
Osmolality	mg/dl	2.28	2.01	2.55	0.14	0.27	Calculated
	mOsm/kg	292	234	350	29.00	58.00	
Phosphate Inorganic	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate enzymatic
	mg/dl	4.37	3.72	5.02	0.33	0.65	
	mmol/l	1.42	1.21	1.63	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.40	3.75	5.05	0.33	0.65	

## Beckman Coulter AU Series®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
Phosphate Inorganic	mmol/l	1.44	1.23	1.65	0.11	0.21	Beckman PHOSm (365nm)	
	mg/dl	4.46	3.81	5.11	0.33	0.65		
Potassium	mmol/l	3.98	3.67	4.29	0.16	0.31	ISE method - indirect	
Protein Total	g/l	58.3	46.6	70.0	5.85	11.70	Biuret reaction end point	
	g/dl	5.83	4.66	7.00	0.59	1.17		
	g/l	58.0	46.4	69.6	5.80	11.60	Biuret reaction kinetic	
	g/dl	5.80	4.64	6.96	0.58	1.16		
Sodium	mmol/l	142	135	149	3.50	7.00	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	41.2	32.5	49.9	4.35	8.70	Direct Colorimetric	
	μg/dl	230	182	278	24.00	48.00		
	μmol/l	38.5	30.4	46.6	4.05	8.10	Calculated from Transferrin	
	μg/dl	215	170	260	22.50	45.00		
Triglycerides	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP no correction	
	mg/dl	99.1	83.0	115	8.05	16.10		
	mmol/l	1.11	0.94	1.29	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction	
	mg/dl	98.2	82.7	114	7.75	15.50		
	mmol/l	1.11	0.93	1.29	0.09	0.18	L/G Kinase EP. no correction	
	mg/dl	98.2	82.4	114	7.90	15.80		
	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/Glycerol Dehydrogenase	
	mg/dl	99.1	83.5	115	7.80	15.60		
	UIBC	μmol/l	22.2	18.2	26.2	2.00	4.00	Direct Colorimetric
		μg/dl	124	102	146	11.00	22.00	
Urea	mmol/l	7.42	6.31	8.53	0.56	1.11	Beckman-Conductivity	
	mg/dl	44.6	37.9	51.3	3.35	6.70		

## Beckman Coulter AU Series®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.44	6.33	8.55	0.56	1.11	Urease end point
	mg/dl	44.7	38.0	51.4	3.35	6.70	
	mmol/l	7.40	6.29	8.51	0.56	1.11	Urease kinetic
	mg/dl	44.5	37.8	51.2	3.35	6.70	
	mmol/l	7.27	6.18	8.36	0.55	1.09	Urease hypochlorite
	mg/dl	43.7	37.1	50.3	3.30	6.60	
mmol/l	7.40	6.29	8.51	0.56	1.11	BUN	
mg/dl	20.8	17.7	23.9	1.55	3.10		
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.96	5.19	6.73	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.91	5.14	6.68	0.39	0.77	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	6.03	5.24	6.82	0.40	0.79	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.90	5.14	6.66	0.38	0.76	
Zinc	µmol/l	22.7	18.1	27.3	2.30	4.60	Colorimetric with deproteinisation
	µg/dl	148	118	178	15.00	30.00	

## Beckman DxC600/800®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	44.0	37.4	50.6	3.30	6.60	Bromocresol Green
	g/dl	4.40	3.74	5.06	0.33	0.66	
	g/l	44.3	37.6	51.0	3.35	6.70	Bromocresol Purple
	g/dl	4.43	3.76	5.10	0.34	0.67	
Alkaline Phosphatase	U/l	156	133	179	11.50	23.00	AMP optimised to IFCC 37°C
	U/l	154	131	177	11.50	23.00	AMP non-optimised 37°C
ALT (GPT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
Amylase Total	U/l	94	80	108	7.00	14.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	94	80	108	7.00	14.00	Beckman Synchron AMY7 37°C
AST (GOT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	14.2	11.2	17.2	1.50	3.00	Differential rate pH change
Bilirubin Total	µmol/l	31.4	24.8	38.0	3.30	6.60	Diazo with Sulphanilic Acid
	mg/dl	1.84	1.45	2.23	0.20	0.39	
Calcium	mmol/l	2.18	1.96	2.40	0.11	0.22	Ion selective electrode
	mg/dl	8.74	7.86	9.62	0.44	0.88	
	mmol/l	2.19	1.97	2.41	0.11	0.22	Arsenazo III
	mg/dl	8.78	7.90	9.66	0.44	0.88	
Chloride	mmol/l	99.3	91.4	107	3.95	7.90	ISE indirect
Cholesterol	mmol/l	4.03	3.51	4.55	0.26	0.52	Cholesterol Oxidase - Abell Kendall
	mg/dl	156	135	177	10.50	21.00	
Cholinesterase	U/l	5649	4519	6779	565.00	1130.00	Colorimetric Butyrylthiocholine 37°C




**Beckman DxC600/800®**
**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
CK Total	U/l	202	166	238	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	208	170	246	19.00	38.00	Monothioglycerol 37°C
Creatinine	µmol/l	129	103	155	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	132	106	158	13.00	26.00	Jaffe rate blanked
	mg/dl	1.49	1.20	1.78	0.15	0.29	
IDMS traceable	µmol/l	126	100	152	13.00	26.00	
	mg/dl	1.42	1.13	1.71	0.15	0.29	
gamma-GT	U/l	42	36	48	3.00	6.00	Gamma glutamyl-4-nitroanilide 37°C
Glucose	mmol/l	5.92	5.04	6.80	0.44	0.88	GOD/02-Beckman method
	mg/dl	107	90.8	123	8.10	16.20	
	mmol/l	5.89	5.01	6.77	0.44	0.88	Hexokinase
	mg/dl	106	90.3	122	7.85	15.70	
	mmol/l	5.85	4.97	6.73	0.44	0.88	Oxygen electrode
	mg/dl	105	89.6	120	7.70	15.40	
Glucose oxidase	mmol/l	5.78	4.91	6.65	0.44	0.87	
	mg/dl	104	88.5	120	7.75	15.50	
HDL - Cholesterol	mmol/l	1.52	1.29	1.75	0.12	0.23	Direct HDL PPD
	mg/dl	58.7	49.8	67.6	4.45	8.90	
	mmol/l	1.55	1.32	1.78	0.12	0.23	HDL - Ultra
Iron	µg/dl	59.8	51.0	68.6	4.40	8.80	Colorimetric with ppt.
	µmol/l	19.5	16.0	23.0	1.75	3.50	
	µg/dl	109	89.4	129	9.80	19.60	Colorimetric without ppt.
	µmol/l	19.1	15.7	22.5	1.70	3.40	
µg/dl	107	87.8	126	9.60	19.20		



### Beckman DxC600/800®

### ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

#### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lactate	mmol/l	1.45	1.19	1.71	0.13	0.26	Colorimetric Lactate Oxidase
	mg/dl	13.1	10.7	15.5	1.20	2.40	
LD (LDH)	U/l	168	143	193	12.50	25.00	L->P 37°C
	U/l	550	468	632	41.00	82.00	Pyruvate 1.4 mM - Beckman LD-P 37°C
	U/l	254	216	292	19.00	38.00	L->P IFCC 37°C
	U/l	165	140	190	12.50	25.00	L to P Beckman (Extinction Coeff) 37°C
Lipase	U/l	36	29	43	3.50	7.00	Other Colorimetric 37°C
Lithium	mmol/l	0.99	0.88	1.11	0.06	0.12	Spectrophotometric
	mg/dl	0.690	0.608	0.772	0.04	0.08	
Magnesium	mmol/l	0.90	0.79	1.00	0.05	0.11	Calmagite
	mg/dl	2.17	1.91	2.43	0.13	0.26	
Osmolality	mOsm/kg	298	239	357	29.50	59.00	Calculated
Phosphate Inorganic	mmol/l	1.43	1.21	1.65	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.43	3.75	5.11	0.34	0.68	
Potassium	mmol/l	3.94	3.62	4.26	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.5	46.8	70.2	5.85	11.70	Biuret reaction end point
	g/dl	5.85	4.68	7.02	0.59	1.17	
	g/l	58.0	46.4	69.6	5.80	11.60	Biuret reaction kinetic
	g/dl	5.80	4.64	6.96	0.58	1.16	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.10	0.93	1.27	0.09	0.17	Lipase/GPO-PAP no correction
	mg/dl	97.4	82.0	113	7.70	15.40	
	mmol/l	1.10	0.93	1.27	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	97.4	82.0	113	7.70	15.40	
Urea	mmol/l	7.12	6.05	8.19	0.54	1.07	Beckman-Conductivity
	mg/dl	42.8	36.4	49.2	3.20	6.40	

**Beckman DxC600/800®**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

## Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.44	6.32	8.56	0.56	1.12	Urease kinetic
	mg/dl	44.7	38.0	51.4	3.35	6.70	
	mmol/l	7.44	6.32	8.56	0.56	1.12	BUN
	mg/dl	20.9	17.8	24.0	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.70	4.96	6.44	0.37	0.74	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.73	4.99	6.47	0.37	0.74	

## BIOSYSTEMS A15

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.3	35.1	47.5	3.10	6.20	Bromocresol Green
	g/dl	4.13	3.51	4.75	0.31	0.62	
Alkaline Phosphatase	U/l	160	136	184	12.00	24.00	AMP optimised to IFCC 37°C
	U/l	125	106	144	9.50	19.00	AMP optimised to IFCC 30°C
	U/l	102	87	117	7.50	15.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	39	32	46	3.50	7.00	Tris buffer without P5P 37°C
	U/l	29	24	34	2.50	5.00	Tris buffer without P5P 30°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	38	30	46	4.00	8.00	Tris buffer without P5P 37°C
	U/l	26	20	32	3.00	6.00	Tris buffer without P5P 30°C
	U/l	18	14	22	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	29.3	23.1	35.5	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.71	1.35	2.07	0.18	0.36	
Cholesterol	mmol/l	4.07	3.54	4.60	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	157	137	177	10.00	20.00	
Creatinine	µmol/l	132	106	158	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	µmol/l	128	103	153	12.50	25.00	Jaffe rate blanked
	mg/dl	1.45	1.16	1.74	0.15	0.29	
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C

## BIOSYSTEMS A15

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	6.01	5.11	6.91	0.45	0.90	Glucose oxidase
	mg/dl	108	92.1	124	7.95	15.90	
Iron	μmol/l	20.6	16.9	24.3	1.85	3.70	Colorimetric without ppt.
	μg/dl	115	94.5	136	10.25	20.50	
Protein Total	g/l	59.8	47.9	71.7	5.95	11.90	Biuret reaction end point
	g/dl	5.98	4.79	7.17	0.60	1.19	
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	98.2	82.5	114	7.85	15.70	
Urea	mmol/l	6.92	5.88	7.96	0.52	1.04	Urease end point
	mg/dl	41.6	35.3	47.9	3.15	6.30	
	mmol/l	7.08	6.02	8.14	0.53	1.06	Urease kinetic
	mg/dl	42.6	36.2	49.0	3.20	6.40	
	mmol/l	7.08	6.02	8.14	0.53	1.06	BUN
	mg/dl	19.9	16.9	22.9	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.81	5.06	6.56	0.38	0.75	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.90	5.12	6.68	0.39	0.78	

## BIOSYSTEMS A25

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.5	35.2	47.8	3.15	6.30	Bromocresol Green
	g/dl	4.15	3.52	4.78	0.32	0.63	
ALT (GPT)	U/l	41	33	49	4.00	8.00	Tris buffer without P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30°C
	U/l	23	19	27	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	15	21	1.50	3.00	Tris buffer without P5P 25°C
Calcium	mmol/l	2.26	2.04	2.48	0.11	0.22	Arsenazo III
	mg/dl	9.06	8.18	9.94	0.44	0.88	
Cholesterol	mmol/l	4.06	3.53	4.59	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	157	136	178	10.50	21.00	
Cholinesterase	U/l	4682	3746	5618	468.00	936.00	Colorimetric Butyrylthiocholine 37°C
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	26	34	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	53	45	61	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	42	35	49	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.13	5.21	7.05	0.46	0.92	Glucose oxidase
	mg/dl	110	93.9	126	8.05	16.10	

## BIOSYSTEMS A25

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.55	1.31	1.79	0.12	0.24	Direct HDL PPD
	mg/dl	59.8	50.6	69.0	4.60	9.20	
Protein Total	g/l	59.1	47.3	70.9	5.90	11.80	Biuret reaction end point
	g/dl	5.91	4.73	7.09	0.59	1.18	
Triglycerides	mmol/l	1.10	0.92	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.5	113	7.95	15.90	
Urea	mmol/l	6.82	5.79	7.85	0.52	1.03	Urease end point
	mg/dl	41.0	34.8	47.2	3.10	6.20	
	mmol/l	6.72	5.71	7.73	0.51	1.01	Urease kinetic
	mg/dl	40.4	34.3	46.5	3.05	6.10	
	mmol/l	6.72	5.71	7.73	0.51	1.01	BUN
	mg/dl	18.9	16.1	21.7	1.40	2.80	
Uric Acid (Urate)	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.73	4.97	6.49	0.38	0.76	
	mmol/l	0.36	0.31	0.41	0.02	0.05	Uricase peroxidase no ascorbate oxidase
mg/dl	6.06	5.28	6.84	0.39	0.78		



## Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.6	35.4	47.8	3.10	6.20	Bromocresol Green
	g/dl	4.16	3.54	4.78	0.31	0.62	
Alkaline Phosphatase	U/l	240	204	276	18.00	36.00	Diethanolamine buffer DEA 37°C
	U/l	187	159	215	14.00	28.00	Diethanolamine buffer DEA 30°C
	U/l	153	130	176	11.50	23.00	Diethanolamine buffer DEA 25°C
	U/l	146	124	168	11.00	22.00	AMP optimised to IFCC 37°C
	U/l	114	97	131	8.50	17.00	AMP optimised to IFCC 30°C
	U/l	93	79	107	7.00	14.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
	U/l	29	23	35	3.00	6.00	Tris buffer without P5P 30°C
	U/l	22	17	27	2.50	5.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	15.6	12.3	18.9	1.65	3.30	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.913	0.720	1.11	0.10	0.19	
Bilirubin Total	µmol/l	28.1	22.2	34.0	2.95	5.90	Diazo with Sulphanilic Acid
	mg/dl	1.64	1.30	1.98	0.17	0.34	
	µmol/l	24.4	19.3	29.5	2.55	5.10	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.43	1.13	1.73	0.15	0.30	
Calcium	mmol/l	2.16	1.94	2.38	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.66	7.78	9.54	0.44	0.88	





## Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.27	2.05	2.49	0.11	0.22	Arsenazo III
	mg/dl	9.10	8.22	9.98	0.44	0.88	
Chloride	mmol/l	103	94.3	112	4.35	8.70	Colorimetric
	mmol/l	97.8	90.0	106	3.90	7.80	ISE direct
Cholesterol	mmol/l	4.06	3.53	4.59	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	157	136	178	10.50	21.00	
Cholinesterase	U/l	5474	4379	6569	547.50	1095.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	206	169	243	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	129	106	152	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	88	72	104	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	μmol/l	129	103	155	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	μmol/l	132	106	158	13.00	26.00	
gamma-GT	U/l	49	42	56	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	33	45	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	26	34	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	26	34	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.04	5.14	6.94	0.45	0.90	Glucose oxidase
	mg/dl	109	92.6	125	8.20	16.40	
HDL - Cholesterol	mmol/l	1.29	1.09	1.49	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	49.8	42.1	57.5	3.85	7.70	



## Biotechnica/Wiener BT and CB Series

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	µmol/l	18.7	15.3	22.1	1.70	3.40	Colorimetric with ppt.
	µg/dl	105	85.5	125	9.75	19.50	
	µmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.9	127	9.55	19.10	
LD (LDH)	U/l	372	316	428	28.00	56.00	P->L Scandinavian & Dutch 37°C
	U/l	269	228	310	20.50	41.00	P->L Scandinavian & Dutch 30°C
	U/l	189	160	218	14.50	29.00	P->L Scandinavian & Dutch 25°C
Magnesium	mmol/l	0.88	0.78	0.99	0.05	0.11	Xylidyl Blue
	mg/dl	2.15	1.89	2.41	0.13	0.26	
Phosphate Inorganic	mmol/l	1.48	1.26	1.70	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.59	3.91	5.27	0.34	0.68	
Potassium	mmol/l	3.93	3.62	4.24	0.16	0.31	ISE method - direct
Protein Total	g/l	61.7	49.3	74.1	6.20	12.40	Biuret reaction end point
	g/dl	6.17	4.93	7.41	0.62	1.24	
Sodium	mmol/l	136	130	142	3.00	6.00	ISE method - direct
Triglycerides	mmol/l	1.08	0.90	1.26	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	95.6	80.0	111	7.80	15.60	
Urea	mmol/l	7.60	6.46	8.74	0.57	1.14	Urease kinetic
	mg/dl	45.7	38.8	52.6	3.45	6.90	
	mmol/l	7.60	6.46	8.74	0.57	1.14	BUN
	mg/dl	21.3	18.1	24.5	1.60	3.20	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.54	4.82	6.26	0.36	0.72	
	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.56	4.84	6.28	0.36	0.72	

**Biotechnica/Wiener BT and CB Series**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.71	4.97	6.45	0.37	0.74	



**COBAS INTEGRA®**

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.1	36.7	49.5	3.20	6.40	Bromocresol Green
	g/dl	4.31	3.67	4.95	0.32	0.64	
	g/l	42.6	36.2	49.0	3.20	6.40	Bromocresol Purple
	g/dl	4.26	3.62	4.90	0.32	0.64	
	g/l	41.8	35.5	48.1	3.15	6.30	Turbidimetric Assays
	g/dl	4.18	3.55	4.81	0.32	0.63	
Alkaline Phosphatase	U/l	131	111	151	10.00	20.00	Roche Integra AMP buffer 37°C
	U/l	102	86	118	8.00	16.00	Roche Integra AMP buffer 30°C
	U/l	84	71	97	6.50	13.00	Roche Integra AMP buffer 25°C
	U/l	127	108	146	9.50	19.00	AMP optimised to IFCC 37°C
	U/l	99	84	114	7.50	15.00	AMP optimised to IFCC 30°C
	U/l	81	69	93	6.00	12.00	AMP optimised to IFCC 25°C
	U/l	126	107	145	9.50	19.00	Colorimetric 37°C
	U/l	98	83	113	7.50	15.00	Colorimetric 30°C
	U/l	81	68	94	6.50	13.00	Colorimetric 25°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	69	59	79	5.00	10.00	Immunoinhibition EPS substrate 37°C
	U/l	71	60	82	5.50	11.00	Roche EPS Liquid 37°C
Amylase Total	U/l	90	76	104	7.00	14.00	Roche Integra 2-chloro-pNPG7 37°C

## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Total	U/l	90	76	104	7.00	14.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	32	26	38	3.00	6.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	15	12	18	1.50	3.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	13.6	10.8	16.4	1.40	2.80	Enzymatic
Bilirubin Direct	µmol/l	17.6	13.9	21.3	1.85	3.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.03	0.813	1.25	0.11	0.22	
	µmol/l	17.6	13.9	21.3	1.85	3.70	Diazo with Sulphanilic Acid
	mg/dl	1.03	0.813	1.25	0.11	0.22	
	µmol/l	17.4	13.8	21.0	1.80	3.60	Roche JG factored
	mg/dl	1.02	0.807	1.23	0.11	0.21	
	µmol/l	17.7	14.0	21.4	1.85	3.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.04	0.819	1.26	0.11	0.22	
Bilirubin Total	µmol/l	26.2	20.7	31.7	2.75	5.50	Diazo with Dichloroaniline (DCA)
	mg/dl	1.53	1.21	1.85	0.16	0.32	
	µmol/l	26.0	20.5	31.5	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.52	1.20	1.84	0.16	0.32	
	µmol/l	25.9	20.4	31.4	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.52	1.19	1.85	0.17	0.33	
	µmol/l	25.7	20.3	31.1	2.70	5.40	Diazonium ion
	mg/dl	1.50	1.19	1.81	0.16	0.31	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.86	7.98	9.74	0.44	0.88	
	mmol/l	2.20	1.98	2.42	0.11	0.22	Arsenazo III
	mg/dl	8.82	7.94	9.70	0.44	0.88	



**COBAS INTEGRA®**

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.20	1.98	2.42	0.11	0.22	NM-BAPTA
	mg/dl	8.82	7.94	9.70	0.44	0.88	
Chloride	mmol/l	99.6	91.6	108	4.00	8.00	ISE indirect
Cholesterol	mmol/l	3.94	3.43	4.45	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	152	132	172	10.00	20.00	
CK Total	U/l	200	164	236	18.00	36.00	CK-NAC serum start (DGKC) 37°C
	U/l	125	103	147	11.00	22.00	CK-NAC serum start (DGKC) 30°C
	U/l	85	70	100	7.50	15.00	CK-NAC serum start (DGKC) 25°C
	U/l	190	156	224	17.00	34.00	CK-NAC substrate start (DGKC) 37°C
	U/l	119	98	140	10.50	21.00	CK-NAC substrate start (DGKC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC substrate start (DGKC) 25°C
	U/l	193	158	228	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	121	99	143	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	82	67	97	7.50	15.00	CK-NAC (IFCC) 25°C
	U/l	189	155	223	17.00	34.00	Creatinine phosphate substrate Start 37°C
	U/l	118	97	139	10.50	21.00	Creatinine phosphate substrate Start 30°C
	U/l	80	66	94	7.00	14.00	Creatinine phosphate substrate Start 25°C
Creatinine	μmol/l	125	99.9	150	12.55	25.10	Alkaline picrate with deproteinization
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	μmol/l	127	102	152	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	μmol/l	126	101	151	12.50	25.00	Enzymatic UV method
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	μmol/l	127	101	153	13.00	26.00	Roche Creatinine Plus
	mg/dl	1.44	1.14	1.74	0.15	0.30	

## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	µmol/l	127	102	152	12.50	25.00	Jaffe rate blanked
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	127	102	152	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.44	1.15	1.73	0.15	0.29	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	125	100	150	12.50	25.00	IDMS traceable
	mg/dl	1.41	1.13	1.69	0.14	0.28	
gamma-GT	U/l	49	41	57	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	32	46	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	25	35	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	51	44	58	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	35	45	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.12	5.20	7.04	0.46	0.92	Hexokinase
	mg/dl	110	93.7	126	8.15	16.30	
	mmol/l	6.14	5.22	7.06	0.46	0.92	Glucose oxidase
	mg/dl	111	94.1	128	8.45	16.90	
HDL - Cholesterol	mmol/l	1.62	1.37	1.87	0.13	0.25	Direct HDL PEGME
	mg/dl	62.5	52.9	72.1	4.80	9.60	
	mmol/l	1.65	1.40	1.90	0.13	0.25	Direct HDL Roche 4th Generation
	mg/dl	63.7	54.0	73.4	4.85	9.70	
Iron	µmol/l	20.0	16.4	23.6	1.80	3.60	Colorimetric with ppt.
	µg/dl	112	91.7	132	10.15	20.30	
	µmol/l	19.9	16.3	23.5	1.80	3.60	Colorimetric without ppt.
	µg/dl	111	91.1	131	9.95	19.90	

## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lactate	mmol/l	1.56	1.28	1.84	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.1	11.5	16.7	1.30	2.60	
LD (LDH)	U/l	216	184	248	16.00	32.00	L->P 37°C
	U/l	156	133	179	11.50	23.00	L->P 30°C
	U/l	110	93	127	8.50	17.00	L->P 25°C
	U/l	393	334	452	29.50	59.00	P->L German methods 37°C
	U/l	284	241	327	21.50	43.00	P->L German methods 30°C
	U/l	199	169	229	15.00	30.00	P->L German methods 25°C
	U/l	217	185	249	16.00	32.00	L->P IFCC 37°C
	U/l	157	134	180	11.50	23.00	L->P IFCC 30°C
Lipase	U/l	29	23	35	3.00	6.00	Roche Colorimetric 37°C
	U/l	30	24	36	3.00	6.00	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	1.03	0.90	1.16	0.06	0.13	Ion selective electrode
	mg/dl	0.715	0.627	0.803	0.04	0.09	
Magnesium	mmol/l	0.93	0.82	1.04	0.06	0.11	Calmagite
	mg/dl	2.25	1.98	2.52	0.14	0.27	
	mmol/l	0.93	0.82	1.04	0.06	0.11	Xylidyl Blue
	mg/dl	2.26	1.99	2.53	0.14	0.27	
Osmolality	mOsm/kg	296	237	355	29.50	59.00	Calculated
Phosphate Inorganic	mmol/l	1.49	1.27	1.71	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.62	3.94	5.30	0.34	0.68	



## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
Phosphate Inorganic	mmol/l	1.49	1.27	1.71	0.11	0.22	Phosphomolybdate UV	
	mg/dl	4.62	3.94	5.30	0.34	0.68		
Potassium	mmol/l	4.00	3.68	4.32	0.16	0.32	ISE method - indirect	
Protein Total	g/l	55.9	44.7	67.1	5.60	11.20	Biuret reaction end point	
	g/dl	5.59	4.47	6.71	0.56	1.12		
	g/l	57.3	45.9	68.7	5.70	11.40	Biuret reaction kinetic	
	g/dl	5.73	4.59	6.87	0.57	1.14		
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect	
TIBC	µmol/l	38.7	30.6	46.8	4.05	8.10	FE+UIBC(saturation with iron)	
	µg/dl	216	171	261	22.50	45.00		
Triglycerides	mmol/l	1.14	0.96	1.33	0.09	0.19	Lipase/GPO-PAP no correction	
	mg/dl	101	84.5	118	8.25	16.50		
	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction	
	mg/dl	99.1	83.1	115	8.00	16.00		
	mmol/l	1.13	0.95	1.31	0.09	0.18	L/G Kinase EP. no correction	
	mg/dl	100	84.2	116	7.90	15.80		
	mmol/l	1.12	0.94	1.30	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction	
	mg/dl	99.1	83.5	115	7.80	15.60		
	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/Glycerol Dehydrogenase	
	mg/dl	100	84.1	116	7.95	15.90		
	UIBC	µmol/l	18.5	15.1	21.9	1.70	3.40	Direct Colorimetric
		µg/dl	103	84.4	122	9.30	18.60	
Urea	mmol/l	7.04	5.98	8.10	0.53	1.06	Urease end point	
	mg/dl	42.3	35.9	48.7	3.20	6.40		
	mmol/l	6.87	5.84	7.90	0.52	1.03	Urease kinetic	
	mg/dl	41.3	35.1	47.5	3.10	6.20		

## COBAS INTEGRA®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	6.87	5.84	7.90	0.52	1.03	BUN
	mg/dl	19.3	16.4	22.2	1.45	2.90	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.95	5.17	6.73	0.39	0.78	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.96	5.19	6.73	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.90	5.12	6.68	0.39	0.78	

## Elitech/Vitalab Selectra Series

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.2	36.7	49.7	3.25	6.50	Bromocresol Green
	g/dl	4.32	3.67	4.97	0.33	0.65	
ALT (GPT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
AST (GOT)	U/l	33	27	39	3.00	6.00	Tris buffer without P5P 37°C
Bilirubin Direct	µmol/l	14.6	11.6	17.6	1.50	3.00	Diazo with Sulphanilic Acid
	mg/dl	0.854	0.679	1.03	0.09	0.18	
Bilirubin Total	µmol/l	26.7	21.1	32.3	2.80	5.60	Diazo with Dichloroaniline (DCA)
	mg/dl	1.56	1.23	1.89	0.17	0.33	
	µmol/l	25.8	20.4	31.2	2.70	5.40	Diazo with Sulphanilic Acid
	mg/dl	1.51	1.19	1.83	0.16	0.32	
Calcium	mmol/l	2.22	2.00	2.44	0.11	0.22	Arsenazo III
	mg/dl	8.90	8.02	9.78	0.44	0.88	
Cholesterol	mmol/l	4.07	3.55	4.59	0.26	0.52	Cholesterol Oxidase - Abell Kendall
	mg/dl	157	137	177	10.00	20.00	
CK Total	U/l	206	169	243	18.50	37.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	125	100	150	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	128	102	154	13.00	26.00	Creatinine PAP method
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	123	98.4	148	12.30	24.60	Jaffe rate blanked
	mg/dl	1.39	1.11	1.67	0.14	0.28	

## Elitech/Vitalab Selectra Series

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.09	5.18	7.00	0.46	0.91	Hexokinase
	mg/dl	110	93.3	127	8.35	16.70	
	mmol/l	6.25	5.32	7.18	0.47	0.93	Glucose oxidase
	mg/dl	113	95.9	130	8.55	17.10	
HDL - Cholesterol	mmol/l	1.36	1.16	1.56	0.10	0.20	HDL - Ultra
	mg/dl	52.5	44.8	60.2	3.85	7.70	
Iron	µmol/l	20.1	16.5	23.7	1.80	3.60	Colorimetric without ppt.
	µg/dl	112	92.2	132	9.90	19.80	
Phosphate Inorganic	mmol/l	1.43	1.22	1.64	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.43	3.78	5.08	0.33	0.65	
Protein Total	g/l	58.2	46.6	69.8	5.80	11.60	Biuret reaction end point
	g/dl	5.82	4.66	6.98	0.58	1.16	
Triglycerides	mmol/l	1.15	0.97	1.34	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	102	85.4	119	8.30	16.60	
	mmol/l	1.13	0.95	1.31	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	100	83.7	116	8.15	16.30	
	mmol/l	1.17	0.99	1.35	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	104	87.3	121	8.35	16.70	
Urea	mmol/l	7.33	6.23	8.43	0.55	1.10	Urease end point
	mg/dl	44.1	37.4	50.8	3.35	6.70	
	mmol/l	7.17	6.09	8.25	0.54	1.08	Urease kinetic
	mg/dl	43.1	36.6	49.6	3.25	6.50	
	mmol/l	7.17	6.09	8.25	0.54	1.08	BUN
	mg/dl	20.1	17.1	23.1	1.50	3.00	

**Elitech/Vitalab Selectra Series**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.37	0.32	0.42	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	6.27	5.44	7.10	0.42	0.83	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.96	5.17	6.75	0.40	0.79	
	mmol/l	0.37	0.32	0.41	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	6.13	5.33	6.93	0.40	0.80	

## HITACHI SERIES®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.8	35.6	48.0	3.10	6.20	Bromocresol Green
	g/dl	4.18	3.56	4.80	0.31	0.62	
Alkaline Phosphatase	U/l	132	112	152	10.00	20.00	AMP optimised to IFCC 37°C
	U/l	103	87	119	8.00	16.00	AMP optimised to IFCC 30°C
	U/l	84	72	96	6.00	12.00	AMP optimised to IFCC 25°C
	U/l	167	142	192	12.50	25.00	Randox AMP 37°C
	U/l	130	111	149	9.50	19.00	Randox AMP 30°C
	U/l	107	91	123	8.00	16.00	Randox AMP 25°C
ALT (GPT)	U/l	39	32	46	3.50	7.00	Tris buffer without P5P 37°C
	U/l	29	24	34	2.50	5.00	Tris buffer without P5P 30°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	80	68	92	6.00	12.00	Randox Liquid Ethylidene pNPG7 37°C
Amylase Total	U/l	86	73	99	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	36	28	44	4.00	8.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Bile Acids	µmol/l	24.0	19.2	28.8	2.40	4.80	5th Generation Colorimetric
Bilirubin Direct	µmol/l	18.4	14.5	22.3	1.95	3.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.08	0.848	1.31	0.12	0.23	
	µmol/l	18.4	14.5	22.3	1.95	3.90	Diazo with Sulphanilic Acid
	mg/dl	1.08	0.848	1.31	0.12	0.23	


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

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Direct	µmol/l	18.6	14.7	22.5	1.95	3.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.09	0.860	1.32	0.12	0.23	
Bilirubin Total	µmol/l	30.1	23.8	36.4	3.15	6.30	Diazo with Dichloroaniline (DCA)
	mg/dl	1.76	1.39	2.13	0.19	0.37	
	µmol/l	26.7	21.1	32.3	2.80	5.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.56	1.23	1.89	0.17	0.33	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.86	7.98	9.74	0.44	0.88	
	mmol/l	2.22	1.99	2.45	0.12	0.23	Arsenazo III
	mg/dl	8.90	7.98	9.82	0.46	0.92	
Chloride	mmol/l	98.7	90.8	107	3.95	7.90	Colorimetric
	mmol/l	97.5	89.7	105	3.90	7.80	ISE indirect
Cholesterol	mmol/l	4.05	3.52	4.58	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	156	136	176	10.00	20.00	
CK Total	U/l	211	173	249	19.00	38.00	CK-NAC (IFCC) 37°C
	U/l	132	108	156	12.00	24.00	CK-NAC (IFCC) 30°C
	U/l	90	74	106	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	132	106	158	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	µmol/l	129	103	155	13.00	26.00	Creatinine PAP method
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	127	102	152	12.50	25.00	Jaffe rate blanked
	mg/dl	1.44	1.15	1.73	0.15	0.29	
gamma-GT	U/l	50	43	57	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	34	44	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

## HITACHI SERIES®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	51	43	59	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	34	46	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	60	51	69	4.50	9.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	47	40	54	3.50	7.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	37	31	43	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
Glucose	mmol/l	6.16	5.24	7.08	0.46	0.92	Glucose dehydrogenase
	mg/dl	111	94.4	128	8.30	16.60	
	mmol/l	6.13	5.21	7.05	0.46	0.92	Glucose oxidase
	mg/dl	110	93.9	126	8.05	16.10	
HDL - Cholesterol	mmol/l	1.37	1.17	1.57	0.10	0.20	Direct HDL PPD
	mg/dl	52.9	45.2	60.6	3.85	7.70	
	mmol/l	1.31	1.11	1.51	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	50.6	42.8	58.4	3.90	7.80	
	mmol/l	1.41	1.20	1.62	0.11	0.21	Direct HDL PEGME
	mg/dl	54.4	46.3	62.5	4.05	8.10	
Iron	mmol/l	1.39	1.18	1.60	0.11	0.21	Direct Clearance Method
	mg/dl	53.7	45.5	61.9	4.10	8.20	
Iron	µmol/l	19.8	16.2	23.4	1.80	3.60	Colorimetric without ppt.
	µg/dl	111	90.6	131	10.20	20.40	
LD (LDH)	U/l	385	327	443	29.00	58.00	P->L German methods 37°C
	U/l	278	236	320	21.00	42.00	P->L German methods 30°C
	U/l	195	166	224	14.50	29.00	P->L German methods 25°C
	U/l	213	181	245	16.00	32.00	L->P IFCC 37°C
	U/l	154	131	177	11.50	23.00	L->P IFCC 30°C
	U/l	108	92	124	8.00	16.00	L->P IFCC 25°C



## HITACHI SERIES®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	0.90	0.80	1.01	0.05	0.11	Xylidyl Blue
	mg/dl	2.20	1.93	2.47	0.14	0.27	
Phosphate Inorganic	mmol/l	1.48	1.26	1.70	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.59	3.91	5.27	0.34	0.68	
Potassium	mmol/l	4.04	3.72	4.36	0.16	0.32	ISE method - indirect
Protein Total	g/l	58.6	46.9	70.3	5.85	11.70	Biuret reaction end point
	g/dl	5.86	4.69	7.03	0.59	1.17	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
TIBC	µmol/l	42.9	33.9	51.9	4.50	9.00	Direct Colorimetric
	µg/dl	240	190	290	25.00	50.00	
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	100	83.9	116	8.05	16.10	
	mmol/l	1.09	0.92	1.26	0.09	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	96.5	81.1	112	7.70	15.40	
	mmol/l	1.11	0.94	1.28	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	98.2	82.9	114	7.65	15.30	
	mmol/l	1.06	0.89	1.23	0.09	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	93.8	78.4	109	7.70	15.40	
Urea	mmol/l	7.59	6.45	8.73	0.57	1.14	Urease end point
	mg/dl	45.6	38.8	52.4	3.40	6.80	
	mmol/l	7.32	6.22	8.42	0.55	1.10	Urease kinetic
	mg/dl	44.0	37.4	50.6	3.30	6.60	
	mmol/l	7.32	6.22	8.42	0.55	1.10	BUN
	mg/dl	20.5	17.4	23.6	1.55	3.10	

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

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.86	5.11	6.61	0.38	0.75	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.83	5.07	6.59	0.38	0.76	
	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.88	5.11	6.65	0.39	0.77	

## ILab 600®/650®/Aries/Taurus

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.5	35.3	47.7	3.10	6.20	Bromocresol Green
	g/dl	4.15	3.53	4.77	0.31	0.62	
Alkaline Phosphatase	U/l	231	196	266	17.50	35.00	Diethanolamine buffer DEA 37°C
	U/l	180	153	207	13.50	27.00	Diethanolamine buffer DEA 30°C
	U/l	148	125	171	11.50	23.00	Diethanolamine buffer DEA 25°C
	U/l	156	133	179	11.50	23.00	AMP optimised to IFCC 37°C
	U/l	122	104	140	9.00	18.00	AMP optimised to IFCC 30°C
	U/l	100	85	115	7.50	15.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	37	29	45	4.00	8.00	Tris buffer without P5P 37°C
	U/l	27	21	33	3.00	6.00	Tris buffer without P5P 30°C
	U/l	21	16	26	2.50	5.00	Tris buffer without P5P 25°C
Amylase Total	U/l	91	77	105	7.00	14.00	I.L. 2-chloro-pNPG3 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Total	µmol/l	29.5	23.3	35.7	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.73	1.36	2.10	0.19	0.37	
	µmol/l	29.5	23.3	35.7	3.10	6.20	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.73	1.36	2.10	0.19	0.37	
Calcium	mmol/l	2.18	1.96	2.40	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.74	7.86	9.62	0.44	0.88	

## ILab 600®/650®/Aries/Taurus

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	97.7	89.9	106	3.90	7.80	ISE indirect
Cholesterol	mmol/l	3.98	3.47	4.49	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	154	134	174	10.00	20.00	
Cholinesterase	U/l	5780	4624	6936	578.00	1156.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	183	150	216	16.50	33.00	CK-NAC (IFCC) 37°C
	U/l	115	94	136	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	78	64	92	7.00	14.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	130	104	156	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	128	102	154	13.00	26.00	Creatinine PAP method
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	135	108	162	13.50	27.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.53	1.22	1.84	0.16	0.31	
gamma-GT	U/l	48	41	55	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	38	32	44	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	25	35	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	49	42	56	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	33	45	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	26	34	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.04	5.13	6.95	0.46	0.91	Glucose oxidase
	mg/dl	109	92.4	126	8.30	16.60	
HDL - Cholesterol	mmol/l	1.31	1.11	1.51	0.10	0.20	Direct HDL Immunoseparation
	mg/dl	50.6	42.8	58.4	3.90	7.80	
	mmol/l	1.36	1.15	1.57	0.11	0.21	Direct HDL PEGME
	mg/dl	52.5	44.4	60.6	4.05	8.10	


**ILab 600®/650®/Aries/Taurus**
**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.17	1.00	1.35	0.09	0.18	Direct Clearance Method
	mg/dl	45.2	38.4	52.0	3.40	6.80	
Iron	µmol/l	19.0	15.6	22.4	1.70	3.40	Colorimetric without ppt.
	µg/dl	106	87.2	125	9.40	18.80	
LD (LDH)	U/l	408	347	469	30.50	61.00	P->L German methods 37°C
	U/l	295	251	339	22.00	44.00	P->L German methods 30°C
	U/l	207	176	238	15.50	31.00	P->L German methods 25°C
	U/l	414	352	476	31.00	62.00	P->L SFBC 37°C
	U/l	299	254	344	22.50	45.00	P->L SFBC 30°C
	U/l	210	178	242	16.00	32.00	P->L SFBC 25°C
Lipase	U/l	36	29	43	3.50	7.00	Other Colorimetric 37°C
Magnesium	mmol/l	0.92	0.81	1.04	0.06	0.11	Xylidyl Blue
	mg/dl	2.25	1.98	2.52	0.14	0.27	
	mmol/l	0.91	0.80	1.01	0.05	0.11	
Phosphate Inorganic	mg/dl	2.20	1.93	2.47	0.14	0.27	Phosphomolybdate UV
	mmol/l	1.38	1.18	1.58	0.10	0.20	
Potassium	mmol/l	4.28	3.66	4.90	0.31	0.62	ISE method - indirect
Protein Total	g/l	3.97	3.66	4.28	0.16	0.31	Biuret reaction end point
	g/dl	57.9	46.3	69.5	5.80	11.60	
Sodium	mmol/l	5.79	4.63	6.95	0.58	1.16	ISE method - indirect
Triglycerides	mmol/l	141	134	148	3.50	7.00	Lipase/GPO-PAP no correction
	mg/dl	1.15	0.96	1.34	0.09	0.19	
	mmol/l	102	85.2	119	8.40	16.80	L/G Kinase EP. no correction
	mg/dl	1.14	0.95	1.33	0.09	0.19	
	mmol/l	101	84.4	118	8.30	16.60	

**ILab 600®/650®/Aries/Taurus**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Urea	mmol/l	7.42	6.30	8.54	0.56	1.12	Urease kinetic
	mg/dl	44.6	37.9	51.3	3.35	6.70	
	mmol/l	7.42	6.31	8.53	0.56	1.11	BUN
	mg/dl	20.8	17.7	23.9	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.33	0.29	0.37	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.56	4.84	6.28	0.36	0.72	
	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.61	4.89	6.33	0.36	0.72	



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

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	40.7	34.6	46.8	3.05	6.10	Bromocresol Green
	g/dl	4.07	3.46	4.68	0.31	0.61	
Alkaline Phosphatase	U/l	152	129	175	11.50	23.00	AMP optimised to IFCC 37°C
	U/l	118	100	136	9.00	18.00	AMP optimised to IFCC 30°C
	U/l	97	82	112	7.50	15.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	41	33	49	4.00	8.00	Tris buffer without P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30°C
	U/l	23	19	27	2.00	4.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	15	21	1.50	3.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	16.3	12.9	19.7	1.70	3.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	0.954	0.755	1.15	0.10	0.20	
Bilirubin Total	µmol/l	28.3	22.3	34.3	3.00	6.00	Diazo with Sulphanilic Acid
	mg/dl	1.66	1.30	2.02	0.18	0.36	
	µmol/l	25.9	20.4	31.4	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.52	1.19	1.85	0.17	0.33	
	µmol/l	26.6	21.0	32.2	2.80	5.60	Nitrobenzenediazonium salt
	mg/dl	1.56	1.23	1.89	0.17	0.33	
Calcium	mmol/l	2.25	2.03	2.47	0.11	0.22	Arsenazo III
	mg/dl	9.02	8.14	9.90	0.44	0.88	



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

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	102	94.2	110	3.90	7.80	Colorimetric
	mmol/l	102	93.8	110	4.10	8.20	ISE direct
Cholesterol	mmol/l	4.03	3.51	4.55	0.26	0.52	Cholesterol Oxidase - Abell Kendall
	mg/dl	156	135	177	10.50	21.00	
CK Total	U/l	208	171	245	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	130	107	153	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	88	73	103	7.50	15.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	134	107	161	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	µmol/l	133	107	159	13.00	26.00	Enzymatic UV method
	mg/dl	1.50	1.21	1.79	0.15	0.29	
	µmol/l	126	101	151	12.50	25.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.42	1.14	1.70	0.14	0.28	
gamma-GT	U/l	51	44	58	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	40	35	45	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.09	5.18	7.00	0.46	0.91	Hexokinase
	mg/dl	110	93.3	127	8.35	16.70	
	mmol/l	6.16	5.23	7.09	0.47	0.93	Glucose oxidase
	mg/dl	111	94.2	128	8.40	16.80	
HDL - Cholesterol	mmol/l	1.39	1.18	1.60	0.11	0.21	Direct HDL PPD
	mg/dl	53.7	45.5	61.9	4.10	8.20	
	mmol/l	1.43	1.21	1.65	0.11	0.22	Direct HDL PEGME
	mg/dl	55.2	46.7	63.7	4.25	8.50	
	mmol/l	1.42	1.20	1.64	0.11	0.22	Direct Clearance Method
	mg/dl	54.8	46.3	63.3	4.25	8.50	





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

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	µmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.9	127	9.55	19.10	
LD (LDH)	U/l	219	186	252	16.50	33.00	L->P IFCC 37°C
	U/l	158	134	182	12.00	24.00	L->P IFCC 30°C
	U/l	111	94	128	8.50	17.00	L->P IFCC 25°C
Magnesium	mmol/l	0.94	0.83	1.05	0.06	0.11	Xylidyl Blue
	mg/dl	2.28	2.01	2.55	0.14	0.27	
Phosphate Inorganic	mmol/l	1.50	1.28	1.72	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.65	3.97	5.33	0.34	0.68	
	mmol/l	1.46	1.24	1.68	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.53	3.84	5.22	0.35	0.69	
Potassium	mmol/l	3.87	3.56	4.18	0.16	0.31	ISE method - direct
Protein Total	g/l	58.1	46.5	69.7	5.80	11.60	Biuret reaction end point
	g/dl	5.81	4.65	6.97	0.58	1.16	
Sodium	mmol/l	140	133	147	3.50	7.00	ISE method - direct
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	100	84.0	116	8.00	16.00	
Urea	mmol/l	7.29	6.20	8.38	0.55	1.09	Urease end point
	mg/dl	43.8	37.3	50.3	3.25	6.50	
	mmol/l	7.25	6.16	8.34	0.55	1.09	Urease kinetic
	mg/dl	43.6	37.0	50.2	3.30	6.60	
	mmol/l	7.25	6.16	8.34	0.55	1.09	
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.96	5.19	6.73	0.39	0.77	

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

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.33	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.59	4.87	6.31	0.36	0.72	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.96	5.19	6.73	0.39	0.77	

**MEAN OF ALL INSTRUMENTS (Elec.)**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin (electrophoresis)		68.7	61.9	75.5	3.40	6.80	% of total Protein (Beckman Capillary)
alpha-1-globulin		4.8	3.7	6.0	0.58	1.15	% of total Protein (Beckman Capillary)
alpha-2-globulin		7.1	5.4	8.8	0.85	1.70	% of total Protein (Beckman Capillary)
beta-globulin		9.5	7.2	11.8	1.14	2.28	% of total Protein (Beckman Capillary)
gamma-globulin		9.9	7.5	12.3	1.19	2.38	% of total Protein (Beckman Capillary)

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
alpha-HBDH	U/l	217	171	263	23.00	46.00	Oxobutyrate < 10 mmol/l 37°C
	U/l	164	129	199	17.50	35.00	Oxobutyrate < 10 mmol/l 30°C
	U/l	123	97	149	13.00	26.00	Oxobutyrate < 10 mmol/l 25°C
Acid Phosphatase (Total)	U/l	11.5	7.71	15.3	1.90	3.79	1-Naphthyl Phosphate substrate Kinetic 37°C
Albumin	g/l	41.5	35.2	47.8	3.15	6.30	Bromocresol Green
	g/dl	4.15	3.52	4.78	0.32	0.63	
	g/l	43.3	36.8	49.8	3.25	6.50	Bromocresol Purple
	g/dl	4.33	3.68	4.98	0.33	0.65	
	g/l	40.6	34.5	46.7	3.05	6.10	Ortho Vitros Microslide Systems
	g/dl	4.06	3.45	4.67	0.31	0.61	
	g/l	42.0	35.7	48.3	3.15	6.30	Turbidimetric Assays
g/dl	4.20	3.57	4.83	0.32	0.63		
Alkaline Phosphatase	U/l	137	116	158	10.50	21.00	Ortho Vitros Microslide Systems 37°C
	U/l	226	192	260	17.00	34.00	Diethanolamine buffer DEA 37°C
	U/l	176	150	202	13.00	26.00	Diethanolamine buffer DEA 30°C
	U/l	144	123	165	10.50	21.00	Diethanolamine buffer DEA 25°C
	U/l	157	133	181	12.00	24.00	AMP optimised to IFCC 37°C
	U/l	122	104	140	9.00	18.00	AMP optimised to IFCC 30°C
	U/l	100	85	115	7.50	15.00	AMP optimised to IFCC 25°C
	U/l	153	130	176	11.50	23.00	AMP optimised to NVKC/SFBC 37°C
	U/l	119	101	137	9.00	18.00	AMP optimised to NVKC/SFBC 30°C
U/l	98	83	113	7.50	15.00	AMP optimised to NVKC/SFBC 25°C	

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Alkaline Phosphatase	U/l	161	137	185	12.00	24.00	AMP non-optimised 37°C
	U/l	125	107	143	9.00	18.00	AMP non-optimised 30°C
	U/l	103	88	118	7.50	15.00	AMP non-optimised 25°C
ALT (GPT)	U/l	37	29	45	4.00	8.00	Colorimetric 37°C
	U/l	27	21	33	3.00	6.00	Colorimetric 30°C
	U/l	21	16	26	2.50	5.00	Colorimetric 25°C
	U/l	45	36	54	4.50	9.00	Ortho Vitros Microslide Systems 37°C
	U/l	43	34	52	4.50	9.00	Tris buffer with P5P 37°C
	U/l	32	25	39	3.50	7.00	Tris buffer with P5P 30°C
	U/l	24	19	29	2.50	5.00	Tris buffer with P5P 25°C
	U/l	38	31	45	3.50	7.00	Tris buffer without P5P 37°C
	U/l	28	23	33	2.50	5.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
	U/l	40	32	48	4.00	8.00	Tris buffer with P5P NVKC 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer with P5P NVKC 30°C
	U/l	23	18	28	2.50	5.00	Tris buffer with P5P NVKC 25°C
	U/l	40	32	48	4.00	8.00	Tris buffer SCE 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer SCE 30°C
U/l	23	18	28	2.50	5.00	Tris buffer SCE 25°C	
Amylase Pancreatic	U/l	68	57	79	5.50	11.00	Immunoinhibition EPS substrate 37°C
	U/l	68	58	78	5.00	10.00	Roche EPS Liquid 37°C
	U/l	80	68	92	6.00	12.00	Randox Liquid Ethylidene pNPG7 37°C
Amylase Total	U/l	90	77	103	6.50	13.00	pNP Maltotriose substrates 37°C
	U/l	92	78	106	7.00	14.00	Siemens - blocked pNPG7 37°C

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Total	U/l	75	64	86	5.50	11.00	Randox Lyo. Ethylidene pNPG7 37°C
	U/l	98	83	113	7.50	15.00	Randox Liquid Ethylidene pNPG7 37°C
	U/l	92	79	105	6.50	13.00	Siemens 2-chloro-pNP linked substrate 37°C
	U/l	89	75	103	7.00	14.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	68	58	78	5.00	10.00	Ortho Vitros Microslide Systems 37°C
	U/l	88	75	101	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	88	75	101	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	98	84	112	7.00	14.00	Siemens 2-chloro-pNPG3 37°C
	U/l	89	76	102	6.50	13.00	bioMerieux 2-chloro-pNPG3 37°C
	U/l	91	78	104	6.50	13.00	Beckman Coulter - blocked pNPG7 37°C
	U/l	93	79	107	7.00	14.00	Beckman Synchron AMY7 37°C
	U/l	92	78	106	7.00	14.00	I.L. 2-chloro-pNPG3 37°C
	U/l	103	88	118	7.50	15.00	Abbott Architect IFCC Cal. 37°C
	U/l	98	83	113	7.50	15.00	Abbott Architect Non-IFCC Cal. 37°C
	U/l	89	76	102	6.50	13.00	Beckman CNPG3 (Extinction Coeff) 37°C
	U/l	89	76	102	6.50	13.00	BM/Roche Colorimetric pNPG7 37°C
Apolipoprotein A-1	g/l	1.30	1.07	1.53	0.12	0.23	Immunoturbidimetric
	mg/dl	130	107	153	11.50	23.00	
Apolipoprotein B	g/l	0.57	0.47	0.67	0.05	0.10	Immunoturbidimetric
	mg/dl	56.9	46.7	67.1	5.10	10.20	
AST (GOT)	U/l	34	27	41	3.50	7.00	Colorimetric 37°C
	U/l	23	18	28	2.50	5.00	Colorimetric 30°C
	U/l	16	13	19	1.50	3.00	Colorimetric 25°C
	U/l	52	42	62	5.00	10.00	Ortho Vitros Microslide visible slide 37°C
	U/l	51	41	61	5.00	10.00	Tris buffer with P5P 37°C
	U/l	34	28	40	3.00	6.00	Tris buffer with P5P 30°C
	U/l	24	20	28	2.00	4.00	Tris buffer with P5P 25°C

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
	U/l	35	28	42	3.50	7.00	Phosphate buffer DGKC 37°C
	U/l	24	19	29	2.50	5.00	Phosphate buffer DGKC 30°C
	U/l	17	13	21	2.00	4.00	Phosphate buffer DGKC 25°C
	U/l	34	27	41	3.50	7.00	Tris buffer with P5P NVKC 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer with P5P NVKC 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer with P5P NVKC 25°C
	U/l	35	28	42	3.50	7.00	Tris buffer SCE 37°C
Bicarbonate	mmol/l	13.9	11.0	16.8	1.45	2.90	Colorimetric
	mmol/l	15.4	12.2	18.6	1.60	3.20	Ortho Vitros Microslide Systems
	mmol/l	14.3	11.4	17.2	1.45	2.90	Differential rate pH change
	mmol/l	14.0	11.1	16.9	1.45	2.90	Enzymatic
Bile Acids	µmol/l	28.0	22.4	33.6	2.80	5.60	4th Generation Colorimetric
	µmol/l	24.0	19.2	28.8	2.40	4.80	5th Generation Colorimetric
Bilirubin Direct	µmol/l	18.2	14.3	22.1	1.95	3.90	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.06	0.837	1.28	0.11	0.22	
	µmol/l	18.0	14.2	21.8	1.90	3.80	Diazo with Sulphanilic Acid
	mg/dl	1.05	0.831	1.27	0.11	0.22	
	µmol/l	18.8	14.8	22.8	2.00	4.00	Diazo with Dichloroaniline (DCA)
mg/dl	1.10	0.866	1.33	0.12	0.23		

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Direct	µmol/l	17.7	14.0	21.4	1.85	3.70	Oxidation to Biliverdin/Vanadate
	mg/dl	1.04	0.819	1.26	0.11	0.22	
	µmol/l	13.0	10.3	15.7	1.35	2.70	Modified Jendrassik
	mg/dl	0.761	0.603	0.919	0.08	0.16	
Bilirubin Total	µmol/l	24.5	19.4	29.6	2.55	5.10	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.43	1.13	1.73	0.15	0.30	
	µmol/l	31.3	24.7	37.9	3.30	6.60	Diazo with Dichloroaniline (DCA)
	mg/dl	1.83	1.44	2.22	0.20	0.39	
	µmol/l	29.1	23.0	35.2	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.70	1.35	2.05	0.18	0.35	
	µmol/l	27.7	21.9	33.5	2.90	5.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.62	1.28	1.96	0.17	0.34	
	µmol/l	26.9	21.2	32.6	2.85	5.70	Nitrobenzenediazonium salt
	mg/dl	1.57	1.24	1.90	0.17	0.33	
	µmol/l	26.8	21.2	32.4	2.80	5.60	Diazonium ion
	mg/dl	1.57	1.24	1.90	0.17	0.33	
	µmol/l	30.5	24.1	36.9	3.20	6.40	Oxidation to Biliverdin/Vanadate
	mg/dl	1.78	1.41	2.15	0.19	0.37	
µmol/l	32.4	25.6	39.2	3.40	6.80	Modified Jendrassik	
mg/dl	1.90	1.50	2.30	0.20	0.40		
Calcium	mmol/l	2.18	1.97	2.39	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.74	7.90	9.58	0.42	0.84	
	mmol/l	2.29	2.06	2.52	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	9.18	8.26	10.1	0.46	0.92	





## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Calcium	mmol/l	2.18	1.96	2.40	0.11	0.22	Ion selective electrode
	mg/dl	8.74	7.86	9.62	0.44	0.88	
	mmol/l	2.07	1.87	2.27	0.10	0.20	Methylthymol blue
	mg/dl	8.30	7.49	9.11	0.41	0.81	
	mmol/l	2.25	2.02	2.48	0.12	0.23	Arsenazo III
	mg/dl	9.02	8.10	9.94	0.46	0.92	
	mmol/l	2.22	2.00	2.44	0.11	0.22	Phosphonazo
	mg/dl	8.90	8.02	9.78	0.44	0.88	
mmol/l	2.22	2.00	2.44	0.11	0.22	NM-BAPTA	
mg/dl	8.90	8.02	9.78	0.44	0.88		
	mmol/l	1.03	0.93	1.13	0.05	0.10	Ionised calcium
	mg/dl	4.13	3.72	4.54	0.21	0.41	
Chloride	mmol/l	100	92.3	108	3.85	7.70	Colorimetric
	mmol/l	101	92.7	109	4.15	8.30	Ortho Vitros Microslide Systems
	mmol/l	98.6	90.7	107	3.95	7.90	ISE indirect
	mmol/l	100	92.0	108	4.00	8.00	ISE direct
	mmol/l	110	101	119	4.50	9.00	Optical Fluorescence
Cholesterol	mmol/l	3.99	3.47	4.51	0.26	0.52	Ortho Vitros Microslide Systems
	mg/dl	154	134	174	10.00	20.00	
	mmol/l	4.02	3.50	4.54	0.26	0.52	Cholesterol Oxidase - Abell Kendall
	mg/dl	155	135	175	10.00	20.00	
	mmol/l	4.03	3.51	4.55	0.26	0.52	Cholesterol Dehydrogenase
mg/dl	156	135	177	10.50	21.00		
Cholinesterase	U/l	5325	4260	6390	532.50	1065.00	Colorimetric Benzoylcholine 37°C
	U/l	5617	4494	6740	561.50	1123.00	Colorimetric Butyrylthiocholine 37°C



## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
CK Total	U/l	182	149	215	16.50	33.00	Ortho Vitros Microslide Systems 37°C
	U/l	199	163	235	18.00	36.00	CK-NAC serum start (DGKC) 37°C
	U/l	125	102	148	11.50	23.00	CK-NAC serum start (DGKC) 30°C
	U/l	85	69	101	8.00	16.00	CK-NAC serum start (DGKC) 25°C
	U/l	195	160	230	17.50	35.00	CK-NAC substrate start (DGKC) 37°C
	U/l	122	100	144	11.00	22.00	CK-NAC substrate start (DGKC) 30°C
	U/l	83	68	98	7.50	15.00	CK-NAC substrate start (DGKC) 25°C
	U/l	197	161	233	18.00	36.00	CK-NAC (IFCC) 37°C
	U/l	123	101	145	11.00	22.00	CK-NAC (IFCC) 30°C
	U/l	84	68	100	8.00	16.00	CK-NAC (IFCC) 25°C
	U/l	207	169	245	19.00	38.00	Monothioglycerol 37°C
	U/l	130	106	154	12.00	24.00	Monothioglycerol 30°C
	U/l	88	72	104	8.00	16.00	Monothioglycerol 25°C
	U/l	185	151	219	17.00	34.00	Dithioerythritol (DTE) IFCC correlated 37°C
	U/l	116	95	137	10.50	21.00	Dithioerythritol (DTE) IFCC correlated 30°C
U/l	79	64	94	7.50	15.00	Dithioerythritol (DTE) IFCC correlated 25°C	
Copper	µmol/l	17.1	13.7	20.5	1.70	3.40	Atomic absorption
	µg/dl	109	87.1	131	10.95	21.90	
	µmol/l	16.9	13.5	20.3	1.70	3.40	Colorimetric
	µg/dl	107	85.9	128	10.55	21.10	
Cortisol	nmol/l	511	383	639	64.00	128.00	Roche Cobas E411
	µg/dl	18.4	13.8	23.0	2.30	4.60	
Creatinine	µmol/l	129	103	155	13.00	26.00	Alkaline picrate with deproteinization
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	130	104	156	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.47	1.18	1.76	0.15	0.29	

## MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	µmol/l	130	104	156	13.00	26.00	Enzymatic UV method
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	129	103	155	13.00	26.00	Creatinine PAP method
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	130	104	156	13.00	26.00	Jaffe rate blanked
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	131	105	157	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	126	101	151	12.50	25.00	Vitros DT60/DT60 II/DTSC II
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	127	101	153	13.00	26.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	127	102	152	12.50	25.00	Vitros IDMS Traceable
	mg/dl	1.44	1.15	1.73	0.15	0.29	
µmol/l	130	104	156	13.00	26.00	IDMS traceable	
mg/dl	1.47	1.18	1.76	0.15	0.29		
D-3-Hydroxybutyrate	mmol/l	0.29	0.24	0.33	0.02	0.04	Tris buffer 100mmol pH 8.5
Digoxin	nmol/l	2.13	1.70	2.56	0.22	0.43	Immunoturbidimetric
	ng/ml	1.66	1.33	1.99	0.17	0.33	
Folate	nmol/l	32.4	24.6	40.2	3.90	7.80	Roche Cobas E411
	ng/ml	14.3	10.8	17.8	1.75	3.50	
Free T4	pmol/l	17.4	13.0	21.8	2.20	4.40	Abbott Architect
	ng/dl	1.36	1.01	1.71	0.18	0.35	
	pg/ml	13.6	10.1	17.1	1.75	3.50	Abbott Architect



## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Free T4	pmol/l	18.6	14.0	23.2	2.30	4.60	Siemens Centaur XP/XPT/Classic
	ng/dl	1.45	1.09	1.81	0.18	0.36	
	pg/ml	14.5	10.9	18.1	1.80	3.60	Siemens Centaur XP/XPT/Classic
	pmol/l	20.3	15.2	25.4	2.55	5.10	Siemens Immulite 2000/2500
	ng/dl	1.58	1.19	1.97	0.20	0.39	
	pg/ml	15.8	11.9	19.7	1.95	3.90	Siemens Immulite 2000/2500
	pmol/l	21.6	16.2	27.0	2.70	5.40	Siemens Immulite 1000
	ng/dl	1.68	1.26	2.10	0.21	0.42	
	pg/ml	16.8	12.6	21.0	2.10	4.20	Siemens Immulite 1000
	pmol/l	17.7	13.3	22.1	2.20	4.40	Beckman Dxl800
	ng/dl	1.38	1.04	1.72	0.17	0.34	
	pg/ml	13.8	10.4	17.2	1.70	3.40	Beckman Dxl800
	pmol/l	22.1	16.6	27.6	2.75	5.50	Roche Elecsys
	ng/dl	1.72	1.29	2.15	0.22	0.43	
	pg/ml	17.2	12.9	21.5	2.15	4.30	Roche Elecsys
	pmol/l	18.5	13.9	23.1	2.30	4.60	Beckman Access
	ng/dl	1.44	1.08	1.80	0.18	0.36	
	pg/ml	14.4	10.8	18.0	1.80	3.60	Beckman Access
	pmol/l	24.4	18.3	30.5	3.05	6.10	Tosoh Series
	ng/dl	1.90	1.43	2.37	0.24	0.47	
	pg/ml	19.0	14.3	23.7	2.35	4.70	Tosoh Series
	pmol/l	36.1	27.0	45.2	4.55	9.10	Vitros ECi
	ng/dl	2.82	2.11	3.53	0.36	0.71	
	pg/ml	28.2	21.1	35.3	3.55	7.10	Vitros ECi
pmol/l	22.5	16.9	28.1	2.80	5.60	Roche Cobas E411	
ng/dl	1.76	1.32	2.20	0.22	0.44		
pg/ml	17.6	13.2	22.0	2.20	4.40	Roche Cobas E411	

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Free T4	pmol/l	22.1	16.5	27.7	2.80	5.60	Roche Cobas 6000/8000
	ng/dl	1.72	1.29	2.15	0.22	0.43	
	pg/ml	17.2	12.9	21.5	2.15	4.30	Roche Cobas 6000/8000
	pmol/l	15.1	11.4	18.8	1.85	3.70	Monobind Inc. ELISA / CLIA
	ng/dl	1.18	0.889	1.47	0.15	0.29	
	pg/ml	11.8	8.89	14.7	1.46	2.91	Monobind Inc. ELISA / CLIA
	pmol/l	23.2	17.4	29.0	2.90	5.80	SNIBE Maglumi Analysers
	ng/dl	1.81	1.36	2.26	0.23	0.45	
	pg/ml	18.1	13.6	22.6	2.25	4.50	SNIBE Maglumi Analysers
	pmol/l	21.5	16.1	26.9	2.70	5.40	Biomerieux Vidas FT4N Kit
	ng/dl	1.68	1.26	2.10	0.21	0.42	
	pg/ml	16.8	12.6	21.0	2.10	4.20	Biomerieux Vidas FT4N Kit
	pmol/l	19.0	14.3	23.7	2.35	4.70	Siemens Centaur CP
	ng/dl	1.48	1.12	1.84	0.18	0.36	
	pg/ml	14.8	11.2	18.4	1.80	3.60	Siemens Centaur CP
Gentamicin	pmol/l	16.7	12.5	20.9	2.10	4.20	Mindray CL-2000i
	ng/dl	1.30	0.975	1.63	0.16	0.33	
	pg/ml	13.0	9.75	16.3	1.63	3.25	Mindray CL-2000i
Gentamicin	μmol/l	7.82	6.26	9.38	0.78	1.56	Immunoturbidimetric
	μg/ml	3.74	2.99	4.49	0.38	0.75	
gamma-GT	U/l	50	43	57	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	34	44	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	64	54	74	5.00	10.00	Ortho Vitros Microslide Systems 37°C
	U/l	46	39	53	3.50	7.00	Gamma glutamyl-4-nitroanilide 37°C
	U/l	36	31	41	2.50	5.00	Gamma glutamyl-4-nitroanilide 30°C
	U/l	28	24	32	2.00	4.00	Gamma glutamyl-4-nitroanilide 25°C
	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
	U/l	52	44	60	4.00	8.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 37°C
	U/l	41	35	47	3.00	6.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 30°C
	U/l	32	27	37	2.50	5.00	DCL gamma glutamyl-3-carboxy-4-nitroanilide 25°C
	U/l	60	51	69	4.50	9.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	47	40	54	3.50	7.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	37	31	43	3.00	6.00	Randox Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
GLDH	U/l	19	15	23	2.00	4.00	Triethanolamine buffer 50 mmol 37°C
	U/l	15	12	18	1.50	3.00	Triethanolamine buffer 50 mmol 30°C
	U/l	12	9	15	1.50	3.00	Triethanolamine buffer 50 mmol 25°C
Glucose	mmol/l	5.99	5.10	6.88	0.45	0.89	Ortho Vitros Microslide Systems
	mg/dl	108	91.9	124	8.05	16.10	
	mmol/l	6.12	5.20	7.04	0.46	0.92	Glucose dehydrogenase
	mg/dl	110	93.7	126	8.15	16.30	
	mmol/l	6.05	5.14	6.96	0.46	0.91	Hexokinase
	mg/dl	109	92.6	125	8.20	16.40	
	mmol/l	5.94	5.05	6.83	0.45	0.89	Oxygen electrode
	mg/dl	107	91.0	123	8.00	16.00	
	mmol/l	6.06	5.15	6.97	0.46	0.91	Glucose oxidase
	mg/dl	109	92.8	125	8.10	16.20	

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.45	1.24	1.66	0.11	0.21	Direct HDL PPD
	mg/dl	56.0	47.9	64.1	4.05	8.10	
	mmol/l	1.42	1.21	1.63	0.11	0.21	Direct HDL Immunoseparation
	mg/dl	54.8	46.7	62.9	4.05	8.10	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Vitros Magnetic HDL
	mg/dl	54.0	45.9	62.1	4.05	8.10	
	mmol/l	1.37	1.17	1.57	0.10	0.20	Direct HDL PEGME
	mg/dl	52.9	45.2	60.6	3.85	7.70	
	mmol/l	1.28	1.09	1.47	0.10	0.19	Direct Clearance Method
	mg/dl	49.4	42.1	56.7	3.65	7.30	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Vitros 5.1 FS microtip assay
	mg/dl	54.0	45.9	62.1	4.05	8.10	
	mmol/l	1.38	1.17	1.59	0.11	0.21	Vitros dHDL PTA/MgCl2 direct precipitation
	mg/dl	53.3	45.2	61.4	4.05	8.10	
mmol/l	1.46	1.24	1.68	0.11	0.22	HDL - Ultra	
mg/dl	56.4	47.9	64.9	4.25	8.50		
mmol/l	1.63	1.38	1.88	0.13	0.25	Direct HDL Roche 4th Generation	
mg/dl	62.9	53.3	72.5	4.80	9.60		
Immunoglobulin A	g/l	1.58	1.19	1.97	0.20	0.39	Immunoturbidimetric
	mg/dl	158	119	197	19.50	39.00	
Immunoglobulin G	g/l	7.11	5.83	8.39	0.64	1.28	Immunoturbidimetric
	mg/dl	711	583	839	64.00	128.00	
Immunoglobulin M	g/l	0.64	0.51	0.77	0.06	0.13	Immunoturbidimetric
	mg/dl	64.0	51.2	76.8	6.40	12.80	

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	µmol/l	19.3	15.8	22.8	1.75	3.50	Colorimetric with ppt.
	µg/dl	108	88.3	128	9.85	19.70	
	µmol/l	19.6	16.0	23.2	1.80	3.60	Colorimetric without ppt.
	µg/dl	110	89.4	131	10.30	20.60	
	µmol/l	20.2	16.5	23.9	1.85	3.70	Ortho Vitros Microslide Systems
	µg/dl	113	92.2	134	10.40	20.80	
Lactate	mmol/l	1.53	1.26	1.80	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.8	11.4	16.2	1.20	2.40	
	mmol/l	1.46	1.20	1.72	0.13	0.26	Ortho Vitros Microslide Systems
	mg/dl	13.2	10.8	15.6	1.20	2.40	
	mmol/l	1.57	1.29	1.85	0.14	0.28	Enzymatic Electrode
	mg/dl	14.1	11.6	16.6	1.25	2.50	
	mmol/l	1.49	1.22	1.76	0.14	0.27	Ion selective electrode
	mg/dl	13.4	11.0	15.8	1.20	2.40	
	mmol/l	1.55	1.27	1.83	0.14	0.28	UV LDH
	mg/dl	14.0	11.4	16.6	1.30	2.60	
LAP	U/l	15	13	17	1.00	2.00	NAGEL 37°C
LD (LDH)	U/l	600	510	690	45.00	90.00	Ortho Vitros Microslide Systems 37°C
	U/l	199	169	229	15.00	30.00	L->P 37°C
	U/l	144	122	166	11.00	22.00	L->P 30°C
	U/l	101	86	116	7.50	15.00	L->P 25°C
	U/l	410	349	471	30.50	61.00	P->L Scandinavian & Dutch 37°C
	U/l	296	252	340	22.00	44.00	P->L Scandinavian & Dutch 30°C
	U/l	208	177	239	15.50	31.00	P->L Scandinavian & Dutch 25°C
	U/l	402	342	462	30.00	60.00	P->L German methods 37°C
	U/l	290	247	333	21.50	43.00	P->L German methods 30°C
	U/l	204	173	235	15.50	31.00	P->L German methods 25°C





## MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	392	333	451	29.50	59.00	P->L SFBC 37°C
	U/l	283	240	326	21.50	43.00	P->L SFBC 30°C
	U/l	199	169	229	15.00	30.00	P->L SFBC 25°C
	U/l	209	177	241	16.00	32.00	L->P IFCC 37°C
	U/l	151	128	174	11.50	23.00	L->P IFCC 30°C
	U/l	106	90	122	8.00	16.00	L->P IFCC 25°C
Lipase	U/l	33	26	40	3.50	7.00	Other Colorimetric 37°C
	U/l	180	144	216	18.00	36.00	Ortho Vitros Microslide Systems 37°C
	U/l	28	23	33	2.50	5.00	Roche Colorimetric 37°C
	U/l	29	23	35	3.00	6.00	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	1.01	0.89	1.13	0.06	0.12	Atomic absorption
	mg/dl	0.701	0.617	0.785	0.04	0.08	
	mmol/l	1.23	1.08	1.38	0.08	0.15	Ortho Vitros Microslide Systems
	mg/dl	0.854	0.750	0.958	0.05	0.10	
	mmol/l	1.03	0.90	1.16	0.06	0.13	Flame photometry
	mg/dl	0.715	0.628	0.802	0.04	0.09	
	mmol/l	1.01	0.89	1.13	0.06	0.12	Ion selective electrode
	mg/dl	0.701	0.618	0.784	0.04	0.08	
	mmol/l	1.03	0.90	1.16	0.06	0.13	Spectrophotometric
	mg/dl	0.715	0.628	0.802	0.04	0.09	
Magnesium	mmol/l	1.01	0.89	1.13	0.06	0.12	Randox Colorimetric
	mg/dl	0.701	0.617	0.785	0.04	0.08	
Magnesium	mmol/l	0.88	0.77	0.98	0.05	0.11	Arsenazo III
	mg/dl	2.13	1.87	2.39	0.13	0.26	



## MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.21	1.94	2.48	0.14	0.27	
	mmol/l	0.91	0.80	1.01	0.05	0.11	Atomic absorption
	mg/dl	2.20	1.93	2.47	0.14	0.27	
	mmol/l	0.89	0.78	0.99	0.05	0.11	Calmagite
	mg/dl	2.16	1.90	2.42	0.13	0.26	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Xylidyl Blue
	mg/dl	2.20	1.94	2.46	0.13	0.26	
	mmol/l	0.89	0.78	0.99	0.05	0.11	Methylthymol blue
	mg/dl	2.15	1.89	2.41	0.13	0.26	
mmol/l	0.92	0.81	1.03	0.06	0.11	Chlorphosphonazo III	
mg/dl	2.22	1.96	2.48	0.13	0.26		
mmol/l	0.88	0.78	0.99	0.05	0.11	Enzymatic	
mg/dl	2.14	1.89	2.39	0.13	0.25		
NEFA	mmol/l	1.51	1.28	1.74	0.12	0.23	Colorimetric
Osmolality	mOsm/kg	290	232	348	29.00	58.00	Calculated
	mOsm/kg	304	243	365	30.50	61.00	Freezing point depression
Paracetamol	mmol/l	0.08	0.06	0.10	0.01	0.02	Colorimetric
	mg/l	12.1	9.68	14.5	1.21	2.42	
Phosphate Inorganic	mmol/l	1.50	1.28	1.72	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.65	3.97	5.33	0.34	0.68	
	mmol/l	1.45	1.23	1.67	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.50	3.81	5.19	0.35	0.69	
	mmol/l	1.45	1.23	1.67	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.50	3.81	5.19	0.35	0.69	

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Potassium	mmol/l	4.07	3.74	4.40	0.17	0.33	Ortho Vitros Microslide Systems
	mmol/l	4.01	3.69	4.33	0.16	0.32	Enzymatic
	mmol/l	3.89	3.58	4.20	0.16	0.31	Flame photometry
	mmol/l	3.95	3.64	4.26	0.16	0.31	ISE method - direct
	mmol/l	4.00	3.68	4.32	0.16	0.32	ISE method - indirect
	mmol/l	4.03	3.71	4.35	0.16	0.32	Optical Fluorescence
	mmol/l	3.83	3.52	4.14	0.16	0.31	Colorimetric
Protein Total	g/l	59.1	47.3	70.9	5.90	11.80	Ortho Vitros Microslide Systems
	g/dl	5.91	4.73	7.09	0.59	1.18	
	g/l	58.6	46.9	70.3	5.85	11.70	Biuret reaction end point
	g/dl	5.86	4.69	7.03	0.59	1.17	
	g/l	58.3	46.7	69.9	5.80	11.60	Biuret reaction kinetic
PSA Total	ng/ml =	9.85	7.38	12.3	1.24	2.47	Tosoh Series
	ng/ml =	9.13	6.85	11.4	1.14	2.28	Siemens Immulite 1000
	ng/ml =	14.8	11.1	18.5	1.85	3.70	Roche Elecsys Modular E170
	ng/ml =	16.5	12.4	20.6	2.05	4.10	Beckman Access standardised to Hybritech
	ng/ml =	13.8	10.3	17.3	1.75	3.50	bioMerieux VIDAS TPSA
	ng/ml =	12.8	9.58	16.0	1.61	3.22	Siemens Centaur XP/XPT/Classic
	ng/ml =	8.22	6.16	10.3	1.03	2.06	Siemens Immulite 2000 1st Generation
	ng/ml =	7.75	5.82	9.68	0.97	1.93	Siemens Immulite 2000 3rd Generation
	ng/ml =	12.5	9.36	15.6	1.57	3.14	Abbott Architect
	ng/ml =	14.7	11.0	18.4	1.85	3.70	Ortho Vitros ECI
ng/ml =	11.6	8.71	14.5	1.45	2.89	Siemens Dimension	

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
PSA Total	ng/ml =	15.6	11.7	19.5	1.95	3.90	Cobas E411
	ng/ml =	15.5	11.6	19.4	1.95	3.90	Roche Cobas 6000/8000
	ng/ml =	14.9	11.2	18.6	1.85	3.70	Ortho Vitros 3600/5600/ECi PSA II
	ng/ml =	16.4	12.3	20.5	2.05	4.10	Beckman DXI standardised to Hybritech
	ng/ml =	12.4	9.33	15.5	1.54	3.07	Siemens Centaur CP
Salicylate	mmol/l	0.43	0.35	0.52	0.04	0.09	Gravimetric
	mg/dl	5.99	4.80	7.18	0.60	1.19	
Sodium	mmol/l	142	135	149	3.50	7.00	Ortho Vitros Microslide Systems
	mmol/l	143	136	150	3.50	7.00	Enzymatic
	mmol/l	142	134	150	4.00	8.00	Flame photometry
	mmol/l	140	133	147	3.50	7.00	ISE method - direct
	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
	mmol/l	138	131	145	3.50	7.00	Optical Fluorescence
	mmol/l	142	135	149	3.50	7.00	Colorimetric
Theophylline	μmol/l	28.3	22.6	34.0	2.85	5.70	Gravimetric
	μg/ml	5.10	4.07	6.13	0.52	1.03	
Thyroid Stimulating Hormone	μU/ml =	0.97	0.77	1.16	0.10	0.19	Abbott Architect
	μU/ml =	1.21	0.97	1.46	0.12	0.25	bioMerieux VIDAS TSH
	μU/ml =	1.22	0.98	1.46	0.12	0.24	bioMerieux VIDAS TSH3 Ultrasensitive
	μU/ml =	1.24	0.99	1.49	0.12	0.25	Siemens Centaur XP/XPT/Classic
	μU/ml =	1.28	1.03	1.53	0.13	0.25	Siemens Immulite 2000/2500
	μU/ml =	1.18	0.94	1.42	0.12	0.24	Siemens Immulite 1000
	μU/ml =	1.35	1.08	1.62	0.14	0.27	Roche Elecsys
	μU/ml =	1.26	1.01	1.51	0.13	0.25	Diasorin Liaison
	μU/ml =	1.11	0.88	1.34	0.11	0.23	Beckman Access Fast TSH

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Thyroid Stimulating Hormone	µU/ml =	1.10	0.88	1.32	0.11	0.22	Beckman Access hyperTSH 3rd Generation
	µU/ml =	1.18	0.94	1.42	0.12	0.24	Tosoh Series
	µU/ml =	1.14	0.92	1.37	0.11	0.23	Vitros ECi
	µU/ml =	1.36	1.09	1.63	0.14	0.27	Roche Cobas E411
	µU/ml =	1.36	1.09	1.63	0.14	0.27	Roche Cobas 6000/8000
	µU/ml =	1.06	0.85	1.27	0.10	0.21	Beckman Dxl800 Hyper TSH
	µU/ml =	1.20	0.96	1.44	0.12	0.24	Monobind Inc. ELISA / CLIA
	µU/ml =	1.06	0.85	1.27	0.11	0.21	Siemens Centaur XP/XPT/Classic TSH3-Ultra
	µU/ml =	1.40	1.12	1.68	0.14	0.28	SNIBE Maglumi Analysers
	µU/ml =	1.25	1.00	1.50	0.13	0.25	Siemens Centaur CP
	µU/ml =	1.10	0.88	1.32	0.11	0.22	Siemens Centaur CP TSH3-Ultra
	µU/ml =	1.06	0.84	1.28	0.11	0.22	Beckman Dxl 600/800 Access (3rd IS)
µU/ml =	1.57	1.26	1.88	0.16	0.31	Mindray CL-2000i	
TIBC	µmol/l	47.4	37.4	57.4	5.00	10.00	Ortho Vitros Microslide Systems
	µg/dl	265	209	321	28.00	56.00	
	µmol/l	37.5	29.6	45.4	3.95	7.90	Removal of excess free iron
	µg/dl	210	165	255	22.50	45.00	
	µmol/l	39.0	30.8	47.2	4.10	8.20	FE+UIBC(saturation with iron)
	µg/dl	218	172	264	23.00	46.00	
	µmol/l	40.0	31.6	48.4	4.20	8.40	Direct Colorimetric
	µg/dl	224	177	271	23.50	47.00	
	µmol/l	40.8	32.2	49.4	4.30	8.60	Calculated from Transferrin
	µg/dl	228	180	276	24.00	48.00	
µmol/l	50.7	40.1	61.3	5.30	10.60	Randox Direct	
µg/dl	283	224	342	29.50	59.00		

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Tobramycin	µmol/l	6.30	5.04	7.56	0.63	1.26	Gravimetric
	µg/ml	2.95	2.36	3.54	0.30	0.59	
Total T3	nmol/l	1.96	1.47	2.45	0.25	0.49	Abbott Architect
	ng/ml	1.28	0.957	1.60	0.16	0.32	
	ng/dl	128	95.7	160	16.15	32.30	Abbott Architect
	nmol/l	2.16	1.62	2.70	0.27	0.54	BioMerieux Vidas
	ng/ml	1.41	1.05	1.77	0.18	0.36	
	ng/dl	141	105	177	18.00	36.00	BioMerieux Vidas
	nmol/l	2.31	1.73	2.89	0.29	0.58	Siemens Centaur XP/XPT/Classic
	ng/ml	1.50	1.13	1.87	0.19	0.37	
	ng/dl	150	113	187	18.50	37.00	Siemens Centaur XP/XPT/Classic
	nmol/l	1.85	1.39	2.31	0.23	0.46	Siemens Immulite 2000/2500
	ng/ml	1.20	0.905	1.50	0.15	0.30	
	ng/dl	120	90.5	150	14.75	29.50	Siemens Immulite 2000/2500
	nmol/l	1.87	1.41	2.33	0.23	0.46	Siemens Immulite 1000
	ng/ml	1.22	0.918	1.52	0.15	0.30	
	ng/dl	122	91.8	152	15.10	30.20	Siemens Immulite 1000
	nmol/l	2.19	1.64	2.74	0.28	0.55	Beckman Dxl800
	ng/ml	1.43	1.07	1.79	0.18	0.36	
	ng/dl	143	107	179	18.00	36.00	Beckman Dxl800
	nmol/l	2.28	1.71	2.85	0.29	0.57	Roche Elecsys
	ng/ml	1.48	1.11	1.85	0.19	0.37	
ng/dl	148	111	185	18.50	37.00	Roche Elecsys	
nmol/l	2.44	1.83	3.05	0.31	0.61	Beckman Access	
ng/ml	1.59	1.19	1.99	0.20	0.40		
ng/dl	159	119	199	20.00	40.00	Beckman Access	

## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Total T3	nmol/l	2.08	1.56	2.60	0.26	0.52	Tosoh Series
	ng/ml	1.35	1.02	1.68	0.17	0.33	
	ng/dl	135	102	168	16.50	33.00	Tosoh Series
	nmol/l	2.70	2.02	3.38	0.34	0.68	Vitros ECi
	ng/ml	1.76	1.32	2.20	0.22	0.44	
	ng/dl	176	132	220	22.00	44.00	Vitros ECi
	nmol/l	2.37	1.78	2.96	0.30	0.59	Roche Cobas E411
	ng/ml	1.54	1.16	1.92	0.19	0.38	
	ng/dl	154	116	192	19.00	38.00	Roche Cobas E411
	nmol/l	2.27	1.70	2.84	0.29	0.57	Roche Cobas 6000/8000
	ng/ml	1.48	1.11	1.85	0.19	0.37	
	ng/dl	148	111	185	18.50	37.00	Roche Cobas 6000/8000
	nmol/l	2.32	1.74	2.90	0.29	0.58	Monobind Inc. ELISA / CLIA
	ng/ml	1.51	1.13	1.89	0.19	0.38	
	ng/dl	151	113	189	19.00	38.00	Monobind Inc. ELISA / CLIA
	nmol/l	2.53	1.89	3.17	0.32	0.64	SNIBE Maglumi Analysers
	ng/ml	1.65	1.23	2.07	0.21	0.42	
	ng/dl	165	123	207	21.00	42.00	SNIBE Maglumi Analysers
nmol/l	2.30	1.72	2.88	0.29	0.58	Siemens Centaur CP	
ng/ml	1.50	1.12	1.88	0.19	0.38		
ng/dl	150	112	188	19.00	38.00	Siemens Centaur CP	
Total T4	nmol/l	93.7	70.3	117	11.70	23.40	Abbott Architect
	µg/dl	7.31	5.48	9.14	0.92	1.83	
	ng/ml	73.1	54.8	91.4	9.15	18.30	Abbott Architect



## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Total T4	nmol/l	90.3	67.8	113	11.25	22.50	BioMerieux Vidas
	µg/dl	7.04	5.29	8.79	0.88	1.75	
	ng/ml	70.4	52.9	87.9	8.75	17.50	BioMerieux Vidas
	nmol/l	87.7	65.8	110	10.95	21.90	Siemens Centaur XP/XPT/Classic
	µg/dl	6.84	5.13	8.55	0.86	1.71	
	ng/ml	68.4	51.3	85.5	8.55	17.10	Siemens Centaur XP/XPT/Classic
	nmol/l	95.1	71.4	119	11.85	23.70	Siemens Immulite 2000/2500
	µg/dl	7.42	5.57	9.27	0.93	1.85	
	ng/ml	74.2	55.7	92.7	9.25	18.50	Siemens Immulite 2000/2500
	nmol/l	100	75.2	125	12.40	24.80	Siemens Immulite 1000
	µg/dl	7.80	5.87	9.73	0.97	1.93	
	ng/ml	78.0	58.7	97.3	9.65	19.30	Siemens Immulite 1000
	nmol/l	94.8	71.1	119	11.85	23.70	Beckman Dxl800
	µg/dl	7.39	5.55	9.23	0.92	1.84	
	ng/ml	73.9	55.5	92.3	9.20	18.40	Beckman Dxl800
	nmol/l	92.6	69.4	116	11.60	23.20	Roche Elecsys
	µg/dl	7.22	5.41	9.03	0.91	1.81	
	ng/ml	72.2	54.1	90.3	9.05	18.10	Roche Elecsys
	nmol/l	92.6	69.5	116	11.55	23.10	Beckman Access
	µg/dl	7.22	5.42	9.02	0.90	1.80	
ng/ml	72.2	54.2	90.2	9.00	18.00	Beckman Access	
nmol/l	89.6	67.2	112	11.20	22.40	Tosoh Series	
µg/dl	6.99	5.24	8.74	0.88	1.75		
ng/ml	69.9	52.4	87.4	8.75	17.50	Tosoh Series	
nmol/l	84.8	63.6	106	10.60	21.20	Vitros ECi	
µg/dl	6.61	4.96	8.26	0.83	1.65		
ng/ml	66.1	49.6	82.6	8.25	16.50	Vitros ECi	



## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Total T4	nmol/l	91.8	68.9	115	11.45	22.90	Roche Cobas E411
	µg/dl	7.16	5.37	8.95	0.90	1.79	
	ng/ml	71.6	53.7	89.5	8.95	17.90	Roche Cobas E411
	nmol/l	91.8	68.8	115	11.50	23.00	Roche Cobas 6000/8000
	µg/dl	7.16	5.37	8.95	0.90	1.79	
	ng/ml	71.6	53.7	89.5	8.95	17.90	Roche Cobas 6000/8000
	nmol/l	113	84.7	141	14.15	28.30	Microgenics DRI assay
	µg/dl	8.81	6.61	11.0	1.10	2.20	
	ng/ml	88.1	66.1	110	11.00	22.00	Microgenics DRI assay
	nmol/l	92.8	69.6	116	11.60	23.20	Monobind Inc. ELISA / CLIA
	µg/dl	7.24	5.43	9.05	0.91	1.81	
	ng/ml	72.4	54.3	90.5	9.05	18.10	Monobind Inc. ELISA / CLIA
	nmol/l	97.7	73.3	122	12.20	24.40	SNIBE Maglumi Analysers
	µg/dl	7.62	5.72	9.52	0.95	1.90	
	ng/ml	76.2	57.2	95.2	9.50	19.00	SNIBE Maglumi Analysers
Transferrin	nmol/l	96.9	72.7	121	12.10	24.20	Siemens Centaur CP
	µg/dl	7.56	5.67	9.45	0.95	1.89	
	ng/ml	75.6	56.7	94.5	9.45	18.90	Siemens Centaur CP
Triglycerides	g/l	1.93	1.54	2.32	0.20	0.39	Immunoturbidimetric
	mg/dl	193	154	232	19.50	39.00	
Triglycerides	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	99.1	83.0	115	8.05	16.10	
	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	99.1	83.5	115	7.80	15.60	



## MEAN OF ALL INSTRUMENTS

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.11	0.93	1.29	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	98.2	82.7	114	7.75	15.50	
	mmol/l	1.12	0.94	1.30	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	99.1	83.4	115	7.85	15.70	
	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	99.1	83.0	115	8.05	16.10	
	mmol/l	1.28	1.07	1.49	0.11	0.21	Ortho Vitros Microslide Systems
	mg/dl	113	94.7	131	9.15	18.30	
Urea	mmol/l	6.98	5.93	8.03	0.53	1.05	Ortho Vitros Microslide Systems
	mg/dl	41.9	35.6	48.2	3.15	6.30	
	mmol/l	7.21	6.13	8.29	0.54	1.08	Urease end point
	mg/dl	43.3	36.8	49.8	3.25	6.50	
	mmol/l	7.26	6.17	8.35	0.55	1.09	Urease kinetic
	mg/dl	43.6	37.1	50.1	3.25	6.50	
	mmol/l	7.32	6.22	8.42	0.55	1.10	Urease hypochlorite
	mg/dl	44.0	37.4	50.6	3.30	6.60	
	mmol/l	7.26	6.17	8.35	0.55	1.09	BUN
	mg/dl	20.4	17.3	23.5	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.68	4.94	6.42	0.37	0.74	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.90	5.12	6.68	0.39	0.78	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Reduction methods
	mg/dl	5.70	4.96	6.44	0.37	0.74	

## MEAN OF ALL INSTRUMENTS

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.86	5.11	6.61	0.38	0.75	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.78	5.04	6.52	0.37	0.74	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.85	5.09	6.61	0.38	0.76	
Vitamin B12	pmol/l	464	371	556	46.27	92.54	Roche Cobas E411
	pg/ml	628	503	753	62.50	125.00	
Zinc	µmol/l	22.4	17.9	26.9	2.25	4.50	Colorimetric with deproteinisation
	µg/dl	146	117	175	14.50	29.00	

## MINDRAY BS-200/300/400

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.3	35.1	47.5	3.10	6.20	Bromocresol Green
	g/dl	4.13	3.51	4.75	0.31	0.62	
Alkaline Phosphatase	U/l	163	138	188	12.50	25.00	AMP optimised to IFCC 37°C
	U/l	127	108	146	9.50	19.00	AMP optimised to IFCC 30°C
	U/l	104	88	120	8.00	16.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 25°C
AST (GOT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	24	19	29	2.50	5.00	Tris buffer without P5P 30°C
	U/l	17	13	21	2.00	4.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	14.2	11.2	17.2	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	18.8	14.8	22.8	2.00	4.00	Diazo with Sulphanilic Acid
	mg/dl	1.10	0.866	1.33	0.12	0.23	
	µmol/l	18.4	14.6	22.2	1.90	3.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.08	0.854	1.31	0.11	0.23	
Bilirubin Total	µmol/l	28.2	22.3	34.1	2.95	5.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.65	1.30	2.00	0.18	0.35	
	µmol/l	29.4	23.2	35.6	3.10	6.20	Diazo with Sulphanilic Acid
	mg/dl	1.72	1.36	2.08	0.18	0.36	
	µmol/l	25.9	20.4	31.4	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.52	1.19	1.85	0.17	0.33	

## MINDRAY BS-200/300/400

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	29.3	23.1	35.5	3.10	6.20	Oxidation to Biliverdin/Vanadate
	mg/dl	1.71	1.35	2.07	0.18	0.36	
Calcium	mmol/l	2.25	2.03	2.47	0.11	0.22	Cresolphthalein complexone
	mg/dl	9.02	8.14	9.90	0.44	0.88	
	mmol/l	2.08	1.87	2.29	0.11	0.21	Ion selective electrode
	mg/dl	8.34	7.49	9.19	0.43	0.85	
Cholesterol	mmol/l	2.29	2.06	2.52	0.12	0.23	Arsenazo III
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Cholesterol	mmol/l	4.05	3.52	4.58	0.27	0.53	Cholesterol Oxidase - Abell Kendall
	mg/dl	156	136	176	10.00	20.00	
Cholinesterase	U/l	5764	4611	6917	576.50	1153.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	205	168	242	18.50	37.00	CK-NAC (IFCC) 37°C
	U/l	128	105	151	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	87	71	103	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	131	105	157	13.00	26.00	Alkaline picrate with deproteinization
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	128	103	153	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.45	1.16	1.74	0.15	0.29	
	µmol/l	130	104	156	13.00	26.00	Enzymatic UV method
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	129	103	155	13.00	26.00	Creatinine PAP method
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	127	102	152	12.50	25.00	Jaffe rate blanked
	mg/dl	1.44	1.15	1.73	0.15	0.29	


**MINDRAY BS-200/300/400**
**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods	
Creatinine	μmol/l	127	102	152	12.50	25.00	Jaffe rate blanked comp. (-26 μmol/l)	
	mg/dl	1.44	1.15	1.73	0.15	0.29		
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C	
	U/l	41	35	47	3.00	6.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C	
	U/l	32	27	37	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C	
	U/l	51	44	58	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C	
	U/l	40	35	45	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C	
	U/l	31	27	35	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C	
Glucose	mmol/l	6.12	5.21	7.03	0.46	0.91	Hexokinase	
	mg/dl	110	93.9	126	8.05	16.10		
	mmol/l	6.11	5.19	7.03	0.46	0.92	Glucose oxidase	
	mg/dl	110	93.5	127	8.25	16.50		
HDL - Cholesterol	mmol/l	1.46	1.24	1.68	0.11	0.22	Direct HDL PPD	
	mg/dl	56.4	47.9	64.9	4.25	8.50		
	mmol/l	1.40	1.19	1.61	0.11	0.21	Direct HDL Immunoseparation	
	mg/dl	54.0	45.9	62.1	4.05	8.10		
	mmol/l	1.37	1.16	1.58	0.11	0.21	Direct HDL PEGME	
	mg/dl	52.9	44.8	61.0	4.05	8.10		
	mmol/l	1.44	1.22	1.66	0.11	0.22	Direct Clearance Method	
	mg/dl	55.6	47.1	64.1	4.25	8.50		
	Iron	μmol/l	19.3	15.8	22.8	1.75	3.50	Colorimetric without ppt.
		μg/dl	108	88.3	128	9.85	19.70	
Lactate	mmol/l	1.47	1.21	1.73	0.13	0.26	Colorimetric Lactate Oxidase	
	mg/dl	13.2	10.9	15.5	1.15	2.30		
LD (LDH)	U/l	400	340	460	30.00	60.00	P->L German methods 37°C	
	U/l	289	245	333	22.00	44.00	P->L German methods 30°C	
	U/l	203	172	234	15.50	31.00	P->L German methods 25°C	


**MINDRAY BS-200/300/400**
**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
LD (LDH)	U/l	411	350	472	30.50	61.00	P->L SFBC 37°C
	U/l	297	253	341	22.00	44.00	P->L SFBC 30°C
	U/l	208	177	239	15.50	31.00	P->L SFBC 25°C
	U/l	215	183	247	16.00	32.00	L->P IFCC 37°C
	U/l	155	132	178	11.50	23.00	L->P IFCC 30°C
	U/l	109	93	125	8.00	16.00	L->P IFCC 25°C
Magnesium	mmol/l	0.92	0.81	1.04	0.06	0.11	Xylidyl Blue
	mg/dl	2.25	1.98	2.52	0.14	0.27	
	mmol/l	0.93	0.82	1.04	0.06	0.11	Enzymatic
	mg/dl	2.26	1.99	2.53	0.14	0.27	
Phosphate Inorganic	mmol/l	1.44	1.22	1.66	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.46	3.78	5.14	0.34	0.68	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.34	3.69	4.99	0.33	0.65	
Protein Total	g/l	58.4	46.8	70.0	5.80	11.60	Biuret reaction end point
	g/dl	5.84	4.68	7.00	0.58	1.16	
TIBC	µmol/l	42.5	33.5	51.5	4.50	9.00	FE+UIBC(saturation with iron)
	µg/dl	238	187	289	25.50	51.00	
Triglycerides	mmol/l	1.10	0.93	1.28	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	97.4	81.9	113	7.75	15.50	
	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	100	84.0	116	8.00	16.00	
	mmol/l	1.10	0.93	1.28	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	97.4	81.9	113	7.75	15.50	

## MINDRAY BS-200/300/400

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.12	0.94	1.30	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	99.1	83.3	115	7.90	15.80	
Urea	mmol/l	7.05	5.99	8.11	0.53	1.06	Urease end point
	mg/dl	42.4	36.0	48.8	3.20	6.40	
	mmol/l	7.33	6.23	8.43	0.55	1.10	Urease kinetic
	mg/dl	44.1	37.4	50.8	3.35	6.70	
	mmol/l	7.79	6.62	8.96	0.59	1.17	Urease hypochlorite
	mg/dl	46.8	39.8	53.8	3.50	7.00	
	mmol/l	7.33	6.23	8.43	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.86	5.09	6.63	0.39	0.77	
	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.76	5.01	6.51	0.38	0.75	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.80	5.04	6.56	0.38	0.76	



## Ortho VITROS®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	40.6	34.5	46.7	3.05	6.10	Ortho Vitros Microslide Systems
	g/dl	4.06	3.45	4.67	0.31	0.61	
Alkaline Phosphatase	U/l	137	116	158	10.50	21.00	Ortho Vitros Microslide Systems 37°C
ALT (GPT)	U/l	45	36	54	4.50	9.00	Ortho Vitros Microslide Systems 37°C
Amylase Total	U/l	68	58	78	5.00	10.00	Ortho Vitros Microslide Systems 37°C
AST (GOT)	U/l	52	42	62	5.00	10.00	Ortho Vitros Microslide visible slide 37°C
Bicarbonate	mmol/l	15.4	12.2	18.6	1.60	3.20	Ortho Vitros Microslide Systems
Bilirubin Total	µmol/l	24.5	19.4	29.6	2.55	5.10	Vitros 250/500/700/950 Total Bilirubin
	mg/dl	1.43	1.13	1.73	0.15	0.30	
Bilirubin, Unconjugated Vitros BU	µmol/l	15.0	11.9	18.1	1.55	3.10	BuBc Vitros Slide
	mg/dl	0.878	0.696	1.06	0.09	0.18	
Calcium	mmol/l	2.29	2.06	2.52	0.12	0.23	Ortho Vitros Microslide Systems
	mg/dl	9.18	8.26	10.1	0.46	0.92	
Chloride	mmol/l	101	92.7	109	4.15	8.30	Ortho Vitros Microslide Systems
Cholesterol	mmol/l	3.99	3.47	4.51	0.26	0.52	Ortho Vitros Microslide Systems
	mg/dl	154	134	174	10.00	20.00	
Cholinesterase	U/l	5381	4305	6457	538.00	1076.00	Ortho Vitros Microslide Systems 37°C
CK Total	U/l	182	149	215	16.50	33.00	Ortho Vitros Microslide Systems 37°C
Creatinine	µmol/l	126	101	151	12.50	25.00	Vitros DT60/DT60 II/DTSC II
	mg/dl	1.42	1.14	1.70	0.14	0.28	
	µmol/l	127	102	152	12.50	25.00	Vitros IDMS Traceable
mg/dl	1.44	1.15	1.73	0.15	0.29		

## Ortho VITROS®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Free T4	pmol/l	36.1	27.0	45.2	4.55	9.10	Vitros ECi
	ng/dl	2.82	2.11	3.53	0.36	0.71	
	pg/ml	28.2	21.1	35.3	3.55	7.10	Vitros ECi
gamma-GT	U/l	64	54	74	5.00	10.00	Ortho Vitros Microslide Systems 37°C
Glucose	mmol/l	5.99	5.10	6.88	0.45	0.89	Ortho Vitros Microslide Systems
	mg/dl	108	91.9	124	8.05	16.10	
HDL - Cholesterol	mmol/l	1.40	1.19	1.61	0.11	0.21	Vitros Magnetic HDL
	mg/dl	54.0	45.9	62.1	4.05	8.10	Vitros 5.1 FS microtip assay
	mmol/l	1.40	1.19	1.61	0.11	0.21	
	mg/dl	54.0	45.9	62.1	4.05	8.10	
Iron	mmol/l	1.38	1.17	1.59	0.11	0.21	Vitros dHDL PTA/MgCl <sub>2</sub> direct precipitation
	mg/dl	53.3	45.2	61.4	4.05	8.10	
Iron	µmol/l	20.2	16.5	23.9	1.85	3.70	Ortho Vitros Microslide Systems
	µg/dl	113	92.2	134	10.40	20.80	
Lactate	mmol/l	1.46	1.20	1.72	0.13	0.26	Ortho Vitros Microslide Systems
	mg/dl	13.2	10.8	15.6	1.20	2.40	
LD (LDH)	U/l	600	510	690	45.00	90.00	Ortho Vitros Microslide Systems 37°C
	U/l	242	206	278	18.00	36.00	Ortho Vitros IFCC Traceable 37°C
Lipase	U/l	180	144	216	18.00	36.00	Ortho Vitros Microslide Systems 37°C
Lithium	mmol/l	1.23	1.08	1.38	0.08	0.15	Ortho Vitros Microslide Systems
	mg/dl	0.854	0.750	0.958	0.05	0.10	
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Ortho Vitros Microslide Systems
	mg/dl	2.21	1.94	2.48	0.14	0.27	
Phosphate Inorganic	mmol/l	1.50	1.28	1.72	0.11	0.22	Ortho Vitros Microslide Systems
	mg/dl	4.65	3.97	5.33	0.34	0.68	

## Ortho VITROS®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Potassium	mmol/l	4.07	3.74	4.40	0.17	0.33	Ortho Vitros Microslide Systems
Protein Total	g/l	59.1	47.3	70.9	5.90	11.80	Ortho Vitros Microslide Systems
	g/dl	5.91	4.73	7.09	0.59	1.18	
Sodium	mmol/l	142	135	149	3.50	7.00	Ortho Vitros Microslide Systems
Thyroid Stimulating Hormone	µU/ml =	1.14	0.92	1.37	0.11	0.23	Vitros ECi
TIBC	µmol/l	47.4	37.4	57.4	5.00	10.00	Ortho Vitros Microslide Systems
	µg/dl	265	209	321	28.00	56.00	
Total T3	nmol/l	2.70	2.02	3.38	0.34	0.68	Vitros ECi
	ng/ml	1.76	1.32	2.20	0.22	0.44	
	ng/dl	176	132	220	22.00	44.00	Vitros ECi
Total T4	nmol/l	84.8	63.6	106	10.60	21.20	Vitros ECi
	µg/dl	6.61	4.96	8.26	0.83	1.65	
	ng/ml	66.1	49.6	82.6	8.25	16.50	Vitros ECi
Triglycerides	mmol/l	1.28	1.07	1.49	0.11	0.21	Ortho Vitros Microslide Systems
	mg/dl	113	94.7	131	9.15	18.30	
Urea	mmol/l	6.98	5.93	8.03	0.53	1.05	Ortho Vitros Microslide Systems
	mg/dl	41.9	35.6	48.2	3.15	6.30	
	mmol/l	6.98	5.93	8.03	0.53	1.05	BUN
	mg/dl	19.6	16.7	22.5	1.45	2.90	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Ortho Vitros Microslide Systems
	mg/dl	5.68	4.94	6.42	0.37	0.74	

## PRESTIGE 24i

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.2	35.0	47.4	3.10	6.20	Bromocresol Green
	g/dl	4.12	3.50	4.74	0.31	0.62	
Alkaline Phosphatase	U/l	152	129	175	11.50	23.00	AMP optimised to IFCC 37°C
	U/l	118	100	136	9.00	18.00	AMP optimised to IFCC 30°C
	U/l	97	82	112	7.50	15.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	40	32	48	4.00	8.00	Tris buffer without P5P 37°C
	U/l	30	24	36	3.00	6.00	Tris buffer without P5P 30°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 25°C
Amylase Total	U/l	99	84	114	7.50	15.00	Randox Liquid Ethylidene pNPG7 37°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	25	20	30	2.50	5.00	Tris buffer without P5P 30°C
	U/l	18	14	22	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	18.0	14.2	21.8	1.90	3.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.05	0.831	1.27	0.11	0.22	
	µmol/l	18.1	14.3	21.9	1.90	3.80	Oxidation to Biliverdin/Vanadate
	mg/dl	1.06	0.837	1.28	0.11	0.22	
Bilirubin Total	µmol/l	28.3	22.4	34.2	2.95	5.90	Diazo with Dichloroaniline (DCA)
	mg/dl	1.66	1.31	2.01	0.18	0.35	
	µmol/l	29.2	23.1	35.3	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.71	1.35	2.07	0.18	0.36	
	µmol/l	30.2	23.8	36.6	3.20	6.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.77	1.39	2.15	0.19	0.38	

## PRESTIGE 24i

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	30.5	24.1	36.9	3.20	6.40	Oxidation to Biliverdin/Vanadate
	mg/dl	1.78	1.41	2.15	0.19	0.37	
Calcium	mmol/l	2.27	2.05	2.49	0.11	0.22	Cresolphthalein complexone
	mg/dl	9.10	8.22	9.98	0.44	0.88	
	mmol/l	2.24	2.02	2.46	0.11	0.22	Arsenazo III
	mg/dl	8.98	8.10	9.86	0.44	0.88	
Cholesterol	mmol/l	4.12	3.58	4.66	0.27	0.54	Cholesterol Oxidase - Abell Kendall
	mg/dl	159	138	180	10.50	21.00	
CK Total	U/l	210	172	248	19.00	38.00	CK-NAC (IFCC) 37°C
	U/l	131	108	154	11.50	23.00	CK-NAC (IFCC) 30°C
	U/l	89	73	105	8.00	16.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	129	103	155	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	133	107	159	13.00	26.00	Jaffe rate blanked
	mg/dl	1.50	1.21	1.79	0.15	0.29	
gamma-GT	U/l	50	43	57	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	34	44	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	55	47	63	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.17	5.24	7.10	0.47	0.93	Glucose oxidase
	mg/dl	111	94.4	128	8.30	16.60	
	mmol/l	6.17	5.24	7.10	0.47	0.93	



**PRESTIGE 24i**

**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.37	1.16	1.58	0.11	0.21	Direct Clearance Method
	mg/dl	52.9	44.8	61.0	4.05	8.10	
Iron	µmol/l	19.5	16.0	23.0	1.75	3.50	Colorimetric without ppt.
	µg/dl	109	89.4	129	9.80	19.60	
Lactate	mmol/l	1.56	1.28	1.84	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.1	11.5	16.7	1.30	2.60	
LD (LDH)	U/l	419	356	482	31.50	63.00	P->L German methods 37°C
	U/l	303	257	349	23.00	46.00	P->L German methods 30°C
	U/l	212	180	244	16.00	32.00	P->L German methods 25°C
Lipase	U/l	40	32	48	4.00	8.00	Other Colorimetric 37°C
Magnesium	mmol/l	0.89	0.79	1.00	0.05	0.11	Xylidyl Blue
	mg/dl	2.17	1.91	2.43	0.13	0.26	
Phosphate Inorganic	mmol/l	1.43	1.21	1.65	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.43	3.75	5.11	0.34	0.68	
Protein Total	g/l	58.6	46.9	70.3	5.85	11.70	Biuret reaction end point
	g/dl	5.86	4.69	7.03	0.59	1.17	
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	84.6	117	8.20	16.40	
	mmol/l	1.14	0.96	1.32	0.09	0.18	L/G Kinase EP. no correction
Urea	mg/dl	101	85.0	117	8.00	16.00	
	mmol/l	7.42	6.31	8.53	0.56	1.11	Urease kinetic
	mg/dl	44.6	37.9	51.3	3.35	6.70	
	mmol/l	7.42	6.31	8.53	0.56	1.11	BUN
	mg/dl	20.8	17.7	23.9	1.55	3.10	

## PRESTIGE 24i

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.75	4.99	6.51	0.38	0.76	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.70	4.96	6.44	0.37	0.74	

## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Acid Phosphatase (Total)	U/l	14.7	9.82	19.6	2.44	4.88	1-Naphthyl Phosphate substrate Kinetic 37°C
	U/l	15.3	10.3	20.3	2.50	5.00	1-Naphthyl Phosphate, Kinetic with Pentane diol Activation 37°C
Albumin	g/l	43.1	36.7	49.5	3.20	6.40	Bromocresol Green
	g/dl	4.31	3.67	4.95	0.32	0.64	
	g/l	43.4	36.9	49.9	3.25	6.50	Bromocresol Purple
	g/dl	4.34	3.69	4.99	0.33	0.65	
	g/l	41.1	34.9	47.3	3.10	6.20	Turbidimetric Assays
	g/dl	4.11	3.49	4.73	0.31	0.62	
Alkaline Phosphatase	U/l	127	108	146	9.50	19.00	Roche Integra AMP buffer 37°C
	U/l	99	84	114	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	81	69	93	6.00	12.00	Roche Integra AMP buffer 25°C
	U/l	128	109	147	9.50	19.00	AMP optimised to IFCC 37°C
	U/l	100	85	115	7.50	15.00	AMP optimised to IFCC 30°C
	U/l	82	70	94	6.00	12.00	AMP optimised to IFCC 25°C
	U/l	126	107	145	9.50	19.00	Colorimetric 37°C
	U/l	98	83	113	7.50	15.00	Colorimetric 30°C
	U/l	81	68	94	6.50	13.00	Colorimetric 25°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	67	57	77	5.00	10.00	Roche EPS Liquid 37°C



## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Amylase Total	U/l	88	74	102	7.00	14.00	Radox Liquid Ethylidene pNPG7 37°C
	U/l	86	73	99	6.50	13.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	87	74	100	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	87	74	100	6.50	13.00	Roche liquid stable pNPG7 37°C
	U/l	88	75	101	6.50	13.00	BM/Roche Colorimetric pNPG7 37°C
AST (GOT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	16	12	20	2.00	4.00	Tris buffer without P5P 25°C
Bicarbonate	mmol/l	13.3	10.5	16.1	1.40	2.80	Enzymatic
Bile Acids	µmol/l	24.8	19.8	29.8	2.50	5.00	Enzymatic Colorimetric
Bilirubin Direct	µmol/l	18.1	14.3	21.9	1.90	3.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.06	0.837	1.28	0.11	0.22	
	µmol/l	18.1	14.3	21.9	1.90	3.80	Diazo with Sulphanilic Acid
	mg/dl	1.06	0.837	1.28	0.11	0.22	
	µmol/l	17.9	14.2	21.6	1.85	3.70	Roche JG factored
	mg/dl	1.05	0.831	1.27	0.11	0.22	
	µmol/l	17.9	14.1	21.7	1.90	3.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.05	0.825	1.28	0.11	0.23	
Bilirubin Total	µmol/l	27.8	22.0	33.6	2.90	5.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.63	1.29	1.97	0.17	0.34	
	µmol/l	27.1	21.4	32.8	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.59	1.25	1.93	0.17	0.34	
	µmol/l	27.0	21.3	32.7	2.85	5.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.58	1.25	1.91	0.17	0.33	
	µmol/l	26.9	21.3	32.5	2.80	5.60	Nitrobenzenediazonium salt
	mg/dl	1.57	1.25	1.89	0.16	0.32	

## Roche Cobas 6000 c501 e601

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	27.1	21.4	32.8	2.85	5.70	Diazonium ion
	mg/dl	1.59	1.25	1.93	0.17	0.34	
Calcium	mmol/l	2.22	2.00	2.44	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.90	8.02	9.78	0.44	0.88	
	mmol/l	2.21	1.99	2.43	0.11	0.22	Arsenazo III
	mg/dl	8.86	7.98	9.74	0.44	0.88	
Chloride	mmol/l	95.8	88.2	103	3.80	7.60	ISE indirect
	mg/dl	151	132	170	9.50	19.00	
Cholesterol	mmol/l	3.91	3.41	4.41	0.25	0.50	Cholesterol Oxidase - Abell Kendall
	mg/dl	151	132	170	9.50	19.00	
Cholinesterase	U/l	5438	4351	6525	543.50	1087.00	Colorimetric Benzoylcholine 37°C
	U/l	5323	4258	6388	532.50	1065.00	
CK Total	U/l	194	159	229	17.50	35.00	CK-NAC serum start (DGKC) 37°C
	U/l	121	100	142	10.50	21.00	CK-NAC serum start (DGKC) 30°C
	U/l	82	68	96	7.00	14.00	CK-NAC serum start (DGKC) 25°C
	U/l	190	156	224	17.00	34.00	CK-NAC substrate start (DGKC) 37°C
	U/l	119	98	140	10.50	21.00	CK-NAC substrate start (DGKC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC substrate start (DGKC) 25°C
	U/l	192	158	226	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	120	99	141	10.50	21.00	CK-NAC (IFCC) 30°C
Creatinine	µmol/l	127	102	152	12.50	25.00	Alkaline picrate with deproteinization
	mg/dl	1.44	1.15	1.73	0.15	0.29	



## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	μmol/l	131	105	157	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	μmol/l	133	107	159	13.00	26.00	Enzymatic UV method
	mg/dl	1.50	1.21	1.79	0.15	0.29	
	μmol/l	133	106	160	13.50	27.00	Roche Creatinine Plus
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	μmol/l	132	106	158	13.00	26.00	Jaffe rate blanked
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	μmol/l	132	106	158	13.00	26.00	Jaffe rate blanked comp. (-26 μmol/l)
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	μmol/l	132	106	158	13.00	26.00	Jaffe rate blanked compensated (-18 μmol/l)
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	μmol/l	133	106	160	13.50	27.00	IDMS traceable
	mg/dl	1.50	1.20	1.80	0.15	0.30	
Free T4	pmol/l	22.1	16.5	27.7	2.80	5.60	Roche Cobas 6000/8000
	ng/dl	1.72	1.29	2.15	0.22	0.43	
	pg/ml	17.2	12.9	21.5	2.15	4.30	Roche Cobas 6000/8000
gamma-GT	U/l	47	40	54	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	37	32	42	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	29	25	33	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	52	45	59	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	32	28	36	2.00	4.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.03	5.12	6.94	0.46	0.91	Glucose dehydrogenase
	mg/dl	109	92.3	126	8.35	16.70	



## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
Glucose	mmol/l	6.06	5.15	6.97	0.46	0.91	Hexokinase	
	mg/dl	109	92.8	125	8.10	16.20		
	mmol/l	6.07	5.16	6.98	0.46	0.91	Glucose oxidase	
	mg/dl	109	93.0	125	8.00	16.00		
HDL - Cholesterol	mmol/l	1.58	1.35	1.81	0.12	0.23	Direct HDL Immunoseparation	
	mg/dl	61.0	52.1	69.9	4.45	8.90		
	mmol/l	1.62	1.37	1.87	0.13	0.25	Direct HDL PEGME	
	mg/dl	62.5	52.9	72.1	4.80	9.60		
Iron	mmol/l	1.63	1.38	1.88	0.13	0.25	Direct HDL Roche 4th Generation	
	mg/dl	62.9	53.3	72.5	4.80	9.60		
	Iron	μmol/l	19.5	16.0	23.0	1.75	3.50	Colorimetric with ppt.
		μg/dl	109	89.4	129	9.80	19.60	
μmol/l		19.9	16.4	23.4	1.75	3.50	Colorimetric without ppt.	
μg/dl		111	91.7	130	9.65	19.30		
Lactate	mmol/l	1.55	1.27	1.83	0.14	0.28	Colorimetric Lactate Oxidase	
	mg/dl	14.0	11.4	16.6	1.30	2.60		
LD (LDH)	U/l	209	177	241	16.00	32.00	L->P 37°C	
	U/l	151	128	174	11.50	23.00	L->P 30°C	
	U/l	106	90	122	8.00	16.00	L->P 25°C	
	U/l	401	341	461	30.00	60.00	P->L German methods 37°C	
	U/l	290	246	334	22.00	44.00	P->L German methods 30°C	
	U/l	203	173	233	15.00	30.00	P->L German methods 25°C	
	U/l	211	179	243	16.00	32.00	L->P IFCC 37°C	
	U/l	152	129	175	11.50	23.00	L->P IFCC 30°C	
	U/l	107	91	123	8.00	16.00	L->P IFCC 25°C	

## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lipase	U/l	28	22	34	3.00	6.00	Other Colorimetric 37°C
	U/l	28	23	33	2.50	5.00	Roche Colorimetric 37°C
	U/l	28	23	33	2.50	5.00	Roche Turbidimetric with colipase 37°C
Lithium	mmol/l	1.03	0.91	1.15	0.06	0.12	Ion selective electrode
	mg/dl	0.715	0.629	0.801	0.04	0.09	
	mmol/l	1.02	0.90	1.14	0.06	0.12	Spectrophotometric
	mg/dl	0.708	0.626	0.790	0.04	0.08	
Magnesium	mmol/l	0.90	0.79	1.01	0.05	0.11	Arsenazo III
	mg/dl	2.19	1.93	2.45	0.13	0.26	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Atomic absorption
	mg/dl	2.20	1.94	2.46	0.13	0.26	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Xylidyl Blue
	mg/dl	2.21	1.95	2.47	0.13	0.26	
	mmol/l	0.91	0.80	1.02	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.21	1.95	2.47	0.13	0.26	
mmol/l	0.89	0.79	1.00	0.05	0.11	Enzymatic	
mg/dl	2.17	1.91	2.43	0.13	0.26		
Osmolality	mOsm/kg	293	234	352	29.50	59.00	Calculated
Phosphate Inorganic	mmol/l	1.45	1.23	1.67	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.50	3.81	5.19	0.35	0.69	
	mmol/l	1.44	1.23	1.65	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.46	3.81	5.11	0.33	0.65	
Potassium	mmol/l	4.05	3.72	4.38	0.17	0.33	ISE method - indirect
Protein Total	g/l	59.0	47.2	70.8	5.90	11.80	Biuret reaction end point
	g/dl	5.90	4.72	7.08	0.59	1.18	

## Roche Cobas 6000 c501 e601

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Protein Total	g/l	58.8	47.0	70.6	5.90	11.80	Biuret reaction kinetic
	g/dl	5.88	4.70	7.06	0.59	1.18	
PSA Total	ng/ml =	15.5	11.6	19.4	1.95	3.90	Roche Cobas 6000/8000
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	μU/ml =	1.36	1.09	1.63	0.14	0.27	Roche Cobas 6000/8000
TIBC	μmol/l	38.1	30.1	46.1	4.00	8.00	FE+UIBC(saturation with iron)
	μg/dl	213	168	258	22.50	45.00	
	μmol/l	38.9	30.8	47.0	4.05	8.10	Direct Colorimetric
	μg/dl	217	172	262	22.50	45.00	
	μmol/l	44.3	35.0	53.6	4.65	9.30	Calculated from Transferrin
Total T3	nmol/l	2.27	1.70	2.84	0.29	0.57	Roche Cobas 6000/8000
	ng/ml	1.48	1.11	1.85	0.19	0.37	
	ng/dl	148	111	185	18.50	37.00	Roche Cobas 6000/8000
Total T4	nmol/l	91.8	68.8	115	11.50	23.00	Roche Cobas 6000/8000
	μg/dl	7.16	5.37	8.95	0.90	1.79	
	ng/ml	71.6	53.7	89.5	8.95	17.90	Roche Cobas 6000/8000
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	84.7	117	8.15	16.30	
	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	101	85.0	117	8.00	16.00	
	mmol/l	1.13	0.95	1.31	0.09	0.18	L/G Kinase EP. no correction
	mg/dl	100	84.3	116	7.85	15.70	
	mmol/l	1.15	0.97	1.33	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	102	85.6	118	8.20	16.40	

## Roche Cobas 6000 c501 e601

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	100	84.0	116	8.00	16.00	
UIBC	μmol/l	18.2	15.0	21.5	1.62	3.24	Direct Colorimetric
	μg/dl	102	83.9	120	9.05	18.10	
Urea	mmol/l	7.05	5.99	8.11	0.53	1.06	Urease end point
	mg/dl	42.4	36.0	48.8	3.20	6.40	
	mmol/l	7.13	6.06	8.20	0.54	1.07	Urease kinetic
	mg/dl	42.9	36.4	49.4	3.25	6.50	
Uric Acid (Urate)	mmol/l	7.13	6.06	8.20	0.54	1.07	BUN
	mg/dl	20.0	17.0	23.0	1.50	3.00	
	mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase catalase 340nm
		mg/dl	5.78	5.04	6.52	0.37	
mmol/l	0.34	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase	
	mg/dl	5.73	4.97	6.49	0.38		0.76
mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase peroxidase no ascorbate oxidase	
	mg/dl	5.73	4.99	6.47	0.37		0.74
mmol/l	0.34	0.30	0.39	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm	
	mg/dl	5.73	4.99	6.47	0.37		0.74
Zinc	μmol/l	21.7	17.3	26.1	2.20	4.40	Colorimetric with deproteinisation
	μg/dl	142	113	171	14.50	29.00	



## Roche Cobas C111®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.0	36.5	49.5	3.25	6.50	Bromocresol Green
	g/dl	4.30	3.65	4.95	0.33	0.65	
	g/l	42.0	35.7	48.3	3.15	6.30	Bromocresol Purple
	g/dl	4.20	3.57	4.83	0.32	0.63	
Alkaline Phosphatase	U/l	130	110	150	10.00	20.00	Roche Integra AMP buffer 37°C
	U/l	101	86	116	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	83	70	96	6.50	13.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	35	28	42	3.50	7.00	Tris buffer without P5P 37°C
	U/l	26	21	31	2.50	5.00	Tris buffer without P5P 30°C
	U/l	20	16	24	2.00	4.00	Tris buffer without P5P 25°C
Amylase Total	U/l	90	76	104	7.00	14.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	89	76	102	6.50	13.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	33	26	40	3.50	7.00	Tris buffer without P5P 37°C
	U/l	22	18	26	2.00	4.00	Tris buffer without P5P 30°C
	U/l	16	12	20	2.00	4.00	Tris buffer without P5P 25°C
Bilirubin Direct	µmol/l	17.3	13.7	20.9	1.80	3.60	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.01	0.801	1.22	0.10	0.21	
	µmol/l	16.3	12.9	19.7	1.70	3.40	Diazo with Sulphanilic Acid
	mg/dl	0.954	0.755	1.15	0.10	0.20	
	µmol/l	17.1	13.5	20.7	1.80	3.60	Roche JG factored
	mg/dl	1.00	0.790	1.21	0.11	0.21	





### Roche Cobas C111®

### ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bilirubin Total	µmol/l	26.0	20.5	31.5	2.75	5.50	Diazo with Sulphanilic Acid
	mg/dl	1.52	1.20	1.84	0.16	0.32	
	µmol/l	25.7	20.3	31.1	2.70	5.40	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.50	1.19	1.81	0.16	0.31	
	µmol/l	25.3	20.0	30.6	2.65	5.30	Diazonium ion
	mg/dl	1.48	1.17	1.79	0.16	0.31	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.86	7.98	9.74	0.44	0.88	
	mmol/l	2.20	1.98	2.42	0.11	0.22	Arsenazo III
	mg/dl	8.82	7.94	9.70	0.44	0.88	
	mmol/l	2.20	1.98	2.42	0.11	0.22	NM-BAPTA
	mg/dl	8.82	7.94	9.70	0.44	0.88	
Chloride	mmol/l	98.9	91.0	107	3.95	7.90	ISE indirect
Cholesterol	mmol/l	3.90	3.39	4.41	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	151	131	171	10.00	20.00	
CK Total	U/l	190	156	224	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	119	98	140	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC (IFCC) 25°C
	U/l	184	151	217	16.50	33.00	Creatinine phosphate substrate Start 37°C
	U/l	115	95	135	10.00	20.00	Creatinine phosphate substrate Start 30°C
	U/l	78	64	92	7.00	14.00	Creatinine phosphate substrate Start 25°C
Creatinine	µmol/l	124	99.0	149	12.50	25.00	Roche Creatinine Plus
	mg/dl	1.40	1.12	1.68	0.14	0.28	
	µmol/l	130	104	156	13.00	26.00	Jaffe rate blanked
	mg/dl	1.47	1.18	1.76	0.15	0.29	



### Roche Cobas C111®

### ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

#### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Creatinine	µmol/l	128	102	154	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.45	1.15	1.75	0.15	0.30	
	µmol/l	125	99.7	150	12.65	25.30	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.41	1.13	1.69	0.14	0.28	
gamma-GT	U/l	50	43	57	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	34	44	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	31	27	35	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	49	41	57	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	39	32	46	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	30	25	35	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.13	5.21	7.05	0.46	0.92	Hexokinase
	mg/dl	110	93.9	126	8.05	16.10	
	mmol/l	6.13	5.21	7.05	0.46	0.92	Glucose oxidase
	mg/dl	110	93.9	126	8.05	16.10	
HDL - Cholesterol	mmol/l	1.64	1.39	1.89	0.13	0.25	Direct HDL Roche 4th Generation
	mg/dl	63.3	53.7	72.9	4.80	9.60	
Iron	µmol/l	20.4	16.7	24.1	1.85	3.70	Colorimetric without ppt.
	µg/dl	114	93.4	135	10.30	20.60	
LD (LDH)	U/l	218	185	251	16.50	33.00	L->P IFCC 37°C
	U/l	157	134	180	11.50	23.00	L->P IFCC 30°C
	U/l	111	94	128	8.50	17.00	L->P IFCC 25°C
Lipase	U/l	28	22	34	3.00	6.00	Roche Colorimetric 37°C
Magnesium	mmol/l	0.91	0.80	1.01	0.05	0.11	Chlorphosphonazo III
	mg/dl	2.20	1.94	2.46	0.13	0.26	
Phosphate Inorganic	mmol/l	1.48	1.26	1.70	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.59	3.91	5.27	0.34	0.68	



## Roche Cobas C111®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Potassium	mmol/l	3.97	3.66	4.28	0.16	0.31	ISE method - indirect
Protein Total	g/l	59.2	47.3	71.1	5.95	11.90	Biuret reaction end point
	g/dl	5.92	4.73	7.11	0.60	1.19	
Sodium	mmol/l	139	132	146	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	84.9	117	8.05	16.10	
	mmol/l	1.07	0.90	1.24	0.08	0.17	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	94.7	79.9	110	7.40	14.80	
	mmol/l	1.17	0.98	1.36	0.09	0.19	L/G Kinase EP. no correction
	mg/dl	104	86.9	121	8.55	17.10	
	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/Glycerol Dehydrogenase
	mg/dl	100	84.3	116	7.85	15.70	
Urea	mmol/l	6.86	5.83	7.89	0.52	1.03	Urease kinetic
	mg/dl	41.2	35.0	47.4	3.10	6.20	
	mmol/l	6.86	5.83	7.89	0.52	1.03	BUN
	mg/dl	19.3	16.4	22.2	1.45	2.90	
Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.85	5.09	6.61	0.38	0.76	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.90	5.14	6.66	0.38	0.76	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.80	5.04	6.56	0.38	0.76	

## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.3	36.8	49.8	3.25	6.50	Bromocresol Green
	g/dl	4.33	3.68	4.98	0.33	0.65	
	g/l	43.0	36.6	49.4	3.20	6.40	Bromocresol Purple
	g/dl	4.30	3.66	4.94	0.32	0.64	
Alkaline Phosphatase	U/l	126	107	145	9.50	19.00	Roche Integra AMP buffer 37°C
	U/l	98	83	113	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	81	68	94	6.50	13.00	Roche Integra AMP buffer 25°C
	U/l	127	108	146	9.50	19.00	AMP optimised to IFCC 37°C
	U/l	99	84	114	7.50	15.00	AMP optimised to IFCC 30°C
	U/l	81	69	93	6.00	12.00	AMP optimised to IFCC 25°C
ALT (GPT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	68	58	78	5.00	10.00	Roche EPS Liquid 37°C
Amylase Total	U/l	89	75	103	7.00	14.00	Roche Integra 2-chloro-pNPG7 37°C
	U/l	87	74	100	6.50	13.00	Other Roche 2-chloro-pNPG7 37°C
	U/l	89	75	103	7.00	14.00	Roche liquid stable pNPG7 37°C
	U/l	91	77	105	7.00	14.00	BM/Roche Colorimetric pNPG7 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C

## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bicarbonate	mmol/l	13.5	10.7	16.3	1.40	2.80	Enzymatic
Bilirubin Direct	µmol/l	18.0	14.2	21.8	1.90	3.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.05	0.831	1.27	0.11	0.22	
	µmol/l	18.1	14.3	21.9	1.90	3.80	Diazo with Sulphanilic Acid
	mg/dl	1.06	0.837	1.28	0.11	0.22	
	µmol/l	18.0	14.2	21.8	1.90	3.80	Roche JG factored
	mg/dl	1.05	0.831	1.27	0.11	0.22	
Bilirubin Total	µmol/l	18.3	14.5	22.1	1.90	3.80	Diazo with Dichloroaniline (DCA)
	mg/dl	1.07	0.848	1.29	0.11	0.22	
	µmol/l	26.9	21.2	32.6	2.85	5.70	Diazo with Dichloroaniline (DCA)
	mg/dl	1.57	1.24	1.90	0.17	0.33	
	µmol/l	27.3	21.6	33.0	2.85	5.70	Diazo with Sulphanilic Acid
	mg/dl	1.60	1.26	1.94	0.17	0.34	
Calcium	µmol/l	27.1	21.4	32.8	2.85	5.70	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.59	1.25	1.93	0.17	0.34	
	µmol/l	27.3	21.5	33.1	2.90	5.80	Diazonium ion
	mg/dl	1.60	1.26	1.94	0.17	0.34	
	mmol/l	2.23	2.00	2.46	0.12	0.23	Cresolphthalein complexone
	mg/dl	8.94	8.02	9.86	0.46	0.92	
Chloride	mmol/l	2.26	2.03	2.49	0.12	0.23	Arsenazo III
	mg/dl	9.06	8.14	9.98	0.46	0.92	
	mmol/l	2.23	2.00	2.46	0.12	0.23	NM-BAPTA
	mg/dl	8.94	8.02	9.86	0.46	0.92	
Chloride	mmol/l	96.1	88.4	104	3.85	7.70	ISE indirect
Cholesterol	mmol/l	3.94	3.43	4.45	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	152	132	172	10.00	20.00	



## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholinesterase	U/l	5396	4317	6475	539.50	1079.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	192	157	227	17.50	35.00	CK-NAC substrate start (DGKC) 37°C
	U/l	120	98	142	11.00	22.00	CK-NAC substrate start (DGKC) 30°C
	U/l	82	67	97	7.50	15.00	CK-NAC substrate start (DGKC) 25°C
	U/l	194	159	229	17.50	35.00	CK-NAC (IFCC) 37°C
	U/l	121	100	142	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	82	68	96	7.00	14.00	CK-NAC (IFCC) 25°C
Creatinine	µmol/l	132	105	159	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.49	1.19	1.79	0.15	0.30	
	µmol/l	133	106	160	13.50	27.00	Roche Creatinine Plus
	mg/dl	1.50	1.20	1.80	0.15	0.30	
	µmol/l	131	105	157	13.00	26.00	Jaffe rate blanked
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	132	105	159	13.50	27.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.49	1.19	1.79	0.15	0.30	
	µmol/l	132	106	158	13.00	26.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.49	1.20	1.78	0.15	0.29	
gamma-GT	U/l	49	41	57	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	39	32	46	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	30	25	35	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	53	45	61	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	42	35	49	3.50	7.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	33	28	38	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.08	5.17	6.99	0.46	0.91	Hexokinase
	mg/dl	110	93.2	127	8.40	16.80	

## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Glucose	mmol/l	6.08	5.17	6.99	0.46	0.91	Glucose oxidase
	mg/dl	110	93.2	127	8.40	16.80	
HDL - Cholesterol	mmol/l	1.65	1.40	1.90	0.13	0.25	Direct HDL Immunoseparation
	mg/dl	63.7	54.0	73.4	4.85	9.70	
	mmol/l	1.62	1.38	1.86	0.12	0.24	Direct HDL PEGME
	mg/dl	62.5	53.3	71.7	4.60	9.20	
Iron	mmol/l	1.62	1.38	1.86	0.12	0.24	Direct HDL Roche 4th Generation
	mg/dl	62.5	53.3	71.7	4.60	9.20	
	µmol/l	19.5	16.0	23.0	1.75	3.50	Colorimetric with ppt.
	µg/dl	109	89.4	129	9.80	19.60	
Iron	µmol/l	19.8	16.2	23.4	1.80	3.60	Colorimetric without ppt.
	µg/dl	111	90.6	131	10.20	20.40	
Lactate	mmol/l	1.55	1.27	1.83	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.0	11.4	16.6	1.30	2.60	
LD (LDH)	U/l	213	181	245	16.00	32.00	L->P 37°C
	U/l	154	131	177	11.50	23.00	L->P 30°C
	U/l	108	92	124	8.00	16.00	L->P 25°C
	U/l	397	337	457	30.00	60.00	P->L German methods 37°C
	U/l	287	243	331	22.00	44.00	P->L German methods 30°C
	U/l	201	171	231	15.00	30.00	P->L German methods 25°C
	U/l	212	180	244	16.00	32.00	L->P IFCC 37°C
	U/l	153	130	176	11.50	23.00	L->P IFCC 30°C
Lipase	U/l	107	91	123	8.00	16.00	L->P IFCC 25°C
	U/l	28	23	33	2.50	5.00	Roche Colorimetric 37°C

## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lipase	U/l	28	22	34	3.00	6.00	Roche Turbidimetric with colipase 37°C
Magnesium	mmol/l	0.90	0.79	1.01	0.05	0.11	Atomic absorption
	mg/dl	2.19	1.93	2.45	0.13	0.26	
	mmol/l	0.91	0.80	1.02	0.06	0.11	Xylidyl Blue
	mg/dl	2.22	1.95	2.49	0.14	0.27	
	mmol/l	0.91	0.80	1.02	0.05	0.11	Chlorphosphonazo III
Phosphate Inorganic	mmol/l	1.45	1.23	1.67	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.50	3.81	5.19	0.35	0.69	
	mmol/l	1.46	1.24	1.68	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.53	3.84	5.22	0.35	0.69	
Potassium	mmol/l	4.07	3.75	4.39	0.16	0.32	ISE method - indirect
Protein Total	g/l	59.1	47.3	70.9	5.90	11.80	Biuret reaction end point
	g/dl	5.91	4.73	7.09	0.59	1.18	
	g/l	59.4	47.5	71.3	5.95	11.90	Biuret reaction kinetic
	g/dl	5.94	4.75	7.13	0.60	1.19	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
TIBC	µmol/l	37.6	29.7	45.5	3.95	7.90	FE+UIBC(saturation with iron)
	µg/dl	210	166	254	22.00	44.00	
	µmol/l	38.4	30.3	46.5	4.05	8.10	Direct Colorimetric
	µg/dl	215	169	261	23.00	46.00	
Triglycerides	mmol/l	1.15	0.96	1.34	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	102	85.2	119	8.40	16.80	
	mmol/l	1.16	0.97	1.35	0.09	0.19	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	103	85.9	120	8.55	17.10	



## Roche Cobas C311®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods	
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	L/G Kinase EP. no correction	
	mg/dl	101	85.0	117	8.00	16.00		
	mmol/l	1.15	0.97	1.33	0.09	0.18	Lipase/Glycerol Dehydrogenase	
	mg/dl	102	85.5	119	8.25	16.50		
UIBC	µmol/l	18.8	15.4	22.2	1.70	3.40	Direct Colorimetric	
	µg/dl	105	86.1	124	9.45	18.90		
Urea	mmol/l	7.24	6.16	8.32	0.54	1.08	Urease end point	
	mg/dl	43.5	37.0	50.0	3.25	6.50		
	mmol/l	7.31	6.21	8.41	0.55	1.10	Urease kinetic	
	mg/dl	43.9	37.3	50.5	3.30	6.60		
	mmol/l	7.31	6.21	8.41	0.55	1.10	BUN	
	mg/dl	20.5	17.4	23.6	1.55	3.10		
	Uric Acid (Urate)	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
		mg/dl	5.85	5.07	6.63	0.39	0.78	
mmol/l		0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase	
mg/dl		5.81	5.06	6.56	0.38	0.75		
mmol/l		0.34	0.30	0.39	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm	
mg/dl		5.76	5.02	6.50	0.37	0.74		

## Roche Cobas c701 / c702 / c711

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	42.9	36.5	49.3	3.20	6.40	Bromocresol Green
	g/dl	4.29	3.65	4.93	0.32	0.64	
	g/l	42.1	35.8	48.4	3.15	6.30	Turbidimetric Assays
	g/dl	4.21	3.58	4.84	0.32	0.63	
Alkaline Phosphatase	U/l	123	104	142	9.50	19.00	Roche Integra AMP buffer 37°C
	U/l	96	81	111	7.50	15.00	Roche Integra AMP buffer 30°C
	U/l	79	66	92	6.50	13.00	Roche Integra AMP buffer 25°C
ALT (GPT)	U/l	37	29	45	4.00	8.00	Colorimetric 37°C
	U/l	27	21	33	3.00	6.00	Colorimetric 30°C
	U/l	21	16	26	2.50	5.00	Colorimetric 25°C
	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
	U/l	27	22	32	2.50	5.00	Tris buffer without P5P 30°C
	U/l	21	17	25	2.00	4.00	Tris buffer without P5P 25°C
Amylase Pancreatic	U/l	66	56	76	5.00	10.00	Immunoinhibition EPS substrate 37°C
	U/l	66	56	76	5.00	10.00	Roche EPS Liquid 37°C
Amylase Total	U/l	89	75	103	7.00	14.00	Roche liquid stable pNPG7 37°C
AST (GOT)	U/l	34	27	41	3.50	7.00	Colorimetric 37°C
	U/l	23	18	28	2.50	5.00	Colorimetric 30°C
	U/l	16	13	19	1.50	3.00	Colorimetric 25°C
	U/l	34	27	41	3.50	7.00	Tris buffer without P5P 37°C
	U/l	23	18	28	2.50	5.00	Tris buffer without P5P 30°C
	U/l	16	13	19	1.50	3.00	Tris buffer without P5P 25°C

## Roche Cobas c701 / c702 / c711

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Bicarbonate	mmol/l	14.3	11.3	17.3	1.50	3.00	Enzymatic
	mmol/l	14.6	11.6	17.6	1.50	3.00	
Bilirubin Direct	µmol/l	18.0	14.2	21.8	1.90	3.80	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.05	0.831	1.27	0.11	0.22	
	µmol/l	17.7	13.9	21.5	1.90	3.80	Roche JG factored
	mg/dl	1.04	0.813	1.27	0.11	0.23	
Bilirubin Total	µmol/l	26.7	21.1	32.3	2.80	5.60	Diazo with Sulphanilic Acid
	mg/dl	1.56	1.23	1.89	0.17	0.33	
	µmol/l	26.2	20.7	31.7	2.75	5.50	Dichlorophenyl Diazonium (DPD)
	mg/dl	1.53	1.21	1.85	0.16	0.32	
	µmol/l	26.4	20.8	32.0	2.80	5.60	Diazonium ion
	mg/dl	1.54	1.22	1.86	0.16	0.32	
Calcium	mmol/l	2.23	2.01	2.45	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.94	8.06	9.82	0.44	0.88	
	mmol/l	2.20	1.98	2.42	0.11	0.22	NM-BAPTA
	mg/dl	8.82	7.94	9.70	0.44	0.88	
Chloride	mmol/l	96.5	88.8	104	3.85	7.70	ISE indirect
Cholesterol	mmol/l	3.91	3.40	4.42	0.26	0.51	Cholesterol Oxidase - Abell Kendall
	mg/dl	151	131	171	10.00	20.00	
Cholinesterase	U/l	5420	4336	6504	542.00	1084.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	191	157	225	17.00	34.00	CK-NAC substrate start (DGKC) 37°C
	U/l	120	98	142	11.00	22.00	CK-NAC substrate start (DGKC) 30°C
	U/l	81	67	95	7.00	14.00	CK-NAC substrate start (DGKC) 25°C
	U/l	190	156	224	17.00	34.00	CK-NAC (IFCC) 37°C
	U/l	119	98	140	10.50	21.00	CK-NAC (IFCC) 30°C
	U/l	81	66	96	7.50	15.00	CK-NAC (IFCC) 25°C
	U/l	81	66	96	7.50	15.00	CK-NAC (IFCC) 25°C

## Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Copper	µmol/l	14.6	11.7	17.5	1.45	2.90	Colorimetric
	µg/dl	92.9	74.4	111	9.25	18.50	
Creatinine	µmol/l	134	107	161	13.50	27.00	Enzymatic UV method
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	µmol/l	136	108	164	14.00	28.00	Roche Creatinine Plus
	mg/dl	1.54	1.22	1.86	0.16	0.32	
	µmol/l	132	106	158	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.49	1.20	1.78	0.15	0.29	
	µmol/l	130	104	156	13.00	26.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	µmol/l	132	105	159	13.50	27.00	IDMS traceable
	mg/dl	1.49	1.19	1.79	0.15	0.30	
gamma-GT	U/l	46	39	53	3.50	7.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	36	31	41	2.50	5.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 30°C
	U/l	28	24	32	2.00	4.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 25°C
	U/l	52	44	60	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	41	35	47	3.00	6.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 30°C
	U/l	32	27	37	2.50	5.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 25°C
Glucose	mmol/l	6.09	5.18	7.00	0.46	0.91	Hexokinase
	mg/dl	110	93.3	127	8.35	16.70	
HDL - Cholesterol	mmol/l	1.64	1.40	1.88	0.12	0.24	Direct HDL Roche 4th Generation
	mg/dl	63.3	54.0	72.6	4.65	9.30	
Iron	µmol/l	19.3	15.9	22.7	1.70	3.40	Colorimetric without ppt.
	µg/dl	108	88.9	127	9.55	19.10	

## Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Lactate	mmol/l	1.57	1.29	1.85	0.14	0.28	Colorimetric Lactate Oxidase
	mg/dl	14.1	11.6	16.6	1.25	2.50	
LD (LDH)	U/l	213	181	245	16.00	32.00	L->P IFCC 37°C
	U/l	154	131	177	11.50	23.00	L->P IFCC 30°C
	U/l	108	92	124	8.00	16.00	L->P IFCC 25°C
Lipase	U/l	28	22	34	3.00	6.00	Roche Colorimetric 37°C
Lithium	mmol/l	1.04	0.91	1.17	0.06	0.13	Spectrophotometric
	mg/dl	0.722	0.634	0.810	0.04	0.09	
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Xylidyl Blue
	mg/dl	2.21	1.95	2.47	0.13	0.26	
	mmol/l	0.92	0.81	1.03	0.06	0.11	Chlorphosphonazo III
	mg/dl	2.23	1.96	2.50	0.14	0.27	
Osmolality	mOsm/kg	290	232	348	29.00	58.00	Calculated
Phosphate Inorganic	mmol/l	1.43	1.22	1.64	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.43	3.78	5.08	0.33	0.65	
Potassium	mmol/l	4.06	3.73	4.39	0.17	0.33	ISE method - indirect
Protein Total	g/l	58.7	46.9	70.5	5.90	11.80	Biuret reaction end point
	g/dl	5.87	4.69	7.05	0.59	1.18	
Sodium	mmol/l	143	135	151	4.00	8.00	ISE method - indirect
TIBC	µmol/l	38.6	30.5	46.7	4.05	8.10	FE+UIBC(saturation with iron)
	µg/dl	216	170	262	23.00	46.00	
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	84.6	117	8.20	16.40	
	mmol/l	1.13	0.95	1.31	0.09	0.18	Lipase/GPO-PAP 0.11mmol/l correction
	mg/dl	100	83.9	116	8.05	16.10	

## Roche Cobas c701 / c702 / c711

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Triglycerides	mmol/l	1.14	0.95	1.33	0.09	0.19	L/G Kinase EP. no correction
	mg/dl	101	84.4	118	8.30	16.60	
	mmol/l	1.14	0.96	1.32	0.09	0.18	L/G kinase EP. 0.11 mmol/l correction
	mg/dl	101	84.8	117	8.10	16.20	
UIBC	µmol/l	20.0	16.4	23.6	1.80	3.60	Direct Colorimetric
	µg/dl	112	91.7	132	10.15	20.30	
Urea	mmol/l	7.07	6.01	8.13	0.53	1.06	Urease kinetic
	mg/dl	42.5	36.1	48.9	3.20	6.40	
	mmol/l	7.07	6.01	8.13	0.53	1.06	BUN
	mg/dl	19.8	16.8	22.8	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.64	4.91	6.37	0.37	0.73	
	mmol/l	0.34	0.30	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.71	4.97	6.45	0.37	0.74	
	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.63	4.89	6.37	0.37	0.74	

## RX SERIES®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	41.7	35.5	47.9	3.10	6.20	Bromocresol Green
	g/dl	4.17	3.55	4.79	0.31	0.62	
Alkaline Phosphatase	U/l	260	221	299	19.50	39.00	Diethanolamine buffer DEA 37°C
	U/l	167	142	192	12.50	25.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	39	31	47	4.00	8.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	80	68	92	6.00	12.00	Randox Liquid Ethylidene pNPG7 37°C
Amylase Total	U/l	97	83	111	7.00	14.00	Randox Liquid Ethylidene pNPG7 37°C
AST (GOT)	U/l	36	29	43	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	16.2	12.8	19.6	1.70	3.40	Enzymatic
Bile Acids	µmol/l	24.0	19.2	28.8	2.40	4.80	5th Generation Colorimetric
Bilirubin Direct	µmol/l	18.1	14.3	21.9	1.90	3.80	Diazo with Sulphanilic Acid
	mg/dl	1.06	0.837	1.28	0.11	0.22	
	µmol/l	16.3	12.9	19.7	1.70	3.40	Oxidation to Biliverdin/Vanadate
	mg/dl	0.954	0.755	1.15	0.10	0.20	
Bilirubin Total	µmol/l	31.7	25.0	38.4	3.35	6.70	Diazo with Sulphanilic Acid
	mg/dl	1.85	1.46	2.24	0.20	0.39	
	µmol/l	29.2	23.0	35.4	3.10	6.20	Oxidation to Biliverdin/Vanadate
	mg/dl	1.71	1.35	2.07	0.18	0.36	
Calcium	mmol/l	2.30	2.07	2.53	0.12	0.23	Arsenazo III
	mg/dl	9.22	8.30	10.1	0.46	0.92	
Chloride	mmol/l	99.7	91.7	108	4.00	8.00	ISE direct

## RX SERIES®

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Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	4.42	3.85	4.99	0.29	0.57	Cholesterol Oxidase - Abell Kendall
	mg/dl	171	149	193	11.00	22.00	
CK Total	U/l	226	185	267	20.50	41.00	CK-NAC substrate start (DGKC) 37°C
	U/l	239	196	282	21.50	43.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	125	100	150	12.50	25.00	Alkaline picrate no deproteinization
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	129	103	155	13.00	26.00	Enzymatic UV method
	mg/dl	1.46	1.16	1.76	0.15	0.30	
gamma-GT	U/l	60	51	69	4.50	9.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	6.63	5.64	7.62	0.50	0.99	Hexokinase
	mg/dl	119	102	136	8.50	17.00	
	mmol/l	6.51	5.53	7.49	0.49	0.98	Glucose oxidase
	mg/dl	117	99.7	134	8.65	17.30	
Iron	µmol/l	20.2	16.6	23.8	1.80	3.60	Colorimetric without ppt.
	µg/dl	113	92.8	133	10.10	20.20	
Lactate	mmol/l	1.52	1.25	1.79	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.7	11.3	16.1	1.20	2.40	
LD (LDH)	U/l	418	356	480	31.00	62.00	P->L German methods 37°C
	U/l	205	174	236	15.50	31.00	L->P IFCC 37°C
Lipase	U/l	45	36	54	4.50	9.00	Randox Colorimetric 37°C
Lithium	mmol/l	1.01	0.89	1.13	0.06	0.12	Colorimetric
	mg/dl	0.701	0.617	0.785	0.04	0.08	
Magnesium	mmol/l	0.95	0.83	1.06	0.06	0.11	Xylidyl Blue
	mg/dl	2.30	2.02	2.58	0.14	0.28	
Phosphate Inorganic	mmol/l	1.48	1.26	1.70	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.59	3.91	5.27	0.34	0.68	



## RX SERIES®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Potassium	mmol/l	4.01	3.69	4.33	0.16	0.32	Enzymatic
	mmol/l	3.97	3.65	4.29	0.16	0.32	ISE method - direct
Protein Total	g/l	61.4	49.1	73.7	6.15	12.30	Biuret reaction end point
	g/dl	6.14	4.91	7.37	0.62	1.23	
Sodium	mmol/l	139	133	145	3.00	6.00	ISE method - direct
	mmol/l	143	136	150	3.50	7.00	Enzymatic
TIBC	μmol/l	50.7	40.1	61.3	5.30	10.60	Direct Colorimetric
	μg/dl	283	224	342	29.50	59.00	
Triglycerides	mmol/l	1.14	0.96	1.32	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	101	84.6	117	8.20	16.40	
Urea	mmol/l	7.25	6.17	8.33	0.54	1.08	Urease kinetic
	mg/dl	43.6	37.1	50.1	3.25	6.50	
	mmol/l	7.25	6.16	8.34	0.55	1.09	BUN
	mg/dl	20.3	17.3	23.3	1.50	3.00	
Uric Acid (Urate)	mmol/l	0.34	0.29	0.38	0.02	0.04	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.66	4.92	6.40	0.37	0.74	
	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.98	5.21	6.75	0.39	0.77	

## SIEMENS ATELLICA / ADVIA 1200/1650/1800/240 (ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2))

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	40.6	34.5	46.7	3.05	6.10	Bromocresol Green
	g/dl	4.06	3.45	4.67	0.31	0.61	
	g/l	41.0	34.9	47.1	3.05	6.10	Bromocresol Purple
	g/dl	4.10	3.49	4.71	0.31	0.61	
Alkaline Phosphatase	U/l	217	184	250	16.50	33.00	Diethanolamine buffer DEA 37°C
	U/l	139	118	160	10.50	21.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	41	33	49	4.00	8.00	Tris buffer without P5P 37°C
Amylase Pancreatic	U/l	69	58	80	5.50	11.00	Immuno-inhibition EPS substrate 37°C
Amylase Total	U/l	92	78	106	7.00	14.00	Siemens - blocked pNPG7 37°C
AST (GOT)	U/l	37	30	44	3.50	7.00	Tris buffer without P5P 37°C
Bicarbonate	mmol/l	14.3	11.4	17.2	1.45	2.90	Enzymatic
Bilirubin Direct	µmol/l	17.6	13.9	21.3	1.85	3.70	Oxidation to Biliverdin/Vanadate
	mg/dl	1.03	0.813	1.25	0.11	0.22	
Bilirubin Total	µmol/l	31.7	25.0	38.4	3.35	6.70	Diazo with Sulphanilic Acid
	mg/dl	1.85	1.46	2.24	0.20	0.39	
	µmol/l	30.9	24.4	37.4	3.25	6.50	Oxidation to Biliverdin/Vanadate
	mg/dl	1.81	1.43	2.19	0.19	0.38	
Calcium	mmol/l	2.21	1.99	2.43	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.86	7.98	9.74	0.44	0.88	
	mmol/l	2.23	2.00	2.46	0.12	0.23	Arsenazo III
	mg/dl	8.94	8.02	9.86	0.46	0.92	

## SIEMENS ATELLICA / ADVIA 1200/1650/1800/240 (ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2))

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Chloride	mmol/l	101	92.8	109	4.10	8.20	ISE indirect
Cholesterol	mmol/l	4.01	3.49	4.53	0.26	0.52	Cholesterol Oxidase - Abell Kendall
	mg/dl	155	135	175	10.00	20.00	
Cholinesterase	U/l	6418	5134	7702	642.00	1284.00	Colorimetric Butyrylthiocholine 37°C
CK Total	U/l	200	164	236	18.00	36.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	131	105	157	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.48	1.19	1.77	0.15	0.29	
	µmol/l	125	99.6	150	12.70	25.40	Enzymatic UV method
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	125	100	150	12.50	25.00	Creatinine PAP method
	mg/dl	1.41	1.13	1.69	0.14	0.28	
	µmol/l	131	104	158	13.50	27.00	Jaffe rate blanked
	mg/dl	1.48	1.18	1.78	0.15	0.30	
	µmol/l	127	101	153	13.00	26.00	Jaffe rate blanked comp. (-26 µmol/l)
	mg/dl	1.44	1.14	1.74	0.15	0.30	
	µmol/l	129	103	155	13.00	26.00	Jaffe rate blanked compensated (-18 µmol/l)
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	126	101	151	12.50	25.00	IDMS traceable
	mg/dl	1.42	1.14	1.70	0.14	0.28	
gamma-GT	U/l	52	44	60	4.00	8.00	Gamma glutamyl.-3-carboxy-4-nitroanilide 37°C
	U/l	53	45	61	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
Glucose	mmol/l	5.90	5.01	6.79	0.45	0.89	Hexokinase
	mg/dl	106	90.3	122	7.85	15.70	
	mmol/l	5.95	5.06	6.84	0.45	0.89	Glucose oxidase
	mg/dl	107	91.2	123	7.90	15.80	

## SIEMENS ATELLICA / ADVIA 1200/1650/1800/240 (ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2))

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
HDL - Cholesterol	mmol/l	1.25	1.07	1.43	0.09	0.18	Direct HDL Immunoseparation
	mg/dl	48.3	41.3	55.3	3.50	7.00	
	mmol/l	1.26	1.07	1.45	0.10	0.19	Direct Clearance Method
	mg/dl	48.6	41.3	55.9	3.65	7.30	
Iron	µmol/l	19.1	15.7	22.5	1.70	3.40	Colorimetric with ppt.
	µg/dl	107	87.8	126	9.60	19.20	
	µmol/l	19.4	15.9	22.9	1.75	3.50	Colorimetric without ppt.
	µg/dl	108	88.9	127	9.55	19.10	
Lactate	mmol/l	1.42	1.17	1.67	0.13	0.25	Colorimetric Lactate Oxidase
	mg/dl	12.8	10.5	15.1	1.15	2.30	
LD (LDH)	U/l	211	179	243	16.00	32.00	L->P 37°C
	U/l	406	345	467	30.50	61.00	P->L German methods 37°C
	U/l	211	180	242	15.50	31.00	L->P IFCC 37°C
Lipase	U/l	38	31	45	3.50	7.00	Other Colorimetric 37°C
Lithium	mmol/l	1.01	0.89	1.13	0.06	0.12	Spectrophotometric
	mg/dl	0.701	0.618	0.784	0.04	0.08	
Magnesium	mmol/l	0.90	0.80	1.01	0.05	0.11	Xylidyl Blue
	mg/dl	2.19	1.93	2.45	0.13	0.26	
Phosphate Inorganic	mmol/l	1.48	1.26	1.70	0.11	0.22	Phosphomolybdate UV
	mg/dl	4.59	3.91	5.27	0.34	0.68	
Potassium	mmol/l	4.04	3.71	4.37	0.17	0.33	ISE method - indirect
Protein Total	g/l	56.8	45.4	68.2	5.70	11.40	Biuret reaction end point
	g/dl	5.68	4.54	6.82	0.57	1.14	
	g/l	58.6	46.9	70.3	5.85	11.70	Biuret reaction kinetic
	g/dl	5.86	4.69	7.03	0.59	1.17	



**SIEMENS ATELLICA / ADVIA 1200/1650/1800/240** (ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2))

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Sodium	mmol/l	143	136	150	3.50	7.00	ISE method - indirect
TIBC	μmol/l	50.9	40.2	61.6	5.35	10.70	Removal of excess free iron
	μg/dl	285	225	345	30.00	60.00	
	μmol/l	47.1	37.2	57.0	4.95	9.90	FE+UIBC(saturation with iron)
	μg/dl	263	208	318	27.50	55.00	
	μmol/l	49.2	38.8	59.6	5.20	10.40	Direct Colorimetric
Triglycerides	mmol/l	1.15	0.97	1.33	0.09	0.18	Lipase/GPO-PAP no correction
	mg/dl	102	85.6	118	8.20	16.40	
	mmol/l	1.18	0.99	1.37	0.10	0.19	L/G Kinase EP. no correction
	mg/dl	104	87.3	121	8.35	16.70	
Urea	mmol/l	7.58	6.45	8.71	0.57	1.13	Urease end point
	mg/dl	45.6	38.8	52.4	3.40	6.80	
	mmol/l	7.50	6.38	8.62	0.56	1.12	Urease kinetic
	mg/dl	45.1	38.3	51.9	3.40	6.80	
	mmol/l	7.50	6.38	8.62	0.56	1.12	BUN
mg/dl	21.1	17.9	24.3	1.60	3.20		
Uric Acid (Urate)	mmol/l	0.35	0.30	0.40	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.88	5.11	6.65	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.93	5.16	6.70	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
mg/dl	5.95	5.17	6.73	0.39	0.78		

## SIEMENS DIMENSION EXL®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.4	36.9	49.9	3.25	6.50	Bromocresol Purple
	g/dl	4.34	3.69	4.99	0.33	0.65	
Alkaline Phosphatase	U/l	140	119	161	10.50	21.00	Siemens Dimension AMP buffer 37°C
	U/l	140	119	161	10.50	21.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	46	36	56	5.00	10.00	Tris buffer with P5P 37°C
	U/l	46	37	55	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Total	U/l	98	83	113	7.50	15.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	50	40	60	5.00	10.00	Tris buffer with P5P 37°C
	U/l	51	40	62	5.50	11.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	14.8	11.8	17.8	1.50	3.00	Enzymatic
Bilirubin Direct	µmol/l	12.1	9.56	14.6	1.27	2.54	Diazo/Sulphanilic Siemens Dimension
	mg/dl	0.708	0.559	0.857	0.07	0.15	
Bilirubin Total	µmol/l	28.3	22.4	34.2	2.95	5.90	Diazo with Sulphanilic Acid
	mg/dl	1.66	1.31	2.01	0.18	0.35	
Calcium	mmol/l	2.14	1.93	2.35	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.58	7.74	9.42	0.42	0.84	
Chloride	mmol/l	98.0	90.1	106	3.95	7.90	ISE indirect
Cholesterol	mmol/l	3.71	3.23	4.19	0.24	0.48	Cholesterol Oxidase - Abell Kendall
	mg/dl	143	125	161	9.00	18.00	
	mmol/l	3.66	3.18	4.14	0.24	0.48	Dimension-Siemens reagents
	mg/dl	141	123	159	9.00	18.00	

## SIEMENS DIMENSION EXL®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholinesterase	U/l	9529	7623	10000	953.00	1906.00	Colorimetric - Butyrythiochol. Dimension 37°C
CK Total	U/l	195	160	230	17.50	35.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	136	109	163	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	µmol/l	134	107	161	13.50	27.00	Enzymatic UV method
	mg/dl	1.51	1.21	1.81	0.15	0.30	
	µmol/l	129	103	155	13.00	26.00	Creatinine PAP method
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	µmol/l	133	107	159	13.00	26.00	Jaffe rate blanked
	mg/dl	1.50	1.21	1.79	0.15	0.29	
µmol/l	132	106	158	13.00	26.00	IDMS traceable	
mg/dl	1.49	1.20	1.78	0.15	0.29		
gamma-GT	U/l	56	48	64	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	66	56	76	5.00	10.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.06	5.15	6.97	0.46	0.91	Hexokinase
	mg/dl	109	92.8	125	8.10	16.20	
	mmol/l	5.99	5.10	6.88	0.45	0.89	Oxygen electrode
	mg/dl	108	91.9	124	8.05	16.10	
HDL - Cholesterol	mmol/l	1.41	1.20	1.62	0.11	0.21	Direct HDL PPD
	mg/dl	54.4	46.3	62.5	4.05	8.10	
	mmol/l	1.40	1.19	1.61	0.11	0.21	Direct HDL PEGME
	mg/dl	54.0	45.9	62.1	4.05	8.10	
	mmol/l	1.35	1.15	1.55	0.10	0.20	Direct Clearance Method
	mg/dl	52.1	44.4	59.8	3.85	7.70	
Iron	µmol/l	18.5	15.2	21.8	1.65	3.30	Colorimetric with ppt.
	µg/dl	103	85.0	121	9.00	18.00	


**SIEMENS DIMENSION EXL®**
**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	µmol/l	18.6	15.3	21.9	1.65	3.30	Colorimetric without ppt.
	µg/dl	104	85.5	123	9.25	18.50	
Lactate	mmol/l	1.60	1.31	1.89	0.15	0.29	UV LDH
	mg/dl	14.4	11.8	17.0	1.30	2.60	
LD (LDH)	U/l	195	165	225	15.00	30.00	L->P 37°C
	U/l	198	169	227	14.50	29.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	200	170	230	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	127	102	152	12.50	25.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.88	0.77	0.98	0.05	0.11	Methylthymol blue
	mg/dl	2.13	1.87	2.39	0.13	0.26	
Osmolality	mOsm/kg	287	230	344	28.50	57.00	Calculated
Phosphate Inorganic	mmol/l	1.52	1.29	1.75	0.12	0.23	Phosphomolybdate enzymatic
	mg/dl	4.71	4.00	5.42	0.36	0.71	
	mmol/l	1.49	1.27	1.71	0.11	0.22	Phosphomolybdate UV
mg/dl	4.62	3.94	5.30	0.34	0.68		
Potassium	mmol/l	3.95	3.63	4.27	0.16	0.32	ISE method - indirect
Protein Total	g/l	60.8	48.6	73.0	6.10	12.20	Biuret reaction end point
	g/dl	6.08	4.86	7.30	0.61	1.22	
PSA Total	ng/ml =	11.7	8.74	14.7	1.48	2.96	Siemens Dimension
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
Thyroid Stimulating Hormone	µU/ml =	1.17	0.94	1.41	0.12	0.24	
TIBC	µmol/l	35.7	28.2	43.2	3.75	7.50	Removal of excess free iron
	µg/dl	200	158	242	21.00	42.00	
	µmol/l	37.2	29.3	45.1	3.95	7.90	FE+UIBC(saturation with iron)
	µg/dl	208	164	252	22.00	44.00	



## SIEMENS DIMENSION EXL®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
TIBC	µmol/l	36.2	28.6	43.8	3.80	7.60	Direct Colorimetric
	µg/dl	202	160	244	21.00	42.00	
Triglycerides	mmol/l	1.05	0.89	1.22	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	92.9	78.3	108	7.30	14.60	
	mmol/l	1.07	0.90	1.24	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	94.7	79.6	110	7.55	15.10	
Urea	mmol/l	1.03	0.87	1.19	0.08	0.16	Lipase/Glycerol Dehydrogenase
	mg/dl	91.2	76.6	106	7.30	14.60	
	mmol/l	7.34	6.24	8.44	0.55	1.10	Urease end point
		mg/dl	44.1	37.5	50.7	3.30	
mmol/l	7.39	6.28	8.50	0.56	1.11	Urease kinetic	
	mg/dl	44.4	37.7	51.1	3.35		6.70
mmol/l	7.39	6.28	8.50	0.56	1.11	BUN	
	mg/dl	20.7	17.6	23.8	1.55		3.10
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.96	5.19	6.73	0.39	0.77	
	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.90	5.14	6.66	0.38	0.76	
	mmol/l	0.35	0.30	0.40	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.88	5.11	6.65	0.39	0.77	

## SIEMENS DIMENSION RxL/Max/Xpand®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	44.4	37.7	51.1	3.35	6.70	Bromocresol Green
	g/dl	4.44	3.77	5.11	0.34	0.67	
	g/l	43.3	36.8	49.8	3.25	6.50	Bromocresol Purple
	g/dl	4.33	3.68	4.98	0.33	0.65	
Alkaline Phosphatase	U/l	140	119	161	10.50	21.00	Siemens Dimension AMP buffer 37°C
	U/l	140	119	161	10.50	21.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	46	37	55	4.50	9.00	Tris buffer with P5P 37°C
	U/l	47	38	56	4.50	9.00	Siemens Dade Standard Non IFCC Correlated 37°C
Amylase Pancreatic	U/l	67	57	77	5.00	10.00	Immunoinhibition EPS substrate 37°C
Amylase Total	U/l	99	84	114	7.50	15.00	Siemens - maltopenta/hexaoside 37°C
	U/l	99	84	114	7.50	15.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	52	42	62	5.00	10.00	Tris buffer with P5P 37°C
	U/l	51	41	61	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bicarbonate	mmol/l	15.6	12.4	18.8	1.60	3.20	Enzymatic
Bilirubin Direct	µmol/l	12.2	9.64	14.8	1.28	2.56	Diazo/Sulphanilic Siemens Dimension
	mg/dl	0.714	0.564	0.864	0.08	0.15	
Bilirubin Total	µmol/l	28.7	22.6	34.8	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.68	1.32	2.04	0.18	0.36	
Calcium	mmol/l	2.14	1.93	2.35	0.11	0.21	Cresolphthalein complexone
	mg/dl	8.58	7.74	9.42	0.42	0.84	
Chloride	mmol/l	98.1	90.3	106	3.90	7.80	ISE indirect


**SIEMENS DIMENSION RxL/Max/Xpand®**
**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
Cholesterol	mmol/l	3.76	3.27	4.25	0.25	0.49	Cholesterol Oxidase - Abell Kendall
	mg/dl	145	126	164	9.50	19.00	
	mmol/l	3.70	3.22	4.18	0.24	0.48	Dimension-Siemens reagents
	mg/dl	143	124	162	9.50	19.00	
Cholinesterase	U/l	9555	7644	10000	955.50	1911.00	Colorimetric - Butyrythiochol. Dimension 37°C
CK Total	U/l	193	159	227	17.00	34.00	CK-NAC (IFCC) 37°C
Creatinine	μmol/l	135	108	162	13.50	27.00	Alkaline picrate no deproteinization
	mg/dl	1.53	1.22	1.84	0.16	0.31	
	μmol/l	130	104	156	13.00	26.00	Enzymatic UV method
	mg/dl	1.47	1.18	1.76	0.15	0.29	
	μmol/l	129	103	155	13.00	26.00	Creatinine PAP method
	mg/dl	1.46	1.16	1.76	0.15	0.30	
	μmol/l	136	109	163	13.50	27.00	Jaffe rate blanked
	mg/dl	1.54	1.23	1.85	0.16	0.31	
	μmol/l	135	108	162	13.50	27.00	IDMS traceable
	mg/dl	1.53	1.22	1.84	0.16	0.31	
gamma-GT	U/l	58	50	66	4.00	8.00	Gamma Glutamyl-3-Carboxy-4-nitroanilide (IFCC) 37°C
	U/l	65	55	75	5.00	10.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.23	5.29	7.17	0.47	0.94	Glucose dehydrogenase
	mg/dl	112	95.3	129	8.35	16.70	
	mmol/l	6.10	5.19	7.01	0.46	0.91	Hexokinase
	mg/dl	110	93.5	127	8.25	16.50	
HDL - Cholesterol	mmol/l	1.41	1.20	1.62	0.11	0.21	Direct HDL PPD
	mg/dl	54.4	46.3	62.5	4.05	8.10	
	mmol/l	1.42	1.21	1.63	0.11	0.21	Direct HDL PEGME
	mg/dl	54.8	46.7	62.9	4.05	8.10	

## SIEMENS DIMENSION RxL/Max/Xpand®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Iron	µmol/l	18.8	15.4	22.2	1.70	3.40	Colorimetric with ppt.
	µg/dl	105	86.1	124	9.45	18.90	
	µmol/l	18.6	15.3	21.9	1.65	3.30	Colorimetric without ppt.
	µg/dl	104	85.5	123	9.25	18.50	
Lactate	mmol/l	1.50	1.23	1.77	0.14	0.27	Colorimetric Lactate Oxidase
	mg/dl	13.5	11.1	15.9	1.20	2.40	
	mmol/l	1.55	1.27	1.83	0.14	0.28	UV LDH
	mg/dl	14.0	11.4	16.6	1.30	2.60	
LD (LDH)	U/l	199	169	229	15.00	30.00	Siemens Dimension L-P Non IFCC 37°C
	U/l	198	168	228	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	128	103	153	12.50	25.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Lithium	mmol/l	1.07	0.94	1.20	0.07	0.13	Spectrophotometric
	mg/dl	0.743	0.653	0.833	0.05	0.09	
Magnesium	mmol/l	0.89	0.78	0.99	0.05	0.11	Methylthymol blue
	mg/dl	2.15	1.89	2.41	0.13	0.26	
Phosphate Inorganic	mmol/l	1.49	1.27	1.71	0.11	0.22	Phosphomolybdate enzymatic
	mg/dl	4.62	3.94	5.30	0.34	0.68	
	mmol/l	1.49	1.26	1.72	0.12	0.23	Phosphomolybdate UV
	mg/dl	4.62	3.91	5.33	0.36	0.71	
Potassium	mmol/l	4.05	3.73	4.37	0.16	0.32	ISE method - direct
	mmol/l	3.96	3.64	4.28	0.16	0.32	ISE method - indirect
Protein Total	g/l	60.4	48.3	72.5	6.05	12.10	Biuret reaction end point
	g/dl	6.04	4.83	7.25	0.61	1.21	
Sodium	mmol/l	141	134	148	3.50	7.00	ISE method - indirect

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Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
TIBC	μmol/l	36.3	28.7	43.9	3.80	7.60	Removal of excess free iron
	μg/dl	203	160	246	21.50	43.00	
	μmol/l	38.0	30.0	46.0	4.00	8.00	FE+UIBC(saturation with iron)
	μg/dl	212	168	256	22.00	44.00	
	μmol/l	36.7	29.0	44.4	3.85	7.70	Direct Colorimetric
Triglycerides	mmol/l	1.06	0.89	1.23	0.08	0.17	Lipase/GPO-PAP no correction
	mg/dl	93.8	79.0	109	7.40	14.80	
	mmol/l	1.07	0.90	1.24	0.09	0.17	L/G Kinase EP. no correction
	mg/dl	94.7	79.7	110	7.50	15.00	
Urea	mmol/l	1.06	0.89	1.23	0.09	0.17	Lipase/Glycerol Dehydrogenase
	mg/dl	93.8	78.8	109	7.50	15.00	
	mmol/l	7.49	6.37	8.61	0.56	1.12	Urease end point
	mg/dl	45.0	38.3	51.7	3.35	6.70	
Uric Acid (Urate)	mmol/l	7.33	6.23	8.43	0.55	1.10	Urease kinetic
	mg/dl	44.1	37.4	50.8	3.35	6.70	
	mmol/l	7.33	6.23	8.43	0.55	1.10	BUN
	mg/dl	20.6	17.5	23.7	1.55	3.10	
Uric Acid (Urate)	mmol/l	0.35	0.31	0.40	0.02	0.05	Uricase catalase 340nm
	mg/dl	5.90	5.12	6.68	0.39	0.78	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase with ascorbate oxidase
	mg/dl	5.83	5.07	6.59	0.38	0.76	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Uricase peroxidase no ascorbate oxidase
	mg/dl	5.81	5.06	6.56	0.38	0.75	
	mmol/l	0.35	0.30	0.39	0.02	0.05	Spectrophotometric at 280-290
	mg/dl	5.85	5.09	6.61	0.38	0.76	

**SIEMENS DIMENSION RxL/Max/Xpand®**

ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.36	0.31	0.40	0.02	0.05	Uricase Peroxidase with ascorbate oxidase @ 546nm
	mg/dl	5.98	5.21	6.75	0.39	0.77	

## SIEMENS DIMENSION Vista®

## ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

### Range

Analyte	unit	Target	low	high	1SD	2SD	methods
Albumin	g/l	43.9	37.3	50.5	3.30	6.60	Bromocresol Purple
	g/dl	4.39	3.73	5.05	0.33	0.66	
Alkaline Phosphatase	U/l	155	132	178	11.50	23.00	Siemens Dimension AMP buffer 37°C
	U/l	144	122	166	11.00	22.00	AMP optimised to IFCC 37°C
ALT (GPT)	U/l	44	35	53	4.50	9.00	Tris buffer with P5P 37°C
Amylase Total	U/l	96	81	111	7.50	15.00	Siemens 2-chloro-pNPG3 37°C
AST (GOT)	U/l	52	41	63	5.50	11.00	Tris buffer with P5P 37°C
	U/l	48	38	58	5.00	10.00	Siemens Dade Standard Non IFCC Correlated 37°C
Bilirubin Direct	µmol/l	12.9	10.2	15.6	1.35	2.70	Diazo/Sulphanilic Siemens Dimension
	mg/dl	0.755	0.597	0.913	0.08	0.16	
Bilirubin Total	µmol/l	29.1	23.0	35.2	3.05	6.10	Diazo with Sulphanilic Acid
	mg/dl	1.70	1.35	2.05	0.18	0.35	
Calcium	mmol/l	2.13	1.91	2.35	0.11	0.22	Cresolphthalein complexone
	mg/dl	8.54	7.66	9.42	0.44	0.88	
Chloride	mmol/l	103	94.4	112	4.30	8.60	ISE indirect
Cholesterol	mmol/l	3.84	3.34	4.34	0.25	0.50	Cholesterol Oxidase - Abell Kendall
	mg/dl	148	129	167	9.50	19.00	
	mmol/l	3.70	3.22	4.18	0.24	0.48	Dimension-Siemens reagents
	mg/dl	143	124	162	9.50	19.00	
CK Total	U/l	196	161	231	17.50	35.00	CK-NAC (IFCC) 37°C
Creatinine	µmol/l	130	104	156	13.00	26.00	Alkaline picrate no deproteinization
	mg/dl	1.47	1.18	1.76	0.15	0.29	


**SIEMENS DIMENSION Vista®**
**ASSAYED HUMAN SERA LEVEL 2 (HUM ASY CONTROL 2)**

Lot. No. 1374UN Cat. No. HN1530 / HS2611

Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
gamma-GT	U/l	64	54	74	5.00	10.00	Siemens Dimension (non IFCC) 37°C
Glucose	mmol/l	6.03	5.13	6.93	0.45	0.90	Hexokinase
	mg/dl	109	92.4	126	8.30	16.60	
HDL - Cholesterol	mmol/l	1.47	1.25	1.69	0.11	0.22	Direct HDL PPD
	mg/dl	56.7	48.3	65.1	4.20	8.40	
	mmol/l	1.41	1.20	1.62	0.11	0.21	Direct HDL PEGME
	mg/dl	54.4	46.3	62.5	4.05	8.10	
Iron	µmol/l	19.6	16.1	23.1	1.75	3.50	Colorimetric without ppt.
	µg/dl	110	90.0	130	10.00	20.00	
LD (LDH)	U/l	200	170	230	15.00	30.00	L->P IFCC 37°C
Lipase	U/l	138	111	165	13.50	27.00	Colorimetric Siemens Dimension (LIPL Kit) 37°C
Magnesium	mmol/l	0.91	0.80	1.02	0.05	0.11	Methylthymol blue
	mg/dl	2.21	1.94	2.48	0.14	0.27	
Phosphate Inorganic	mmol/l	1.41	1.20	1.62	0.11	0.21	Phosphomolybdate UV
	mg/dl	4.37	3.72	5.02	0.33	0.65	
Potassium	mmol/l	3.93	3.61	4.25	0.16	0.32	ISE method - indirect
Protein Total	g/l	61.2	48.9	73.5	6.15	12.30	Biuret reaction end point
	g/dl	6.12	4.89	7.35	0.62	1.23	
Sodium	mmol/l	142	135	149	3.50	7.00	ISE method - indirect
Triglycerides	mmol/l	1.16	0.97	1.35	0.09	0.19	Lipase/GPO-PAP no correction
	mg/dl	103	86.0	120	8.50	17.00	
Urea	mmol/l	7.38	6.27	8.49	0.56	1.11	Urease kinetic
	mg/dl	44.4	37.7	51.1	3.35	6.70	
	mmol/l	7.38	6.27	8.49	0.56	1.11	BUN
	mg/dl	20.7	17.6	23.8	1.55	3.10	



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Size 20 x 5ml / 5 x 5ml Expiry 2023-01-28

**Range**

Analyte	unit	Target	low	high	1SD	2SD	methods
Uric Acid (Urate)	mmol/l	0.32	0.28	0.36	0.02	0.04	Uricase catalase 340nm
	mg/dl	5.38	4.69	6.07	0.35	0.69	