CONTROL LEVEL
2 HUMAN SERA

CAT. NO. HEC200
LOT NO. 770UE

MEDTEST DX
A MEDTEST COMPANY

MEDTEST DX
A MEDTEST COMPANY

Control Level 2

LOT NO. 770UE SIZE: 5ml
EXPIRATION: 2019-01-28 CAT. NO. HEC200

Carefully reconstitute each vial of lyophilized serum with exactly 5 mL of distilled water.

INTENDED USE

MedTest DX Control Level 2 is lyophilized human based control sera for use in the quality control of diagnostic assays. Human-sera can be supplied as an assayed serum for control of accuracy or as a precision serum for control of reproducibility. Constituent concentrations are available at 2 levels.

VALUE ASSIGNMENTS

Values are also collected from approximately 3000 laboratories worldwide and a value is assigned using a unique statistical analysis. With each batch a control range is provided for individual parameters and each parameter method. The control range is equivalent to the assigned mean ± 2 S.D. This results in an assayed serum with extremely accurate values, which may be confidently used by laboratories to ensure the accuracy of their methods.

PREPARATION

Procedure
1. Open the vial carefully, avoiding any loss of material.
2. Reconstitute in the appropriate accurately measured volume of distilled water at +20 to +25° C.
3. Replace the rubber stopper, close vial and let stand for 30 minutes out of bright light before use.
4. Ensure that contents are completely dissolved by swirling gently.
5. After 30 minutes, invert vial to ensure that all traces of dry material are dissolved.
6. Do not shake the vial.

The serum can then be used with the manual tests or with automated instruments. The serum should only be reconstituted using this procedure.

STABILITY

The serum is stable for 4 years after date of manufacture when stored at a constant +4° C. The expiration date is illustrated on the side of each pack.

Once reconstituted, the components of the serum are stable for 8 hours at +25° C or 7 days at +4° C, and at least 1 month when frozen once at -20° C (see limitations).

LIMITATIONS

For Total & Prostatic Acid Phosphatase, the material should be stabilized by adding 1 drop (25-30 µl) of 0.7 M Acetic acid solution to 1 mL of the serum. After stabilization, Total & Prostatic Acid Phosphatase is stable for at least 2 hours at +25° C, at least 2 days at +4° C, and at least 1 month when frozen once at -20° C.

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

Bilirubin in the serum is light sensitive and it is recommended that the serum be stored in the dark. Stored in the dark, it is stable for at least 4 hours at +25° C, at least 8 hours at +4° C. DO NOT FREEZE.

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

Different lot numbers of this control should not be interchanged as the values assigned to the controls vary from lot to lot. The control should not be used as a calibration material.

WARNINGS/PRECAUTIONS

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

For **IN VITRO** diagnostic use only.

Manufactured in the U.K. for

MEDTEST DX
A MEDTEST COMPANY

5449 Research Drive
Canton MI 48188
(800) 445-9853 (734) 487-8300
Fax (734) 483-1592
www.medtestdx.com

MEAN OF ALL INSTRUMENTS

COMPONENT	UNITS	TARGET	RANGE		METHOD
			LOW	HIGH	
Albumin	g/l	29.7	25.3	34.1	Bromocresol Green
	g/dl	2.97	2.53	3.41	
	g/l	28.2	24.0	32.4	Bromocresol Purple
	g/dl	2.82	2.40	3.24	
	g/l	27.5	23.4	31.6	Dry Chemistry
	g/dl	2.75	2.34	3.16	
Bicarbonate (CO2)	mmol/l	16.6	13.2	20.0	Differential Rate pH change
	mmol/l	16.5	13.1	19.9	Enzymatic
	mmol/l	16.9	13.4	20.4	ISE
	mmol/l	19.4	15.4	23.4	Dry Chemistry
Bile Acids	µmol/l	50.1	40.1	60.1	4th Generation Colorimetric
	µmol/l	51.7	41.4	62.0	5th Generation Colorimetric
Direct Bilirubin	µmol/l	29.4	23.2	35.6	Diazo with Sulphanilic Acid
	mg/dl	1.72	1.36	2.08	
Total Bilirubin	µmol/l	93.8	74.1	114	Diazo with Dichloroaniline (DCA)
	mg/dl	5.49	4.33	6.65	
	µmol/l	92.5	73.1	112	Dichlorophenyl Diazonium (DPD)
	mg/dl	5.41	4.28	6.54	
	µmol/l	82.9	65.5	100	Diazo with Sulphanilic acid
	mg/dl	4.85	3.83	5.87	
	µmol/l	74.3	58.7	89.9	Dry Chemistry
	mg/dl	4.35	3.43	5.27	
Calcium	mmol/l	3.21	2.89	3.53	Arsenazo III
	mg/dl	12.9	11.6	14.2	
	mmol/l	3.17	2.85	3.49	Cresolphthalein complexone
	mg/dl	12.7	11.4	14.0	
	mmol/l	3.12	2.81	3.43	ISE
	mg/dl	12.5	11.3	13.7	
	mmol/l	2.75	2.48	3.02	Methylthymol blue
	mg/dl	11.0	9.94	12.1	
	mmol/l	3.14	2.83	3.45	Dry Chemistry
	mg/dl	12.6	11.3	13.9	
Chloride	mmol/l	113	104	122	Colorimetric
mmol/l = mEq/l	mmol/l	114	105	123	ISE Direct
	mmol/l	113	104	122	ISE Indirect
	mmol/l	114	105	123	Dry Chemistry
Cholesterol	mmol/l	6.65	5.78	7.52	Cholesterol Oxidase (CHOD PAP)
	mg/dl	257	223	291	
	mmol/l	5.91	5.14	6.68	Dry Chemistry
	mg/dl	228	198	258	
Copper	µmol/l	26.4	21.1	31.7	Atomic Absorption
	µg/dl	168	134	202	
	µmol/l	25.8	20.6	31.0	Colorimetric
	µg/dl	164	131	197	
Creatinine	µmol/l	342	274	410	Alkaline picrate with deproteinization
	mg/dl	3.86	3.10	4.62	
	µmol/l	357	285	429	Alkaline picrate without deproteinization
	mg/dl	4.03	3.22	4.84	
	µmol/l	379	304	454	Enzymatic UV
	mg/dl	4.28	3.44	5.12	
	µmol/l	378	303	453	Creatinine PAP method
	mg/dl	4.27	3.42	5.12	
	µmol/l	381	304	458	Dry Chemistry
	mg/dl	4.31	3.44	5.18	

MEAN OF ALL INSTRUMENTS

COMPONENT	UNITS	TARGET	RANGE		METHOD
			LOW	HIGH	
Glucose	mmol/l	16.0	13.6	18.4	Glucose dehydrogenase
	mg/dl	288	245	331	
	mmol/l	15.6	13.3	17.9	Hexokinase
	mg/dl	281	240	322	
	mmol/l	15.4	13.1	17.7	Glucose oxidase
	mg/dl	278	236	320	
	mmol/l	14.4	12.3	16.5	Dry Chemistry
	mg/dl	259	222	296	
D-3-Hydroxybutyrate	mmol/l	1.17	1.00	1.34	Tris Buffer 100mM pH8.5
Iron	µmol/l	37.7	30.9	44.5	Colorimetric with precipitation
	µg/dl	211	173	249	(Ferene/Ferrozine Method)
	µmol/l	37.2	30.5	43.9	Colorimetric without precipitation
	µg/dl	208	170	246	(Ferene/Ferrozine Method)
	µmol/l	38.6	31.7	45.5	Dry Chemistry
	µg/dl	216	177	255	
TIBC	µmol/l	47.1	37.2	57.0	Removal of Excess Free Iron
	µg/dl	263	208	318	
	µmol/l	51.5	40.7	62.3	Fe + UIBC (Saturation with Iron)
	µg/dl	288	228	348	
Lactate	mmol/l	5.61	4.60	6.62	Enzymatic Colorimetric
	mg/dl	50.5	41.4	59.6	
Lithium	mmol/l	2.16	1.90	2.42	ISE
mmol/l = mEq/l	mmol/l	2.48	2.18	2.78	Dry Chemistry
Magnesium	mmol/l	1.78	1.56	2.00	Calmagite
	mg/dl	4.33	3.79	4.87	
	mmol/l	1.80	1.59	2.01	Xylidyl Blue
	mg/dl	4.37	3.86	4.88	
	mmol/l	1.82	1.61	2.03	Dry Chemistry
	mg/dl	4.42	3.91	4.93	
NEFA	mmol/l	0.48	0.41	0.55	Colorimetric
Osmolality	mmol/kg	346	277	415	Calculated
	mmol/kg	381	305	457	Freezing Point depression
Phosphorus	mmol/l	2.32	1.97	2.67	Phosphomolybdate Enzymatic
Inorganic	mg/dl	7.19	6.11	8.27	
	mmol/l	2.31	1.96	2.66	Phosphomolybdate reduction UV
	mg/dl	7.16	6.08	8.24	
	mmol/l	2.29	1.95	2.63	Dry Chemistry
	mg/dl	7.10	6.05	8.15	
Potassium	mmol/l	5.94	5.47	6.41	Flame Photometry
mmol/l = mEq/l	mmol/l	6.13	5.64	6.62	ISE Direct
	mmol/l	6.21	5.71	6.71	ISE Indirect
	mmol/l	6.12	5.63	6.61	Dry Chemistry
PSA	µg/l	34.4	25.8	43.0	Roche Elecsys Modular E170
	µg/l	31.4	23.5	39.3	Biomerieux Vidas (TPSA)
	µg/l	27.0	20.3	33.7	Siemens Advia Centaur
	µg/l	28.3	21.2	35.4	Abbott Architect

MEAN OF ALL INSTRUMENTS

COMPONENT	UNITS	TARGET	RANGE LOW	RANGE HIGH	METHOD
Sodium	mmol/l	159	151	167	ISE Direct
mmol/l = mEq/l	mmol/l	161	153	169	ISE Indirect
	mmol/l	156	148	164	Flame Photometry
	mmol/l	158	150	166	Dry Chemistry
Total Protein	g/l	45.2	36.1	54.3	Biuret reaction, endpoint
	g/dl	4.52	3.61	5.43	
	g/l	44.1	35.3	52.9	Biuret reaction, kinetic
	g/dl	4.41	3.53	5.29	
	g/l	44.2	35.4	53.0	Biuret reaction, CX4/5/7
	g/dl	4.42	3.54	5.30	
	g/l	45.5	36.4	54.6	Dry Chemistry
	g/dl	4.55	3.64	5.46	
Triglycerides	mmol/l	2.96	2.48	3.44	Lipase/GPO-PAP Color. without
	mg/dl	262	219	305	Glycerol Correction
	mmol/l	3.06	2.57	3.55	Lipase/Glycerol Kinase UV
	mg/dl	271	227	315	End Point without Glycerol Correction
	mmol/l	2.99	2.51	3.47	Lipase/Glycerol Dehydrogenase
	mg/dl	265	222	308	
	mmol/l	3.57	3.00	4.14	Dry Chemistry
	mg/dl	316	266	366	
Urea	mmol/l	19.2	16.3	22.1	BUN
	mg/dl	53.9	45.8	62.0	
	mmol/l	17.9	15.2	20.6	Urease, Endpoint
	mg/dl	108	91.4	125	
	mmol/l	19.2	16.3	22.1	Urease, kinetic
	mg/dl	115	98.0	132	
	mmol/l	18.9	16.1	21.7	Urease Berthelot
	mg/dl	114	96.8	131	
	mmol/l	18.7	15.9	21.5	Urease Hypochlorite
	mg/dl	112	95.6	128	
	mmol/l	18.1	15.4	20.8	Dry Chemistry
	mg/dl	109	92.6	125	
Uric Acid	mmol/l	0.57	0.49	0.64	Uricase, Catalase 340 nm
	mg/dl	9.54	8.30	10.8	
	mmol/l	0.56	0.49	0.63	Uricase peroxidase, with Ascorbate
	mg/dl	9.39	8.18	10.6	Oxidase, colorimetric
	mmol/l	0.55	0.48	0.63	Uricase peroxidase, without Ascorbate
	mg/dl	9.29	8.08	10.5	Oxidase, colorimetric
	mmol/l	0.55	0.48	0.62	Randox 546 nm/BM Uric Acid plus
	mg/dl	9.27	8.08	10.5	
	mmol/l	0.52	0.46	0.59	Dry Chemistry
	mg/dl	8.79	7.64	9.94	
Zinc	µmol/l	33.1	26.5	39.7	Atomic Absorption
	µg/dl	216	173	259	
	µmol/l	34.3	27.4	41.2	Colorimetric
	µg/dl	224	179	269	
Acid Phosphatase	U/l	38.4	25.7	51.1	1-Naphthyl Phosphate, Kinetic 37°C
(Total)	U/l	51.5	34.5	68.5	1-Naphthyl Phosphate, Kinetic with Pentane Diol Activation 37°C
Acid Phosphatase	U/l	23.5	15.7	31.3	1-Naphthyl Phosphate, Kinetic 37°C
(Prostatic)	U/l	41.0	27.5	54.5	1-Naphthyl Phosphate, Kinetic with Pentane Diol Activation 37ºC

MEAN OF ALL INSTRUMENTS

COMPONENT	UNITS	TARGET	RANGE		METHOD
			LOW	HIGH	
ALP	U/l	389	330	448	p-Nitrophenylphosphate, AMP, 37°C
	U/l	303	257	349	p-Nitrophenylphosphate, AMP, 30°C
	U/l	249	211	287	p-Nitrophenylphosphate, AMP, 25°C
	U/l	550	467	633	p-Nitrophenylphosphate, DEA, 37°C
	U/l	428	364	492	p-Nitrophenylphosphate, DEA, 30°C
	U/l	351	298	404	p-Nitrophenylphosphate, DEA, 25°C
	U/l	213	181	245	Dry Chemistry
ALT	U/l	124	100	148	SCE, 37°C
	U/l	92	74	110	SCE, 30°C
	U/l	70	56	84	SCE, 25°C
	U/l	160	128	192	IFCC with Pyridoxal 5 Phosphate, 37°C
	U/l	118	95	141	IFCC with Pyridoxal 5 Phosphate, 30°C
	U/l	90	72	108	IFCC with Pyridoxal 5 Phosphate, 25°C
	U/l	132	105	159	IFCC NO Pyridoxal 5 Phosphate, 37°C
	U/l	98	78	118	IFCC NO Pyridoxal 5 Phosphate, 30°C
	U/l	74	59	89	IFCC NO Pyridoxal 5 Phosphate, 25°C
	U/l	143	115	171	Dry Chemistry
Amylase	U/l	251	213	289	Polymedco Ethylidene Blocked, 37°C
	U/l	329	279	379	Randox EPS Liquid
	U/l	365	311	419	Siemens 2-Chloro-pNP-linked Substrate 37°C
	U/l	308	261	355	Beckman CX 4/5/7 Maltotetraose 37°C
	U/l	281	239	323	Biomerieux Blocked pNPG3 37°C
	U/l	317	270	364	I.L. Blocked pNPG7 37°C
	U/l	289	246	332	Roche Liquid pNPG7 37°C
	U/l	180	153	207	Dry Chemistry
Pancreatic	U/l	267	227	307	BM/Roche EPS Liquid 37°C
Amylase	U/l	300	255	345	Randox EPS Liquid 37°C
AST	U/l	133	106	160	SCE, 37°C
	U/l	90	72	108	SCE, 30°C
	U/l	63	50	76	SCE, 25°C
	U/l	182	146	218	IFCC with Pyridoxal 5 Phosphate,37°C
	U/l	123	99	147	IFCC with Pyridoxal 5 Phosphate,30°C
	U/l	87	69	105	IFCC with Pyridoxal 5 Phosphate,25°C
	U/l	138	110	166	IFCC NO Pyridoxal 5 Phosphate, 37°C
	U/l	93	74	112	IFCC NO Pyridoxal 5 Phosphate, 30°C
	U/l	66	52	80	IFCC NO Pyridoxal 5 Phosphate, 25°C
	U/l	171	137	205	Dry Chemistry
Cholinesterase	U/l	5385	4308	6462	Colorimetric Butyrylthiocholine 37°C
CK (CPK)	U/l	545	447	643	DGKC, serum start 37°C
	U/l	341	280	402	DGKC, serum start 30°C
	U/l	232	190	274	DGKC, serum start 25°C
	U/l	559	458	660	DGKC, substrate start 37°C
	U/l	350	287	413	DGKC, substrate start 30°C
	U/l	238	195	281	DGKC, substrate start 25°C
	U/l	558	457	659	IFCC 37°C
	U/l	349	286	412	IFCC 30°C
	U/l	237	194	280	IFCC 25°C
	U/l	438	359	517	Dry Chemistry

MEAN OF ALL INSTRUMENTS

COMPONENT	UNITS	TARGET	RANGE		METHOD
			LOW	HIGH	
γ-GT	U/l	153	130	176	Gamma Glutamyl-3-Carboxy-4-nitroanilide, 37°C
	U/l	121	102	140	Gamma Glutamyl-3-Carboxy-4-nitroanilide, 30°C
	U/l	94	80	108	Gamma Glutamyl-3-Carboxy-4-nitroanilide, 25°C
	U/l	167	142	192	IFCC 37°C
	U/l	132	112	152	IFCC 30°C
	U/l	103	88	118	IFCC 25°C
	U/l	133	113	153	Gamma Glutamyl 4 nitroanilide, 37°C
	U/l	105	89	121	Gamma Glutamyl 4 nitroanilide, 30°C
	U/l	82	70	94	Gamma Glutamyl 4 nitroanilide, 25°C
	U/l	197	168	226	Dry Chemistry
GLDH	U/l	27	21	33	DGKC 37°C
	U/l	21	16	26	DGKC 30°C
	U/l	17	13	21	DGKC 25°C
α-HBDH	U/l	466	368	564	DGKC 37°C
	U/l	352	278	426	DGKC 30°C
	U/l	264	208	320	DGKC 25°C
LAP	U/l	14	12	16	NAGEL 37°C
LDH	U/l	752	639	865	P→L, DGKC, 37°C
	U/l	543	461	625	P→L, DGKC, 30°C
	U/l	381	324	438	P→L, DGKC, 25°C
	U/l	865	735	995	P→L, SCE 37°C
	U/l	625	531	719	P→L, SCE 30°C
	U/l	439	373	505	P→L, SCE 25°C
	U/l	765	650	880	P→L, SFBC 37°C
	U/l	552	469	635	P→L, SFBC 30°C
	U/l	388	330	446	P→L, SFBC 25°C
	U/l	384	327	441	L→P IFCC 37ºC
	U/l	277	236	318	L→P IFCC 30°C
	U/l	195	166	224	L→P IFCC 25°C
	U/l	349	296	402	L→P 37ºC
	U/l	252	214	290	L→P 30°C
	U/l	177	150	204	L→P 25°C
	U/l	1135	965	1305	Dry Chemistry
Lipase	U/l	82	66	98	Colorimetric 37°C
	U/l	415	333	497	Turbidimetric with Colipase 37°C
Cortisol	nmol/l	1095	821	1369	Roche Cobas E411
	µg/dl	39.4	29.6	49.2	
Digoxin	nmol/l	3.67	2.94	4.40	Immunoturbidimetric
	ng/ml	2.87	2.30	3.44	
Folate	nmol/l	26.1	19.8	32.4	Roche Cobas E411
	ng/ml	11.5	8.73	14.3	
Gentamycin	mg/l	8.80	7.03	10.6	Immunoturbidimetric
Paracetamol	mg/l	90.6	72.5	109	Colorimetric
Salicylate	mg/dl	11.5	9.19	13.8	Enzymatic
Theophylline	mg/dl	2.13	1.70	2.56	Immunoturbidimetric
Tobramycin	µg/dl	721	576	866	Immunoturbidimetric
Apolipoprotein A-1	mg/dl	90.4	74.1	107	Immunoturbidimetric
Apolipoprotein B-1	mg/dl	55.6	45.6	65.6	Immunoturbidimetric
IgA	g/l	1.75	1.31	2.19	Immunoturbidimetric
IgG	g/l	5.83	4.78	6.88	Immunoturbidimetric

MEAN OF ALL INSTRUMENTS

COMPONENT	UNITS	TARGET	RANGE		METHOD
			LOW	HIGH	
IgM	g/l	0.76	0.61	0.91	Immunoturbidimetric
Thyroxine	nmol/l	242	181	303	Abbott Architect
	µg/dl	18.9	14.1	23.7	
Free Thyroxine ($FreeT_4$)	pmol/l	55.4	41.5	69.3	Abbott Architect
	pg/ml	43.2	32.4	54.0	
Triiodothyronine	nmol/l	3.48	2.61	4.35	Abbott Architect
	ng/ml	2.27	1.70	2.84	
Transferrin	g/l	1.64	1.31	1.97	Immunoturbidimetric
Thyroid Stimulating Hormone (TSH)	µIU/ml	1.02	0.82	1.22	Abbott Architect
Vitamin B_{12}	pmol/l	221	177	265	Roche Cobas E411
	pg/ml	299	240	358	
Electrophoresis					Beckman Capillary
Albumin		60.7	54.7	66.7	% of total Protein
Globulin		39.3	35.4	43.2	% of total Protein
α-1-globulin		7.0	5.3	8.7	% of total Protein
α-2-globulin		7.4	5.6	9.2	% of total Protein
β-globulin		11.9	9.0	14.8	% of total Protein
γ-globulin		13.0	9.9	16.1	% of total Protein

DADE DIMENSION®

COMPONENT	UNITS	TARGET	RANGE LOW	RANGE HIGH	METHOD
Albumin	g/l	28.0	23.8	32.2	Bromocresol Purple
	g/dl	2.80	2.38	3.22	
Direct Bilirubin	µmol/l	17.2	13.6	20.8	Diazo with Sulphanilic acid
	mg/dl	1.01	0.796	1.22	
Total Bilirubin	µmol/l	82.0	64.8	99.2	Diazo with Sulphanilic acid
	mg/dl	4.80	3.79	5.81	
Calcium	mmol/l	3.19	2.87	3.51	Cresolphthalein complexone
	mg/dl	12.8	11.5	14.1	
Chloride mmol/l = mEq/l	mmol/l	115	106	124	ISE
Cholesterol	mmol/l	6.06	5.27	6.85	Cholesterol Oxidase(CHODPAP)
	mg/dl	234	203	265	
Creatinine	µmol/l	385	308	462	Alkaline picrate without
	mg/dl	4.35	3.48	5.22	deproteinization
Glucose	mmol/l	15.7	13.3	18.1	Hexokinase
	mg/dl	283	240	326	
Iron	µmol/l	35.3	29.0	41.6	Colorimetric without precipitation,
	µg/dl	197	162	232	(Ferrozine/Ferene)
Magnesium	mmol/l	1.80	1.58	2.02	Methylthymol Blue
	mg/dl	4.37	3.84	4.90	
Phosphorus	mmol/l	2.29	1.95	2.63	Phosphomolybdate reduction UV
Inorganic	mg/dl	7.10	6.05	8.15	
Potassium mmol/l = mEq/l	mmol/l	6.12	5.63	6.61	ISE
Sodium mmol/l = mEq/l	mmol/l	160	152	168	ISE
Total Protein	g/l	46.1	36.9	55.3	Biuret reaction, endpoint
	g/dl	4.61	3.69	5.53	
Triglycerides	mmol/l	3.09	2.59	3.59	Lipase/Glycerol Dehydrogenase
	mg/dl	273	229	317	
Urea	mmol/l	19.5	16.6	22.4	BUN.
	mg/dl	54.7	46.5	62.9	
Uric Acid	mmol/l	0.55	0.48	0.62	Uricase peroxidase,
	mg/dl	9.22	8.01	10.4	Colorimetric
ALP	U/l	271	203	339	p-Nitrophenylphosphate, AMP, 37°C
ALT	U/l	139	111	167	IFCC with Pyridoxal 5 Phosphate, 37°C
Amylase	U/l	362	308	416	CNPG 37°C
AST	U/l	161	129	193	IFCC with Pyridoxal 5 Phosphate,37°C
CK (CPK)	U/l	507	415	599	Modified Oliver/Rosalki 37°C
γ-GT	U/l	174	148	200	Modified IFCC 37°C
LDH	U/l	380	323	437	L → P 37°C

POLYCHEM®

COMPONENT	UNITS	TARGET	RANGE LOW	RANGE HIGH	METHOD
Albumin	g/l	29.8	25.3	34.3	Bromocresol Green
	g/dl	2.98	2.53	3.43	
Bicarbonate	mmol/l	17.7	14.0	21.4	Enzymatic
Direct Bilirubin	µmol/l	30.0	23.7	36.3	Diazo with Sulphanilic Acid
	mg/dl	1.76	1.39	2.13	
Total Bilirubin	µmol/l	87.0	68.7	105	Diazo with Sulphanilic acid
	mg/dl	5.09	4.02	6.16	
Calcium	mmol/l	3.13	2.82	3.44	Cresolphthalein complexone
	mg/dl	12.5	11.3	13.7	
Chloride mmol/l = mEq/l	mmol/l	110	102	118	ISE Direct
Cholesterol	mmol/l	6.68	5.81	7.55	Cholesterol Oxidase (CHOD PAP)
	mg/dl	258	224	292	
Creatinine	µmol/l	320	256	384	Alkaline picrate without deproteinization
	mg/dl	3.62	2.89	4.35	
Glucose	mmol/l	15.5	13.2	17.8	Hexokinase
	mg/dl	279	238	320	
	mmol/l	16.1	13.7	18.5	Glucose oxidase
	mg/dl	290	247	333	
Iron	µmol/l	37.9	31.1	44.7	Colorimetric without precipitation,
	µg/dl	212	174	250	(Ferene/Ferrozine Method)
Magnesium	mmol/l	1.77	1.56	1.98	Xylidyl Blue
	mg/dl	4.30	3.79	4.81	
Phosphorus Inorganic	mmol/l	2.34	1.99	2.69	Phosphomolybdate reduction UV
	mg/dl	7.25	6.17	8.33	
Potassium mmol/l = mEq/l	mmol/l	6.01	5.53	6.49	ISE Direct
Sodium mmol/l = mEq/l	mmol/l	159	151	167	ISE Direct
Total Protein	g/l	45.5	36.4	54.6	Biuret reaction, endpoint
	g/dl	4.55	3.64	5.46	
Triglycerides	mmol/l	3.00	2.52	3.48	Lipase/GPO-PAP Color. without
	mg/dl	266	223	309	Glycerol Correction
Urea	mmol/l	19.2	16.3	22.1	BUN
	mg/dl	53.9	45.8	62.0	
	mmol/l	19.2	16.3	22.1	Urease, kinetic
	mg/dl	115	98.0	132	
Uric Acid	mmol/l	0.56	0.49	0.64	Randox 546 nm/BM/Roche Uric Acid plus
	mg/dl	9.44	8.22	10.7	
ALP	U/l	374	318	430	p-Nitrophenylphosphate, AMP, 37°C
	U/l	590	502	678	p-Nitrophenylphosphate, DEA, 37°C
ALT (GPT)	U/l	144	115	173	IFCC NO Pyridoxal 5 Phosphate, 37°C
Amylase	U/l	333	283	383	Randox EPS Liquid 37°C
AST (GOT)	U/l	145	116	174	IFCC NO Pyridoxal 5 Phosphate, 37°C
CK (CPK)	U/l	524	430	618	DGKC, substrate start 37°C
γ-GT	U/l	170	145	195	Gamma Glutamyl-3-Carboxy-4-nitroanilide, 37°C
LDH	U/l	812	690	934	P→L, DGKC, 37°C
	U/l	385	327	443	L→P 37°C

MEDTEST DX
A MEDTEST COMPANY

Chemistry Control Level 2 For SPOTCHEM™ EZ

Lot Number: 770UE, Exp. Date: 2019-01-28

Component		Target		Range	Unit
Albumin		3.0		2.5-3.5	g/dl
ALP		372		260-484	U/L
ALT		130		104-156	U/L
Amylase		321		225-417	U/L
AST		132		106-158	U/L
BUN		60		48-72	mg/dl
Calcium		13.9		11.8-16.0	mg/dl
Cholesterol		227		182-272	mg/dl
CPK		376		263-489	U/L
Creatinine		3.97		3.02-4.92	mg/dl
GGT		173		138-208	U/L
Glucose		275		234-316	mg/dl
HDL-Cholesterol		69		48-90	mg/dl
Magnesium		4.2		3.1-5.3	mg/dl
Phosphorus		6.3		5.4-7.2	mg/dl
Total Bilirubin		4.9		3.9-5.9	mg/dl
Total Protein		4.7		3.8-5.6	g/dl
Triglyceride		171		128-214	mg/dl
Uric Acid		9.0		7.5-10.5	mg/dl

Rev.: 07/16 M803-HEC200-01