

CHEM4.XLS

Serum constituents listed in order of range of normal variation
units of (mg/dl)
From "Clinical Chemistry And Toxicology"

TEST	MIN	MAX	AVG	%	Range
1 PROTEIN TOTAL	6000	8300	7150 ¹	NA	2300
2 ALBUMIN	3500	5000	4250 ²	53.3	1500
3 IMMUNOGLOBULIN G	650	1500	1075 ³	66.8	850
4 IMMUNOGLOBULIN A	76	390	233 ⁶	69.7	314
5 IMMUNOGLOBULIN M	40	345	192.5 ⁸	72.1	305
6 TRIGLYCERIDES	38	298	168 ⁹	74.2	260
7 FATTY ACIDS	190	420	305 ⁵	78.0	230
8 HAPTOGLOBIN	83	267	175 ⁴	80.2	184
9 TRANSFERRIN	220	400	310 ⁴	84.1	180
10 LDL - CHOLESTEROL	60	235	147.5 ¹²	85.9	175
11 PHOSPHOLIPIDS	125	275	200 ⁷	88.5	150
12 ALPHA 1-ANTITRYPSIN	78	200	139 ¹³	90.2	122
13 ALPHA(1)-ACID-GLYCOPROTEIN	55	140	97.5 ¹⁵	91.4	85
14 CHOLESTEROL	140	220	180 ¹⁰	93.7	80
15 HEMOPEXIN	50	115	82.5 ¹⁷	94.7	65
16 ACETONE (Ketoacidosis)	10	70	40 ¹⁹	95.2	60
17 HDL - CHOLESTEROL	30	85	57.5 ¹⁸	95.9	55
18 CERULOPLASMIN	15	60	37.5 ²⁰	96.4	45
19 GLUCOSE	70	105	87.5 ¹⁶	97.5	35
20 CARBON DIOXIDE	97	127	112 ¹⁴	98.9	30
21 FATTY ACIDS NONESTERIFIED (FREE)	8	25	16.5	99.1	17
22 UREA NITROGEN	7	21	14	99.3	14
23 HEMOGLOBIN (Whole blood)	12	17.5	14.75	99.5	5.5
24 FRUCTOSE	1	6	3.5	99.5	5
25 URIC ACID	2.6	7.2	4.9	99.6	4.6
26 ALANINE	1.87	5.88	3.875	99.6	4.01
27 ALPHA- AMINO ACID NITROGEN Ninhydrin	3.2	5.5	4.35	99.7	2.3
28 VALINE	1.65	3.71	2.68	99.7	2.06
29 PLACENTAL LACTOGEN (Diabetics)	10	12	11	99.8	2
30 THROXINE BINDING GLOBULIN	1.5	3.4	2.45	99.9	1.9
31 PHOSPHORUS, INORGANIC	2.7	4.5	3.6	99.9	1.8
32 OXALATE	1	2.4	1.7	99.9	1.4
33 PROPERDIN	2.4	3.2	2.8	100.0	0.8
34 TRANSCORTIN	1.5	2	1.75	100.0	0.5

Total 7977.355 4787.87

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PHENYLALANINE	0.8	1.8
TYROSINE	0.8	1.3
CREATININE	0.6	1.2
KETONE BODIES	0.5	3
CHOLINESTERASE	0.5	1.5
ISOLEUCINE	0.48	1.28
PYRUVIC ACID	0.3	0.9
GLYCEROL FREE	0.29	1.72
CREATINE	0.17	0.93
METHIONINE	0.09	0.6
HYDROGEN SULFIDE TOXIC	0.09	0.18
FORMALDEHYDE	0.06	1.7
ASPARTATE AMINOTRANSFERASE	0	20
AMYLOID ASSOCIATED PROTEIN	0	20
IMMUNOGLOBULIN D	0	8
GALACTOSE	0	5
HEMOGLOBIN	0	3
ACETONE	0	3
ACETOACETATE.	0	3
PENTOSE L-XYLULOSE	0	2
PENTACHLOROPHENOL OCCUP. EXP.:	0	2
BORATE	0	2
HYDROXYPROLINE	0	0.55
BILIRUBIN Total	0	0.2
ACETALDEHYDE	0	0.2
PENTACHLOROPHENOL	0	0.1
HEXACHOROPHENE	0	0.089
SUCROSE	0	0.06
HYDROGEN SULFIDE	0	0.005
CANNABINOIDS	0	0.0026

Clinical Chemistry And Toxicology				
TEST	SPECIMEN	MIN	MAX	AVG
PROTEIN TOTAL	S	6000	8300	7150
ALBUMIN	S	3500	5000	4250
IMMUNOGLOBULIN G	S	650	1500	1075
SODIUM	S : P	312	335	323.5
TRANSFERRIN	S	220	400	310
FATTY ACIDS (TOTAL)	S	190	420	305
IMMUNOGLOBULIN A	S	76	390	233
PHOSPHOLIPIDS, TOTAL	S : P	125	275	200
IMMUNOGLOBULIN M	S	40	345	192.5
CHOLESTEROL	S : P	140	220	180
HAPTOGLOBIN	S	83	267	175
TRIGLYCERIDES	S	38	298	168
LDL - CHOLESTEROL	S : P	60	235	147.5
ALPHA 1-ANTITRYPSIN	S	78	200	139
CARBON DIOXIDE	S : P	97	127	112
ALPHA(1)-ACID-GLYCOPROTEIN	S	55	140	97.5
GLUCOSE	S fasting	70	105	87.5
HEMOPEXIN	S	50	115	82.5
GLUCOSE WHOLE BLOOD	WB	65	95	80
HDL - CHOLESTEROL	S : P	30	85	57.5
ACETONE Ketoacidosis		10	70	40
CERULOPLASMIN	S	15	60	37.5
BICARBONATE	S	21	31	26
POTASSIUM	S	13.7	19.7	16.7
FATTY ACIDS NONESTERIFIED (FREE)	S : P	8	25	16.5
INSULIN (12 h fasting)	S	6	24	15
HEMOGLOBIN	WB	12	17.5	14.75
UREA NITROGEN	S	7	21	14
PLACENTAL LACTOGEN (Diabetics)	S	10	12	11
CALCIUM TOTAL	S	8	10	9
URIC ACID	S	2.6	7.2	4.9
CALCIUM IONIZED	S : P : WB	4.5	4.9	4.7
PENTACHLOROPHENOL TOXIC:		3	6	4.5
ALPHA- AMINO ACID NITROGEN Ninhydrin	P (EDTA)	3.2	5.5	4.35
ALANINE	S	1.87	5.88	3.875
PHOSPHORUS, INORGANIC	S	2.7	4.5	3.6
FRUCTOSE	S	1	6	3.5
PROPERDIN	S	2.4	3.2	2.8
VALINE	S	1.65	3.71	2.68
HEMOGLOBIN	P	1	4	2.5
THROXINE BINDING GLOBULIN	S	1.5	3.4	2.45
MAGNESIUM	S	1.58	2.55	2.065
TRANSCORTIN	S	1.5	2	1.75
OXALATE	S	1	2.4	1.7

PHENYLALANINE	S	0.8	1.8	
TYROSINE	S	0.8	1.3	
CREATININE	S : P	0.6	1.2	
KETONE BODIES	S	0.5	3	
CHOLINESTERASE	S	0.5	1.5	
ISOLEUCINE	S	0.48	1.28	
PYRUVIC ACID	WB	0.3	0.9	
GLYCEROL FREE	P	0.29	1.72	
CREATINE	S : P	0.17	0.93	
METHIONINE	S	0.09	0.6	
HYDROGEN SULFIDE TOXIC		0.09	0.18	
FORMALDEHYDE	WB	0.06	1.7	
ASPARTATE AMINOTRANSFERASE	S	0	20	
AMYLOID ASSOCIATED PROTEIN	S	0	20	
IMMUNOGLOBULIN D	S	0	8	
GALACTOSE	S	0	5	
HEMOGLOBIN	S	0	3	
ACETONE	S : P	0	3	
ACETOACETATE.	S : P	0	3	
PENTOSE L-XYLULOSE	S	0	2	
PENTACHLOROPHENOL OCCUP. EXP.:		0	2	
BORATE	S	0	2	
HYDROXYPROLINE	S	0	0.55	
BILIRUBIN Total	S	0	0.2	
ACETALDEHYDE	WB	0	0.2	
PENTACHLOROPHENOL	P	0	0.1	
HEXACHOROPHENE	WB	0	0.089	
SUCROSE	S:P	0	0.06	
HYDROGEN SULFIDE	WB	0	0.005	
CANNABINOIDS	P	0	0.0026	