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SERUM CHEMISTRY REFERENCE RANGE

Test names		Unit	Species						
			Dog* (Beagle)	Cat**	Rabbit* (NZW)	Primate* Cynomolgus	Primate* Rhesus	Pig*	Guinea Pig*
ALP	(Alkaline phosphatase)	U/L	22-236	10-100	15-120	76-115	27-579	34-713	60-876
ALT	(Alanine aminotrasferase, SGPT)	U/L	15-47	10–50	13-80	10.0-68	17-51	27-72	31-52
AST	(Aspartate aminotrasferase, SGOT)	U/L	13-44	10.0-40.0	8–84	13-52	22-59	11.0-69	38-58
GGT	(Gamma glutamyl transpeptidase)	U/L	1–6	1.0-10.0	—	26-78	22-93	21-106	1–10
AMYL	(Amylase)	U/L	313-572	500-1800	—	275-425	—	—	—
CK	(Creatine kinase)	U/L	35-325	26-450	47-962	155-185	61-850	108-228	80-176
BUN	(Blood urea nitrogen)	mg/dl	10–15	17-30	11–-20	15-30	10–25	5–23	13-32
CREAT	(Creatinine)	mg/dl	0.5-1.0	0.6-2.0	0.8-2.1	0.7-1.4	0.4-1.1	0.6-2.4	0.9-1.8
GLU	(Glucose)	mg/dl	77-123	70-150	80-177	57-134	—	53-172	79-168
CHOL	(Cholesterol)	mg/dl	114-225	87-197	13-101	100-181	104-322	59-178	19-63
TRIG	(Triglycerides)	mg/dl	22-213	6–58	36-121	16-114	17-163	18-42	16-76
DBILI	(Bilirubin, direct)	mg/dl	0-0.2	0-0.2	—	—	—	—	—
TBILI	(Bilirubin, total)	mg/dl	0.1-1.0	0.1-0.6	0.1-0.8	0.06-0.7	0-0.7	0.025-0.7	0.2-0.4
CA	(Calcium)	mg/dl	9.6-11.9	8.8-10.4	12.4-18.0	8.7-11.6	8.0-12.0	9.0-12.7	8.9-11.3
PHOS	(Inorganic phosphorus)	mg/dl	2.9-8.3	1.8-7.0	3.0-6.9	3.0-6.6	1.6-7.5	5.1-11.7	4.1-7.4
NA	(Sodium)	mmol/L	143-155	146-158	122-152	143-161	141-152	134-150	121-136
K	(Potassium)	mmol/L	4.2-5.9	3.5-5.2	3.5-6.7	3.3-5.9	3.3-4.9	3.9-6.4	1.0-6.0
CL	(Chloride)	mmol/L	103-118	114-126	94-116	102-115	100-119	93-114	91-105
CO2_LC	(Bicarbonate, HCO_3)	mEq/L	22.0-25.0	19.5-25.0	—	—	—	12.3-33.1	20.2-27.2
ALB	(Albumin)	g/dl	2.7-4.1	2.3-3.5	2.7-4.7	3.8-4.7	3.0-5.9	3.6-5.1	1.6-3.0
TPROT	(Total Protein)	g/dl	5.1-6.6	5–8	5.2-7.2	7.2-7.8	6.5-8.2	6.3-15.2	4.5-5.9

Modified from *Loeb *et al* (1999) and **Morgan *et al* (2003)

References:

Loeb, WF and Quimby, FW. 1999. *The Clinical Chemistry of Laboratory Animals*, 2nd ed. Philadelphia: Taylor & Francis USA.

Morgan, RV, Bright, RM and Swartout, MS. 2003. *Handbook of Small animal Practice*, 4th ed. Saunders.