

REFERENCE VALUES

DOG, CAT, RABBIT, GUINEA PIG



Clinical Chemistry

Enzymes 37°C	Unit	Dog	Cat	Rabbit	Guinea Pig
α-Amylase	U/l	< 1650	< 1850	< 459	< 3159
α-HBDH	U/l	< 65	< 55	-	-
ALT (GPT)	U/l	< 88	< 99	< 113	< 113
AP	U/l	< 147	< 65	< 640	< 674
AST (GOT)	U/l	< 51	< 58	< 64	< 205
Cholinesterase	U/l	1347 – 2269	1000 – 2000	< 5569	< 12581
CK	U/l	< 200	< 398	< 2281	< 5102
γ-GT	U/l	< 10	< 5	< 23	< 23
GLDH	U/l	< 8	< 10	< 31	< 27
LDH	U/l	< 91	< 108	< 519	< 468
Lipase (DGGR)	U/l	< 120	< 26	< 1587	< 152

Substrates	Unit	Dog	Cat	Rabbit	Guinea Pig
Bilirubin	µmol/l	< 3.4	< 3.4	0.3 – 2.5	< 1.6
Cholesterol	mmol/l	3.1 – 10.1	1.8 – 3.9	0.3 – 1.7	0.3 – 1.7
Fructosamine	µmol/l	< 374	< 340	248.1 – 501.4	< 271
Bile Acids	µmol/l	< 20 postprandial: < 40	< 20 postprandial: < 40	0.76 – 19.63	< 84.5
Total Protein	g/l	54 – 75	57 – 94	48.7 – 73.6	44 – 66
Albumin	g/l	25 – 44	26 – 56	-	-
Globulins	g/l	< 45	< 55	-	-
A/G-ratio		< 0.59	< 0.6	-	-
Glucose	mmol/l	3.05 – 6.1	3.1 – 6.9	5.8 – 14.8	5.0 – 16.0
Urea (BUN)	mmol/l	3.3 – 8.3	5.0 – 11.3	2.6 – 10.3	3.3 – 10.3
Creatinine	µmol/l	< 125	< 168	51.4 – 154.4	< 77
Lactate	mmol/l	0.5 – 3.0	< 1.0	-	-
SDMA	µmol/l	< 0.65	< 0.75	-	-
Triglycerides	mmol/l	< 3.9	< 1.14	0.5 – 3.4	0.3 – 2.4

Electrolytes & Minerals	Unit	Dog	Cat	Rabbit	Guinea Pig
Calcium	mmol/l	2.3 – 3.0	2.3 – 3.0	3.0 – 4.3	2.4 – 3.1
Chloride	mmol/l	96 – 113	110 – 130	-	-
Iron	µmol/l	15 – 45	8 – 31	20 – 59	26 – 76
Potassium (K)	mmol/l	3.5 – 5.1	3.0 – 4.8	3.5 – 6.0	4.5 – 8.8
Copper	µmol/l	15.7 – 18.9	13.4 – 16.9	-	-
Magnesium	mmol/l	0.6 – 1.3	0.6 – 1.3	0.7 – 1.5	1.0 – 2.6
Manganese	µg/l	< 20	< 20	-	-
Sodium (Na)	mmol/l	140 – 155	145 – 158	132.6 – 154.0	130 – 150
Phosphate	mmol/l	0.7 – 1.6	0.8 – 1.9	0.5 – 2.2	1.0 – 7.0
Selenium	µg/l	80 – 250	80 – 250	-	-
Zinc	µmol/l	7.7 – 19.9	12.2 – 15.3	-	-

Additional Parameters

	Unit	Dog	Cat
PLI	µg/l	< 180 (questionable: 180 – 310)	< 3.0 (questionable: 3.0 – 4.0)
TLI	µg/l	5 – 50	12.0 – 82.0
Vitamin B12	pg/ml	300 – 800	300 – 800
Folic Acid	ng/ml	3.0 – 10.0	3.0 (4.0) – 10.0

Haematology

	Unit	Dog	Cat	Rabbit	Guinea Pig
Erythrocytes	T/l	5.5 – 8.5	5.0 – 10.0	4.4 – 7.4	4.51 – 6.36
Haematocrit	l/l	0.44 – 0.52	0.30 – 0.44	0.28 – 0.48	0.39 – 0.55
Haemoglobin	g/l	150 – 190	90 – 150	89.6 – 153.8	117 – 169
Leukocytes	G/l	6 – 12	6 – 11	2.7 – 12.2	2.9 – 14.4
Neutrophils	%	55 – 75	60 – 78	32 – 64	12 – 62
Lymphocytes	%	13 – 30	15 – 38	13 – 54	28 – 84
Monocytes	%	0 – 4	0 – 4	3 – 14	0 – 9
Eosinophils	%	0 – 6	0 – 6	< 3	0 – 14
Basophils	%	0	0 – 1	< 9	0 – 2
Bands	%	0 – 4	0 – 4	0	0 – 1
Hypochromasia		neg.	neg.	neg.	neg.
Anisocytosis		neg.	neg.	neg.	neg.
Thrombocytes	G/l	150 – 500	180 – 550	225.5 – 905.3	273 – 745
Reticulocytes	/nl	< 110	< 60	59.1 – 302.2	11.0 – 241.7

Endocrinology

	Unit	Dog	Cat	Rabbit	Guinea Pig
T4	µg/dl	1.3 – 4.5	0.9 – 2.9	0.6 – 1.98	1.1 – 5.2
fT4	pmol/l	7.7 – 47.6	6.4 – 33.3	< 20 (30)	< 20 (30)
T3	ng/ml	20 – 206	33 – 167	-	-
fT3	pmol/l	3.7 – 9.2	0.8 – 1.4	-	-
TSH	ng/ml	< 0.6	-	-	-
TSH	µU/ml	-	> 0.04	-	-
Oestradiol	pg/ml	Prooestrus: 25 – 65 Oestrus: < 25 Anoestrus: < 30 Neutered: < 10 Male: < 15 Sertoli cell tumour: > 30	Interoestrus: < 20 Oestrus: 20 – 60	Neutered or no ovarian activity: < 3 Questionable ovarian activity: 3 – 15 Cyclic ovarian activity: bis 300	-
Progesterone	ng/ml	Prooestrus: < 1.0 Oestrus: < 30 Ovulation*: 4.0 – 8.0 Anoestrus: < 1.0	pre ov.: < 1.0 post ov.: > 1.0	-	-
Testosterone	ng/ml	Male: 1.5 – 8.5 Female: < 0.4 M-neutered: < 0.5	Male: 2.5 – 7.0 M-neutered: < 0.5	Neutered: < 0.5 Questionable: 0.5 – 1 Presumably testicular tissue present: > 1	-
Cortisol	ng/ml	5 – 65	3 – 50 (130)	-	-
ACTH	pg/ml	6 – 58	< 110	-	-
Insulin	ng/ml	8 – 25	10 – 30	-	-
Anti-Müllerian Hormone	ng/ml	M-neutered: < 0.1 M-intact: > 2.0 F-neutered: < 0.02 F-intact: > 0.5	M-neutered: < 0.1 M-intact: > 4.8 F-neutered: < 0.1 F-intact: > 2.0	F-neutered: < 0.07 F-intact: > 1.53	- - - -
Salivary Cortisol	µg/dl	-	-	-	0.32 – 1.0
17-OH-Progesterone	ng/dl	6 – 20	8 – 20	-	-

* Best time for mating: 24 to 48 hours, max. up to 96 hours after ovulation.

As of: December 2022. Picture credits: Adobe Stock