

VETSCAN® VS2 Reference Ranges (Common Units)¹

Analyte	Species							Units
	CANINE	FELINE	EQUINE	BOVINE	RABBIT ²	AVIAN ³	FERRET ⁴	
ALB	2.5 - 4.4	2.2 - 4.4	2.2 - 3.7	2.5 - 3.8	2.5 - 4.5 [†]	1.7 - 3.3	1.9 - 3.8	g/dL
ALP	20 - 150	10 - 90	50 - 170	23 - 135	24 - 128	N/A	8 - 72	U/L
ALT	10 - 118	20 - 100	5 - 20	N/A	20 - 104	N/A	65 - 346	U/L
AMY	200 - 1200	300 - 1100	5 - 15	N/A	113 - 334	N/A	4 - 50	U/L
AST	14 - 45	12 - 43	175 - 340	66 - 211	N/A	107 - 481	N/A	U/L
BA ⁵	Fasting: 1 - 4 2 Hrs Postprandial: 2 - 15 Cutoff: 25	Fasting: 1 - 3 2 Hrs Postprandial: 7 - 9 Cutoff: 25	Cutoff: 25	N/A	1.5 - 14	< 95	1 - 8	µmol/L
BUN	7 - 25	10 - 30	7 - 25	6 - 20	12 - 31	1 - 7	9 - 38	mg/dL
Ca	8.6 - 11.8	8.0 - 11.8	11.5 - 14.2	7.9 - 9.6	12.5 - 16.8	7.8 - 11.1	8.0 - 10.4	mg/dL
CHOL	125 - 270	90 - 205	50 - 140	N/A	11 - 81	N/A	102 - 245	mg/dL
CK	N/A	N/A	120 - 470	83 - 688	N/A	69 - 524	N/A	U/L
Cl-	106 - 120	112 - 126	92 - 104	N/A	N/A	N/A	N/A	mmol/L
CRE	0.3 - 1.4	0.3 - 2.1	0.6 - 2.2	N/A	0.5 - 1.6	N/A	0.2 - 0.7	mg/dL
GGT	0 - 7	0 - 2	5 - 24	12 - 48	2 - 50	N/A	5 - 15	U/L
GLOB*	2.3 - 5.2	1.5 - 5.7	2.7 - 5.0	4.0 - 5.5	1.5 - 4.6**	N/A	2.3 - 4.5	g/dL
GLU	60 - 110	70 - 150	65 - 110	N/A	100 - 155	223 - 390	65 - 145	mg/dL
K+	3.7 - 5.8	3.7 - 5.8	2.5 - 5.2	N/A	3.5 - 6.2	3.0 - 5.7	4.1 - 5.5	mmol/L
Mg	N/A	N/A	N/A	1.7 - 2.9	N/A	N/A	N/A	mg/dL
Na+	138 - 160	142 - 164	126 - 146	N/A	135 - 149	137 - 151	146 - 156	mmol/L
PHB	10.0 - 45.0	10.0 - 45.0	N/A	N/A	N/A	N/A	N/A	µg/mL
PHOS	2.9 - 6.6	3.4 - 8.5	1.9 - 4.3	4.1 - 9.2	1.7 - 6.6	1.2 - 7.3	3.6 - 7.3	mg/dL
T4	1.1 - 4.0	1.5 - 4.8	N/A	N/A	N/A	N/A	N/A	µg/dL
TBIL	0.1 - 0.6	0.1 - 0.6	0.5 - 2.3	N/A	0.1 - 0.3	N/A	0.3 - 0.6	mg/dL
tCO ₂	12 - 27	15 - 24	20 - 33	N/A	N/A	N/A	N/A	mmol/L
TP	5.4 - 8.2	5.4 - 8.2	5.7 - 8.0	6.6 - 9.3	5.3 - 8.5	2.1 - 4.7	5.0 - 7.6	g/dL
UA	N/A	N/A	N/A	N/A	N/A	2.5 - 13.3	N/A	mg/dL

*Calculated value, N/A = Not Available

Reference intervals are provided as a guideline for adults only. The most definitive normal ranges are those established for your patient population. Juvenile or neonatal reference values may deviate from these ranges. Animals should be fasted for 12 hours before sample is drawn.⁶ Test results should be interpreted along with patient clinical signs.

[†] Rabbit samples: ALB recovery must be manually multiplied by 1.8. This will correct for the dye-binding affinity of the BCG dye used in the ALB assay¹. Reference ranges displayed reflect this calculation.

** GLOB value must be corrected using the formula $GLOB_{corrected} = TP - ALB_{corrected}$. Reference ranges displayed reflect this calculation.

1 Data on file, Study no. TI-05050, Zoetis, Inc.

2 Data on file, Study no. TI-04974, Zoetis, Inc.

3 Data on file, Study No. TI-04474, Zoetis, Inc. Avian ranges based upon 305 birds of various pet bird species.

4 Data on file, Study no. TI-04973, Zoetis, Inc.

5 Data on file, LBL-02419, Zoetis Inc.

6 Monti P, Archer J. Quality assurance and interpretation of laboratory data [Chapter 2]. BSAVA Manual of Canine and Feline Clinical Pathology, 3rd Ed, 2016: 11-12.

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Analyte	Species							SI Units
	CANINE	FELINE	EQUINE	BOVINE	RABBIT ²	AVIAN ³	FERRET ⁴	
ALB	25 - 44	22 - 44	22 - 37	25 - 38	25-45	17 - 33	19 - 38	g/L
ALP	20 - 150	10 - 90	50 - 170	23 - 135	24 - 128	N/A	8 - 72	U/L
ALT	10 - 118	20 - 100	5 - 20	N/A	20 - 104	N/A	65 - 346	U/L
AMY	200 - 1200	300 - 1100	5 - 15	N/A	113 - 334	N/A	4 - 50	U/L
AST	14 - 45	12 - 43	175 - 340	66 - 211	N/A	107 - 481	N/A	U/L
BA ⁵	Fasting: 1 - 4 2 Hrs Postprandial: 2 - 15 Cutoff: 25	Fasting: 1 - 3 2 Hrs Postprandial: 7 - 9 Cutoff: 25	Cutoff: 25	N/A	1.5 - 14	< 95	1 - 8	µmol/L
BUN	2.5 - 8.9	3.6 - 10.7	2.5 - 8.9	2.1 - 7.1	4.1 - 10.9	0.3 - 2.3	3.2 - 13.4	mmol/L
Ca	2.15 - 2.95	2.00 - 2.95	2.88 - 3.55	1.98 - 2.40	3.13 - 4.21	1.95 - 2.78	2.00 - 2.60	mmol/L
CHOL	3.2 - 7.0	2.3 - 5.3	1.3 - 3.6	N/A	0.3 - 2.1	N/A	2.6 - 6.3	mmol/L
CK	N/A	N/A	120 - 470	83 - 688	N/A	69 - 524	N/A	U/L
Cl ⁻	106 - 120	112 - 126	92 - 104	N/A	N/A	N/A	N/A	mmol/L
CRE	27 - 124	27 - 186	53 - 194	N/A	47 - 144	N/A	18 - 62	µmol/L
GGT	0 - 7	0 - 2	5 - 24	12 - 48	2 - 50	N/A	5 - 15	U/L
GLOB*	23 - 52	15 - 57	27 - 50	40 - 55	15 - 46**	N/A	23 - 45	g/L
GLU	3.3 - 6.1	3.9 - 8.3	3.6 - 6.1	N/A	5.6 - 8.6	12.4 - 21.6	3.6 - 8.0	mmol/L
K ⁺	3.7 - 5.8	3.7 - 5.8	2.5 - 5.2	N/A	3.5 - 6.2	3.0 - 5.7	4.1 - 5.5	mmol/L
Mg	N/A	N/A	N/A	0.70 - 1.19	N/A	N/A	N/A	mmol/L
Na ⁺	138 - 160	142 - 164	126 - 146	N/A	135 - 149	137 - 151	146 - 156	mmol/L
PHB	43.1 - 194.0	43.1 - 194.0	N/A	N/A	N/A	N/A	N/A	µmol/L
PHOS	0.94 - 2.13	1.10 - 2.75	0.61 - 1.39	1.32 - 2.97	0.56 - 2.13	0.39 - 2.36	1.16 - 2.36	mmol/L
T ₄	14 - 52	19 - 62	N/A	N/A	N/A	N/A	N/A	nmol/L
TBIL	2 - 10	2 - 10	9 - 39	N/A	2 - 6	N/A	5 - 10	µmol/L
tCO ₂	12 - 27	15 - 24	20 - 33	N/A	N/A	N/A	N/A	mmol/L
TP	54 - 82	54 - 82	57 - 80	66 - 93	53 - 85	21 - 47	50 - 76	g/L
UA	N/A	N/A	N/A	N/A	N/A	149 - 791	N/A	µmol/L

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