



Analytical Performance Evaluation Report

- ***VB1 Diagnosis Panel***
- ***VB1 Preanesthetic Panel***
- ***VB1 Liver Panel***



Albumin (ALB)
Alkaline Phosphatase (ALP)
Alanine Aminotransferase (ALT)
Amylase (AMY)
Aspartate Aminotransferase (AST)
Blood Urea Nitrogen (BUN)
Creatinine (CREA)
Glucose (GLU)
Total Bilirubin (TBIL)
Total Protein (TP)
Calcium (Ca)
Phosphorus (PHOS)

Analytical Performance Evaluation Report

Issue date: 2013.04

■ Dynamic range

Test Item	Dynamic Range		Dynamic Range (SI Unit)	
ALB	2.0-8.0	g/dL	20-80	g/L
ALP	41-2000	U/L	41-2000	U/L
ALT	30-1100	U/L	30-1100	U/L
AMY	22-3000	U/L	22-3000	U/L
AST	30-1000	U/L	30-1000	U/L
BUN	2-120	mg/dL	0.7-42.8	mmol urea/L
CREA	0.3-20	mg/dL	27-1768	μmol/L
GLU	30-550	mg/dL	1.7-30.5	mmol/L
TBIL	0.4-30	mg/dL	7-513	μmol/L
TP	1.5-10	g/dL	15-100	g/L
Ca	4-15	mg/dL	1.0-3.8	mmol/L
PHOS	0.1-20	mg/dL	0.03-6.45	mmol/L

■ Analytical Specificity (Interference study)

Physiological interferences in blood include hemolysis, icterus, and lipemia. For every test item, 2 Levels serum pool supplemented with known concentrations of the endogenous substances were used for the testing. Significant interference is defined as a >20% shift in the test result. (Note: Highest tested concentration for Hemoglobin: 600 mg/dL; Bilirubin (unconjugated): 62.5 mg/dL, Bilirubin (conjugated): 57.5 mg/dL; Intralipid: 0.55%)

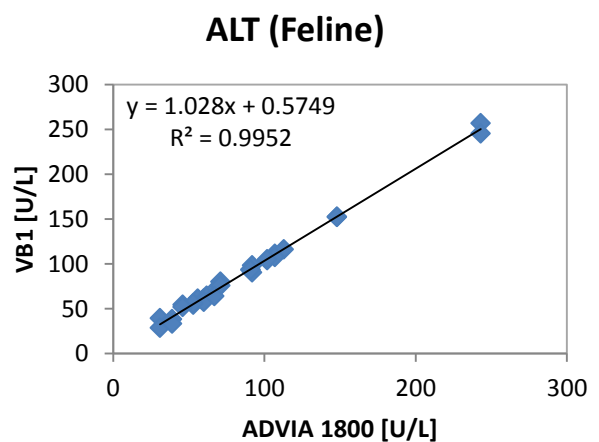
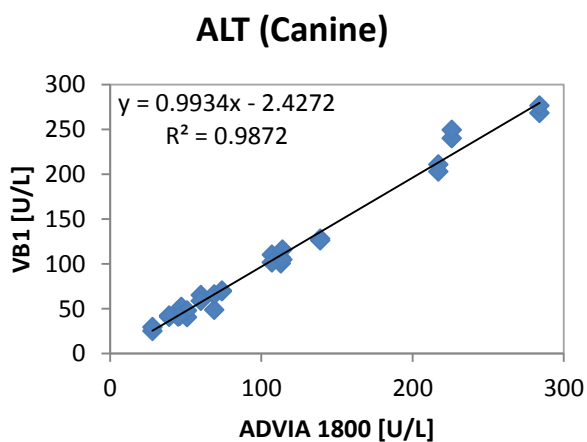
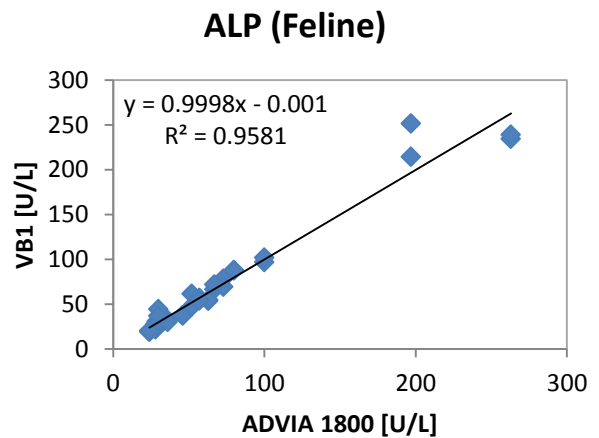
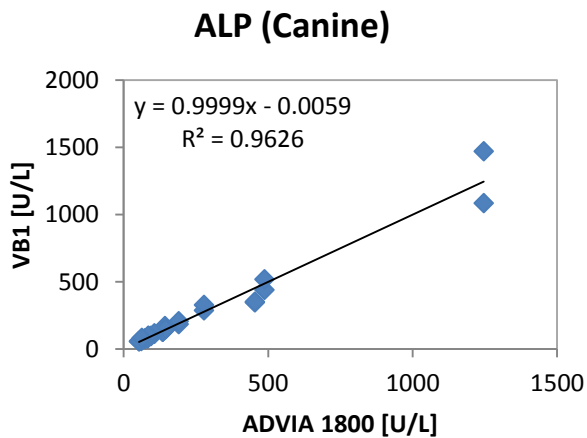
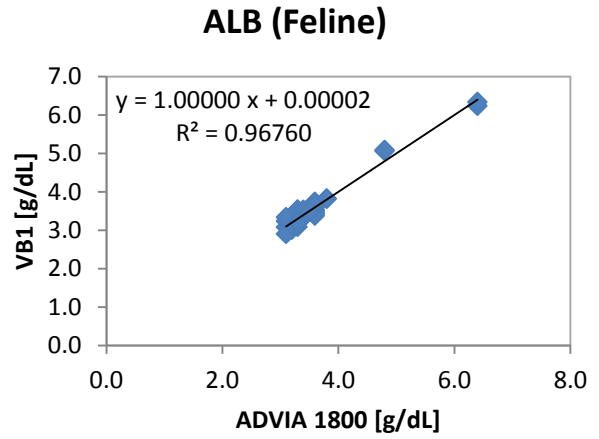
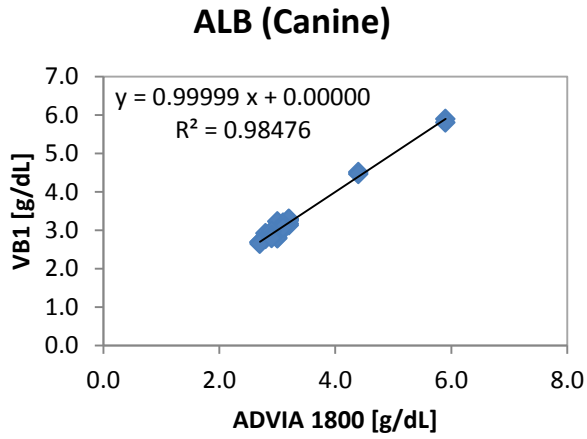
Test Item	Substance concentration with interferences of less than 20%			
	Hemoglobin	Bilirubin (unconjugated)	Bilirubin (conjugated)	Intralipid
ALB	300 mg/dL	62.5 mg/dL	57.5 mg/dL	0.2%
ALP	600 mg/dL	25.9 mg/dL	57.5 mg/dL	0.1%
ALT	600 mg/dL	36.7 mg/dL	18.9 mg/dL	0.1%
AMY	400 mg/dL	62.5 mg/dL	57.5 mg/dL	0.55%
AST	300 mg/dL	42.1 mg/dL	22.3 mg/dL	0.1%
BUN	500 mg/dL	42.1 mg/dL	29.3 mg/dL	0.43%
CREA	200 mg/dL	25.9 mg/dL	---	0.17%
GLU	600 mg/dL	62.5 mg/dL	57.5 mg/dL	0.3%
TBIL	600 mg/dL	---	---	0.1%
TP	300 mg/dL	62.5 mg/dL	57.5 mg/dL	0.2%
Ca	600 mg/dL	56.3 mg/dL	57.5 mg/dL	0.3%
PHOS	200 mg/dL	42.1 mg/dL	57.5 mg/dL	0.17%

■ Method Comparison

The SIMENS ADVIA 1800 was used as comparative method in the study. The tests are performed by using the same clinical serum sample for two methods. Correlation between two methods can be determined through statistical analysis.

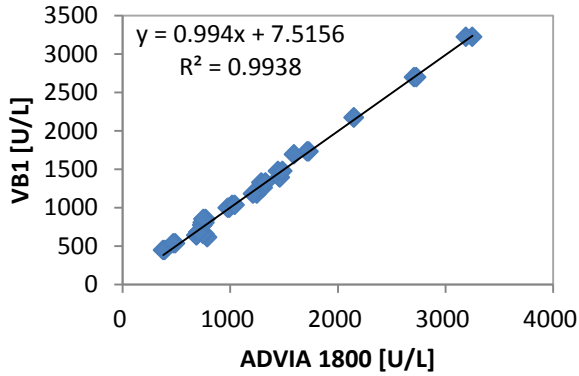
Marker		R ²	Slope	Intercept	Sample No.	Sample Range
ALB	Canine	0.9848	0.9999	0.0000	38	2.7-5.9 g/dL
	Feline	0.9676	1.0000	0.0000	38	3.1-6.4 g/dL
ALP	Canine	0.9626	0.9999	-0.0059	32	53-1246 U/L
	Feline	0.9581	0.9998	- 0.0010	32	24-263 U/L
ALT	Canine	0.9872	0.9934	-2.4272	32	28-284 U/L
	Feline	0.9951	1.0290	0.2758	32	31-243 U/L
AMY	Canine	0.9938	0.9940	7.5156	40	377-3250 U/L
	Feline	0.9056	0.9002	119.48	33	834-3205 U/L
AST	Canine	0.9990	0.9968	0.7497	38	22-803 U/L
	Feline	0.9997	1.0033	-0.9437	38	22-891 U/L
BUN	Canine	0.9967	0.9843	0.6679	41	9.7-128.4 mg/dL
	Feline	0.9923	1.0067	-0.7677	40	17.5-126.9 mg/dL
CREA	Canine	0.9968	1.0526	-0.0305	38	0.5-16.9 mg/dL
	Feline	0.9928	1.0498	-0.2650	38	1.0-17.7 mg/dL
GLU	Canine	0.9953	1.0000	0.00892	43	78-558 mg/dL
	Feline	0.9957	0.9956	2.1761	44	93-549 mg/dL
TBIL	Canine	0.9970	0.9237	0.1946	35	0.1-31.2 mg/dL
	Feline	0.9957	0.9285	0.2412	26	0.1-31.2 mg/dL
TP	Canine	0.9603	0.9999	0.0000	38	5.2-9.5 g/dL
	Feline	0.9883	0.9999	0.0000	38	6.3-10.3 g/dL
Ca	Canine	0.9888	1.0000	0.0000	38	7.3-16.4 mg/dL
	Feline	0.9456	0.9814	0.1209	38	7.1-16.4 mg/dL
PHOS	Canine	0.9434	1.0010	-0.0006	30	2.7-13.2 mg/dL
	Feline	0.9369	0.9990	0.0006	32	3.3-11.1 mg/dL

Statistical analysis results of method comparison study

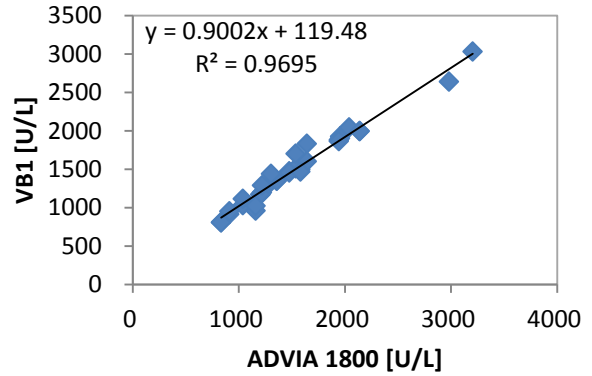


Statistical analysis results of method comparison study

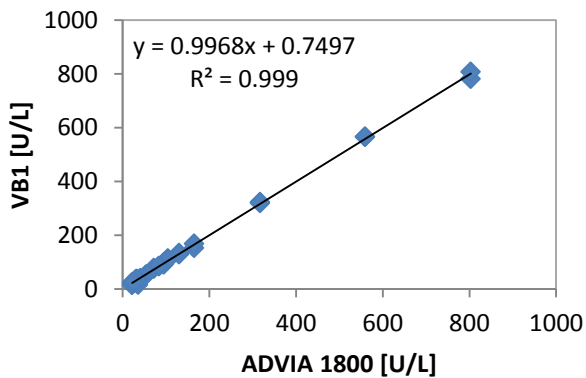
AMY (Canine)



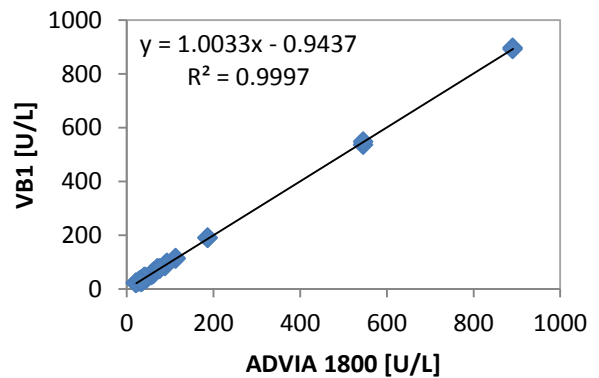
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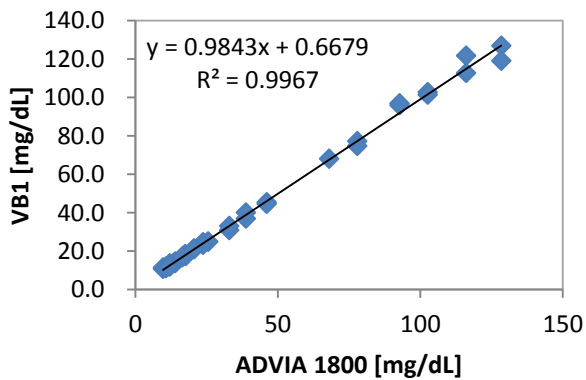
AST (Canine)



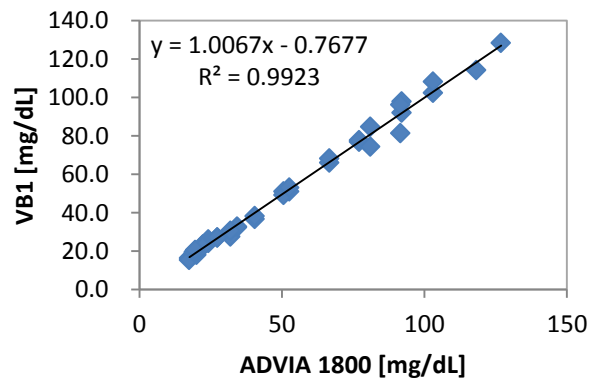
AST (Feline)



BUN (Canine)

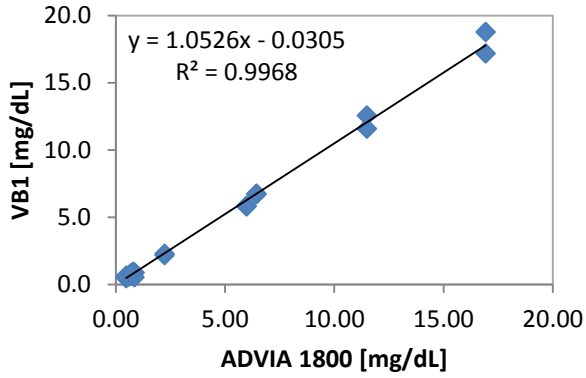


BUN (Feline)

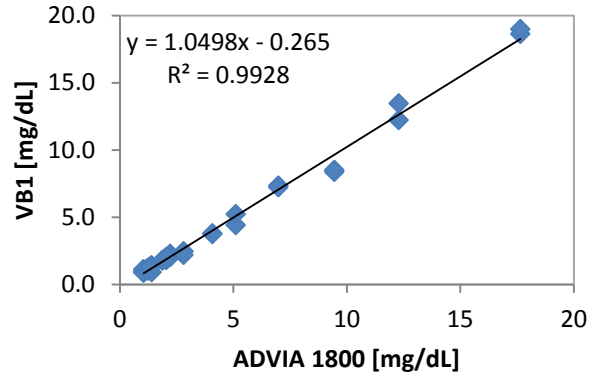


Statistical analysis results of method comparison study

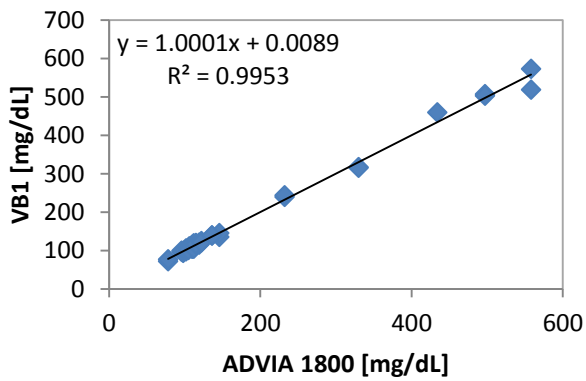
CREA (Canine)



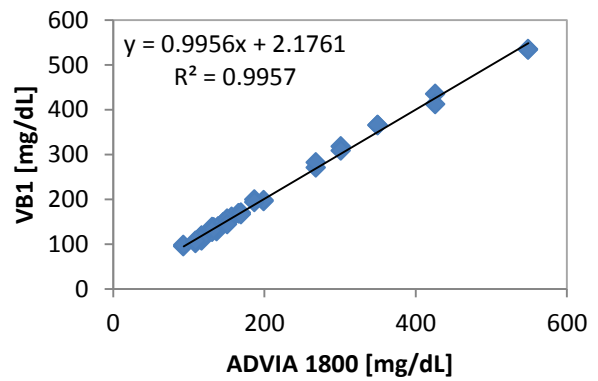
CREA (Feline)



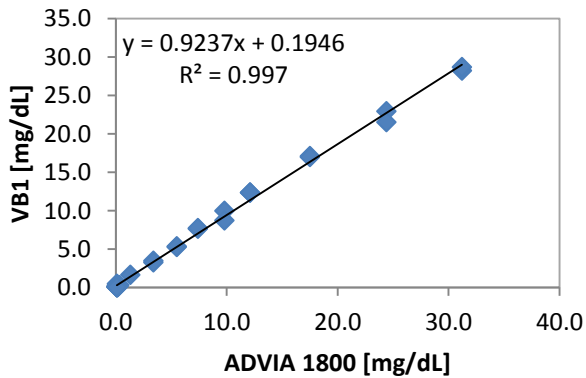
GLU (Canine)



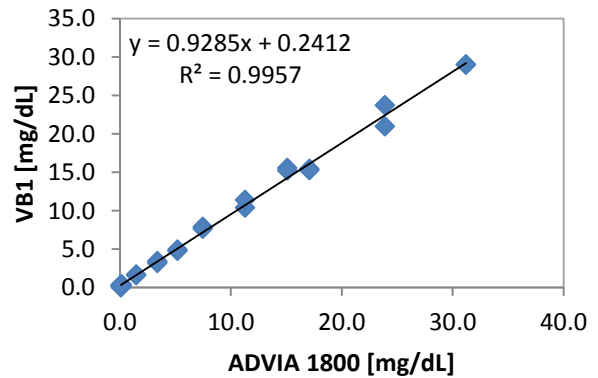
GLU (Feline)



TBIL (Canine)

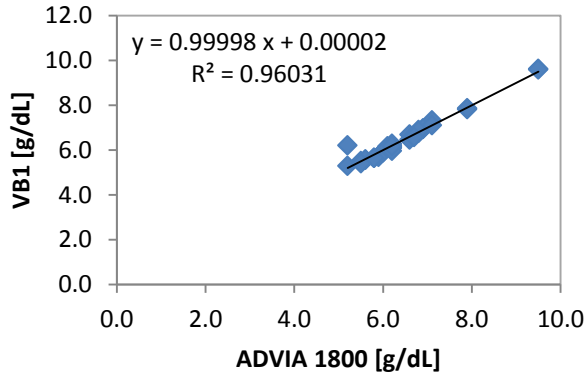


TBIL (Feline)

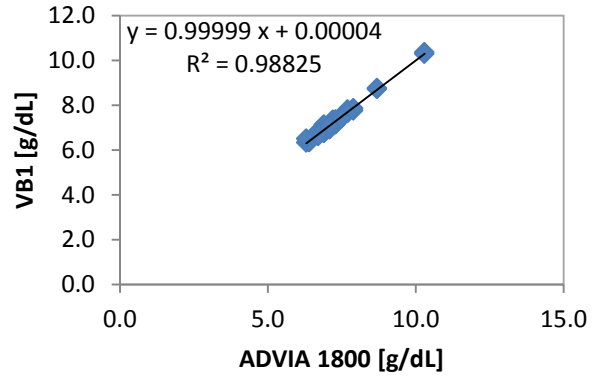


Statistical analysis results of method comparison study

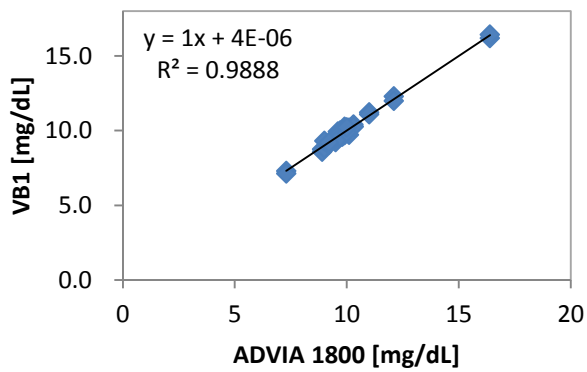
TP (Canine)



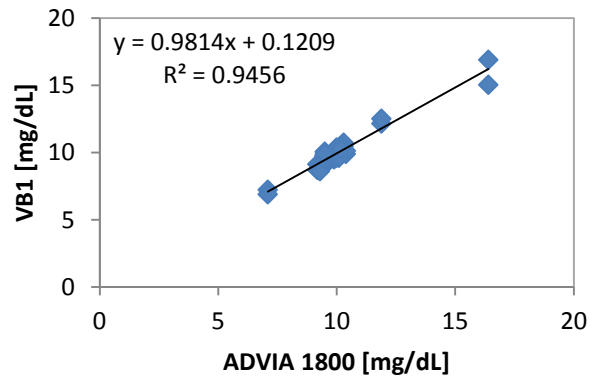
TP (Feline)



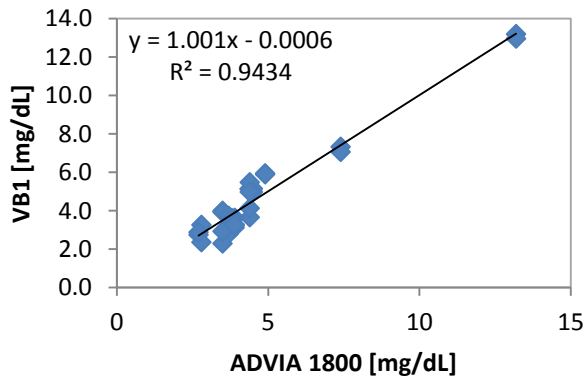
Ca (Canine)



Ca (Feline)



PHOS (Canine)



PHOS (Feline)

