InSight V-IA cPL Evaluation
vs. Vcheck cPL

The InSight V-IA is an easy to use Veterinary Immunoassay Analyser providing accurate and reliable results in 3-15 minutes. The InSight V-IA uses immunofluorescence technology for accurate results. A competitive binding assay is based upon the competition of labelled and unlabelled analytes for a limited number of antibody binding sites. Unbound antibodies and immunocomplexes migrate along the nitrocellulose membrane towards the test line. The unbound antibodies are then captured by antigens immobilised on the test line. The fluorescent signal intensity reflects the amount of analytes captured and is measured by the InSight V-IA.

cPL
Pancreatic specific lipase is a specific lipase secreted by the pancreas. Normally, there is only a small amount of lipase in the blood, which is cleared by the kidneys. In acute pancreatitis, damage to the pancreatic vesicles leads to the release of lipase in large quantities into the bloodstream. cPL is used as an indicator for diagnosis of pancreatitis in dogs.

Comparison Items

InSight V-IA:
Test Item – cPL
Sample Type – Fresh Canine Serum
Quantity of Samples – 43 Tests

Vcheck:
Test Item – cPL
Sample Type – Fresh Canine Serum
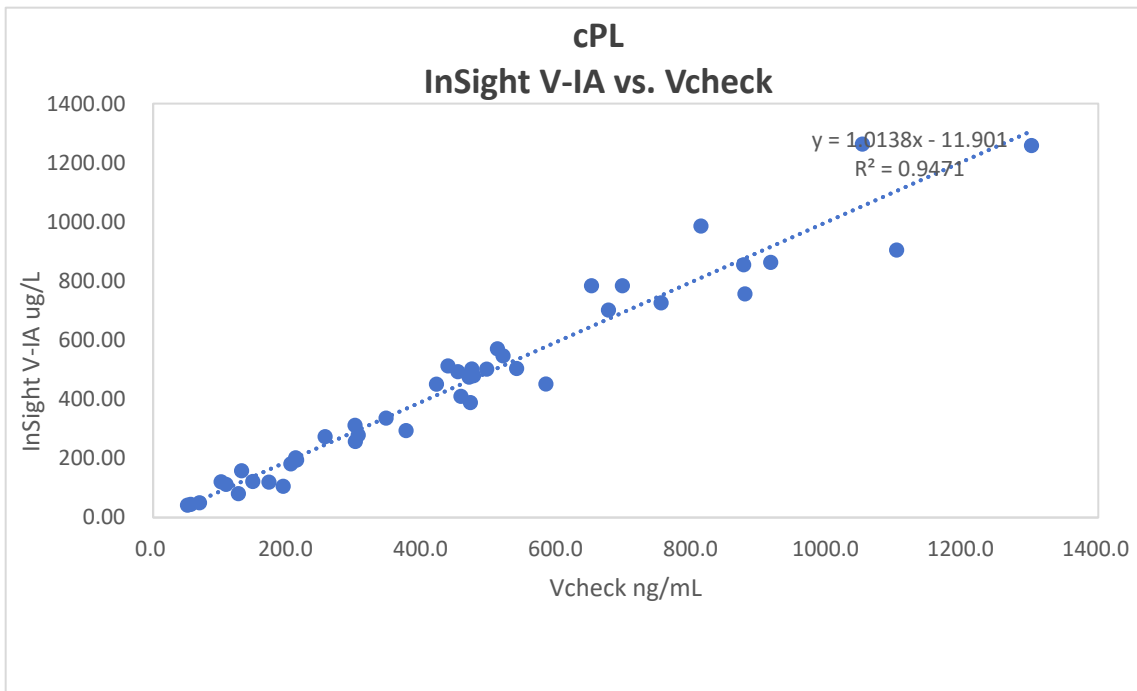Quantity of Samples – 43 Tests

Results

cPL		Vcheck		
		Positive	Negative	Total
InSight V-IA	Positive	31	0	31
	Negative	2	10	12
	Total	33	10	43

Positive Coincidence Rate	94%
Negative Coincidence Rate	100%
Total Coincidence Rate	95%

Sample	Vcheck (ng/mL)	InSight V-IA (ug/L)
1	55.9	43.67
2	51.2	41.06
3	69.1	48.88
4	193.0	104.62
5	126.5	80.00
6	148.0	121.22
7	212.8	193.78
8	211.4	201.00

9	456.3	409.32
10	811.7	985.00
11	299.9	256.37
12	171.8	119.11
13	582.0	450.91
14	649.6	783.36
15	877.0	755.53
16	1101.5	904.04
17	1301.4	1257.36
18	695.4	783.38
19	475.0	479.19
20	299.3	311.00
21	255.0	272.62
22	101.1	120.07
23	204.4	180.90
24	345.3	335.54
25	420.0	450.16
26	510.2	570.05
27	674.8	700.93
28	752.7	725.01
29	875.0	854.30
30	915.1	861.95
31	1050.8	1262.29
32	518.6	545.98
33	374.9	293.44
34	494.3	501.00
35	304.1	278.27
36	538.8	503.45
37	470.3	387.93
38	472.4	501.77
39	437.1	512.21
40	451.7	492.54
41	468.4	474.03
42	131.3	157.65
43	108.4	111.60

**cPL
InSight V-IA vs. Vcheck**

$y = 1.0138x - 11.901$
$R^2 = 0.9471$

Sample Concentration	1	2	3	4	5	6	7	8	9	10	Mean Value	Bias%
50 ug/L	58.54	50.03	59.03	49.77	50.27	58.92	53.19	50.65	53.98	55.15	53.95	7.90%
280 ug/L	308.47	243.26	305.27	317.36	288.35	279.64	282.89	242.29	265.78	281.29	294.43	5.20%
600 ug/L	684.56	593.37	644.07	640.53	687.13	681.81	686.85	591.49	605.7	687.06	650.26	8.40%

Conclusion

Based on comparative analysis, the total coincidence rate of InSight V-IA cPL Rapid Quantitative Test Kit and Vcheck cPL is as high as 95%, indicating that the InSight V-IA reagent is comparable to the Vcheck quantitative reagent.