



InSight V-IA T4 Evaluation  
vs. Vcheck T4

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.

#### **T4**

The evaluation of thyroid function is mainly to determine the concentration of basal serum thyroxine. The basal serum T4 concentration is the sum of protein bound and free T4 in the blood circulation. Test results below the normal range indicate hypothyroidism while test results above the normal range indicate hyperthyroidism. Hypothyroidism is common in dogs and hyperthyroidism is common in cats.

#### **Comparison Items**

##### **InSight V-IA:**

Test Item – T4

Sample Type – Fresh Canine and Feline Serum

Quantity of Samples – 50 Tests

##### **Vcheck:**

Test Item – T4

Sample Type – Fresh Canine and Feline Serum

Quantity of Samples – 50 Tests

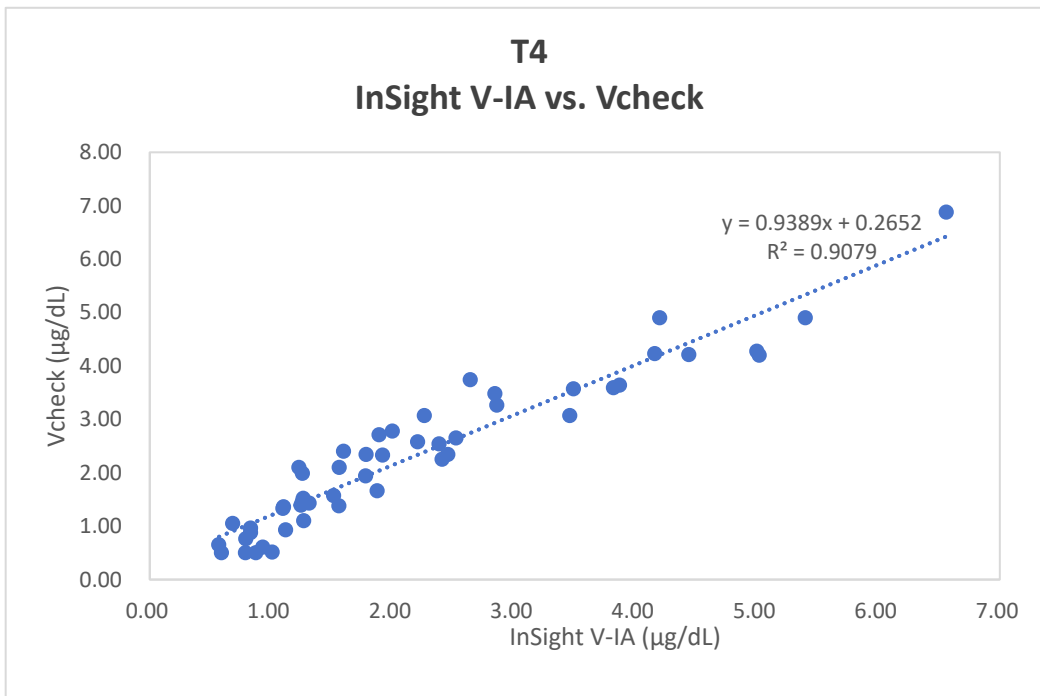
#### **Results**

T4		Vcheck		
		Positive	Negative	Total
InSight V-IA	Positive	10	1	11
	Negative	3	36	39
	Total	13	37	50

Positive Coincidence Rate	91%
Negative Coincidence Rate	92%
Total Coincidence Rate	92%

Sample	Sample Type	Vcheck (µg/dL)	InSight V-IA (µg/dL)
1	Canine Serum	0.59	0.50
2	Canine Serum	0.87	0.50
3	Canine Serum	1.10	1.36
4	Canine Serum	1.27	1.52
5	Canine Serum	0.79	0.50
6	Canine Serum	1.27	1.10
7	Canine Serum	1.12	0.93
8	Canine Serum	1.52	1.57

9	Canine Serum	1.89	2.71
10	Canine Serum	1.10	1.33
11	Canine Serum	1.56	1.38
12	Canine Serum	1.31	1.43
13	Canine Serum	1.25	1.39
14	Canine Serum	2.41	2.25
15	Canine Serum	6.56	6.88
16	Canine Serum	3.46	3.07
17	Canine Serum	1.60	2.40
18	Canine Serum	1.26	1.46
19	Canine Serum	3.49	3.57
20	Canine Serum	2.86	3.26
21	Canine Serum	5.00	4.27
22	Canine Serum	1.56	2.10
23	Canine Serum	0.93	0.61
24	Canine Serum	1.01	0.51
25	Canine Serum	2.21	2.58
26	Feline Serum	1.78	2.34
27	Feline Serum	3.82	3.59
28	Feline Serum	0.57	0.65
29	Feline Serum	4.16	4.23
30	Feline Serum	3.87	3.64
31	Feline Serum	5.02	4.20
32	Feline Serum	1.78	1.94
33	Feline Serum	2.52	2.65
34	Feline Serum	5.40	4.90
35	Feline Serum	2.38	2.54
36	Feline Serum	4.20	4.90
37	Feline Serum	1.87	1.66
38	Feline Serum	2.00	2.78
39	Feline Serum	2.64	3.74
40	Feline Serum	2.46	2.34
41	Feline Serum	2.26	3.07
42	Feline Serum	4.44	4.21
43	Feline Serum	2.84	3.48
44	Feline Serum	1.23	2.10
45	Feline Serum	1.92	2.33
46	Feline Serum	0.79	0.76
47	Feline Serum	0.68	1.05
48	Feline Serum	0.83	0.88
49	Feline Serum	0.83	0.96
50	Feline Serum	1.26	1.99



Sample Concentration	1	2	3	4	5	6	7	8	9	10	Mean Value	Bias%
0.6 µg/dL	0.61	0.63	0.58	0.68	0.55	0.60	0.64	0.64	0.68	0.58	0.62	3%
2.00 µg/dL	1.87	1.91	2.02	2.19	1.91	1.81	1.83	1.99	1.79	1.91	1.92	-4%
7.00 µg/dL	7.02	6.91	6.41	6.82	6.70	7.16	7.43	6.61	7.70	6.56	6.93	-1%

**Conclusion**

Based on comparative analysis, the total coincidence rate of InSight V-IA T4 Rapid Quantitative Test Kit and Vcheck T4 Test Kit is as high as 92%, indicating that the InSight V-IA reagent is comparable to the Vcheck quantitative reagent.