InSight V-IA CCV Ag Evaluation
vs. PCR

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.

CCV Ag

Canine coronaviruses are single-stranded RNA viruses. The virus can cause gastroenteritis symptoms of varying degrees in dogs, characterised by frequent vomiting, diarrhoea, depression, anorexia and other symptoms. The disease can occur throughout the year, although it occurs frequently in winter. Sick dogs are the main source of infection. Dogs can infect through the respiratory tract, digestive tract, faces and pollutants.

Comparison Items

InSight V-IA:
Test Item – CCV Ag
Sample Type – Fresh Canine Faeces
Quantity of Samples – 40 Tests

PCR:
Test Item – CCV Ag
Sample Type – Fresh Canine Faeces
Quantity of Samples – 40 Tests

Results

CCV Ag		PCR		
		Positive	Negative	Total
InSight V-IA	Positive	19	0	19
	Negative	0	21	21
	Total	19	21	40

Positive Coincidence Rate	100%
Negative Coincidence Rate	100%
Total Coincidence Rate	100%

Sample	PCR (CT)	InSight V-IA (ug/mL)
1	CT25.05 (Positive)	10.52 (Positive)
2	CT35.50 (Positive)	5.52 (Positive)
3	CT12.80 (Positive)	17.20 (Positive)
4	CT22.35 (Positive)	10.83 (Positive)
5	CT36.50 (Weak Positive)	4.98 (Weak Positive)
6	CT15.04 (Positive)	14.74 (Positive)
7	CT20.66 (Positive)	11.61 (Positive)

8	CT33.31 (Positive)	5.42 (Positive)
9	CT25.64 (Positive)	10.54 (Positive)
10	CT37.55 (Weak Positive)	4.17 (WeakPositive)
11	CT15.21 (Positive)	9.24 (Positive)
12	CT16.55 (Positive)	9.11 (Positive)
13	CT30.56 (Weak Positive)	6.35 (Weak Positive)
14	CT23.50 (Positive)	12.81 (Positive)
15	CT19.02 (Positive)	18.64 (Positive)
16	CT33.69 (Weak Positive)	4.98 (Weak Positive)
17	CT37.50 (Weak Positive)	4.26 (WeakPositive)
18	CT25.33 (Positive)	10.43 (Positive)
19	CT26.54 (Positive)	10.28 (Positive)
20	(Negative)	3.98 (Negative)
21	(Negative)	3.65 (Negative)
22	(Negative)	3.01 (Negative)
23	(Negative)	3.21 (Negative)
24	(Negative)	3.98 (Negative)
25	(Negative)	3.54 (Negative)
26	(Negative)	3.56 (Negative)
27	(Negative)	3.66 (Negative)
28	(Negative)	3.85 (Negative)
29	(Negative)	3.74 (Negative)
30	(Negative)	3.26 (Negative)
31	(Negative)	3.65 (Negative)
32	(Negative)	3.88 (Negative)
33	(Negative)	2.65 (Negative)
34	(Negative)	3.01 (Negative)
35	(Negative)	3.54 (Negative)
36	(Negative)	3.68 (Negative)
37	(Negative)	3.53 (Negative)
38	(Negative)	3.27 (Negative)
39	(Negative)	3.69 (Negative)
40	(Negative)	3.33 (Negative)

Sample Concentration	1	2	3	4	5	6	7	8	9	10	Mean Value	Bias%
2 ug/mL	1.87	2.08	2.32	1.99	2.18	2.12	2.39	1.97	2.33	1.81	2.106	5.30%
7.5 ug/mL	8.62	8.72	7.18	6.62	8.74	7.4	8.73	7.39	8.17	7.85	7.942	5.89%
17 ug/mL	16.98	15.24	20.91	19.58	21.01	14.36	14.84	18.53	18.05	21.72	18.122	6.60%

Conclusion

Based on comparative analysis, the total coincidence rate of InSight V-IA CCV Ag Rapid Quantitative Test Kit and a PCR is as high as 100%, indicating that the InSight V-IA reagent is comparable to the PCR.