



InSight V-IA CPV 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.

### **CPV Ag**

After infection, the virus can attack intestinal epithelial cells and cardiomyocytes. Symptoms are mainly manifested as gastrointestinal diseases and myocarditis. For puppies, symptoms are mostly myocarditis. After the onset of the disease, the mortality rate is high. The epidemic is often explosive, it can infect dogs of different ages, genders and breeds.

### **Comparison Items**

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

Test Item – CPV Ag

Sample Type – Fresh Canine Faeces

Quantity of Samples – 40 Tests

#### **PCR:**

Test Item – CPV Ag

Sample Type – Fresh Canine Faeces

Quantity of Samples – 40 Tests

### **Results**

CPV Ag		PCR		
		Positive	Negative	Total
InSight V-IA	Positive	13	1	14
	Negative	1	25	26
	Total	14	26	40

Positive Coincidence Rate	93%
Negative Coincidence Rate	96%
Total Coincidence Rate	95%

Sample	PCR (CT)	InSight V-IA (ng/mL)
1	(Negative)	23.40 (Negative)
2	(Negative)	38.29 (Negative)
3	CT26.56 (Positive)	451.26 (Positive)
4	CT30.74 (Positive)	374.51 (Positive)
5	(Negative)	56.54 (Negative)
6	(Negative)	41.48 (Negative)
7	(Negative)	44.75 (Negative)
8	(Negative)	28.68 (Negative)

9	CT34.11 (Weak Positive)	178.67 (Positive)
10	CT35.45 (Weak Positive)	180.23 (Positive)
11	CT9.35 (Positive)	4257.14 (Positive)
12	CT17.14 (Positive)	2740.83 (Positive)
13	(Negative)	45.24 (Negative)
14	CT20.20 (Positive)	1588.57 (Positive)
15	(Negative)	46.49 (Negative)
16	(Negative)	58.12 (Negative)
17	CT8.25 (Positive)	3995.40 (Positive)
18	CT13.05 (Positive)	2651.54 (Positive)
19	(Negative)	66.78 (Positive)
20	(Negative)	38.33 (Negative)
21	CT33.00 (Weak Positive)	251.01 (Positive)
22	CT25.06 (Positive)	568.38 (Positive)
23	CT28.01 (Positive)	358.42 (Positive)
24	(Negative)	24.55 (Negative)
25	(Negative)	48.66 (Negative)
26	CT24.69 (Positive)	556.58 (Positive)
27	(Negative)	57.23 (Negative)
28	(Negative)	52.29 (Negative)
29	(Negative)	34.20 (Negative)
30	(Negative)	58.24 (Negative)
31	(Negative)	55.07 (Negative)
32	(Negative)	51.75 (Negative)
33	(Negative)	45.77 (Negative)
34	CT35.67 (Weak Positive)	46.43 (Negative)
35	(Negative)	43.50 (Negative)
36	(Negative)	44.54 (Negative)
37	(Negative)	56.87 (Negative)
38	(Negative)	56.12 (Negative)
39	(Negative)	23.87 (Negative)
40	(Negative)	44.11 (Negative)

Sample Concentration	1	2	3	4	5	6	7	8	9	10	Mean Value	Bias%
25 ng/mL	25.76	24.8	21.11	25.56	24.15	20.54	25.16	22.8	24.42	22.41	23.671	-5.00%
200 ng/mL	190.6	218.57	219.91	226.58	236.32	204.88	235.83	172.61	191.9	225.63	212.283	6.00%
3500 ng/mL	3754.61	3430.62	3439.11	4026.57	3843.96	4060.13	3864.98	3339.04	3022.1	3862.4	3664.352	4.70%

### **Conclusion**

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