WOODLEY
EQUIPMENT COMPANY LTD.

InSight V-IA®

InSight V-IA FHV/FCV/FPV Ab Evaluation vs. Biogal FPLV/FHV/FCV IgG Ab

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.

FHV/FCV/FPV Ab

Antibody refers to the protective protein produced by the body due to the stimulation of antigens. It is not the vaccine itself that fights the virus but the antibodies that the vaccine stimulates the body to produce. Cats will produce corresponding antibodies after vaccination, and only when the antibody level is sufficient (the antibody titre reaches a certain value) do they have the ability to resist the virus.

1. After the birth of kittens, the optimal time for initial vaccination can be determined according to the antibody titre.
2. After 3 weeks of vaccination, the effect of vaccination can be interpreted according to the antibody titre, so as to confirm the success of vaccination.

Comparison Items

InSight V-IA:
Test Item – FHV/FCV/FPV Ab
Sample Type – Fresh Feline Clinical Samples
Quantity of Samples – 60 Tests

Biogal:
Test Item – FPLV/FHV/FCV IgG Ab
Sample Type – Fresh Feline Clinical Samples
Quantity of Samples – 60 Tests

Results

FHV Ab		Biogal		
		Positive	Negative	Total
InSight V-IA	Positive	43	1	44
	Negative	1	15	16
	Total	44	16	60

Positive Coincidence Rate	98%
Negative Coincidence Rate	94%
Total Coincidence Rate	97%

FCV Ab		Biogal		
		Positive	Negative	Total
InSight V-IA	Positive	49	1	50
	Negative	0	10	10
	Total	49	11	60

Positive Coincidence Rate	100%
Negative Coincidence Rate	91%
Total Coincidence Rate	98%

FPV Ab		Biogal		
		Positive	Negative	Total
InSight V-IA	Positive	48	1	49
	Negative	1	10	11
	Total	49	11	60

Positive Coincidence Rate	98%
Negative Coincidence Rate	91%
Total Coincidence Rate	97%

Sample	Biogal			InSight V-IA (U)		
	FHV Ab	FCV Ab	FPV Ab	FHV Ab	FCV Ab	FPV Ab
1	S3 (Positive)	S2 (Weak Positive)	S1 (Negative)	30.15 (Positive)	13.14 (Negative)	10.14 (Negative)
2	S6 (High Positive)	S6 (High Positive)	S6 (High Positive)	150 (Positive)	500 (Positive)	131 (Positive)
3	S0 (Negative)	S2 (Weak Positive)	S6 (High Positive)	96 (Positive)	12 (Negative)	66 (Positive)
4	S4 (Positive)	S6 (High Positive)	S6 (High Positive)	86 (Positive)	250 (Positive)	116 (Positive)
5	S3 (Positive)	S4 (Positive)	S1 (Negative)	82.54 (Positive)	58 (Positive)	3.5 (Negative)
6	S3 (Positive)	S6 (High Positive)	S4 (Positive)	73 (Positive)	211 (Positive)	56 (Positive)
7	S2.5 (Weak Positive)	S3 (Positive)	S5 (High Positive)	30 (Positive)	39 (Positive)	63 (Positive)
8	S4 (Positive)	S2 (Weak Positive)	S5 (High Positive)	67 (Positive)	10 (Negative)	66 (Positive)
9	S4 (Positive)	S2 (Weak Positive)	S4 (Positive)	76.03 (Positive)	29.69 (Positive)	64.45 (Positive)
10	S5 (High Positive)	S3 (Positive)	S1 (Negative)	110.52 (Positive)	120.76 (Positive)	19.4 (Negative)
11	S3.5 (Positive)	S1 (Negative)	S5 (High Positive)	69.01 (Positive)	18.57 (Negative)	99.01 (Positive)
12	S6 (High Positive)	S4.5 (Positive)	S6 (High Positive)	125.62 (Positive)	64.48 (Positive)	121.5 (Positive)
13	S3 (Positive)	S1 (Negative)	S5.5 (High Positive)	108.79 (Positive)	15.94 (Negative)	122.59 (Positive)
14	S6 (High Positive)	S4 (Positive)	S5 (High Positive)	132.05 (Positive)	456.51 (Positive)	207.2 (Positive)
15	S5 (High Positive)	S4.5 (Positive)	S6 (High Positive)	126.56 (Positive)	291.06 (Positive)	175.06 (Positive)
16	S1 (Negative)	S3 (Positive)	S5 (High Positive)	24.16 (Negative)	33.7 (Positive)	55.23 (Positive)
17	S5 (High Positive)	S5 (High Positive)	S6 (High Positive)	133.68 (Positive)	433.75 (Positive)	205.88 (Positive)
18	S6 (High Positive)	S5.5 (High Positive)	S6 (High Positive)	164.01 (Positive)	342.94 (Positive)	465.68 (Positive)
19	S3 (Positive)	S3 (Positive)	S5 (High Positive)	72.18 (Positive)	126.52 (Positive)	55.15 (Positive)
20	S1 (Negative)	S4.5 (Positive)	S4.5 (Positive)	20.43 (Negative)	99.04 (Positive)	19.37 (Negative)
21	S4.5 (Positive)	S5 (High Positive)	S6 (High Positive)	77.57 (Positive)	52 (Positive)	140.65 (Positive)
22	S6 (High Positive)	S4.5 (Positive)	S6 (High Positive)	233.79 (Positive)	95.7 (Positive)	428.23 (Positive)
23	S4 (Positive)	S5 (High Positive)	S4 (Positive)	74 (Positive)	175.27 (Positive)	57.67 (Positive)
24	S1 (Negative)	S3 (Positive)	S4.5 (Positive)	11.91 (Negative)	34.92 (Positive)	56.65 (Positive)
25	S0 (Negative)	S3.5 (Positive)	S5 (High Positive)	10.51 (Negative)	41.18 (Positive)	357.26 (Positive)
26	S5 (High Positive)	S5 (High Positive)	S3 (Positive)	140.24 (Positive)	317.24 (Positive)	28.32 (Positive)

27	S6 (High Positive)	S6 (High Positive)	S4 (Positive)	150.31 (Positive)	336.03 (Positive)	33.04 (Positive)
28	S1 (Negative)	S5.5 (High Positive)	S3.5 (Positive)	14.12 (Negative)	257.24 (Positive)	39.64 (Positive)
29	S0 (Negative)	S5 (High Positive)	S4 (Positive)	17.48 (Negative)	253.74 (Positive)	41.18 (Positive)
30	S1.5 (Negative)	S0 (Negative)	S1 (Negative)	16.59 (Negative)	0.65 (Negative)	8.27 (Negative)
31	S2 (Weak Positive)	S1 (Negative)	S1.5 (Negative)	13.88 (Negative)	2.3 (Negative)	8.9 (Negative)
32	S0 (Negative)	S5 (High Positive)	S0 (Negative)	11.9 (Negative)	255.95 (Positive)	3.52 (Negative)
33	S5 (High Positive)	S5.5 (High Positive)	S5.5 (High Positive)	137.51 (Positive)	434.22 (Positive)	190.3 (Positive)
34	S5 (High Positive)	S6 (High Positive)	S5 (High Positive)	170.56 (Positive)	341.13 (Positive)	449.5 (Positive)
35	S5 (High Positive)	S4.5 (Positive)	S4 (Positive)	95.68 (Positive)	179.94 (Positive)	45.92 (Positive)
36	S1.5 (Negative)	S4 (Positive)	S0 (Negative)	18.66 (Negative)	309.07 (Positive)	5.4 (Negative)
37	S5 (High Positive)	S5 (High Positive)	S4.5 (Positive)	163.05 (Positive)	206.33 (Positive)	76.77 (Positive)
38	S1 (Negative)	S6 (High Positive)	S0 (Negative)	14.66 (Negative)	296.75 (Positive)	2.17 (Negative)
39	S4 (Positive)	S4 (Positive)	S4 (Positive)	81.13 (Positive)	23.34 (Positive)	50.85 (Positive)
40	S3.5 (Positive)	S4.5 (Positive)	S2 (Weak Positive)	42.96 (Positive)	64.49 (Positive)	17.96 (Negative)
41	S2 (Weak Positive)	S2 (Weak Positive)	S4.5 (Positive)	22.25 (Negative)	11.69 (Negative)	86.06 (Positive)
42	S4 (Positive)	S4 (Positive)	S6 (High Positive)	107.36 (Positive)	215.25 (Positive)	174.89 (Positive)
43	S4.5 (Positive)	S5 (High Positive)	S4 (Positive)	116.33 (Positive)	326.88 (Positive)	32.62 (Positive)
44	S3.5 (Positive)	S4.5 (Positive)	S4 (Positive)	72.6 (Positive)	219.12 (Positive)	47.62 (Positive)
45	S3 (Positive)	S4 (Positive)	S5 (High Positive)	30.04 (Positive)	56.6 (Positive)	49.02 (Positive)
46	S4 (Positive)	S3.5 (Positive)	S4.5 (Positive)	90.1 (Positive)	22.51 (Positive)	121.31 (Positive)
47	S3 (Positive)	S4.5 (Positive)	S3.5 (Positive)	30.56 (Positive)	308.78 (Positive)	32.48 (Positive)
48	S1 (Negative)	S4 (Positive)	S3 (Positive)	12.49 (Negative)	292.55 (Positive)	36.27 (Positive)
49	S5 (High Positive)	S6 (High Positive)	S4 (Positive)	129.95 (Positive)	413.38 (Positive)	58.86 (Positive)
50	S4 (Positive)	S5 (High Positive)	S5.5 (High Positive)	148.18 (Positive)	280.06 (Positive)	128.69 (Positive)
51	S1 (Negative)	S4 (Positive)	S3 (Positive)	10.1 (Negative)	103.6 (Positive)	28.99 (Positive)
52	S3 (Positive)	S5 (High Positive)	S4 (Positive)	77.13 (Positive)	254.11 (Positive)	56.74 (Positive)
53	S5 (High Positive)	S6 (High Positive)	S4 (Positive)	105.73 (Positive)	310.33 (Positive)	34.08 (Positive)
54	S0 (Negative)	S1.5 (Negative)	S2.5 (Weak Positive)	12.92(negative)	12.76 (Negative)	22.38 (Positive)
55	S6 (High Positive)	S4 (Positive)	S5 (High Positive)	191.03 (Positive)	45.38 (Positive)	99.21 (Positive)
56	S3 (Positive)	S4 (Positive)	S3 (Positive)	74.48 (Positive)	53.79 (Positive)	32.13 (Positive)
57	S6 (High Positive)	S3 (Positive)	S1.5 (Negative)	172.79 (Positive)	30.22 (Positive)	11.25 (Negative)
58	S6 (High Positive)	S4 (Positive)	S4.5 (Positive)	180.64 (Positive)	24.7 (Positive)	117.29 (Positive)
59	S3.5 (Positive)	S4.5 (Positive)	S5.5 (High Positive)	15.02 (Negative)	130.02 (Positive)	173.13 (Positive)
60	S5 (High Positive)	S2 (Weak Positive)	S5 (High Positive)	151.18 (Positive)	14.24 (Negative)	80.65 (Positive)

FHV Ab Sample Concentration	1	2	3	4	5	6	7	8	9	10	Mean Value	Bias%
8.6U	8.68	8.19	7.49	7.86	7.71	8.18	7.78	9.47	7.6	7.55	8.05	-6.38%
42U	40.79	39.17	43.97	38.6	38.25	40.11	41.72	39.84	41.8	38.55	40.28	-4.10%
230U	226.6	246.46	229.48	226.92	243.93	245.98	233.66	242.29	248.55	210.97	235.48	2.38%

FCV Ab Sample Concentration	1	2	3	4	5	6	7	8	9	10	Mean Value	Bias%
8U	9.04	7.29	7.05	8.35	7.21	7.38	7.8	7.93	8.32	7.87	7.82	-2.20%
25U	22.4	24.33	26.11	23.97	22.96	24.18	23.61	22.88	22.57	24.17	23.72	-5.13%
250U	247.7	235.81	245.79	243.54	234.26	241.03	250.81	249.13	238.97	266.1	245.31	-1.87%

FPV Ab Sample Concentration	1	2	3	4	5	6	7	8	9	10	Mean Value	Bias%
9U	8.47	8.51	8.81	9.73	8.76	8.37	10.3	10.24	10.18	8.64	9.2	2.23%
26U	28.8	28.49	24.71	27.6	26.53	26.74	25.06	25.64	27.75	28.12	26.94	3.63%
250U	278.16	239.1	253.87	271.14	242.87	278.69	232.14	268.81	278.4	269.22	261.24	4.50%

Conclusion

Based on comparative analysis, the total coincidence rate of InSight V-IA FHV/FCV/FPV Ab Rapid Quantitative Test Kit and Biogal FPLV/FHV/FCV IgG Ab Rapid Quantitative Test is high (FHV Ab compliance rate is up to 97%, FCV Ab compliance rate is up to 98% and FPV Ab compliance rate is up to 97%), indicating that the InSight V-IA reagent is comparable to the Biogal reagent.

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