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Product Information

Name of Kit: **Feline VacciCheck Antibody Test Kit**

Catalog No: 50FVV101/50FVV110

No of Tests: Standard Size: 12 samples X 3 antigens = 36 Tests
Lab Size: 120 samples X 3 antigens = 360 Tests

Intended Use: The ImmunoComb Feline VacciCheck Test Kit is intended to evaluate the IgG antibody response to vaccination or infection by Feline Panleukopenia (FPLV), Feline Herpes Virus (Rhino-tracheitis) (FHV) and Feline Calici Virus (FCV). A high antibody level is associated with immunity to infection (in well cats) and is helpful for diagnosis of clinical cases.

Diagnostic Method: The ImmunoComb test is based on solid phase "dot"-ELISA technology. Antigens are applied to test 'spots' on the solid phase, which is a comb-shaped plastic card. (The Comb has 12 teeth-sufficient for 12 test samples.)

The samples to be tested are mixed with diluent in the first row of wells of a multi-chamber developing plate. The test spots on the Comb are then incubated with the sample in the developing plate. Specific IgG antibodies from the samples, if present, bind to the antigens at the test spots.

The Comb is then transferred to a well, where unbound antibodies are washed from the antigens spots. In the next step, the Comb is allowed to react with an anti-cat IgG Alkaline Phosphates conjugate, which will bind to antigen-antibody complexes at the test spots. After 2 more washes, the Comb is moved to the last well, where a color result develops via an enzymatic reaction. The intensity of the color result of test spots corresponds directly to the antibody level in the test sample.

Immunology: Serology can provide the veterinarian with information about the cat's immune status regarding previous vaccination or infection by particular disease agents.

Interpretation: The level of antibodies (i.e., antibody titer) is determined according to the intensity of the test color result. Thus, no or a trace of gray color indicates an absence of antibodies (negative). A faint color result that is lighter than the positive reference spot is considered low positive. On the ImmunoComb Feline VacciCheck Test Kit a reference spot is provided on each comb tooth (top spot), that is calibrated to develop a distinct grey color. This is the same color that is generated by a significant positive result ('Cut-off' positive values (S3): FPLV 1:80 HI, FHV 1:16 VN, FCV 1:32 VN). Please refer to Table 1.

Table 1. Interpretation of Results

ImmunoComb Score	Color Result	Interpretation
≤1	White or trace of gray	Negative. No detectable antibodies to FPLV**, FHV* or FCV*.
2	Faint gray	Low Positive. Considered to be a protective level of antibodies to FPLV, FHV or FCV.
3 – 4	Distinct gray	Significant Positive. Consistent with protective level of antibodies to FPLV, FHV or FCV.
5 – 6	Dark gray	High Positive. High level of humoral immunity to FPLV, FHV or FCV.

* "The correlation between circulating serum antibody and protection against FCV and FHV-1 infection is less robust than the presence of adequate local mucosal immunity and cell-mediated immunity, respectively. For that reason, a negative test result for FCV or FHV-1 antibody would not necessarily indicate lack of protection in a particular cat."¹

** As for the FPV: "A negative test result indicates that a cat has little or no antibody, and that revaccination is recommended. However, some seronegative cats are in fact immune (false-negative) and their revaccination would be unnecessary. In contrast, a positive test result would lead to the conclusion that revaccination is not required."¹

Main Application: Provides information about humoral immune response to previous vaccination (or infection) to FPLV, FHV or FCV.

Panleukopenia (FPLV): **Specificity:** 98% **Sensitivity:** 89%
Herpes (FHV): **Specificity:** 96% **Sensitivity:** 93%
Calici (FCV): **Specificity:** 91% **Sensitivity:** 90%

Performance data are based on internal study. Report can be provided upon request.

Other Diagnostic Methods:

- a) Hematology/ Blood chemistry – Routine hematologic tests (such as CBC) are helpful when abnormal results are present (e.g., lymphopenia), however, these tests are not specific for individual disease.
- b) Antigen Detection – Immunofluorescence, Fecal antigen, PCR.
- c) Other serologic methods – IFA, HI, VN.

References:

1. WASVA - Guidelines for the vaccination of dogs and cats. 2016
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4. Mouzin DE et al. Duration of serologic response to three viral antigens in cats. *J Am Vet Med Assoc.* 2004; 224(1): 61-6.
5. Scott FW and Geissinger CM. Long-term immunity in cats vaccinated with an inactivated trivalent vaccine. *Am J Vet Res.* 1999; 60: 652-658.
6. 2000 Report of the American Association of Feline Practitioners and Academy of Feline Medicine Advisory Panel on Feline Vaccines. *J Feline Med Surg.* 2001; 3(2): 47-72.
7. Waner T et al. Application of a dot enzyme-linked immunosorbent assay for evaluation of the immune status to canine parvovirus and distemper virus in adult dogs before revaccination. *J Vet Diagn Invest.* 2006; 18(3): 267-70.