

**Een titerbepaling bij de kat voor Panleukopenie is uitermate zinvol.  
Waarom geldt dit niet voor Calici en Herpes?  
Wat vermeldt de wetenschap hierover?**

**WSAVA Vaccination Guidelines 2015: Feline Vaccination Guideline - Serological Testing**

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 (Lappin et al. 2002).

These tests can be applied in practice as described for the dog: for determination of protection of kittens following FPV vaccination, for determination of protection against FPV in adult cats (in order to inform decisions about revaccination) and for use in the shelter situation in the control of outbreaks of FPV infection.

**AAHA/AAFP Vaccination Guidelines 2020**

The presence of anti-FPV antibodies correlates strongly with protection. Currently, experts recommend antibody testing for FPV to assess immunity and inform decisions about whether to vaccinate.

- FPV: useful for assessment of immunity because presence of antibodies correlates strongly with protection. Result can be used to decide whether to vaccinate (i.e., only vaccinate antibody-negative cats)
- FCV: not reliable for assessment of immunity. Effective immunity against FCV requires both an antibody and cell-mediated immune response. Result should not be used to decide whether to vaccinate.
- FHV-1: not reliable for assessment of immunity. Effective immunity against FHV-1 requires both an antibody and cell-mediated immune response. Result should not be used to decide whether to vaccinate.

**KNMvD: Consensus titerbepalingen binnen het vaccinatieschema**

Voor de individuele volwassen hond en kat kan een titerbepaling voor CPV/FPV, CDV en CAV een alternatief voor vaccineren zijn.

**Professor Michael J. Day: WSAVA 2018 Proceedings Book**

A separate VacciCheck kit tests cats for the presence of serum antibody against FPV. In some countries the feline VacciCheck kit still includes feline calicivirus (FCV) and feline herpesvirus (FHV), but these antigens are being removed as the correlation between seropositivity and protection is less clear for these infectious agents.

**Prof. Michael J. Day: WHAT WE NEED TO KNOW ABOUT VACCINATION AND TITRE TESTING**

For CDV, CPV, CAV and FPV the presence of serum antibody able to neutralize infectious virus and prevent infection and disease provides an extremely strong correlate of protection. This correlation is so strong that it is possible to state that the presence of serum antibody to one of those viruses equates definitively with protective immunity. Some regulatory authorities are now beginning to accept seroprotection rather than experimental challenge in modulating licence claims. The presence of serum antibody does not, however, provide a correlate of immunity for FCV and FHV protection. For respiratory pathogens such as FCV, the presence of mucosal secretory IgA provides a correlate of protection, but it is not possible to measure these antibodies routinely. For FHV there is a stronger correlation between protection and cell-mediated immunity (CMI), but again it is difficult to measure CMI on a routine basis.

**Professor Michael J. Day: Small animal vaccination: a practical guide for vets in the UK**

Because there is a very strong correlation between FPV seropositivity and protective immunity, the WSAVA guidelines also suggest the option of FPV serological testing in lieu of triennial revaccination of adult cats. The same provisos apply as discussed above for the dog, and for geriatric cats (i.e., more than 15 years of age) the recommendation is for annual testing. Note that there is no correlation between seropositivity for FCV and FHV1 and protection and the VGG does not recommend the use of these tests for determining vaccine requirements.

**Professor Michael J. Day: The Role of Serology in Vaccination Decision Making**

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**ABCD: Feline calicivirus infection**

The value of serological tests in predicting protection is limited, because antibodies to the calicivirus strain used in a laboratory test may not necessarily protect against the strains that the cat will subsequently be exposed to in the field.

### **ABCD: Feline herpesvirus infection**

The value of serological tests in predicting protection is controversial. Methodological issues can complicate comparison of titres (particularly when obtained from different laboratories), and they are no good predictors of protection. Also, cats without any evidence of seroconversion have been found protected (Lappin et al., 2002; Mouzin et al., 2004). Vaccinated cats usually develop an anamnestic response upon field infection.

#### **Michèle Bergmann, Stephanie Speck, Anna Rieger, Uwe Truyen and Katrin Hartmann Antibody Response to Feline Calicivirus Vaccination in Healthy Adult Cats**

Many veterinarians today choose to measure parvovirus antibody titers to determine whether adult cats and dogs require re-vaccination. A semi-quantitative in-house test for the detection of FCV, FPV, and FHV-1 antibodies is available for use in practice in several countries. It can be useful for determining whether vaccination is required at the time of an individual health care assessment, although the benefit of measuring FCV antibodies before vaccination is still discussed controversially. In addition, and even more importantly, the value of measuring FCV antibodies to predict protection is generally limited as antibodies detected in a cat do not necessarily protect against the strains in the field.

Considering the results of the present study and the fact that different FCV strains circulate in the cat population, measuring the presence of FCV antibodies cannot replace routine vaccination against FCV in cats.

#### **Michèle Bergmann, Stephanie Speck, Anna Rieger, Uwe Truyen and Katrin Hartmann Antibody response to feline herpesvirus-1 vaccination in healthy adult cats**

Many veterinarians today choose to test for parvovirus antibodies to determine whether adult cats and dogs require re-vaccination. A semiquantitative in-house test for the detection of FPV antibodies is available. This test also measures FCV and FHV-1 antibodies. However, the value of measuring antibodies to determine cats' immunity to FHV-1 instead of administering regular re-vaccinations is still not determined, and, unfortunately, the present study was not able to answer this question fully.

**Prof. Dr. Katrin Hartmann:** We currently do not recommend to test for FHV and FCV antibodies – this might change as soon as we have more knowledge.

## Richard B. Ford: Antibody Testing vs. Vaccination

### Applications in Clinical Practice

- “Positive” antibody test results for feline herpesvirus (FHV) and feline calicivirus (FCV) vaccination do not correlate well with protective immunity. For this reason, serology is not generally recommended to assess protection following vaccination or to determine the need for re-vaccination.
- Assessment of cell-mediated immunity (CMI) is a better correlate of protection against FHV-1 than serology. However, CMI tests are complex and not routinely available performed as a clinical service to veterinary practices.

### JAVMA News 15-06-2016

Most cats that have a positive result on a titer test for feline panleukopenia are immune to the disease. Titers for feline herpesvirus-1 and feline calicivirus “may not necessarily correlate well with protective immunity and should not be used to predict protection in the future.”

Vaccines for feline panleukopenia are highly effective, inducing sterilizing immunity, which means the virus is blocked from replicating in the cat. FCV and FHV vaccines do not induce sterilizing immunity but rather minimize clinical symptoms of disease.

### Kort samengevat

- Het is wetenschappelijk aangetoond dat het bij de kat enkel zinvol is om een titerbepaling uit te voeren om IgG antilichamen tegen **panleukopenie** te detecteren. Hierbij staat onomstotelijk vast dat er **een sterke correlatie** is tussen antilichamen en bescherming.
- Bij **herpes** is er **geen correlatie** tussen IgG antilichamen en bescherming. Er is wel een correlatie tussen celgemedieerde immuniteit (T-cellen) en bescherming.
- Bij **calici** is er **geen correlatie** tussen IgG antilichamen en bescherming. Er is wel een correlatie tussen mucosaal (slijmvlies) uitgescheiden IgA antilichamen en bescherming.

## RapidSTATUS™ TiterTest™ Feline Feline Panleukopenia Virus Antibody Test Kit

**Artikelnummer** 1000026

**Duur test**  
10 minuten

**Houdbaarheid**  
18 maanden na productiedatum

**Inhoud per testkit**  
10 testcassettes  
1 flesje buffer  
10 pipetten  
12 stickers  
Engelstalige gebruiksaanwijzing

