

Feline coronavirus (FCoV) RT-PCR

The Infectious Diseases Laboratory now offers a real-time PCR assay to detect FCoV (FCoV RT-PCR) in cat faeces.

Background

Once infected, most cats shed large amounts of FCoV in the faeces for up to 5 months. However, some cats remain seropositive using the immunofluorescence (IF) antibody test for prolonged periods despite eliminating the virus. The FCoV RT-PCR assay detects cats that have stopped shedding FCoV despite remaining seropositive. The FCoV RT-PCR assay will therefore be a very useful adjunct to the FCoV IF antibody test in a number of situations. Firstly, the assay will be particularly important in breeding colonies to help identify shedding cats and aid FCoV eradication programmes. The FCoV RT-PCR assay can detect chronic FCoV shedders, which represent approximately 13% of all FCoV-infected cats. Although these cats have a low risk of developing FIP, they provide a continuous source of infection to other cats and make FCoV eradication difficult. Secondly, cat owners with seropositive cats who wish to introduce a new cat or who have been avoiding stressful events such as neutering can use the FCoV RT-PCR test to ascertain whether their seropositive cat is still infected and actively shedding virus.

Testing

The FCoV RT-PCR assay is only available with the FCoV IF antibody test as both tests together are more accurate than either test alone. The FCoV IF antibody test is run daily and **the FCoV RT-PCR test is run fortnightly at present. Please ensure faecal samples arrive by first thing Wednesday morning to be included in the run.**

Result Interpretation

Please note that a single RT-PCR test result is of little value. Cats can shed intermittently as they are eliminating the virus; therefore, it is important that cats are sampled on a serial basis, preferably monthly.

RT-PCR-positive cats should be re-tested in 1 month. Once a negative RT-PCR test is attained (most cats stop shedding within 5 months post infection), a total of 5 negative RT-PCR tests will confirm that the cat has stopped shedding, even if the cat remains seropositive. Once the cat is seronegative, then there is no need for further RT-PCR testing. FCoV carrier status can be confirmed by 9 consecutive RT-PCR-positive tests.

RT-PCR-negative cats that are seropositive should be re-tested in 1 month and receive a total of 5 consecutive negative RT-PCR tests to be classified as a non-shedder, even if the cat remains seropositive. If the cat becomes seronegative at any time, then no further RT-PCR testing is required

Samples

We require 5g faeces in a sterile container or a faecal swab together with 1ml heparin blood for the FCoV antibody test.

Prices

We are offering the RT-PCR assay in conjunction with FCoV serology for the combined price of £45 + VAT . We offer the RT-PCR on its own for £40 + VAT.

Discounts and Special Offers

Cats that are sampled monthly over a 12 month period will receive 1 free test (12 months for the price of 11 months). For 5 or more cats tested in a single month, an additional cat can be tested free of charge (total of 6).

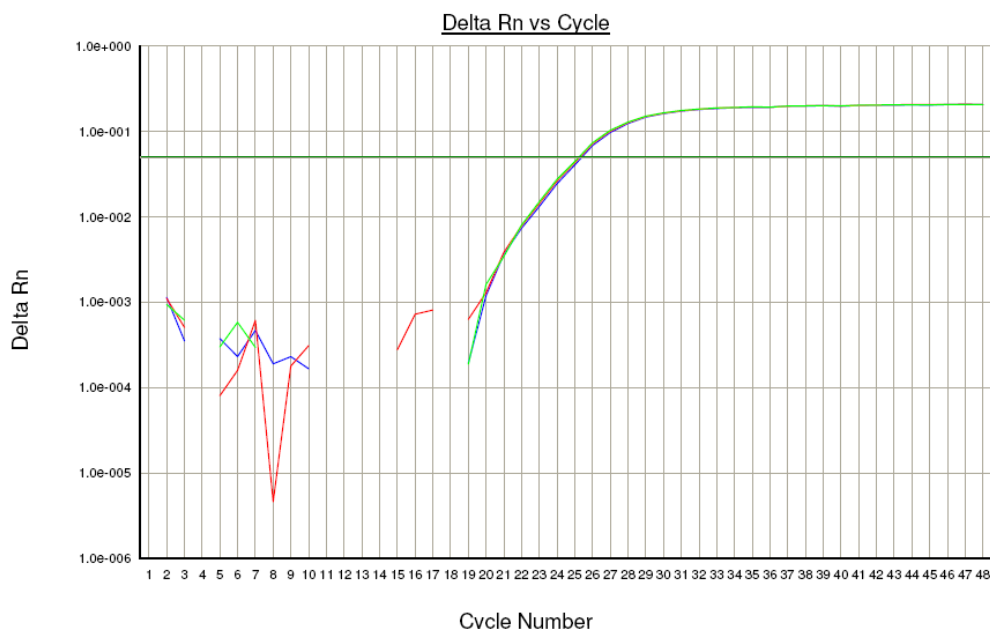


Figure 1. FCoV-positive sample detected using the real-time FCoV RT-PCR assay. This cat is shedding FCoV and is a potential source of infection for other cats within the household.

Reference

Addie D.D et al., 2001. Use of a reverse-transcriptase polymerase chain reaction for monitoring the shedding of feline coronavirus by healthy cats. *Veterinary Record*. 148:649-653.

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