

***SARS-CoV-2 PCR now included in our PCR Profiles Respiratory I and II without additional costs***

Our main laboratory in Germany has been collaborating for several weeks with German health authorities performing SARS-CoV-2 PCR on people.

In our commitment to animal health, we have, from now on, **included SARS-CoV-2 PCR in our feline respiratory PCR profiles I and II with no additional costs.**

In order to promote the responsible use of these tests, minimize risks to veterinarians and avoid unnecessary measures in animals that could potentially be positive for the virus, we have collected the information available for the moment, as frequent answers and questions (FAQ's).

**Can cats get infected with SARS-CoV-2?**

- It has been known for years that both cats and ferrets are susceptible to SARS-CoV infection.<sup>1</sup>
- Experimental infections in cats were successfully carried out, detecting also disease transmission between animals under laboratory conditions.<sup>2\*</sup>
- In a zoo located in the Bronx (New York), the infection has been detected in a female tiger (*Panthera tigris jackson*) with respiratory signs, and it is suspected that other felines may be infected too.<sup>3</sup>
- In addition, seropositive cats for the virus have been found in a research made on a cat population in Wuhan, and therefore demonstrating previous exposure and the development of a humoral immune response.<sup>4\*</sup>
- Recently, a big veterinary laboratory has revealed that, after analysing over 3,500 samples of dogs, cats and horses from South Korea and the USA as a part of a SARS-CoV-2 PCR validation procedure, none of the animals resulted positive. However, these data have not been published yet in scientific journals, and may not represent the real situation of the prevalence of the virus in cats in other countries such as Spain, Italy or China.<sup>5</sup>

**What should I do, if I get a positive SARS-CoV-2 result in a cat?**

According to the *World Organization for Animal Health* recommendations: At the moment, there is no evidence that companion animals have a significant role in the spread of the disease. Therefore, there is no reason for taking special measures related to pets that may affect their welfare.<sup>6</sup>

- Most likely, the source of the infection is an infected human.
- The veterinarian is responsible for the notification of any positive case to the corresponding authorities. The COVID-19 infection in animals meets the conditions to be considered an [emerging disease](#). That is why, any case of COVID-19 virus infection in animals (including species information, diagnostic tests and relevant epidemiological information) should be reported to the OIE in accordance with the *OIE – Terrestrial Animal Health Code*.
- It is recommended to limit the access outdoor and the contact with other animals, to those cats with COVID-19 or with infected owners.

- Extreme hygienic measures should be taken when handling the cat.

### **What about dogs and other species?**

- Dogs seem to be susceptible to the infection, but less than ferrets and cats.<sup>2\*,6</sup>
- Ferrets seem to be susceptible to the infection, but less to prone to disease. Under laboratory conditions, ferrets were also able to transmit the infection to other ferrets.<sup>2,6</sup>
- At the moment, preliminary study results suggest that poultry and pigs are not susceptible to SARS-CoV-2 infection.<sup>6</sup>

### **Why does LABOKLIN perform this test in cats? Opportunism?**

Studies are being performed for better understanding the SARS-CoV-2 susceptibility in different animal species and to evaluate the infection dynamics in those animals susceptible to disease, and **LABOKLIN** wants to collaborate with this goal.

In words of Joaquín Goyache, veterinarian and rector of the *Universidad Complutense de Madrid*: "To prevent diseases in human beings, we must also take care of what is happening in the animal world and the environment"

**LABOKLIN** performs this test included in the feline PCR profiles Respiratory I and II with NO ADDITIONAL COST, in order to determine the real relevance of SARS-CoV-2 in cats with respiratory signs.

### **When is it indicated?**

As explained above, this test is performed as part of feline PCR profiles Respiratory I and II, which include the detection of other respiratory pathogens such as *Calicivirus*, *Herpesvirus*, *Chlamydophila spp.*, *Mycoplasma felis*, and *Bordetella bronchiseptica*. Therefore, it is recommended to use in cats with any respiratory signs.

### **Why is it not analysed individually?**

We do not want any undiagnosed cats, by the pathogen(s) that actually produces the respiratory signs to the animal, so it is only included as part of the Respiratory Profiles, to ensure a responsible use of the test in those cases, in which there is a real suspicion of infection. In addition, laboratory resources for PCRs are scarce and, in this way, there is an optimization of resources.

### **Can human samples be sent for analysis?**

ABSOLUTELY NOT! Human samples analysis with COVID-19 suspicion should be processed WITHOUT EXCEPTION through the competent health authorities of each country.

### **If there are not enough tests for human patients worldwide, why does LABOKLIN carry out these tests on cats?**

RNA extraction reagents are scarce, so we do not use it just for SARS-CoV-2 testing. The responsible use of this reagents is guaranteed by offering the test ONLY as part of a profile in which RNA extraction is done anyway. We need to keep performing PCRs for the different animal species as part of the role of veterinarians in animal and public health. Although SARS-CoV-2 might be a thing in cat health, there are hundreds of other infectious agents that should be detected to assure a correct diagnose and treatment.

## What sample is needed for the analysis?

To carry out feline PCR profiles Respiratory I or II, it is necessary to take a nasopharyngeal dry swab sample or fluid sample obtained by bronchial-alveolar lavage.

## Shipping precautions

Some measures must be taken to avoid contamination of samples either from the environment or from humans. Veterinarians must take special precautions when sampling suspected patients (use of face masks and gloves, as well as taking extreme disinfection measures of surfaces and people).

Both at our laboratory in Germany, and in our satellite labs throughout Europe, where the samples are handled and analysed, we beware with all samples received, in order to meet strict standardized work procedures related to work safety.

## Take home messages

- ✓ SARS-CoV-2 can cause infection both in cats and ferrets causing respiratory signs.
- ✓ Good hygiene measures must be taken in suspicious cases and any positive case must be notified to the competent authorities.
- ✓ At the moment, there is no evidence that the cat transmits the virus to humans, whereas humans are the main source

## References:

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\* Preliminary studies. Pending of review and the development of further studies to confirm results.