

# Laboratory diagnosis of feline conjunctivitis





by Real-Time PCR



#### Feline conjunctivitis

Feline conjunctivitis is an inflammatory disease that affects the inner lining of the eye (conjunctiva).

#### Main symptoms

- √ Watery eyes
- ✓ Redness of the sclera and the surrounding area
- √ Frequent blinking
- √ Itching
- ✓ Mucous, purulent discharge

#### The most common causes of conjunctivitis

- ✓ Entry of foreign bodies into the eye, eye injury
- ✓ Systemic diseases caused by viral or bacterial infections
- ✓ Alergy
- ✓ Dry eye syndrome

#### Infectious pathogens causing conjunctivitis

#### FHV-1 (Feline herpesvirus type 1)

- alpha herpes virus, DNA virus
- one of the most common causes of conjunctivitis and upper respiratory tract disease in domestic cats

#### **FCV** (Feline Calicivirus)

- family Caliciviridae, RNA virus
- a common cause of acute serous conjunctivitis, acute respiratory infections and mouth ulcers

#### Chlamydophila felis, Mycoplasma felis

Secondary bacterial infections:

- chlamydiosis (Chlamydophila felis)
- mycoplasmosis (Mycoplasma felis)

Conjunctivitis is one of the early clinical manifestations of a systemic disease.

Laboratory diagnostics using real-time PCR allows to quickly identify the pathogen.

## Real-Time PCR is a direct method of diagnosis, so it is important to consider the following:

- ✓ Biological specimen is collected only from the site of the suspected localization of the infectious agent
- ✓ Repeated testing is carried out 2-3 weeks after the end of treatment or vaccination
- ✓ A positive result in the absence of clinical signs of disease may indicate detection of a bacteria/virus vector

#### **Specimen collection:**

- 1. If purulent discharge appears, remove it with clean gauze moistened with physiological saline
- 2. Use a urogenital probe to collect cellular material from the conjunctiva
- 3. Rinse the working part of the probe in a tube with a transport tube (cat. no. 8894), squeeze the probe on the walls of the tube and dispose of the probe.

#### Features and advantages of RealBest-Vet diagnostic kits

- ✓ Ready Master Mix for PCR/RT-PCR: Simplification of analysis procedures and high stability of test quality
- ✓ Multiplexity: possibility of detecting two infections in one tube
- ✓ Universal protocol: all tests in one run
- ✓ Compatible devices: CFX96 (Bio-Rad, USA), DT-96 a DTprime (DNA-Technology, Russia), Gentier 96E/R (Xi'an TianLong, Science and Technology Co., Ltd., China)
- $\checkmark$  High stability of the kit: storage at a temperature of 2–8  $^{\circ}$  C; transport up to 26  $^{\circ}$ C for not more than 10 days

### RealBest-Vet diagnostic kits

Cat.Nº	Kit name and description	Number of tests
Extraction kits for isolation of nucleic acids		
8889	RealBest DNA-express Rapid DNA extraction kit (15 minutes)	100
5453	RealBest-Vet Alpha DNA extraction kit, for use with KingFisher Flex system	96 ( <i>2x48</i> )
5454	RealBest-Vet Beta DNA and RNA extraction kit, for use with KingFisher Flex system	96 ( <i>2x48</i> )
5876	RealBest-Vet Gamma  DNA and RNA extraction kit, for use with KingFisher Flex system	48 (4x12)
Kits for the detection of infectious agents causing feline conjunctivitis		
5420	RealBest-Vet DNA FHV-1 Kit for the detection of herpesvirus type 1 DNA	96
5430	RealBest-Vet DNA FHV-1/GAPDH  Kit for the detection of herpesvirus type 1 DNA and endogenous control (GAPDH gene)	96
5422	RealBest-Vet RNA FCV Feline calicivirus RNA detection kit	96
5431	RealBest-Vet RNA FCV/HMBS  Kit for the detection of feline calcivirus RNA and endogenous control (HMBS gene)	96
5426	RealBest-Vet DNA Mycoplasma felis Mycoplasma felis DNA detection kit	96
5429	RealBest-Vet DNA Chlamydophila felis Chlamydophila felis DNA detection kit	96
5465	RealBest-Vet DNA Chlamydia spp. Chlamydia spp. DNA detection kit	96