

*Focused on Veterinary Diagnostics*

Amtl. Zul.-Nr.: FLI-B 597

## **FASTest® KOI HV** ad us. vet.

**Viral epizootic disease with high morbidity and mortality – increasing risk factor in carp production**

Fast test for the qualitative detection of Koi Herpesvirus (KHV) antigen in gill swabs from common carp and Koi carp

**First non-invasive pond-side direct diagnostics**

- High infectivity and mortality
- Specific aetiological diagnostics in KHV acute stage
- Immediate initiation of elimination/disinfection and effective quarantine measures



- Simple non-invasive pond-side test using gill swabs
- Easy test interpretation after 15 minutes
- Sensitivity 71.7%\* & Specificity 100 %
- Limit of detection  $10^4$  -  $10^6$  KHV/ml
- Storage at room temperature (15-25°C)
- Long shelf life
- Compact test box with 2, 10 or 25 tests

\* compared to PCR, Bercovier et al. OIE Manual of Diagnostic Tests for Aquatic Animals 2009

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The Cyprinid herpesvirus 3, also known as Koi herpesvirus (KHV), belongs to the family of Alloherpesviridae. It is spread world-wide, mainly by intensive international fish trading, and strains from different countries were shown to have high similarities.

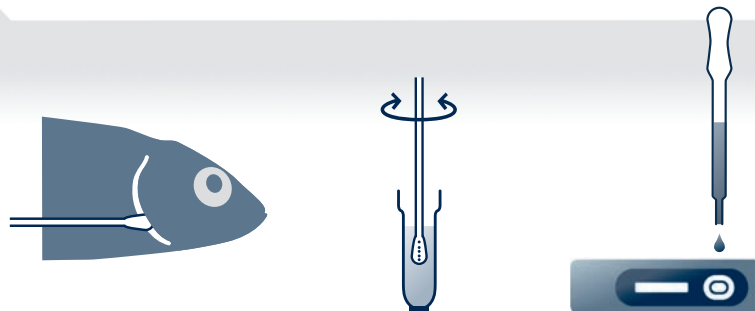
The virus causes a highly contagious and acute viraemia in common carp (*Cyprinus carpio*) and its variant, the Koi carp (*C. c. koi*). This devastating virus disease may result in mortality rates up to 70-100 %. Interestingly, the disease is temperature dependent, mostly occurring between 16 and 25 °C. All age groups of carp appear to be susceptible to KHV, although, generally, younger fish up to 1 year are more susceptible to clinical disease.

The mode of transmission of KHV is horizontal, but vertical transmission cannot be ruled out. Horizontal transmission may be direct or vectorial, water being the major abiotic vector. KHV remains active in water for at least 4 hours at water temperatures of 23-25 °C. Virulent virus is shed via feces, urine, gills and skin mucus. Infection mainly occurs via the skin. After entry, the virus spreads systemically from the portal of entry to superficial and internal organs. High levels of virus DNA have been shown to be present in skin, gills, spleen, liver and gut tissues. Clinical signs of KHV can be difficult to distinguish from other fish diseases and generally include an evident hyper-secretion of mucus in the early stage of infection. Additional typical clinical signs are loss of appetite, discolouration of skin and gills as well as skin lesions. Sunken eyes (enophthalmia) and necrotic gills are frequently seen. Due to its potential to cause considerable economic damage, the disease is listed as a notifiable disease by the World Organisation for Animal Health OIE ([www.oie.int](http://www.oie.int)).

Due to the lack of a non-invasive pond-side rapid test method, diagnosis exclusively was done typically via PCR-based KHV assays in fish tissues. These assays are highly specific but require expensive equipment and are rather time-consuming. To limit disease spread, a rapid identification of KHV in diseased or dead fish is crucial.

With **FASTest® KOI HV**, MEGACOR Diagnostik GmbH proudly presents a first rapid and specific “pond-site” diagnostic test for KHV. The use of **FASTest® KOI HV** enables veterinarians, Koi owners and breeders, importers and/or pet shops a fast aetiological diagnosis of a fresh and acute KHV infection. Proof or exclusion of a KHV infection is an important criterion for the initiation of follow-ups like separation, disinfection and/or quarantine measures.

## Test procedure



## Test interpretation



### POSITIVE



### NEGATIVE



Distribution:

