

# Nodavirus

## Detection kit

**An easy-to-use, sensitive, specific and rapid test to detect the Nodavirus in fish farming**  
(fish, shrimp, sea cucumber, etc.)

***Easy-to-use***

**High Specificity providing reliable results**

***Interpretation of the results easy to perform*** (with the naked eye)



***Rapidity***  
(~4 hours)

***High Sensitivity***

***Standardization of reagents and detection process***

### AN EASY-TO-USE AND RAPID TEST

The Nodavirus kit is rapid to implement as it contains all the reagents needed to perform 24 tests. simultaneously in less than a day.

Basic laboratory equipment is required: thermocycler, water-bath, small bench centrifuge and orbital shaker.

The membranes provided with the kit are ready-to-use.

The user has just to applied the PCR products on the membranes to detect the Nodavirus presence in the sample. Thus, this method can be easily used in laboratories, farms or hatcheries already using PCR as a diagnostic tool.

**DIAG 4 ZOO**

+33(0) 467 419 748

info@diag4zoo.fr - www.diag4zoo.fr

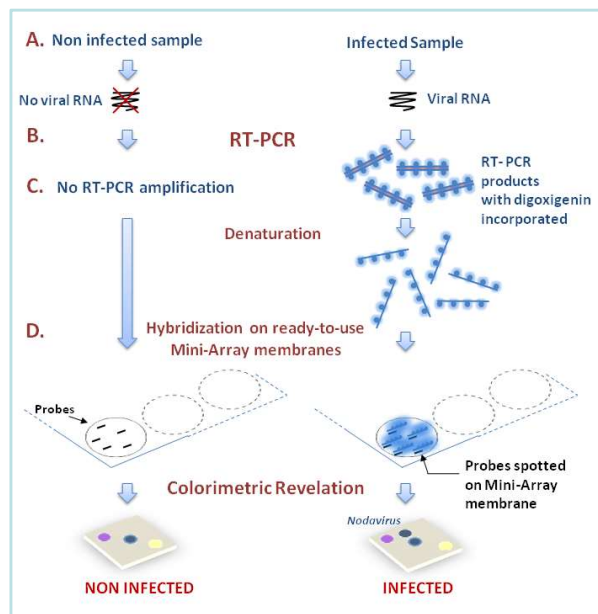
***This diagnostic kit has been developed in collaboration with***

Palavas Laboratory (G.Breuil)



## THE PROTOCOL AT A GLANCE

The test is based on a detection combining an amplification of target nucleic acids by PCR and a specific hybridization through an antibody associated to an enzyme, which produces a blue mark on the nylon membrane.



A. Samples preparation

1 hour

B-C. Polymerization Chain Reaction (PCR)

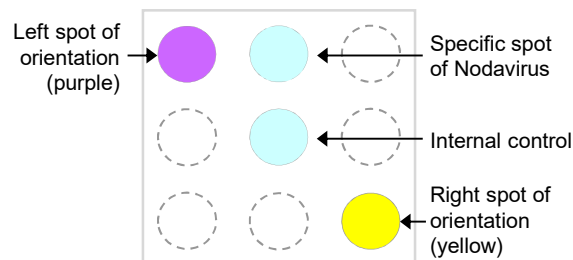
2 hours

D. Hybridization and revelation

1 hour

## A SIMPLE INTERPRETATION OF THE RESULTS

The probes corresponding to the Nodavirus are already spotted on the membranes at predefined positions. So, the results interpretation is simple, and is done without any material, at the naked eye.



<b>Non infected &amp; negative control</b>		PCR is validated: positive internal control. The sample is <b>not infected</b> .
<b>Positive infection by Nodavirus</b>		PCR is validated: positive internal control. The sample is <b>infected by Nodavirus</b> .
<b>Non determined</b>		The sample is <b>infected by Nodavirus</b> . The internal control is inhibited when the samples are strongly infected. The test remains efficient and valid.

## THE KIT COMPONENTS



- 24 membranes ready-to-use
- 1 twenty-four well plate
- 24 PCR tubes
- 1 Tweezers
- PCR and revelation Reagents
- 1 User manual

## BIBLIOGRAPHY

J. Fish Diseases 2002, *Experimental vertical transmission of nodavirus from brood fish to eggs and larvae of the sea bass, Dicentrarchus labrax*, Breuil *et al.*

Dis. Aquat. Org. 2001, *Sea bass Dicentrarchus labrax nervous necrosis virus isolates with distinct pathogenicity to sea bass larvae*, Breuil *et al.*

Journal of Virological Methods 1999, Natural outbreak of viral encephalopathy and retinopathy in juvenile sea bass, *Dicentrarchus labrax*: study by nested reverse transcriptase-polymerase chain reaction, Thiéry *et al.*

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