AN EASY-TO-USE AND RAPID TEST

The nodavirus kit is rapid to implement: reactions can be carried out simultaneously within 4-5 hours.

The nodavirus kit contains all the reagents to perform 24 tests 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. They contain the probes and are pre-hybridized.

The user has just to spot 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.

The Mini-Array kit provides with numerous advantages

"Easy to use"
(basic laboratory equipment required)

Rapidity
(~ 4-5 hours)

High sensitivity
(~ 20 viral DNA copies per µl of sample)

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

High specificity providing reliable results
(screening of no specific PCR products)

Standardization of reagents and detection process

No electrophoresis
(no mutagenic dye)

This diagnostic kit has been developed in collaboration with

Ifremer
Palavas Laboratory (G.Breuil)

DIAG4ZOO

Tel.: +33(0) 467 419 748 - Fax: +33(0) 467 457 726
Mail: contact@diag4zoo.com - Web: www.diag4zoo.com

Nodavirus
Detection kit

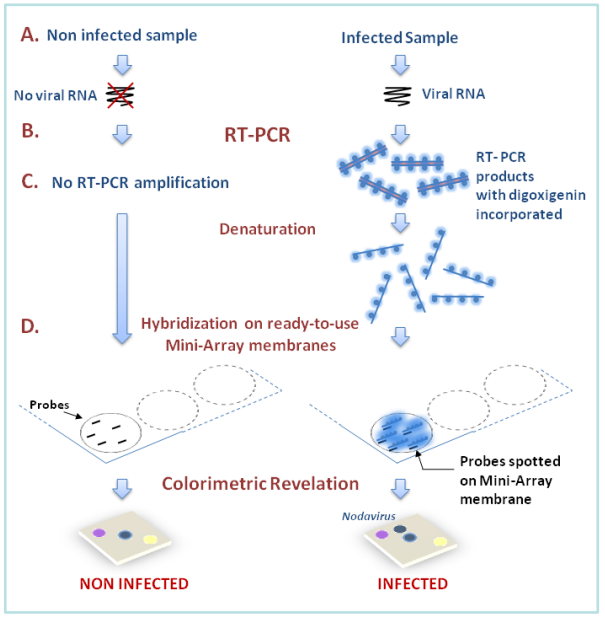
An easy-to-use, sensitive, specific and rapid test to detect the nodavirus in fish farming

DIAG4ZOO

Tel.: +33(0) 467 419 748 - Fax: +33(0) 467 457 726
Mail:contact@diag4zoo.com - Web: www.diag4zoo.com

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.



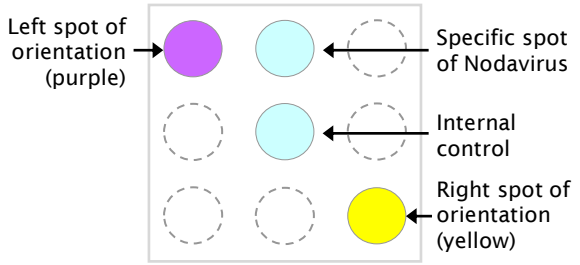
A. Samples preparation
2 hours

B-C. Polymerization in Chain Reaction (PCR)
2 hours and 30 minutes

D. Hybridization and revelation
1 hour and 15 minutes

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, it can be done without any material, at the naked eye.



Non infected & negative control		PCR is validated: positive internal control. The sample is **not infected**.
Positive infection by *Nodavirus*		PCR is validated: positive internal control. The sample is **infected by *Nodavirus.***
		The sample is **infected by *Nodavirus***. The internal control is inhibited when the samples are strongly infected. The test remains efficient and valid.
Non determined		There's no spot appeared on the membrane: the sample is **inhibited.** It's recommended to do the analysis again after diluting the DNA sample.

THE KIT COMPONENTS

Reagents, materials and containment

- 24 membranes ready-to-use
- 2 twenty four well plates
- 50 PCR tubes
- 1 Crowbar
- Reagents
- 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.*