



## Anti-Coat Protein of Fish Nervous Necrosis virus, Rabbit-Polyclonal Antibody

**Catalog No.** GB-10064  
**Antigen species:** Fish NNV  
**Host species:** Rabbit

**Quantity:** 250 $\mu$ l  
**Reactivity:** Fish NNV  
**Form:** Antiserum

**Applications tested:** ELISA

### Target description

Viral nervous necrosis (VNN) is a worldwide disease among marine fishes. Fish nervous necrosis virus (NNV) causes high mortality and considerable economic damage to the aquaculture industry. In Taiwan, VNN disease was first identified in 2 species of hatchery-reared grouper, *Epinephelus fuscogutatus* and *E. akaaya* in 1994. Since then, increasing mortalities have occurred among groupers *Epinephelus* spp., and also among European eels *Anguilla anguilla* L., yellow-wax pompano *Trachinotus falcatus*, firespot snapper *Lutjanus erythropterus* B., barramundi *Lates calcarifer*, cobias *Rachycentron canadum*, humpback groupers *Cromileptes altivelis* and Chinese catfish *Parasilurus asotus*.

### Antigen

This polyclonal antibody was raised by immunizing rabbit with a synthetic peptide containing amino acids on the C-terminal domain of coat protein of grouper NNV.

### Application

The antibody titer is more than 70K for ELISA. It has not been tested in the other applications. However, for the first testing, we recommend 1/5,000 dilution for ELISA, 1/1000 dilution for Western blot analysis (WB) of recombinant protein, 1/400 dilution for tissue extracts or cell lysates, 1/100 dilution for immunohistochemistry (IHC) staining on frozen cryosections, 1/50 dilution for IHC staining on paraffin embedded sections.

### Related Products

1. Anti-NNV coat protein rabbit pAb (GB-10063)
2. Anti-NNV particles rabbit pAb (PG-10002)

Ab dilution	Pre-bleed	Anti-serum
1:1K	0.053	1.411
1:10K	0.051	0.682
1:100K	0.046	0.076
Titer		~70 K

### ELISA Protocol

Antigen is coated on EIA strips at 1 $\mu$ g per well. Add 200 $\mu$ l of blocking buffer and then wash wells with PBST buffer. Antiserum GB-10064 is diluted in series as 10<sup>3</sup>~10<sup>5</sup> folds and added in separate wells. Incubate antibody for 1hr. Wash unbound antibodies and add anti-rabbit IgG-HRP conjugate. Wash the plate and add substrate to develop color for 5 min. Read absorbance (ABS) at 650 nm. Amount of color is directly proportional to the amount of antibodies. Antibody titer is defined as >0.1 of ABS of antiserum minus pre-bleed serum.

### Storage

It is supplied as lyophilized serum. Redissolve the lyophilized powder with 250 microliter sterile water will restore the original condition. Store at 4°C for short term application. For long-term storage, aliquot and store at -20°C.

### References

1. Chi SC, Shieh JR, Lin SJ. Genetic and antigenic analysis of betanodaviruses isolated from aquatic organisms in Taiwan. *Dis Aquat Organ.* 2003 Aug 4;55(3):221-8.
2. Chi SC, Lin SC, Su HM, Hu WW. Temperature effect on nervous necrosis virus infection in grouper cell line and in grouper larvae. *Virus Res.* 1999 Sep;63(1-2):107-14.