

# Total Solution for detection of aquatic animal pathogens



**Professional** 

**Rapid** 

**Accurate** 

**Stable** 

www.hfbiotech.com/en/

# **Company Introduction**

GUANGZHOU HF BIOTECH INC founded in 2006, is a high-tech enterprise focusing on rapid gene detection. Since its establishment, the company has been engaged in genetic diagnosis, covering areas such as foodborne, public health, and animal diseases. In 2017, the company began to produce nucleic acid detection kits for aquatic pathogens, and the product coverage includes Hainan, Guangdong, Jiangsu, Fujian, Shandong, Hebei and other provinces. The company has more than 30 kinds of nucleic acid detection kits for aquatic pathogens, including shrimp, fish, snails and other aquatic organisms. At the same time, it can also provide personalized solutions according to customer needs. The company's core products are aquatic pathogen detection reagent series, pet pathogen detection reagent series, animal and plant gene rapid detection kit series, polymerase series.

The company has 29 invention patents, is the director of Guangdong high-tech enterprise association unit, the company food pathogenic microorganism gene detection kit won the Guangdong province excellent brand.

The company advocates scientific management and comprehensively implements, a high-standard quality management system to ensure product quality. The company adheres to the principle of "social responsibility first "and "integrity", and carries out the enterprise culture of "excellence first" and "endless", so that the company will always move forward on the road of improving products and services.













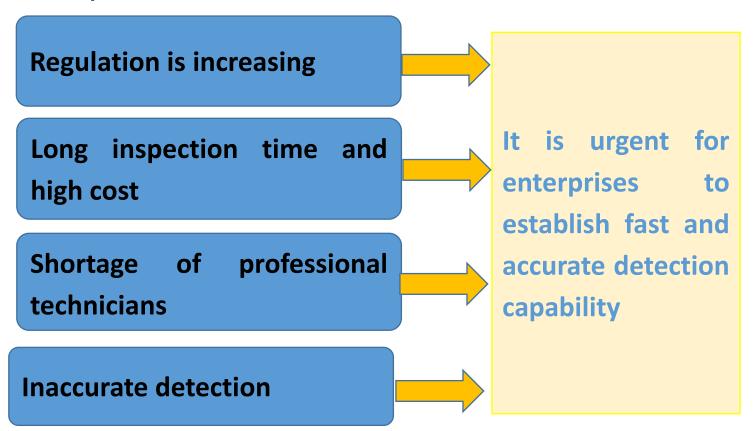
#### Foreword:

In recent years, the occurrence of fulminant and epidemic diseases in aquaculture has caused huge losses to farmers and aquaculture enterprises, and this restricts the healthy development of aquaculture industry seriously. Due to the lack of professional knowledge and detection ability, farmers often call for help from relevant institutions after the outbreak and spread of the disease, which brings great difficulties to the effective prevention and control of the outbreak and epidemic. Therefore, it is necessary to conduct disease detection of aquatic animals in the process of aquaculture so as to detect potential diseases as early as possible and take prevention and control measures in a timely manner to reduce losses.

At the same time, with the frequent outbreak of various diseases and the continuous improvement of the breeding awareness of farmers, farmers not only distinguish the quality of shrimp/fish seedlings from appearance or microscopic examination, but also require shrimp/fish seedlings to carry no pathogens, or know the amount of pathogens carried by shrimp/fish seedlings.

All in all, the era of experience breeding has passed, we should use more scientific methods to create higher value. It is necessary to select virus-free shrimp/fish seedlings during the selection process. In order to timely take corresponding measures, the situation of shrimp/fish infection should be regularly detected during the breeding process.

The current problems of pathogen detection in aquatic products



#### 1. Technical platform and product features

#### 1.1 Technical platform

qPCR, it can be done in a normal laboratory. This product can provide accurate detection results in a short time by amplifying the specific gene fragment of aquatic animal pathogen, detecting according to the change of fluorescence intensity, and optimizing the reaction system for various samples.

#### 1.2 Product features

#### (1) Freeze-dried type

After years of painstaking research and development, the company has developed the freeze-drying PCR reagent technology, so that the products can be stored and transported at room temperature with high reagent stability.



#### (2) The system to prevent contamination of PCR products

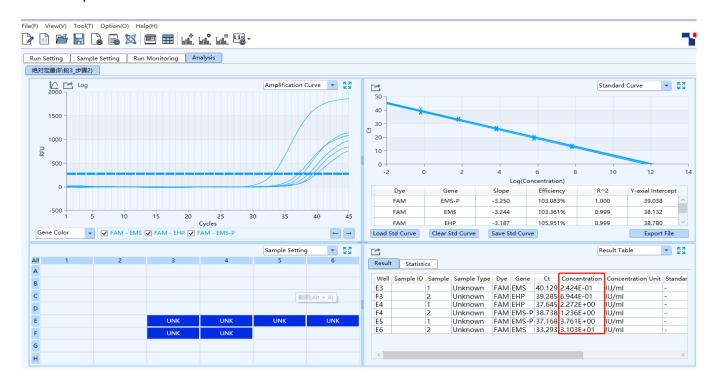
The PCR reagent contains the system to prevent contamination of PCR products, which is especially suitable for use in non-professional PCR laboratories to reduce false positive caused by cross-contamination of PCR products.

#### (3) High specificity and sensitivity

The TaqMan probe was added to the nucleic acid PCR detection reagent for aquatic pathogens, with strong specificity and detection limit up to 1-2copies/ul, with good reproducibility and high stability

#### (4) The pathogen content can be quantitatively detected and analyzed

We can provide the standard curve of corresponding products or standard products for quantitative detection and analysis according to customer's requirements.



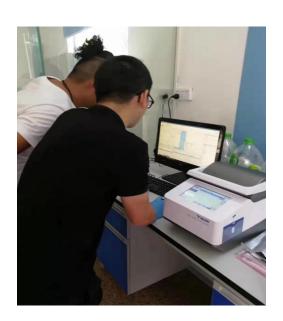
#### (5) Easy to operate

Our PCR kits for nucleic acid detection of aquatic animal pathogens are all one-tube lyophilized forms, which can be used only by adding complex solution dissolution detection reagent, thus avoiding cumbersome preparation procedures. At the same time products with separate packaging are convenient for customers to use.

#### (6) Rapid detection

Our products can complete PCR amplification in 45 minutes, these can save detection time and be suitable for field detection





#### 2. The scope of application

The source of the control (Shrimp, larva, fish fry, flea-like shrimp larvae ~ larva, algae, bumper insects, etc)

Monitoring of breeding process (larva shrimp, juvenile shrimp, adult fish, adult shrimp, aquaculture water, bait, etc.) Supervision and inspection (Supervision by government departments, inspection and research, pathogen epidemic monitoring and emergency warning, etc.)



**Parent shrimp** 



Larva shrimp



**Government oversight** 



Bait



Adult shrimp



Scientific research



Fish larvae



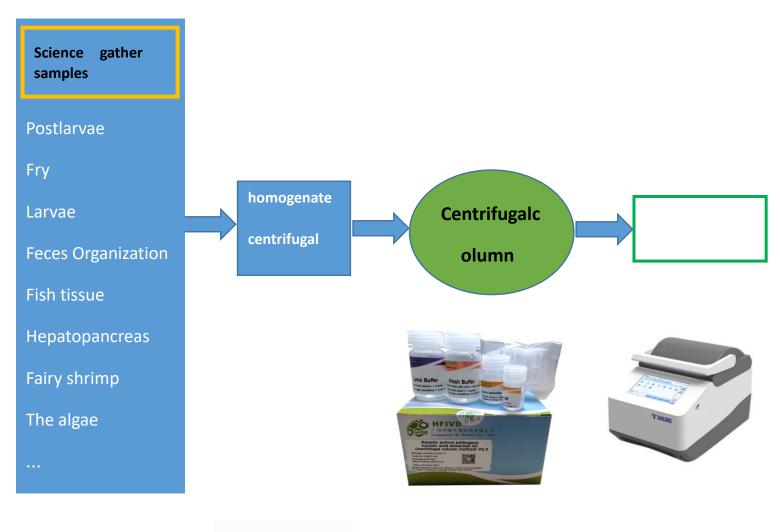
Adult fish



**Emergency warning** 

# 3. Scientific sampling to data analysis - complete pathogen detection

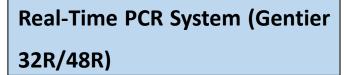
Test results can reflect the products carry pathogens, in addition to the sensitivity and accuracy of the detection reagent, the extraction efficiency and nucleic acid extracting reagent and sample representativenes. We can provide customers with technical services in all aspects of the testing process to maximize the accuracy and effectiveness of sample testing.



Sample Pretreatment Extraction of nucleic acids Detection

#### 4. Introduction of instrument







#### Consumables

The real-time PCR system is specially tailored for small and medium-sized laboratories and mobile laboratories. With excellent performance and portability, it can make your detection more convenient, accurate and efficient.

#### **Advantages of instruments:**

- Comprehensive: The testing kits are available in a wide range of types, covering common aquatic pathogens, and can be customized to meet customer's needs.
- ➤ **Fast**: It can detect 32/48 samples at one time, and the results can be obtained within 45 minutes.
- Professional: According to the amplification curve, CT value were analyzed, and the interpretation result, double insurance, and quantitative analysis.
- Portable: Small in size and light in weight, it can be moved to the required place or equipped to the mobile laboratory for on-site testing.
- Easy to operate: Non professional testing personnel can master after a simple training.

## 5. Product catalogue

NO.	Kit name	Packing Unit
1	White spots yndrome virus(WSSV)Nucleic acid Detection Kit(Freeze-dried/qPCR Method)V2.0	48T/24T
2	Infectious hypodermal and hematopoietic necrosis virus(IHHNV)Nucleic acid Detection Kit(Freeze-dried/qPCR Method)V2.0	48T/24T
3	Hepatopancereatic parvo virus(HPV)Nucleic acid Detection Kit(Freeze-dried/qPCR Method)V2.0	48T/24T
4	Monodon baculo virus disease(MBV)Nucleic acid Detection Kit(Freeze-dried/qPCR Method)V2.0	48T/24T
5	Acute hepato pancreatic necrosis disease / early mortality syndrome(AHPND/EMS) Nucleic acid Detection Kit(Freeze-dried/qPCR Method)V2.0	48T/24T
6	Acute hepato pancreatic necrosis disease / early mortality syndrome(AHPND/EMS Plasmid)Nucleic acid Detection Kit(Freeze-dried/qPCR Method)V2.0	48T/24T
7	Enterocytozoon hepato penaei(EHP)Nucleic acid Detection Kit(Freeze-dried/qPCR Method)V2.0	48T/24T
8	18s rRNA genes of Enterocytozoon hepato penaei(EHP 18S)Nucleic acid Detection Kit(Freeze-dried/qPCR Method)V2.0	48T/24T
9	Shrimp hemocyte iridescent virus (SHIV) Nucleic acid Detection Kit(Freeze-dried/qPCR Method) V2.0	48T/24T
10	Vibrio harveyi(VH)Nucleic acid Detection Kit(Freeze-dried/qPCR Method)V2.0	48T/24T
11	Vibrio Parahaemolyticus (Vpa) Nucleic acid Detection Kit(Freeze-dried/qPCR Method)V2.0	48T/24T
12	NecrotizingHepato-pancreatitisBacterium(NHPB)Nucleic acid Detection Kit (Freeze-dried/qPCR Method) V2.0	48T/24T
13	Vcholerae(Vch)Nucleic acid Detection Kit (Freeze-dried/qPCR Method) V2.0	48T/24T
14	Vibrio alginolyticus(Val)Nucleic acid Detection Kit (Freeze-dried/qPCR Method) V2.0	48T/24T
15	Fusarium(Fus)Nucleic acid Detection Kit (Freeze-dried/qPCR Method) V2.0	48T/24T
16	Yellow head virus(YHV) Nucleic acid Detection Kit(Freeze-dried/RT-qPCR Method)V2.0	48T/24T
17	Taura syndrome virus(TSV) Nucleic acid Detection Kit(Freeze-dried/RT-qPCR Method) V2.0	48T/24T
18	Infectious myonecrosis virus(IMNV)Nucleic acid Detection Kit(Freeze-dried/RT-qPCR Method)V2.0	48T/24T
19	Covert mortality noda virus(CMNV)Nucleic acid Detection Kit(Freeze-dried/RT-qPCR Method)V2.0	48T/24T
20	Macrobrachium rosenbergii Noda virus (MrNV) Nucleic acid Detection Kit(Freeze-dried/RT-qPCR Method)V2.0	48T/24T
21	Gill-associated virus(GAV)Nucleic acid Detection Kit(Freeze-dried/RT-qPCR Method)V2.0	48T/24T
.2 Nuc	cleic acid Detection Ki for fish	
NO.	Kit name	Packing Unit
1	Infectious spleen and kidney necrosis virus (ISKNV) Nucleic acid Detection Kit (Freeze-dried/qPCR Method) V2.0	48T/24T
2	Grouper irido virus(GIV)Nucleic acid Detection Kit(Freeze-dried/qPCR Method) V2.0	48T/24T
3	Rnaa virus (RAV) Nucleic acid Detection Kit(Freeze-dried/qPCR Method) V2.0	48T/24T
4	Red-spotted grouper nervous necrosis virus (RGNNV) Nucleic acid Detection Kit (Freeze-dried/RT-qPCR Method) V2.0	48T/24T
5	Siniper cachuatsi rhabdo virus (SCRV) Nucleic acid Detection Kit(Freeze-dried/RT-qPCR Method)V2.0	48T/24T

5.3 Nucleic acid Detection Ki for Babylonia areolata		
NO.	Kit name	Packing Unit
1	Vibrio harveyi(VH)Nucleic acid Detection Kit(Freeze-dried/qPCR Method)V2.0	48T/24T
2	Vibrio Parahaemolyticus (Vpa) Nucleic acid Detection Kit(Freeze-dried/qPCR Method)V2.0	48T/24T
3	16s rRNA genes of bacteria and recA genes of vibrio (BNV)Nucleic acid Detection	48T/24T
	Kit(Freeze-dried/qPCR Method)V2.0	
5.4 Nu	cleic acid extraction kit	
NO.	Kit name	Packing Unit
1	Aquatic animal pathogens nucleic acid extraction kit (centrifugal column method) V2.0	50T
2	Aquatic animal feces DNA extraction kit (centrifugal column method)	50T
3	Aquatic animal feces RNA extraction kit(centrifugal column method)	50T

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