



ICAR-CIBA - a nodal R&D agency working in brackishwater aquaculture for the past three decades with a vision of environmentally sustainable, economically viable and socially acceptable aquaculture technologies, system interventions, technology backstopping and policy inputs by the institute, contributing to economic benefits of the sector which has already recorded annual export revenue of 20,000 crores apart from domestic consumption.

Enterocytozoon hepatopenaei (EHP)

NESTED PCR KIT

ICAR-CIBA

Hepatopancreatic microsporidiosis of cultivated shrimp caused by *Enterocytozoon hepatopenaei* (EHP) is an emerging microsporidian parasitic disease in many Southeast Asian countries including India with considerable economic loss to the aquaculture sector at present. The EHP microsporidia can infect the tubule epithelial cells of the hepatopancreatic tissue causing severe growth retardation and/or white faeces syndromes in farmed shrimp. Spreading of EHP is very rapid mainly by horizontal route in rearing ponds due to prolific multiplication of spores which are released in abundance through faecal material. Fast and accurate detection of EHP is extremely important to ensure biosecurity in shrimp hatcheries and farms. ICAR-CIBA has developed a molecular based nested PCR kit for detection of EHP.

Features of ICAR-CIBA EHP Nested PCR Kit

- Suitable for non-lethal screening of broodstock using faecal sample
- Suitable for screening post-larvae and hepatopancreas of grow- out shrimp
- Detects as low as 10 EHP copy numbers
- First and second step PCR format
- In-built internal control amplification system
- Highly sensitive and cost effective kit



EHP Nested PCR Kit

- It is a ready-to-use screening tool for the detection of *Enterocytozoon hepatopenaei* in shrimp
- The kit contains primers and reagent mix for the specific amplification of 18s RNA gene
- An in-built internal control amplification system using a house keeping gene
- Suitable for screening of whole post larvae, hepatopancreas of grow-out shrimp
- Suitable for non-lethal screening of broodstock using faecal sample
- Cost effective and sensitive with detection limit of 10 copies



Who are the potential customers for EHP-PCR Kit?

- ◆ PCR testing laboratories in aquaculture
- ◆ Shrimp hatcheries in India and overseas
- ◆ Department of Fisheries of state governments
- ◆ Teaching and R&D institutions of state and central Governments

Support services offered

- Detailed project report
- Advisory services to establish production facility
- Sourcing machineries and chemicals
- Transfer of technology on non-exclusive basis
- Training on sample collection, processing and operation in aquaculture system

“Brackishwater aquaculture for food, employment and prosperity”

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