

***Aeromonas jandaei* and *Aeromonas veronii* caused disease and mortality in Nile tilapia, *Oreochromis niloticus* (L.)**

H T Dong¹, P Khunrae¹, T Rattanarojpong¹ and S Senapin^{2,3}

¹ Department Microbiology, Faculty of Science, King Mongkut's University of Technology Thonburi (KMUTT), Bangkok, Thailand

² Center of Excellence for Shrimp Molecular Biology and Biotechnology (Centex Shrimp), Faculty of Science, Mahidol University, Bangkok, Thailand

³ National Center for Genetic Engineering and Biotechnology (BIOTEC), National Science and Technology Development Agency, Pathum Thani, Thailand

*Corresponding author's e-mail : saengchan@biotec.or.th and triwit.rat@kmutt.ac.th

Abstract :

Motile *Aeromonas* species were known as a major cause of fish disease. *Aeromonas* species are commonly bacteria in aquatic environment. *A. hydrophila* is known as a major etiological agent of enteric pathogen in fish and aquaculture animal and identified as an danger species in Thailand for a long times while other species was overlooked. Here, we identified two isolates of Non - *A. hydrophila* mainly recovered from diseased Nile Tilapia exhibiting histopathology resemble to that *A. hydrophila* infected fish from commercial farm. These 2 stains were identified as *A. jandaei* and *A. varonii* base on 16s rDNA and phenotypic feature, respectively. From the challenging experiment, it revealed that challenging the fish with 3.7×10^6 CFU of *A. jandaei* and 2.9×10^6 CFU of *A. varonii* caused the mortality rate of 100% after challenging 24 h without any clinical signs. From the histological examination of death fish revealed the hemorrhagic of internal organ after challenging. The mortality rate of the challenged fish was reduced according to the dose of bacterial challenging. The survival challenged fish could resist to these two bacteria with the dramatic reduction of the mortality rate to 0%-12% despite challenging with 3.7×10^6 CFU of *A. jandaei* and 8.9×10^6 CFU of *A. varonii*

Keywords: 16s rDNA, *A. jandaei*, *A. varonii*, *A. hydrophila*