

**THE EFFECT OF VACCIN OUTER MEMBRANE PROTEIN
Aeromonas hydrophila ON HISTOPATHOLOGICAL FEATURES
OF NILE TILAPIA (*Oreochromis niloticus*)
SKIN**

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ABSTRACT

Nile Tilapia Fish (*Oreochromis niloticus*) is a freshwater fish that grows fast and easy to be cultured. One of the difficulties in culturing Nile tilapia fish is the infection of *Aeromonas hydrophila* that causing *Motile Aeromonas Septicemia* (MAS) disease. This study aimed to determine the effect of vaccination *Outer membrane protein Aeromonas hydrophila* on histopathological features of Nile tilapia (*Oreochromis niloticus*) skin. This study used 20 Nile Tilapia fish with 10-12 cm in length and divided into 4 treatments and 5 repetitions which are P0(-) (not vaccinated and not infected), P0(+) (not vaccinated and infected), P1 (vaccinated with whole cell vaccine 1333"*HydroVac*®" and infected), P2 (vaccinated with outer membrane protein 52 kDa and infected) by intramuscular injection. Histopathological observations included all parts of the skin with edema, inflammatory cell infiltration and ulcer which would then be analyzed using the *Kruskal Wallis* test, if there were significant differences ($p < 0.05$) between treatments. The results of the study show that the level of damage to treatment P2 is lower than P0 (+) and P1. This shows that P2 is effective in reducing damage to the skin of Nile tilapia

Keywords: Outer membrane protein, *Aeromonas hydrophila*, Nile tilapia, skin histopathology.