

عنوان مقاله:

An inactivated infectious pancreatic necrosis virus immersion vaccine used in rainbow trout (*Oncorhynchus mykiss*) (Walbaum, 1792) and the effect of Montanide IMS 1312 VG as adjuvant on the vaccine efficacy

محل انتشار:

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خلاصه مقاله:

Since infectious pancreatic necrosis virus (IPNV) is the most predominant strain causing fatal viral disease in Iranian fish farms, an inactivated vaccine for this fatal pathogen was developed. Additionally, the effect of the above-mentioned vaccine was investigated against IPNV using Montanide 1312 VG adjuvant. Two hundred and forty healthy fish with an average weight of 3.00 ± 0.45 g were vaccinated using immersion method with ethylene amine-inactivated IPN vaccine in combination with Montanide IMS 1312 VG for 5 min at $11 \pm 1^\circ\text{C}$. The control group was vaccinated with sterile phosphate-buffered saline. The immersed vaccine with Montanide IMS 1312 VG adjuvant increased the expression of immune system genes such as IgM, MX, and CD8 within 30 days of vaccination period. The expression of IgM, Mx ($P < 0.05$) and CD8 ($P > 0.05$) genes was higher for the vaccine containing 10g of Montanide than that of 50g of Montanide. In fish vaccinated with the adjuvant, the relative percent survival was notably higher than of fish vaccinated without the adjuvant and the control group. Results showed that the ethylene amine-inactivated IPNV vaccine by the immersion method with Montanide IMS 1312 VG significantly has a strong protective immunity against IPNV in rainbow trout.

کلمات کلیدی:

Infectious pancreatic necrosis virus, Rainbow trout, Immersion vaccine, Montanide IMS 1312 VG

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