Comparative protection of two different commercial vaccines against Yersinia ruckeri serotype O1 and biotype 2 in rainbow trout (Oncorhynchus mykiss) - DTU Orbit (07/12/2018)

Comparative protection of two different commercial vaccines against Yersinia ruckeri serotype O1 and biotype 2 in rainbow trout (Oncorhynchus mykiss)

Differentially extended specific protection by two commercial vaccines against Yersinia ruckeri serotype O1 biotype 2 was studied following 30s immersion exposure. Rainbow trout were challenged intra-peritoneally (i.p.) with Y. ruckeri serotype O1, biotype 2 (≈10^6 to 10^7CFU/fish) at 4, 6 and 8 months after vaccination with vaccines containing either biotype 1 (AquaVac® ERM) or both biotypes 1 and 2 (AquaVac® RELERA™). The specific pattern of vaccine-mediated protection was evaluated by relative percentage survival (RPS) analysis at 4 and 6 months post-vaccination and by obtaining gross pathological observations at 4 and 8 months respectively. We determined specific significant and superior protection in terms of increased survivability in AquaVac® RELERA™ vaccinated fish and observed correspondingly fewer pathological changes. The challenge trials indicated a longer protection for at least 6 months without any booster vaccination. A specific and adaptive response induced by AquaVac® RELERA™ vaccine against Y. ruckeri biotype 2 was clearly indicated. In addition, some degree of cross protection rendered by AquaVac® ERM containing biotype 1 during infection with Y. ruckeri biotype 2 was also noted.

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