CLAIMS

1. A nucleic acid sequence that encodes SEQ ID NO: 6 or 50 or an amino acid sequence that is at least 95% identical to SEQ ID NO: 6 or SEQ ID NO: 50 wherein said nucleic acid sequence is 65-90% identical to SEQ ID NO: 18 or 65-90% identical to SEQ ID NO: 19, and wherein codon frequency is preserved in said nucleic acid sequence.

2. The nucleic acid sequence according to claim 1, wherein said nucleic acid sequence is 70-79% identical to SEQ ID NO: 18 or SEQ ID NO: 19.

3. The nucleic acid sequence according to claim 1, wherein said amino acid sequence is at least 98% identical to SEQ ID NO: 6 or SEQ ID NO: 50.

4. The nucleic acid sequence according to claim 1, wherein at least 50% of amino acids differing from SEQ ID NO: 6 or SEQ ID NO: 50 are conservative substitutions.

5. The nucleic acid sequence according to claim 1, that is at least 95% identical to SEQ ID NO: 20 or SEQ ID NO: 17.

6. An expression cassette comprising the nucleic acid sequence according to claim 1 under operative control of a second promoter.

7. The expression cassette of claim 6 further comprising a nucleic acid sequence encoding an antigen.

8. The expression cassette of claim 7, wherein the antigen comprises a structural protein of a non-enveloped virus or a portion of said structural protein, said portion capable of eliciting protective immune response.

9. The expression cassette of claim 8, wherein said antigen is expressed as a fusion protein, comprising:

a)N-terminal secretion signal sequence of a secreted or a first membrane-bound protein upstream of the amino acid sequence of said antigen;

b) a transmembrane domain of a second membrane-bound protein downstream of the amino acid sequence of said antigen;

10. The expression cassette of claim 9, wherein said first and second proteins are independently selected from the group consisting of Atlantic salmon paramyxovirus fusion protein, Hemagglutinin (HE) protein of Infectious salmon anemia virus (ISAV) and viral hemorrhagic septicemia virus G-protein (VHSV-G).

11. The expression cassette of claim 9 wherein the first membrane-bound protein is identical to the second membrane-bound protein.

12. The expression cassette of claim 11, wherein said N-terminal secretion signal sequence is at least 90% identical to SEQ ID NO: 7 or 48, or wherein said secretion signal sequence comprises a portion of SEQ ID NO: 48 or a sequence at least 90% identical to SEQ ID NO: 48, wherein said portion comprises SEQ ID NO: 7 or a sequence that is at least 90% identical to SEQ ID NO: 7.

13. The expression cassette of claim 8, wherein said structural protein is a capsid protein.

14. The expression cassette of claim 8-13, wherein said non-enveloped virus is Piscine Myocarditis Virus (PMCV).

15. The expression cassette according to claim 7 wherein said antigen comprises a protein from midgut of a sea louse or a fragment thereof, wherein said fragment is at least 90% identical to SEQ ID NO: 21.

16. A vaccine comprising the expression cassette according to any one of claims 7-15.

17. A vaccine comprising the expression cassette according to claim 6, and further comprising an antigen.

18. Use of the vaccine according to claim 16 or 17 for vaccinating a salmonid against an infection.

19. The method of claim 18, wherein said salmonid is *Salmo salar.*