Claims

1. A live recombinant Koi herpesvirus (KHV) in which Open Reading Frame 57 (ORF57) is deficient, resulting in a live recombinant KHV which is attenuated.

2 A live recombinant Koi herpesvirus according to claim 1, characterised in that is deficient in at least one additional gene which contributes to virulence, but is not essential for replication.

3 A live recombinant Koi herpesvirus according to claim 2, characterised in that said at least one additional gene is selected from the group consisting of thymidine kinase gene, ORF12: putative tumor necrosis factor (TNF) receptor gene, ORF16: putative G-protein coupled receptor (GPCR) gene, ORF134: putative Interleukin 10 homologue gene and ORF140: putative thymidylate kinase gene.

~~4. A recombinant Koi herpesvirus according to any of claims 1-3, characterised in that said herpesvirus is in a live form.~~

~~5. A recombinant Koi herpesvirus according to any of claims 1-3, characterised in that said herpesvirus is in a non-replicative form.~~

~~6~~4. A live recombinant Koi herpesvirus according to any of claims 1-~~5~~3, comprising a BAC (bacterial artificial chromosome) vector sequence.

~~7~~5. A live recombinant Koi herpesvirus according to claim ~~6~~4, characterised in that the BAC vector sequence is excised from the herpesvirus genome thereby leaving a heterologous DNA fragment at the excision site or former insertion site, respectively, in the herpesvirus genome.

~~8~~6. A live recombinant Koi herpesvirus according to any of claims 1-~~7~~5, characterised in that it further comprises a heterologous DNA fragment.

~~9~~7. A live recombinant Koi herpesvirus according to claim ~~8~~6, characterised in that the heterologous gene is a gene encoding the G glycoprotein of rhabdovirus causing carp spring viraemia.

~~10~~8. A live recombinant Koi herpesvirus according to any of claims 1-~~9~~7, for use as a vector for a heterologous DNA fragment.

~~11~~9. A cell comprising the recombinant Koi herpesvirus according to any of claims 1-~~10~~8.

~~12~~10. A method for the production of infectious particles of recombinant Koi herpesvirus (KHV), wherein said method comprises the steps of
(a) introducing a live recombinant KHV according to any of claims 1-~~9~~7 or a recombinant KHV DNA comprising the genome of a recombinant Koi herpesvirus according to any of claims 1-~~9~~7 into permissive eukaryotic cells; and
(b) culturing said cell to produce recombinant Koi herpesvirus (KHV).

~~13~~11. A live recombinant Koi herpesvirus according to any of claims 1-~~9~~7 and/or a recombinant KHV DNA comprising the genome of a recombinant Koi herpesvirus according to any of claims 1-~~9~~7, for use in a vaccine for the prevention and/or therapeutic treatment of a disease in fish caused by Koi herpesvirus (KHV).

~~14~~12. A vaccine for the prevention and/or therapeutic treatment of a disease in fish caused by Koi herpesvirus (KHV), characterised in that said vaccine comprises a live recombinant Koi herpesvirus according to any of claims 1-~~9~~7 and/or a recombinant KHV DNA comprising the genome of the recombinant Koi herpesvirus according to any of claims 1-~~9~~7, and a pharmaceutically acceptable carrier.

~~15~~13. A vaccine for the prevention and/or therapeutic treatment of a disease in fish caused by rhabdovirus causing carp spring viraemia, characterised in that said vaccine comprises a live recombinant Koi herpesvirus according to claim ~~9~~7 and/or a recombinant KHV DNA comprising the genome of the recombinant Koi herpesvirus according to claim ~~9~~7, and a pharmaceutically acceptable carrier.