14. An immunogenic composition comprising recombinant MV particles according to claim 12, which optionally does not comprise an accessory adjuvant.

15. The immunogenic composition according to claim 13 or 14, wherein said composition is formulated for an administration through parenteral route such as subcutaneous (s.c.), intradermal (i.d.), intramuscular (i.m.), intraperitoneal (i.p.) or intravenous (i.v.) injection.

16. The immunogenic composition according to any one of claims 13 to 15, wherein said composition is administered in one or multiple administration dose(s), in particular in a prime-boost administration regime.

17. A method to prevent and/or treat a dengue virus infection in a human subject comprising administering a pharmaceutically effective quantity of recombinant MV particles according to claim 12 or an immunogenic composition according to claim 13, wherein said particles or composition are in admixture with a pharmaceutically acceptable vehicle; and/or an adjuvant.

18. A method to produce recombinant MV particles for the preparation of an anti-dengue virus vaccine, comprising or consisting of:

a) transfecting a recombinant MV genome vector according to any one of claims 7 to 9, in a helper cell line which expresses the T7 RNA polymerase and the N, P and L proteins of MV;

b) transferring said helper cell line onto cells competent to sustain the replication and production of recombinant MV particles expressing a chimeric polyepitope according to any one of claims 1 to 3 and optionally a polypeptide comprising a tetravalent DENV antigen composed of the fusion of the EDIII polypeptides of the four serotypes, fused to ectoM of DENV1, in particular DENV antigens having the sequence of SEQ ID NO: 145 and;

c) recovering the recombinant MV particles produced in step b).

19. The method according to claim 18, wherein said competent cells in step b) are Vero (African green monkey kidney) cells, CEF (chick embryo fibroblast) cells or MRC5 cells.

14. An immunogenic composition comprising recombinant MV particles according to claim 12, which optionally does not comprise an accessory adjuvant.

15. The immunogenic composition according to claim 13 or 14, wherein said composition is formulated for an administration through parenteral route such as subcutaneous (s.c.), intradermal (i.d.), intramuscular (i.m.), intraperitoneal (i.p.) or intravenous (i.v.) injection.

16. The immunogenic composition according to any one of claims 13 to 15, wherein said composition is administered in one or multiple administration dose(s), in particular in a prime-boost administration regime.

17. The use of the recombinant MV particles according to claim 12 or the immunogenic composition according to claim 13, in the manufacture of a medicament for the prevention and/or treatment of a dengue virus infection in a human subject.

18. A method to produce recombinant MV particles for the preparation of an anti-dengue virus vaccine, comprising or consisting of:

a) transfecting a recombinant MV genome vector according to any one of claims 7 to 9, in a helper cell line which expresses the T7 RNA polymerase and the N, P and L proteins of MV;

b) transferring said helper cell line onto cells competent to sustain the replication and production of recombinant MV particles expressing a chimeric polyepitope according to any one of claims 1 to 3 and optionally a polypeptide comprising a tetravalent DENV antigen composed of the fusion of the EDIII polypeptides of the four serotypes, fused to ectoM of DENV1, in particular DENV antigens having the sequence of SEQ ID NO: 145 and;

c) recovering the recombinant MV particles produced in step b).

19. The method according to claim 18, wherein said competent cells in step b) are Vero (African green monkey kidney) cells, CEF (chick embryo fibroblast) cells or MRC5 cells.