CLAIMS

1. A virus like particle comprising a flavivirus envelope protein, wherein said envelope protein comprises an amino acid substitution at position 108 of SEQ ID NO: 20, or at a position determined as corresponding to position 108 of SEQ ID NO: 20 by alignment.

2. The virus like particle according to claim 1, wherein the flavivirus is West Nile virus, dengue virus, tick-borne encephalitis virus, yellow fever virus, or Japanese encephalitis virus.

3. The virus like particle according to claim 2, wherein said flavivirus is dengue virus.

4. The virus like particle according to claim 1, wherein said virus like particle is produced from a dengue virus structural protein comprising prM and envelope regions.

5. The virus like particle according to claim 4, wherein said structural protein comprises the amino acid sequence of residues 16-676 of an amino acid sequence selected from the group consisting of SEQ ID NOs: 2, 4, 8, 10, 14 and 16.

6. The virus like particle according to claim 4, wherein said structural protein is a protein consisting of an amino acid sequence selected from the group consisting of SEQ ID NOs: 2, 4, 8, 10, 14 and 16.

7. A composition comprising the virus like particle according to claim 1 and a pharmaceutically acceptable carrier.

8. The composition according to claim 7 for treating or preventing a disease or condition caused by flavivirus infection.

9. Use of the composition according to claim 7 in the manufacture of a medicament for treating or preventing a disease or condition caused by flavivirus infection.

10. A method of producing a virus like particle, comprising culturing a cell which is transfected with a polynucleotide encoding the envelope protein contained in the virus like particle according to claim 1; and recovering the virus like particle from the cell culture.

11. The virus like particle according to claim 1, wherein said virus like particle further comprises a prM protein.

12. The virus like particle according to claim 1, wherein said envelope protein further comprises an amino acid substitution at position 203 of SEQ ID NO: 20, or at a position determined as corresponding to position 203 of SEQ ID NO: 20 by alignment.

13. The virus like particle according to claim 1, wherein said envelope protein further comprises an amino acid substitution at position 246 of SEQ ID NO: 20, or at a position determined as corresponding to position 246 of SEQ ID NO: 20 by alignment.

14. The virus like particle according to claim 1, wherein the substitution at position 108, or at the position corresponding to position 108, is the substitution of phenylalanine with alanine.

15. The virus like particle according to claim 12, wherein the substitution at position 203, or at the position corresponding to position 203, is the substitution of lysine with asparagine.

16. The virus like particle according to claim 13, wherein the substitution at position 246, or at the position corresponding to position 246, is the substitution of lysine with methionine.