Claims

1. A dengue virus vaccine comprising a composition containing at least one amino acid sequence that comprises one of SEQ ID NOs: 2, 3, 13 and 14 or a sequence that differs by no more than one amino acid from SEQ ID NO: 2 ,3, 11, 12, 13 or 14, wherein said amino acid sequence binds to class I MHC .

2. A dengue virus vaccine comprising a polynucleotide sequence that encodes a polypeptide sequence that has at least 95% sequence identity to an amino acid sequence that comprises one of SEQ ID NOs: 2, 3, 11, 12, 13 and 14, wherein said amino acid sequence binds to class I MHC molecules.

3. The dengue virus vaccine of claim 1 or 2, further comprising a pharmaceutically acceptable carrier.

4. The dengue virus vaccine of claim 3 wherein the pharmaceutically acceptable carrier is an adjuvant.

5. The dengue virus vaccine of claim 1 wherein said composition is a peptide, oligopeptide, or polypeptide containing said amino acid sequence.

6. The dengue virus vaccine of claim 5 wherein said composition contains said amino acid sequence obtained from a fragmented and processed peptide, oligopeptide, or polypeptide.

7. The dengue virus vaccine of claim 1 where the one amino acid difference is a conservative amino acid substitution.

8. The dengue virus vaccine of claim 7 where the conservative amino acid substitution is a substitution of one hydrophobic amino acid with another hydrophobic amino acid.

9. The dengue virus vaccine of any one of the preceding claims for use in a method for prophylaxis or treatment of dengue virus infection in a subject, the method comprising administering to the subject a therapeutically effective amount of the dengue virus vaccine.

10. The dengue virus vaccine of claim 9, wherein administration of the dengue virus vaccine induces a cytotoxic T lymphocyte-mediated immune response.

11. The dengue virus vaccine of claim 10 wherein said cytotoxic T lymphocyte-mediated immune response is against at least one serotype specific dengue virus infection.

12. The dengue virus vaccine of claim 11 wherein said cytotoxic T lymphocyte-mediated immune response is against serotype specific dengue virus infections from a group consisting of serotype 1, 2, 3, 4, and combinations thereof.

13. The dengue virus vaccine of claim 12 wherein said cytotoxic T lymphocyte-mediated immune response is against serotypes 1, 2, 3, and 4.