Claims

1. A dengue virus vaccine comprising a composition containing at least one amino acid sequence that consists of the amino acid sequence set forth in SEQ ID NO: 2 or SEQ ID NO: 3, or a sequence that differs from SEQ ID NO: 2 or 3 by no more than one conservative amino acid substitution, 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 consists of SEQ ID NO: 2 or SEQ ID NO: 3, 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, wherein the conservative amino acid substitution is a substitution of one hydrophobic amino acid with another hydrophobic amino acid.

8. The dengue virus vaccine of any one of the preceding claims for use in prophylaxis or treatment of dengue virus infection in a subject, wherein the vaccine is to be administered to the subject in a therapeutically effective amount.

9. The dengue virus vaccine of claim 8, wherein the dengue virus vaccine is to be administered to induce a cytotoxic T lymphocyte-mediated immune response.

10. The dengue virus vaccine of claim 9, wherein said cytotoxic T lymphocyte-mediated immune response is against at least one serotype specific dengue virus infection.

11. The dengue virus vaccine of claim 10, 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.

12. The dengue virus vaccine of claim 11, wherein said cytotoxic T lymphocyte-mediated immune response is against serotypes 1, 2, 3, and 4.