

**ABSTRACT**

The present invention relates to five synthetic peptides of pre-M/M protein of Dengue-2 virus, corresponding to amino acid sequences 3-31, 45-67, 57-92, 69-93 and 103-124. The anti-peptide immune response was evaluated in mice. Recombinant fusion proteins were also obtained, including regions of pre-M/M protein. The presence of B cell epitopes in both mice and humans was demonstrated in the pre-M/M protein peptides. Peptides 3-31 and 103-124 elicited neutralizing antibodies against the four serotypes of Dengue virus. Virus-specific proliferative responses were demonstrated in mice immunized with non-conjugated peptides 3-31 and 57-92. Mice immunized with conjugated peptides 3-31, 57-92, and 69-93 were protected when they were challenged with Dengue-2 virus. Thus, the presence of sequential epitopes in Pre-M/M protein of Dengue-2 virus was demonstrated, as well as their relevance in the immune response against this flavivirus.