

Abstract

A nucleic acid molecule containing nucleotide sequences that encode the capsid protein, pre-membrane protein and non-
5 structural protein of Japanese encephalitis virus, and a nucleotide sequence that encodes the envelop protein of a second flavivirus, wherein the nucleotide sequence(s) that encode(s) the pre-membrane protein and/or non-structural protein of Japanese encephalitis virus contain(s) nucleotide
10 mutations that produce one or more amino acid mutations that attenuate the virus.