

Finding of B cell epitope within polyprotein of Japanese encephalitis virus: a clue for development of new Japanese encephalitis vaccine

Chado de epitoto da célula B poliproteína da encefalite viral japonesa: uma pista para o desenvolvimento de uma nova vacina para a encefalite japonesa

Sir, Japanese encephalitis is an important viral neurological infection. This viral infection can result in several neuropsychiatric manifestations^{1,2}. The most effective method for the control of this viral infection in the present is the use of vaccination. There are many kinds of available vaccines including inactivated mouse brain derived, inactivated cell culture derived and cell culture derived live attenuated JE vaccine³. However, the limitation of those vaccines is reported by several authors^{3,4,5}. Saxena and Dhole noted that the new advanced biotechnology could be applied in searching for new effective Japanese encephalitis vaccine³. An important focus proposed by the vaccine experts is to find one vaccine that can promote B cell activity⁶. Here, the authors report

the use of advanced bioinformatics technique to find the ideal cell epitope within polyprotein of Japanese encephalitis virus. For this purpose, the used technique is ABCpred Prediction⁷, the same described in previous studies^{8,9}. The protein template in this study is “polyprotein [Japanese encephalitis virus]” (ACCESSION ABU94628). According to this study, the best identified peptide with the highest B cell epitope activity is 749GMSWITQGLMGALLLW following by 477YGEVTLDCPEPRGLNT. It is possible that the derived information from these studies can be useful for further development of new Japanese encephalitis vaccine.

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