21/11/2025, 11:23   View of Peptide vaccine prediction against Hepatitis-C virus causing hepatocellular cancer using immunoinformatics approach

Peptide vaccine prediction against Hepatitis-C virus causing hepatocellular cancer using immunoinformatics a

Original Article

Peptide vaccine prediction against Hepatitis-C v hepatocellular cancer using immunoinformatics

Afrin Yasmin[*1]

[1] Department of Biotechnology, Assam University, Silchar
[*]Corresponding author email: yasafrinl@gmail.com

Abstract: The prime objective of this study is to predict peptide HCV that might be a part of combination therapy. We used bioi the T cell and B cell epitopes having high antigenicity from the env HCV. For the analysis, HLA-A1, HLA-A*01:01, HLA-A3, HLA-B*27 B8, HLA-Cw*0702, HLA-DRB1*1101, HLA-DRB1*03:01, DRB1*04 selected for the prediction of T cell epitopes. Consequently, potent protein were predicted *i.e.,* ALYVGMCGA, VNYRNVSGIY, GAA Likewise, T cell peptide epitopes having potential to bind with I identified *i.e.,* AWAKVVVIL, VRYVGATTA, VAPTLAVRY, AVKWEYVVL and WEYVVLLFL. Further, T cell epitope capab molecule was identified *i.e.,* VAIIMVMFS, LVLAQVMRI VVASATLCS, LLADARVCA, IQLINTNGS, LQLINTNGS and V potential candidates for design of vaccine.

Keywords: Hepatitis C virus; Peptide Epitopes; Vaccine predictio

1. Introduction