9.6 Conclusion

ORF1ab polyprotein of Novel corona virus (Wuhan Isolate 2019) was annotated further in the current research. Antigenic sites within the protein were predicted using EMBOSS ANTGENIC and were further validated by PVS (Protein variability Server). The regions showing variability are collected and subjected for further analysis. Results of the above tools were summarized to finalize a peptide with highest antigenic propensity. The peptide sequence was further annotated using Protparam to understand the physicochemical properties of the protein. Argus Lab was used to build the 3D structure of the peptide and the energy was calculated to be 2523.94 kcal/mol. The study concludes that the selected peptide is a good vaccine candidate to activate the immune response in the healthy individuals.

The work is completely based on in silico analysis, hence further laboratory study and validation is necessary before testing the efficacy of the peptide as vaccine.

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