



Research Article



Molecular Docking of HIV-1 Protease using Alkaloids from *Tinospora cordifolia*

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ABSTRACT

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Since three decades of the AIDS pandemic and HIV discovery, the search for the cure has been the major theme and is still on. New advances and setbacks offer important clues in the search for A HIV cure ranging from novel treatment methods to gene therapy. The search for the cure has been extended to natural compounds as they don't have any side effects compared to the drugs. The aim of this work was to find out whether plant alkaloids from *Tinospora cordifolia* exhibits anti-HIV activity using molecular docking studies. The HIV-1 protease was docked by three alkaloids namely; jatrorrhizine, magnoflorine and tinosporide using Igemdock v2.1 software after retrieving the protein structure from the protein data bank. The result shows that all the selected alkaloids had bound to the protease inhibiting its activity. Among them the most promising alkaloid which can be used as a drug was jatrorrhizine due to its low interaction energy for formation ligand-receptor complex.

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