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# A Review of Lenacapavir Act as Caspid Inhibitor

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**Abstract**: *HIV is an infection that targets the immune system of the body, specifically the CD4 cells, which are white blood cells to prevent the spread of the virus by using medications that alter the HIV genome. The rise of drug-resistant viruses has rendered all antiretroviral medications, including emerging drug classes, largely or completely inert. The HIV capsid, a protein shell that protects the virus's genetic material and replication-related enzymes, is the family of inhibitors that lenacapavir belongs to. HIV cannot function correctly in the presence of capsid inhibitors. HIV capsid can be damaged by capsid inhibitors at several stages of the viral life cycle. HIV levels can be lowered and its spread can be halted as a result. It is recommended to use Lenacapavir in combination with other antiretroviral to treat HIV-1 infection in adults with extensive treatment experience who have multidrug-resistant HIV-1 infection and are not responding to their current antiretroviral regimen due to resistance, intolerance, or safety concerns. Metabolic studies, pharmacodynamics, pharmacokinetics, mechanism of action, adverse effects, Pre-clinical studies, Clinical trial are all included in this review article.*

**Keywords**: Lenacapavir, Mechanism of Action, Adverse effects, Clinical Trials



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