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# **Properties and Medical Interaction of Abacavir**

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## **Description**

Abacavir belongs to a class of drugs known as Nucleoside Reverse Transcriptase Inhibitors (NRTIs). It is used in conjunction with other HIV drugs to relief in the control of HIV infection. It aids in the reduction of HIV in your body, allowing your immune system to function more effectively. This reduces your risk of HIV consequences (such as new infections or cancer) while also improving your quality of life.

Both abacavir and lamivudine belong to the Nucleoside Reverse Transcriptase Inhibitor class of medicines. Abacavir treats Human Immunodeficiency Virus (HIV) infections. The virus that causes Acquired Immune Deficiency Syndrome (AIDS) is HIV (AIDS). Abacavir sulphate (300 mg) is found in ziagen pills. You must not use abacavir if the test is positive. If the test is negative, an allergic reaction is unlikely, but you should call your HIV clinic right away. To treat Human Immunodeficiency Virus (HIV) infection, abacavir is used with other drugs.

### Medical interaction of abacavir

Abacavir is not an antiretroviral drug that can be used to treat HIV infection. It's used to lower your chances of infecting others with HIV. Continue to take all HIV drugs according to your doctor's instructions. As advised by your doctor, use an effective barrier method (latex or polyurethane condoms or dental dams) during sexual activity. Do not exchange personal items that have come into contact with blood or other bodily fluids, such as needles and syringes, toothbrushes, and razors. For more information, talk to your doctor or pharmacist. Headaches, nausea, diarrhoea, dizziness, weariness, or difficulty sleeping are all possible side effects.

As your immune system strengthens, it may be able to fight off previous infections, leading to disease symptoms resurfacing. If your immune system becomes overactive, you may have symptoms. The reaction could occur at any time (soon after starting HIV treatment or many months later). Unexpected weight loss, severe exhaustion, muscular aches and weakness that doesn't go away, severe or recurrent headaches, joint pain, numbness/tingling of the hands/feet/

arms/legs, visual problems, and evidence of infection are all dangerous symptoms (such as fever, chills, swollen lymph nodes, trouble breathing, cough, non-healing skin sores), irritability, nervousness, heat intolerance, fast/pounding/irregular heartbeat, bulging eyes, odd development in the neck/thyroid known as a goitre), and indications of guillain-barre syndrome (unsteadiness, loss of coordination, difficulties swallowing/ speaking/chewing, trouble moving your eyes). Changes in mental or emotional state (such as depression or anxiety), easy bruising or bleeding, and symptoms of anemia (such as unusual tiredness, fast breathing, pale skin, fast heartbeat).

#### **Action mechanism**

During reverse transcription, abacavir is phosphorylated intracellularly to carbovir triphosphate, which is integrated into HIV DNA. Because carbovir triphosphate lacks a 3'-OH group, chain termination occurs.

High levels of triglycerides in the blood, increased blood acidity due to high amounts of lactic acid, are all contraindications of using abacavir. Coronary artery disease, also known as carotid artery disease, causes problems with the liver. Hepatitis (A, B, C, D, E, F, G, H) a patient who is lactating and producing milk with HLA-B positive gene status has pancreatitis. Abacavir is a reverse transcriptase inhibitor that stops viruses from replicating. It's a phosphorylated guanosine analogue that turns into Carbovir Triphosphate (CBV-TP). CBV-TP is integrated into the viral DNA and competes with viral components. In 3.7 percent of patients, a hypersensitivity reaction develops after starting abacavir medication as part of combination antiretroviral therapy. The reaction could be the result of a poorly understood combination medication metabolism altered and immunological malfunction.

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