

# Abacavir hypersensitivity screening

## FACT SHEET

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### Summary

Abacavir hypersensitivity screening can help to identify people who are at high risk for a serious adverse reaction to the anti-HIV drug abacavir (Ziagen, ABC) or any drug containing abacavir. This test is meant to be used in people living with HIV who have never been exposed to abacavir. If the test is positive, you should **not** use abacavir or any drug containing abacavir. If the test is negative, there is a relatively low risk that you will have a reaction to abacavir, although a reaction is still possible. If you take abacavir or any drug containing abacavir, it is important for you to know how to recognize the symptoms of a hypersensitivity reaction.

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### What is abacavir?

Abacavir (Ziagen, ABC) is a nucleoside analogue commonly used as part of combination therapy for HIV. Abacavir is also found in the following medicines:

- Kivexa—which contains two anti-HIV drugs in one tablet: abacavir and 3TC (lamivudine)
- Trizivir—which contains three anti-HIV drugs in one tablet: abacavir, 3TC and AZT (Retrovir, zidovudine)
- Triumeq—which contains three anti-HIV drugs in one tablet: abacavir, 3TC and dolutegravir (Tivicay)

### Symptoms of abacavir hypersensitivity

In up to 8% of people with HIV who use abacavir, an exaggerated reaction against abacavir by the immune system—abacavir hypersensitivity—can occur. This reaction is very serious and can be fatal.

Although the hypersensitivity reaction can occur at any time while a person is taking abacavir, on average it occurs within the first six weeks of use.

The manufacturer, ViiV Healthcare, states that you should stop using abacavir if you have signs or symptoms from two or more of the following groups:

1. Fever
2. Rash
3. Gastrointestinal symptoms (including nausea, vomiting, diarrhea or belly pain)
4. General symptoms (including fatigue, lack of energy, achiness)
5. Respiratory symptoms (sore throat, shortness of breath, cough, unusual findings on X-rays of the chest)

If you develop symptoms from two or more of these groups while you are taking abacavir or any drug containing abacavir, you should stop taking this medicine and contact your doctor right away. If a hypersensitivity reaction to abacavir has indeed occurred, then abacavir should **never** be restarted, as a fatal reaction could occur within hours. You should also never take any other drug that contains abacavir.

### What is abacavir hypersensitivity screening?

Abacavir has been available since the late 1990s. Several years ago, a screening tool for abacavir hypersensitivity became available in most HIV clinics in Canada.

The likelihood of developing hypersensitivity to abacavir can now be assessed with a simple blood test. This test is meant to be used in people living with HIV who have never previously been exposed to abacavir. The test should not be used in people with HIV who have received a diagnosis of abacavir hypersensitivity reaction in the past.

A small sample of blood is drawn and sent to a lab. The test checks for the presence of specific genetic material, called HLA-B\*5701, which has been associated with the abacavir hypersensitivity reaction.

### What the test results mean

The results of the blood test are sent to the physician's office after two or three weeks. The results can be negative or positive:

- **Negative**—This does not mean that you will never get a hypersensitivity reaction. But it does mean that you are at a relatively low risk (less than 1%) of developing an abacavir hypersensitivity reaction should your doctor prescribe abacavir.
- **Positive**—There is a high risk of having a hypersensitivity reaction to abacavir and you should **not** use this drug or any other drug that contains abacavir.

The availability of this test should greatly reduce the concerns of both doctors and their patients when the use of abacavir is being discussed. However, education about the symptoms of the hypersensitivity reaction remains important in the unlikely case that there is a reaction.

### Genes and abacavir hypersensitivity screening

When abacavir hypersensitivity testing was introduced, researchers in Australia who pioneered this screening used HIV-positive people whose ancestors were mainly from northwest Europe and found that HLA-B\*5701 (genetic material) was relatively common. However, studies done in the United States, Quebec, Asia and elsewhere have found that abacavir hypersensitivity screening is very useful and works in people from various ethno-racial backgrounds.

### Access to abacavir hypersensitivity screening in Canada

Before using abacavir, it is a very good idea to get screened for abacavir hypersensitivity. Speak to your doctor or nurse about ordering this test.

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