

# Hepatitis Tests

The hepatitis viruses cause viral infection that attacks the liver and can cause both acute and chronic disease. Several different viruses cause hepatitis, including hepatitis A, B, C, D, and E. Wantai BioPharm's diagnostic products can be used to detect the disease.

## Hepatitis C

### HCV

The Hepatitis C (HCV) virus is an envelope, single-stranded positive sense RNA virus – a blood borne virus primarily transmitted by blood transfusion. Hepatitis C can take acute (asymptomatic) and chronic form, with more than 50% of infected individuals developing severe, life threatening chronic Hepatitis with liver cirrhosis and hepatocellular carcinomas. Globally, an estimated 71 million people have chronic Hepatitis C infection.

The first anti-HCV screening tests for blood donations were introduced in 1990. Produced using recombinant proteins complementary to the NS4 region of the virus as antigens, the tests showed limited sensitivity and specificity. Second generation tests showed an improvement in both sensitivity and specificity and included recombinant/synthetic antigens from the Core and non-structural regions NS3 and NS4. Third generation tests include antigens from the NS5 region of the viral genome in addition to NS3, NS4 and the Core.

Wantai BioPharm's ELISA test kits are third generation test kits intended for screening of blood donors and for diagnosing of patients related to infection with Hepatitis C virus.

## ELISA Tests

**AiD™ anti-HCV ELISA** - [View Information Pack](#)

Wantai AiD™ anti-HCV ELISA is an indirect ELISA for detection of antibodies to HCV in a two-step incubation procedure. During incubation, HCV antibodies will be bound to the pre-coated HCV antigens. Anti-human IgG antibodies conjugated to the enzyme HRP are then added. These HRP-conjugated antibodies will bind to any antigen-antibody complexes. By adding chromogen solutions the colourless chromogens are hydrolyzed by the HRP to a blue-coloured product. The intensity of the colour is proportional to the amount of antibodies.

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**AiD™ anti-HCV ELISA Plus** - [View Information Pack](#)

Wantai BioPharm's AiD™ anti-HCV ELISA Plus is used for qualitative detection of antibodies to the Hepatitis C virus (HCV) in human serum or plasma. The kit features BIOTIN amplification resulting in increased sensitivity and specificity. The test is based on the double antigen "sandwich" ELISA principle. This novel method for the testing of HCV antibodies allows detection of very early antibodies, including IgM and IgA in addition to the IgG which is the main target for detection of the previous generation assays.

## Rapid Tests

**HCV-Ab Rapid Test** - [View Information Pack](#)

The HCV-ab Rapid Test detects antibody to the HCV virus and delivers a result in only 15 minutes.



## Confirmation Tests

HCV-Ab Confirmation test - [View Information Pack](#)

Wantai BioPharm confirmation tests are intended for use as supplemental tests for human serum or plasma specimens found to be repeatedly active in HCV and HIV antibody screening procedures. Tests used for the diagnosis of HIV and HCV infection require a high degree of both sensitivity and specificity, which is achieved using an algorithm combining two tests. Once antibodies have been detected by an initial ELISA test, a second supplemental test using the immunoblot procedure is applied and confirms or excludes the results of the initial ELISA test.