



# Goat Anti-Hepatitis C Virus NS3 Polyclonal Antibody, clone H241 (CABT-NS1510)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

Specificity	NS3
Target	HCV NS3
Immunogen	Recombinant HCV NS3
Source/Host	Goat
Species Reactivity	HCV
Conjugate	unconjugated
Applications	ELISA, IF, WB
Format	Liquid
Size	500 µl
Buffer	10 mM Phosphate Buffered Saline, pH 7.2
Preservative	0.1% Sodium Azide
Storage	Short Term: 2-8°C. Long Term: -20°C. Avoid repeated freezing and thawing.

## BACKGROUND

Introduction	The hepatitis C virus (HCV) is a small (55–65 nm in size), enveloped, positive-sense single-stranded RNA virus of the family Flaviviridae. The hepatitis C virus is the cause of hepatitis C and some cancers such as liver cancer (hepatocellular carcinoma, abbreviated HCC) and lymphomas in humans.
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The hepatitis C virus particle consists of a lipid membrane envelope that is 55 to 65 nm in diameter. Two viral envelope glycoproteins, E1 and E2, are embedded in the lipid envelope. They take part in viral attachment and entry into the cell. Within the envelope is an icosahedral core that is 33 to 40 nm in diameter. Inside the core is the RNA material of the virus. E1 and E2 are covalently bonded when embedded in the envelope of HCV and are stabilized by disulfide bonds. E2 is globular and seems to protrude 6 nm out from the envelope membrane according to electron microscope images.

These glycoproteins play an important role in the interactions hepatitis C has with the immune system. A hypervariable region, the hypervariable region 1 (HVR1) can be found on the E2 glycoprotein. HVR1 is flexible and quite accessible to surrounding molecules. HVR1 helps E2 shield the virus from the immune system. It prevents CD81 from latching onto its respective receptor on the virus. In addition, E2 can shield E1 from the immune system. Although HVR1 is quite variable in amino acid sequence, this region has similar chemical, physical, and conformational characteristics across many E2 glycoproteins.

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**Keywords**

HCV; HCV NS3; Hepatitis C Virus nonstructural antigen 3; Non structural protein 3; NS3

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