

## Product datasheet for **AP03072PU-N**

### Hepatitis B Surface Antigen / HBsAg (ad/ay) Goat Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	ELISA
Recommended Dilution:	<b>ELISA:</b> 1/200-1/1000. This antibody may be used as a Capture antibody in a <b>Sandwich ELISA</b> , in combination with AP03072HR-N as a Detection antibody, and recombinant Hepatitis B surface antigen AY AR05100PU-N as a Standard.
Reactivity:	Hepatitis B Virus
Host:	Goat
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Hepatitis B Surface Antigen subtypes AD and AY.
Specificity:	This antibody is specific for Hepatitis B surface antigen (HBsAg), a protein component of the viral envelope which is predominantly expressed in the cytoplasm of infected cells. Hep B is a major causative agent of acute and chronic liver disease in Humans.
Formulation:	PBS containing 0.09% Sodium Azide as preservative. State: Purified State: Liquid purified IgG fraction.
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.



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**Background:**

Hepatitis B Virus (HBV) infection induces a disease state characterised by liver damage, inflammation and viral persistence. Infection also increases the risk of hepatocellular carcinoma. HBV belongs to the Hepadnaviridae family of viruses. Its genome consists of partially double stranded circular DNA. The DNA is enclosed in a nucleocapsid, or core antigen (HBcAg), which is surrounded by a spherical envelope (surface antigen or HBsAg). The core antigen shares its sequences with the e antigen (HBeAg) but no cross reactivity between the two proteins has been observed. The HBV genome also encodes a DNA polymerase that also acts as a reverse transcriptase.

Hepatitis B infection is normally diagnosed from serological tests that detect HBsAg but as the disease progresses this antigen may no longer be present in the blood and tests for HBcAg are used. If HBsAg can be detected in the blood for longer than six months, chronic hepatitis B is diagnosed.

The antigenic determinant of the protein moiety of the HBsAg determines specific characteristics of different serotypes and provides the basis of immunodetection. HBsAg has antigenic heterogeneity, specifically, two pairs of sub specific determinants, d/y and w/r allow the following combinations: adw, ayw, adr, ayr.

**Synonyms:**

HBV surface antigen, Hepatitis B Virus