

# **Product datasheet for AM05474PU-N**

### OriGene Technologies, Inc.

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## Hepatitis B Surface Antigen / HBsAg Mouse Monoclonal Antibody [Clone ID: 1044/329]

#### **Product data:**

**Product Type:** Primary Antibodies

Clone Name: 1044/329

Applications: ELISA, IF

Recommended Dilution: ELISA.

Immunofluorescence.

**Reactivity:** Hepatitis B Virus

Host: Mouse Isotype: IgG1

Clonality: Monoclonal

Immunogen: Native

**Specificity:** This antibody recognises the Hepatitis B surface antigen.

In a simple ELISA using Biogenesis Test Groups (BTGs), this antibody is only reactive with Hepatitis B surface antigen. Clone 1044/329 recognizes the Hepatitis virus surface antigen. Hepatitis B virus is a major causative agent of acute and chronic liver disease in humans. Hepatitis B surface antigen (HBsAg) is a protein component of the viral envelope, which is

expressed predominantly in the cytoplasm of infected hepatocytes.

**Formulation:** PBS with 0.09% Sodium Azide as preservative.

State: Purified

State: Liquid purified IgG fraction.

**Concentration:** lot specific

**Purification:** Affinity Chromatography on Protein A.

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 characterized 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