



## Rabbit Anti-Hepatitis B Virus Surface Antigen antibody

SL2328R

<b>Product Name:</b>	Hepatitis B Virus Surface Antigen
<b>Chinese Name:</b>	人乙肝病毒pre S1蛋白/HBV pre S1 protein抗体
<b>Alias:</b>	Hepatitis B Virus Surface Antigen; Hepatitis B virus S1/S2 protein; Hepatitis B virus PreS1; Hepatitis B virus pre S1 protein; HBV pre S1 protein; HBSAG_HBVD2; HBSAG_HBVC5; Hepatitis B Virus Major surface antigen; Large envelope protein; Large surface protein; L glycoprotein; Major surface antigen; Large S protein; L-HBsAg; LHB.
<b>Organism Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>React Species:</b>	Hepatitis B virus(HBVD2)
<b>Applications:</b>	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Molecular weight:</b>	31/44kDa
<b>Cellular localization:</b>	The cell membrane
<b>Form:</b>	Lyophilized or Liquid
<b>Concentration:</b>	1mg/ml
<b>immunogen:</b>	KLH conjugated synthetic peptide derived from Hepatitis B Virus Surface Antigen:2-80/389
<b>Lsotype:</b>	IgG
<b>Purification:</b>	affinity purified by Protein A
<b>Storage Buffer:</b>	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
<b>Storage:</b>	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
<b>PubMed:</b>	<a href="#">PubMed</a>

**Product Detail:**

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.

**Function:**

The large envelope protein exists in two topological conformations, one which is termed 'external' or Le-HBsAg and the other 'internal' or Li-HBsAg. In its external conformation the protein attaches the virus to cell receptors and thereby initiating infection. This interaction determines the species specificity and liver tropism. This attachment induces virion internalization predominantly through caveolin-mediated endocytosis. The large envelope protein also assumes fusion between virion membrane and endosomal membrane (Probable). In its internal conformation the protein plays a role in virion morphogenesis and mediates the contact with the nucleocapsid like a matrix protein.

The middle envelope protein plays an important role in the budding of the virion. It is involved in the induction of budding in a nucleocapsid independent way. In this process the majority of envelope proteins bud to form subviral lipoprotein particles of 22 nm of diameter that do not contain a nucleocapsid.

**Subunit:**

Li-HBsAg interacts with capsid protein and with HDV Large delta antigen. Isoform M associates with host chaperone CANX through its pre-S2 N glycan. This association may be essential for M proper secretion.

**Subcellular Location:**

Virion membrane.

**Post-translational modifications:**

Isoform M is N-terminally acetylated at a ratio of 90%, and N-glycosylated at the pre-S2 region.

Myristoylated.

**Similarity:**

Belongs to the orthohepadnavirus major surface antigen family.

**SWISS:**

P03142

**Gene ID:**

944569

**Database links:**

[Entrez Gene: 2703546](#)Hepatitis B virus

[SwissProt: P03142](#)Hepatitis B virus

**Important Note:**

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

乙型肝炎病毒颗粒直径42nm, 由包膜与核衣壳组成, 包膜含有碳水化合物、蛋白质和脂类。其中蛋白质为主要抗原成分, 包括S抗原: pre-s1区和pre-s2区, 这些抗原成分在病毒侵入细胞过程中有着至关重要的作用, 为深入研究乙型肝炎病毒发病机理及变异有着至关重要的作用。