ARG65665
anti-HBV preS1 antibody [SQab1506]

Summary

Product Description: Mouse Monoclonal antibody [SQab1506] recognizes HBV preS1

Tested Reactivity: HBV

Tested Application: ELISA, ICC/IF, IHC-P, WB

Specificity: This antibody could recognize clinical samples including L-HBs (HBsAg) protein in serum, plasma, and tissue specimens. Do not react with M-HBs and S-HBs protein.

Host: Mouse

Clonality: Monoclonal

Clone: SQab1506

Target Name: HBV preS1

Antigen Species: HBV

Immunogen: GST-tagged fusion protein around aa. 1-60 of HBV preS1

Conjugation: Un-conjugated

 Alternate Names: large S protein; pre-S1/pre-S2/S; L glycoprotein; L-HBsAG; LHB; large surface protein; major surface antigen

Application Instructions

Application table

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<th>Application</th>
<th>Dilution</th>
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<td>ELISA</td>
<td>1:5000-1:10000</td>
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<tr>
<td>ICC/IF</td>
<td>1:250-1:1000</td>
</tr>
<tr>
<td>IHC-P</td>
<td>1:200-1:350</td>
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<td>WB</td>
<td>1:2500-1:6000</td>
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Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

Form: Liquid

Purification: Affinity purification with immunogen.

Buffer: PBS (pH 7.4) and 0.01% Thimerosal.

Preservative: 0.01% Thimerosal

Concentration: 1 mg/ml

Storage instruction: For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed.
before use.

Note
For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Database links
GeneID: 944569 HBV

Gene Symbol
S

Gene Full Name
L-HBsAG

Background
Hepatitis B virus (HBV) is a hepadnavirus which has a circular genome composed of partially double-stranded DNA. The HBV surface protein antigens (HBsAg) are comprised of large (LHBs), middle (MHBs) and small (SHBs, also called major) protein. LHBs contains preS1, prS2, and small protein. MHBs does not include preS1 protein and SHBs dose not include preS1 and preS2 proteins. HBsAg and its antibodies have been developed as biomarkers to monitor infection stage. Expression of preS1 and preS2 in tissue or serum are also important to reveal the mechanism of HBV infection.

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 (By similarity). 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 (By similarity). [UniProt]

Highlight
Related products:
HBV preS1 antibodies;

Research Area
Cancer antibody; Microbiology and Infectious Disease antibody

Images

ARG65665 anti-HBV preS1 antibody [SQab1506] WB image

Western blot: 1) HBV surface protein expressed 293T cell lysate and 2) 293T cell lysate (Mock) stained with ARG65665 anti-HBV preS1 antibody [SQab1506] (left) or ARG65666 anti-HBV preS2 antibody [SQab1507] (right) at 1:2500 dilution.

Data showed ARG65665 anti-HBV preS1 antibody [SQab1506] reacts with L-HBs protein only and ARG65666 anti-HBV preS2 antibody [SQab1507] reacts with L-HBs and M-HBs proteins.
Direct ELISA: Direct ELISA data shows that ARG65665 anti-HBV preS1 antibody [SQab1506] reacts with HBV L-HBs protein and preS1 fragment but not S-HBs protein and BSA.

Direct ELISA: LHBS or BSA coated plates stained with ARG65665 anti-HBV preS1 antibody [SQab1506] at various dilutions. Data shows that ARG65665 anti-HBV preS1 antibody [SQab1506] reacts with LHBS but not BSA.