

**PRODUCT INFORMATION**

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| <b>Target</b>                           | HBSAG  |
| <b>Synonyms</b>                         | Pre-S1   |
| <b>Description</b>                      | Recombinant Hepatitis B virus HBSAG Protein with C-terminal human Fc tag   |
| <b>Delivery</b>                         | In Stock   |
| <b>Uniprot ID</b>                       | P31869   |
| <b>Expression Host</b>                  | HEK293   |
| <b>Tag</b>                              | C-Human Fc Tag   |
| <b>Molecular Characterization</b>       | HBSAG(Gly2-Ala119) hFc(Glu99-Ala330)   |
| <b>Molecular Weight</b>                 | The protein has a predicted molecular mass of 38.5 kDa after removal of the signal peptide. The apparent molecular mass of HBSAG-hFc is approximately 35-70 kDa due to glycosylation.  |
| <b>Purity</b>                           | The purity of the protein is greater than 95% as determined by SDS-PAGE and Coomassie blue staining.   |
| <b>Formulation &amp; Reconstitution</b> | Lyophilized from sterile PBS, pH 7.4. Normally 5% - 8% trehalose is added as protectants before lyophilization. Please see Certificate of Analysis for specific instructions of reconstitution.  |
| <b>Storage&amp;Shipping</b>             | Store at -20°C to -80°C for 12 months in lyophilized form. After reconstitution, if not intended for use within a month, aliquot and store at -80°C (Avoid repeated freezing and thawing). Lyophilized proteins are shipped at ambient temperature.  |
| <b>Background</b>                       | Hepatitis B virus (HBV) is a human pathogen, causing serious liver disease. At the center of the hepatitis B virus is DNA, which contains the genes the virus uses to replicate itself. Surrounding the DNA is a protein called HBcAg (hepatitis B core antigen), which cannot be detected with blood tests. Surrounding this is HBsAg, which is actually part of the protective "envelope." This envelope surrounds the virus and protects it from attack by the body's immune system. HBsAg stands for hepatitis B surface antigen and is the surface antigen of the Hepatitis-B-Virus (HBV) S-gene. The capsid of a virus has different surface proteins from the rest of the virus. The antigen is a protein that binds specifically on one of these surface proteins. It is commonly referred to as the Australian Antigen. |
| <b>Usage</b>                            | Research use only  |
| <b>Conjugate</b>                        | Unconjugated   |





Figure 1. Hepatitis B virus HBSAG Protein, hFc Tag on SDS-PAGE under reducing condition.

### Hepatitis B virus HBSAG, hFc Tagged protein ELISA

0.2  $\mu$ g of Hepatitis B virus HBSAG, hFc tagged protein per well

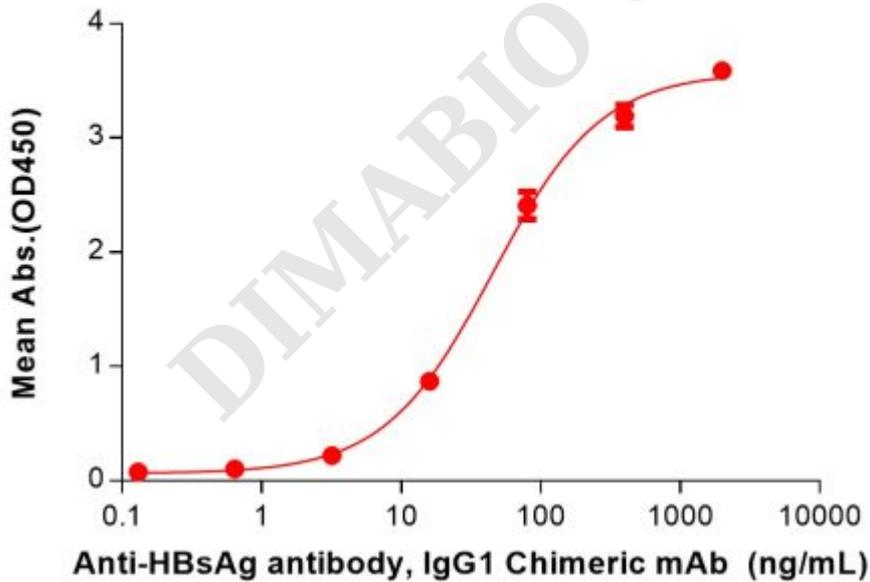


Figure 2. ELISA plate pre-coated by 2  $\mu$ g/mL (100  $\mu$ L/well) Hepatitis B virus HBSAG Protein, hFc Tag (PME101381) can bind Anti-HBsAg antibody, IgG1 Chimeric mAb in a linear range of 3.2-80 ng/mL.

