

Product datasheet for **AR31018PU-N**

Hepatitis B Surface Antigen / HBsAg (ay) Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Hepatitis B Surface Antigen / HBsAg (ay) recombinant protein, 0.1 mg
Expression Host:	<i>S. cerevisiae</i>
Predicted MW:	24 kDa
Concentration:	lot specific
Purity:	95% by SDS-PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: PBS, pH 7.2 without preservatives
Preparation:	Liquid purified protein
Applications:	ELISA. Western Blot.
Protein Description:	Recombinant Hepatitis B Surface Antigen (HBsAg) (ay) Recombinant HBsAg subtype ay. Genotype A. Does not contain a fusion partner.
Note:	Centrifuge before opening to ensure complete recovery of vial contents.
Storage:	Store the antigen at 2-8°C. DO NOT FREEZE!
Stability:	Shelf life: one year from despatch.



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Summary:

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.