Data sheet

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Jena Bioscience

HBVsAg-ayw

Hepatitis B Virus Surface Antigen, *ayw* subtype recombinant, *Pichia pastoris*

Cat. No.	Amount
PR-1129-1	1 mg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form
Liquid. Supplied in 20mM PBS, 0.03M NaCl and 0.001% Thimerosal.

Application
Antigen in ELISA and Western blots, excellent antigen for detection of HBV with minimal specificity problems.Immunogen for monoclonal antibody production.

Specificity
Immunoreactive with sera of HBV-infected individuals.

Purity
>95% by SDS-PAGE and RP-HPLC

Description
HBsAg is the surface antigen of the Hepatitis-B-Virus (HBV). 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.

Background
Hepatitis B virus (HBV) is a small enveloped virus that belongs to the hepadnavirus family.
The genome of the hepatitis B virus (HBV), a partially doublestranded circular DNA, has four known genes encoding the viral surface proteins (pre-S 1, pre-S2 and HBsAg), the precore (pre-C) and core (C) proteins (HBeAg and HBcAg), the DNA polymerase, the X protein.
There are distinct subtypes of HBV indicative of strain heterogeneity. The subtypes are distinguished by antigenic determinants on the surface antigen (HBsAg) and their corresponding antibodies. There is a common group determinant, a, which appears in all HBsAg specimens. There are two sets of subdeterminants, d or y and w or r, which appear to be allelic or mutually exclusive and which are used for the identification of subtypes. Thus, there are at least four major groups into which HBsAg can be classified: *adw, adr, ayw, and ayr.*

Selected References:

Wai-Kuo Shih *et al.* (1991) Strain Analysis of Hepatits B Virus on the Basis of Restriction Endonuclease Analysis of Polymerase Chain Reaction Products. *J. Clin. Microbiol.* **29**:1640.
Lai *et al.* (1991) Sequence analysis of hepatitis B virus genome of a new mutant of ayw subtype isolated in Sardinia. *Nucleic Acids Res.* **19**:5078.
Price *et al.* (1980) DNA cloned from the ayw subtype of hepatitis B virus. *J. Med. Virol.* **6**:139.