

## HBVsAg-adw

### Hepatitis B Virus Surface Antigen, *adw* subtype recombinant, *P. pastoris*

Cat. No.	Amount
PR-1128	100 $\mu$ g

For *in vitro* use only  
Quality guaranteed for 12 months

**Store at +4°C**

#### Form

Liquid. Supplied in 20 mM phosphate buffer pH 7.2 and 154 mM NaCl.

#### Application

Antigen in ELISA and Western blots, excellent antigen for detection of HBV with minimal specificity problems.

#### Specificity

Immunoreactive with sera of HBV-infected individuals.

#### Molecular Weight

24 kDa

#### Purity

>95% by SDS-PAGE and RP-HPLC

#### Description

The protein contains the Hepatitis B Virus Surface Antigen immunodominant region and is purified by proprietary chromatographic techniques.

#### 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 (HBcAg 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 Hepatitis B Virus on the Basis of Restriction Endonuclease Analysis of Polymerase Chain Reaction Products. *J. Clin. Microbiol.* **29**:1640.

Yang *et al.* (2005) Gene cloning, bacterial expression, *in vitro* refolding, and characterization of a single-chain Fv antibody against PreS1(21-47) fragment of HBsAg. *Protein Expr. Purif.* **41**:341.

Li *et al.* (2005) Oligodeoxynucleotides containing synthetic immunostimulatory motifs augment potent Th1 immune responses to HBsAg in mice. *Int. Immunopharmacol.* **5**:981.