

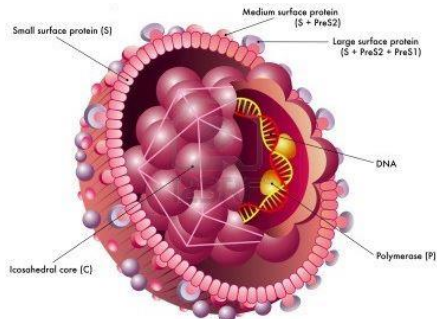
Product Specification Sheet

**Hepatitis B surface Antigen (HBsAg, Ad), Purified, antigen grade**

Cat # HBSAG21-R-25

Recombinant (E. coli) Hepatitis B surface Antigen (HBsAg, Ad) (>95%)

**SIZE:** 25 ug



Hepatitis B virus (HBV) is an enveloped, double-stranded DNA virus belonging to the Hepadnaviridae family and is recognized as the major cause of blood transmitted hepatitis together with hepatitis C virus (HCV).

Infection with HBV induces a spectrum of clinical manifestations ranging from mild, in apparent disease to fulminant hepatitis, severe chronic liver disease, which in some cases can lead to cirrhosis and carcinoma of the liver. Classification of a hepatitis B infection requires the identification of several serological markers expressed during three phases (incubation, acute and convalescent) of the infection. Now several diagnostic tests are used for screening, clinical diagnosis and management of the disease.

Hepatitis B surface antigen (HBsAg) is an important viral envelope protein, which appears shortly after infection and is a key serological marker for detection and diagnosis of HBV. Clearance during treatment shows recovery and development of neutralizing antibodies (anti-HBs) occurs in 90% of the patients. Due to the introduction of hepatitis B vaccination programs, the detection of anti-HBs has become important method for monitoring of recipients upon vaccination with synthetic and natural HBsAg. The absence of anti-HBs indicates susceptibility to HBV infection. For this, screening for anti-HBs in high-risk populations is recommended for identifying individuals who may benefit from vaccination.

**Source of Antigen**

HBsAg was expressed in E.coli and purified using proprietary methods (>95%, mol wt ~24 kda). It is supplied in PBS, 50% Glycerol, pH 7.2 in liquid or lyophilized in the same buffer (lot sp. concn is supplied on the vial). **Reconstitute** powder in PBS, pH 7.2. Store at -20°C or below in suitable aliquots.

**Specificity**

Strongly binds to HBV converted human serum polyclonal antibodies as determined by ELISA and Western ELISA. Protein is suitable for lateral flow diagnostic assays.

**Recommended Usage**

Recommended concentrations for use are approximate values. A dose dependent response assay should be performed to determine the optimal concentration for use in specific applications. ELISA and Western ELISA require 0.1-1.0µg protein depending on the nature and affinity of the secondary detection reagent. Studies with HBV converted human sera are performed in 1:200 to 1:10,000 antibody dilution range.

\*This product is for In vitro research use only.

**Related material available from ADI**

Catalog#	Prod Description
4100	Hepatitis B Surface Antigen (HBsAg) ELISA kit, Quantitative
4200	Anti-Hepatitis B Surface Antigen (anti-HBsAg) ELISA kit,
4210	Mouse Anti-Hepatitis B Surface Antigen (anti-HBsAg) ELISA kit,
4220-AHB	Anti-Hepatitis B Surface Antigen (anti-HBsAg) ELISA kit,
4230-AHB-R,	Anti-Hepatitis B Surface Antigen (anti-HBsAg) rapid test strips
AB-15010	Mouse Anti-Hepatitis B Virus (AD & AY Antigens) IgG
AB-15610	Mouse Anti-Hepatitis C Virus NS3 IgG
AB-15810	Mouse Anti-Hepatitis D Virus IgG
AB-16310	Anti-Hepatitis B Surface Antigen A IgG
HBA11-A	Anti-Hepatitis Surface Antigen (HBsAg) IgG, aff pure
HBA12-M	Mouse anti-Hepatitis Surface Antigen (HBsAg) (clone 1)
HBA13-M	Mouse anti-Hepatitis Surface Antigen (HBsAg) (clone 2)
HBA14-M	Mouse anti-Hepatitis Surface Antigen (HBsAg) (clone 3)
HBA15-A	Anti-Hepatitis Surface Antigen (HBsAg) IgG, aff pure
HBA25-N-100	Hepatitis Surface Antigen (HBsAg), Native, purified
HBA35-N-500	Hepatitis Surface Antigen (HBsAg), Recombinant, purified

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