

AR31202PU-N**Human Hepatitis B Surface Antigen / HBsAg (ay) - Purified**

Alternate names:	HBV surface antigen, Hepatitis B Virus
Quantity:	1 mg
Concentration:	Total Protein: 2.80 mg/ml (OD280nm-OD320nm). HBsAg: 2.80 mg/ml (BioRad - PEI Standard)
Background:	Hepatitis B Virus (HBV) infection induces a disease state characterised 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.
Species:	Human
Source:	Blood
Format:	State: Liquid purified (0.2 µm filtered) fraction Purity: >99% "Ay" subtype purity (ELISA) Buffer System: 50 mM Phosphate, pH 7.4 ± 0.2 containing 150 mM NaCl Preservatives: 0.09% Sodium Azide
Applications:	ELISA. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Description:	Hepatitis B Surface Antigen (HBsAg), ay subtype. Inactivation: Heat Inactivated at 60°C for 15 hours.
Storage:	Store undiluted at 2-8°C. Shelf life: one year from despatch.