

## Product datasheet for **BP2029F**

### Hepatitis B Surface Antigen / HBsAg (ad/ay) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	IF
Recommended Dilution:	<b>Direct IFA</b> staining of target antigens in a permissive tissue culture system. Acetone fixation of the antigen source is recommended prior to staining.
Reactivity:	Hepatitis B Virus
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Hepatitis B surface antigen purified from human serum. Mixture of subtypes ad & ay.
Specificity:	Monospecific, reacts only with Hepatitis B surface antigen including the pre-S1 epitope. This antibody is non-reactive with normal human serum.
Formulation:	0.01M PBS, pH 7.2 containing 0.09% Sodium Azide as preservative and 10 mg/ml BSA as stabilizer. Label: FITC State: Liquid purified Ig fraction. Label: High purity Isomer I of fluorescein isothiocyanate. Care is taken to ensure complete removal of any free fluorescein from the final product
Concentration:	lot specific
Purification:	Affinity Chromatography on Protein A .
Conjugation:	FITC
Storage:	Store the antibody at 2-8°C under subdued light for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing. Protect from light!
Stability:	Shelf life: one year from despatch.



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**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.

**Synonyms:**

HBV surface antigen, Hepatitis B Virus