

Hepatitis B Vaccines Antibody ELISA Kits, Recombinant Proteins, Peptides and Antibodies

Hepatitis B is an infectious inflammatory illness of the liver caused by the **hepatitis B virus (HBV)** that affects hominoidea, including humans. Originally known as "serum hepatitis", the disease has caused epidemics in parts of Asia and Africa, and it is endemic in China. About a third of the world population has been infected at one point in their lives, including 350 million who are chronic carriers. Hepatitis B virus is an **hepadnavirus**—hepa from hepatotropic (attracted to the liver) and dna because it is a DNA virus. Although replication takes place in the liver, the virus spreads to the blood where viral proteins and antibodies against them are found in infected people.



The virus particle, (virion) consists of an outer lipid envelope and an icosahedral **nucleocapsid** core composed of protein. The nucleocapsid encloses the viral DNA and a DNA polymerase that has reverse transcriptase activity similar to retroviruses. The outer envelope contains embedded proteins which are involved in viral binding of, and entry into, susceptible cells. The virus is one of the smallest enveloped animal viruses. There are four known genes encoded by the genome, called C, X, P, and S. The core protein is coded for by gene C (**HBcAg**). **HBsAg** is produced by proteolytic processing of the pre-core protein. The DNA polymerase is encoded by gene P. Gene S is the gene that codes for the surface antigen (**HBsAg**). The HBsAg gene is one long open reading

frame but divided into three sections, **pre-S1, pre-S2, and S**. Because of the multiple start codons, polypeptides of three different sizes called large, middle, and small (**pre-S1 + pre-S2 + S, pre-S2 + S, or S**) are produced. The hepatitis B surface antigen (HBsAg) is most frequently used to screen for the presence of this infection. It is the first detectable viral antigen to appear during infection. **Hepatitis B vaccine** is a vaccine developed for the prevention of hepatitis B virus infection. The vaccine contains the viral envelope proteins, hepatitis B surface antigen (HBsAg). Presently **recombinant DNA vaccines** are available, which means they are produced by inserting the gene for HBV into common baker's yeast where it is grown, harvested, and purified. HBV infection cannot occur from receiving hepatitis B vaccine. The common brands available are **Hiberix** and **Engerix-B** (GSK), **Recombivax** (Merck) **Elovac B** (Human Biologicals Institute), **Genevac B** (Serum Institute), **Shanvac B** etc.

ADI has developed antibody ELISA kits to determine the efficacy of various existing vaccines and test new vaccines. ADI is further expanding the antibody ELISAs to measure IgG (and IgG1, IgG2a, IgG3, IgG4) and IgM classes. **Vaccigel HBsAg ELISA is industry's first ELISA for the direct measure of the antigen adsorbed on Alum (Hepatitis Vaccine).**

Hepatitis B vaccine Related ELISA kits

Items Description	Species	Antibody Type IgG Cat#	Antibody Type IgM Cat#
Hepatitis B Vaccine (HBsAg antibody) ELISA kits	Human	4200	4205
	Human	4220-AHB	
	Human	4230-AHB-R (rapid Test)	
	Mouse	4210	4215
	Rabbit	4240	
Hepatitis B vaccine (HBsAg) ELISA kit for the detection of antigen in human serum (qualitative) cat #4105			
Hepatitis B vaccine (HBsAg) ELISA kit for the detection of Recombinant HBsAg (quantitative) Cat #4110			
Vaccigel Direct ELISA for the measurement of Hepatitis B Vaccine (HBsAg) formulated in Alum , #VAC-HBS-50			

Hepatitis B vaccine Related Antibodies and Reagentes kits

Item	Catalog#	Product Description	Product Type
Hepatitis B	AB-15010	Mouse Anti-Hepatitis B Virus (AD & AY Antigens) IgG	Antibodies
	AB-16310	Anti-Hepatitis B Surface Antigen A (HBsAg) IgG	Antibodies
	AR-233-U	Hepatitis B Virus (HBV) Polymerase (P protein) (A9), RNA Aptamer, unlabeled	RNA Aptamers
	HBSAG15-N	Hepatitis B surface Antigen (HBsAg) - Ay (High Pure)	Pure protein
	HBSAG18-N	Hepatitis B surface Antigen (HBsAg) - Ad (High Pure)	Pure protein
	HBSAG19-R-1	Recombinant purified Hepatitis B surface Antigen (HBsAg)	Purified antigen
	RP-342	Mouse Recombinant Anti-Hepatitis B Virus Surface Antigen (HBsAg) Ck IgG	Antibodies
	RP-445	Recombinant Hepatitis B Surface Antigen ayw subtype, Saccharomyces	Pure protein
	RP-446	Recombinant Hepatitis B Surface Antigen preS1	Pure protein
	RP-448	Recombinant Hepatitis B Surface Antigen adr subtype, Saccharomyces	Pure protein
	RP-449	Recombinant Hepatitis B Surface Antigen preS2	Pure protein
	RP-450	Recombinant Hepatitis B Surface Antigen adr subtype, CHO	Pure protein
	RP-451	Recombinant Hepatitis B Surface Antigen ayw subtype, pichia	Pure protein
	SP-102028-1	Hepatitis B Virus Receptor Binding Fragment	Pure Peptide