

Human HBsAg Antibody Pair Set

Catalog No. E-KAB-0031

Applications

ELISA

Synonyms Australia antigen

Kit components & Storage

Title	Specifications	Storage
Human HBsAg Capture Antibody	1 vial, 100 µg	Store at -20°C for one year. Avoid freeze / thaw cycles.
Human HBsAg Detection Antibody (Biotin)	1 vial, 50 µL	Store at -20°C for one year. Avoid freeze / thaw cycles.

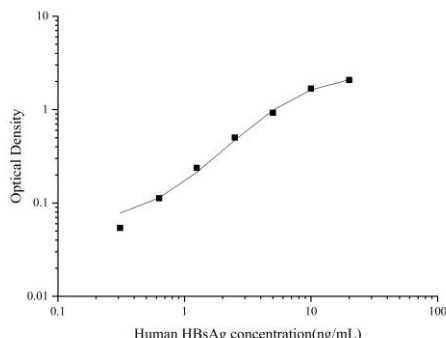
Note: Centrifuge before opening to ensure complete recovery of vial contents.

Product Information

Items		Characteristic (E-KAB-0031)	
		Human HBsAg Capture Antibody	Human HBsAg Detection Antibody (Biotin)
Immunogen Information	Immunogen	Native Protein	Native Protein
	Swissprot	/	
Product details	Reactivity	Human	Human
	Host	Mouse	Goat
	Conjugation	Unconjugated	Biotin
	Concentration	0.5mg/mL	/
	Buffer	PBS with 0.04% Proclin 300, 50% glycerol, pH 7.4	PBS with 0.04% Proclin 300, 1% protective protein, 50% glycerol, pH 7.4
	Purify	Protein A	Protein A
	Specificity	Detects Human HBsAg in ELISAs.	

Applications

Human HBsAg Sandwich ELISA Assay:

	Recommended Concentration/Dilution	Reagent	Images																		
ELISA Capture	0.5-4µg/mL	Human HBsAg Capture Antibody	 <p>The graph is a log-log plot of Optical Density versus Human HBsAg concentration (ng/mL). The x-axis ranges from 0.1 to 100 ng/mL, and the y-axis ranges from 0.01 to 10. The data points show a clear upward trend, indicating that as the concentration of Human HBsAg increases, the optical density also increases. The curve is smooth and passes through several data points.</p> <table border="1"> <caption>Approximate data points from the standard curve</caption> <thead> <tr> <th>Human HBsAg concentration (ng/mL)</th> <th>Optical Density</th> </tr> </thead> <tbody> <tr> <td>0.2</td> <td>0.05</td> </tr> <tr> <td>0.5</td> <td>0.1</td> </tr> <tr> <td>1</td> <td>0.2</td> </tr> <tr> <td>2</td> <td>0.4</td> </tr> <tr> <td>5</td> <td>0.8</td> </tr> <tr> <td>10</td> <td>1.5</td> </tr> <tr> <td>20</td> <td>2.5</td> </tr> <tr> <td>50</td> <td>4.0</td> </tr> </tbody> </table>	Human HBsAg concentration (ng/mL)	Optical Density	0.2	0.05	0.5	0.1	1	0.2	2	0.4	5	0.8	10	1.5	20	2.5	50	4.0
Human HBsAg concentration (ng/mL)	Optical Density																				
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ELISA Detection	1:1000-1:10000	Human HBsAg Detection Antibody (Biotin)																			

Note: This standard curve is only for demonstration purposes. A standard curve should be generated for each assay!

Background

The hepatitis B virus is an important cause of acute and chronic liver disease. It is also the most common form of parenterally transmitted viral hepatitis. The HBV surface protein antigens (HBsAg) are comprised of three carboxyl co terminal HBs proteins termed large (LHBs), middle (MHBs) and small (SHBs, also called major) protein. LHBs and MHBs also share the highly hydrophobic, repetitive, membrane spanning S domain. In addition, MHBs has a 55 amino acid region called preS2. The virus is estimated to affect some 350 million people worldwide. Immunization against hepatitis B is an important component of preventative medicine and is offered to all children in approximately 30 countries. Hepatitis B virus (HBV) belongs to the Hepadnaviridae family and infection with HBV is usually more serious than infection with hepatitis A virus. In some individuals the infection is not cleared and followed by persistent intracellular viral carriage that can lead to the development of hepatocellular carcinomas. There are currently 400 million HBV carriers worldwide making HBV one of the most common human pathogens.