Hepatitis B (anti-HBs)

Overview

Clinical

Hepatitis B, caused by the Hepatitis B Virus (HBV). This viral infection leads to various liver diseases, encompassing acute and chronic hepatitis, cirrhosis, and primary liver cancer[1]

Measuring antibodies to the Hepatitis B surface antigen (anti-HBs) helps assess a patient's recovery from Hepatitis B infection. It is also used to determine whether an individual is immune to the virus[2].

Epidemiology

It is estimated that 240 million people estimated to be living with Hepatitis B with 0.9 million new infections each year.[1].

According to last US CDC recommendations, it is advised to test all adults aged 18 years and older for HBsAg , anti-HBs and anti-HBc at least once in their lifetime[3].

Biomaterial Characterization

Recognition by a commercial CLIA HBsAg assay

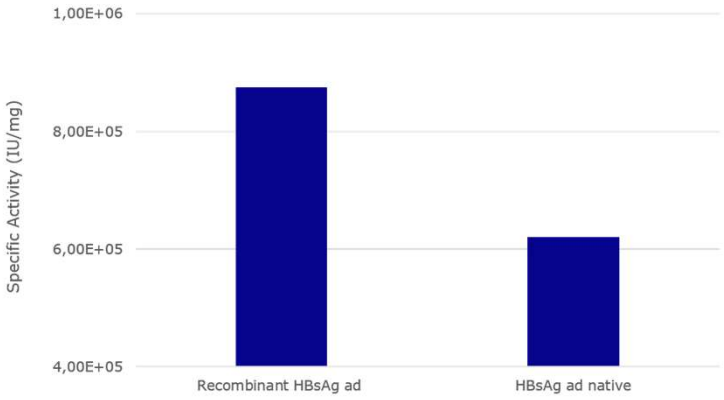


Figure 1. Recombinant HBsAg ad & ay and Native HBsAg ay were analyzed as sample with a commercial HBsAg CLIA assay

1 B. WHO Factsheet. July 2026. Accessed September 2026. https://www.who.int/news-room/fact-sheets/detail/hepatitis-b

2. Hepatitis guidelines on Hepatitis B and C testing. WHO. February 2017

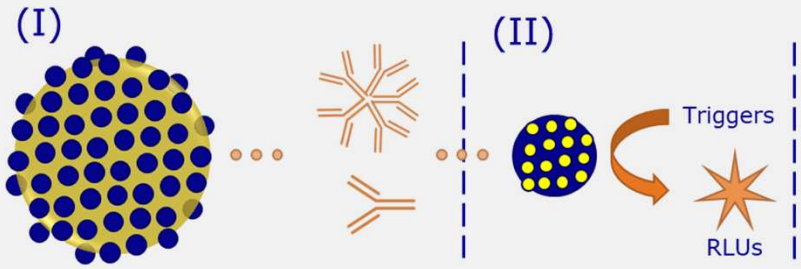
3. Screening and Testing for Hepatitis B Virus Infection: CDC Recommendations. March 2023. Accessed September 2025. https://www.cdc.gov/mmwr/volumes/72/rr/rr7201a1.htm?s_cid=rr7201a1_w

Anti-HBs CLIA Pre-Prototype

Assay Scheme

Qualitative detection of antibodies to Hepatitis B surface antigen (anti-HBs) in human serum or plasma

Assay scheme
One-step assay (Qualitative)



PMPs	Sample	Conjugate
Magnetic Beads coated with Werfen's Recombinant HBsAg ad	Serum/Plasma With anti-HBs antibodies	Werfen Native Hepatitis B surface Ag-iso-luminol

Performance of Recombinant HBsAg ad CLIA Pre-prototype

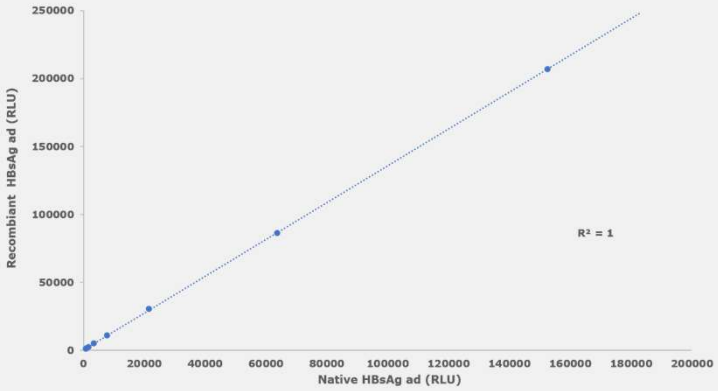


Figure 2. Comparison aHBs CLIA pre-prototype with recombinant HBsAg ad vs aHBs CLIA prototype with native HBsAg ad. Dilutions of the aHBs international standard were analyzed both with aHBs CLIA pre-prototype with Recombinant HBsAg ad in the microparticles and with aHBs CLIA prototype with Native HBsAg ad in microparticles.

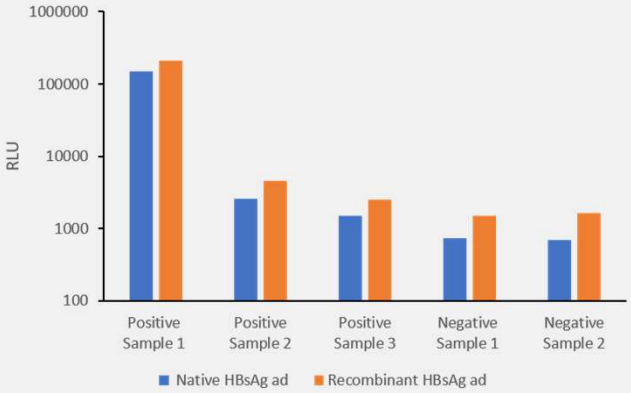


Figure 3 Comparison aHBs CLIA pre-prototype with recombinant HBsAg ad vs aHBs CLIA prototype with native HBsAg ad. 3 positive aHBs and 2 negative samples were analyzed with both assays

Werfen's Biomaterial offering

Recombinant HBsAg ay
(ref 3000-7069)
Storage: -70ºC
Source: CHO
Storage buffer: Phosphate buffer , NaCl pH 8
Purification method: Immunoaffinity Chromatography
Protein concentration: 0.5- 1 mg/mL
Preservative: None

Recombinant HBsAg ad
(ref 3000-7082)
Storage: -70ºC
Source: CHO
Storage buffer: HEPES, NaCl pH 8
Purification method: Immunoaffinity Chromatography
Protein concentration: 0.5- 1 mg/mL
Preservative: None

Recombinant HBsAg ay (3000-7069) and Recombinant HBsAg ad (3000-7082) products are in R&D Stage.
The content within this brochure is provided for informational purposes.
Contact **immunoassay@werfen.com** for further technical information and product availability

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