



## RayBiotech, Inc.

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# Certificate of Analysis and Data Sheet Recombinant Hepatitis B Virus Core (1-186)

**Catalog No.**  
228-10608

**Source**  
*Escherichia Coli*

### ***Introduction:***

Hepatitis B is one of a few known non-retroviral viruses which employ reverse transcription as a part of its replication process. (HIV, a completely unrelated virus, also uses reverse transcription, but it is a retrovirus.) HBV invades the cell by binding to surface receptor and become internalized. The viral core particles then migrate to the hepatocyte nucleus and the partially double-stranded, relaxed circular genomes (RC-DNA) are repaired to form a covalently closed circular DNA (cccDNA), which is the template for viral genomic and sub-genomic RNAs by cellular RNA polymerase II. Of these, the pregenomic RNA (pgRNA) is selectively packaged into progeny capsids and is then reverse-transcribed into new RC-DNA. The core can either bud into the endoplasmic reticulum to be enveloped or exported from the cell or recycled back into the genome for conversion to cccDNA.

### ***Description:***

The E.coli derived recombinant protein contains the HBV core immunodominant region amino acids 1-186, and fused to a His tag.

### ***Purification Method***

HBV Core protein was purified by proprietary chromatographic technique.

### ***Formulation:***

25mM Tris-HCl pH-8.0, 50mM NaCl, 1.5mM EDTA, 1.5mM Urea & 50% glycerol.

### ***Storage***

HBV Core protein is shipped at ambient temperature.  
Upon arrival, store at -20°C.

### ***Purity:***

HBV Core protein is >90% pure as determined by 10% PAGE (Coomassie staining).

### ***Stability:***

Five years frozen. One month in solution at room temperature.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### *Specificity*

Immunoreactive with sera HBV-infected individuals.

### *Applications*

HBV Core antigen is suitable for ELISA and Western blots, excellent antigen for detection of HBV with minimal specificity problems.

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