



Product Data Sheet

Cat # RP-452

Recombinant Hepatitis B Virus Core (1-186)

**Size:**  100 ug  500 ug

## 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

### Purification Method:

HBV Core protein was purified by proprietary chromatographic technique **Purity:**  
HBV Core protein is >90% pure as determined by 10% PAGE (Coomassie staining).

### Formulation:

10mM Tris-HCl pH-8.0, 50mM NaCl, 1mM EDTA & 50% glycerol.

### Storage:

HBV Core protein is shipped at ambient temperature. If supplied in powder then reconstitute it in 100 ul water for 1 mg/ml stock and store in liquid at 4°C for ~1 week or aliquots in suitable size and store at -20°C for long term storage..

### Stability:

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

### 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

### Usage:

This item is for LABORATORY RESEARCH USE ONLY. The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

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