

RayBiotech, Inc.

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Certificate of Analysis and Data Sheet

Recombinant Hepatitis B Virus Core Antigen (HBcAg; aa 1-183)

Catalog No. Source
228-10607 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 18 kDa recombinant protein contains the HBV core ayw immunodominant region, amino acids 1-183.

Purification Method:

HBV Core protein was purified by proprietary chromatographic technique.

Formulation:

7.5mM phosphate buffer pH-7.2, 75mM NaCl and 50% glycerol.

Storage:

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

Purity:

HBV Core protein is >95% 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.