

#### RayBiotech, Inc.

3607 Parkway Lane suite 200 Norcross,GA 30092 Tel: 770-729-2992, 1-888-494-8555

Fax: 770-206-2393

Website: www.raybiotech.com Email: info@raybiotech.com

# Certificate of Analysis and Data Sheet

# Recombinant Hepatitis B Virus Core Antigen (HBcAg) delta

Catalog No. Source
228-10609 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 14kDa recombinant protein contains the HBV core delta ayw immunodominant region amino acids 1-144.

# Purification Method:

HBV Core protein was purified by proprietary chromatographic technique.

#### Formulation:

7.5mM Phosphate buffer pH-7.2, 75mM NaCl, & 50% glycerol.

# Storage:

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

# Purity:

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