

Product Data Sheet

□ Cat # RP-454

Recombinant Hepatitis B Virus Core (1-183)

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 18 kDa recombinant protein contains the HBV core antigen immunodominant region, amino acids 1-183.

Purification Method:

HBV Core protein was purified by proprietary chromatographic technique

Purity:

HBV Core protein is >95% pure as determined by 10% PAGE (coomassie staining).

Formulation:

7.5mM Na-PO4 pH-7.2, 75mM NaCl and 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 stable in 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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