Recombinant Hepatitis B Virus Core protein(a.a. 1-186), His-tagged

DAG1452 Hepatitis B Virus
Lot. No. (See product label)

PRODUCT INFORMATION

Product overview	Recombinant HBcAg fused to a His tag containing the HBV core immunodominant region amino acids 1-186 was expressed in E. coli and purified by proprietary chromatographic technique.
Antigen Description	Hepatitis B Virus Core Antigen (HBcAg) is part of the infectious virion containing an inner "core particle" enclosing the viral genome. The icosahedral core particle contains 180 or 240 copies of the core protein. HBcAg is one of the three major clinical antigens of hepatitis B virus but disappears early in the course of infection. The hepatitis B virus core antigen (HBcAg) is a highly immunogenic subviral particle and functions as both a T-cell-dependent and a T-cell-independent antigen. Therefore, HBcAg may be a promising candidate target for therapeutic vaccine control of chronic HBV infection.
Source	E. coli
Species	Hepatitis B Virus
Tag	His
Conjugate	N/A
Purity	>90% pure as determined by 10% PAGE (Coomassie staining).
Characteristic	Immunoreactive with sera HBV-infected individuals.
Applications	HBV Core antigen is suitablr for ELISA and Western blots, excellent antigen for detection of HBV with minimal specificity problems.
Usage	The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

PACKAGING

Storage	stable at 4°C for 1 week, should be stored below -18°C. Please prevent freeze thaw cycles.
Buffer	25mM Tris-HCl pH-8.0, 1.5mM Urea & 50% glycerol.

BACKGROUND

Introduction	Hepatitis B is one of a few known non-retroviralviruses which employ reverse transcriptionas 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.
Keywords	Hepatitis B Core Ag; Hepatitis B Core Antigen; HBcAg; Hepatitis B Virus Core Antigen; Hepatitis B virus; HBV; Core antigen; C; Capsid protein; Core protein; HBc; p21.5; Hepadnaviridae; Orthohepadnavirus

REFERENCES

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