

Recombinant Hepatitis B Surface Antigen ayw subtype, Mutant G-145-R

DAG1468 *Hepatitis B Virus*

Lot. No. (See product label)

PRODUCT INFORMATION

Product overview	Recombinant HBsAg ayw antigen was mutated by replacing the Glycine residue at position 145 with Arginine.
Antigen Description	HBsAg is the surface antigen of the Hepatitis-B-Virus (HBV). The capsid of a virus has different surface proteins from the rest of the virus. The antigen is a protein that binds specifically on one of these surface proteins. It is commonly referred to as the Australian Antigen.
Source	N/A
Species	Hepatitis B Virus
Tag	N/A
Conjugate	N/A
Form	Sterile Filtered clear solution.
Purity	Greater than 85.0% as determined by SDS-PAGE Coomassie staining.
Usage	The product may not be used as drugs, agricultural or pesticidal products, food additives or household chemicals.

PACKAGING

Stability	HBsAg Should be stored at 4°C.
Buffer	Sterile Filtered solution containing 20mM Na ₂ HPO ₄ , 0.03M NaCl and 0.001% Thimerosal, pH-7.4.

BACKGROUND

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.
Keywords	Hepatitis B HBsA; Hepatitis B Virus HBsA; Hepatitis B virus; HBV; HBV HBsA; S; Hepadnaviridae; Orthohepadnavirus; Hepatitis B surface Ag; Hepatitis B surface Ag;

REFERENCES

1. Guarascio, P. et al. (1983). "Value of copper-associated protein in diagnostic assessment of liver biopsy". *Journal of Clinical Pathology* 36 (1): 18–23. PMC 498098. PMID 6185545.
2. Blumberg B, Alter H (1965). "A "new" antigen in leukemia sera". *JAMA* 191: 101–106.