Data Sheet (Cat.No.TMPY-05822)

TargetMol

Hepatitis B Virus (HBV)(ayw/France/Tiollais/1979) Capsid protein (His)

General Information

Protein Construction:	A DNA sequence encoding the Hepatitis B Virus (HBV)(ayw/France/Tiollais/1979) Capsid protein (P03146-1) (Met1-Val149) was expressed with a polyhistidine tag at the C-terminus. Predicted N terminal: Met 1
Species:	HBV-D
Expression Host:	E. coli
Accession:	P03146-1
Molecular Weight:	17.67 kDa (predicted)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 95 % as determined by SDS-PAGE.
Endotoxin:	Please contact us for more information.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 150 mM NaCl, 50 mM Tris, 0.5 mM EDTA, pH 7.0.Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

Reconstituted with 150 mM NaCl, 50 mM Tris, pH 7.0 to 0.25 mg/mL. Reconstitution conditions may vary depending on the lot.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Hepatitis B virus (HBV) capsid assembly is a critical step in the propagation of the virus and is mediated by the core protein. The first cytoplasmic step in the formation of an infectious HBV virion is the formation of a capsid containing pregenomic RNA (pgRNA) and the viral polymerase (Pol). HBV capsid assembly is an attractive target for new antiviral therapies.

Reference

Jianming Hu, et al.Complete and Incomplete Hepatitis B Virus Particles: Formation, Function, and Application. Viruses.2017.

Jan Martin Berke, et al.Capsid Assembly Modulators Have a Dual Mechanism of Action in Primary Human Hepatocytes Infected with Hepatitis B Virus.Antimicrobial Agents and Chemotherapy.2017

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