

## Large envelope Protein, HBV-D (Cell-Free, His)

<b>Cat. No.:</b>	HY-P702356
<b>Synonyms:</b>	Large envelope protein; L glycoprotein; L-HBsAg; LHB; Large S protein; Large surface protein; Major surface antigen
<b>Species:</b>	Virus
<b>Source:</b>	E. coli Cell-free
<b>Accession:</b>	P03138 (G2-I389)
<b>Gene ID:</b>	/
<b>Molecular Weight:</b>	Monomer:40 kDaDimer:80 kDa

### PROPERTIES

<b>AA Sequence</b>	<p>           G Q N L S T S N P L    G F F P D H Q L D P    A F R A N T A N P D    W D F N P N K D T W            P D A N K V G A G A    F G L G F T P P H G    G L L G W S P Q A Q    G I L Q T L P A N P            P P A S T N R Q S G    R Q P T P L S P P L    R N T H P Q A M Q W    N S T T F H Q T L Q            D P R V R G L Y F P    A G G S S S G T V N    P V L T T A S P L S    S I F S R I G D P A            L N M E N I T S G F    L G P L L V L Q A G    F F L L T R I L T I    P Q S L D S W W T S            L N F L G G T T V C    L G Q N S Q S P T S    N H S P T S C P P T    C P G Y R W M C L R            R F I I F L F I L L    L C L I F L L V L L    D Y Q G M L P V C P    L I P G S S T T S T            G P C R T C M T T A    Q G T S M Y P S C C    C T K P S D G N C T    C I P I P S S W A F            G K F L W E W A S A    R F S W L S L L V P    F V Q W F V G L S P    T V W L S V I W M M            W Y W G P S L Y S I    L S P F L P L L P I    F F C L W V Y I         </p>
<b>Appearance</b>	Lyophilized powder
<b>Formulation</b>	Lyophilized from a 0.22 µm filtered solution of PBS, 0.05% Brij-78, 6% Trehalose, pH 7.4.
<b>Endotoxin Level</b>	<1 EU/µg, determined by LAL method.
<b>Reconstitution</b>	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH <sub>2</sub> O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
<b>Storage &amp; Stability</b>	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
<b>Shipping</b>	Room temperature in continental US; may vary elsewhere.

### DESCRIPTION

<b>Background</b>	The Large Envelope Protein exhibits two distinct topological conformations, known as 'external' or Le-HBsAg and 'internal'
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or Li-HBsAg. In its external conformation, the protein functions as a key mediator, attaching the virus to cell receptors and initiating infection. This interaction dictates species specificity and liver tropism, prompting virion internalization primarily through caveolin-mediated endocytosis. Additionally, the Large Envelope Protein facilitates fusion between the virion membrane and the endosomal membrane. In its internal conformation, the protein plays a vital role in virion morphogenesis, functioning akin to a matrix protein and mediating contact with the nucleocapsid. Concurrently, the middle envelope protein assumes a crucial role in virion budding, inducing a nucleocapsid-independent process. This budding process results in the majority of envelope proteins forming subviral lipoprotein particles with a diameter of 22 nm, devoid of a nucleocapsid.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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