

Large envelope Protein, HBV-A (Cell-Free, P03141, His)

Cat. No.:	HY-P702354
Synonyms:	Large envelope protein; L glycoprotein; L-HBsAg; LHB; Large S protein; Large surface protein; Major surface antigen
Species:	Virus
Source:	E. coli Cell-free
Accession:	P03141 (G2-I400)
Gene ID:	/
Molecular Weight:	45.1 kDa

PROPERTIES

AA Sequence	<pre> GGWSSKPRKG MGTNLSVPNP LGFFPDHQLD PAFGANSNNP DWDFNPVKDD WPAANQVGVG AFGPRLTPPH GGILGWSPQA QGILTTVSTI PPPASTNRQS GRQPTPI SPP LRDSHPQAMQ WNSTAFHQTL QDPRVRGLYL PAGGSSSGTV NPAPNIA SHI SSISARTGDP VTNMENITSG FLGPLLVLQA GFFLLTRILT IPQSLDSWWT SLNFLGGSPV CLGQNSQSPT SNHSPTSCPP ICPGYRWMCL RRFIIFLFI L LLCLIFLLVL LDYQGMLPVC PLIPGSTTTS TGPCKTCTTP AQGNSMFPSC CCTKPTDGNC TCIPIPSSWA FAKYLWEWAS VRFSWLSLLV PFVQWFVGLS PTVWLSA IWM MWYWG PSLYS IVSPFIPLLP IFFCLWVYI </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 µm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ 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.
Storage & Stability	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.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The Large Envelope Protein exhibits two distinct topological conformations, referred to as 'external' or Le-HBsAg, and
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'internal' or Li-HBsAg. In its external conformation, the protein facilitates the attachment of the virus to cell receptors, initiating infection and determining species specificity and liver tropism. This interaction leads to virion internalization, primarily through caveolin-mediated endocytosis. Additionally, the large envelope protein ensures fusion between the virion membrane and endosomal membrane. In its internal conformation, the protein plays a crucial role in virion morphogenesis, acting as a matrix protein during contact with the nucleocapsid. Simultaneously, the middle envelope protein is pivotal in virion budding, inducing budding in a nucleocapsid-independent manner. Throughout this process, the majority of envelope proteins bud to form subviral lipoprotein particles with a diameter of 22 nm, devoid of a nucleocapsid.

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

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