Hepatitis B Virus Surface Antigen (HBsAg), L-protein (Recombinant)

Product #: BCL-AG-001

BACKGROUND

Hepatitis B virus (HBV) expresses three types of surface antigens, i.e. S-, M-, and L-protein. L-protein is composed of S-, Pre-S2, and Pre-S1 region. The deletion of Pre-S1 region forms M-protein, and further deletion of Pre-S2 region results in S-protein. Most of commercially available HBsAgs is composed of either S-protein alone or S- plus M-proteins. This product, HBsAg, L-protein contains all the three components in one protein.

The Pre-S1 region is known to be the hepatic cell recognition site and to be important in the HBV infection. Thus, the product can be used as a mimic HBV for immunological studies or as a tool for studying infection mechanism.

Source: Yeast (Saccharomyces cerevisiae)
Appearance: Lyophilized white powder
Activity: Pre-S1 activity is more than 1000 units (Unit are arbitrary scale determined in Beacle using Pre-S1 detecting ELISA system)
Structure: Nano size particles having antigen protein floating in lipid bilayer. The mean particle size is 60 to 70nm as determined by electron microscopy
Content: 100 µg (dissolving instruction: added 500µL of water to 100 µg of lyophilized powder, that makes antigen concentration of 0.2 mg/mL in PBS (137mM NaCl, 8.1mM Na₂HPO₄ · 12H₂O, 2.68mM KCl, 1.47mM KH₂PO₄, pH 7.2 · 7.4) containing 1% sucrose.
Purity: over 95% (see SDS-PAGE data)
Storage: -20°C (stable for over 24 months)
Note: HBsAg L-protein-ST type bind to plastic tubes. For dilution please use protein low bind tubes.

RELATED PRODUCT
High S-antigen activity: HBsAg-XT (BCL-AG-002)
Low S- and high Pre-S1 and -S2 antigen activities: HBsAg L-protein ST type (Pre-S1 and Pre-S2) (BCL-AGS-01)
Antibody-binding particle: Bionanocapsule-ZZ (BCL-DC-002)

Fig. SDS-PAGE with silver staining