



# 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 HBsAg 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.

<b>Source:</b>	Yeast ( <i>Saccharomyces cerevisiae</i> )
<b>Appearance:</b>	Lyophilized white powder
<b>Activity:</b>	Pre-S1 activity is more than 1000 units (Unit are arbitrary scale determined in Beacle using Pre-S1 detecting ELISA system)
<b>Structure:</b>	Nano size particles having antigen protein floating in lipid bilayer. The mean particle size is 60 to 70nm as determined dynamic light scattering methods (20 nm as determined by electron microscopy)
<b>Content:</b>	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 Na <sub>2</sub> HPO <sub>4</sub> · 12H <sub>2</sub> O, 2.68mM KCl, 1.47mM KH <sub>2</sub> PO <sub>4</sub> , pH 7.2 - 7.4) containing 1% sucrose.
<b>Purity:</b>	over 95% (see SDS-PAGE data)
<b>Storage:</b>	-20°C ( stable for over 24 months)
<b>Note:</b>	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)

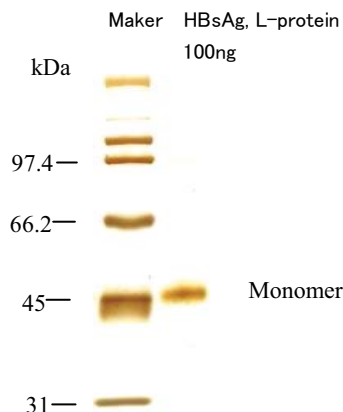


Fig. SDS-PAGE with silver staining

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