

Hepatitis B Virus Surface Antigen, L-protein, Genotype A, B, C, D (HBsAg, L-protein, Recombinant)

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 a mixture of S- and M-proteins. The Pre-S1 region is known to be the hepatic cell recognition site and to be important in the HBV infection.

The present product, HBsAg, L-protein (L antigen) is a particulate antigen composed of L protein, and can be used as a tool to investigate the mechanism of HBV infection, ELISA and others. Four major genotypes of products are available.

General information

Source	: <i>Saccharomyces cerevisiae</i>
Appearance	: Lyophilized white powder
Structure	: Particle (L-protein inserted in lipid bilayer) with mean particle size of about 70nm by dynamic light scattering method (about 20 nm by electronic microscope)
Dissolve	: For 100 µg vial, added 500 µL of water to the vial that makes a antigen solution at 0.2 mg/mL in PBS (137 mM NaCl, 8.1 mM Na ₂ HPO ₄ · 12H ₂ O, 2.68 mM KCl, 1.47 mM KH ₂ PO ₄ , pH 7.2 - 7.4) containing 1% sucrose.
Purity	: over 95%
Storage	: -20°C (3 years guarantee after dispatch)
Usage	: HBV mimetics, Standard antigen for ELISA, western, and others

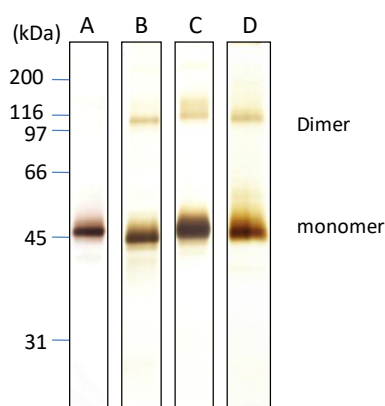
*Caution : L protein may be adsorbed on plastic tubes especially low concentration (below 100ng/mL). Please use protein low bind tubes at lower concentration.

Product variation and product

product#	product name	subtype
BCL-AGA-01	HBsAg L-protein genotype A, recombinant	adw
BCL-AGB-01	HBsAg L-protein genotype B, recombinant	adw
BCL-AGC-01	HBsAg L-protein genotype C, recombinant	adr
BCL-AGD-01	HBsAg L-protein genotype D, recombinant	ayw

SDS-PAGE

HBsAg, L-protein of genotype A to D were subjected for SDS-PAGE (Silver staining) at 100ng.



Sequences**Genotype A**

KVRQGMGTNLSVPNPLGFFPDHQLDPAFGANSNNPDWDFNPIKDHWPAAANQVGVGAFGPGGLTPPHGGILGWSPQAQGILTTVSTIPPPA
STNRQSGRQPTPISPPLRDSHPQAMQWNSTAFHQALQDPRVRGLYFPAGGSSSGTVNPAPNIASHISGDPVTNMENITSGFLGPLLVLQ
AGFFLLTRILTIPQSLDSWWTSLNFLGGSPVCLGQNSQSPTSNSHSPTSCPPICPGYRWMCLRRFIIIFLFILLCLIFLLVLLDYQGMLP
VCPLIPGSTTTSTGPCKTCTTPAQGNSMFPSCCCTKPTDGNCTCIPIPSSWAFKYLWEWASVRFSWLSLLVPFVQWFVGLSPTVWLSA
IWMWYWGPSLYSIVSPFIPLLPPIFFCLWVYI

Genotype B

KVRQGMGTNLSVPNPLGFFPDHQLDPAFKANSENPDWDLNPHKDNWPDAAHKVGVGAFGPGFTPPHGGLLGWSPQAQGILTSVPAAPPPA
STNRQSGRQPTPLSPPLRDTHPQAMQWNSTTFHQTLQDPRVRALYFPAGGSSSGTVSPAQNTVSAISGDPVPNMENIASGLLGPLLVLQ
AGFFLLTKILTIPQSLDSWWTSLNFLGGTPVCLGQNSQSQISSHSPTCCPPICPGYRWMCLRRFIIIFLCILLCLIFLLVLLDYQGMLP
VCPLIPGSSTTSTGSCKTCTTPAQGTSMPFSCCCTKPTDGNCTCIPIPSSWAFKYLWEWASVRFSWLSLLVPFVQWFVGLSPTVWLSV
IWMWYWGPSLYNILSPFMPLLPPIFFCLWVYI

Genotype C

KVRQGMGTNLSVPNPLGFFPDHQLDPAFGANSNNPDWDFNPNKDQWPEANQVGAGAFGPGFTPPHGGLLGWSPQAQGILTTVPAAPPPA
STNRQSGRQPTPISPPLRDSHPQAMQWNSTTFHQALLDPRVRGLYFPAGGSSSGTVNPVPTTASPISGDPAPNMENITSGFLGPLLVLQ
AGFFLLTRILTIPQSLDSWWTSLNFLGGAPTCPGQNSQSPTSNSHSPTSCPPICPGYRWMCLRRFIIIFLFILLCLIFLLVLLDYQGMLP
VCPLLPGTSTTSTGPCKTCTIPAQGTSMPFSCCCTKPSDGNCTCIPIPSSWAFARFLWEWASVRFSWLSLLVPFVQWFVGLSPTVWLSV
IWMWYWGPSLYNILSPFLPLLPPIFFCLWVYI

Genotype D

KVRQGMGQNLSTSNPLGFFPDHQLDPAFRANTANPDWDFNPNKDTWPDANKVGAGAFGLGFTPPHGGLLGWSPQAQGILQTLPANPPPA
STNRQTGRQPTPLSPPLRNTHPQAMQWNSTTFHQTLQDPRVRGLYFPAGGSSSGAVNPVPTTASPLSGDPALNMENITSGFLGPLLVLQ
AGFFLLTRILTIPQSLDSWWTSLNFLGGTTVCLGQNSQSPTSNSHSPTSCPPTCPGYRWMCLRRFIIIFLFILLCLIFLLVLLDYQGMLP
VCPLIPGSSTTSTGPCRTCTTPAQGTSMPFSCCCTKPSDGNCTCIPIPSSWAFKFLWEWASARFSWLSLLVPFVQWFVGLSPTVWLSV
IWMWYWGPSLYSILSPFLPLLPPIFFCLWVYI