

HBV-Core (residues 1-186) Hepatitis B Virus Core Protein recombinant, *E. coli*

Cat. No.	Amount
PR-1122	100 µg

For *in vitro* use only
Quality guaranteed for 12 months
Store at -20°C

Avoid freeze / thaw cycles

Form

Liquid. Supplied in 25 mM Tris-HCl pH 8.0, 50 mM NaCl, 1.5 mM EDTA, 1.5 mM urea and 50% glycerol.

Application

1. Immunochromatography (capture and conjugate),
2. Immunogen for monoclonal antibody production,
3. ELISA.

Specificity

Immunoreactive with sera of HBV-infected individuals.

Purity

>90% by SDS-PAGE

Description

Hepatitis B Virus Core Antigen contains the fragment of core protein immunodominant regions, amino acids: 1-186 fused to a His-tag.

HBV core proteins are purified by proprietary chromatographic techniques.

Background

Hepatitis B Virus (HBV) is a small enveloped virus that belongs to the hepadnavirus family. The human Hepatitis B Virus (HBV) has a compact genome encoding four major overlapping coding regions: the core, polymerase, surface and X. The core protein is a structural protein. It packages its own mRNA, which is also known as the pregenomic RNA, to form the core particle. The increase of the core RNA expression has been shown to increase the viral replication rate.

Selected References:

- Le Pogam *et al.* (2005) Exposure of RNA templates and encapsidation of spliced viral RNA are influenced by the arginine-rich domain of human hepatitis B virus core antigen (HBcAg 165-173). *J. Virol.* **79**:1871.
- Shi *et al.* (2004) Therapeutic polypeptides based on HBcAg(18-27) CTL epitope can induce antigen-specific CD(8)(+) CTL-mediated cytotoxicity in HLA-A2 transgenic mice. *World J. Gastroenterol.* **10**:1222.
- Szkaradkiewicz *et al.* (2003) HBcAg-specific cytokine production by CD4 T lymphocytes of children with acute and chronic hepatitis B. *Virus Res.* **97**:127.