

## Recombinant Hepatitis B Virus HBE (HBV HBE)

<b>Alternate names:</b>	HBV External core antigen, HBV Precore protein
<b>Catalog No.:</b>	PA1300XC
<b>Quantity:</b>	1 mg
<b>Concentration:</b>	1.0 mg/ml
<b>Background:</b>	Hepatitis B is one of a few known non-retroviral viruses which employ reverse transcription as a part of its replication process. (HIV, a completely unrelated virus, also uses reverse transcription, but it is a retrovirus.) HBV invades the cell by binding to surface receptor and become internalized. The viral core particles then migrate to the hepatocyte nucleus and the partially double-stranded, relaxed circular genomes (RC-DNA) are repaired to form a covalently closed circular DNA (cccDNA), which is the template for viral genomic and sub-genomic RNAs by cellular RNA polymerase II. Of these, the pregenomic RNA (pgRNA) is selectively packaged into progeny capsids and is then reverse-transcribed into new RC-DNA. The core can either bud into the endoplasmic reticulum to be enveloped or exported from the cell or recycled back into the genome for conversion to cccDNA.
<b>Species:</b>	Human
<b>Source:</b>	<i>E. coli</i>
<b>Format:</b>	<b>State:</b> Liquid purified protein <b>Purity:</b> >95% pure as determined by 10% PAGE (coomassie staining). <b>Buffer System:</b> 25mM Tris-HCl pH 8.0, 1.5 M Urea and 50% Glycerol
<b>Applications:</b>	ELISA. Western blots. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
<b>Description:</b>	The <i>E. Coli</i> derived recombinant protein contains the HBV HBe adw immunodominant region is fused to GST. Purified by proprietary chromatographic technique. <b>Biological Activity:</b> Immunoreactive with sera HBV-infected individuals. <b>Molecular weight:</b> 43.7 kDa
<b>Storage:</b>	The protein can be shipped at 2-8°C. Store (in aliquots) at -20°C only. Avoid repeated freezing and thawing. Shelf life: one year from despatch.
<b>General Readings:</b>	1. Kanwal F, Gralnek IM, Martin P, Dulai GS, Farid M, Spiegel BM. Treatment alternatives for chronic hepatitis B virus infection: a cost-effectiveness analysis. <i>Ann Intern Med.</i> 2005 May 17;142(10):821-31. PubMed PMID: 15897532. 2. Summaries for patients. Antiviral regimens for chronic hepatitis B virus infection. <i>Ann Intern Med.</i> 2005 May 17;142(10):I39. PubMed PMID: 15897528.

3. Silva PA, Fiaccadori FS, Borges AM, Silva SA, Daher RR, Martins RM, et al. Seroprevalence of hepatitis B virus infection and seroconversion to anti-HBsAg in laboratory staff in Goiânia, Goiás. *Rev Soc Bras Med Trop.* 2005 Mar-Apr;38(2):153-6. Epub 2005 Mar 30. PubMed PMID: 15821790.
4. Tangkijvanich P, Mahachai V, Komolmit P, Fongsarun J, Theamboonlers A, Poovorawan Y. Hepatitis B virus genotypes and hepatocellular carcinoma in Thailand. *World J Gastroenterol.* 2005 Apr 21;11(15):2238-43. PubMed PMID: 15818732.
5. Paul S, Tabassum S, Islam MN. Interferon-gamma (IFN-gamma) response to different hepatitis B virus antigens in hepatitis B virus infection. *Bangladesh Med Res Counc Bull.* 2004 Aug;30(2):71-7. PubMed PMID: 15813485.
6. Aras C, Ozdamar A, Ergin S, Ozturk R, Midilli K, Karacorlu M, et al. Failure to detect hepatitis B virus in vitreous by polymerase chain reaction. *Ophthalmologica.* 2005 Mar-Apr;219(2):93-6. PubMed PMID: 15802933.