



## Hepatitis B Protein X (HBx) Virus Human, Rabbit Polyclonal Antibody

### Product Data Sheet

**Source of Antigen:** *E. coli*

**Host:** Rabbit

**Cat. No.:**

RD981038100 (0.05 mg)

**Other names:** HBx

### Research topic

Others

### Preparation

The antibody was raised in rabbits by immunization with the recombinant HBx.

### Amino Acid Sequence

The immunization antigen (17 kDa) is a protein containing 153 AA of recombinant HBx and one extra AA, N-terminal methionin (highlighted).

MAARVCCQLD PARDVLCLRP VGAESRGRPV SGPFGTLPSP SSSAVPADHG AHLSLRGLPV CAFSSAGPCA LRFTSARRME  
TTVNAHQVLP KVLHKRTLGL SAMSTTDLEA YFKDCLFKDW EELGEEIRLK VFVLGGCRHK LVCSPAPCNF FTSA

### Purification Method

Immunoaffinity chromatography on a column with immobilized recombinant Hepatitis B Protein X.

### Antibody Content

0.05 mg (determined by BCA method, BSA was used as a standard)

### Formulation

The antibody is lyophilized in 0.05 M phosphate buffer, 0.1 M NaCl, pH 7.2. **AZIDE FREE.**

### Reconstitution

Add 0.05 ml of deionized water and let the lyophilized pellet dissolve completely. Slight turbidity may occur after reconstitution, which does not affect activity of the antibody. In this case clarify the solution by centrifugation.

### Shipping

At ambient temperature. Upon receipt, store the product at the temperature recommended below.

### Storage/Stability

The lyophilized antibody remains stable and fully active until the expiry date when stored at -20°C. Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles and store frozen at -80°C. Reconstituted antibody can be stored at 4°C for a limited period of time; it does not show decline in activity after one week at 4°C.

### Expiration

See vial label.

### Lot Number

See vial label.

### Quality Control Test

Indirect ELISA - to determine titer of the antibody

SDS PAGE - to determine purity of the antibody

### Applications

Immunoprecipitation, Western blotting

## **Introduction to the Molecule**

Hepatitis B virus X protein (HBx) is a 17 kD transcriptional coactivator that plays a significant role in the regulation of genes involved in inflammation and cell survival. It regulates many transcription factors including nuclear factor kappa B (NF-kappaB) and plays a key role in hepatocarcinogenesis. HBx facilitates the binding of cAMP response element binding protein (CREB) to its responsive element. HBx stabilizes the cellular coactivator ASC-2 through direct protein-protein interaction, affecting the regulation of genes actively transcribed in liver cancer cells.

HBx transactivates both JNK and MAPK signal transduction pathways in association with the mobilization of cytosolic Ca<sup>2+</sup>. The communication between HBx and general transcription factor TFIIB is also one of the mechanisms which account for its transcriptional transactivation.

HBx decreased the expression of PTEN a known tumor suppressor and a negative regulator of phosphatidylinositol 3-kinase/AKT and HBx decreased the expression of PTEN in HBx-transfected cells.

The etiology of hepatocellular carcinoma (HCC) is involved with hepatitis B virus (HBV) infection and HBx in particular plays a role in the development of HBV-related HCC. The persistence of HBx is important to the pathogenesis of early HCC and HBx expression in the liver during chronic HBV infection may be an important prognostic marker for the development of HCC.

## **Note**

This product is for research use only.

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