CLAIMS

1. A lentiviral vector , characterized in that the vector contains a nucleotide sequence encoding at least one hepatitis B virus antigen selected from the group consisting of core antigen (HBcAg), PreS1 antigen (PreS1) and Large S antigen (LargeS).

2. The lentiviral vector according to claim 1, wherein the encoded hepatitis B virus antigen is a large S antigen (LargeS).

3. The lentiviral vector according to claim 1 or 2, wherein the amino acid sequence of the core antigen (HBcAg) is the sequence set forth as SEQ ID NO:1; and/or the amino acid sequence of the PreS1 antigen (PreS1) is the sequence set forth as SEQ ID NO: 4 or as SEQ ID NO: 7; and/or the amino acid sequence of the large S antigen (LargeS) is the sequence set forth as SEQ ID NO: 10 or as SEQ ID NO: 13.

4. The lentiviral vector according to any one of claims 1 to 3, wherein the coding nucleotide sequence of the core antigen (HBcAg) is the sequence set forth as SEQ ID NO: 3; and/or the coding nucleotide sequence of the PreS1 antigen (PreS1) is the sequence set forth as SEQ ID NO: 6 or as SEQ ID NO: 9; and/or the coding nucleotide sequence of the Large S antigen (LargeS) is the sequence set forth as SEQ ID NO: 12 or as SEQ ID NO: 15.

5. A method for preparing lentiviral particles, characterized in that the method comprises the steps of:

a) co-transfecting host cells with the lentiviral vector according to any one of claims 1 to 4, a packaging vector expressing Gag, Rev and/or Pol protein, and an envelope vector expressing an envelope protein, or transfecting the lentiviral vector according to any one of claims 1 to 4 into a host cell capable of expressing an envelope protein and one or more of Gag, Rev, and Pol proteins;

b） culturing the transfected host cell to package the lentiviral vector into lentiviral vector particles; and

c) harvesting the lentiviral vector particles produced in step b).

6. Lentiviral particles, characterized in that the lentiviral particles comprise the lentiviral vector according to any one of claims 1 to 4, or are prepared by the method according to claim 5.

7. A lentiviral vector according to any one of claims 1 to 4 or lentiviral particles according to claim 6, for use in the treatment and/or prevention of hepatitis B virus infection in a subject in need thereof, or for the treatment and/or prevention of diseases caused by hepatitis B virus infection.

8. The lentiviral vector or the lentiviral particles for use according to claim 7, wherein the subject is a mammal.

9. A pharmaceutical composition comprising the lentiviral vector according to any one of claims 1 to 4 or the lentiviral particles according to claim 6, and a pharmaceutically acceptable carrier.

10. Use of the lentiviral vector according to any one of claims 1 to 4 or the lentiviral particles according to claim 6 in the manufacture of a medicament for the treatment and/or prevention of hepatitis B virus infection for the treatment and/or prevention of a disease caused by hepatitis B virus infection in a subject in need thereof.

11. The use according to claim 10, wherein the subject is a mammal.