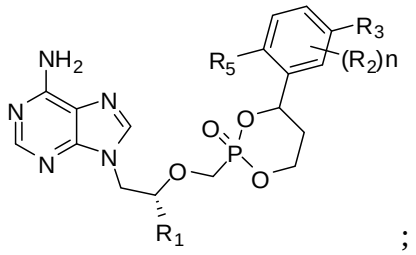
CLAIMS

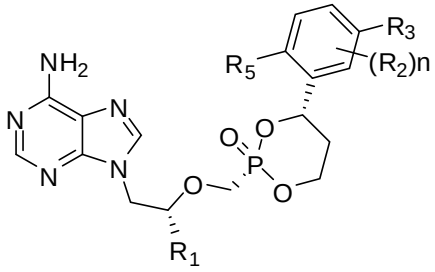
1. A compound of formula (I), or an optical isomer, a pharmaceutically acceptable salt, a hydrate or a solvate thereof:



;

(I)

wherein, the compound is separated into a structure presented by formula (I-a):



(I-a)

wherein:

R_1 is selected from the group consisting of hydrogen, amino, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted C_3-C_8 cycloalkyl, substituted or unsubstituted C_1-C_6 alkoxy group and substituted or unsubstituted C_1-C_6 alkylamino; where substitution comprises one or more substituents selected from the group consisting of halogen, C_1-C_3 alkyl, C_1-C_3 haloalkyl, nitro, hydroxyl, amino and cyano group;

each R_2 is independently selected from the group consisting of halogen, nitro, hydroxyl, amino, cyano group, substituted or unsubstituted C_1-C_6 alkyl, substituted or unsubstituted C_3-C_8 cycloalkyl, substituted or unsubstituted C_1-C_6 alkoxy group, substituted or unsubstituted C_1-C_6 alkylamino, substituted or unsubstituted C_1-C_6 carboxyl, substituted or unsubstituted C_1-C_6 ester group, substituted or unsubstituted C_2-C_6 alkanoyl and substituted or unsubstituted C_2-C_6 alkylamide group;

wherein substitution comprises one or more substituents selected from the group

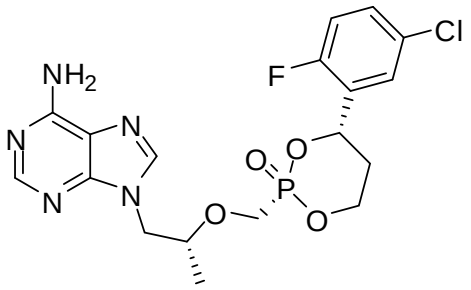
consisting of halogen, C_1-C_3 alkyl, C_1-C_3 haloalkyl, nitro, hydroxyl, amino and cyano group;

R_3 is Cl and R_5 is F; or R_3 is F and R_5 is Cl;

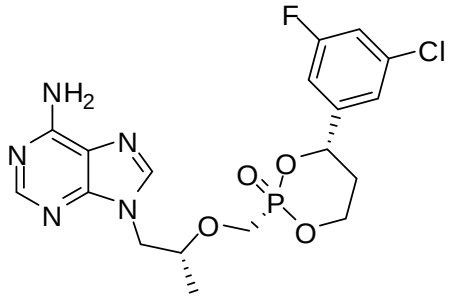
N is 0, 1, 2, or 3; and

each chiral center in structural formula (I) or (I-a) is *R*- or *S*-configuration.

2. The compound according to claim 1, characterized in that the compound is selected from the group consisting of:



and



3. The compound according to claims 1-2, characterized in that a salt of the compound is a pharmaceutically acceptable salt formed from the compound of formula (I) or (I-a) and an inorganic or organic acid, or formed from the compound of formula (I) or (I-a) and a base; and the compound of formula (I) or (I-a) or a salt thereof is amorphous or crystalline.

4. A pharmaceutical composition, comprising a therapeutically effective amount of the compound of any one of claims 1-2 or an optical isomer, a pharmaceutically acceptable salt, a hydrate or a solvate thereof and a pharmaceutically acceptable auxiliary, diluent or carrier.

5. Use of the compound according to claims 1-3 or an optical isomer, a pharmaceutically acceptable salt, a hydrate or a solvate thereof, or the pharmaceutical composition according to claim 4 for the manufacture of a pharmaceutical composition for treating and/or preventing an acute or chronic disease associated with hepatitis B virus (HBV), hepatitis D virus (HDV) or human immunodeficiency virus

(HIV) infection.

6. The use according to claim 5, characterized in that the acute or chronic disease associated with hepatitis B virus (HBV), hepatitis D virus (HDV) or human immunodeficiency virus (HIV) infection is selected from the group consisting of hepatitis B, hepatitis D or acquired immune deficiency syndrome (AIDS).