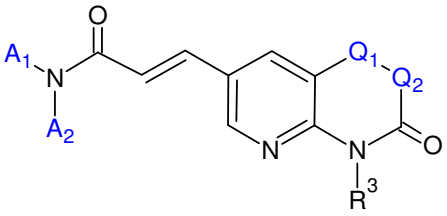
Claims

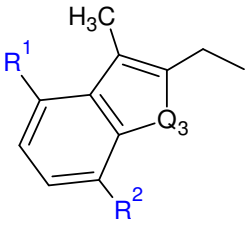
1. Compound, which is selected from the group of compounds represented by general formula I



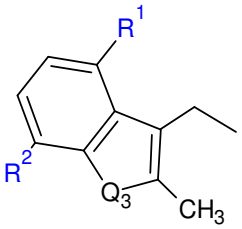
I

wherein

A_1 represents a moiety selected from the groups A_{11} and A_{12} having the following structures



A_{11} and

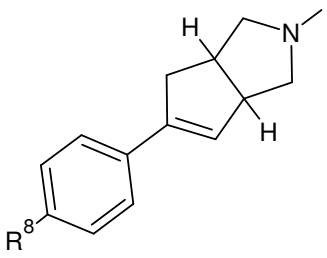


A_{12} ;

wherein the line connected to the exocyclic methylene group represents a single covalent bond formed with the nitrogen atom of formula I;

A_2 represents a methyl group;

or A_1 and A_2 together with the nitrogen atom to which they are bonded form the following moiety A_3:



A_3 ;

wherein the exocyclic line connected to the nitrogen atom of the bicycle represents the covalent bond between nitrogen and carbonyl group in the left-hand side of formula I;

and wherein,

in embodiment (i)

Q_1 represents –CH=CR^7–,or NH;

Q_2 represents CR^4R^5, or CR^4R^5-CR^6R^7, wherein the CR^4R^5 group binds to Q_1;

or Q_1-Q_2 represents –N=CR^7-CHR^7- or its tautomer –NH-CR^7=CR^7-

Q_3 represents O or S;

R^1 represents a group selected from H, -NH_2;

R^2 represents a group selected from H, -O-Ar^1, -O-Het^1, -NR^9R^{10}, -O-Alk^1, wherein Ar^1 represents a phenyl group that may optionally be substituted by one or more groups individually selected from -CN, -O-C_{1-4}-alkyl, -O-$(CH_2)_{1-4}$-NR^9R^{10}, or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N and O, wherein Het^1 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, or a non-aromatic partially or fully saturated heterocycle with 6 ring atoms including 1 heteroatom selected from N and O, which Het^1 group may optionally be substituted by one or more groups individually selected from -C_{1-4}-alkyl, -O-C_{1-4}-alkyl, -CN, -$(CH_2)_{0-4}$-OH; wherein R^9 is selected from H and -C_{1-4}-alkyl; wherein R^{10} is selected from H, -C_{1-4}-alkyl and –C(=O)-CH_3; wherein Alk^1 represents an alkyl group having 1 to 6 carbon atoms, which is linear, branched, cyclic or a combination thereof, which Alk^1 group may optionally be substituted by one or more groups selected from –OH, -O-alkyl;

R^3 represents a group selected from H, -$PO_3R^{3a}{}_2$, -CH_2-$OPO_3R^{3a}{}_2$ and -CH_2-O-C(=O)-R^{3b};

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

R^4 represents a group selected from H, C_{1-4}-alkyl, CN and C_{1-4}-alkylene-F;

R^5 represents a group selected from H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, -OH, $-OPO_3R^{3a}{}_2$;

or R^4 and R^5 together form a cyclic group having 4 to 6 ring members formed by methylene groups and optionally an oxygen atom;

R^6 represents a group selected from -OH, C_{1-4}-alkyl, $-OPO_3R^{3a}{}_2$;

R^7 represents a group selected from H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, C_{1-4}-alkylene-F, -CN;

or R^6 and R^7 together form a cyclic group having 4 to 6 ring members formed by methylene groups and optionally an oxygen atom; the cyclic group may optionally carry a substituent selected from –OH, -O-alkyl;

R^8 represents a group selected from $–O\text{-}Ar^2$ and $–O\text{-}Het^2$;

wherein Ar^2 represents a phenyl group that may optionally be substituted by one or more groups individually selected from –CN, $-O\text{-}C_{1-4}$-alkyl or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N, S and O, wherein said heterocycle may optionally carry one or two substituents selected from oxo, halogen, $-O\text{-}C_{1-4}$-alkyl, C_{1-4}-alkyl, and CN;

and

wherein Het^2 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, which may optionally be substituted by one or more groups individually selected from $–O\text{-}C_{1-4}$-alkyl, -CN, F, C_{1-4}-alkyl, and pharmaceutically acceptable salts thereof;

in embodiment (ii)

Q_1 represents $–CH=CR^7–$ or NH;

Q_2 represents CR^4R^5, or $CR^4R^5\text{-}CR^6R^7$, wherein the CR^4R^5 group binds to Q_1;

or $Q_1\text{-}Q_2$ represents $\text{-}N=CR^7\text{-}CHR^7\text{-}$ or its tautomer $–NH\text{-}CR^7=CR^7\text{-}$

Q_3 represents O or S;

R^1 represents a group selected from H, $-NH_2$;

R^2 represents a group selected from H, $-O\text{-}Ar^1$, $-O\text{-}Het^1$, $-NR^9R^{10}$, $-O\text{-}Alk^1$, wherein Ar^1 represents a phenyl group that may optionally be substituted by one or more groups individually selected from -CN, $-O\text{-}C_{1-4}$-alkyl, $-O\text{-}(CH_2)_{1-4}\text{-}NR^9R^{10}$, or wherein the phenyl group

may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N and O, wherein Het^1 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, or a non-aromatic partially or fully saturated heterocycle with 6 ring atoms including 1 heteroatom selected from N and O, which Het^1 group may optionally be substituted by one or more groups individually selected from -C_{1-4}-alkyl, -O-C_{1-4}-alkyl, -CN, -$(CH_2)_{0-4}$-OH; wherein R^9 is selected from H and -C_{1-4}-alkyl; wherein R^{10} is selected from H, -C_{1-4}-alkyl and –C(=O)-CH_3; wherein Alk^1 represents an alkyl group having 1 to 6 carbon atoms, which is linear, branched, cyclic or a combination thereof, which Alk^1 group may optionally be substituted by one or more groups selected from –OH, -O-alkyl;

R^3 represents a group selected from H, -$PO_3R^{3a}_2$, -CH_2-$OPO_3R^{3a}_2$ and -CH_2-O-C(=O)-R^{3b};

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

R^4 represents a group selected from H, C_{1-4}-alkyl, CN and C_{1-4}-alkylene-F;

R^5 represents a group selected from H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, -OH, -$OPO_3R^{3a}_2$;

or R^4 and R^5 together form a cyclic group having 4 to 6 ring members formed by methylene groups and optionally an oxygen atom;

R^6 represents a group selected from H, -OH, C_{1-4}-alkyl, -$OPO_3R^{3a}_2$;

R^7 represents a group selected from C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, C_{1-4}-alkylene-F, -CN;

or R^6 and R^7 together form a cyclic group having 4 to 6 ring members formed by methylene groups and optionally an oxygen atom; the cyclic group may optionally carry a substituent selected from –OH, -O-alkyl;

R^8 represents a group selected from –O-Ar^2 and –O-Het^2;

wherein Ar^2 represents a phenyl group that may optionally be substituted by one or more groups individually selected from –CN, -O-C_{1-4}-alkyl or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N, S and O, wherein said heterocycle may optionally carry one or two substituents selected from oxo, halogen, -O-C_{1-4}-alkyl, C_{1-4}-alkyl, and CN;

and

wherein Het^2 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, which may optionally be substituted by one or more groups individually selected from –O-C_{1-4}-alkyl, -CN, F, C_{1-4}-alkyl, and pharmaceutically acceptable salts thereof;

in embodiment **(iii)**

Q_1 represents –CH=CR^7–, CH_2 or NH;

Q_2 represents CR^4R^5-CR^6R^7, wherein the CR^4R^5 group binds to Q_1;

or Q_1-Q_2 represents -N=CR^7-CHR^7- or its tautomer –NH-CR^7=CR^7-

Q_3 represents O or S;

R^1 represents a group selected from H, -NH_2;

R^2 represents a group selected from H, -O-Ar^1, -O-Het^1, -NR^9R^{10}, -O-Alk^1, wherein Ar^1 represents a phenyl group that may optionally be substituted by one or more groups individually selected from -CN, -O-C_{1-4}-alkyl, -O-$(CH_2)_{1-4}$-NR^9R^{10}, or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N and O, wherein Het^1 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, or a non-aromatic partially or fully saturated heterocycle with 6 ring atoms including 1 heteroatom selected from N and O, which Het^1 group may optionally be substituted by one or more groups individually selected from -C_{1-4}-alkyl, -O-C_{1-4}-alkyl, -CN, -$(CH_2)_{0-4}$-OH; wherein R^9 is selected from H and -C_{1-4}-alkyl; wherein R^{10} is selected from H, -C_{1-4}-alkyl and –C(=O)-CH_3; wherein Alk^1 represents an alkyl group having 1 to 6 carbon atoms, which is linear, branched, cyclic or a combination thereof, which Alk^1 group may optionally be substituted by one or more groups selected from –OH, -O-alkyl;

R^3 represents a group selected from H, -$PO_3R^{3a}{}_2$, -CH_2-$OPO_3R^{3a}{}_2$ and -CH_2-O-C(=O)-R^{3b};

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

R^4 represents a group selected from H, C_{1-4}-alkyl, CN and C_{1-4}-alkylene-F;

R^5 represents a group selected from H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, -OH, -$OPO_3R^{3a}{}_2$;

or R^4 and R^5 together form a cyclic group having 4 to 6 ring members formed by methylene groups and optionally an oxygen atom;

R^6 represents a group selected from -OH, C_{1-4}-alkyl, $-OPO_3R^{3a}{}_2$;

R^7 represents a group selected from H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, C_{1-4}-alkylene-F, -CN;

or R^6 and R^7 together form a cyclic group having 4 to 6 ring members formed by methylene groups and optionally an oxygen atom; the cyclic group may optionally carry a substituent selected from –OH, -O-alkyl;

R^8 represents a group selected from –O-Ar^2 and –O-Het^2;

wherein Ar^2 represents a phenyl group that may optionally be substituted by one or more groups individually selected from –CN, -O-C_{1-4}-alkyl or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N, S and O, wherein said heterocycle may optionally carry one or two substituents selected from oxo, halogen, -O-C_{1-4}-alkyl, C_{1-4}-alkyl, and CN;

and

wherein Het^2 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, which may optionally be substituted by one or more groups individually selected from –O-C_{1-4}-alkyl, -CN, F, C_{1-4}-alkyl, and pharmaceutically acceptable salts thereof; or

in embodiment **(iv)**

Q_1 represents $–CH=CR^7–$, CH_2 or NH;

Q_2 represents CR^4R^5-CR^6R^7, wherein the CR^4R^5 group binds to Q_1;

or Q_1-Q_2 represents -N=CR^7-CHR^7- or its tautomer –NH-CR^7=CR^7-

Q_3 represents O or S;

R^1 represents a group selected from H, $-NH_2$;

R^2 represents a group selected from H, -O-Ar^1, -O-Het^1, -NR^9R^{10}, -O-Alk^1, wherein Ar^1 represents a phenyl group that may optionally be substituted by one or more groups individually selected from -CN, -O-C_{1-4}-alkyl, -O-$(CH_2)_{1-4}$-NR^9R^{10}, or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N and O, wherein Het^1 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually

selected from N, S and O, or a non-aromatic partially or fully saturated heterocycle with 6 ring atoms including 1 heteroatom selected from N and O, which Het^1 group may optionally be substituted by one or more groups individually selected from -C_{1-4}-alkyl, -O-C_{1-4}-alkyl, -CN, -$(CH_2)_{0-4}$-OH; wherein R^9 is selected from H and -C_{1-4}-alkyl; wherein R^{10} is selected from H, -C_{1-4}-alkyl and –C(=O)-CH_3; wherein Alk^1 represents an alkyl group having 1 to 6 carbon atoms, which is linear, branched, cyclic or a combination thereof, which Alk^1 group may optionally be substituted by one or more groups selected from –OH, -O-alkyl;

R^3 represents a group selected from H, -$PO_3R^{3a}_2$, -CH_2-$OPO_3R^{3a}_2$ and -CH_2-O-C(=O)-R^{3b};

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

R^4 represents a group selected from H, C_{1-4}-alkyl, CN and C_{1-4}-alkylene-F;

R^5 represents a group selected from H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, -OH, -$OPO_3R^{3a}_2$;

or R^4 and R^5 together form a cyclic group having 4 to 6 ring members formed by methylene groups and optionally an oxygen atom;

R^6 represents a group selected from H, -OH, C_{1-4}-alkyl, -$OPO_3R^{3a}_2$;

R^7 represents a group selected from C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, C_{1-4}-alkylene-F, -CN;

or R^6 and R^7 together form a cyclic group having 4 to 6 ring members formed by methylene groups and optionally an oxygen atom; the cyclic group may optionally carry a substituent selected from –OH, -O-alkyl;

R^8 represents a group selected from –O-Ar^2 and –O-Het^2;

wherein Ar^2 represents a phenyl group that may optionally be substituted by one or more groups individually selected from –CN, -O-C_{1-4}-alkyl or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N, S and O, wherein said heterocycle may optionally carry one or two substituents selected from oxo, halogen, -O-C_{1-4}-alkyl, C_{1-4}-alkyl, and CN;

and

wherein Het^2 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, which may optionally be substituted by

one or more groups individually selected from –O-C_{1-4}-alkyl, -CN, F, C_{1-4}-alkyl, and pharmaceutically acceptable salts thereof.

2. Compound according to claim 1, embodiment (iii) or (iv), wherein

R^4 represents a group selected from C_{1-4}-alkyl, CN and C_{1-4}-alkylene-F; and

R^5 represents a group selected from H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, -OH, -$OPO_3R^{3a}{}_2$;

and the remaining variable groups are as defined in claim 1, embodiment (iii) or (iv).

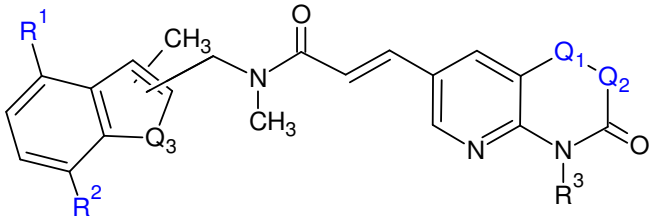
3. Compound according to claim 1, embodiment (iii) or (iv), wherein

R^4 represents a group selected from H, C_{1-4}-alkyl, CN and C_{1-4}-alkylene-F; and

R^5 represents a group selected from C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, -OH, -$OPO_3R^{3a}{}_2$;

and the remaining variable groups are as defined in claim 1, embodiment (iii) or (iv).

4. Compound according to claim 1, 2 or 3 wherein the compound is selected from the group of compounds represented by general formula II



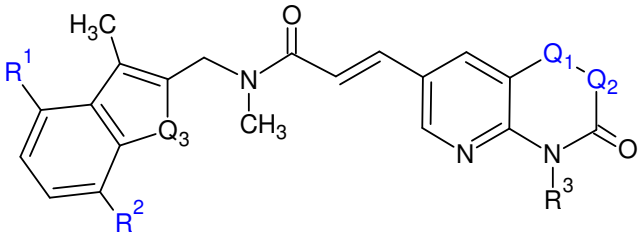
II

wherein

R^1, R^2, R^3, Q_1, Q_2, Q_3 have the same meanings as specified in claim 1, 2 or 3 above;

and wherein the five-membered heterocycle comprising Q_3 is bonded to the methylene-amide moiety at the 2-position and to the methyl group at the 3-position or is bonded to the methylene-amide moiety at the 3-position and to the methyl group at the 2-position.

5. Compound according to claim 4, wherein the compound is selected from the group of compounds represented by general formula III

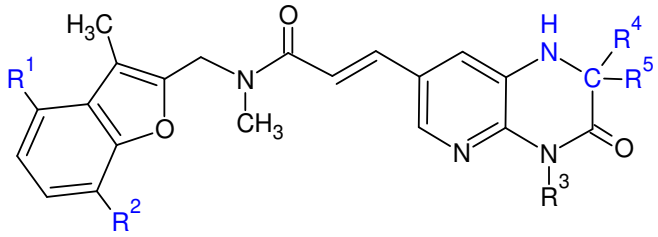


III

wherein

R^1, R^2, R^3, Q_1, Q_2, Q_3 have the same meanings as specified in claim 1, 2 or 3 above.

6. Compound according to claim 5, wherein the compound is selected from the group of compounds represented by general formula Va or general formula Vb



Va;

wherein

R^1, R^2 and R^3 have the same meanings as specified in claim 1 above; R^4 represents a group selected from H, C_{1-4}-alkyl and C_{1-4}-alkylene-F and R^5 represents a group selected from H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3;

wherein preferably

R^1 represents H, NH_2;

R^2 represents H;

R^3 represents a group selected from H, $-PO_3R^{3a}{}_2$, $-CH_2-OPO_3R^{3a}{}_2$ and $-CH_2-O-C(=O)-R^{3b}$;

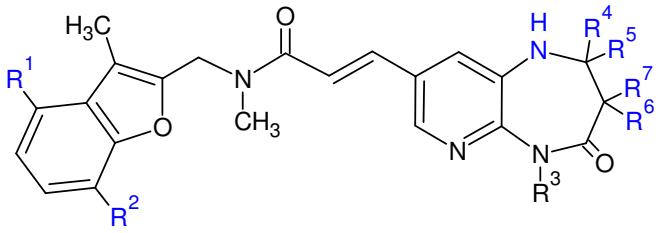
R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or $-CH_2-O-C(=O)-R^{3b}$ or $-CHMe-O-C(=O)-R^{3b}$ or $-CMe_2-O-C(=O)-R^{3b}$ or $-CH_2-O-C(=O)-O-R^{3b}$ or $-CHMe-O-C(=O)-O-R^{3b}$ or $-CMe_2-O-C(=O)-O-R^{3b}$;

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3.

7. Compound according to claim 5, wherein the compound is selected from the group of compounds represented by general formula VI



VI

wherein

R^1, R^2, R^3, R^4, R^5, R^6 and R^7 have the same meanings as specified in embodiment (iii) or (iv) according to claim 1, 2 or 3 above,

wherein, in embodiment (iii), preferably

R^1 represents H, NH_2;

R^2 represents H;

R^3 represents a group selected from H, -$PO_3R^{3a}{}_2$, -CH_2-$OPO_3R^{3a}{}_2$ and -CH_2-O-C(=O)-R^{3b};

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3;

R^6 represents C_{1-4}-alkyl, OH, $-OPO_3R^{3a}{}_2$; and

R^7 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above, C_{1-4}-alkylene-F;

and wherein, in embodiment (iv), preferably

R^1 represents H, NH_2;

R^2 represents H;

R^3 represents a group selected from H, $-PO_3R^{3a}{}_2$, $-CH_2-OPO_3R^{3a}{}_2$ and $-CH_2-O-C(=O)-R^{3b}$;

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or $-CH_2-O-C(=O)-R^{3b}$ or $-CHMe-O-C(=O)-R^{3b}$ or$-CMe_2-O-C(=O)-R^{3b}$ or $-CH_2-O-C(=O)-O-R^{3b}$ or $-CHMe-O-C(=O)-O-R^{3b}$ or$-CMe_2-O-C(=O)-O-R^{3b}$;

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and $-O-C_{1-6}$-alkyl;

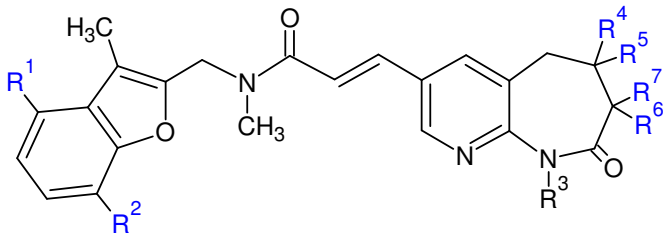
R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3;

R^6 represents H, C_{1-4}-alkyl, OH, $-OPO_3R^{3a}{}_2$; and

R^7 represents C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above, C_{1-4}-alkylene-F.

8. Compound according to claim 5, wherein the compound is selected from the group of compounds represented by general formula VII



VII

wherein

R^1, R^2, R^3, R^6 and R^7 have the same meanings as specified in embodiment (iii) and (iv) according to claim 1, 2 or 3 above,

wherein, in embodiment (iii), preferably

R^1 represents H, NH_2;

R^2 represents H;

R^3 represents a group selected from H, $-PO_3R^{3a}{}_2$, $-CH_2-OPO_3R^{3a}{}_2$ and $-CH_2-O-C(=O)-R^{3b}$;

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or $-CH_2-O-C(=O)-R^{3b}$ or $-CHMe-O-C(=O)-R^{3b}$ or-$CMe_2-O-C(=O)-R^{3b}$ or $-CH_2-O-C(=O)-O-R^{3b}$ or $-CHMe-O-C(=O)-O-R^{3b}$ or-$CMe_2-O-C(=O)-O-R^{3b}$;

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and $-O-C_{1-6}$-alkyl;

R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3;

R^6 represents C_{1-4}-alkyl, OH, $-OPO_3R^{3a}{}_2$; and

R^7 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above, C_{1-4}-alkylene-F;

and wherein, in embodiment (iv), preferably

R^1 represents H, NH_2;

R^2 represents H;

R^3 represents a group selected from H, $-PO_3R^{3a}{}_2$, $-CH_2-OPO_3R^{3a}{}_2$ and $-CH_2-O-C(=O)-R^{3b}$;

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or $-CH_2-O-C(=O)-R^{3b}$ or $-CHMe-O-C(=O)-R^{3b}$ or-$CMe_2-O-C(=O)-R^{3b}$ or $-CH_2-O-C(=O)-O-R^{3b}$ or $-CHMe-O-C(=O)-O-R^{3b}$ or-$CMe_2-O-C(=O)-O-R^{3b}$;

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and $-O-C_{1-6}$-alkyl;

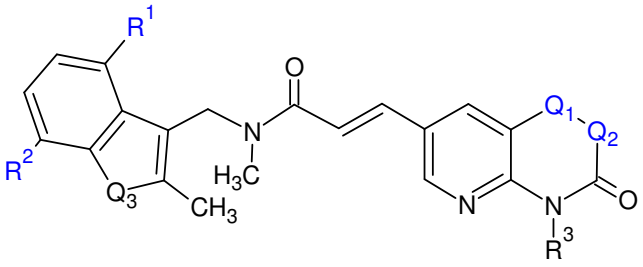
R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3;

R^6 represents H, C_{1-4}-alkyl, OH, -$OPO_3R^{3a}_2$; and

R^7 represents C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above, C_{1-4}-alkylene-F.

9. Compound according to claim 4, wherein the compound is selected from the group of compounds represented by general formula VIII

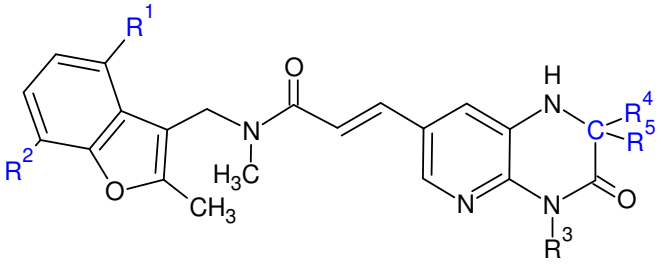


VIII

wherein

R^1, R^2, R^3, Q_1, Q_2, Q_3 have the same meanings as specified in claim 1, 2 or 3 above.

10. Compound according to claim 9, wherein the compound is selected from the group of compounds represented by general formula Xa and Xb



Xa

wherein

R^1, R^2, R^3, R^4 and R^5 have the same meanings as specified in claim 1 above, wherein preferably

R^1 represents H;

R^2 represents a group selected from H, -O-Ar^1, -O-Het^1, -NH_2, wherein Ar^1 represents a phenyl group that may optionally be substituted by one or more groups individually selected from -CN, -O-C_{1-4}-alkyl, or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N and O, wherein Het^1 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, or a non-aromatic partially or fully saturated heterocycle with 6 ring atoms including 1 heteroatom selected from N, S and O, which Het^1 group may optionally be substituted by one or more groups individually selected from -C_{1-4}-alkyl, -O-C_{1-4}-alkyl, -CN;

R^3 represents a group selected from H, -$PO_3R^{3a}{}_2$, -CH_2-$OPO_3R^{3a}{}_2$ and -CH_2-O-C(=O)-R^{3b};

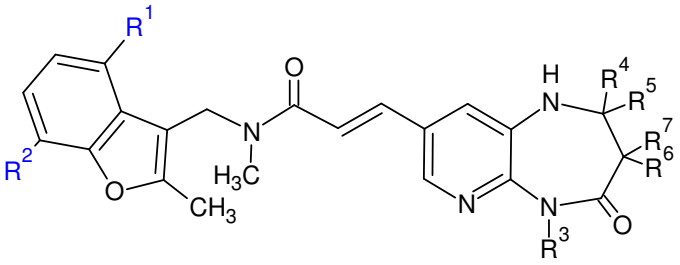
R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

R^4 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-F; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH or C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above .

11. Compound according to claim 9, wherein the compound is selected from the group of compounds represented by general formula XI



XI

wherein

R^1, R^2, R^3, R^4, R^5, R^6 and R^7 have the same meanings as specified in claim 1, 2 or 3 above,

wherein, in embodiment (iii), preferably

R^1 represents H;

R^2 represents a group selected from H, -O-Ar^1, -O-Het^1, -NH_2, wherein Ar^1 represents a phenyl group that may optionally be substituted by one or more groups individually selected from -CN, -O-C_{1-4}-alkyl, or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N and O, wherein Het^1 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, or a non-aromatic partially or fully saturated heterocycle with 6 ring atoms including 1 heteroatom selected from N, S and O, which Het^1 group may optionally be substituted by one or more groups individually selected from -C_{1-4}-alkyl, -O-C_{1-4}-alkyl, -CN;

R^3 represents a group selected from H, -$PO_3R^{3a}_2$, -CH_2-$OPO_3R^{3a}_2$ and -CH_2-O-C(=O)-R^{3b};

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3.

R^6 represents C_{1-4}-alkyl, OH, -$OPO_3R^{3a}_2$; and

R^7 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above, C_{1-4}-alkylene-F;

and wherein, in embodiment (iv), preferably

R^1 represents H;

R^2 represents a group selected from H, -O-Ar^1, -O-Het^1, -NH_2, wherein Ar^1 represents a phenyl group that may optionally be substituted by one or more groups individually selected from -CN, -O-C_{1-4}-alkyl, or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to

form a 5-membered heterocycle having one or two heteroatoms individually selected from N and O, wherein Het^1 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, or a non-aromatic partially or fully saturated heterocycle with 6 ring atoms including 1 heteroatom selected from N, S and O, which Het^1 group may optionally be substituted by one or more groups individually selected from -C_{1-4}-alkyl, -O-C_{1-4}-alkyl, -CN;

R^3 represents a group selected from H, -$PO_3R^{3a}_2$, -CH_2-$OPO_3R^{3a}_2$ and -CH_2-O-C(=O)-R^{3b};

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

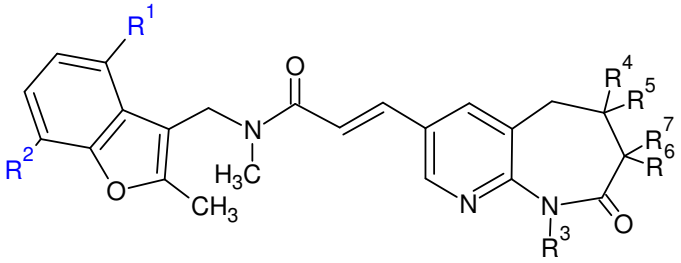
R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3.

R^6 represents H, C_{1-4}-alkyl, OH, -$OPO_3R^{3a}_2$; and

R^7 represents C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above, C_{1-4}-alkylene-F.

12. Compound according to claim 9, wherein the compound is selected from the group of compounds represented by general formula XII



XII

wherein

R^1, R^2, R^3, R^6 and R^7 have the same meanings as specified in claim 1, 2 or 3 above,

wherein, in embodiment (iii),preferably

R^1 represents H;

R^2 represents a group selected from H, -O-Ar^1, -O-Het^1, -NH_2, wherein Ar^1 represents a phenyl group that may optionally be substituted by one or more groups individually selected from -CN, -O-C_{1-4}-alkyl, or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N and O, wherein Het^1 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, or a non-aromatic partially or fully saturated heterocycle with 6 ring atoms including 1 heteroatom selected from N, S and O, which Het^1 group may optionally be substituted by one or more groups individually selected from -C_{1-4}-alkyl, -O-C_{1-4}-alkyl, -CN;

R^3 represents a group selected from H, -$PO_3R^{3a}_2$, -CH_2-$OPO_3R^{3a}_2$ and -CH_2-O-C(=O)-R^{3b};

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3.

R^6 represents C_{1-4}-alkyl, OH, -$OPO_3R^{3a}_2$; and

R^7 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above, C_{1-4}-alkylene-F;

and wherein, in embodiment (iv), preferably

R^1 represents H;

R^2 represents a group selected from H, -O-Ar^1, -O-Het^1, -NH_2, wherein Ar^1 represents a phenyl group that may optionally be substituted by one or more groups individually selected from -CN, -O-C_{1-4}-alkyl, or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N and O, wherein Het^1 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, or a non-aromatic partially or fully

saturated heterocycle with 6 ring atoms including 1 heteroatom selected from N, S and O, which Het^1 group may optionally be substituted by one or more groups individually selected from -C_{1-4}-alkyl, -O-C_{1-4}-alkyl, -CN;

R^3 represents a group selected from H, -$PO_3R^{3a}_2$, -CH_2-$OPO_3R^{3a}_2$ and -CH_2-O-C(=O)-R^{3b};

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

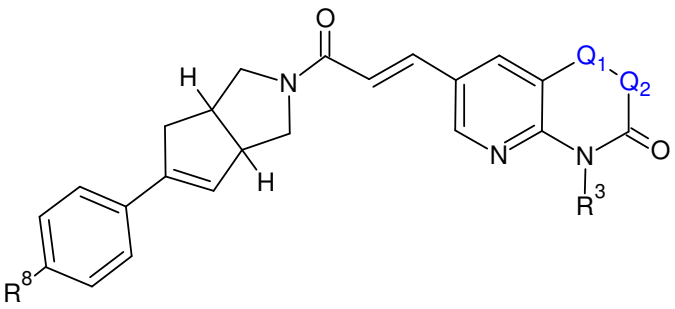
R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3.

R^6 represents H, C_{1-4}-alkyl, OH, -$OPO_3R^{3a}_2$; and

R^7 represents C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above, C_{1-4}-alkylene-F.

13. Compound according to claim 1, wherein the compound is selected from the group of compounds represented by general formula XIII

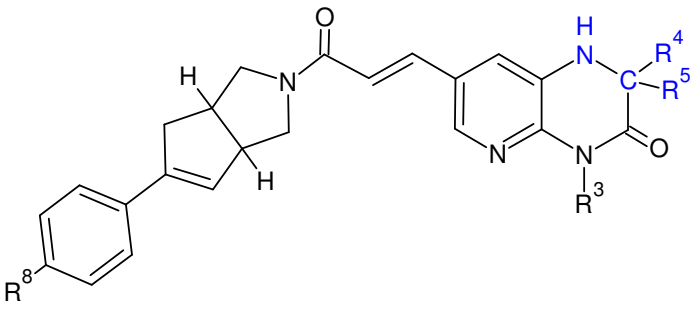


XIII

wherein

R^3, R^8, Q_1, Q_2 have the same meanings as specified in claim 1, 2 or 3 above.

14. Compound according to claim 13, wherein the compound is selected from the group of compounds represented by general formula XIVa or XIVb



XIVa

wherein

R^3, R^4, R^5, R^8 have the same meanings as specified in claim 1 above;

wherein preferably

R^3 represents a group selected from H, $-PO_3R^{3a}{}_2$, $-CH_2-OPO_3R^{3a}{}_2$ and $-CH_2-O-C(=O)-R^{3b}$;

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or $-CH_2-O-C(=O)-R^{3b}$ or $-CHMe-O-C(=O)-R^{3b}$ or $-CMe_2-O-C(=O)-R^{3b}$ or $-CH_2-O-C(=O)-O-R^{3b}$ or $-CHMe-O-C(=O)-O-R^{3b}$ or $-CMe_2-O-C(=O)-O-R^{3b}$;

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and $-O-C_{1-6}$-alkyl;

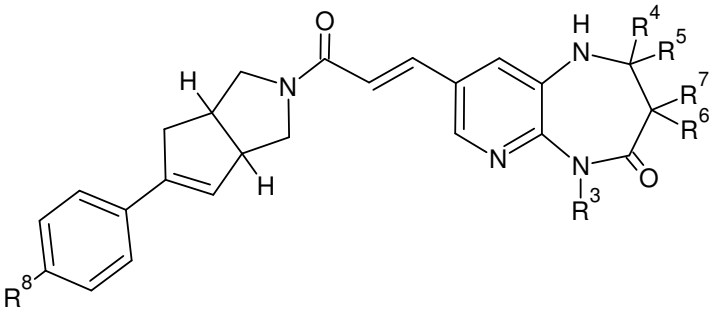
R^4 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-F;

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH or C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above; and

R^8 represents a group selected from $-O-Ar^2$ and $-O-Het^2$;

wherein Ar^2 represents a phenyl group that may optionally be substituted by one or more groups individually selected from –CN, $-O-C_{1-4}$-alkyl or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N, S and O, wherein said heterocycle may optionally carry one or two substituents selected from oxo, F, $-O-C_{1-4}$-alkyl, C_{1-4}-alkyl, CN;
and
wherein Het^2 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, which may optionally be substituted by one or more groups individually selected from $-O-C_{1-4}$-alkyl, -CN, F, C_{1-4}-alkyl .

15. Compound according to claim 13, wherein the compound is selected from the group of compounds represented by general formula XV



XV

wherein

R^3, R^4, R^5, R^6, R^7, R^8 have the same meanings as specified in claim 1, 2 or 3 above,

wherein, in embodiment (iii), preferably

R^3 represents a group selected from H, $-PO_3R^{3a}{}_2$, $-CH_2-OPO_3R^{3a}{}_2$ and $-CH_2-O-C(=O)-R^{3b}$;

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or $-CH_2-O-C(=O)-R^{3b}$ or $-CHMe-O-C(=O)-R^{3b}$ or $-CMe_2-O-C(=O)-R^{3b}$ or $-CH_2-O-C(=O)-O-R^{3b}$ or $-CHMe-O-C(=O)-O-R^{3b}$ or $-CMe_2-O-C(=O)-O-R^{3b}$;

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and $-O-C_{1-6}$-alkyl;

R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3;

R^6 represents C_{1-4}-alkyl, OH, $-OPO_3R^{3a}{}_2$; and

R^7 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above, C_{1-4}-alkylene-F; and

R^8 represents a group selected from –O-Ar^2 and –O-Het^2,

wherein Ar^2 represents a phenyl group that may optionally be substituted by one or more groups individually selected from –CN, -O-C_{1-4}-alkyl or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N, S and O, wherein said heterocycle may optionally carry one or two substituents selected from oxo, F, -O-C_{1-4}-alkyl, C_{1-4}-alkyl, CN
and
wherein Het^2 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, which may optionally be substituted by one or more groups individually selected from –O-C_{1-4}-alkyl, -CN, F, C_{1-4}-alkyl;
wherein, in embodiment (iv), preferably

R^3 represents a group selected from H, -$PO_3R^{3a}_2$, -CH_2-$OPO_3R^{3a}_2$ and -CH_2-O-C(=O)-R^{3b};

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3;

R^6 represents H, C_{1-4}-alkyl, OH, -$OPO_3R^{3a}_2$; and

R^7 represents C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above, C_{1-4}-alkylene-F;

and

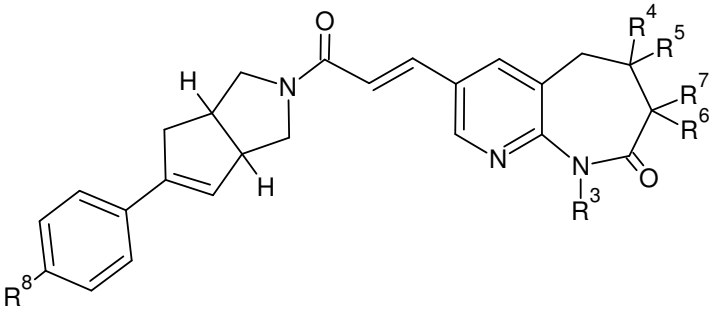
R^8 represents a group selected from –O-Ar^2 and –O-Het^2,

wherein Ar^2 represents a phenyl group that may optionally be substituted by one or more groups individually selected from –CN, -O-C_{1-4}-alkyl or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms individually selected from N, S and O, wherein said heterocycle may optionally carry one or two substituents selected from oxo, F, -O-C_{1-4}-alkyl, C_{1-4}-alkyl, CN

and

wherein Het^2 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, which may optionally be substituted by one or more groups individually selected from –O-C_{1-4}-alkyl, -CN, F, C_{1-4}-alkyl.

16. Compound according to claim 13, wherein the compound is selected from the group of compounds represented by general formula XVI



XVI

wherein

R^3, R^4, R^5, R^6, R^7, R^8 have the same meanings as specified in claim 1, 2 or 3 above,

wherein, in embodiment (iii),preferably

R^3 represents a group selected from H, -$PO_3R^{3a}_2$, -CH_2-$OPO_3R^{3a}_2$ and -CH_2-O-C(=O)-R^{3b};

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3;

R^6 represents C_{1-4}-alkyl, OH, -$OPO_3R^{3a}_2$; and

R^7 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above, C_{1-4}-alkylene-F;

R^8 represents a group selected from –O-Ar^2 and –O-Het^2 ,

wherein Ar^2 represents a phenyl group that may optionally be substituted by one or more groups individually selected from –CN, -O-C_{1-4}-alkyl or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms selected N, S and O, wherein said heterocycle may optionally carry one or two substituents individually selected from oxo, F, -O-C_{1-4}-alkyl, C_{1-4}-alkyl, CN
and
wherein Het^2 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, which may optionally be substituted by one or more groups individually selected from –O-C_{1-4}-alkyl, -CN, F, C_{1-4}-alkyl;

and wherein, in embodiment (iv), preferably

R^3 represents a group selected from H, -$PO_3R^{3a}_2$, -CH_2-$OPO_3R^{3a}_2$ and -CH_2-O-C(=O)-R^{3b};

R^{3a} represents a hydrogen atom or a cation suitable for forming a pharmaceutically acceptable salt or -CH_2-O-C(=O)-R^{3b} or -CHMe-O-C(=O)-R^{3b} or-CMe_2-O-C(=O)-R^{3b} or -CH_2-O-C(=O)-O-R^{3b} or -CHMe-O-C(=O)-O-R^{3b} or-CMe_2-O-C(=O)-O-R^{3b};

R^{3b} represents an alkyl group having 1 to 11 carbon atoms, which is linear, branched, cyclic or a combination thereof, which R^{3b} group may optionally be substituted by one or more groups independently selected from –OH, and -O-C_{1-6}-alkyl;

R^4 represents H, C_{1-4}-alkyl; and

R^5 represents H, C_{1-4}-alkyl, C_{1-4}-alkylene-OR^3;

R^6 represents H, C_{1-4}-alkyl, OH, -$OPO_3R^{3a}_2$; and

R^7 represents C_{1-4}-alkyl, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-OR^3, wherein R^3 is as specified above, C_{1-4}-alkylene-F;

R^8 represents a group selected from –O-Ar^2 and –O-Het^2 ,

wherein Ar^2 represents a phenyl group that may optionally be substituted by one or more groups individually selected from –CN, -O-C_{1-4}-alkyl or wherein the phenyl group may carry two substituent groups at adjacent ring atoms such that these adjacent substituent groups may be bonded together to form a 5-membered heterocycle having one or two heteroatoms selected N, S and O, wherein said heterocycle may optionally carry one or two substituents individually selected from oxo, F, -O-C_{1-4}-alkyl, C_{1-4}-alkyl, CN

and

wherein Het^2 represents an aromatic heterocycle with 5 or 6 ring atoms including 1 or 2 heteroatoms individually selected from N, S and O, which may optionally be substituted by one or more groups individually selected from –O-C_{1-4}-alkyl, -CN, F, C_{1-4}-alkyl.

17. Pharmaceutical composition comprising the compound of anyone of claims 1 to 16.

18. Use of a compound according to anyone of claims 1 to 16 or pharmaceutical composition according to claim 15 in the manufacture of a medicament tfor the treatment of a bacterial infection selected from infections by N. gonorrhoeae,
Bacillus Spp., in particular Bacillus cereus, Bacillus coagulans, Bacillus megaterium, Bacillus subtilis, Baclillus anthacis,
Bartonella Spp.,
Brucella Spp, in particular Brucella abortus, Brucella melitensis,
Campylobacter Spp., in particular Campylobacter jejuni,
Chlamydia trachomatis
Enterococcus faecalis, Enterococcus faecium, Legionella pneumophila,
Listeria Spp., in particular Listeria monocytogenes, Proteus mirabilis,
Providencia stuartii,
Rickettsia Spp., in particular Rickettsia rickettsii,
Bordetella pertussis, Bordetella parapertussis,
Burkholderia Spp., in particular Burkholderia pseudomallei, Burkholderia mallei,
Burkholderia cenocepacia,
Haemophilus influenza,
Kingella kingae,
Moraxella catarrhalis,
Streptomyces Spp.,
Nocardioides Spp.,
Frankia Spp.
Propionibacterium acnes,
Mycobacterium Spp., in particular Mycobacterium smegmatis, Mycobacterium abscessus, Mycobacterium leprae, Mycobacterium tuberculosis, Mycobacterium avium and combinations thereof, preferably infections by N. gonorrhoeae alone or in combination with Chlamydia trachomatis.