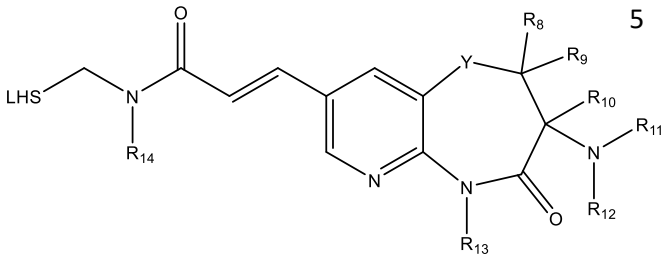
Claims

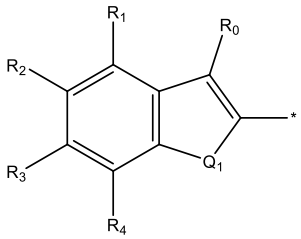
1. A compound of formula (I)



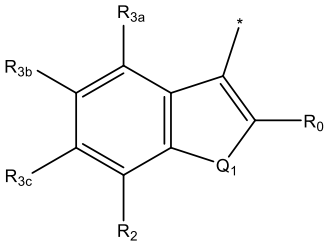
(I)

or a pharmaceutically acceptable salt and/or solvate thereof, wherein

LHS is selected from the group consisting of LHSa and LHSb



LHSa



LHSb

wherein, the asterisk (*) marks the point of attachment;

Y is selected from the group consisting of CH_2, NH, and NR_d;

Q_1 is selected from the group consisting of O, S, NH and N-C_{1-4}-alkyl;

R_0 is selected from the group consisting of CH_3 and Cl, or alternatively R_0 together with R_{14} form a heterocycle comprising the N to which R_{14} is attached and having 5 to 8 ring members;

R_1 is selected from the group consisting of H, F, Cl, Br, I, C_{1-4}-alkyl, OR_5, CN, NR_5R_6, CO-NR_5R_6, C_{1-4}-alkylene-NR_5R_6, C_{1-4}-alkylene-OR_5, NH-CO-C_{1-4}-alkylene-R_5, NH-CO-NR_5R_6, NH-$COOR_5$, $NHSO_2$-C_{1-4}-alkylene-R_5, C_{3-6}-cycloalkyl, phenyl, and a heterocyclic group having 5 or 6 ring members and 1, 2 or 3 heteroatoms independently selected from N, O and S;

R_2 is selected from the group consisting of H, F, Cl, Br, I, C_{1-4}-alkyl, OR_5, C_{1-4}-alkylene-OR_5, CN, NR_5R_6, CO-NR_5R_6, C_{1-4}-alkylene-NR_5R_6, C_{3-6}-cycloalkyl, phenyl, and a heterocyclic group having 5 or 6 ring members and 1, 2 or 3 heteroatoms independently selected from N, O and S, ;

R_3 is selected from the group consisting of H, F, Cl, Br, I, CN, C_{1-4}-alkyl, O-C_{1-4} alkyl, OH, NH_2, NHC_{1-4}-alkyl, and S-C_{1-4}-alkyl;

R_{3a}, R_{3b} and R_{3c} are independently selected from the group consisting of H, F, Cl, Br, I, CN, C_{1-4}-alkyl, O-C_{1-4}-alkyl, OH, NH_2, NHC_{1-4}-alkyl, and S-C_{1-4}-alkyl;

R_4 is selected from the group consisting of H, F, Cl, Br, I, C_{1-4}-alkyl, OR_5, CN, COR_{10}, phenyl, OH, NH_2, S-C_{1-4}-alkyl, NR_5R_6, and a heterocyclic group having 5 or 6 ring members and 1, 2 or 3 heteroatoms independently selected from N, O and S;

R_5 and R_6 are independently selected from is selected from the group consisting of H, COR_{10}, C_{1-4}-alkyl, C_{3-6}-cycloalkyl, SO_2R_7, phenyl, and a heterocyclic group having 5 or 6 ring members and 1, 2 or 3 heteroatoms independently selected from N, O and S;

R_7 is selected from the group consisting of H, F, I, Br, Cl, O, C_{1-4}-alkyl, $CONH_2$, OH, NH_2, O-C_{1-4}-alkyl, NH-C_{1-4}-alkyl, $N(C_{1-4}\text{-alkyl})_2$, C_{1-4}-alkylene-OH, and C_{1-4}-alkylene-NH_2, NO_2, CN, C_{2-4}-alkenyl, C_{2-4}-alkynyl, C_{2-4}-alkynylene-OH, C_{2-4}-alkynylene-NH_2, SO_2CH_3, and O-C_{1-4}-alkylene-OH;

R_8 and R_9 are independently selected from the group consisting of H, C_{1-4}-alkyl, C_{1-4}-alkyl-F, CN, OH, NH_2, O-C_{1-4}-alkyl, NH-C_{1-4}-alkyl, $N(C_{1-4}\text{-alkyl})_2$, C_{1-4}-alkylene-OH, and C_{1-4}-alkylene-NH_2;

R_{10} is selected from the group consisting of H, C_{1-4}-alkyl, C_{1-4}-alkyl-F, C_{1-4}-alkylene-OH, and C_{1-4}-alkylene-NH_2;

R_{11} and R_{12} are independently selected from the group consisting of H, R_d, C_{1-4}-alkyl, CO-C_{1-4}-alkyl, $SO_2(C_{1-4}\text{-alkyl})_1$, C_{1-4}-alkyl-F, C_{1-4}-alkylene-OH, and C_{1-4}-alkylene-NH_2, or alternatively, R_{11} and R_{12} together with the N to which they are attached form a heterocyclic group having 4 to 9 ring members and 1, 2 or 3 heteroatoms independently selected from N, O and S or form a heterocyclic spiro group having 7 to 11 ring members and 1, 2 or 3 heteroatoms independently selected from N, O and S;

R_{13} is selected from the group consisting of H or R_d;

R_{14} is CH_3, or alternatively R_{14} together with R_0 of LHS_a or LHS_b form a heterocycle comprising the N to which R_{14} is attached and having 5 to 8 ring members;

and,

R_d is selected from the group consisting of $-PO_3R_{e2}$, $-CH_2-OPO_3R_{e2}$, wherein R_e is selected from the group consisting of H and a cation suitable for forming a pharmaceutically acceptable salt.

2. A compound according to claim 1 wherein LHS is LHSa.

3. A compound according to claim 1 wherein LHS is LHSb.

4. A compound according to any one of claims 1 to 3 wherein Q_1 is selected from the group consisting of O or S.

5. A compound according to any one of claims 1 to 4 wherein R_0 is CH_3 and R_{14} is CH_3.

6. A compound according to any one of claims 1 to 4 wherein R_0 together with R_{14} form a heterocycle comprising the N to which R_{14} is attached and having 5 to 8 ring members.

7. A compound according to claim 6, wherein R_0 together with R_{14} form a heterocycle comprising the N to which R_{14} is attached and having 7 ring members.

8. A compound according to claim 6 or 7, wherein the only heteroatom in said heterocycle is the N to which R_{14} is attached.

9. A compound according to any one of claims 1 to 8 wherein R_1 is selected from the group consisting of H, F, Cl, Br, C_{1-4}-alkyl, OR_5, CN, NR_5R_6, C_{1-4}-alkylene-NR_5R_6, C_{1-4}-alkylene-OR_5, NH-CO-C_{1-4}-alkylene-R_5, NH-CO-NR_5R_6, NH-$COOR_5$, $NHSO_2$-C_{1-4}-alkylene-R_5, C_{3-6}-cycloalkyl, phenyl, and a heterocyclic group having 5 or 6 ring members and 1, 2 or 3 heteroatoms independently selected from N, O and S, and wherein R_5, R_6 and R_7 are as specified in claim 1.

10. A compound according to any one of claims 1 to 9 wherein R_2 is selected from the group consisting of H, F, Cl, Br, C_{1-4}-alkyl, OR_5, C_{1-4}-alkylene-OR_5, CN, NR_5R_6, C_{1-4}-alkylene-NR_5R_6 and C_{3-6}-cycloalkyl, and wherein R_5, R_6 and R_7 are as specified in claim 1.

11. A compound according to anyone of claims 1 to 10 wherein R_3 is selected from the group consisting of H, F, Cl, Br, OH, NH_2, and NHC_{1-4}-alkyl.

12. A compound according to any one of claims 1 to 11 wherein R_{3a}, R_{3b} and R_{3c} are independently selected from the group consisting of H, F, Cl, Br, OH, NH_2, and NHC_{1-4}-alkyl.

13. A compound according to any one of claims 1 to 12 wherein R_4 is selected from the group consisting of H, F, Cl, Br, OR_5, COR_{10}, OH, NH_2, and NR_5R_6, and wherein R_5, R_6 and R_{10} are as specified in claim 1.

14. A compound according to any one of claims 1 to 13 wherein R_7 is selected from the group consisting of H, F, C_{1-4}-alkyl, C_{2-4}-alkenyl, C_{2-4}-alkynyl, OH, NH_2, O-C_{1-4}-alkyl, NH-C_{1-4}-alkyl, N(C_{1-4}-alkyl)$_2$, C_{1-4}-alkylene-OH, C_{1-4}-alkylene-NH_2, and O-C_{1-4}-alkylene-OH, C_{2-4}-alkynylene-OH, and C_{2-4}-alkynylene-NH_2.

15. A compound according to anyone of claims 1 to 14 wherein R_8 and R_9 are independently selected from the group consisting of H, C_{1-4}-alkyl, C_{1-4}-alkyl-F, and O-C_{1-4}-alkyl.

16. A compound according to anyone of claims 1 to 15 wherein R_{10} is selected from the group consisting of H, C_{1-4}-alkyl, C_{1-4}-alkyl-F.

17. A compound according to anyone of claims 1 to 16 wherein R_{11} and R_{12} are independently selected from the group consisting of H, R_d, C_{1-4}-alkyl, C_{1-4}-alkyl-F, C_{1-4}-alkylene-OH, and C_{1-4}-alkylene-NH_2, or alternatively, R_{11} and R_{12} together with the N to which they are attached form a heterocyclic group having 4 to 9 ring members and 1, 2 or 3 heteroatoms independently selected from N, O and S or form a heterocyclic spiro group having 7 to 11 ring members and 1, 2 or 3 heteroatoms independently selected from N, O and S, and wherein R_7 and R_d are as specified in claim 1.

18. A compound according to anyone of claims 1 to 17 wherein,
R_1 is selected from the group consisting of H, F, Cl, Br, C_{1-4}-alkyl, OR_5, NR_5R_6, C_{1-4}-alkylene-NR_5R_6, C_{1-4}-alkylene-OR_5, NH-CO-C_{1-4}-alkylene-R_5, NH-CO-NR_5R_6, NH-$COOR_5$, $NHSO_2$-C_{1-4}-alkylene-R_5, C_{3-6}-cycloalkyl, ;

R_2 is selected from the group consisting of H, F, Cl, Br, C_{1-4}-alkyl, OR_5, C_{1-4}-alkylene-OR_5, CN, NR_5R_6, C_{1-4}-alkylene-NR_5R_6, C_{3-6}-cycloalkyl, ;

R_3 is selected from the group consisting of H, F, Cl, Br, OH, NH_2, and NHC_{1-4}-alkyl;

R_{3a}, R_{3b} and R_{3c} are independently selected from the group consisting of H, F, Cl, Br, OH, NH_2, and NHC_{1-4}-alkyl;

R_4 is selected from the group consisting of H, F, Cl, Br, OR_5, COR_{10}, OH, NH_2, and NR_5R_6;

R_7 is selected from the group consisting of H, F, C_{1-4}-alkyl, C_{2-4}-alkenyl, C_{2-4}-alkynyl, OH, NH_2, O-C_{1-4}-alkyl, NH-C_{1-4}-alkyl, $N(C_{1-4}$-alkyl$)_2$, C_{1-4}-alkylene-OH, and C_{1-4}-alkylene-NH_2, O-C_{1-4}-alkylene-OH, C_{2-4}-alkynylene-OH, and C_{2-4}-alkynylene-NH_2;

R_8 and R_9 are independently selected from the group consisting of H, C_{1-4}-alkyl, C_{1-4}-alkyl-F, and O-C_{1-4}-alkyl;

R_{10} is selected from the group consisting of H, C_{1-4}-alkyl, and C_{1-4}-alkyl-F,;

and,

R_{11} and R_{12} are independently selected from the group consisting of H, R_d, C_{1-4}-alkyl, C_{1-4}-alkyl-F, C_{1-4}-alkylene-OH, and C_{1-4}-alkylene-NH_2, or alternatively, R_{11} and R_{12} together with the N to which they are attached form a heterocyclic group having 4 to 9 ring members and 1, 2 or 3 heteroatoms independently selected from N, O and S or form a heterocyclic spiro group having 7 to 11 ring members and 1, 2 or 3 heteroatoms independently selected from N, O and S, and wherein R_5, R_6 and R_d are as specified in claim 1.

19. A compound according to claims 9 and 18, wherein R_1 is selected from the group consisting of H, F, Cl, C_{1-4}-alkyl, OR_5, NR_5R_6, C_{1-4}-alkylene-NR_5R_6, C_{1-4}-alkylene-OR_5, C_{3-6}-cycloalkyl, phenyl, and a heterocyclic group having 5 or 6 ring members and 1, 2 or 3 heteroatoms independently selected from N, O and S, and wherein R_5, R_6 and R_7 are as specified in claim 1.
20. A compound according to claims 10 and 18, wherein R_2 is selected from the group consisting of C_{1-4}-alkyl, H, F, Cl, OR_5, and NR_5R_6, wherein R_5, R_6 and R_7 are as specified in claim 1.
21. A compound according to claims 11 and 18, wherein R_3 is selected from the group consisting of H, F, Cl, OH, and NH_2.

22. A compound according to claims 12 and 18, wherein R_{3a}, R_{3b} and R_{3c} are independently selected from the group consisting of H, F, Cl, OH, and NH_2.
23. A compound according to claims 13 and 18, wherein R_4 is selected from the group consisting of H, F, Cl, OR_5, OH, NH_2, and NR_5R_6, wherein R_5, R_6 and R_{10} are as specified in claim 1.
24. A compound according to claims 14 and 18, wherein R_7 is selected from the group consisting of H, F, C_{1-4}-alkyl, OH, NH_2, O-C_{1-4}-alkyl, NH-C_{1-4}-alkyl, $N(C_{1-4}\text{-alkyl})_2$, C_{1-4}-alkylene-OH, and C_{1-4}-alkylene-NH_2.
25. A compound according to claims 15 and 18, wherein R_8 and R_9 are independently selected from the group consisting of H, and C_{1-4}-alkyl.
26. A compound according to claims 16 and 18, wherein R_{10} is selected from the group consisting of H, and C_{1-4}-alkyl.
27. A compound according to claims 17 and 18, wherein R_{11} and R_{12} are independently selected from the group consisting of H, R_d, and C_{1-4}-alkyl.
28. A compound according to any one of claims 1-27, wherein said C_{1-4}-alkyl , cycloalkyl, phenyl, or heterocyclic group of R_1 is substituted with 1-3 R_7 groups.
29. A compound according to any one of claims 1-27, wherein said C_{1-4}-alkyl, cycloalkyl, phenyl, or heterocyclic group of R_2 is substituted with 1-3 R_7 groups.
30. A compound according to any one of claims 1-27, wherein said cycloalkyl, phenyl, or heterocyclic group of R_5 and R_6 is substituted with 1-3 R_7 groups.
31. A compound according to any one of claims 1-27, wherein said heterocyclic or heterocyclic spiro group of R_{11} and R_{12} is substituted with 1-3 R_7 groups.

32. A compound according to any one of claims 1 to 31 wherein Y is CH_2.

33. A compound according to any one of claims 1 or 31 wherein Y is NH.

34. A compound according to claim 1 selected from the group consisting of (E)-3-((2R,3S)-3-Amino-2-methyl-4-oxo-2,3,4,5-tetrahydro-1H-pyrido[2,3-b][1,4]diazepin-8-yl)-N-((7-amino-2-methylbenzofuran-3-yl)methyl)-N-methylacrylamide, (E)-3-((2R,3S)-3-amino-2-methyl-4-oxo-2,3,4,5-tetrahydro-1H-pyrido[2,3-b][1,4]diazepin-8-yl)-N-methyl-N-((3-methylbenzofuran-2-yl)methyl)acrylamide, E)-3-(3-acetamido-4-oxo-2,3,4,5-tetrahydro-1H-pyrido[2,3-b][1,4]diazepin-8-yl)-N-methyl-N-((3-methylbenzofuran-2-yl)methyl)acrylamide, (S,E)-N-methyl-N-((2-methylbenzofuran-3-yl)methyl)-3-(4-oxo-3-(2-oxa-6-azaspiro[3.3]heptan-6-yl)-2,3,4,5-tetrahydro-1H-pyrido[2,3-b][1,4]diazepin-8-yl)acrylamide, E)-3-((R)-3-((2S,6R)-2,6-dimethylmorpholino)-4-oxo-2,3,4,5-tetrahydro-1H-pyrido[2,3-b][1,4]diazepin-8-yl)-N-methyl-N-((3-methylbenzofuran-2-

yl)methyl)acrylamide, and (S,E)-3-(3-amino-4-oxo-2,3,4,5-tetrahydro-1H-pyrido[2,3-b][1,4]diazepin-8-yl)-N-methyl-N-((3-methylbenzofuran-2-l)methyl)acrylamide, (E)-3-(7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-((7-chloro-3-methylbenzofuran-2-yl)methyl)-N-methylacrylamide, (E)-3-(7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-methyl-N-((2-methylbenzofuran-3-yl)methyl)acrylamide, (S,E)-3-(7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-methyl-N-((3-methylbenzofuran-2-yl)methyl)acrylamide, (E)-3-(7-(dimethylamino)-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-methyl-N-((3-methylbenzofuran-2-yl)methyl)acrylamide, (S,E)-3-(7-(dimethylamino)-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-methyl-N-((3-methylbenzofuran-2-yl)methyl)acrylamide, (S,E)-3-(7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-((7-chloro-3-methylbenzofuran-2-yl)methyl)-N-methylacrylamide, (S,E)-3-(7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-((7-fluoro-3-methylbenzofuran-2-yl)methyl)-N-methylacrylamide, (S,E)-3-(7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-methyl-N-((3-methylbenzo[b]thiophen-2-yl)methyl)acrylamide, (S,E)-3-(7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-((4-fluoro-3-methylbenzofuran-2-yl)methyl)-N-methylacrylamide, (S,E)-3-(7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-((7-fluoro-3-methylbenzo[b]thiophen-2-yl)methyl)-N-methylacrylamide, (S,E)-3-(7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-methyl-N-((3-methyl-5-(pyridin-3-yloxy)benzofuran-2-yl)methyl)acrylamide, (E)-3-((S)-7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-((4-(((1r,4r)-4-aminocyclohexyl)oxy)-3-methylbenzofuran-2-yl)methyl)-N-methylacrylamide, (S,E)-3-(7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-methyl-N-((3-methyl-4-((pyridin-3-ylamino)methyl)benzofuran-2-yl)methyl)acrylamide, (S,E)-N-((7-fluoro-3-methylbenzofuran-2-yl)methyl)-N-methyl-3-(7-morpholino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)acrylamide, (E)-N-methyl-N-((2-methylbenzofuran-3-yl)methyl)-3-(7-morpholino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)acrylamide, (E)-N-methyl-N-((3-methylbenzofuran-2-yl)methyl)-3-(8-oxo-7-(7-oxa-2-azaspiro[3.5]nonan-2-yl)-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)acrylamide, (E)-3-(7-(1,1-Dioxidothiomorpholino)-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-methyl-N-((3-methylbenzofuran-2-yl)methyl)acrylamide, (E)-N-Methyl-N-((3-methylbenzofuran-2-yl)methyl)-3-(8-oxo-7-(pyrrolidin-1-yl)-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)acrylamide, (E)-N-Methyl-N-((3-methylbenzofuran-2-yl)methyl)-3-(7-(4-(methylsulfonyl)piperazin-1-yl)-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)acrylamide, S,E)-N-methyl-N-((3-methylbenzofuran-2-yl)methyl)-3-(8-oxo-7-(2-oxa-6-azaspiro[3.3]heptan-6-yl)-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)acrylamide, ((S,E)-3-(7-(3-hydroxyazetidin-1-yl)-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-methyl-N-((3-methylbenzofuran-2-

yl)methyl)acrylamide, (E)-N-((7-Amino-2-methylbenzofuran-3-yl)methyl)-N-methyl-3-(8-oxo-7-(pyrrolidin-1-yl)-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)acrylamide, (S,E)-N-((7-amino-2-methylbenzofuran-3-yl)methyl)-3-(7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-methylacrylamide, and (E)-3-((2R,3S)-3-hydroxy-2-methyl-4-oxo-2,3,4,5-tetrahydro-1H-pyrido[2,3-b][1,4]diazepin-8-yl)-N-methyl-N-((3-methyl-4-(pyridin-3-yloxy)benzofuran-2-yl)methyl)acrylamide, (S,E)-3-(7-amino-8-oxo-6,7,8,9-tetrahydro-5H-pyrido[2,3-b]azepin-3-yl)-N-methyl-N-((2-methylbenzofuran-3-yl)methyl)acrylamide and any pharmaceutically acceptable salts and/or solvates thereof.

35. A pharmaceutical composition comprising a compound according to any preceding claim.

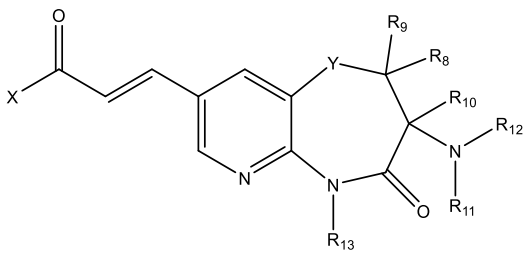
36. Use of a compound or composition according to any preceding claims in the manufacture of a medicament for treating a bacterial infection .

37. The use according to claim 36, wherein the bacterial infection is associated with one or more of bacteria selected from the group consisting of: *S. aureus, E. coli, Klebsiella pneumoniae and A. baumannii*.

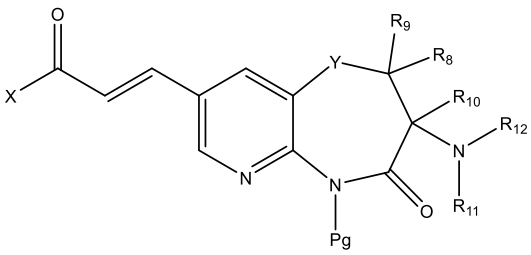
38. The use according to claim 36, wherein the bacterial infection is associated with *A. baumannii*.

39. The use according to claim 36, wherein the bacterial infection is pneumonia or nosocomial pneumonia.

40. A method for producing a compound as defined in anyone of claims 1 to 34 wherein said method is selected from a first variant that comprises the step of coupling a precursor compound of formula M1 or M1’



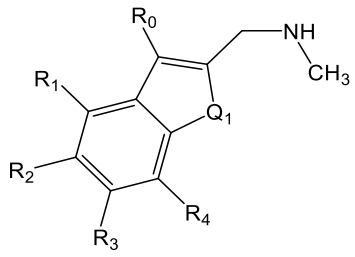
M1

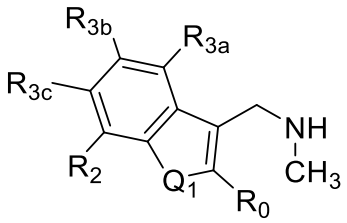


M1’

wherein X represents a leaving group, , and Pg represents a protective group, and R_{11} and or R_{12} is a group as defined in any of claims 1 to 34 or such a defined group that comprise a protective group,

with an amine compound of formula M2a or M2b, as appropriate

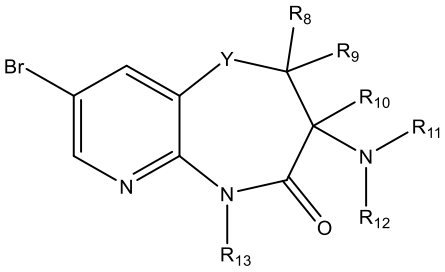


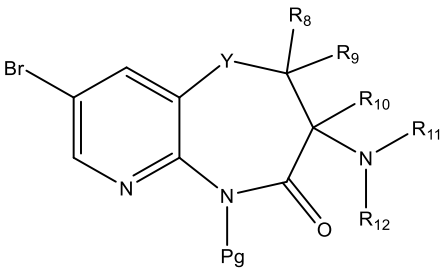


M2a, M2b

wherein Y, Q_1, and all R groups have the same meanings as specified in claims 1 to 33;

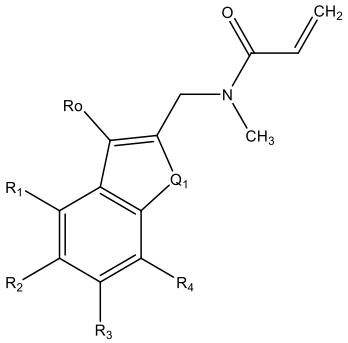
and a second variant that comprises the step of coupling a compound of formula M6 or M6'

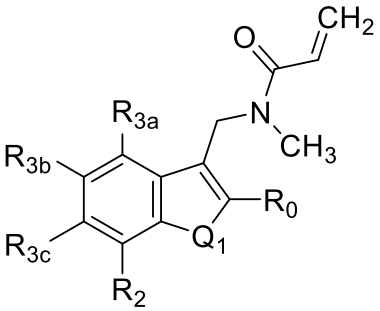




M6 M6'

with a compound of formula M7a or M7b, as appropriate





M7a M7b

wherein Pg represents a protective group, wherein Y, Q_1 and all R groups have the same meaning as specified in claims 1 to 34, wherein R_{11} and R_{12} is a group as defined in any of claims 1 to 34 or such a defined group that also comprises a protective group.

41. The method according to claim 40, wherein X is selected from a hydroxyl group, a tosylate group, a triflate group, a mesylate group, iodide, bromide, chloride, methoxy, and ethoxy.

42. The method according to claim 40, wherein Pg is selected from the Boc group, PMB group, and DMB group.

43. The method according to claim 40, wherein R_{11} and or R_{12} is selected from the Boc group, PMB group, and DMB group.