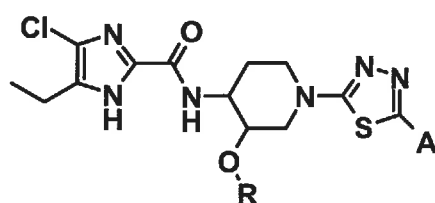


Claims:

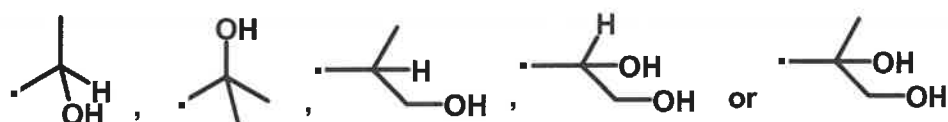
1. A compound represented by general formula (I), or a pharmaceutically acceptable salt thereof;



(I)

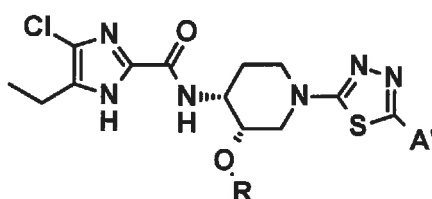
wherein **R** represents (C₁-C₃) alkyl, and

A represents the following formulae:



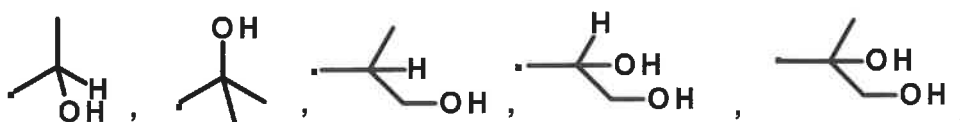
provided that, in the general formula (I), tautomers with a hydrogen at different positions of the imidazole ring are included.

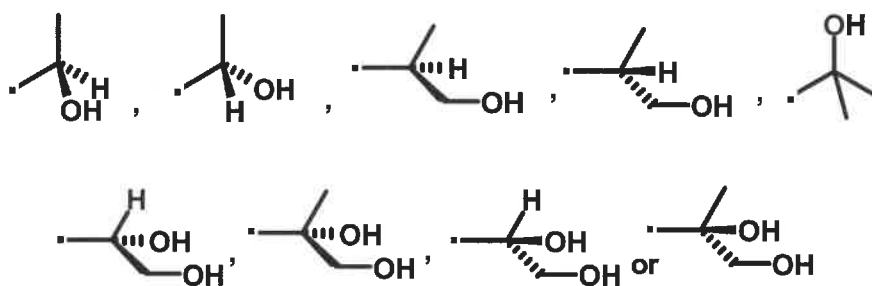
2. The compound or a pharmaceutically acceptable salt thereof according to claim 1, wherein the compound of general formula (I) has the following structure:



wherein **R** represents (C₁-C₃) alkyl, and

A' represents following formulae:





3. The compound, a stereoisomer, or a pharmaceutically acceptable salt thereof according to claim 1 or 2, wherein R represents methyl or ethyl.

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4. The compound according to any one of claims 1 to 3, wherein the compound is selected from:

- 4-Chloro-*N*-{(3*S*,4*R*)-3-ethoxy-1-[5-(1-hydroxyethyl)-1,3,4-thiadiazol-2-yl]piperidin-4-yl}-5-ethyl-1*H*-imidazole-2-carboxamide,
- 10 4-Chloro-5-ethyl-*N*-{(3*S*,4*R*)-1-[5-(1-hydroxy-1-methylethyl)-1,3,4-thiadiazol-2-yl]-3-methoxypiperidin-4-yl}-1*H*-imidazole-2-carboxamide,
- 4-Chloro-5-ethyl-*N*-{(3*S*,4*R*)-1-[5-(1-hydroxyethyl)-1,3,4-thiadiazol-2-yl]-3-methoxypiperidin-4-yl}-1*H*-imidazole-2-carboxamide,
- 15 4-Chloro-5-ethyl-*N*-[(3*S*,4*R*)-1-{5-[(1*R*)-1-hydroxyethyl]-1,3,4-thiadiazol-2-yl}-3-methoxypiperidin-4-yl]-1*H*-imidazole-2-carboxamide,
- 4-Chloro-5-ethyl-*N*-[(3*S*,4*R*)-1-{5-[(1*S*)-1-hydroxyethyl]-1,3,4-thiadiazol-2-yl}-3-methoxypiperidin-4-yl]-1*H*-imidazole-2-carboxamide,
- 20 4-Chloro-5-ethyl-*N*-{(3*S*,4*R*)-1-[5-(1-hydroxypropan-2-yl)-1,3,4-thiadiazol-2-yl]-3-methoxypiperidin-4-yl}-1*H*-imidazole-2-carboxamide,
- 4-Chloro-*N*-{(3*S*,4*R*)-3-ethoxy-1-[5-(2-hydroxypropan-2-yl)-1,3,4-thiadiazol-2-yl]piperidin-4-yl}-5-ethyl-1*H*-imidazole-2-carboxamide,
- 4-Chloro-*N*-[(3*S*,4*R*)-1-{5-[(1*S*)-1,2-dihydroxyethyl]-1,3,4-thiadiazol-2-yl}-3-methoxypiperidin-4-yl]-5-ethyl-1*H*-imidazole-2-carboxamide,
- 25 4-Chloro-*N*-[(3*S*,4*R*)-1-{5-[(1*R*)-1,2-dihydroxyethyl]-1,3,4-thiadiazol-2-yl}-3-methoxypiperidin-4-yl]-5-ethyl-1*H*-imidazole-2-carboxamide,

4-Chloro-*N*-[(3*S*,4*R*)-1-{5-[(2*R*)-1,2-dihydroxypropan-2-yl]-1,3,4-thiadiazol-2-yl}-3-methoxypiperidin-4-yl]-5-ethyl-1*H*-imidazole-2-carboxamide,

4-Chloro-*N*-[(3*S*,4*R*)-1-{5-[(2*S*)-1,2-dihydroxypropan-2-yl]-1,3,4-thiadiazol-2-yl}-3-methoxypiperidin-4-yl]-5-ethyl-1*H*-imidazole-2-carboxamide, or

a pharmaceutically acceptable salt thereof.

5. The compound according to claim 4, wherein the compound is 4-chloro-5-ethyl-*N*-[(3*S*,4*R*)-1-[5-(1-hydroxy-1-methylethyl)-1,3,4-thiadiazol-2-yl]-3-methoxypiperidin-4-yl]-1*H*-imidazole-2-carboxamide as a crystalline 2/3 hydrate form.

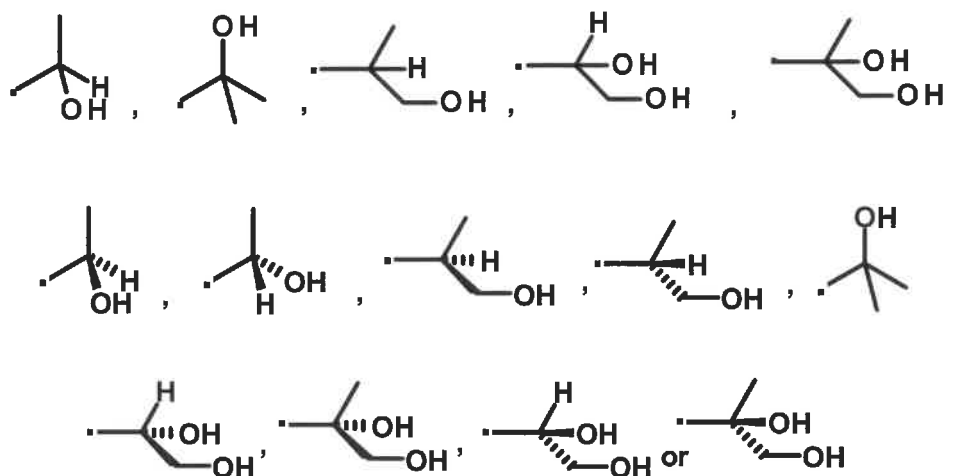
6. The compound according to claim 4, wherein the compound is 4-chloro-5-ethyl-*N*-[(3*S*,4*R*)-1-[5-(1-hydroxy-1-methylethyl)-1,3,4-thiadiazol-2-yl]-3-methoxypiperidin-4-yl]-1*H*-imidazole-2-carboxamide as a crystalline solid, designated as Form I, characterized by major peaks at 8.38, 10.90, 14.50, 14.94, 19.82 and 24.68 (2 θ) in powder x-ray diffraction, or Form II characterized by major peaks at 13.20, 14.94, 16.08, 17.76, 19.46 and 24.82 (2 θ) in powder x-ray diffraction.

7. The compound according to claim 4, wherein the compound is 4-chloro-*N*-[(3*S*,4*R*)-1-{5-[(2*R*)-1,2-dihydroxypropan-2-yl]-1,3,4-thiadiazol-2-yl}-3-methoxypiperidin-4-yl]-5-ethyl-1*H*-imidazole-2-carboxamide as a crystalline solid, designated as Form A, characterized by major peaks at 15.70, 17.06, 19.10 and 21.92 (2 θ) in powder x-ray diffraction.

8. The compound according to claim 4, wherein the compound is 4-chloro-*N*-[(3*S*,4*R*)-1-{5-[(2*S*)-1,2-dihydroxypropan-2-yl]-1,3,4-thiadiazol-2-yl}-3-methoxypiperidin-4-yl]-5-ethyl-1*H*-imidazole-2-carboxamide as a crystalline solid, designated as Form B, characterized by major peaks at 13.13, 14.27 and 19.10 (2 θ) in powder x-ray diffraction.

- CC1=C(Cl)N=C(N1)C(=O)N[C@H]2CC[C@@H](OC(=O)R)CC2N3C=NC(=S3)A

15 **A'** represents following formulae:



12. The DNA gyrase GyrB subunit and/or topoisomerase IV ParE subunit
20 inhibitor for the use according to claim 10 or 11, wherein said bacterial
infectious disease is caused by Gram-positive bacteria selected from genus

Staphylococcus, *Streptococcus*, *Enterococcus*, *Clostridium*, *Bacillus*, *Corynebacterium*, and *Listeria* species.

13. The DNA gyrase GyrB subunit and/or topoisomerase IV ParE subunit inhibitor for the use according to any one of claims 10 to 12, wherein said bacterial infectious disease is caused by resistant bacteria selected from methicillin-resistant *Staphylococcus aureus* (MRSA), penicillin-resistant *Streptococcus pneumoniae* (PRSP), and vancomycin-resistant *Enterococcus* (VRE).

14. The DNA gyrase GyrB subunit and/or topoisomerase IV ParE subunit inhibitor for the use according to any one of claims 10 to 13, wherein said bacterial infectious disease is selected from pimples, impetigo, boils, cellulitis folliculitis, furuncles, carbuncles, scalded skin syndrome, pneumonia, meningitis, osteomyelitis, endocarditis, toxic shock syndrome, bronchitis, rhinitis, acute sinusitis, otitis media, conjunctivitis, bacteremia, sepsis, osteomyelitis, septic arthritis, peritonitis, pericarditis, cellulitis, brain abscess, urinary tract infections, *Clostridium difficile* infections, acne vulgaris, gonorrhea, gas gangrene, food poisoning, tetanus, botulism, diarrhea, pseudomembranous colitis, toxic mega colon, and perforation of colon.

15. The DNA gyrase GyrB subunit and/or topoisomerase IV ParE subunit inhibitor for the use according to any one of claims 10 to 14, wherein said bacterial infectious disease is selected from community-acquired respiratory infections, hospital-acquired infections or *Clostridium difficile* infections.

16. Use of a DNA gyrase GyrB subunit and/or topoisomerase IV ParE subunit inhibitor represented by general formula (I) or a pharmaceutically acceptable salt thereof as defined in any one of claims 1 to 8, for the manufacture of a medicament for the treatment of bacterial infectious disease.

17. The use according to claim 16, wherein said bacterial infectious disease is caused by Gram-positive bacteria selected from genus *Staphylococcus*, *Streptococcus*, *Enterococcus*, *Clostridium*, *Bacillus*, *Corynebacterium*, and *Listeria* species.

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18. The use according to claim 16 or claim 17, wherein said bacterial infectious disease is caused by resistant bacteria selected from methicillin-resistant *Staphylococcus aureus* (MRSA), penicillin-resistant *Streptococcus pneumoniae* (PRSP), and vancomycin-resistant *Enterococcus* (VRE).

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19. The use according to any one of claims 16 to 18, wherein said bacterial infectious disease is selected from pimples, impetigo, boils, cellulitis, folliculitis, furuncles, carbuncles, scalded skin syndrome, pneumonia, meningitis, osteomyelitis, endocarditis, toxic shock syndrome, bronchitis, rhinitis, acute sinusitis, otitis media, conjunctivitis, bacteremia, sepsis, osteomyelitis, septic arthritis, peritonitis, pericarditis, cellulitis, brain abscess, urinary tract infections, *Clostridium difficile* infections, acne vulgaris, gonorrhea, gas gangrene, food poisoning, tetanus, botulism, diarrhea, pseudomembranous colitis, toxic mega colon, and perforation of colon.

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20. The use according to any one of claims 16 to 19, wherein said bacterial infectious disease is selected from community-acquired respiratory infections, hospital-acquired infections or *Clostridium difficile* infections.