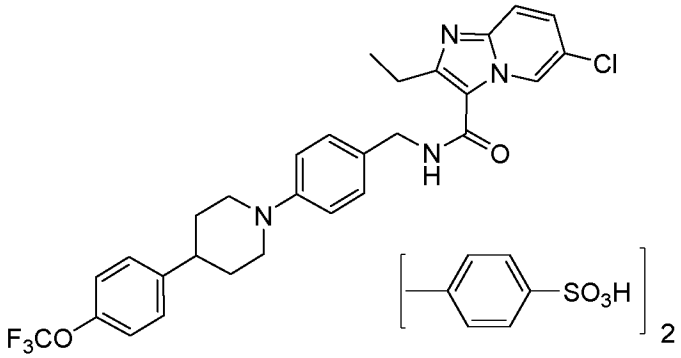
CLAIMS

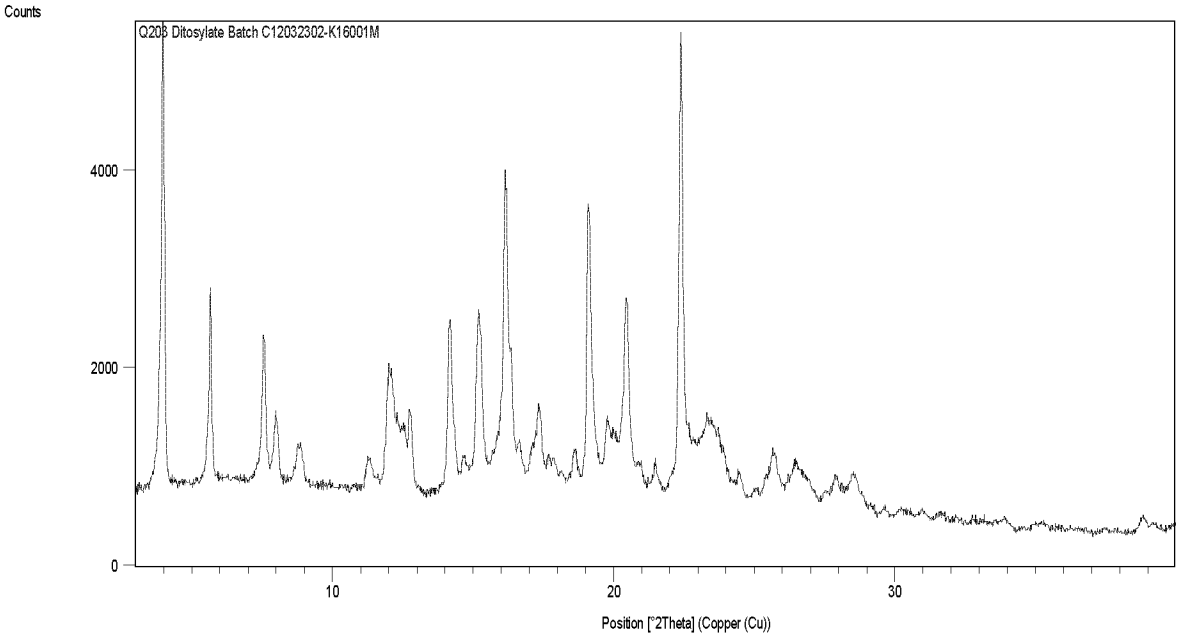
1. Compound 6-chloro-2-ethyl-*N*-(4-(4-(4-(trifluoromethoxy)phenyl)piperidine-1-yl)benzyl)imidazo[1,2-a]pyridine-3-carboxamide ditosylate having the structure



and furthermore having ~~at least one or several of~~ the following peaks in an X-ray Powder Diffraction (XRPD) spectrum obtained by irradiation with Cu-K_α – radiation (Cu-K_α):

3.9° 2θ, 5.6° 2θ, 8.0 ° 2θ, 16.1 ° 2θ, 19.1 ° 2θ, and 22.4 ° 2θ, ± 0.2 ° 2θ.

2. The compound according to claim 1 having an XRPD spectrum as shown hereafter:



3. The compound according to any of the foregoing claims having a differential scanning calorimetry (DSC) thermogram showing a single endotherm peak with an onset of 235°C-237°C.

4. The compound according to any of the foregoing claims, being produced by a method comprising the steps:
   - Providing, in any order, 6-chloro-2-ethyl-*N*-(4-(4-(4-(trifluoromethoxy)phenyl)piperidine-1-yl)benzyl)imidazo[1,2-a]pyridine-3-carboxamide free base and *para*-toluenesulphonic acid in a stoichiometric ratio of 1:2;
   - Mixing and dissolving them in a suitable solvent or solvent mixture, such as isopropylalcohol (IPA), tetrahydrofuran (THF), acetone or a mixture of THF and acetone;
   - Evaporating the solvent or solvent mixture.

5. A method for making the compound as defined in any of claims 1 - 4, said method comprising the steps:

- Providing, in any order, 6-chloro-2-ethyl-*N*-(4-(4-(4-(trifluoromethoxy)phenyl)piperidine-1-yl)benzyl)imidazo[1,2-a]pyridine-3-carboxamide free base and *para*-toluenesulphonic acid in a stoichiometric ratio of 1:2;
- Mixing and dissolving them in a suitable solvent or solvent mixture, such as isopropylalcohol (IPA), tetrahydrofuran (THF), acetone or a mixture of THF and acetone;
- Evaporating the solvent or solvent mixture.

6. A mono-acid addition salt of 6-chloro-2-ethyl-*N*-(4-(4-(4-(trifluoromethoxy)phenyl)piperidine-1-yl)benzyl)imidazo[1,2-a]pyridine-3-carboxamide which is 6-chloro-2-ethyl-*N*-(4-(4-(4-(trifluoromethoxy)phenyl)piperidine-1-yl)benzyl)imidazo[1,2-a]pyridine-3-carboxamide mono-hydrochloride, 6-chloro-2-ethyl-*N*-(4-(4-(4-(trifluoromethoxy)phenyl)piperidine-1-yl)benzyl)imidazo[1,2-a]pyridine-3-carboxamide mono-phosphate, or 6-chloro-2-ethyl-*N*-(4-(4-(4-(trifluoromethoxy)phenyl)piperidine-1-yl)benzyl)imidazo[1,2-a]pyridine-3-carboxamide mono-tosylate~~.~~;

~~7.~~ ~~The mono-acid addition salt according to claim 6,~~ which mono-acid addition salt is 6-chloro-2-ethyl-*N*-(4-(4-(4-(trifluoromethoxy)phenyl)piperidine-1-yl)benzyl)imidazo[1,2-a]pyridine-3-carboxamide mono-hydrochloride having ~~at least one or several of~~ the following peaks in an X-ray Powder Diffraction (XRPD) spectrum obtained by irradiation with Cu-K_α – radiation (Cu-K_α):

6.4° 2θ, 8.1° 2θ, 16.2 ° 2θ, 17.2 ° 2θ, 24.3 ° 2θ and 25.0 ° 2θ, ± 0.2 ° 2θ~~.~~;

or

~~8.~~ ~~The mono-acid addition salt according to claim 6,~~ which mono-acid addition salt is 6-chloro-2-ethyl-*N*-(4-(4-(4-(trifluoromethoxy)phenyl)piperidine-1-yl)benzyl)imidazo[1,2-a]pyridine-3-carboxamide mono-phosphate having ~~at least one or several of~~ the following

peaks in an X-ray Powder Diffraction (XRPD) spectrum obtained by irradiation with Cu-K_α – radiation (Cu-K_α):

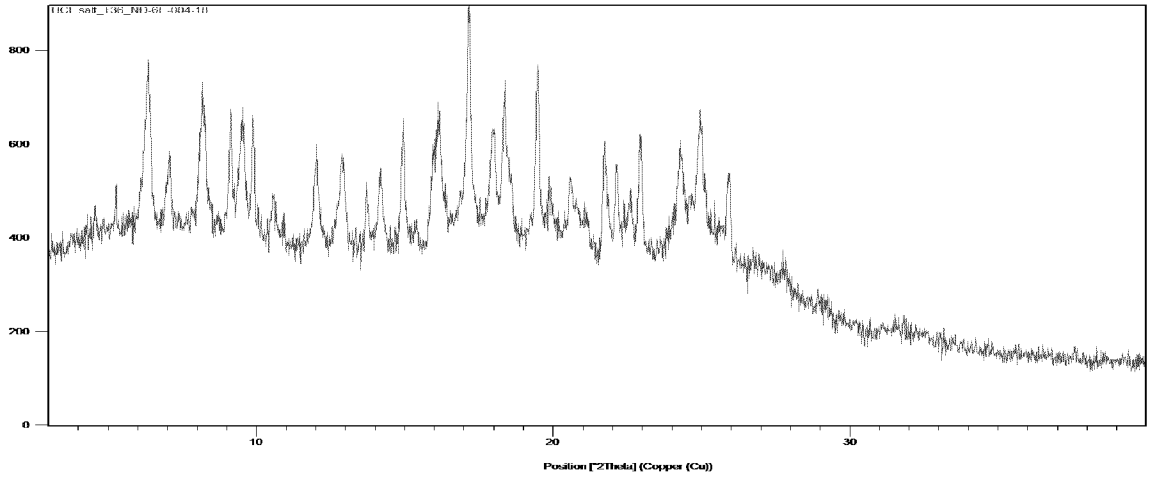
9.0° 2θ, 10.7± 0.2 ° 2θ, 11.7° 2θ, 14.8 ° 2θ, 18.4 ° 2θ, 19.3 ° 2θ, and 21.8° 2θ, 22.8 ° 2θ, ± 0.2 ° 2θ.;

or

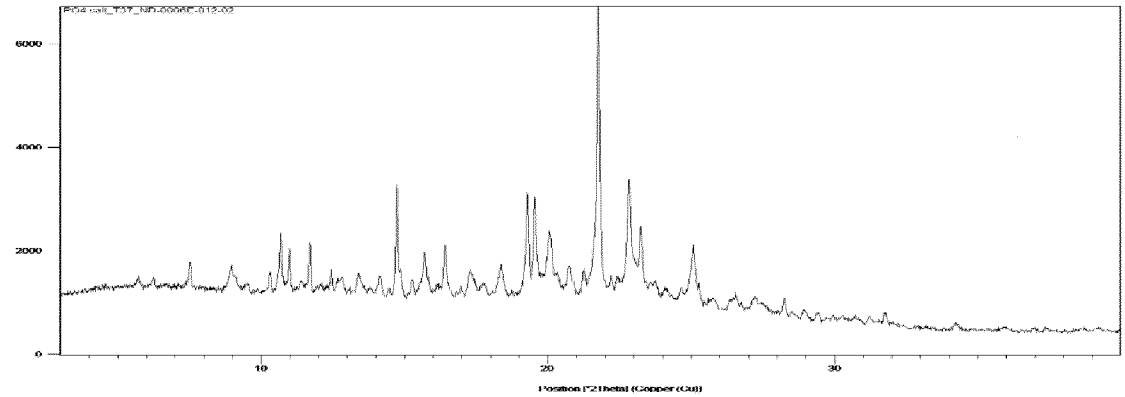
~~9.~~ ~~The mono-acid addition salt according to claim 6,~~ which mono-acid addition salt is 6-chloro-2-ethyl-*N*-(4-(4-(4-(trifluoromethoxy)phenyl)piperidine-1-yl)benzyl)imidazo[1,2-a]pyridine-3-carboxamide mono-tosylate having ~~at least one or several of~~ the following peaks in an X-ray Powder Diffraction (XRPD) spectrum obtained by irradiation with Cu-K_α – radiation (Cu-K_α):

4.0° 2θ, 11.4° 2θ, 12.2 ° 2θ, 14.4 ° 2θ, 17.7 ° 2θ, 18.9° 2θ, 19.7° 2θ, 20.3 ° 2θ, 23.2 ° 2θ, and 26.7 ° 2θ, ± 0.2 ° 2θ.

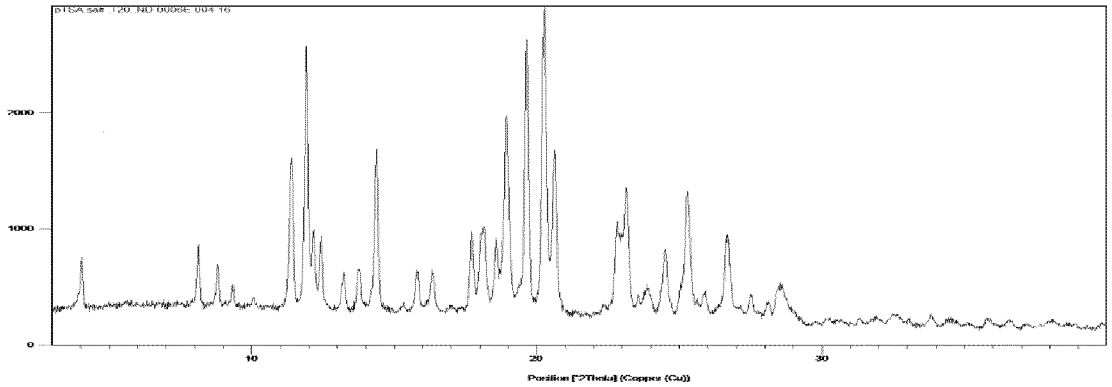
~~10.~~7. The mono-hydrochloride salt according to claim ~~7~~6, having an XRPD spectrum as shown hereafter:



~~11.~~8. The mono-phosphate salt according to claim ~~8~~6, having an XRPD spectrum as shown hereafter:



~~12.~~9. The mono-tosylate salt according to claim ~~6~~9, having an XRPD spectrum as shown hereafter:



~~13.~~10. A method for preparing the mono-acid addition salt according to any of claims 6 – ~~12~~9, said method comprising the steps:

- Providing, in any order, 6-chloro-2-ethyl-*N*-(4-(4-(4-(trifluoromethoxy)phenyl)piperidine-1-yl)benzyl)imidazo[1,2-a]pyridine-3-carboxamide free base and an acid selected from hydrochloric acid, phosphoric acid and *para*-toluenesulphonic acid in a stoichiometric ratio of 1:1;
- Mixing and dissolving them in a suitable solvent or solvent mixture, such as isopropylalcohol (IPA), methyl tert-butyl ether (MTBE), tetrahydrofuran (THF), acetone or a mixture of THF and acetone;
- Evaporating the solvent or solvent mixture.

~~14.~~11. A pharmaceutical composition comprising at least one compound according to any of claims 1-4 or a mono-acid addition salt according to any of claims 6 - ~~12~~9, together with at least one pharmaceutically acceptable carrier, excipient and/or diluent.

~~15.~~ 12. The composition according to claim ~~14~~11, further comprising at least one other pharmaceutically active agent.

~~16~~13. The compound according to any of claims 1-4 or the mono-acid addition salt according to any of claims 6 - ~~12~~9, for use in the treatment of a bacterial infection.

~~17.~~14. The compound or the mono-acid addition salt for use according to claim ~~16~~13, wherein said bacterial infection is tuberculosis or Buruli ulcer.

~~18. A method treatment of a bacterial infection, in particular tuberculosis or Buruli ulcer, comprising the application of a suitable amount of a compound according to any of claims 1 – 4 or of a mono-acid addition salt according to any of claims 6 – 12 or of a pharmaceutical composition according to any of claims 14 – 15, to a patient in need thereof.~~