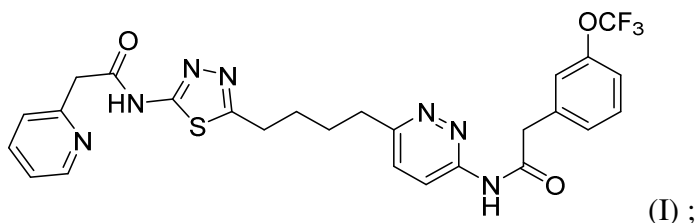


CLAIMS

1. A crystalline salt of a compound having the structure of formula (I),



wherein the salt is a hydrochloride salt; and

the salt has 2θ values 16.70; 17.26; 21.09; and 22.69.

2. The crystalline salt of claim 1, having 2θ values 16.70; 17.26; 18.18; 21.09; 22.69; 23.46; 25.22; 25.49; and 26.72.
3. The crystalline salt of claim 2, having 2θ values 9.53; 11.63; 16.70; 17.26; 18.18; 19.10; 19.80; 21.09; 22.16; 22.69; 23.46; 24.63; 25.22; 25.49; 25.91; 26.72; 28.45; 29.38; 31.39; 31.82; and 34.91.
4. The crystalline salt of claim 3, having 2θ values 8.62; 9.53; 11.63; 15.89; 16.70; 17.26; 18.18; 19.10; 19.80; 21.09; 22.16; 22.69; 23.46; 24.63; 25.22; 25.49; 25.91; 26.72; 28.45; 29.38; 31.39; 31.82; 32.76; 33.61; 33.74; 34.27; 34.91; 35.53; 39.36; and 39.73.
5. The crystalline salt of claim 4, having an XRD pattern substantially as shown in FIG. 1.
6. A pharmaceutical composition comprising the salt of any one of claims 1-5 and one or more pharmaceutically acceptable excipients.
7. A salt of any one of claims 1-5 or a pharmaceutical composition of claim 6 for use as a medicament.
8. A method for preparing a crystalline salt of any one of claims 1-5; the method comprising:

- a) providing a freebase mixture of a compound of formula (I) in a first organic solvent;
 - b) contacting the freebase mixture with a reagent solution under conditions sufficient to form a mixture comprising a salt of the compound of formula (I), wherein the reagent solution comprises hydrochloric acid and optionally a second organic solvent; and
 - c) crystallizing the salt of the compound of formula (I) from the mixture comprising a salt of the compound of formula (I).
9. The method of claim 8, wherein the first organic solvent and the second organic solvent, if present, are the same.
10. The method of claim 8, wherein the first organic solvent and the second organic solvent, if present, are different.
11. The method of any one of claims 8-10, wherein the first organic solvent and the second organic solvent each independently comprise ethanol and/or acetonitrile.
12. The method of any one of claims 8-11, wherein the hydrochloric acid of step b) exists in the reagent solution in a molar amount that is from 1.0 to 1.5 times the molar amount of the compound of formula (I) in the freebase mixture.
13. The method of any one of claims 8-12, wherein the mixture comprising a salt of the compound of formula (I) is a solution, and the step of crystallizing the salt of the compound of formula (I) from the mixture comprises bringing the solution to supersaturation to cause the salt of the compound of formula (I) to precipitate out of solution.
14. The method of any one of claims 8-13, further comprising isolating the crystalline salt.
15. The method of claim 14, wherein isolating the crystalline salt comprises filtering the crystallized salt from the mixture.

16. The method of claim 14 or claim 15, further comprising drying the crystalline salt under reduced pressure.