CLAIMS

1. An anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol.

2. The anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol according to claim 1, which is characterized by a powder X-ray diffraction pattern having at least two peaks at degrees two theta selected from the group consisting of 3.9, 5.1, 6.1, 8.4, 10.7, 12.7, 14.6, and 22.8, each ± 0.3 degrees two theta, wherein each of the at least two peaks is characterized by having a full width at half maximum of equal to or greater than 0.2 degrees two theta.

3. The anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol according to claim 2, wherein the powder X-ray diffraction pattern has at least one further peak at degrees two theta selected from 3.1, 9.9, 13.5, 16.0, 16.5, 18.0, 19.0, 20.9, 21.9, 22.8, 24.0, 24.9, and 25.4 each ± 0.2 degrees two theta.

4. The anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol according to claim 1, which is characterized by a powder X-ray diffraction pattern substantially in accordance with Figure 1 or 2.

5. The anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol according to claim 1,

which is characterized by a differential scanning calorimeter profile substantially in accordance with Figure 3.

6. The anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol according to claim 1, which has a solubility in a simulated gastric fluid without pepsin at a pH of 1.2 of at least about 1900 µg/ml.

7. The anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol according to claim 1, which is obtainable by antisolvent precipitation.

8. A process for preparing anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol, comprising:

antisolvent precipitating of (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol.

9. The process according to claim 8, wherein the antisolvent precipitating comprises:

a) preparing a clear solution of (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol in a solvent or solvent mixture, optionally with heating,

b) combining the clear solution with an antisolvent to generate a suspension of (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol in a solvent/antisolvent mixture,

c) separating the obtained anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol from the solvent/antisolvent mixture, and

d) drying the anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol.

10. The process according to claim 9, wherein the solvent or solvent mixture is selected from the group consisting of dimethyl sulfoxide, dichloromethane, methanol, 1,4-dioxane, tetrahydrofuran, and mixtures thereof.

11. The process according to claim 9, wherein the antisolvent is at least one selected from the group consisting of acetone, n-heptane and water.

12. The process according to claim 9, wherein the solvent is at least one selected from the group consisting of dichloromethane, methanol and 1,4-dioxane, and the antisolvent is water; or

the solvent is tetrahydrofuran and the antisolvent is n-heptane.

13. A pharmaceutical composition, comprising:

the anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol according to claim 1, and

optionally at least one excipient.

14. Use of the anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol in the manufacture of a medicament for inhibiting DNA-dependent protein kinase in a cancer that expresses DNA-PK, optionally in combination with at least one selected from the group consisting of chemotherapy and radiotherapy.

15. A pharmaceutical composition, comprising:

the anhydrous disordered crystalline (S)-[2-chloro-4-fluoro-5-(7-morpholin-4-yl-quinazolin-4-yl)-phenyl]-(6-methoxy-pyridazin-3-yl)-methanol according to claim 1, and

at least one excipient.

16. The pharmaceutical composition according to claim 15, which is a tablet, wherein the at least one excipient is selected from the group consisting of a filler, a binder, a humectant, a disintegrating agent, a wicking agent, a matrix former and a lubricant.