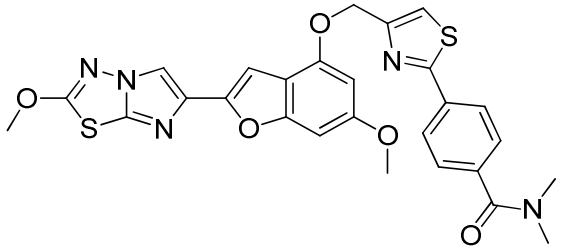
Claims

1. A co-crystal of the compound of Formula (1)



(I)

and a co-former, wherein the co-former is succinic acid or citric acid.

2. The co-crystal of claim 1, wherein the co-former is succinic acid.

3. The co-crystal of claim 2, wherein the co-crystal is characterized by one or more of the following:

a) single crystal structure having unit cell parameters substantially equal to

Crystal system, space group	Triclinic, P-1	
Unit cell dimensions	a = 7.5±0.5Å	alpha = 103±1 °
	b = 9.6±0.5 Å	beta = 92±1°
	c = 20.1±0.5 Å	gamma = 98±1 °
Volume	1401±30 $Å^3$	
formula units per unit cell	2	

wherein measurement of the single crystal structure is at room temperature;

b) an observed PXRD pattern substantially as shown in Figure 1;

c) a PXRD pattern comprising 4 or more 2θ values selected from 4.5±0.2, 9.5±0.2, 14.6±0.2, 16.3±0.2, 17.6±0.2, 21.4±0.2, 22.4±0.2, and 25.9±0.2, (obtained at room temperature and (CuKα λ=1.5418 Å);

d) an infrared spectra substantially as shown in Figure 5; and/or

e) a FT-Raman spectra substantially as shown in Figure 6.

4. The co-crystal of any of claims 1-3, wherein ratio of the compound of formula (I) to succinic acid is 1 : 0.5.

5. The co-crystal of claim 1, wherein the co-former is citric acid.

6. The co-crystal of claim 5, wherein the co-crystal is in the N-1 form and is characterized by one or more of the following:

a) single crystal structure having unit cell parameters substantially equal to

Crystal system, space group	Triclinic, P-1	
Unit cell dimensions	a = 10.3±0.5 Å	alpha = 94±1 °
	b = 12.3±0.5 Å	beta = 98±1 °
	c = 13.9±0.5 Å	gamma = 98±1 °
Volume	1717±30 Å^3	
formula units per unit cell	2;	

b) a PXRD pattern substantially as shown in Figure 6; and/or

c) a PXRD pattern comprising four or more 2θ values (CuKα λ=1.5418 Å at room temperature) selected from 6.4±0.2, 12.7±0.2. 14.4±0.2, 17.1±0.2, 23.9±0.2, 25.0±0.2, and 26.6 ±0.2.

7. The co-crystal of claim 5 or claim 6, wherein the ratio of the compound of formula (I) to citric acid is 1:1.

8. The co-crystal of claims of any of 5-7, consisting essentially of Form N-1 as defined in claim 6.

9. The co-crystal of claim 5, wherein the co-crystal is in the N-2 form and is characterized by one or more of the following:

a) single crystal structure having unit cell parameters substantially equal to

Crystal system, space group	Triclinic, P-1	
Unit cell dimensions	a = 10.4±0.5 Å	alpha = 111±1 °
	b = 17.8±0.5 Å	beta = 93±1 °
	c = 20.5±0.5 Å	gamma = 102±1 °
Volume	3462±30 Å^3	
formula units per unit cell	4	

wherein measurement of the single crystal structure is at room temperature;

b) a PXRD pattern substantially as shown in Figure 12; and/or

c) a PXRD pattern comprising four or more 2θ values (CuKα λ=1.5418 Å at room temperature) selected from 4.6±0.2, 5.5±0.2, 8.4±0.2, 11.3±0.2, 14.6±0.2, 16.4±0.2, 21.1±0.2, 24.2±0.2, and 25.2 ±0.2.

10. The co-crystal of claim 9, wherein the ratio of the compound of formula (I) to citric acid is 1:1.

11. The co-crystal of claim 9, consisting essentially of Form N-2 as defined in claim 9.

12. The co-crystal of any of claims 1-11, in substantially pure form

13. A pharmaceutical composition, which comprises a pharmaceutically acceptable carrier and a co-crystal as defined in any of Claims 1-12, alone or in combination with another therapeutic agent.

14. A co-crystal of any of claims 1-12, or a pharmaceutical composition as defined in claim 13, for use in therapy.

15. A co-crystal of any of claims 1-12, or a pharmaceutical composition as defined in claim 13, for use in the treatment of prophylaxis of a thromboembolic disease.