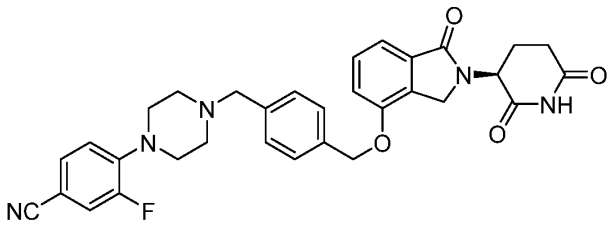
What is claimed is:

1. A pharmaceutical composition comprising 1) a hydrobromide salt of Compound 1:



1,

2) a mixture of mannitol and cellulose or a mixture of mannitol and starch, 3) hydroxypropyl methylcellulose (HPMC), 4) sodium starch glycolate (SSG), and 5) stearic acid.

2. The pharmaceutical composition of claim 1, comprising: 1) a hydrobromide salt of Compound 1 at an amount of from about 0.05 to about 3 % w/w; 2) a carrier or diluent at an amount of from about 70 to about 98 % w/w; 3) HPMC at an amount of from about 0.5 to about 10 % w/w; 4) SSG at an amount of from about 0.5 to about 10 % w/w; and 5) stearic acid at an amount of from about 0.5 to about 8 % w/w; and wherein the carrier or diluent is a mixture of mannitol and cellulose or a mixture of mannitol and starch.

3. The pharmaceutical composition of claim 1 or 2, wherein the hydrobromide salt of Compound 1 is a crystalline hydrobromide salt of Compound 1.

4. The pharmaceutical composition of claim 1 or 2, wherein the hydrobromide salt of Compound 1 is characterized by an XRPD pattern comprising peaks at approximately 10.3, 19.3, and 24.0° 2θ.

5. The pharmaceutical composition of any one of claims 1 to 4, wherein the amount of the hydrobromide salt of Compound 1 is from about 0.1 to about 1.5 % w/w.

6. The pharmaceutical composition of claim 5, wherein the amount of the hydrobromide salt of Compound 1 is from about 0.16 to about 0.65 % w/w.

7. The pharmaceutical composition of any one of claims 1 to 6, wherein the component 2) is a mixture of mannitol and cellulose.

8. The pharmaceutical composition of claim 7, wherein the cellulose is microcrystalline cellulose (MCC).

9. The pharmaceutical composition of any one of claims 1 to 6, wherein the component 2) is a mixture of mannitol and starch.

10. The pharmaceutical composition of claim 9, wherein the starch is partially pregelatinized starch.

11. The pharmaceutical composition of any one of claims 1 to 10, wherein the amount of the mixture of mannitol and cellulose or the mixture of mannitol and starch is from about 80 to about 90 % w/w.

12. The pharmaceutical composition of claim 11, wherein the amount of the mixture of mannitol and cellulose or the mixture of mannitol and starch is from about 85 to about 86 % w/w.

13. The pharmaceutical composition of any one of claims 1 to 10, wherein the amount of the mannitol is from about 35 to about 93 % w/w, and the amount of the cellulose or starch is from about 5 to about 35 % w/w.

14. The pharmaceutical composition of claim 13, wherein the amount of the mannitol is from about 50 to about 80 % w/w, and the amount of the cellulose or starch is from about 10 to about 30 % w/w.

15. The pharmaceutical composition of claim 14, wherein the amount of the mannitol is from about 65 to about 66 % w/w, and the amount of the cellulose or starch is about 20 % w/w.

16. The pharmaceutical composition of any one of claims 1 to 10, wherein the weight ratio of the cellulose or starch to the mannitol is from about 1:1 to about 1:20.

17. The pharmaceutical composition of claim 16, wherein the weight ratio of the cellulose or starch to the mannitol is from about 1:1.7 to about 1:8.

18. The pharmaceutical composition of claim 17, wherein the weight ratio of the cellulose or starch to the mannitol is about 1:3.3.

19. The pharmaceutical composition of any one of claims 1 to 18, wherein the HPMC is HPMC E5.

20. The pharmaceutical composition of any one of claims 1 to 19, wherein the amount of the HPMC is from about 3 to about 7 % w/w.

21. The pharmaceutical composition of claim 20, wherein the amount of the HPMC is about 5 % w/w.

22. The pharmaceutical composition of any one of claims 1 to 21, wherein the SSG is low pH SSG.

23. The pharmaceutical composition of any one of claims 1 to 22, wherein the amount of the SSG is from about 3 to about 7 % w/w.

24. The pharmaceutical composition of claim 23, wherein the amount of the SSG is about 5 % w/w.

25. The pharmaceutical composition of any one of claims 1 to 24, wherein the amount of stearic acid is from about 2 to about 6 % w/w.

26. The pharmaceutical composition of claim 25, wherein the amount of stearic acid is about 4 % w/w.

27. The pharmaceutical composition of claim 1, comprising: 1) a hydrobromide salt of Compound 1 at an amount of about 0.16 % w/w; 2) mannitol at an amount of about 65.84 % w/w and microcrystalline cellulose an amount of about 20 % w/w; 3) HPMC E5 at an amount of about 5 % w/w; 4) low pH SSG at an amount of about 5 % w/w; and 5) stearic acid at an amount of about 4 % w/w.

28. The pharmaceutical composition of claim 27, having a total weight of about 70 mg.

29. The pharmaceutical composition of claim 28, which is contained in a size 4 capsule.

30. The pharmaceutical composition of claim 27, having a total weight of about 140 mg.

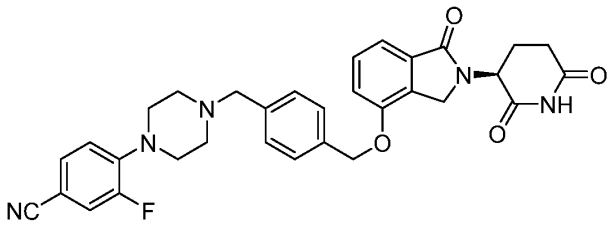
31. The pharmaceutical composition of claim 30, which is contained in a size 2 capsule.

32. The pharmaceutical composition of claim 1, comprising: 1) a hydrobromide salt of Compound 1 at an amount of about 0.65 % w/w; 2) mannitol at an amount of about 65.35 % w/w and microcrystalline cellulose an amount of about 20 % w/w; 3) HPMC E5 at an amount of about 5 % w/w; 4) low pH SSG at an amount of about 5 % w/w; and 5) stearic acid at an amount of about 4 % w/w.

33. The pharmaceutical composition of claim 32, having a total weight of about 70 mg.

34. The pharmaceutical composition of claim 33, which is contained in a size 3 capsule.

35. A pharmaceutical composition comprising 1) Compound 1:



1,

2) a mixture of mannitol and starch, 3) sodium stearyl fumarate, and 4) optionally fumaric acid.

36. The pharmaceutical composition of claim 35, comprising: 1) Compound 1 at an amount of from about 0.05 to about 4 % w/w; 2) a mixture of mannitol and starch at an amount of from about 90 to about 99.5 % w/w; 3) sodium stearyl fumarate at an amount of from about 0.1 to about 5 % w/w; and 4) fumaric acid at an amount of from about 0 to about 10 % w/w.

37. The pharmaceutical composition of claim 36, wherein Compound 1 is a crystalline Compound 1.

38. The pharmaceutical composition of claim 37, wherein Compound 1 is characterized by an XRPD pattern comprising peaks at approximately 14.6, 18.2, and 18.3° 2θ.

39. The pharmaceutical composition of any one of claims 35 to 38, wherein the amount of Compound 1 is from about 0.1 to about 2 % w/w.

40. The pharmaceutical composition of claim 39, wherein the amount of Compound 1 is from about 0.13 to about 1.33 % w/w.

41. The pharmaceutical composition of any one of claims 35 to 40, wherein the starch is partially pregelatinized starch.

42. The pharmaceutical composition of any one of claims 35 to 41, wherein the amount of the mixture of mannitol and starch is from about 95 to about 99 % w/w.

43. The pharmaceutical composition of claim 42, wherein the amount of the mixture of mannitol and starch is from about 97 to about 99 % w/w.

44. The pharmaceutical composition of any one of claims 35 to 41, wherein the amount of the mannitol is from about 60 to about 89 % w/w, and the amount of the starch is from about 10 to about 30 % w/w.

45. The pharmaceutical composition of claim 44, wherein the amount of the mannitol is from about 77 to about 79 % w/w, and the amount of the starch is about 20 % w/w.

46. The pharmaceutical composition of any one of claims 35 to 41, wherein the weight ratio of the starch to the mannitol is from about 1:2 to about 1:9.

47. The pharmaceutical composition of claim 46, wherein the weight ratio of the starch to the mannitol is about 1:3.9.

48. The pharmaceutical composition of any one of claims 35 to 47, wherein the amount of sodium stearyl fumarate is from about 0.5 to about 2 % w/w.

49. The pharmaceutical composition of claim 48, wherein the amount of sodium stearyl fumarate is about 1 % w/w.

50. The pharmaceutical composition of any one of claims 35 to 49, which does not contain fumaric acid.

51. The pharmaceutical composition of any one of claims 35 to 49, wherein the amount of fumaric acid is from about 0.1 to about 10 % w/w.

52. The pharmaceutical composition of claim 51, wherein the amount of fumaric acid is from about 1 to about 3 % w/w.

53. The pharmaceutical composition of claim 35, comprising: 1) Compound 1 at an amount of about 0.13 % w/w; 2) mannitol at an amount of about 78.87 % w/w and partially pregelatinized starch at an amount of about 20 % w/w; and 3) sodium stearyl fumarate at an amount of about 1 % w/w.

54. The pharmaceutical composition of claim 53, having a total weight of about 75 mg.

55. The pharmaceutical composition of claim 54, which is contained in a size 4 capsule.

56. The pharmaceutical composition of claim 53, having a total weight of about 300 mg.

57. The pharmaceutical composition of claim 56, which is contained in a size 1 capsule.

58. The pharmaceutical composition of claim 35, comprising: 1) Compound 1 at an amount of about 0.27 % w/w; 2) mannitol at an amount of about 78.73 % w/w and partially pregelatinized starch at an amount of about 20 % w/w; and 3) sodium stearyl fumarate at an amount of about 1 % w/w.

59. The pharmaceutical composition of claim 58, having a total weight of about 75 mg.

60. The pharmaceutical composition of claim 59, which is contained in a size 4 capsule.

61. The pharmaceutical composition of claim 58, having a total weight of about 300 mg.

62. The pharmaceutical composition of claim 61, which is contained in a size 1 capsule.

63. The pharmaceutical composition of claim 35, comprising: 1) Compound 1 at an amount of about 0.5 % w/w; 2) mannitol at an amount of about 78.5 % w/w and partially pregelatinized starch at an amount of about 20 % w/w; and 3) sodium stearyl fumarate at an amount of about 1 % w/w.

64. The pharmaceutical composition of claim 63, having a total weight of about 80 mg.

65. The pharmaceutical composition of claim 64, which is contained in a size 4 capsule.

66. The pharmaceutical composition of claim 63, having a total weight of about 300 mg.

67. The pharmaceutical composition of claim 66, which is contained in a size 1 capsule.

68. The pharmaceutical composition of claim 35, comprising: 1) Compound 1 at an amount of about 1.33 % w/w; 2) mannitol at an amount of about 77.67 % w/w and partially pregelatinized starch at an amount of about 20 % w/w; and 3) sodium stearyl fumarate at an amount of about 1 % w/w.

69. The pharmaceutical composition of claim 68, having a total weight of about 75 mg.

70. The pharmaceutical composition of claim 69, which is contained in a size 4 capsule.

71. The pharmaceutical composition of claim 68, having a total weight of about 300 mg.

72. The pharmaceutical composition of claim 71, which is contained in a size 1 capsule.

73. The pharmaceutical composition of claim 35, comprising: 1) Compound 1 at an amount of about 0.5 % w/w; 2) mannitol at an amount of about 75.5 % w/w and partially pregelatinized

starch at an amount of about 20 % w/w; 3) sodium stearyl fumarate at an amount of about 1 % w/w; and 4) fumaric acid at an amount of about 3 % w/w.

74. The pharmaceutical composition of claim 35, comprising: 1) Compound 1 at an amount of about 1.33 % w/w; 2) mannitol at an amount of about 76.67 % w/w and partially pregelatinized starch at an amount of about 20 % w/w; 3) sodium stearyl fumarate at an amount of about 1 % w/w; and 4) fumaric acid at an amount of about 1 % w/w.

75. The pharmaceutical composition of claim 35, comprising: 1) Compound 1 at an amount of about 1.33 % w/w; 2) mannitol at an amount of about 74.67 % w/w and partially pregelatinized starch at an amount of about 20 % w/w; 3) sodium stearyl fumarate at an amount of about 1 % w/w; and 4) fumaric acid at an amount of about 3 % w/w.

76. A method of treating multiple myeloma comprising administering a therapeutically effective amount of a pharmaceutical composition of any one of claims 1 to 75 to a patient in need thereof.