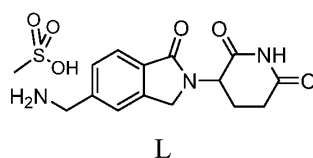


WHAT IS CLAIMED:

1. A process for preparing 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide comprising contacting Compound M with 2-(4-chlorophenyl)-2,2-difluoroacetic acid in the presence of a base and 1-propylphosphonic anhydride in a solvent, under conditions suitable to provide 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide, wherein Compound M is selected from methanesulfonate, hydrochloride, sulfate, phosphate and acetate salt of 3-(5-(aminomethyl)-1-oxoisindolin-2-yl)piperidine-2,6-dione.

2. The process of claim 1, wherein the process comprises contacting Compound L

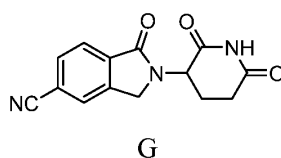


with 2-(4-chlorophenyl)-2,2-difluoroacetic acid in the presence of a base and 1-propylphosphonic anhydride in a solvent, under conditions suitable to provide 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide.

3. The process of claim 1, wherein the base is N-methyl morpholine.

4. The process of claim 1, wherein the solvent is dimethylformamide.

5. The process of claim 1 further comprising contacting Compound G

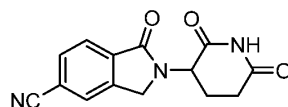


with a reducing agent in a solvent followed by contacting with an acid selected from methanesulfonic acid, hydrochloric acid, sulfuric acid, phosphoric acid, or acetic acid, under conditions suitable to provide Compound M.

6. The process of claim 5, wherein the reducing agent is 5% or 10% palladium on carbon.

7. The process of claim 5, wherein the solvent comprises one or more of N-methyl pyrrolidone, 1 propanol, isopropyl alcohol, ethanol and tetrahydrofuran.

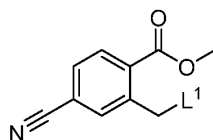
8. The process of claim 1 further comprising contacting Compound G



G

with a reducing agent in a solvent followed by contacting with an methanesulfonic acid, under conditions suitable to provide Compound L.

9. The process of claim 8, wherein the reducing agent comprises 10% palladium on carbon.
10. The process of claim 8, wherein the solvent comprises water and 1-propanol.
11. The process of claim 8, wherein the solvent comprises water and isopropanol.
12. The process of claim 8 further comprising contacting Compound X

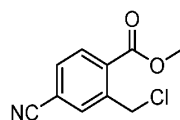


X

wherein L¹ is a leaving group;

with 3-aminopiperidine-2,6-dione hydrochloride in the presence of a salt, followed by a solvent and a base, under conditions suitable to provide Compound G.

13. The process of claim 12, wherein L¹ is halogen or methanesulfonate.
14. The process of claim 8 further comprising contacting Compound D



D

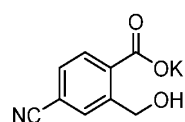
with 3-aminopiperidine-2,6-dione hydrochloride in the presence of a salt, followed by a solvent and a base, under conditions suitable to provide Compound G.

15. The process of any one of claims 12-14, wherein the salt is potassium bromide or potassium iodide.
16. The process of any one of claims 12-14, wherein the base is N,N-diisopropylethylamine.

17. The process of any one of claims 12-14, wherein the solvent comprises acetonitrile.

18. The process of any one of claims 12-14, wherein the solvent comprises acetonitrile and water.

19. The process of any one of claims 12-18 further comprising contacting Compound A



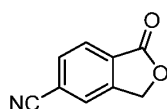
A

with 1) dimethyl sulfate in a solvent; 2) a base; 2) methanesulfonyl chloride; and 4) lithium chloride, under conditions suitable to provide Compound D.

20. The process of claim 14, wherein the base is N-methyl morpholine.

21. The process of claim 14, wherein the solvent is dimethylacetamide.

22. The process of claim 19 further comprising contacting 1-oxo-1,3-dihydroisobenzofuran-5-carbonitrile

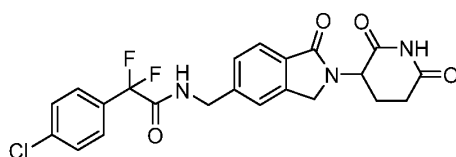


with a base in a solvent under conditions suitable to provide Compound A.

23. The process of claim 22, wherein the base is potassium hydroxide.

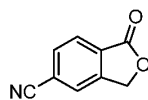
24. The process of claim 22, wherein the solvent is isopropyl alcohol.

25. A process for preparing 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide

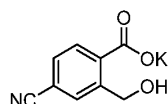


comprising

a) contacting 1-oxo-1,3-dihydroisobenzofuran-5-carbonitrile

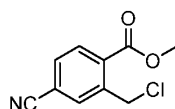


with potassium hydroxide in isopropyl alcohol, under conditions suitable to provide Compound A



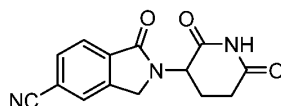
A

b) contacting Compound A with 1) dimethyl sulfate in dimethylacetamide, 2) N-methyl morpholine, 3) methanesulfonyl chloride, and 4) lithium chloride, under conditions suitable to provide Compound D



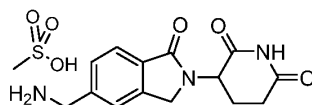
D

c) contacting Compound D with i) 3-aminopiperidine-2,6-dione hydrochloride in the presence of potassium bromide, followed by ii) a solvent comprising acetonitrile and water, and iii) N,N-diisopropylethylamine, under conditions suitable to provide Compound G,



G

d) contacting Compound G with 10% wt Pd/C, methanesulfonic acid, and a solvent comprising water and 1-propanol, under conditions suitable to provide Compound L



L

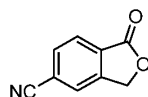
and

e) contacting Compound L with 2-(4-chlorophenyl)-2,2-difluoroacetic acid in the presence of dimethylformamide, N-methyl morpholine and T3P, under conditions suitable to

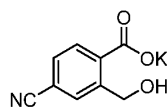
provide 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide.

26. A process for preparing polymorph Form C of 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide comprising

a) contacting 1-oxo-1,3-dihydroisobenzofuran-5-carbonitrile

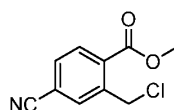


with potassium hydroxide in isopropyl alcohol, under conditions suitable to provide Compound A



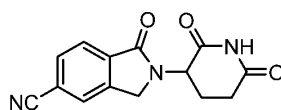
A

b) contacting Compound A with 1) dimethyl sulfate in dimethylacetamide, 2) N-methyl morpholine, 3) methanesulfonyl chloride, and 4) lithium chloride, under conditions suitable to provide Compound D



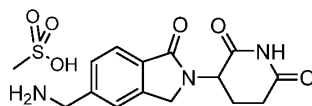
D

c) contacting Compound D with i) 3-aminopiperidine-2,6-dione hydrochloride in the presence of potassium bromide, followed by ii) a solvent comprising acetonitrile and water, and iii) N,N-diisopropylethylamine, under conditions suitable to provide Compound G,



G

d) contacting Compound G with 10% wt Pd/C, methanesulfonic acid, and a solvent comprising water and 1-propanol, under conditions suitable to provide Compound L



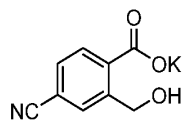
L

and

e) contacting Compound L with 2-(4-chlorophenyl)-2,2-difluoroacetic acid in the presence of dimethylformamide, N-methyl morpholine and T3P, under conditions suitable to provide 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide, and

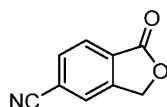
f) contacting 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide with formic acid and water at 60 °C to obtain polymorph Form C of 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide.

27. A process for preparing Compound A



A

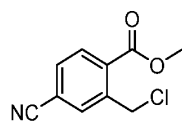
comprising contacting 1-oxo-1,3-dihydroisobenzofuran-5-carbonitrile



with potassium hydroxide and isopropyl alcohol, under conditions suitable to provide Compound A.

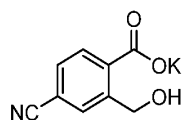
28. The process of claim 27, wherein the contacting is conducted at about 35-40 °C for about 2 hours.

29. A process for preparing Compound D



D

comprising contacting Compound A



A

with 1) dimethyl sulfate in a solvent; 2) a base; 3) methanesulfonyl chloride; and 4) lithium chloride, under conditions suitable to provide Compound D.

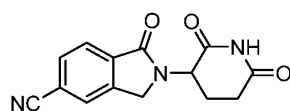
30. The process of claim 29, wherein contacting with dimethyl sulfate in a solvent is conducted at about 10 °C.

31. The process of claim 29, wherein the reaction is conducted at about 35-40 °C for about 1-2 hours.

32. The process of claim 29, wherein the solvent is dimethylacetamide.

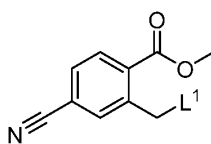
33. The process of claim 29, wherein the base is 4-methylmorpholine.

34. A process for preparing Compound G



G

comprising contacting Compound X



X

where L¹ is a leaving group;

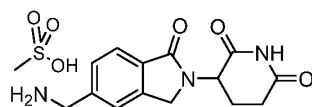
with i) 3-aminopiperidine-2,6-dione hydrochloride in the presence of potassium bromide, followed by ii) a solvent comprising acetonitrile and water, and iii) N,N-diisopropylethylamine, under conditions suitable to provide Compound G.

35. The process of claim 34, wherein L¹ is chloro.

36. The process of claim 35, wherein the base is N,N-diisopropylethylamine.

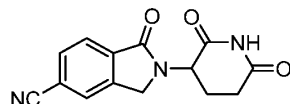
37. The process of claim 35, wherein the solvent comprises acetonitrile and water.

38. A process for preparing Compound L



L

comprising contacting Compound G

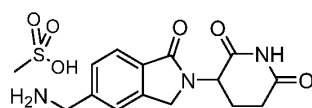


G

with 10% dry palladium on carbon, methanesulfonic acid, water and 1-propanol, under conditions suitable to provide Compound L.

39. A process for preparing polymorph Form C of 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide comprising contacting 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide with formic acid and water at 60 °C to obtain polymorph Form C of 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide.

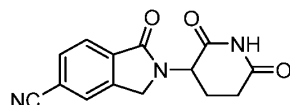
40. A process for preparing 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide, comprising contacting Compound L



L

with 2-(4-chlorophenyl)-2,2-difluoroacetic acid in the presence of N-methyl-2-pyrrolidone and thionyl chloride, under conditions suitable to provide 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide.

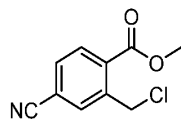
41. The process of claim 40 further comprising contacting Compound G



G

with 10% palladium on carbon, methanesulfonic acid, 1-propanol and water, under conditions suitable to provide Compound L.

42. The process of claim 41 further comprising contacting Compound D



D

with 3-aminopiperidine-2,6-dione hydrochloride in the presence of a salt, followed by a solvent and a base, under conditions suitable to provide Compound G.

43. The process of claim 42, wherein the salt is potassium bromide or potassium iodide.
44. The process of claim 42, wherein the base is N,N-diisopropylethylamine.
45. The process of claim 42, wherein the solvent comprises acetonitrile.
46. The process of claim 42, wherein the solvent comprises acetonitrile and water.
47. A process for preparing Form C of 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide comprising contacting 2-(4-chlorophenyl)-N-((2-(2,6-dioxopiperidin-3-yl)-1-oxoisindolin-5-yl)methyl)-2,2-difluoroacetamide with acetone to obtain a mixture, and heating the mixture under nitrogen to about 70–75 °C with agitation.
48. The process of claim 47, further comprising cooling the mixture to room temperature, filtering the mixture to obtain a cake, and drying the cake.