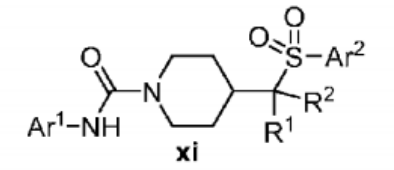
WHAT IS CLAIMED IS:

1. A method for preparing a compound of formula xi:

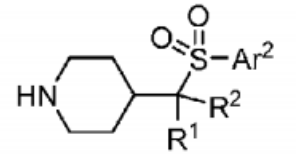


xi

or a pharmaceutically acceptable salt thereof,

the method comprising:

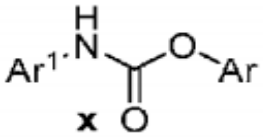
reacting a compound of formula ix



ix

or a salt thereof

with a compound of formula x



x

to produce the compound of formula xi, wherein:

Ar is aryl;

Ar^1 is a 5- to 6-membered heteroaryl having at least one nitrogen atom ring member, and is optionally substituted with from 1-3 R^a;

Ar^2 is a 5- to 10-membered aryl or heteroaryl, which is optionally substituted with from 1-5 R^b;

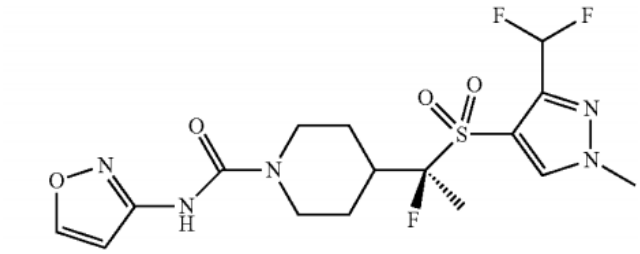
R^1 and R^2 are each independently a member selected from H, F, C_1-C_4 alkyl, C_1-C_4 deuteroalkyl, and C_1-C_4 haloalkyl; or optionally R^1 and R^2 can be combined to form a C_3-C_5 carbocyclic ring which is optionally substituted with one or two F;

each R^a is independently selected from the group consisting of halo, CN, hydroxyl, C_1-C_4 alkyl, C_1-C_4 haloalkyl, C_1-C_4 hydroxyalkyl, C_1-C_4 alkoxy, C_1-C_4 haloalkoxy, —COR^{a1}, —CO_2R^{a1}, —SO_2R^{a1}, —$SO_2NR^{a1}R^{a2}$, and —$CONR^{a1}R^{a2}$, wherein each R^{a1} and R^{a2} is independently selected from the group consisting of H and C_1-C_4 alkyl or optionally R^{a1} and R^{a2} when attached to a nitrogen atom are combined to form a 4- to 6- membered ring; ~~or optionally,~~

~~two R^a substituents on adjacent ring members are combined to form a 5- or 6-membered ring having 0, 1 or 2 ring members selected from O, N and S~~;

each R^b is independently selected from the group consisting of halo, CN, hydroxyl, C_1-C_4 alkyl, C_1-C_4 deuteroalkyl, C_1-C_4 haloalkyl, C_1-C_4 alkoxy, C_1-C_4 haloalkoxy, C_3-C_6 cycloalkyl, —$NR^{b1}R^{b2}$, —COR^{b1}, —CO_2R^{b1}, —SO_2R^{b1}, —$SO_2NR^{b1}R^{b2}$, —$CONR^{b1}R^{b2}$, and a 5- or 6-membered heteroaryl which is optionally substituted with C_1-C_4 alkyl, and wherein each R^{b1} and R^{b2} is independently selected from the group consisting of H and C_1-C_4 alkyl or optionally R^{b1} and R^{b2} when attached to a nitrogen atom are combined to form a 4- to 6- membered ring; or optionally, two R^b substituents on adjacent ring members are combined to form a 5- or 6-membered ring having 0, 1 or 2 ring members selected from O, N and S.

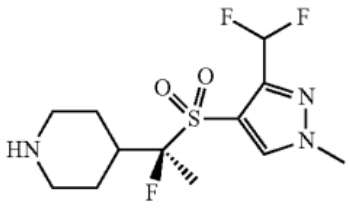
2. A method for preparing a compound having the formula:



or a pharmaceutically acceptable salt thereof,

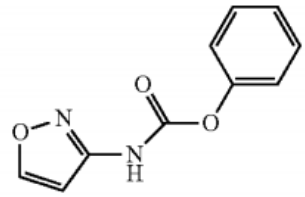
the method comprising:

reacting a compound

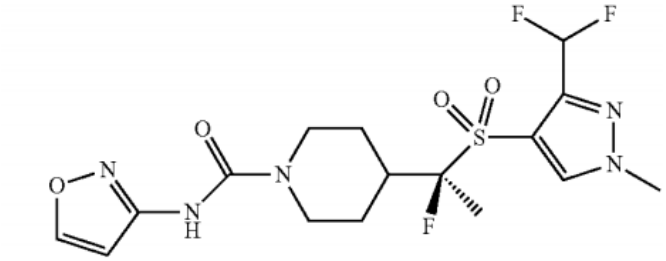


or a salt thereof,

with a compound



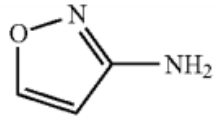
to produce the compound



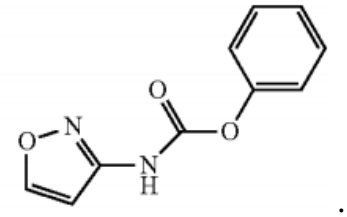
or a pharmaceutically acceptable salt thereof.

3. The method of claim 2, further comprising:

reacting a compound



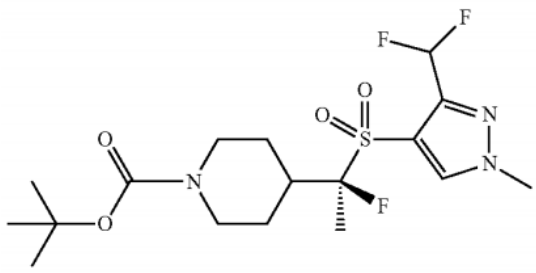
with phenyl chloroformate to produce the compound



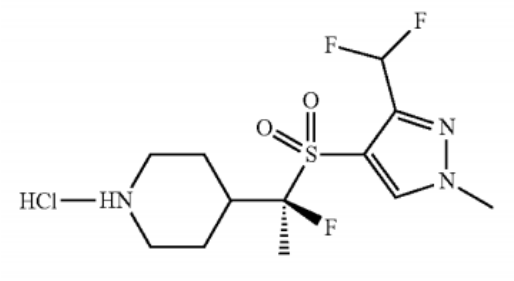
.

4. The method of claim 2, further comprising:

reacting a compound



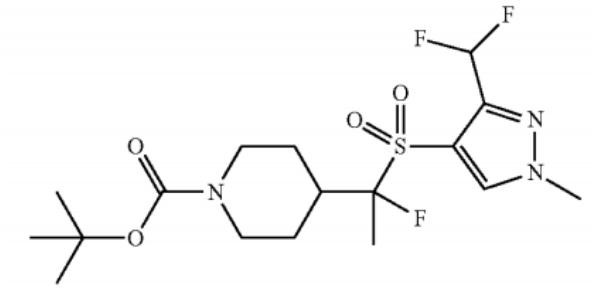
with HCl to produce the compound



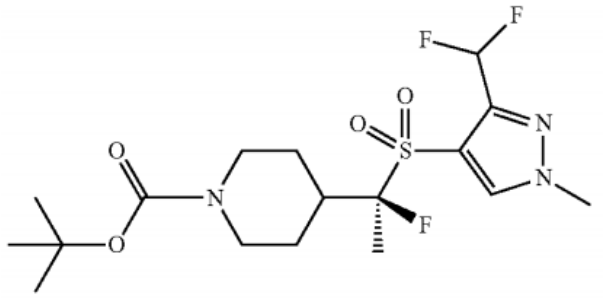
.

5. The method of claim 4, further comprising:

performing a chiral separation of a compound



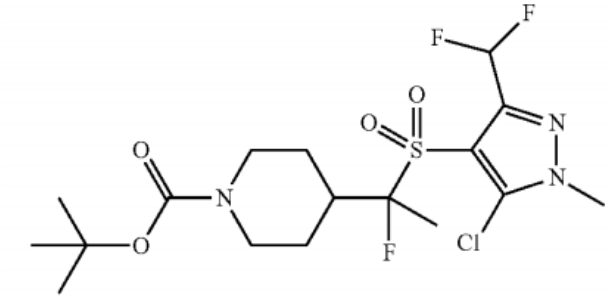
to isolate the compound



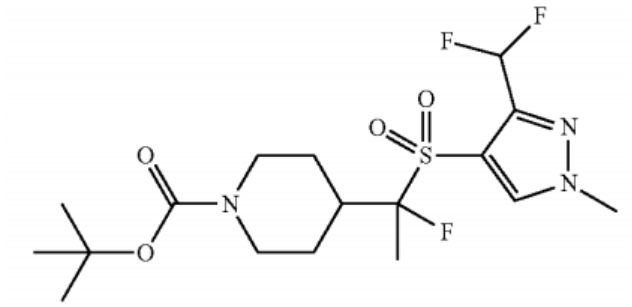
.

6. The method of claim 5, further comprising:

reacting a compound



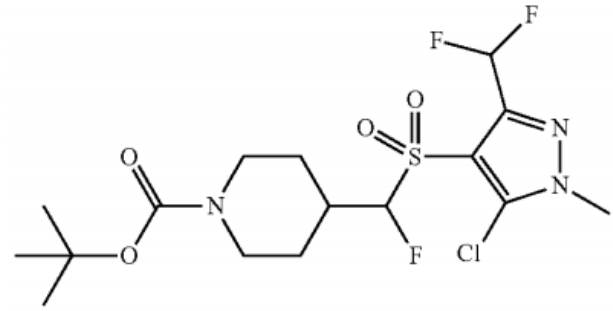
with n-Butyllithium to produce the compound



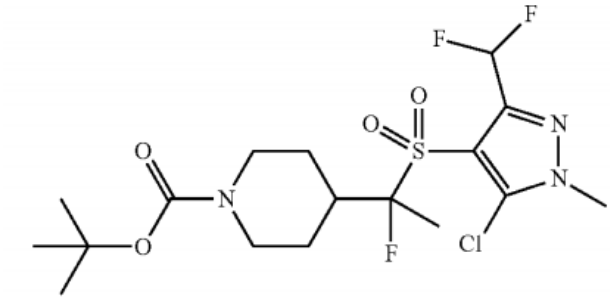
.

7. The method of claim 6, further comprising:

reacting a compound



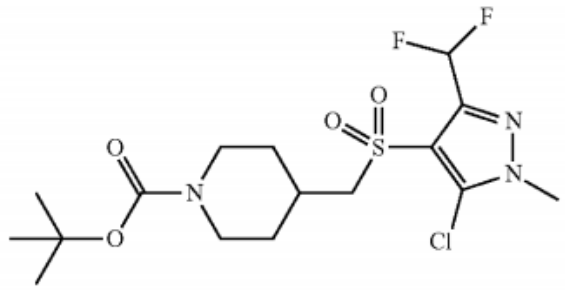
with iodomethane to produce the compound



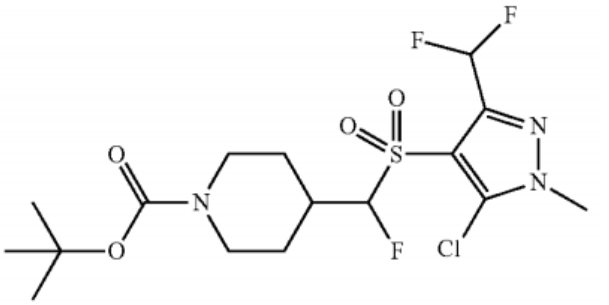
.

8. The method of claim 7, further comprising:

reacting a compound



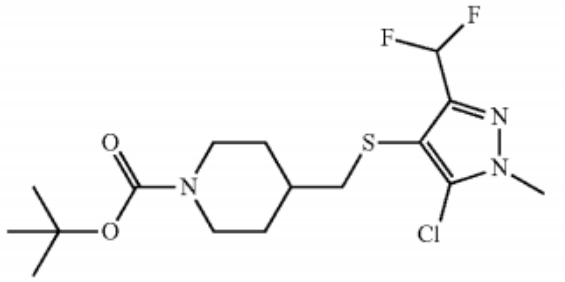
with lithium diisopropylamide (LDA) followed by N-Fluorobenzenesulfonimide (NFSI) to produce the compound



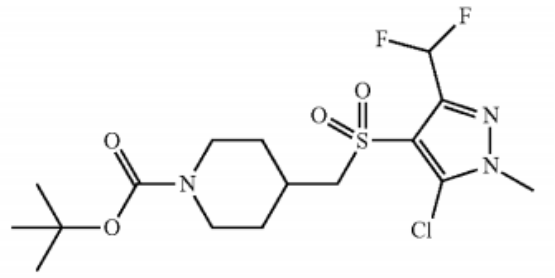
.

9. The method of claim 8, further comprising:

reacting a compound



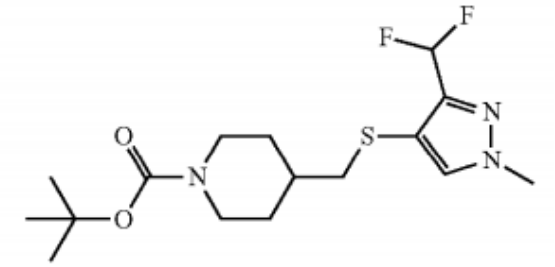
with sodium periodate to produce the compound



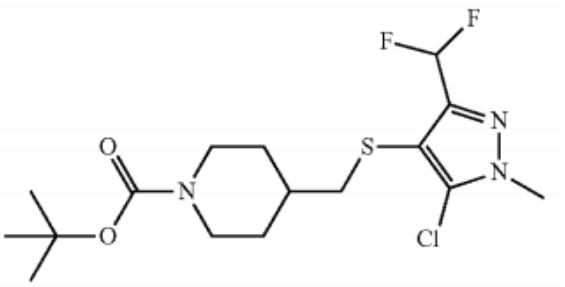
.

10. The method of claim 9, further comprising:

reacting a compound



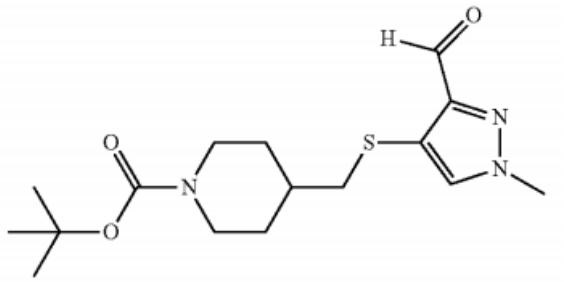
with N-butyllithium and perchloroethane to produce the compound



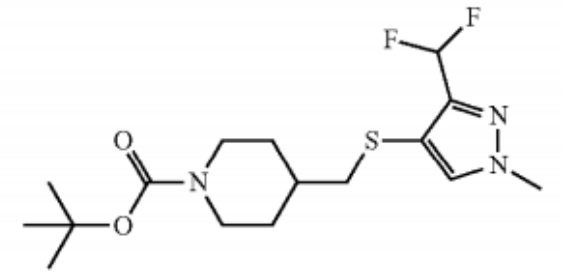
.

11. The method of claim 10, further comprising:

reacting a compound



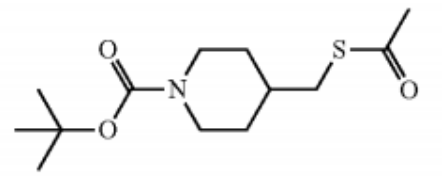
with diethylaminosulfur trifluoride (DAST) to produce the compound



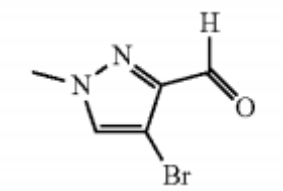
.

12. The method of claim 11, further comprising:

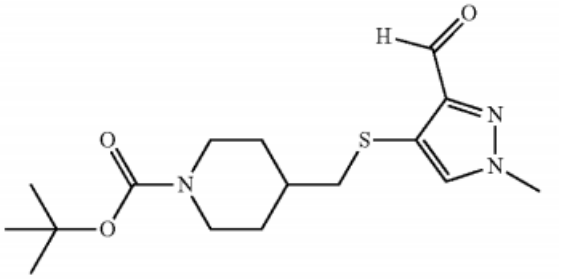
reacting a compound



with a compound



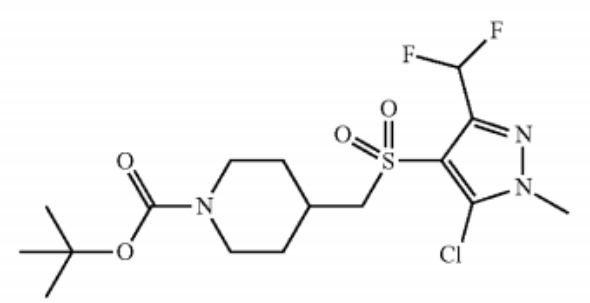
to produce the compound



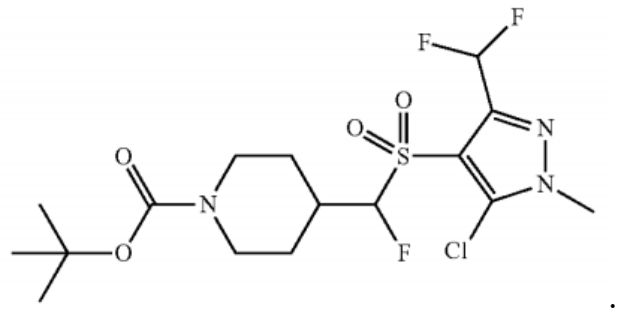
.

13. The method of claim 2, further comprising:

reacting a compound

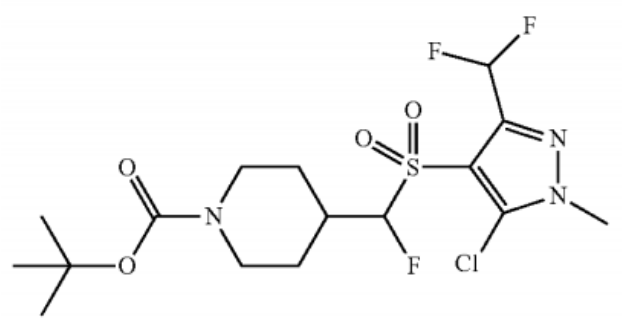


with lithium diisopropylamide (LDA) followed by N-Fluorobenzenesulfonimide (NFSI) to produce a compound

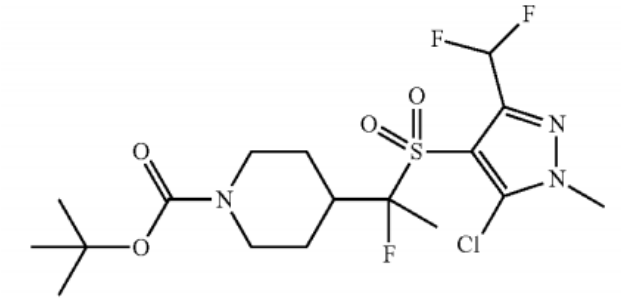


;

reacting the compound

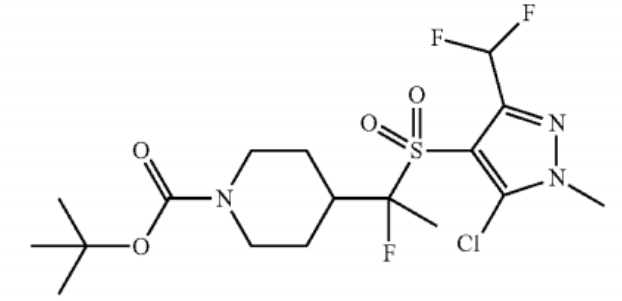


with iodomethane to produce a compound

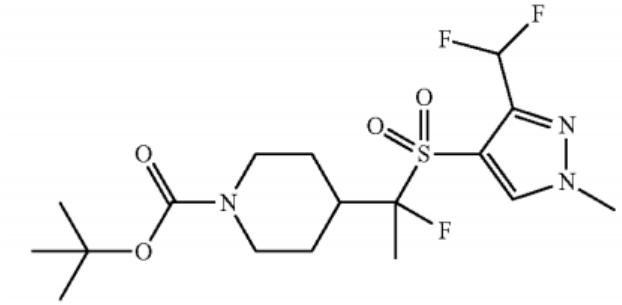


;

reacting the compound

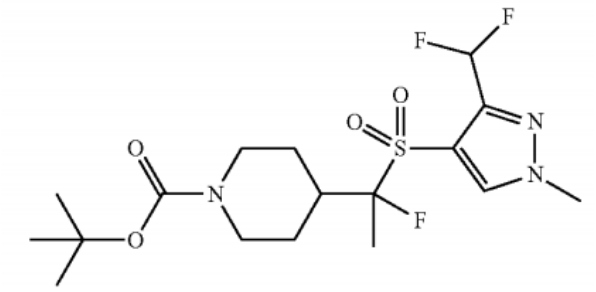


with n-Butyllithium to produce a compound

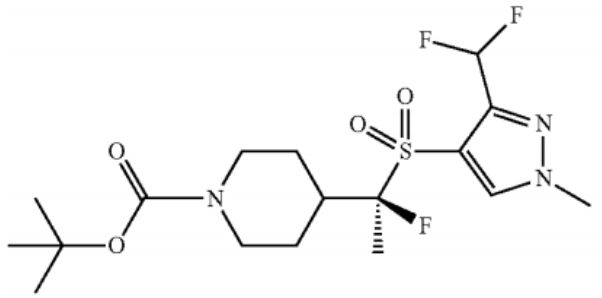


;

performing a chiral separation of the compound

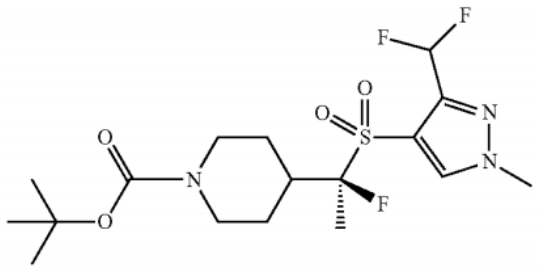


to isolate a compound

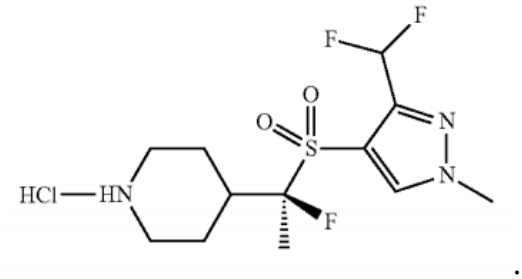


; and

reacting the compound



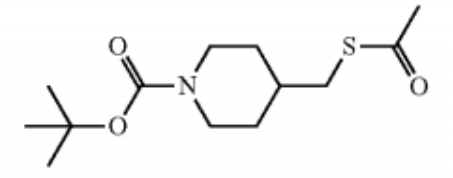
with HCl to produce a compound



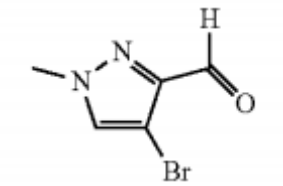
.

14. The method of claim 13, further comprising:

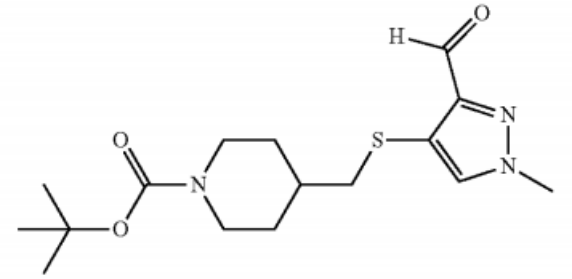
reacting a compound



with a compound

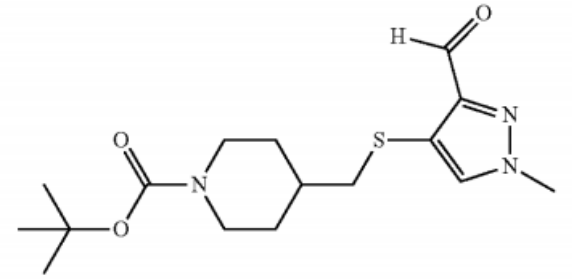


to produce a compound

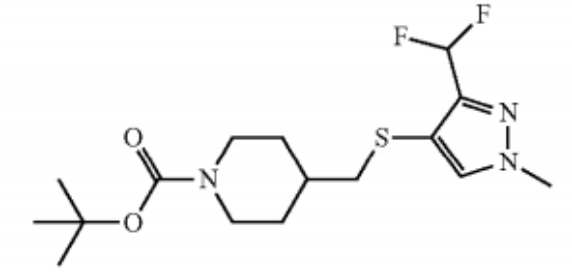


;

reacting the compound

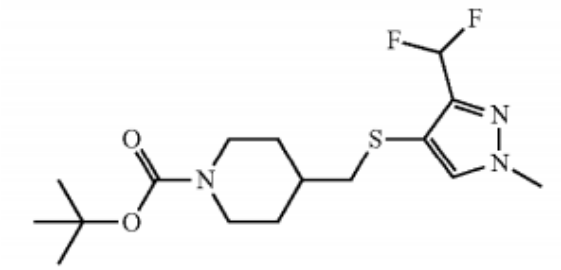


with diethylaminosulfur trifluoride (DAST) to produce a compound

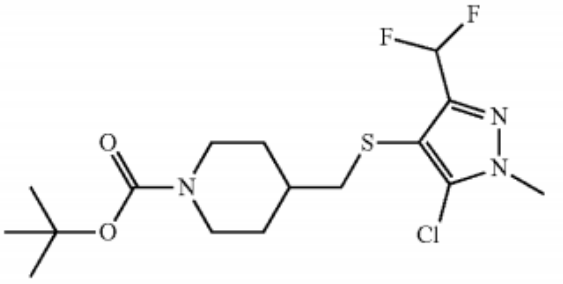


;

reacting the compound

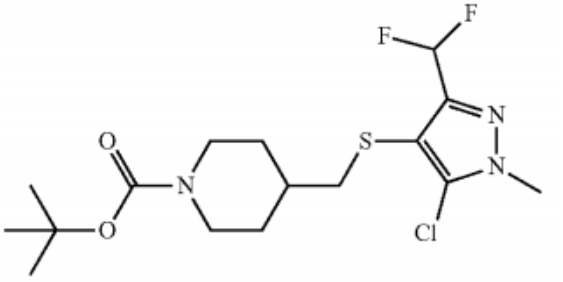


with N-butyllithium and perchloroethane to produce the compound

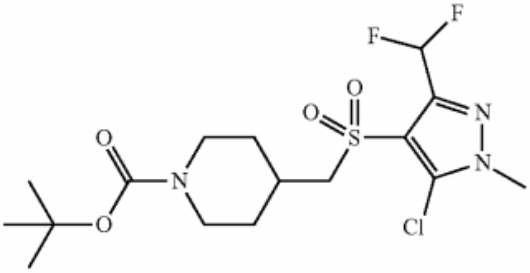


; and

reacting the compound

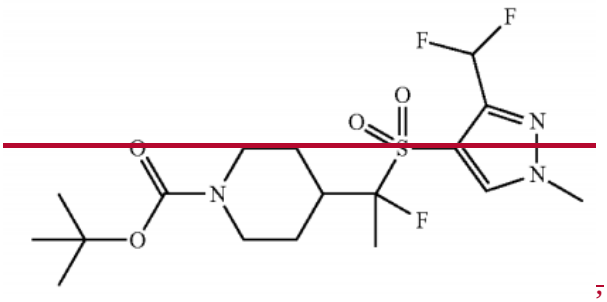


with sodium periodate to produce the compound



.

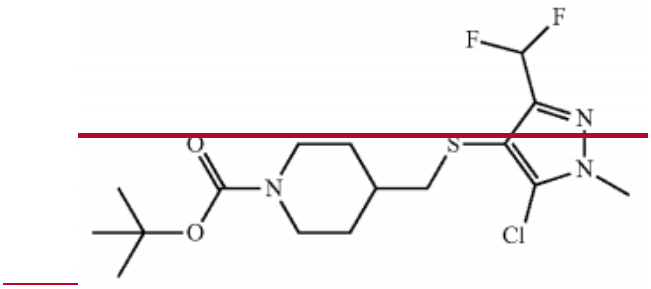
~~15. A method for preparing a compound having the formula:~~



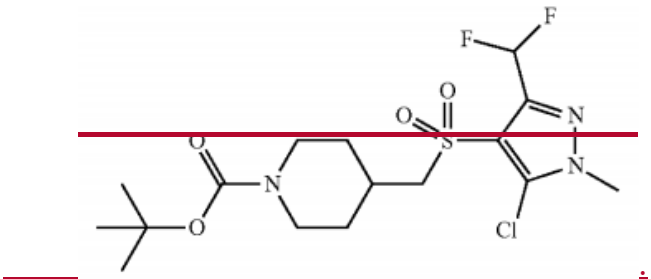
;

the method comprising:

reacting a compound

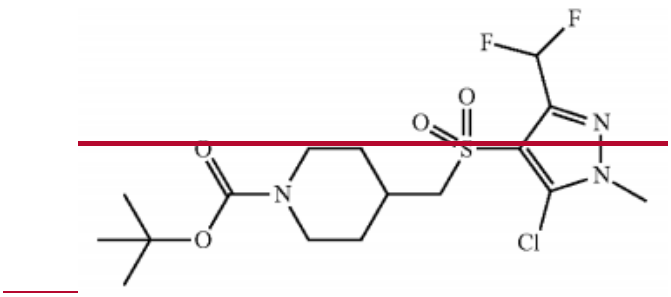


with sodium periodate to produce a compound

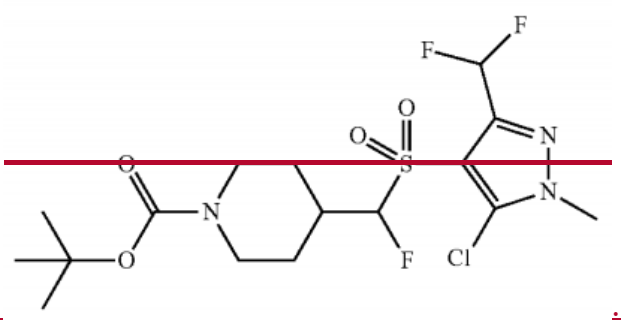


;

reacting the compound

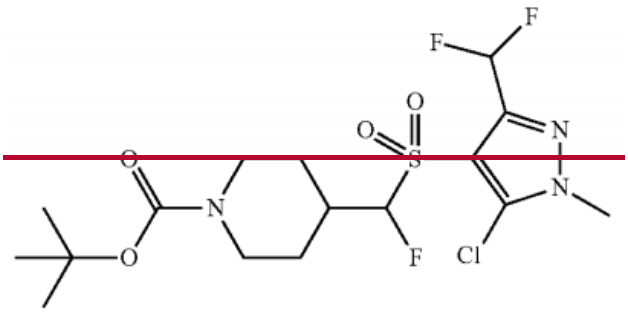


with lithium diisopropylamide (LDA) followed by N-Fluorobenzenesulfonimide (NFSI) to produce a compound

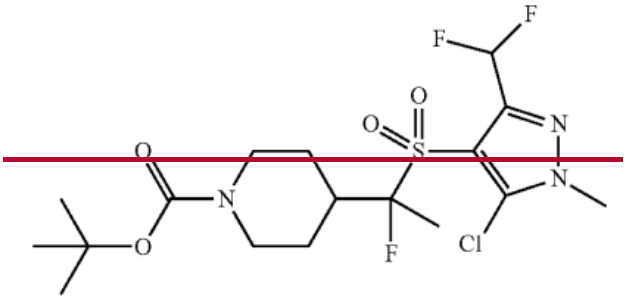


;

reacting the compound

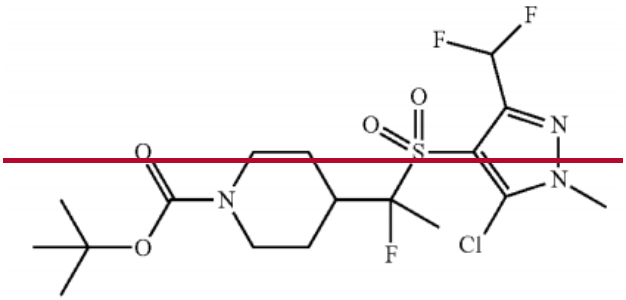


with iodomethane to produce a compound

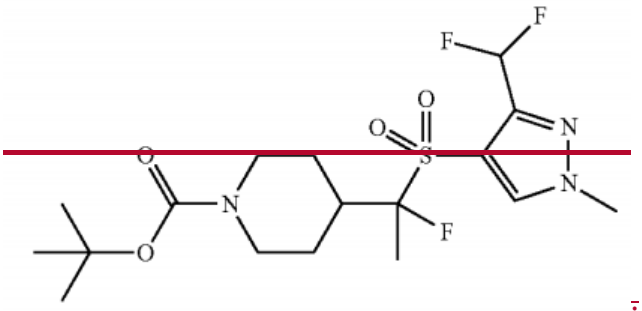


; and

reacting the compound



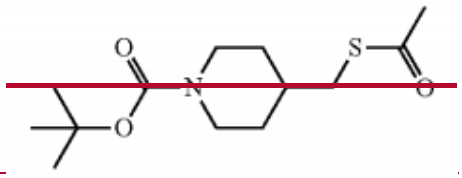
with n-Butyllithium to produce the compound



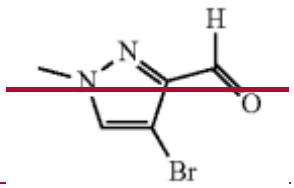
.

16. The method of claim 15, further comprising:

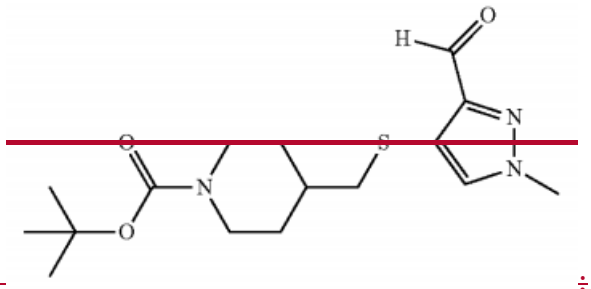
reacting a compound



with a compound

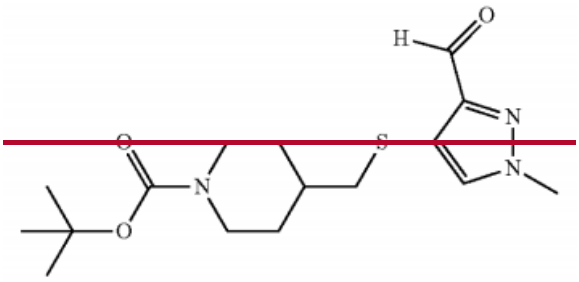


to produce a compound

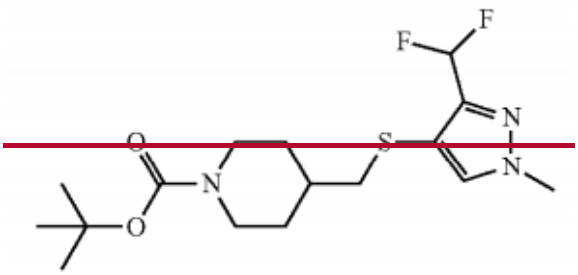


;

reacting the compound

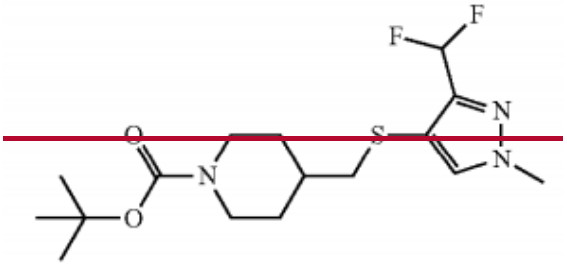


with diethylaminosulfur trifluoride (DAST) to produce a compound

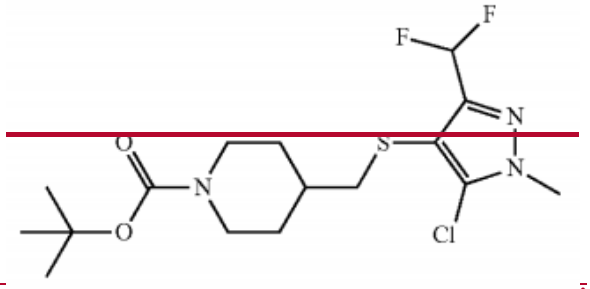


; and

reacting the compound

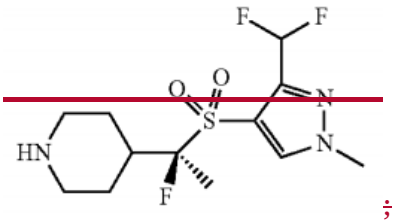


with N-butyllithium and perchloroethane to produce the compound

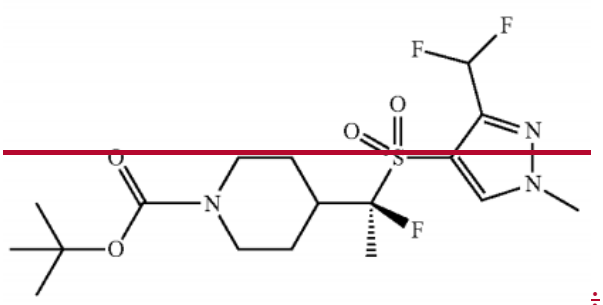


.

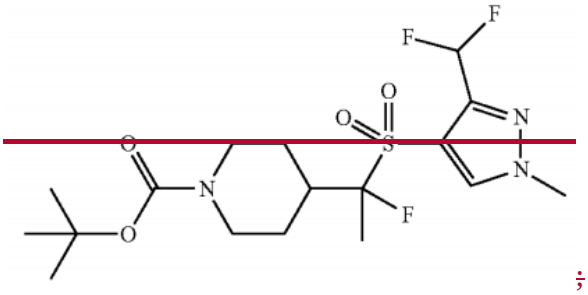
17. A compound or a salt thereof selected from the group consisting of:



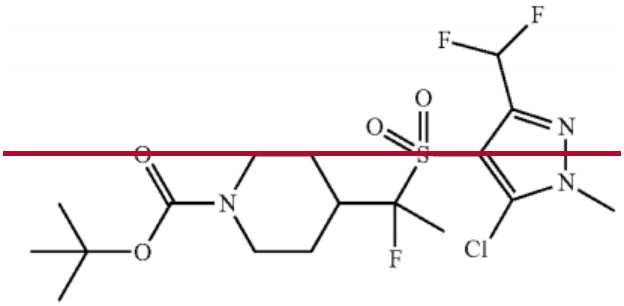
;


F
F
O
O
S
N
N
O
N
O
F

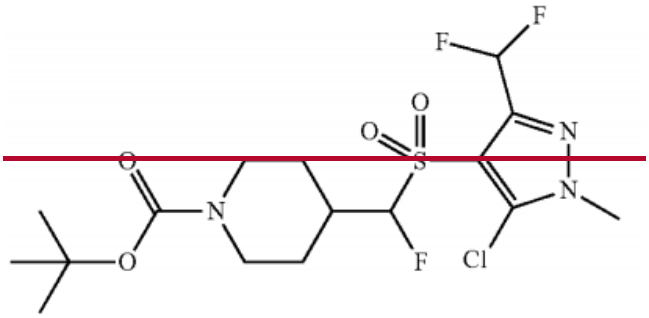
;


F
F
O
O
S
N
N
O
N
O
F

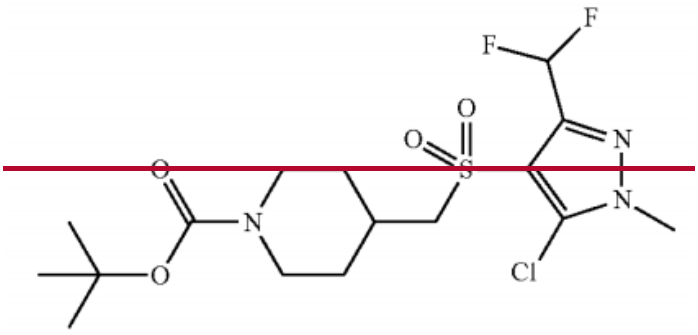
;


F
F
O
O
S
N
N
O
N
O
F
Cl

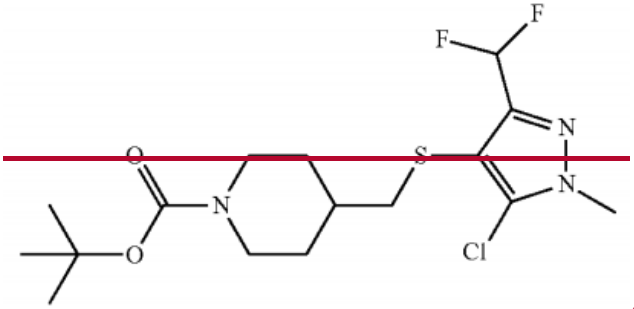
;


F
F
O
O
S
N
N
O
N
O
F
Cl

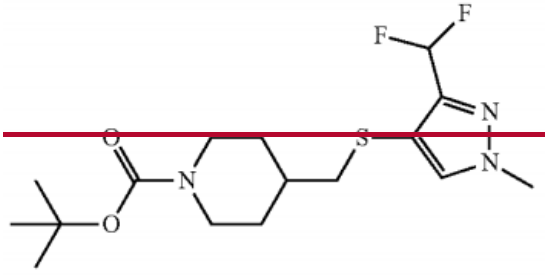
;



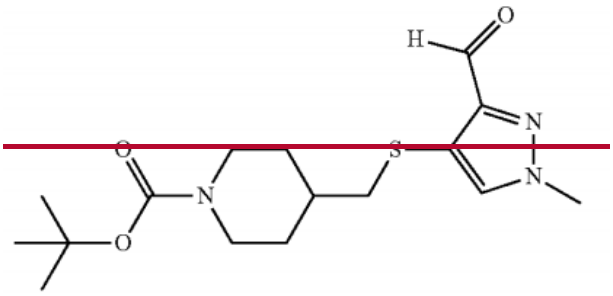
;



;

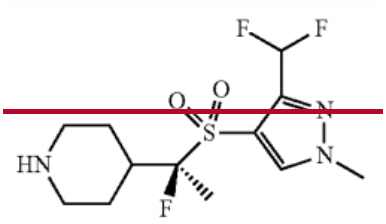


; and



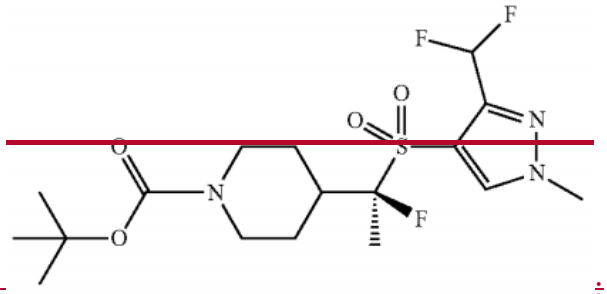
or a salt thereof.

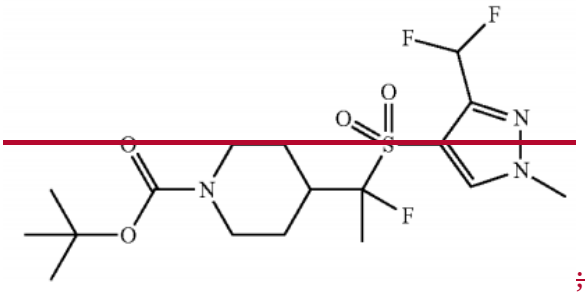
18. The compound of claim 17, which is



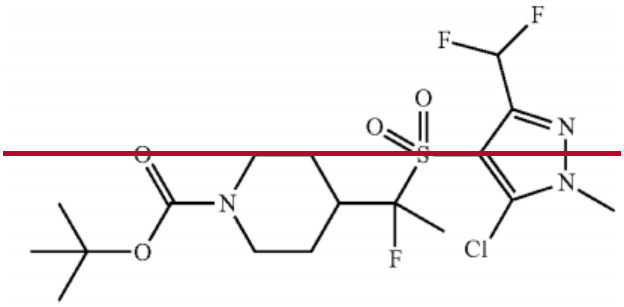
~~or a salt thereof.~~

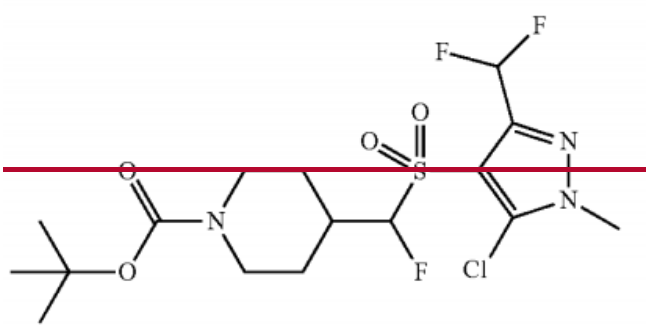
~~19. The compound of claim 17, which is selected from the group consisting of:~~

 ;

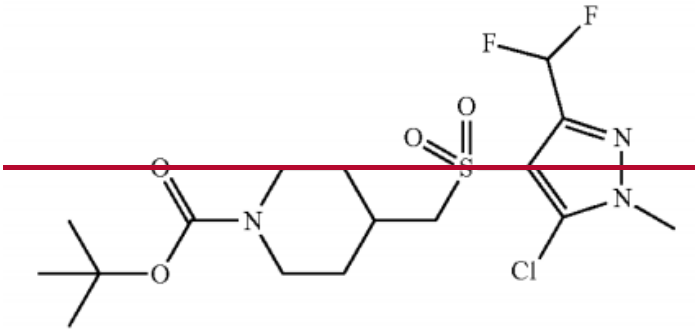


5 ;

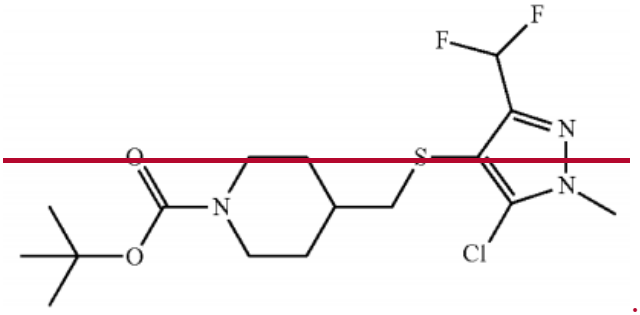
 ;



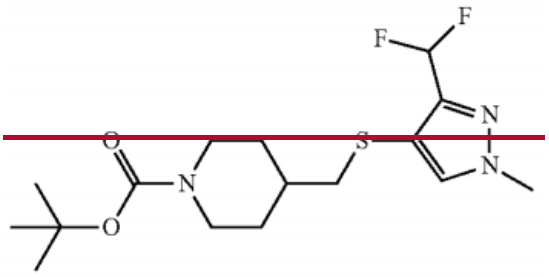
;



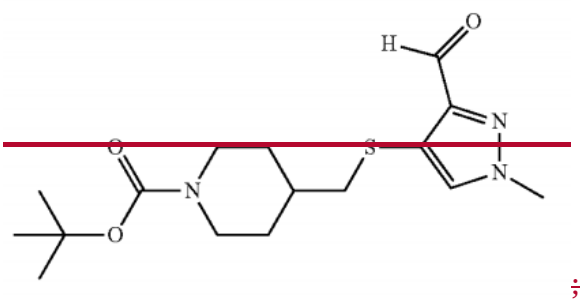
;



;



; and



;

or a salt thereof.