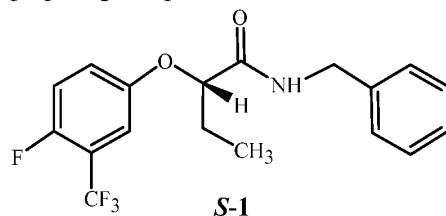


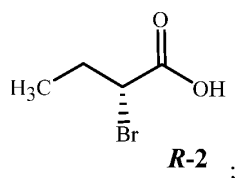
CLAIMS

What is claimed is:

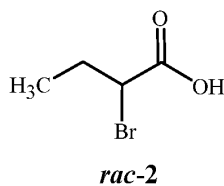
1. A method for preparing compound **S-1**



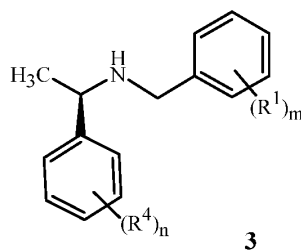
from compound **R-2**



wherein compound **R-2** is prepared by
treating compound **rac-2**



with a compound of Formula **3**



wherein

- each R^1 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl, C_1-C_6 haloalkoxy; or phenyl optionally substituted with up to two R^2 ; or
- two adjacent R^1 substituents are taken together with the phenyl to which they are attached to form a naphthalenyl ring optionally substituted with up to three R^3 ;
- each R^2 and each R^3 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl or C_1-C_6 haloalkoxy;

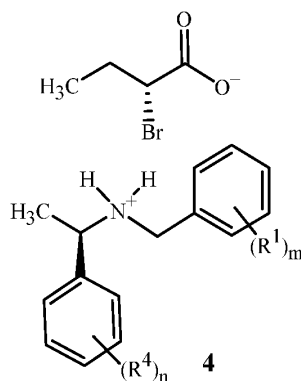
each R^4 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl, C_1-C_6 haloalkoxy; or phenyl optionally substituted with up to two R^5 ;

each R^5 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl or C_1-C_6 haloalkoxy;

m is 0, 1, 2 or 3; and

n is 0, 1, 2 or 3;

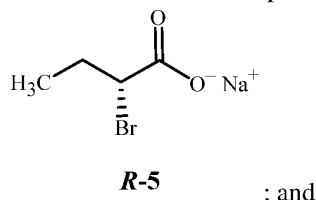
to provide the R,R -salt of Formula 4



wherein R^1 , R^4 , m and n are as defined for the compound of Formula 3;

selectively isolating the R,R -salt of Formula 4;

treating the R,R -salt of Formula 4 with a sodium base to provide compound **R-5**



treating compound **R-5** with acid.

2. The method of Claim 1 wherein

m is 1 or 2;

n is 0; and

each R^1 is independently halogen, nitro, C_1-C_4 alkyl, C_1-C_4 haloalkyl or phenyl; or two adjacent R^1 substituents are taken together with the phenyl to which they are attached to form an unsubstituted naphthalenyl ring.

3. The method of Claim 1 wherein the compound of Formula 3 is selected from the group consisting of

(αR)- α -methyl- N -(phenylmethyl)-benzenemethanamine,

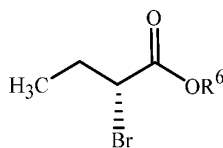
N -[(1*R*)-1-phenylethyl]-1-naphthalenemethanamine,

2,4-dichloro- N -[(1*R*)-1-phenylethyl]-benzenemethanamine,

3,4-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 2,6-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 2,4,6-trimethyl-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 4-nitro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine, and
 2-methyl-3-phenyl-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine.

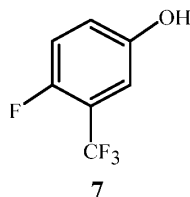
4. The method of Claim 3 wherein the compound of Formula 3 is *N*-[(1*R*)-1-phenylethyl]-1-naphthalenemethanamine.

5. The method of Claim 1 wherein compound *R*-2 is converted to compound *S*-1 by the method comprising
 treating compound *R*-2 with a C₁–C₆ alkanol to prepare the compound of Formula *R*-6;

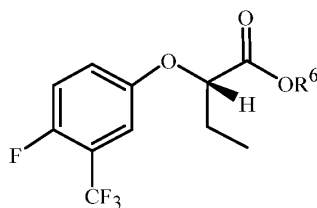
***R*-6**

wherein R⁶ is C₁–C₆ alkyl;

treating the compound of Formula *R*-6 with compound 7

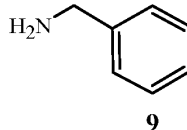
**7**

to prepare the compound of Formula *S*-8

***S*-8**

wherein OR⁴ is C₁–C₆ alkoxy;

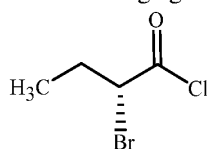
and treating the compound of Formula *S*-8 with compound 9

**9**

46

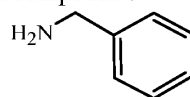
6. The method of Claim 5 wherein OR⁴ is methoxy.

7. The method of Claim 1 wherein compound **R-2** is converted to compound **S-1** by the method comprising
treating compound **R-2** with a chlorinating agent to prepare compound **R-10**

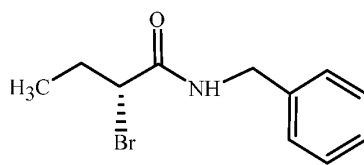
**R-10**

;

compound **R-10** is treated with compound **9**

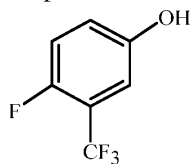
**9**

to prepare compound **R-11**

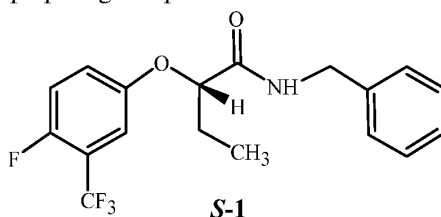
**R-11**

; and

treating compound **R-11** with compound **7**

**7**

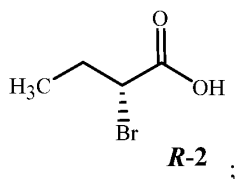
8. A method for preparing compound **S-1**

**S-1**

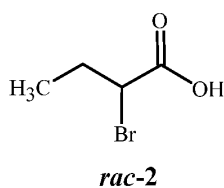
the method comprising

preparing compound **R-2**

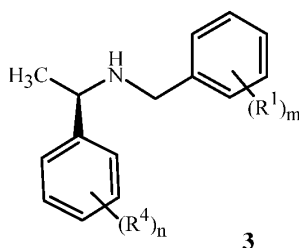
47



wherein compound ***R*-2** is prepared by
treating compound ***rac*-2**



with a compound of Formula **3**



wherein

each R^1 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl, C_1-C_6 haloalkoxy; or phenyl optionally substituted with up to two R^2 ; or

two adjacent R^1 substituents are taken together with the phenyl to which they are attached to form a naphthalenyl ring optionally substituted with up to three R^3 ;

each R^2 and each R^3 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl or C_1-C_6 haloalkoxy;

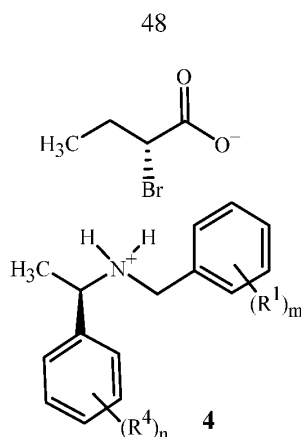
each R^4 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl, C_1-C_6 haloalkoxy; or phenyl optionally substituted with up to two R^5 ;

each R^5 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl or C_1-C_6 haloalkoxy;

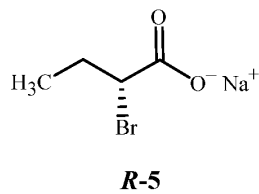
m is 0, 1, 2 or 3; and

n is 0, 1, 2 or 3;

to provide the *R,R*-salt of Formula **4**



wherein R^1 , R^4 , m and n are as defined for the compound of Formula 3;
 selectively isolating the *R,R*-salt of Formula 4;
 treating the *R,R*-salt of Formula 4 with a sodium base to provide compound **R-5**



treating compound **R-5** with acid; and
 converting compound **R-2** to the compound **S-1**.

9. The method of Claim 8 wherein

m is 1 or 2;

n is 0; and

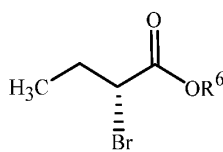
each R^1 is independently halogen, nitro, C_1 – C_4 alkyl, C_1 – C_4 haloalkyl or phenyl; or
 two adjacent R^1 substituents are taken together with the phenyl to which they are
 attached to form an unsubstituted naphthalenyl ring.

10. The method of Claim 8 wherein the compound of Formula 3 is selected from
 the group consisting of

(αR)- α -methyl-*N*-(phenylmethyl)-benzenemethanamine,
N-[(1*R*)-1-phenylethyl]-1-naphthalenemethanamine,
 2,4-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 3,4-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 2,6-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 2,4,6-trimethyl-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 4-nitro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine, and
 2-methyl-3-phenyl-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine.

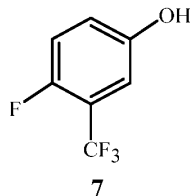
11. The method of Claim 10 wherein the compound of Formula 3 is *N*-[(1*R*)-1-phenylethyl]-1-naphthalenemethanamine.

12. The method of Claim 8 wherein compound R-2 is converted to compound **S-1** by the method comprising
treating compound **R-2** with a C₁–C₆ alkanol to prepare the compound of Formula **R-6**;

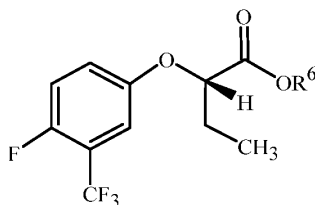
**R-6**

wherein OR⁶ is C₁–C₆ alkyl;

treating the compound of Formula **R-6** with compound **7**

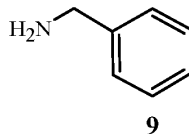
**7**

to prepare the compound of Formula **S-8**

**S-8**

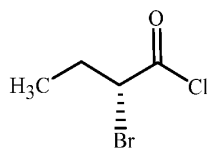
wherein R⁶ is C₁–C₆ alkyl;

and treating the compound of Formula **S-8** with compound **9**

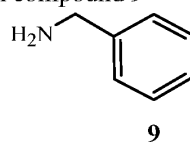
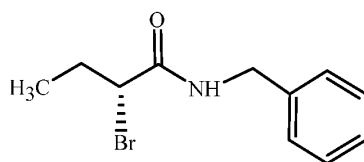
**9**

13. The method of Claim 12 wherein R⁶ is methyl.
14. The method of Claim 8 wherein compound R-2 is converted to compound **S-1** by the method comprising
treating compound **R-2** with a chlorinating agent to prepare compound **R-10**

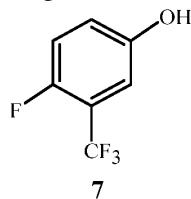
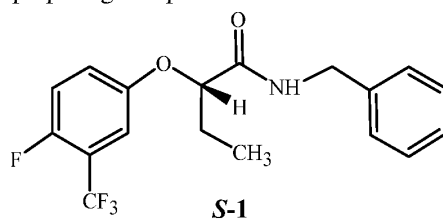
50

***R*-10**

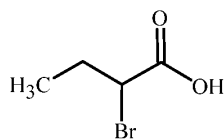
;

compound ***R*-10** is treated with compound **9****9**to prepare compound ***R*-11*****R*-11**

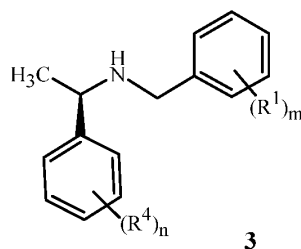
; and

treating compound ***R*-11** with compound **7****7**15. A method for preparing compound ***S*-1*****S*-1**

the method comprising:

treating compound ***rac*-2*****rac*-2**with a compound of Formula **3**

51



wherein

each R^1 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl, C_1-C_6 haloalkoxy; or phenyl optionally substituted with up to two R^2 ; or

two adjacent R^1 substituents are taken together with the phenyl to which they are attached to form a naphthalenyl ring optionally substituted with up to three R^3 ;

each R^2 and each R^3 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl or C_1-C_6 haloalkoxy;

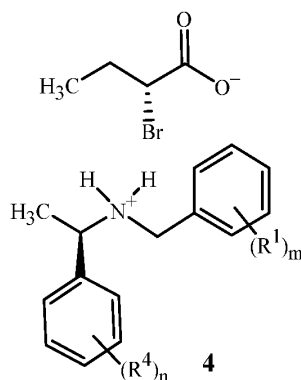
each R^4 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl, C_1-C_6 haloalkoxy; or phenyl optionally substituted with up to two R^5 ;

each R^5 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl or C_1-C_6 haloalkoxy;

m is 0, 1, 2 or 3; and

n is 0, 1, 2 or 3;

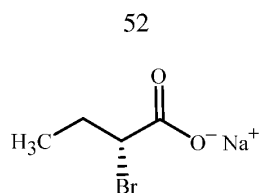
to provide the *R,R*-salt of Formula 4



wherein R^1 , R^4 , m and n are as defined for the compound of Formula 3;

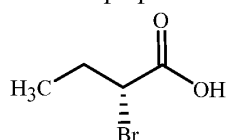
selectively isolating the *R,R*-salt of Formula 4;

treating the *R,R*-salt of Formula 4 with a sodium base to provide compound **R-5**

***R-5***

;

treating compound ***R-5*** with acid to prepare compound ***R-2***

***R-2***

; and

converting compound ***R-2*** to compound ***S-1***.

16. The method of Claim 15 wherein

m is 1 or 2;

n is 0; and

each R^1 is independently halogen, nitro, C_1 – C_4 alkyl, C_1 – C_4 haloalkyl or phenyl; or two adjacent R^1 substituents are taken together with the phenyl to which they are attached to form an unsubstituted naphthalenyl ring.

17. The method of Claim 15 wherein the compound of Formula 3 is selected from the group consisting of

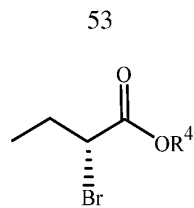
(*αR*)-*α*-methyl-*N*-(phenylmethyl)-benzenemethanamine,
N-[(1*R*)-1-phenylethyl]-1-naphthalenemethanamine,
 2,4-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 3,4-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 2,6-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 2,4,6-trimethyl-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 4-nitro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine, and
 2-methyl-3-phenyl-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine.

18. The method of Claim 17 wherein the compound of Formula 3 is *N*-[(1*R*)-1-phenylethyl]-1-naphthalenemethanamine.

19. The method of Claim 15 wherein compound ***R-2*** is converted to compound ***S-1*** by the method comprising

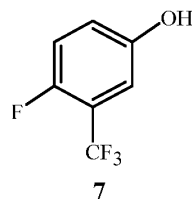
treating compound ***R-2*** with a C_1 – C_6 alkanol to prepare the compound of Formula ***R-***

6;

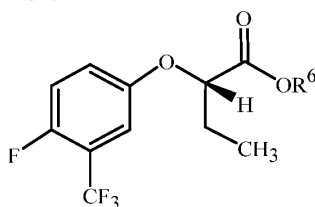
**R-6**

wherein OR⁴ is C₁–C₆ alkoxy;

treating the compound of Formula **R-6** with the compound of Formula **7**

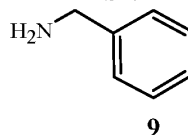


to prepare the compound of Formula **S-8**

**S-8**

wherein R⁶ is C₁–C₆ alkyl;

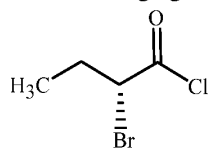
and treating the compound of Formula **S-8** with compound **9**



20. The method of Claim 19 wherein R⁶ is methyl.

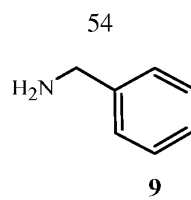
21. The method of Claim 15 wherein compound **R-2** is converted to compound **S-1** by the method comprising

treating compound **R-2** with a chlorinating agent to prepare compound **R-10**

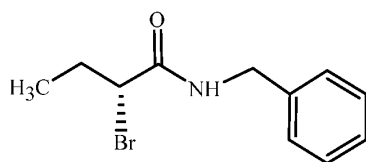
**R-10**

;

compound **R-10** is treated with compound **9**



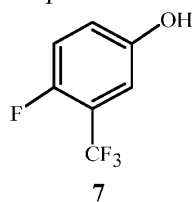
to prepare compound **R-11**



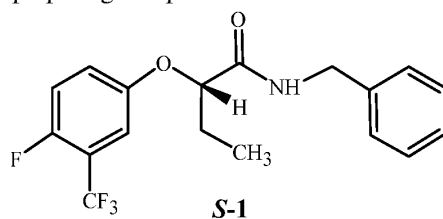
R-11

; and

treating compound **R-11** with compound **7**

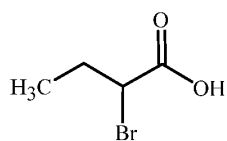


22. A method for preparing compound **S-1**



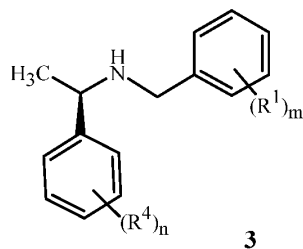
the method comprising:

treating compound **rac-2**



rac-2

with a compound of Formula **3**



wherein

each R^1 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl, C_1-C_6 haloalkoxy; or phenyl optionally substituted with up to two R^2 ; or

two adjacent R^1 substituents are taken together with the phenyl to which they are attached to form a naphthalenyl ring optionally substituted with up to three R^3 ;

each R^2 and each R^3 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl or C_1-C_6 haloalkoxy;

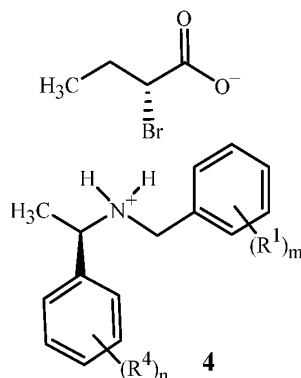
each R^4 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl, C_1-C_6 haloalkoxy; or phenyl optionally substituted with up to two R^5 ;

each R^5 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl or C_1-C_6 haloalkoxy;

m is 0, 1, 2 or 3; and

n is 0, 1, 2 or 3;

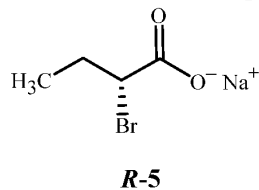
to provide the *R,R*-salt of Formula 4



wherein R^1 , R^4 , m and n are as defined for the compound of Formula 3;

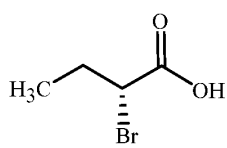
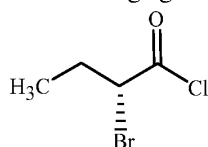
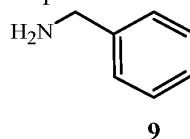
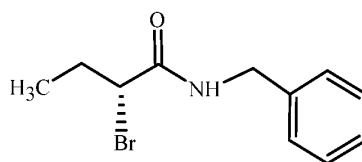
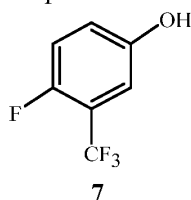
selectively isolating the *R,R*-salt of Formula 4;

treating the *R,R*-salt of Formula 4 with a sodium base to provide compound **R-5**



treating compound **R-5** with acid to prepare compound **R-2**

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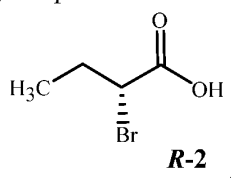
**R-2** ;treating compound **R-2** with a chlorinating agent to prepare compound **R-10****R-10** ;treating compound **R-10** with compound **9****9**to prepare compound **R-11****R-11** ;treating compound **R-11** with compound **7****7**

23. The method of Claim 22 wherein
 m is 1 or 2;
 n is 0; and
 each R^1 is independently halogen, nitro, C_1-C_4 alkyl, C_1-C_4 haloalkyl or phenyl; or
 two adjacent R^1 substituents are taken together with the phenyl to which they are
 attached to form an unsubstituted naphthalenyl ring.
24. The method of Claim 22 wherein the compound of Formula **3** is selected from
 the group consisting of

(*αR*)-*α*-methyl-*N*-(phenylmethyl)-benzenemethanamine,
N-[(1*R*)-1-phenylethyl]-1-naphthalenemethanamine,
 2,4-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 3,4-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 2,6-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 2,4,6-trimethyl-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 4-nitro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine, and
 2-methyl-3-phenyl-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine.

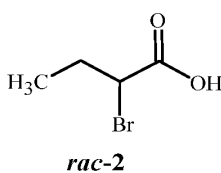
25. The method of Claim 24 wherein the compound of Formula **3** is *N*-[(1*R*)-1-phenylethyl]-1-naphthalenemethanamine.

26. A method for preparing compound **R-2**

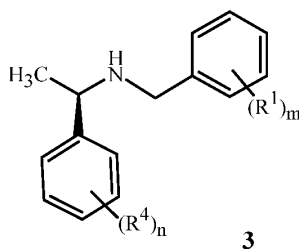


the method comprising:

treating compound **rac-2**



with a compound of Formula **3**



wherein

each R^1 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl, C_1-C_6 haloalkoxy; or phenyl optionally substituted with up to two R^2 ; or

two adjacent R^1 substituents are taken together with the phenyl to which they are attached to form a naphthalenyl ring optionally substituted with up to three R^3 ;

each R^2 and each R^3 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl or C_1-C_6 haloalkoxy;

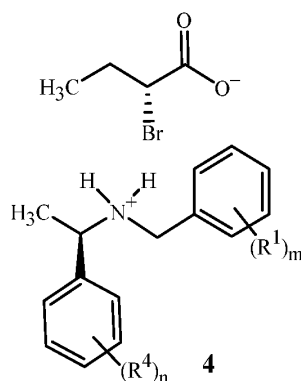
each R^4 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl, C_1-C_6 haloalkoxy; or phenyl optionally substituted with up to two R^5 ;

each R^5 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl or C_1-C_6 haloalkoxy;

m is 0, 1, 2 or 3; and

n is 0, 1, 2 or 3;

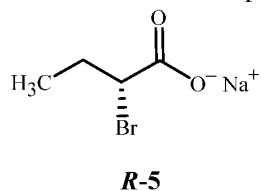
to provide the *R,R*-salt of Formula 4



wherein R^1 , R^4 , m and n are as defined for the compound of Formula 3;

selectively isolating the *R,R*-salt of Formula 4;

treating the *R,R*-salt of Formula 4 with a sodium base to provide compound **R-5**



treating compound **R-5** with acid.

27. The method of Claim 26 wherein

m is 1 or 2;

n is 0; and

each R^1 is independently halogen, nitro, C_1-C_4 alkyl, C_1-C_4 haloalkyl or phenyl; or

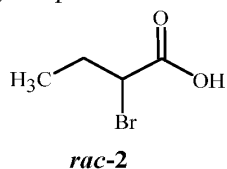
two adjacent R^1 substituents are taken together with the phenyl to which they are attached to form an unsubstituted naphthalenyl ring.

28. The method of Claim 26 wherein the compound of Formula **3** is selected from the group consisting of

(*αR*)-*α*-methyl-*N*-(phenylmethyl)-benzenemethanamine,
N-[(1*R*)-1-phenylethyl]-1-naphthalenemethanamine,
 2,4-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 3,4-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 2,6-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 2,4,6-trimethyl-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
 4-nitro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine, and
 2-methyl-3-phenyl-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine.

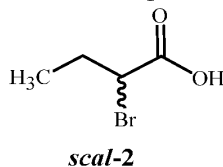
28. The method of Claim 27 wherein the compound of Formula **3** is *N*-[(1*R*)-1-phenylethyl]-1-naphthalenemethanamine.

29. A method for preparing compound ***rac-2***



the method comprising:

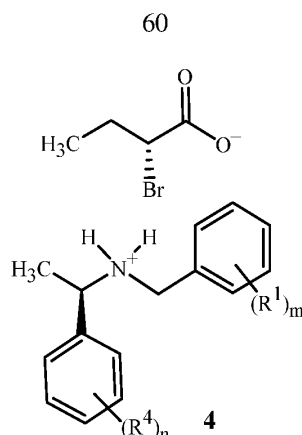
treating the enantiomerically enriched compound of Formula ***scal-2***



with hydrobromic acid or a quaternary ammonium bromide salt.

30. The method of Claim 29 wherein compound ***scal-2*** is predominantly (*S*)-2-bromobutanoic acid.

31. An *R,R*-salt of Formula **4**



wherein

each R^1 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl, C_1-C_6 haloalkoxy; or phenyl optionally substituted with up to two R^2 ; or

two adjacent R^1 substituents are taken together with the phenyl to which they are attached to form a naphthalenyl ring optionally substituted with up to three R^3 ;

each R^2 and each R^3 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl or C_1-C_6 haloalkoxy;

each R^4 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl, C_1-C_6 haloalkoxy; or phenyl optionally substituted with up to two R^5 ;

each R^5 is independently halogen, nitro, cyano, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 alkoxy, C_1-C_6 alkenyl, C_1-C_6 haloalkenyl or C_1-C_6 haloalkoxy;

m is 0, 1, 2 or 3; and

n is 0, 1, 2 or 3.

32. The *R,R*-salt of Claim 31 wherein

m is 1 or 2;

n is 0; and

each R^1 is independently halogen, nitro, C_1-C_4 alkyl, C_1-C_4 haloalkyl or phenyl; or two adjacent R^1 substituents are taken together with the phenyl to which they are attached to form an unsubstituted naphthalenyl ring.

33. The *R,R*-salt of Claim 31 comprising the salt of an amine selected from the group consisting of

(αR)- α -methyl-*N*-(phenylmethyl)-benzenemethanamine,

N-[(1*R*)-1-phenylethyl]-1-naphthalenemethanamine,

2,4-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,

3,4-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
2,6-dichloro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
2,4,6-trimethyl-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine,
4-nitro-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine, and
2-methyl-3-phenyl-*N*-[(1*R*)-1-phenylethyl]-benzenemethanamine.

34. The *R,R*-salt of Claim 33 comprising the salt of *N*-[(1*R*)-1-phenylethyl]-1-naphthalenemethanamine.