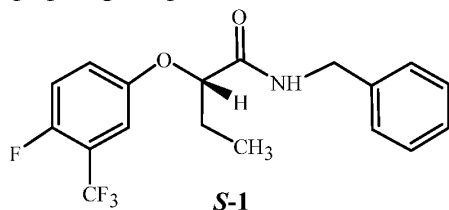


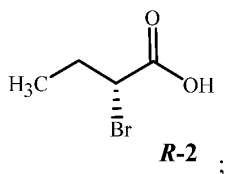
CLAIMS

What is claimed is:

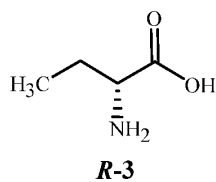
1. A method for preparing compound **S-1**



from compound **R-2**

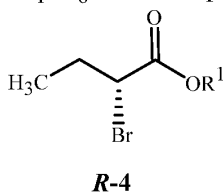


wherein compound **R-2** is prepared by
treating compound **R-3**



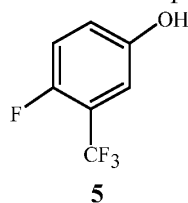
with an alkali metal nitrite and hydrobromic acid.

2. 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 a compound of Formula **R-4**;



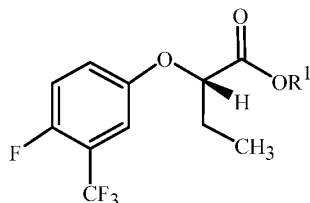
wherein R¹ is C₁–C₆ alkyl;

treating a compound of Formula **R-4** with compound **5**



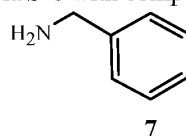
22

to prepare a compound of Formula **S-6**

**S-6**

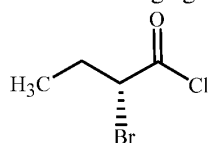
wherein R¹ is C₁–C₆ alkyl; and

treating a compound of Formula **S-6** with compound **7**

**7**

3. The method of Claim 2 wherein treating compound **R-2** to prepare the compound of Formula **R-4** comprises

treating compound **R-2** with a chlorinating agent to prepare compound **R-8**

**R-8**

; and

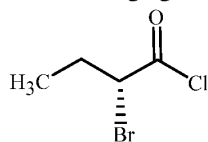
treating compound **R-8** with a C₁–C₆ alkanol or a salt thereof.

4. The method of Claim 3 wherein the chlorinating agent is thionyl chloride.

5. The method of Claim 2 wherein R¹ is CH₃.

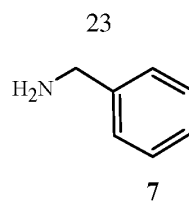
6. The method of Claim 1 wherein compound **R-2** is converted to compound **S-1** by the method comprising

treating compound **R-2** with a chlorinating agent to prepare compound **R-8**

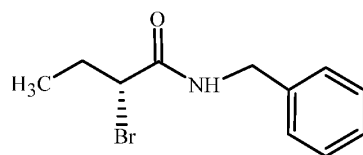
**R-8**

;

treating compound **R-8** with compound **7**



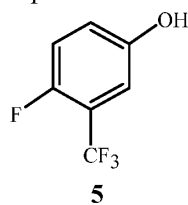
to prepare compound **R-9**



R-9

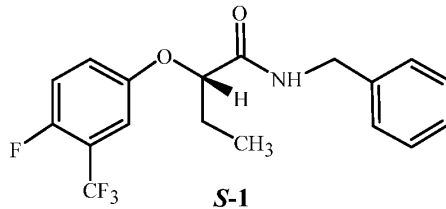
; and

treating compound **R-9** with compound **5**

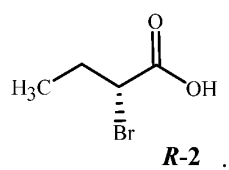


7. The method of Claim 6 wherein the chlorinating agent is thionyl chloride.

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



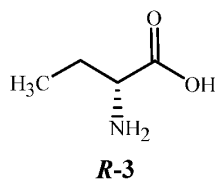
from compound **R-2**



;

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

treating compound **R-3**



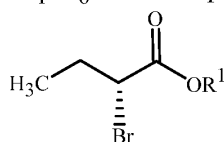
with an alkali metal nitrite and hydrobromic acid;

24

the method further comprising converting compound **R-2** to compound **S-1**.

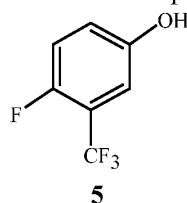
9. The method of Claim 8 wherein compound **R-2** is converted to compound **S-1** by the method comprising

treating compound **R-2** with a C₁–C₆ alkanol to prepare a compound of Formula **R-4**;

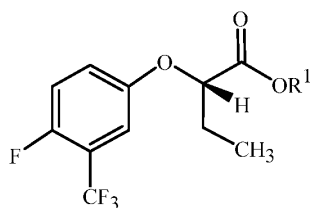
**R-4**

wherein R¹ is C₁–C₆ alkyl;

treating a compound of Formula **R-4** with compound **5**

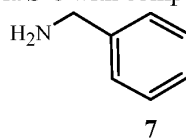
**5**

to prepare a compound of Formula **S-6**

**S-6**

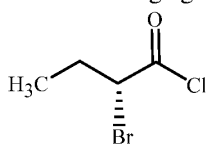
wherein R¹ is C₁–C₆ alkyl; and

treating a compound of Formula **S-6** with compound **7**

**7**

10. The method of Claim 9 wherein treating compound **R-2** to prepare compound **R-4** comprises

treating compound **R-2** with a chlorinating agent to prepare compound **R-8**

**R-8**

; and

25

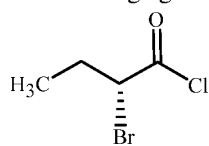
treating compound **R-8** with a C₁–C₆ alkanol or a salt thereof.

11. The method of Claim 10 wherein the chlorinating agent is thionyl chloride.

12. The method of Claim 9 wherein R¹ is CH₃.

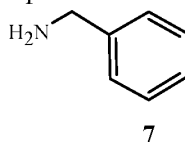
13. The method of Claim 8 wherein compound **R-2** is converted to compound **S-1** by the method comprising

treating compound **R-2** with a chlorinating agent to prepare compound **R-8**

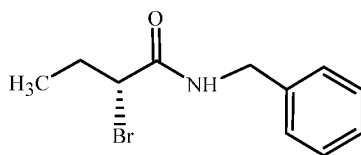
**R-8**

;

treating compound **R-8** with compound **7**

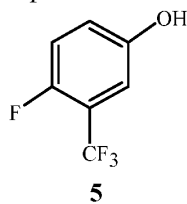
**7**

to prepare compound **R-9**

**R-9**

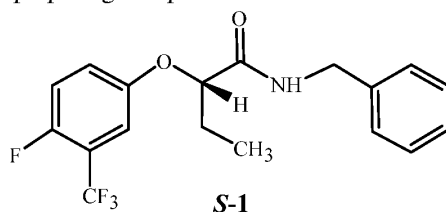
; and

treating compound **R-9** with compound **5**

**5**

14. The method of Claim 13 wherein the chlorinating agent is thionyl chloride.

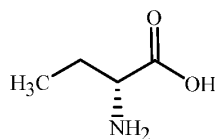
15. A method for preparing compound **S-1**

**S-1**

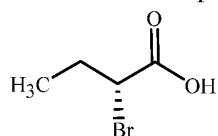
26

the method comprising:

treating compound **R-3**

**R-3**

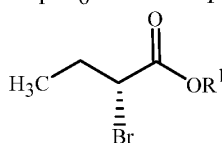
with an alkali metal nitrite and hydrobromic acid to prepare compound **R-2**

**R-2** ; and

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

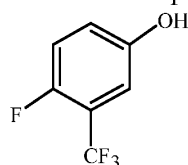
16. The method of Claim 15 wherein compound **R-2** is converted to compound **S-1** by the method comprising

treating compound **R-2** with a C₁–C₆ alkanol to prepare a compound of Formula **R-4**;

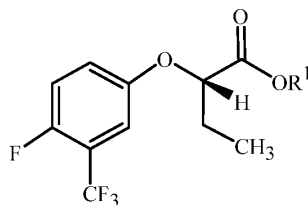
**R-4**

wherein R¹ is C₁–C₆ alkyl;

treating a compound of Formula **R-4** with compound **5**

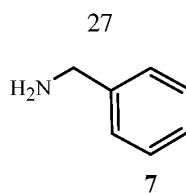
**5**

to prepare a compound of Formula **S-6**

**S-6**

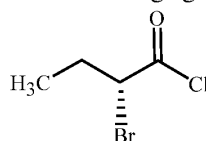
wherein R¹ is C₁–C₆ alkyl; and

treating a compound of Formula **S-6** with compound **7**



17. The method of Claim 16 wherein treating compound **R-2** to prepare the compound of Formula **R-4** comprises

treating compound **R-2** with a chlorinating agent to prepare compound **R-8**



R-8 ; and

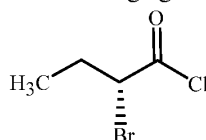
treating compound **R-8** with a C₁–C₆ alkanol or a salt thereof.

18. The method of Claim 17 wherein the chlorinating agent is thionyl chloride.

19. The method of Claim 16 wherein R¹ is CH₃.

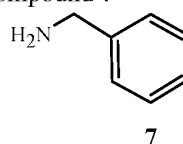
20. The method of Claim 15 wherein compound **R-2** is converted to compound **S-1** by the method comprising

treating compound **R-2** with a chlorinating agent to prepare compound **R-8**

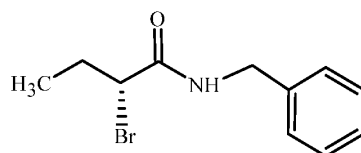


R-8 ;

treating compound **R-8** with compound 7

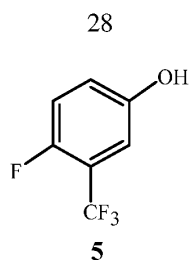


to prepare compound **R-9**



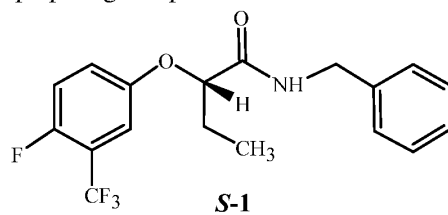
R-9 ; and

treating compound **R-9** with compound 5



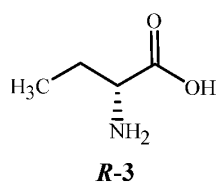
21. The method of Claim 20 wherein the chlorinating agent is thionyl chloride.

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

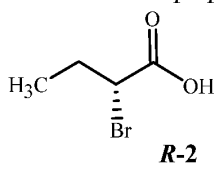


the method comprising:

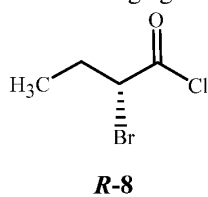
treating compound **R-3**



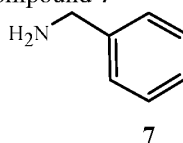
with an alkali metal nitrite and hydrobromic acid to prepare compound **R-2**



treating compound **R-2** with a chlorinating agent to prepare compound **R-8**



treating compound **R-8** with compound **7**

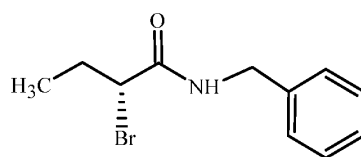


to prepare compound **R-9**

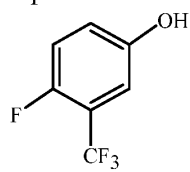
WO 2021/161099

PCT/IB2021/000075

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***R-9***

; and

treating compound ***R-9*** with compound **5****5**

23. The method of Claim 22 wherein the chlorinating agent is thionyl chloride.
24. The method of Claim 20 wherein the chlorinating agent is thionyl chloride.