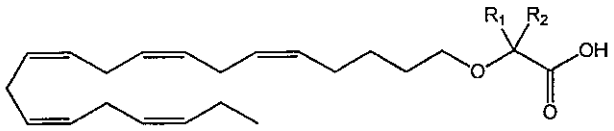
CLAIMS:

1. A method of treating or preventing at least one disease or condition in a subject in need thereof, comprising administering to the subject a pharmaceutically effective amount of a compound of Formula (I):



Formula (I)

or a pharmaceutically acceptable salt or ester thereof,

wherein R_1 and R_2 are independently chosen from a hydrogen atom or linear, branched, and/or cyclic C_1-C_6 alkyl groups, with the proviso that R_1 and R_2 are not both hydrogen.

2. The method according to claim 1, wherein the compound is present in the form of an enantiomer, diastereomer, or mixture thereof.

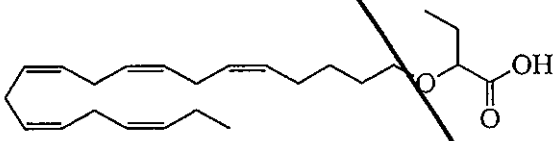
3. The method according to claim 1, wherein R_1 and R_2 are chosen from hydrogen, methyl, ethyl, n-propyl, and isopropyl.

4. The method according to claim 2, wherein the compound is present in its *R* form.

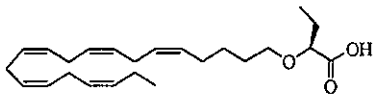
5. The method according to claim 2, wherein the compound is present in its *S* form.

6. The method according to claim 2, where the compound is present in racemic form.

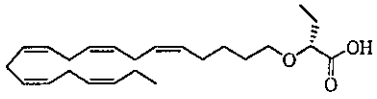
7. The method according to claim 1, wherein R_1 is hydrogen and R_2 is ethyl and the formula is



8. The method according to claim 7, wherein the compound is present in its *S* and/or *R* form represented by the formulas:



and



9. The method according to claim 1, wherein the at least one disease or condition is chosen from atherosclerosis, peripheral insulin resistance, a diabetic condition, or a dyslipidemic condition.

10. The method according to claim 9, wherein the at least one disease or condition is atherosclerosis.

11. The method according to claim 10, wherein total blood cholesterol levels are reduced.

12. The method according to claim 10, wherein the method reduces the incidence of atherosclerosis lesions.

13. The method according to claim 9, wherein the at least one disease or condition is chosen from peripheral insulin resistance or a diabetic condition.

14. The method according to claim 13, wherein the diabetic condition is Type 2 diabetes.

15. The method according to claim 9, wherein the at least one disease or condition is a dyslipidemic condition or dyslipidemia.

16. The method according to claim 15, where the dyslipidemic condition is mixed dyslipidemia.

17. The method according to claim 16, wherein triglyceride levels are reduced.

18. The method according to claim 16, wherein high density lipoprotein (HDL) levels are increased.

19. The method according to claim 1, wherein the pharmaceutically effective amount of the compound of Formula (I) ranges from about 10 mg to about 500 mg per dose.

20. The method according to claim 1, wherein the subject is a human.

21. The method according to claim 1, wherein the compound is administered once daily.

22. The method according to claim 1, wherein the compound is formulated as a pharmaceutical composition for oral administration.

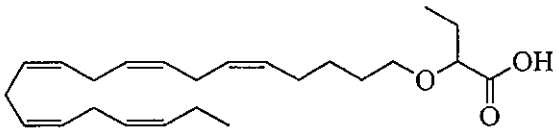
23. The method according to claim 22, wherein the pharmaceutical composition is in the form of a gelatin capsule or a tablet.

24. The method according to claim 23, wherein the pharmaceutical composition further comprises at least one binder, excipient, diluent, or any combinations thereof.

25. The method according to claim 22, wherein the pharmaceutical composition further comprises an antioxidant.

26. The method according to claim 25, wherein the antioxidant is tocopherol or BHA.

27. A method of reducing atherosclerosis development in a subject in need thereof, the method comprising administering to the subject a pharmaceutically effective amount of 2-((5Z,8Z,11Z,14Z,17Z)-icosa-5,8,11,14,17-pentaen-1-yloxy)butanoic acid:

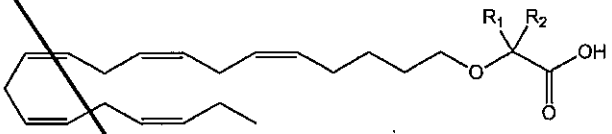


or a pharmaceutically acceptable salt or ester thereof.

28. The method according to claim 27, wherein the pharmaceutically-effective amount of 2-((5Z,8Z,11Z,14Z,17Z)-icosa-5,8,11,14,17-pentaen-1-yloxy)butanoic acid ranges from about 10 mg to about 500 mg per dose.

29. The method according to claim 28, wherein 2-((5Z,8Z,11Z,14Z,17Z)-icosa-5,8,11,14,17-pentaen-1-yloxy)butanoic acid is administered once daily.

30. Use of a pharmaceutically effective amount of a compound of Formula (I):



Formula (I)

or a pharmaceutically acceptable salt or ester thereof, for treating or preventing at least one disease or condition in a subject in need thereof,

wherein R_1 and R_2 are independently chosen from a hydrogen atom or linear, branched, and/or cyclic C_1-C_6 alkyl groups, with the proviso that R_1 and R_2 are not both hydrogen.

31. The use according to claim 30, wherein the at least one disease or condition is chosen from atherosclerosis, peripheral insulin resistance, a diabetic condition, or a dyslipidemic condition.

32. The use according to claim 31, wherein the at least one disease or condition is atherosclerosis.

33. The use according to claim 32, wherein total blood cholesterol levels are reduced.

34. The use according to claim 32, wherein the incidence of atherosclerosis lesions is reduced.

35. The use according to claim 31, wherein the at least one disease or condition is chosen from peripheral insulin resistance or a diabetic condition.

36. The use according to claim 35, wherein the diabetic condition is Type 2 diabetes.

37. The use according to claim 31, wherein the at least one disease or condition is a dyslipidemic condition or dyslipidemia.

38. The use according to claim 37, where the dyslipidemic condition is mixed dyslipidemia.

39. The use according to claim 38, wherein triglyceride levels are reduced.

40. The use according to claim 38, wherein high density lipoprotein (HDL) levels are increased.

CLAIMS

1. An invention not claimed in any divisional application.