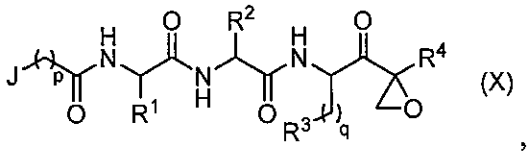
WHAT IS CLAIMED IS:

1. A compound of Formula (X), or a pharmaceutical salt thereof:



(X)

,

wherein:

p is 0 or 1;

q is 0, 1, or 2;

J is selected from the group consisting of C_{1-6}alkyleneR^5, C_{2-6}alkenyleneR^5, OC_{1-6}alkyleneR^5, CF_3, C_{0-6}alkylene$N(R^6)_2$, aryl, heteroaryl, polyetherCH_3, and C_{3-6}cycloalkenyl, wherein J is optionally substituted with one or more substituents selected from the group consisting of C_{1-6}alkyl, halo, CF_3, OR^6, SR^6, $N(R^6)_2$, and 3-7 membered heterocycloalkyl;

R^1 is selected from the group consisting of H, C_{1-2}alkyleneR^7, C_{3-6}cycloalkyl, and 3-6 membered heterocycloalkyl, wherein R^1 is optionally substituted with one or more substituents selected from the group consisting of halo, OR^6, SR^6, and $N(R^6)_2$;

R^2 is C_{1-2}alkylene—G; wherein G is selected from the group consisting of C_{3-7}cycloalkenyl, aryl, and heteroaryl, with the proviso that when R^2 is CH_2phenyl, the phenyl is substituted with one or more substituents selected from the group consisting of OR^6, halo, C_{1-3}alkyl, and SO_2R^6;

R^3 is selected from the group consisting of C_{3-7}cycloalkyl, C_{3-7}cycloalkenyl, a 3-7 membered heterocycloalkyl, a 3-7 membered heterocycloalkenyl and aryl, wherein R^3 is optionally substituted with one or more substituents selected from the group consisting OR^6 and C_{1-6}alkyl;

R^4 is H or C_{1-3}alkyl;

R^5 is selected from the group consisting of H, CF_3, OR^6, C_{1-6}alkoxyl, and aryl;

each R^6 is independently H or C_{1-6}alkyl; and,

R^7 is selected from the group consisting of H, OR^6, $COOR^6$, CN, and 3-6 membered heterocycloalkyl.

2. The compound of claim 1, wherein p is 0.

3. The compound of claim 1, wherein p is 1.

4. The compound of any one of claims 1 to 3, wherein q is 0.

5. The compound of any one of claims 1 to 3, wherein q is 1.

6. The compound of any one of claims 1 to 3, wherein q is 2.

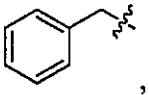
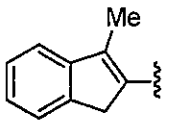
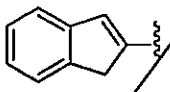
7. The compound of any one of claims 1 to 6, wherein J is C_{1-6}alkyleneR^5, C_{2-6}alkenyleneR^5, OC_{1-6}alkyleneR^5, polyetherCH_3, CF_3 or $N(R^6)_2$.

8. The compound of claim 7, wherein J is selected from the group consisting of methyl, ethyl, propyl, isopropyl, butyl, difluoromethyl, 2,2-difluoroethyl, hydroxymethyl, methoxy, ethoxy, propoxy, butoxy, trifluoromethyl, hydroxyethyl, $MeOCH_2OCH_2CH_2$-, $MeOCH_2CH_2OCH_2$-, methoxyethyl, ethoxymethyl, 2-hydroxy-2-methylpropyl, 2-hydroxypropyl, 2-hydroxy-2-methylbutyl, 2-hydroxy-2-methyl-3-trifluoropropyl, 1-trifluoromethyl-2-hydroxyethyl, NH_2, $NH(CH_3)$, $NH(CH_2CH_3)$, $N(CH_3)_2$, and $C(CH_3)_2NH_2$.

9. The compound of any one of claims 1 to 6, wherein J is aryl.

10. The compound of claim 9, wherein J is phenyl or indenyl.

11. The compound of claim 9 or 10, wherein the aryl is substituted with one or more substituent selected from the group consisting of methyl, ethyl, propyl, isopropyl, hydroxy, fluoro, chloro, methoxy, ethoxy, trifluromethyl, and amino.

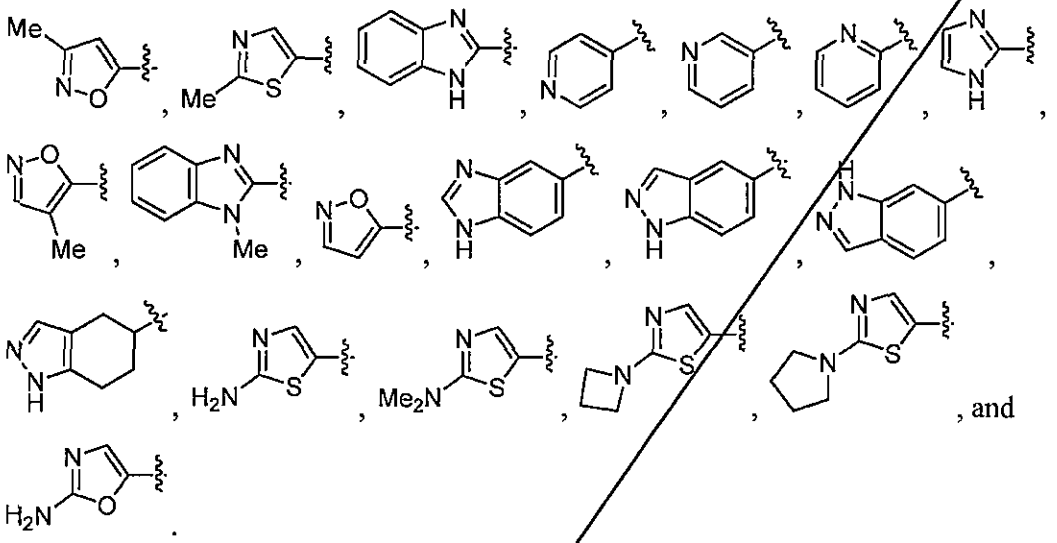
12. The compound of claim 9, wherein J is , , or .

13. The compound of any one of claims 1 to 6, wherein J is heteroaryl.

14. The compound of claim 13, wherein J is oxazolyl, isoxazolyl, thiazolyl, benimidazolyl, pyridyl, imidazolyl, indazolyl, tetrahydroindazolyl, pyrrolyl, or pyrazinyl.

15. The compound of claim 13 or 14, wherein the heteroaryl is substituted with one or more substituents selected from the group consisting of methyl, ethyl, amino, dimethylamino, azetidinyl, and pyrolidinyl.

16. The compound of claim 13, wherein J is selected from the group consisting of



17. The compound of any one of claims 1 to 6, wherein J is C_{3-6}cycloalkenyl.

18. The compound of claim 17, wherein J is cyclohexenyl or cyclopentenyl.

19. The compound of any one of claims 1 to 18, wherein R^1 is methyl.

20. The compound of any one of claims 1 to 18, wherein R^1 is hydroxymethyl.

21. The compound of any one of claims 1 to 18, wherein R^1 is $CH_2CO_2R^6$.

22. The compound of any one of claims 1 to 18, wherein R^1 is H, CH_2morpholinyl, oxetanyl, or 1-hydroxyl-cyclopropyl.

23. The compound of any one of claims 1 to 22, wherein R^2 is CH_2-G.

24. The compound of any one of claims 1 to 22, wherein R^2 is CH_2CH_2-G.

25. The compound of claim 23 or 24, wherein G is aryl.

26. The compound of claim 23 or 24, wherein G is C_{3-7}cycloalkenyl.

27. The compound of claim 23 or 24, wherein G is a heteroaryl.

28. The compound of claim 23 or 24, wherein G comprises 4-methoxyphenyl.

29. The compound of claim 28, wherein G is 3-hydroxy-4-methoxyphenyl.

30. The compound of claim 23 or 24, wherein G is indolyl.

31. The compound of claim 23 or 24, wherein G is 4-methylsulfonylphenyl.

32. The compound of claim 23 or 24, wherein G is 4-methoxyphenyl, 3-hydroxy-4-methoxyphentyl, indolyl, or 4-methylsulfonylphenyl.

33. The compound of any one of claims 1 to 32, wherein R^3 is C_{3-7}cycloalkyl.

34. The compound of any one of claims 1 to 32, wherein R^3 is C_{3-7}cycloalkenyl.

35. The compound of any one of claims 1 to 32, wherein R^3 is a 3-7 membered heterocycloalkyl.

36. The compound of any one of claims 1 to 32, wherein R^3 is a 3-7 membered heterocycloalkenyl.

37. The compound of any one of claims 1 to 32, wherein R^3 is aryl.

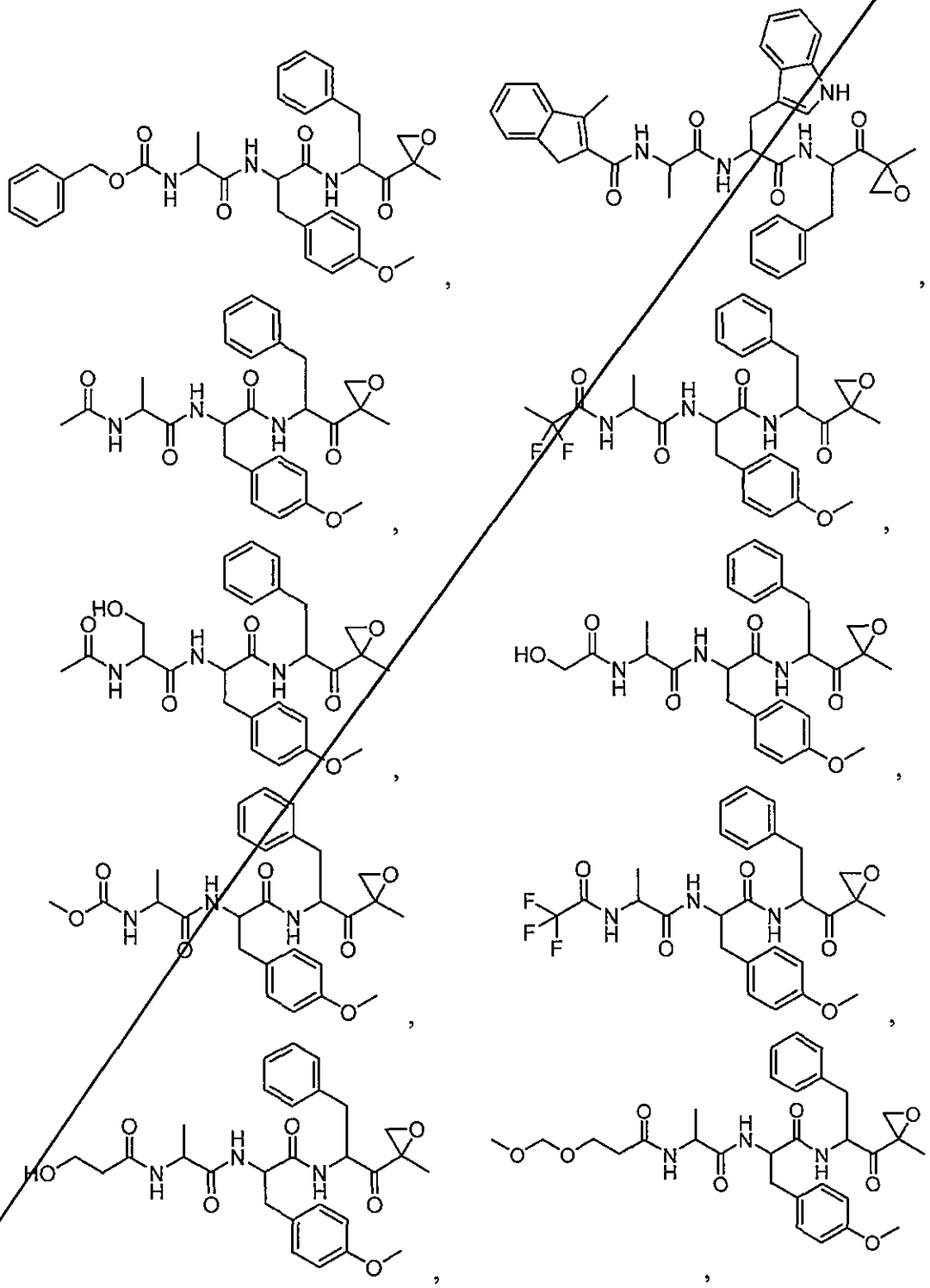
38. The compound of any one of claims 1 to 32, wherein R^3 is selected from the group consisting of phenyl, cyclopentyl, 4-methylphenyl, and cyclopentenyl.

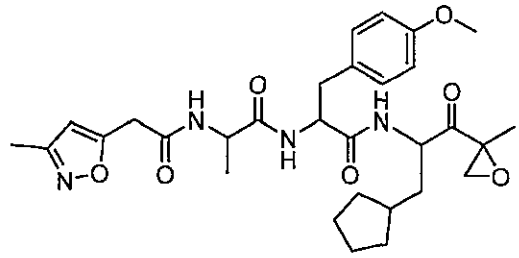
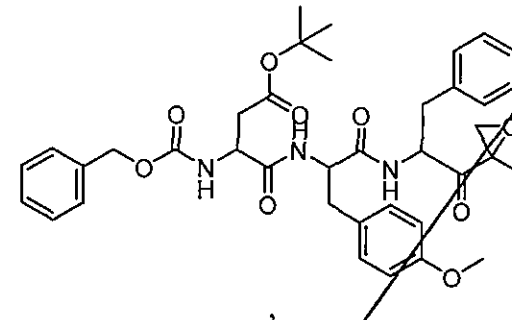
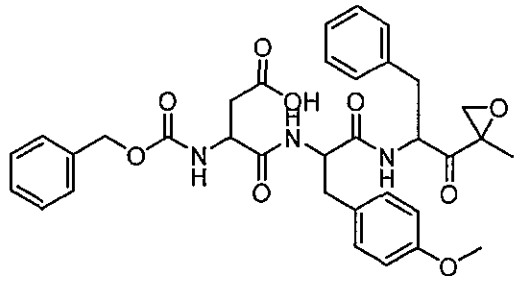
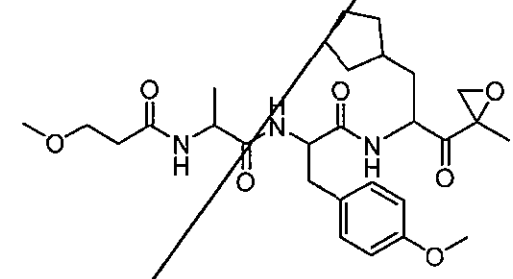
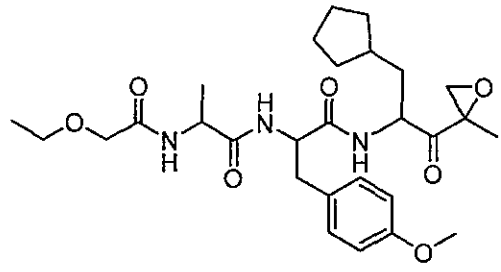
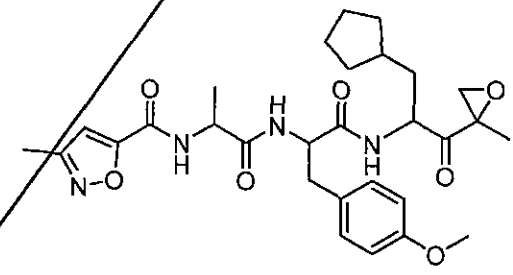
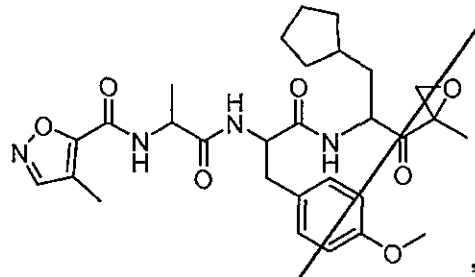
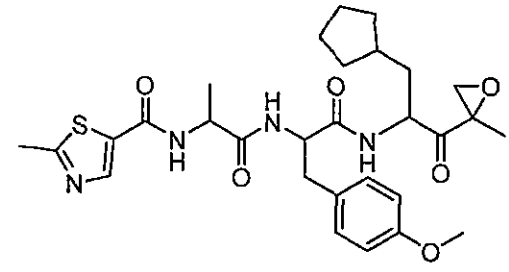
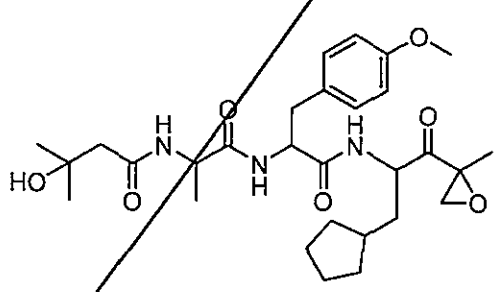
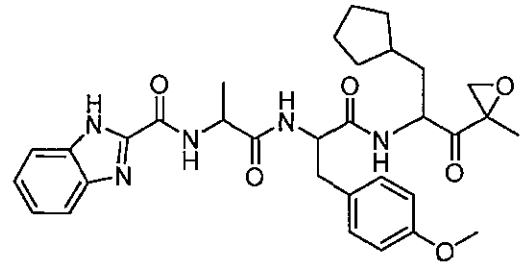
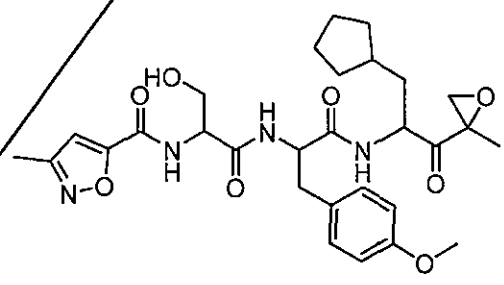
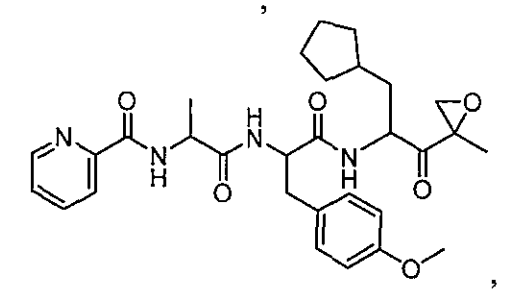
39. The compound of any one of claims 1 to 38, wherein R^4 is H.

40. The compound of any one of claims 1 to 38, wherein R^4 is C_{1-3}alkyl.

41. The compound of claim 40, wherein R^4 is methyl.

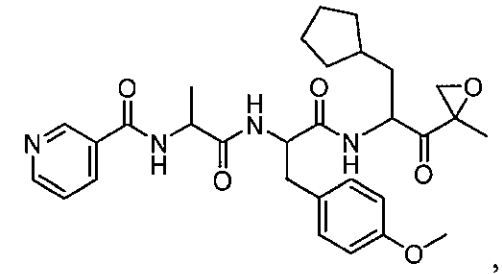
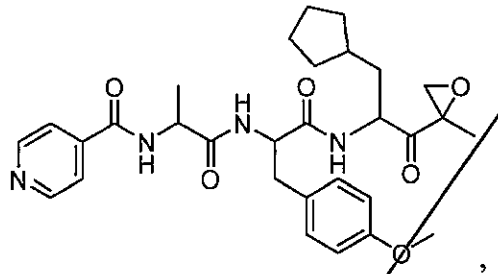
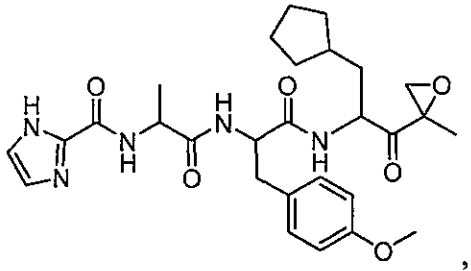
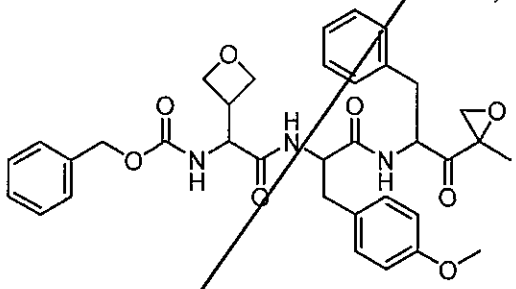
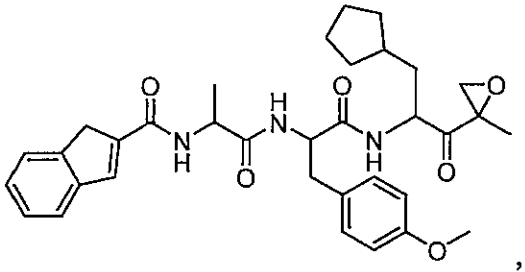
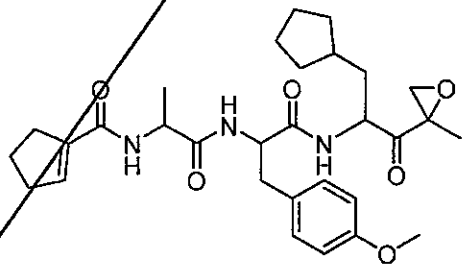
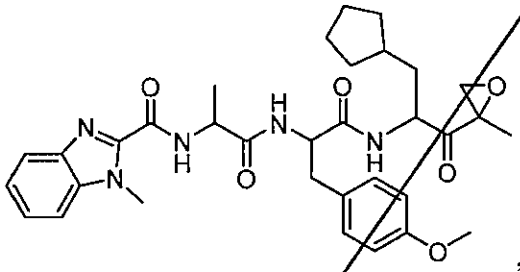
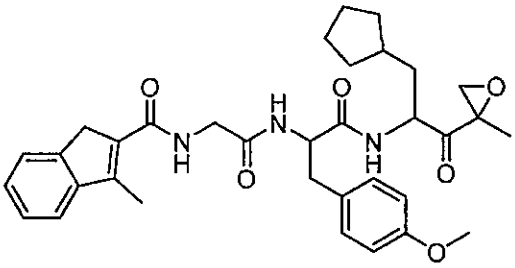
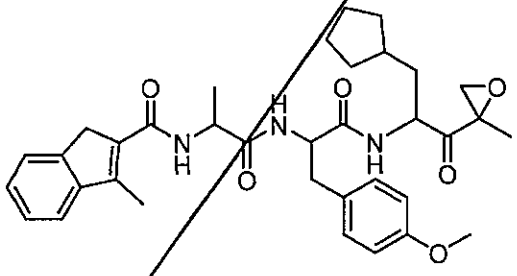
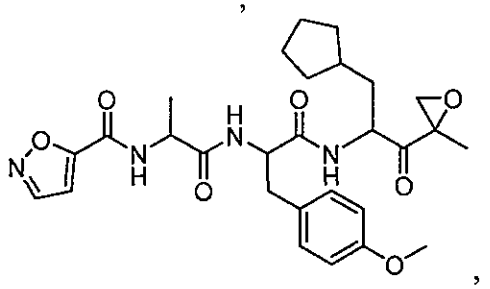
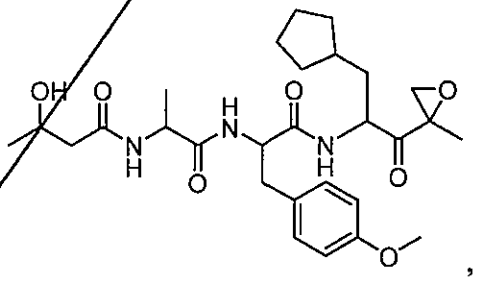
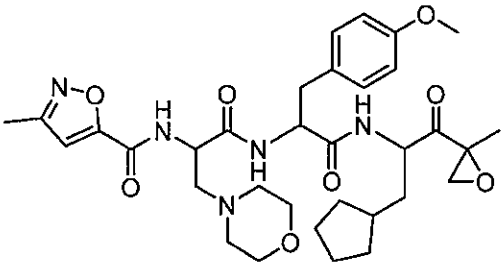
42. The compound of claim 1 having a structure selected from the group consisting of:




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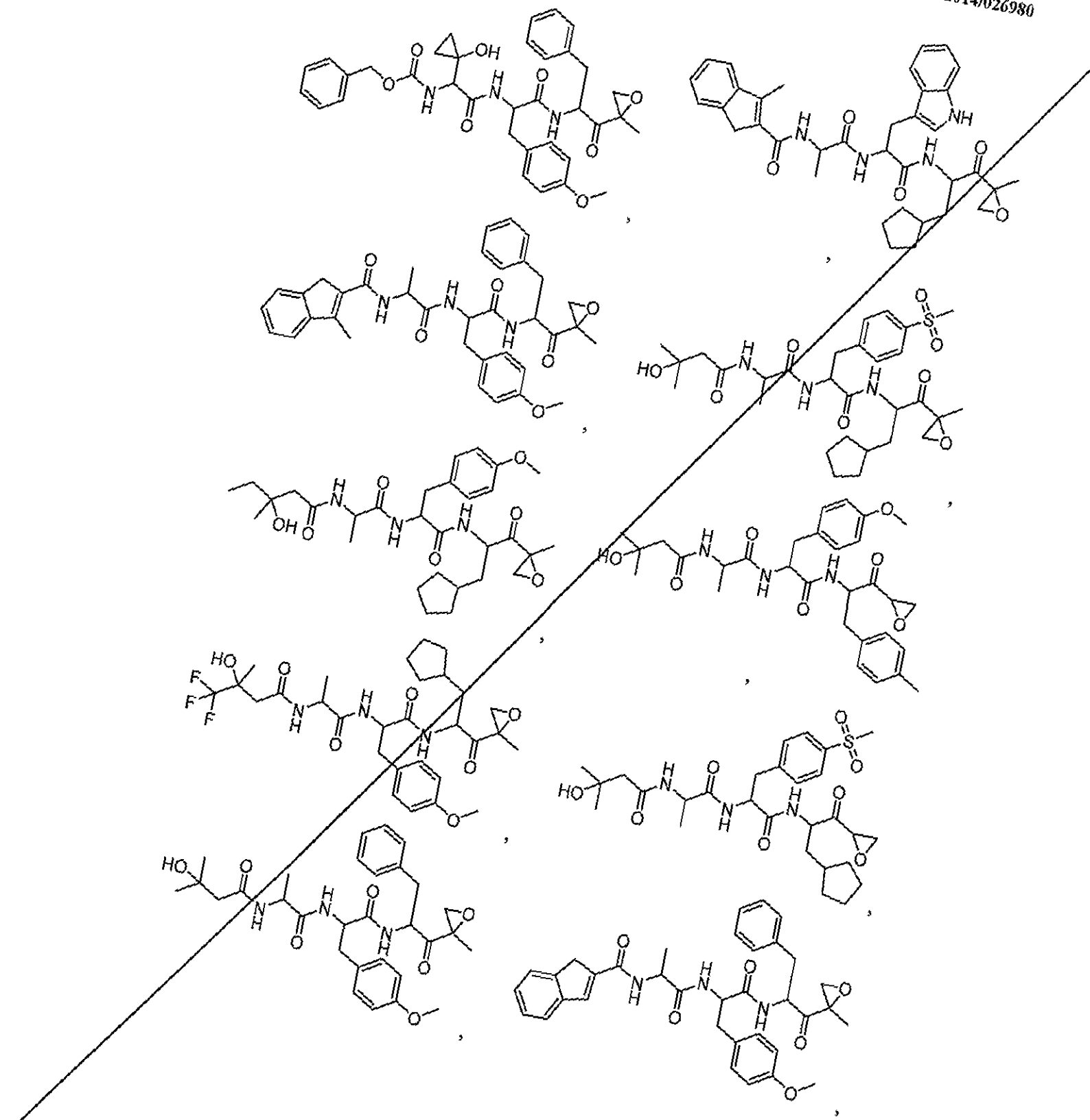
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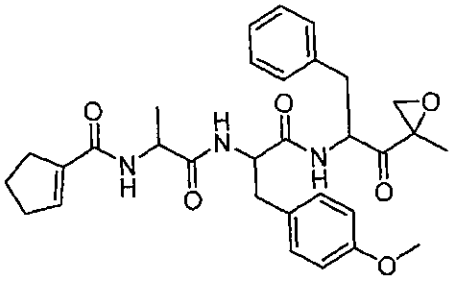
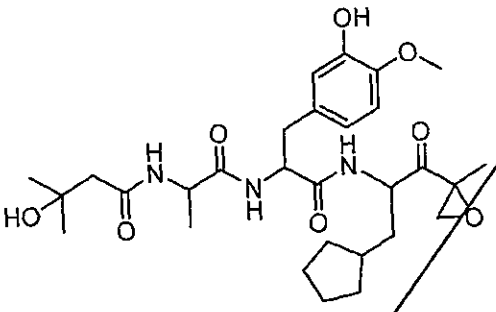
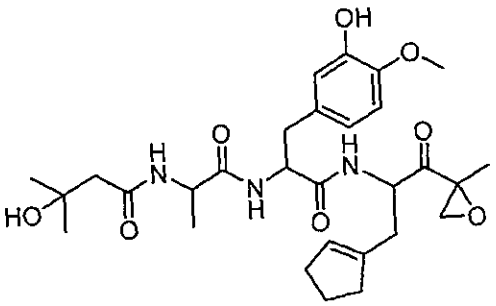
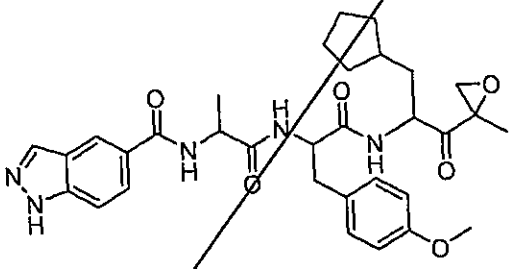
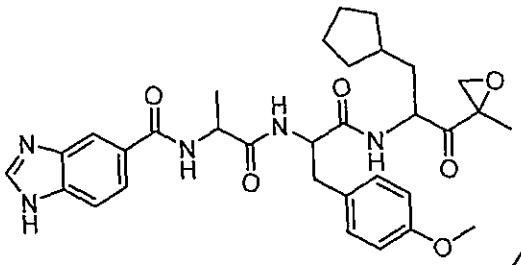
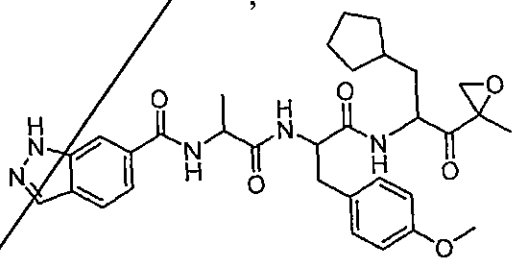
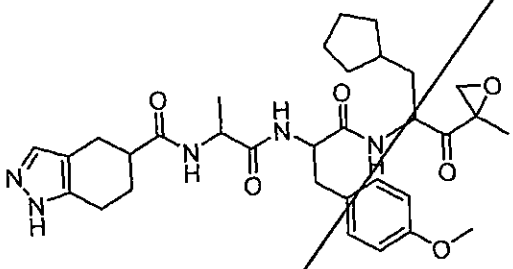
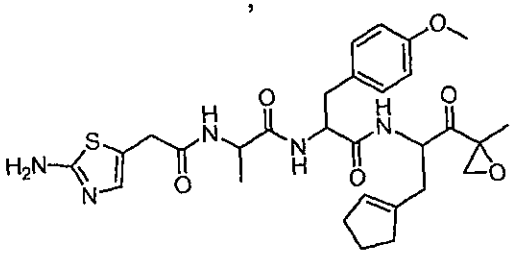
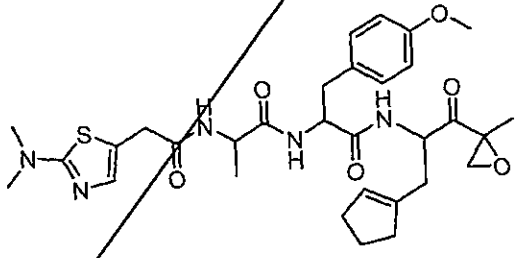
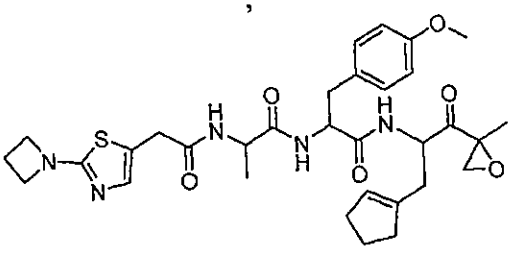
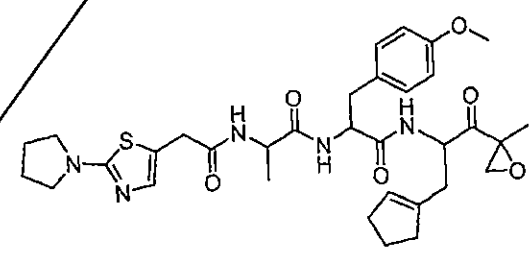
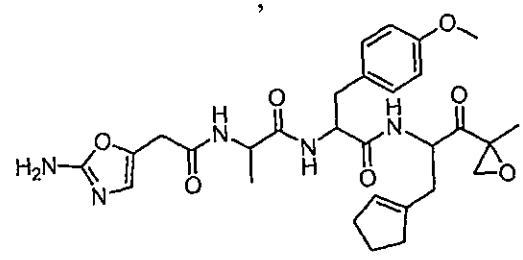
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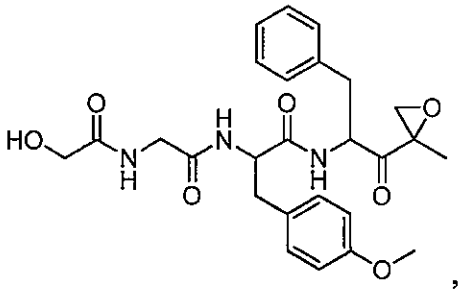
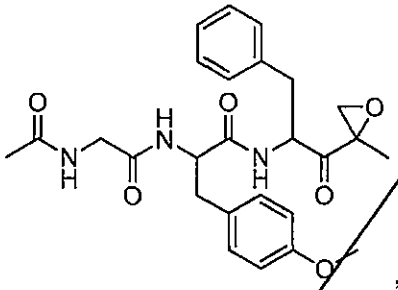
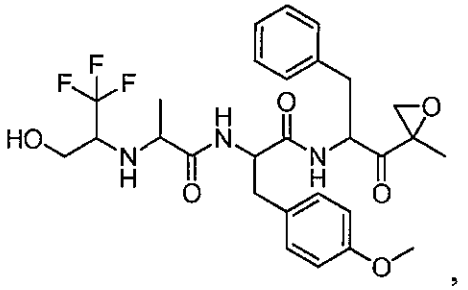
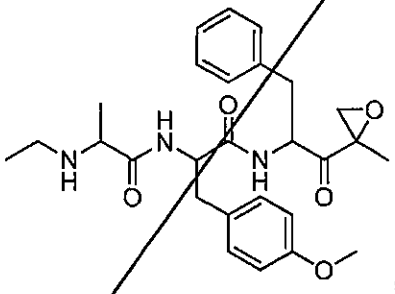
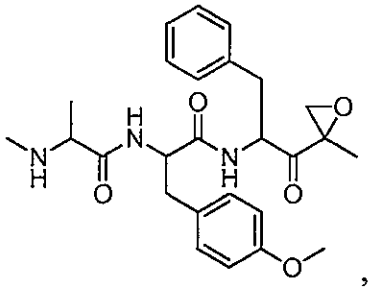
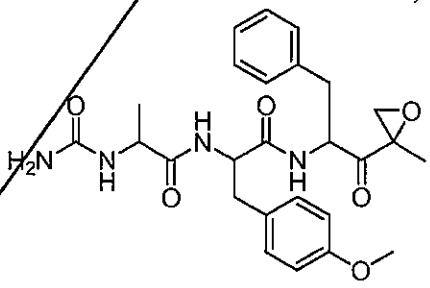
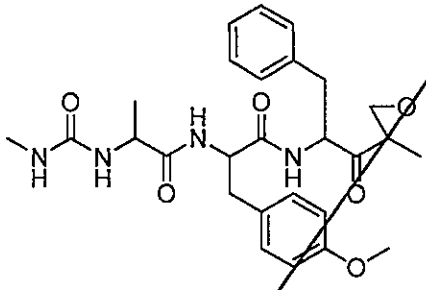
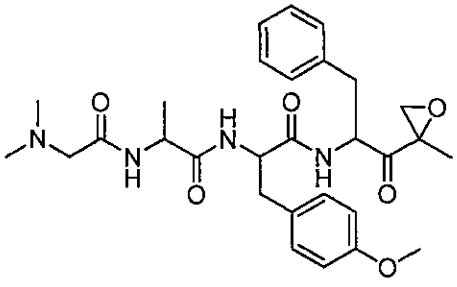
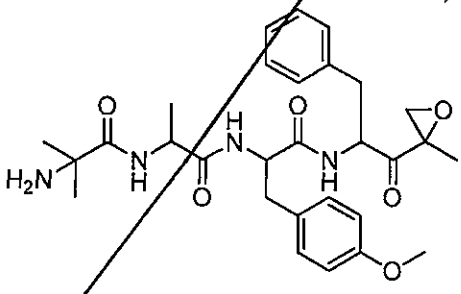
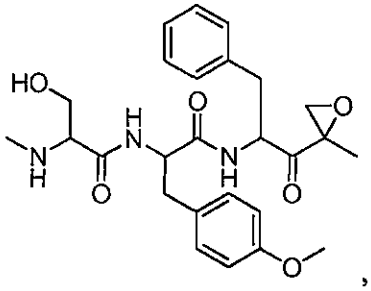
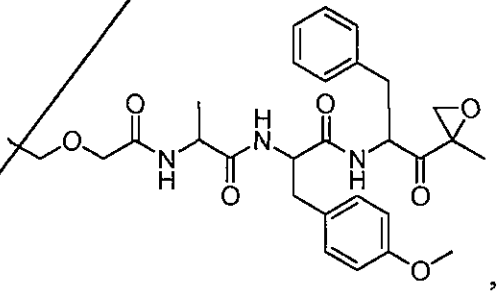
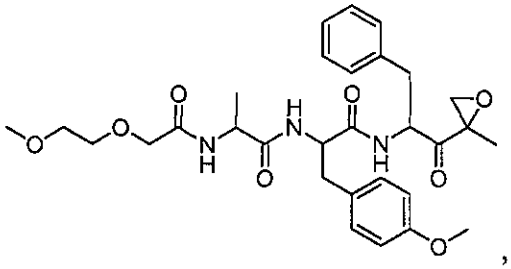
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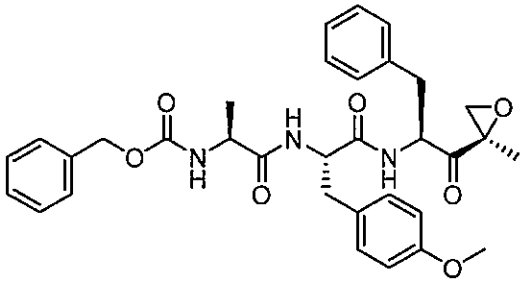
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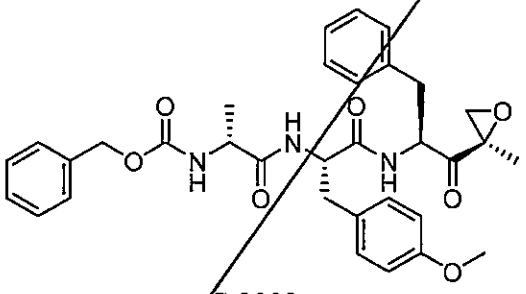

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or a pharmaceutically acceptable salt thereof.

43. The compound of any one of claims 1 to 42, wherein the carbon to which R^1 is attached is in the (S) configuration.

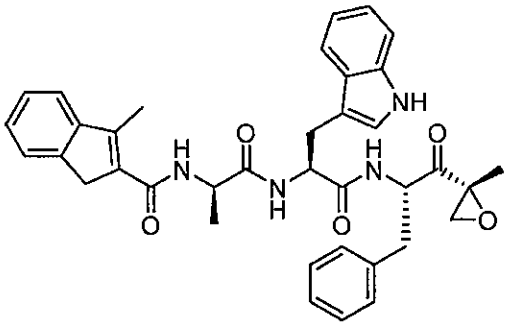
44. The compound of claim 1 having a structure selected from the group consisting of:



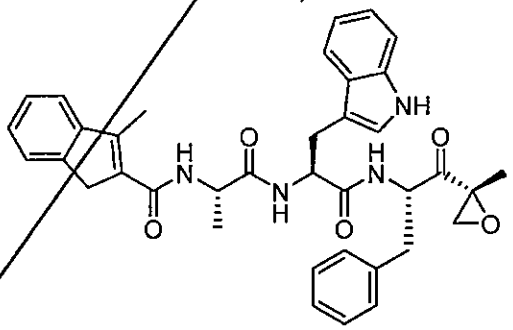
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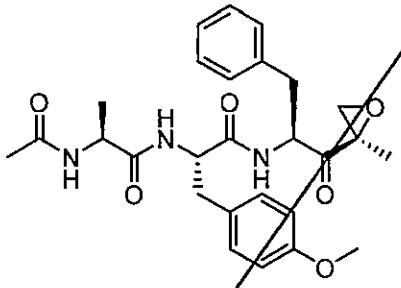
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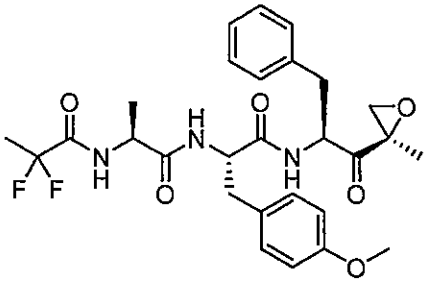
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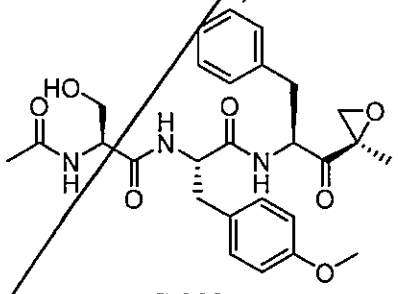
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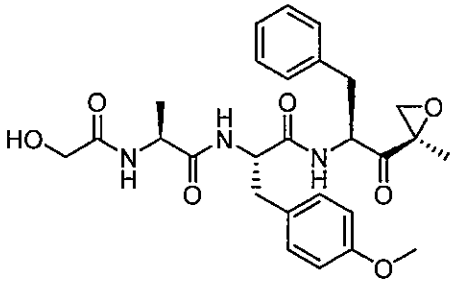
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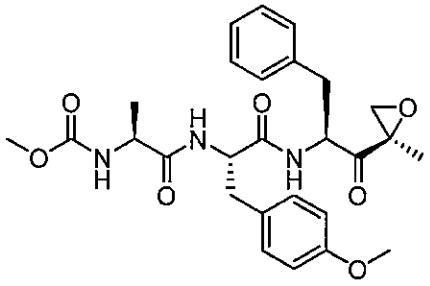
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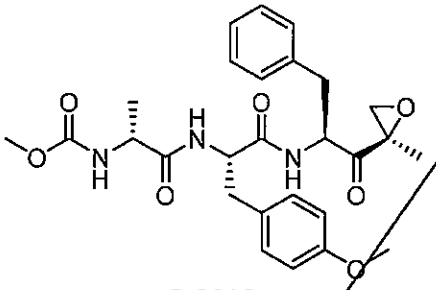
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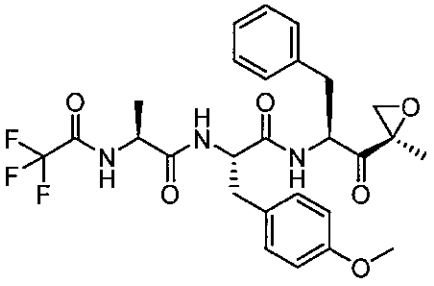
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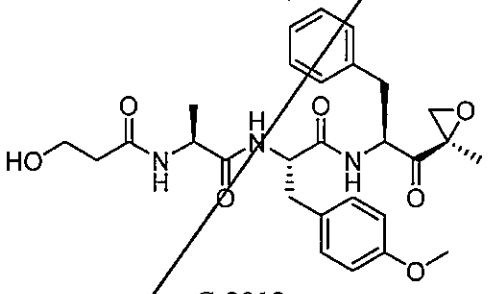
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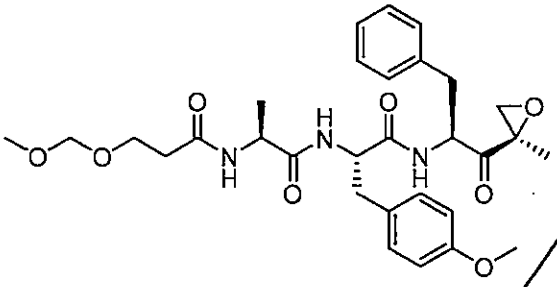
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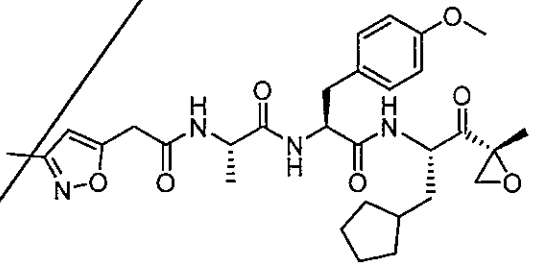
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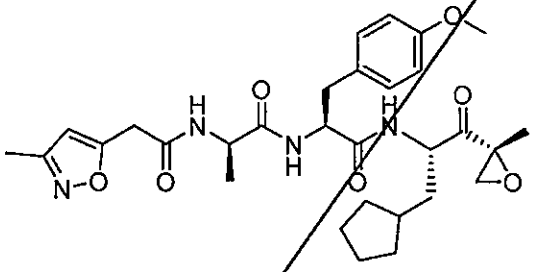
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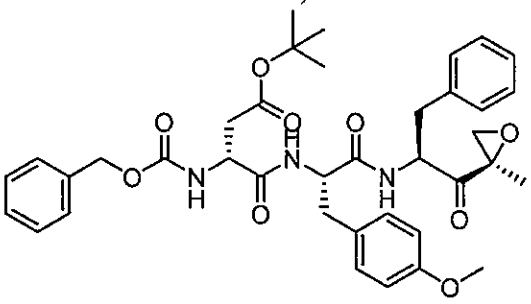
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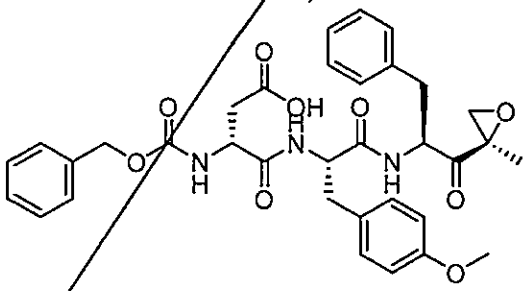
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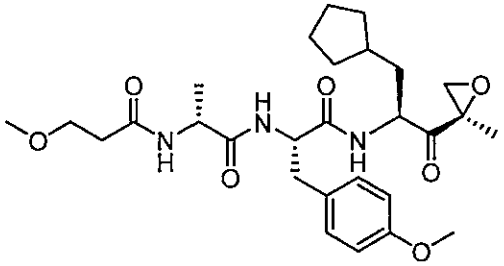
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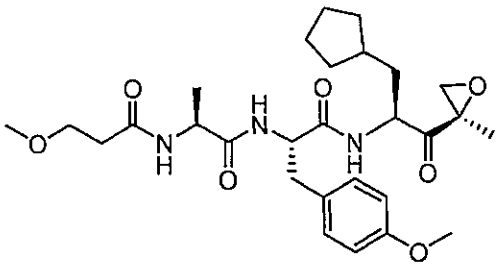
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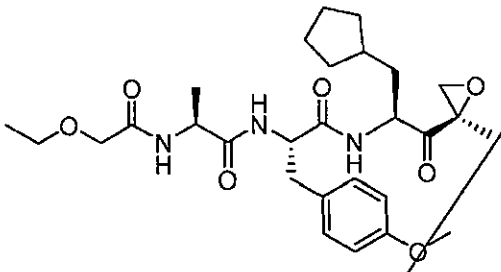
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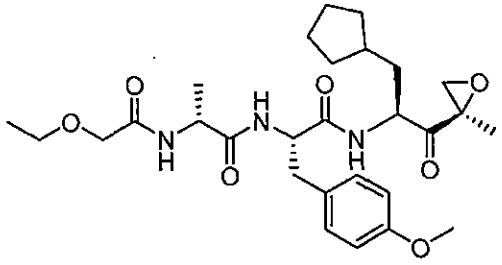
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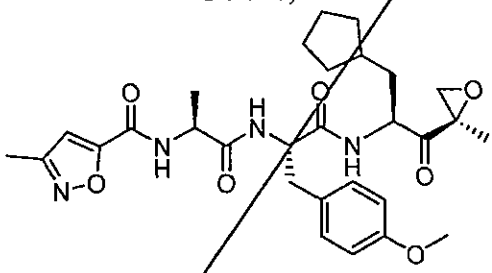
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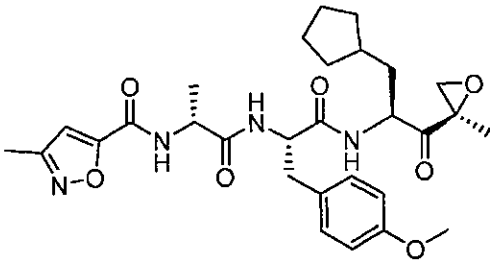
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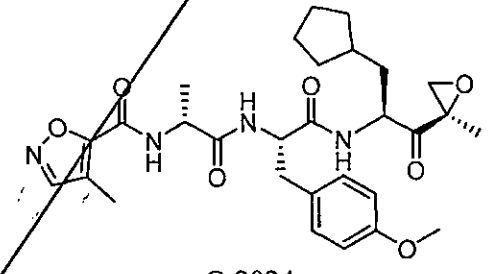
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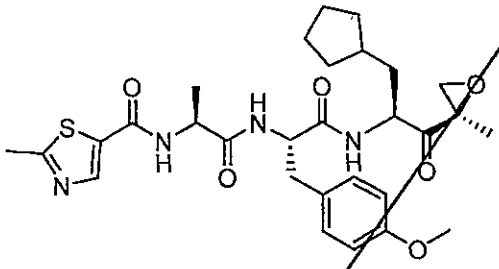
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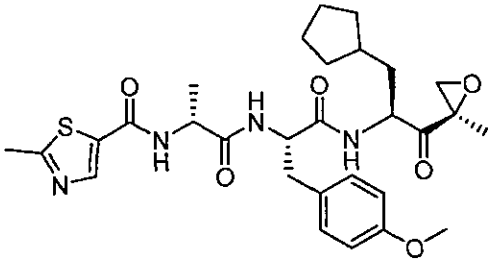
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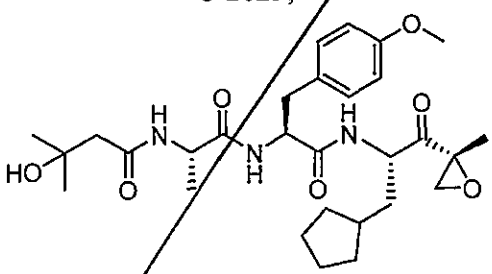
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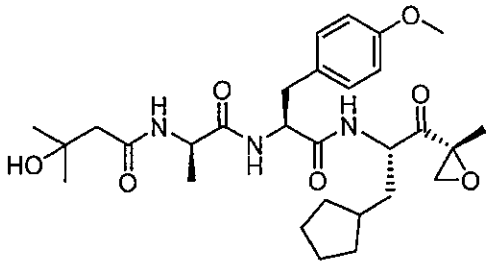
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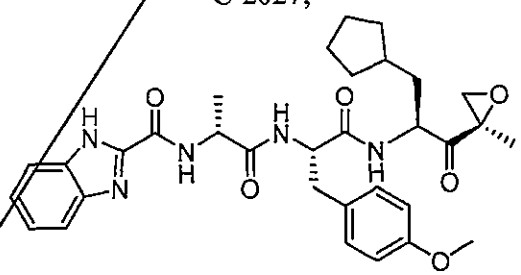
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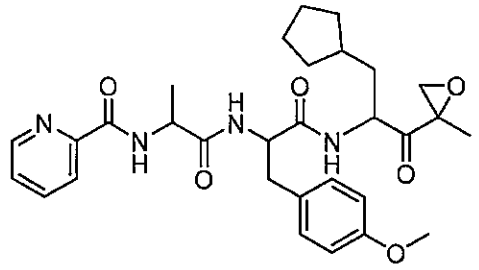
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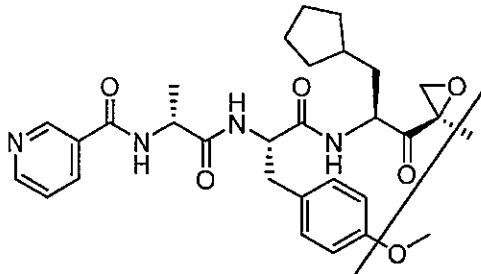
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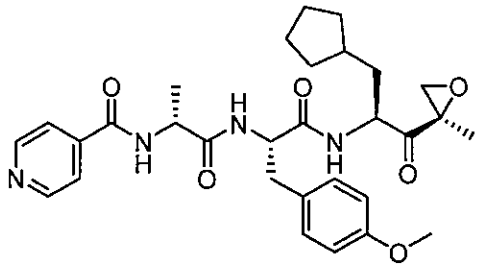
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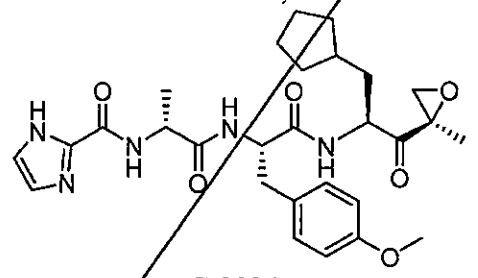
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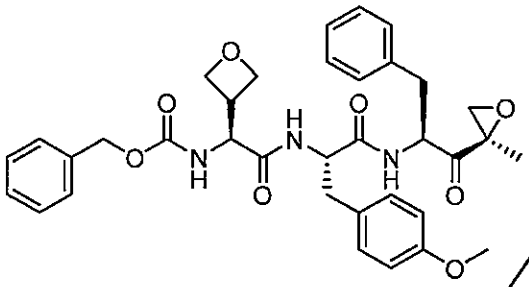
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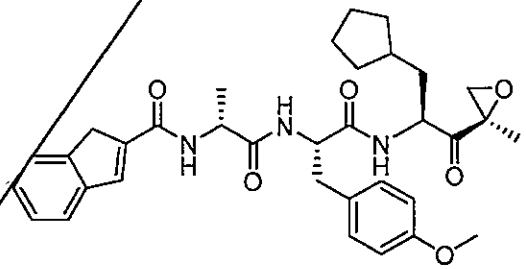
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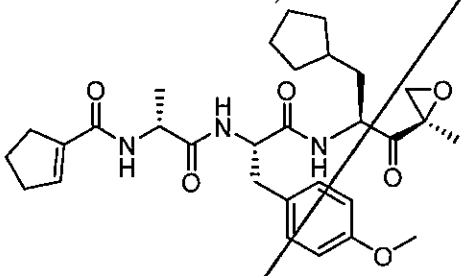
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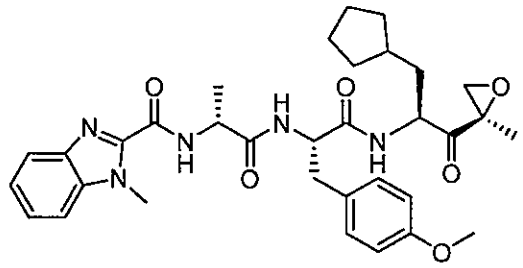
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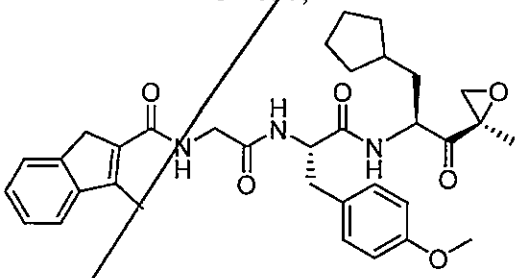
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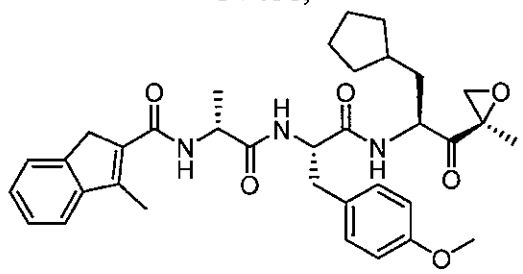
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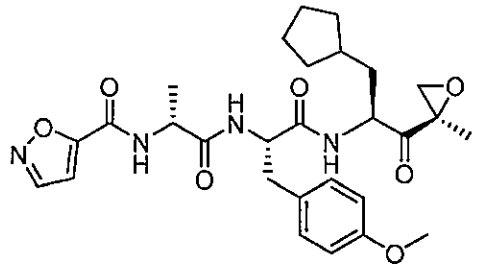


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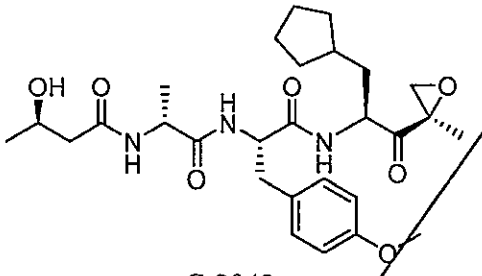


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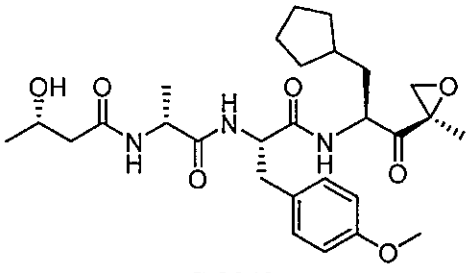
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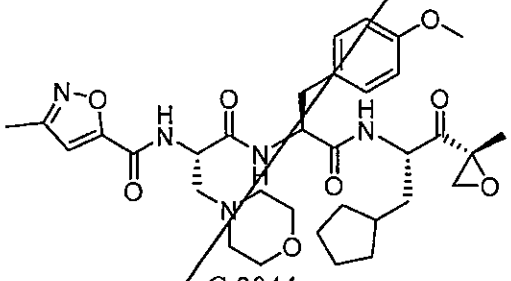
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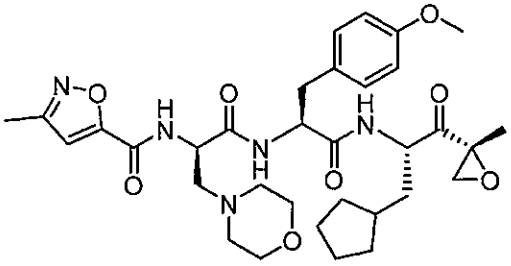
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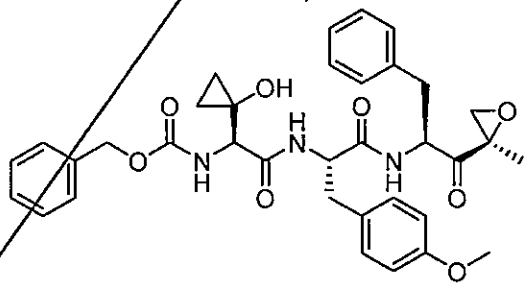
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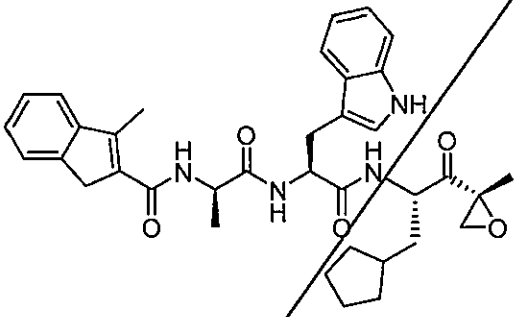
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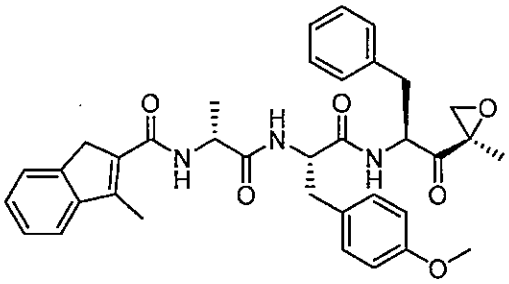
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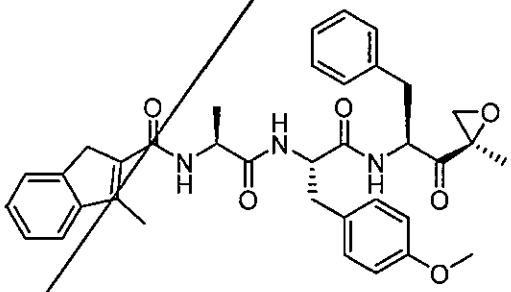
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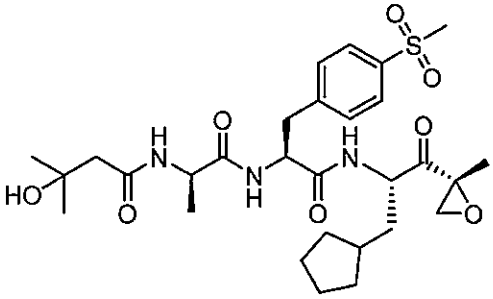
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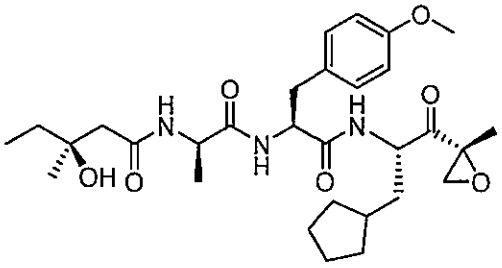
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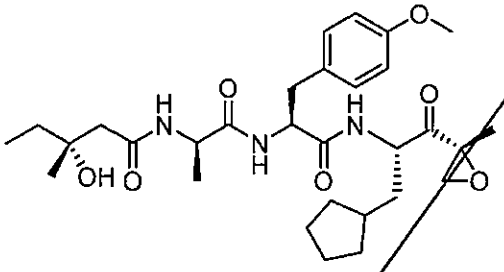
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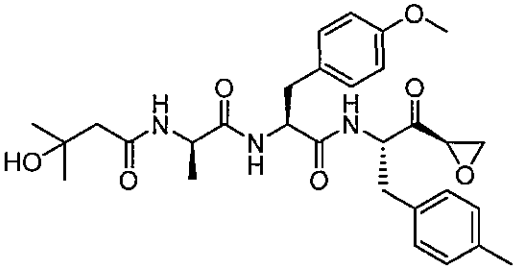
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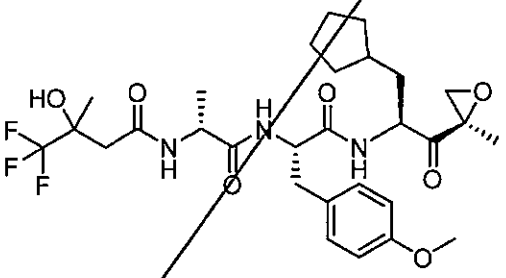
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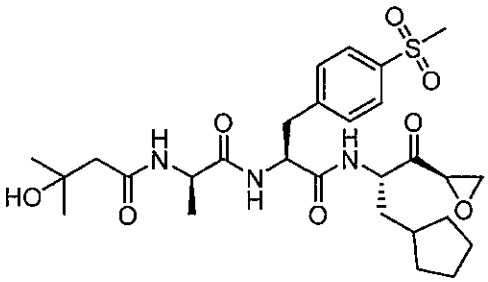
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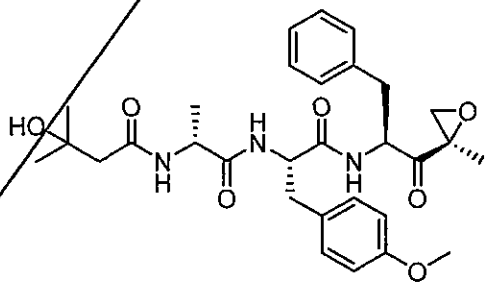
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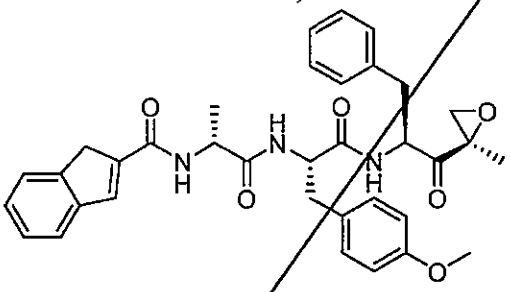
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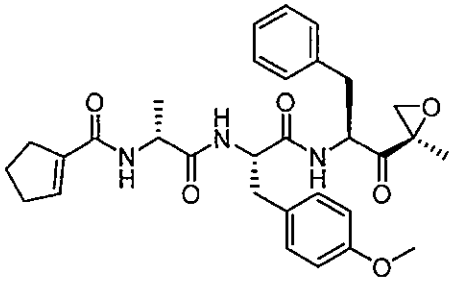
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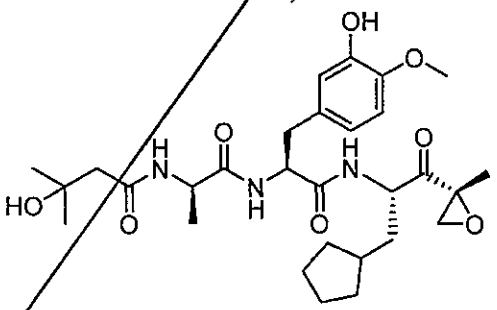
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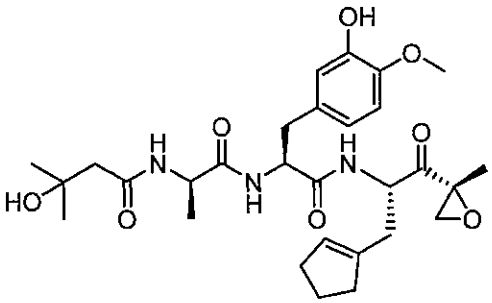
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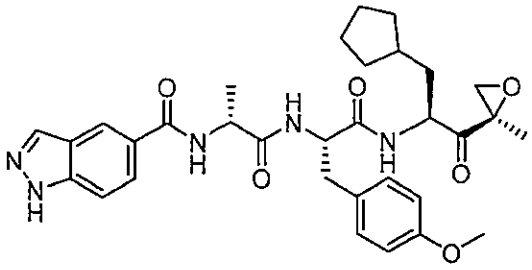
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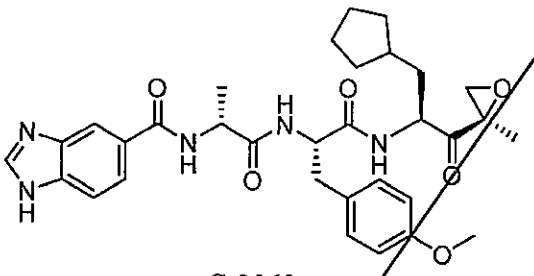
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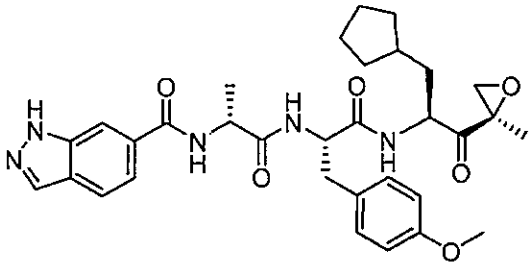
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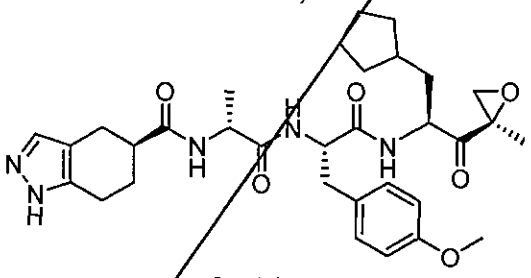
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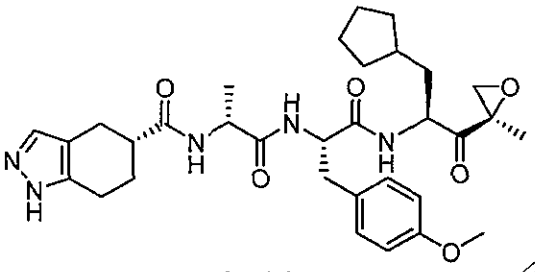
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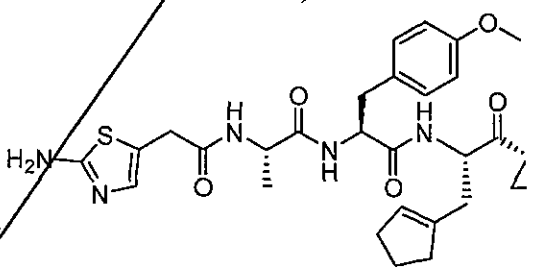
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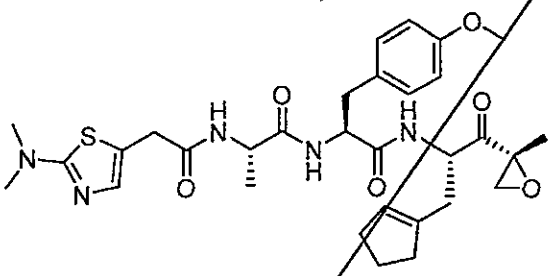
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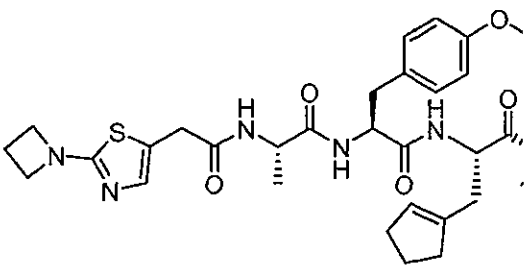
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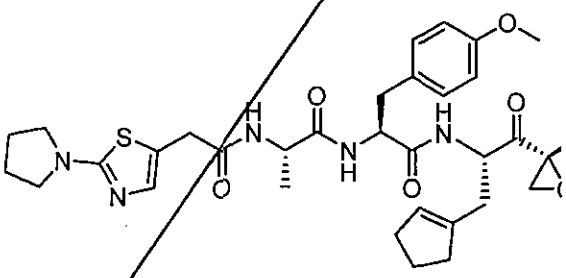
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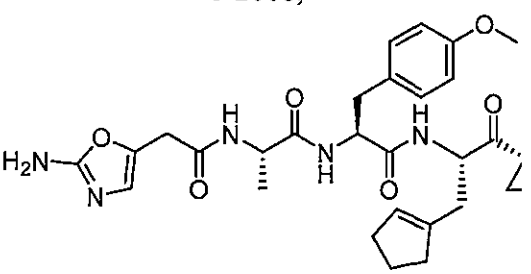
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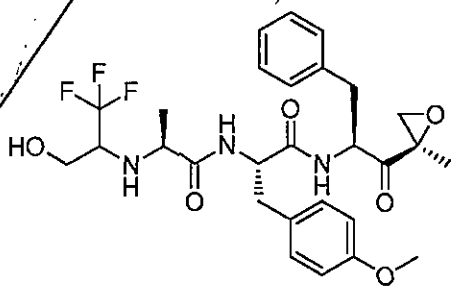
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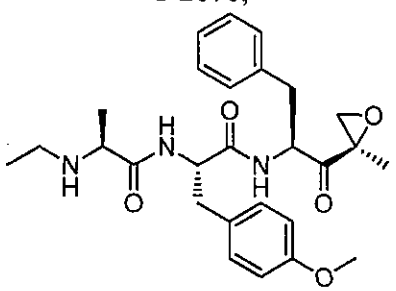


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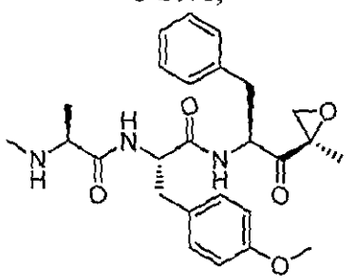


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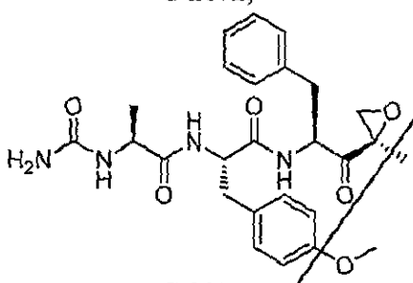




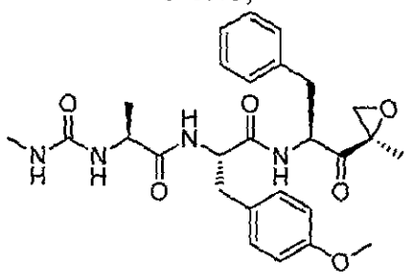
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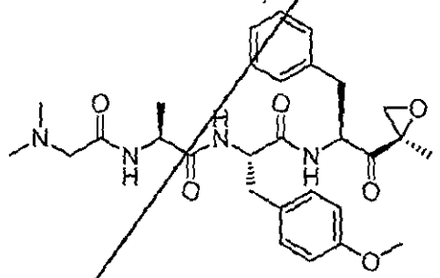
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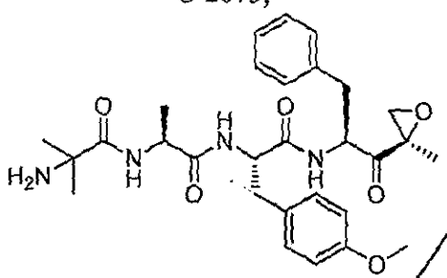
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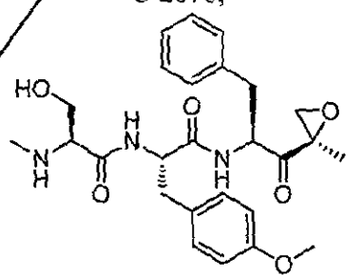
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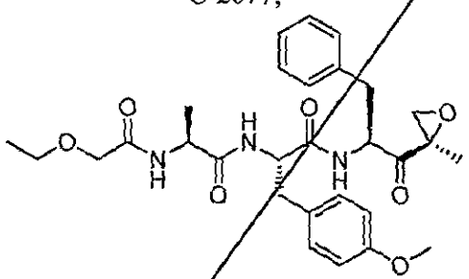
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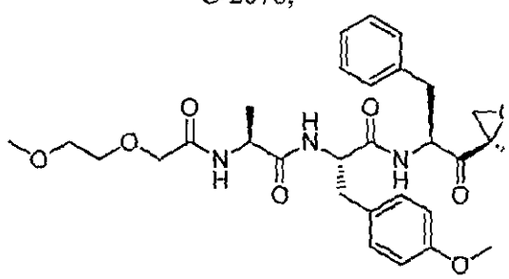
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C-2077,



C-2078,

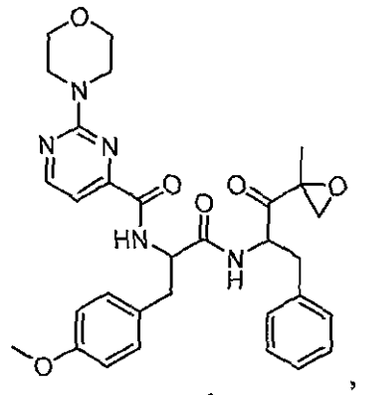


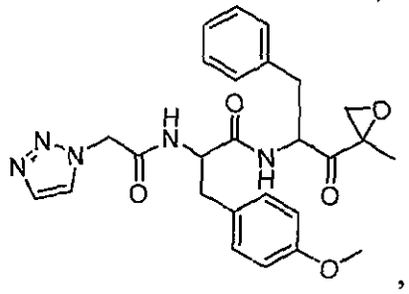
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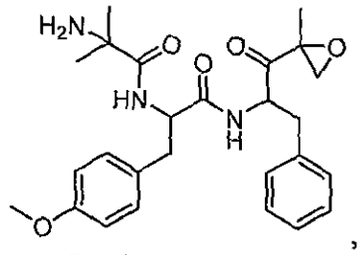
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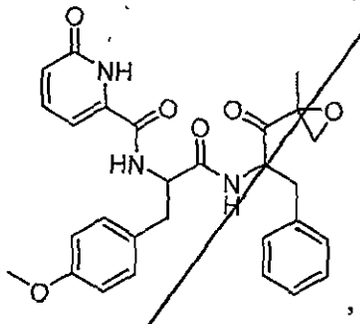
or a pharmaceutically acceptable salt thereof.

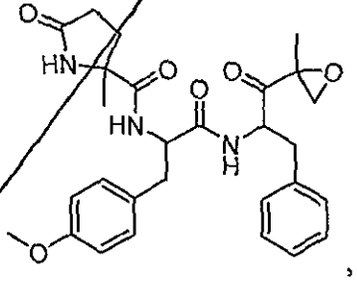
45. A compound having a structure selected from the group consisting of:

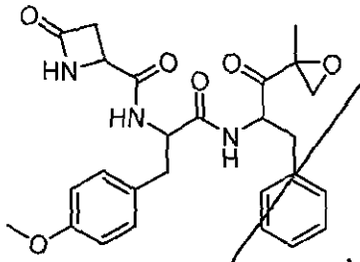


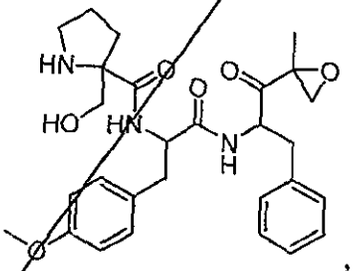


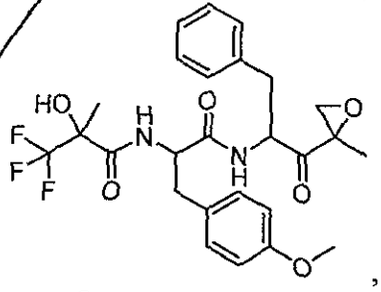


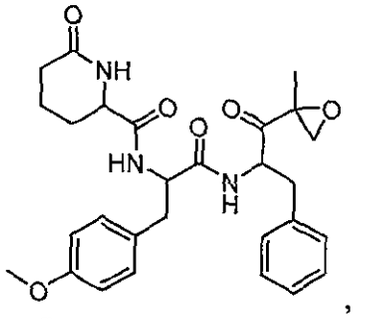


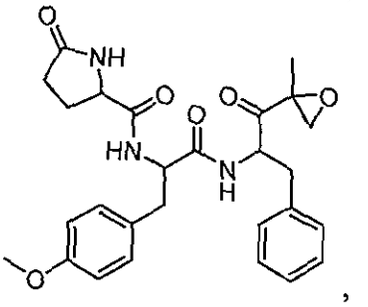


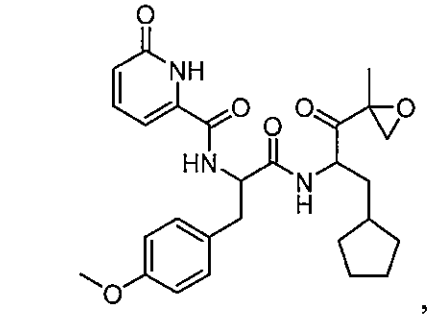
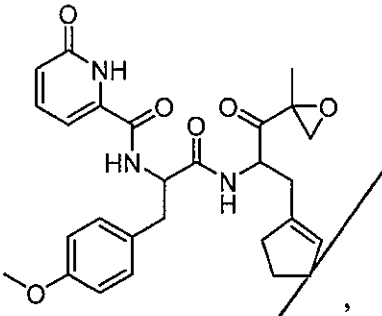
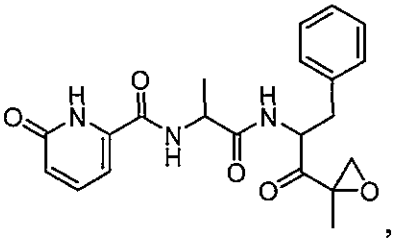
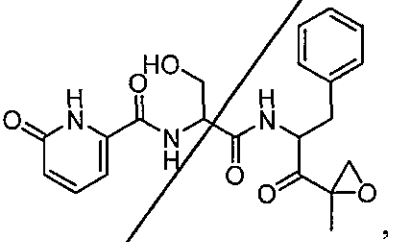
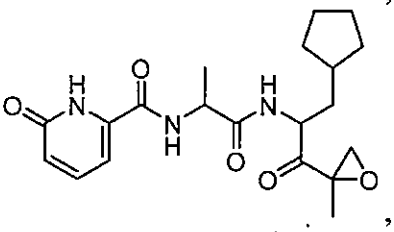
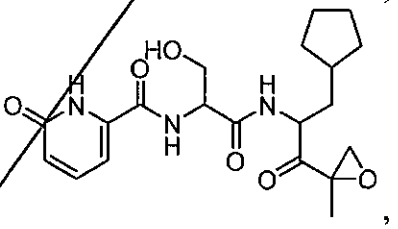
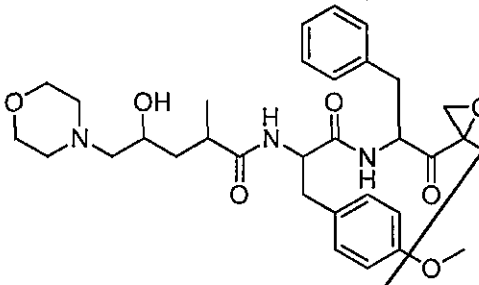
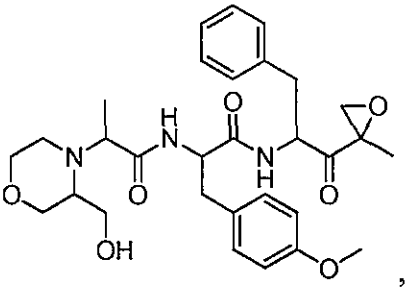
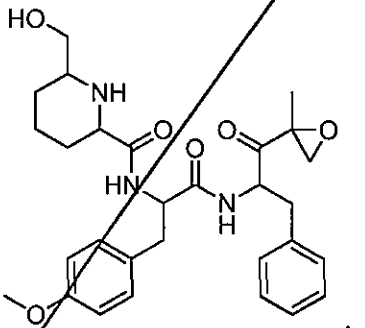
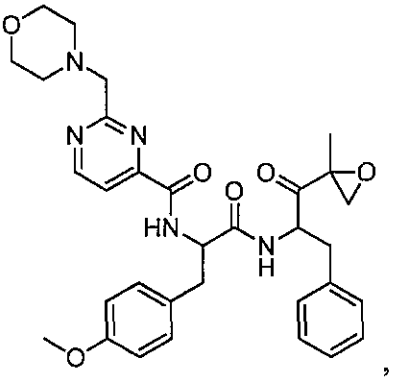
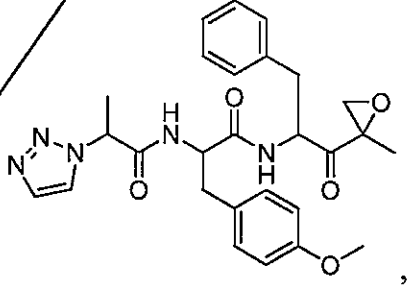
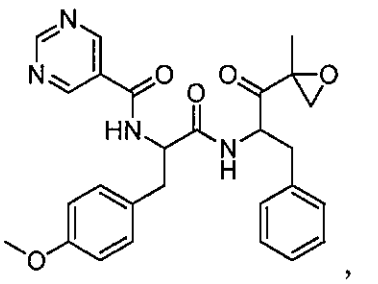


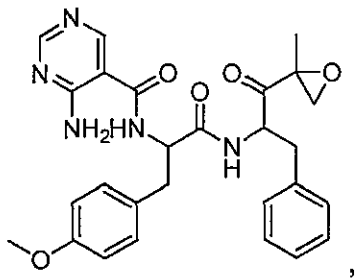
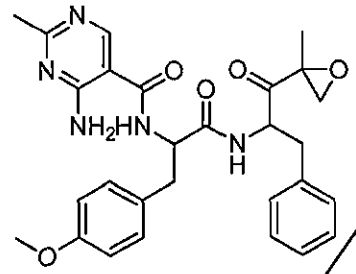
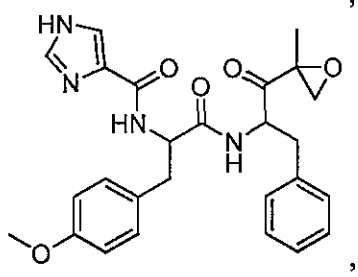
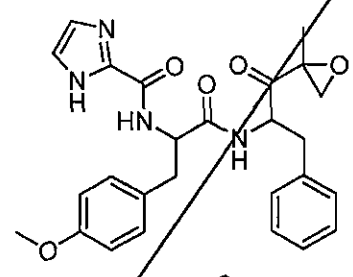
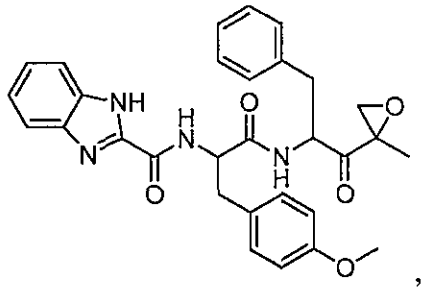
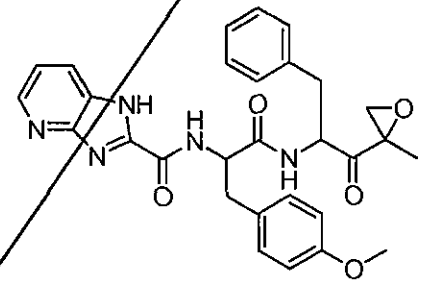
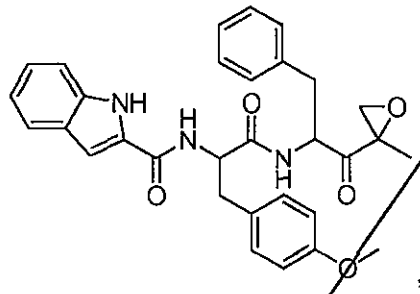
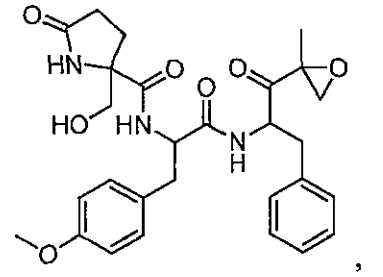
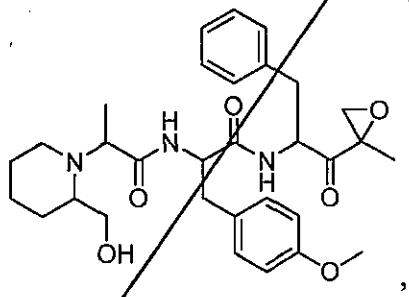
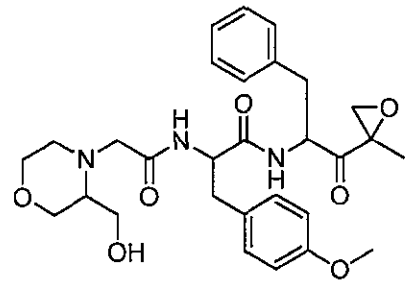
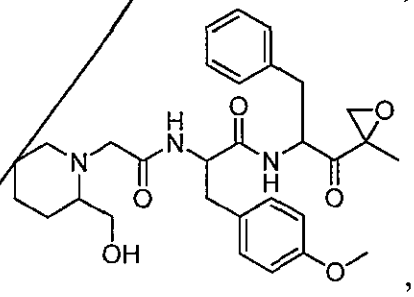
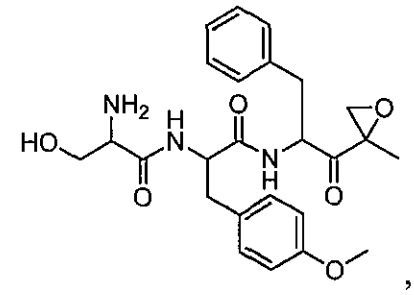


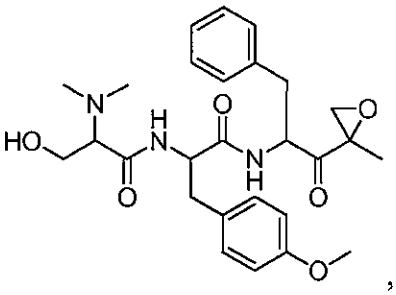
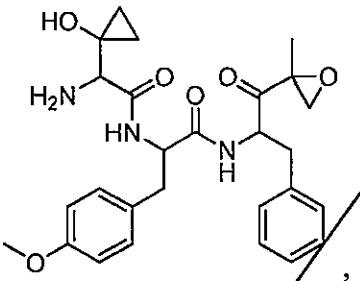
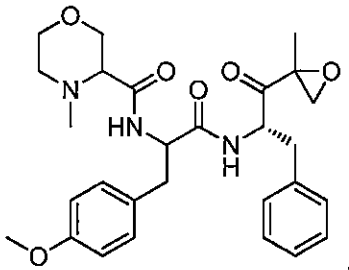
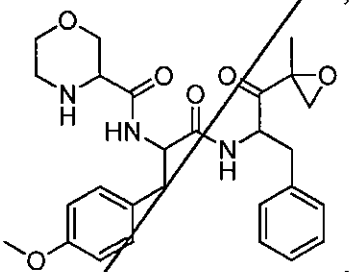
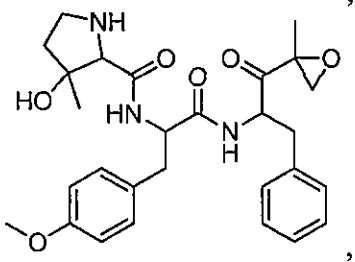
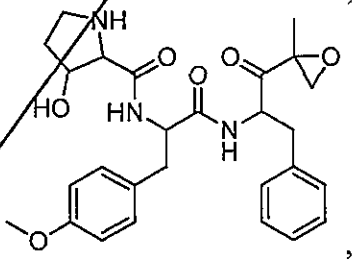
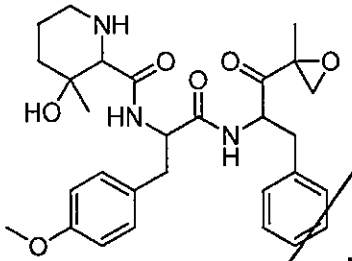
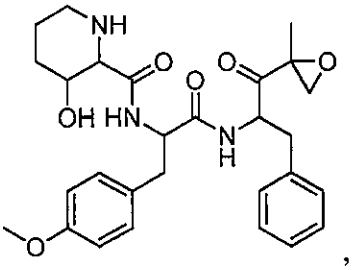
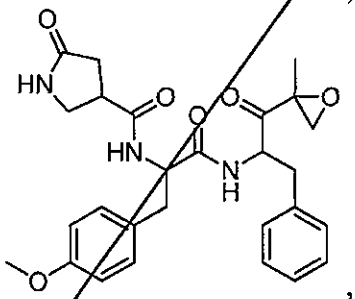
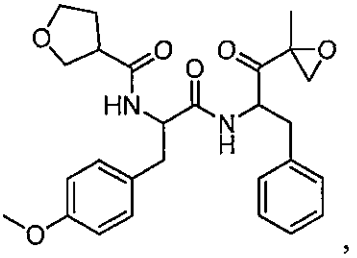
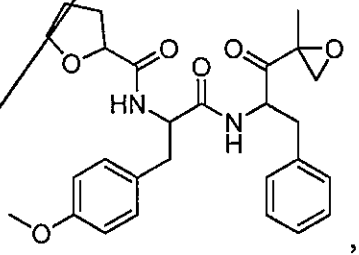
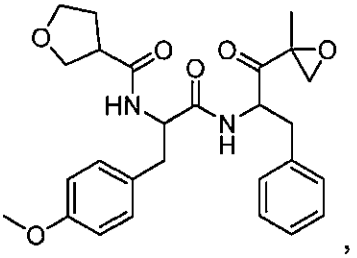


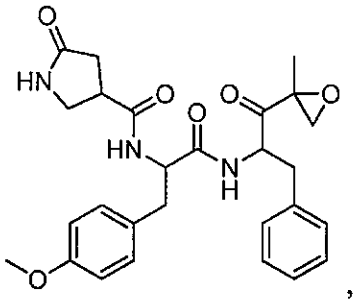
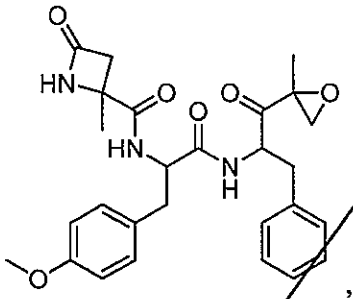
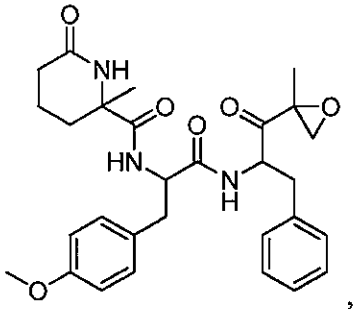
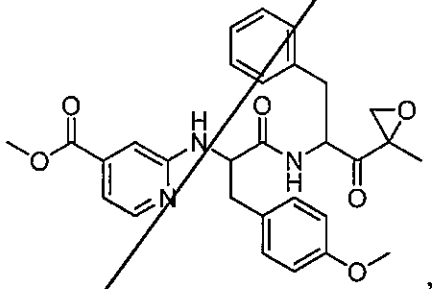
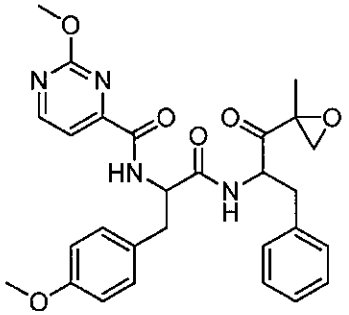
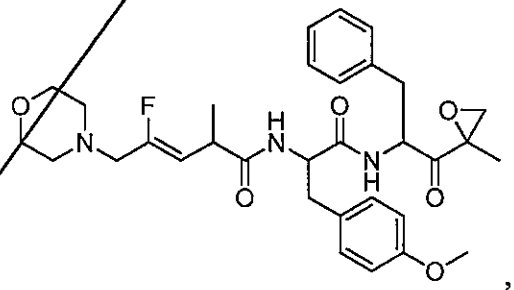





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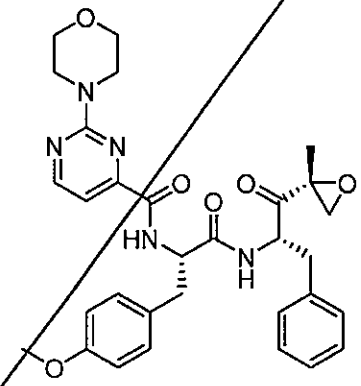

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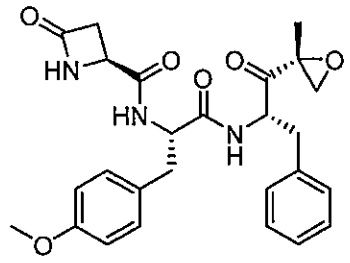

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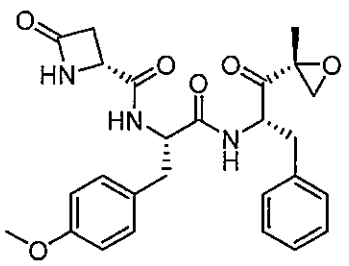

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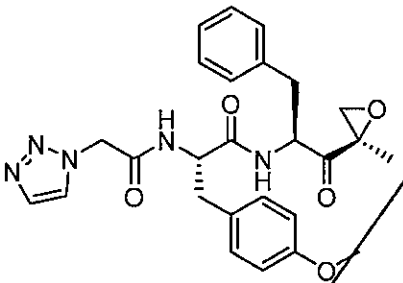
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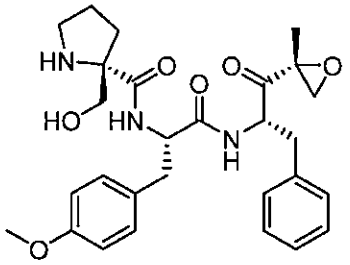

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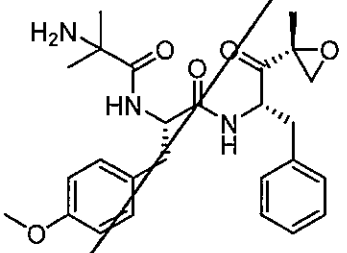
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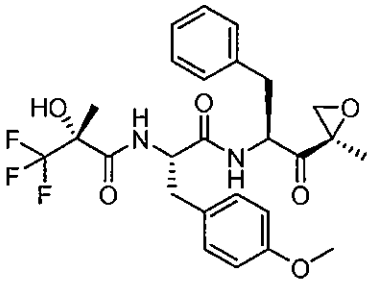
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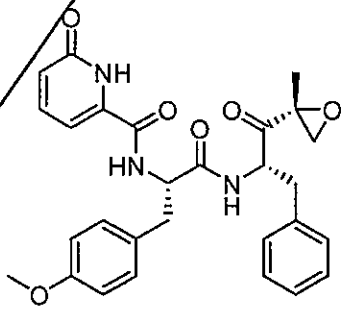
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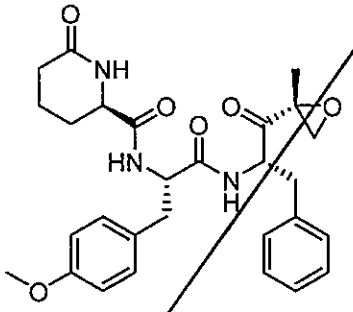
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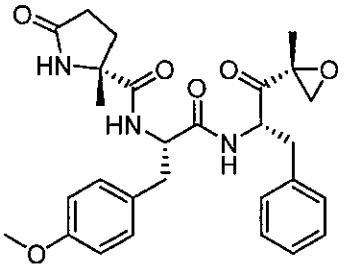
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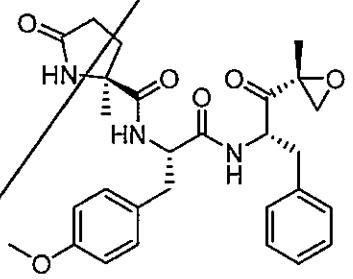
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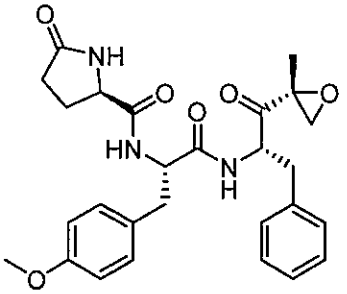
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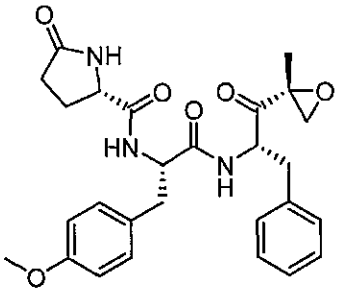
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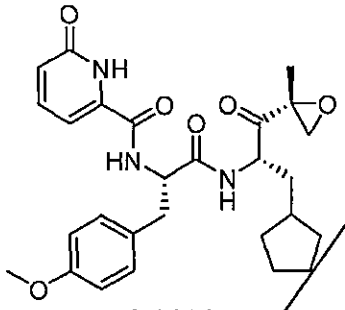
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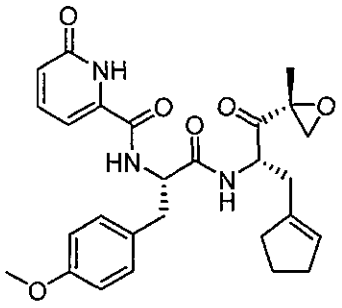
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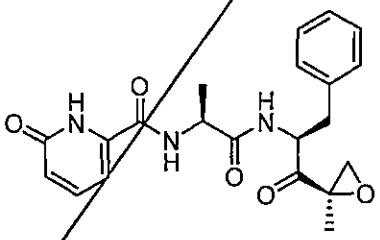
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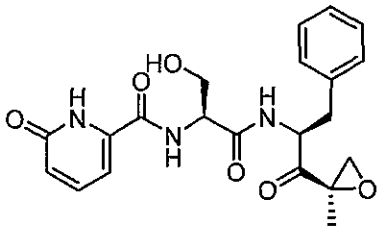
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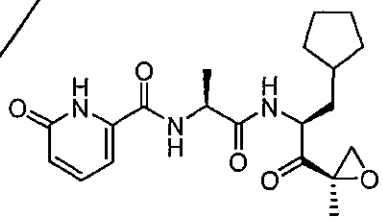
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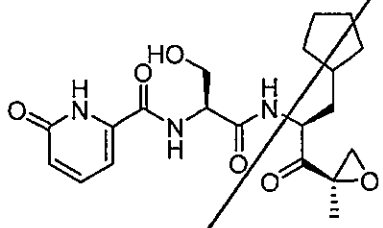
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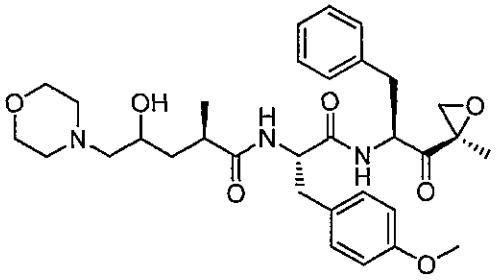
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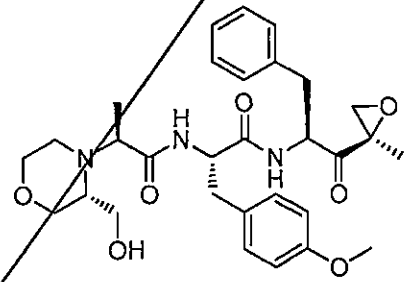
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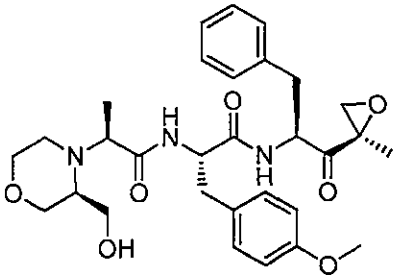
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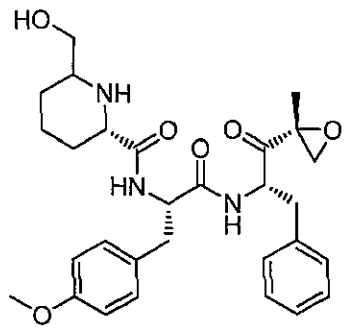
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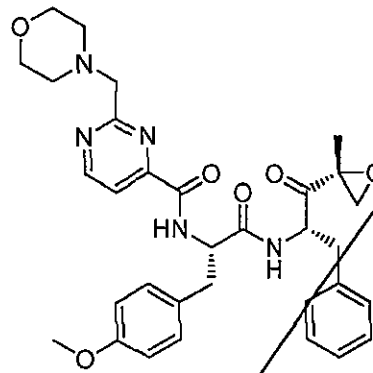
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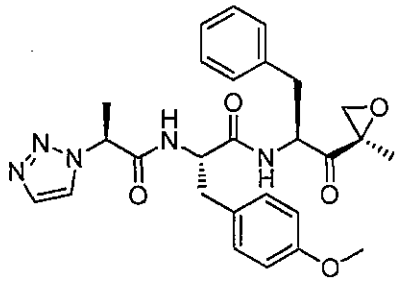
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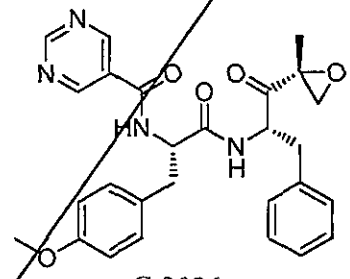
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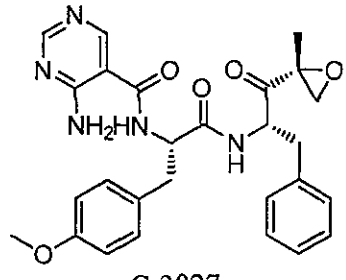
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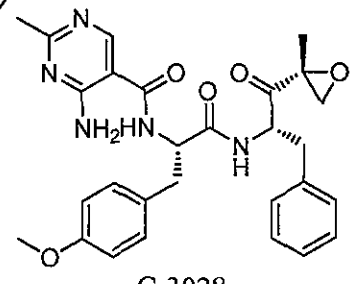
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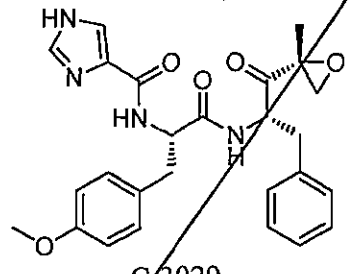
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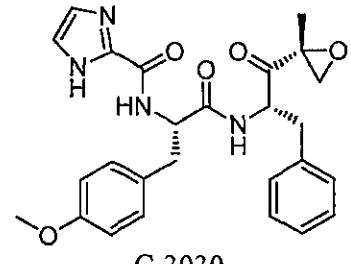
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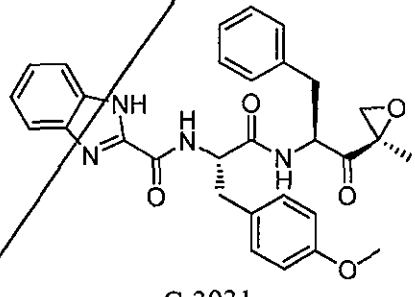
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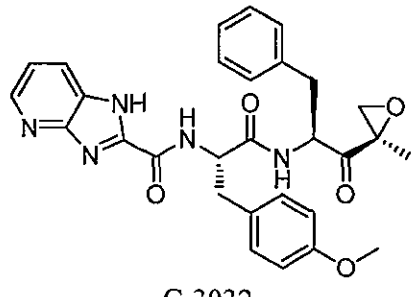
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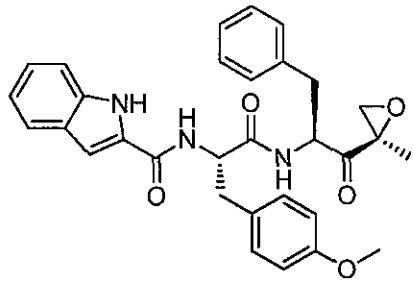
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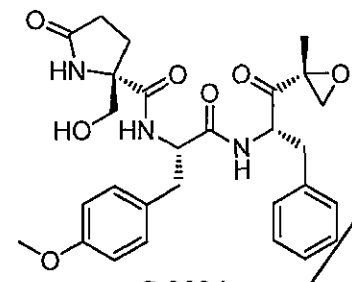
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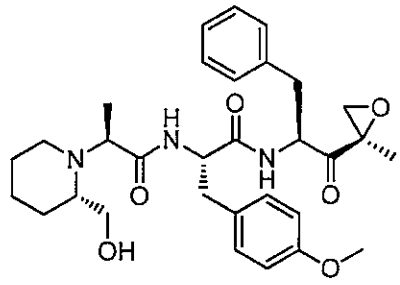
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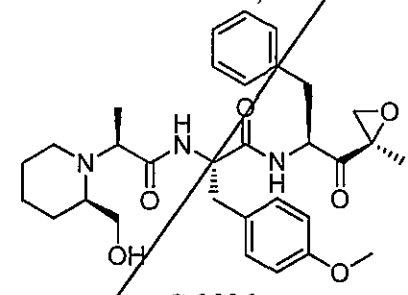
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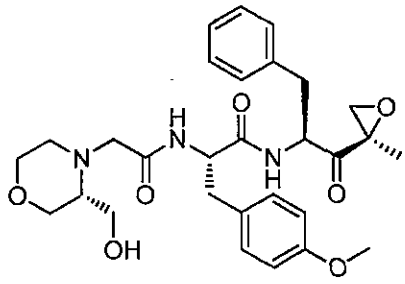
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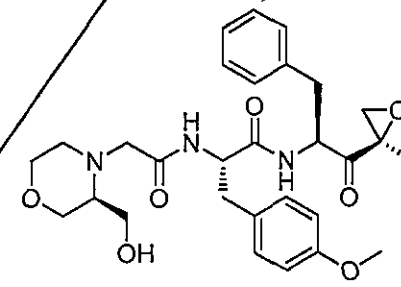
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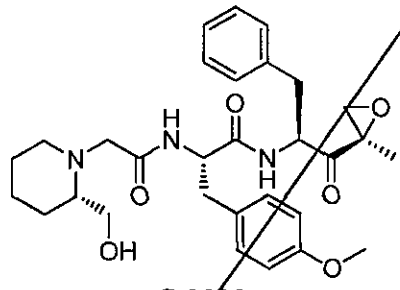
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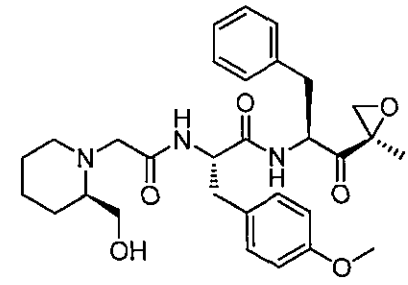
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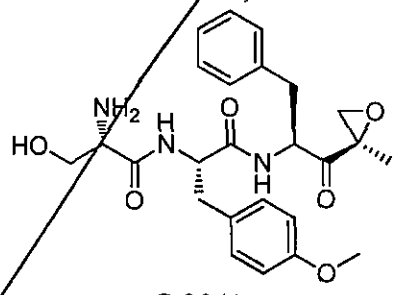
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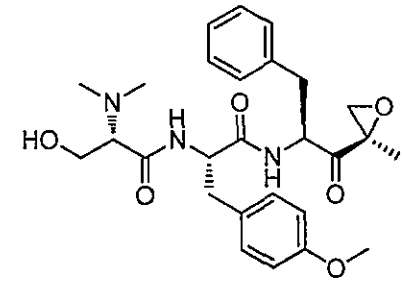
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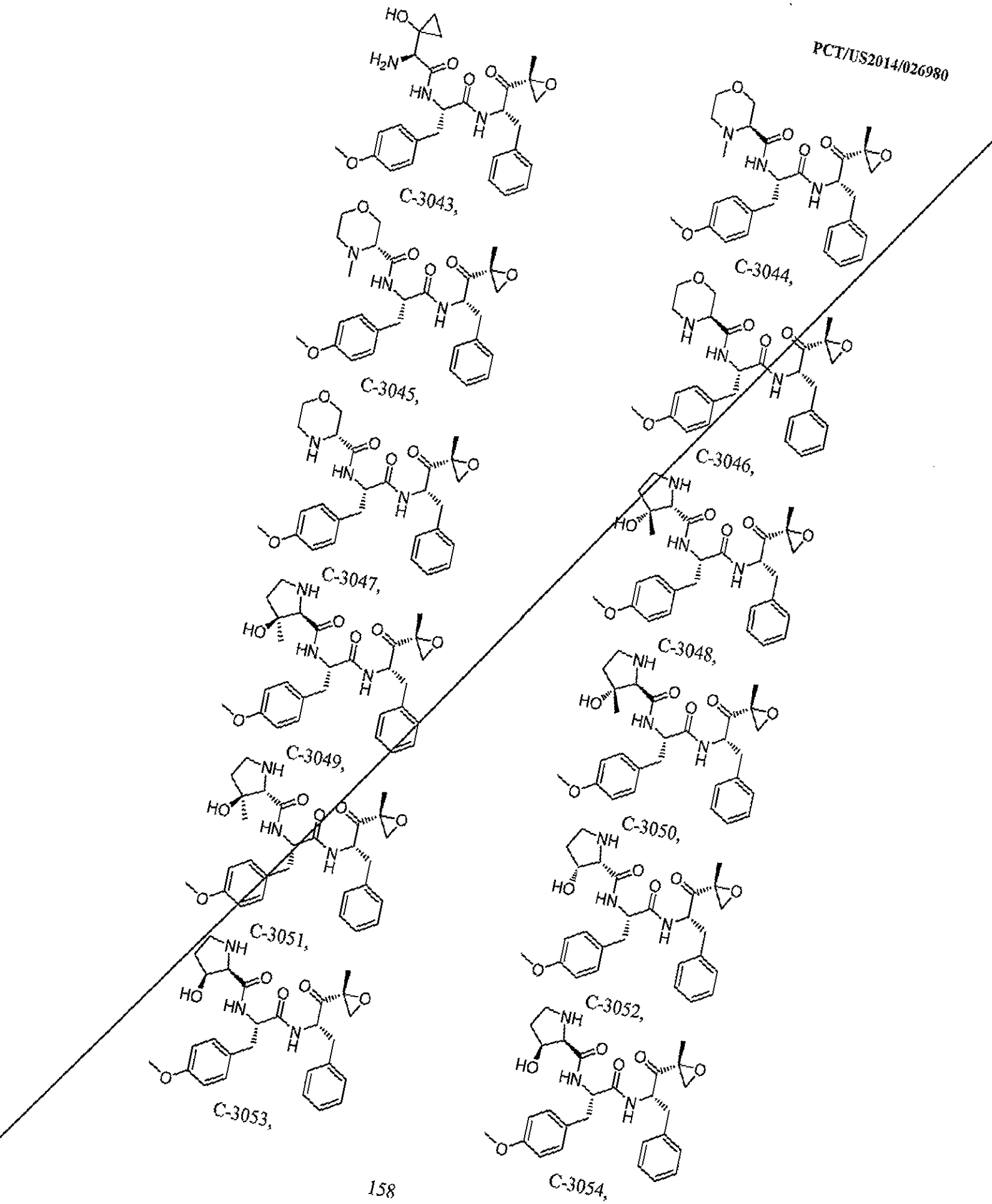
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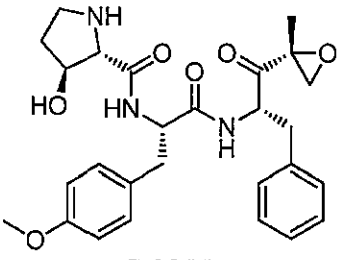


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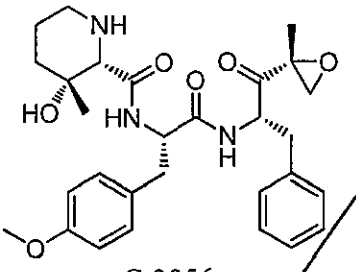


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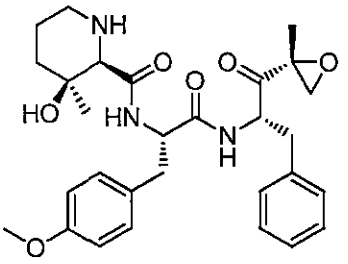

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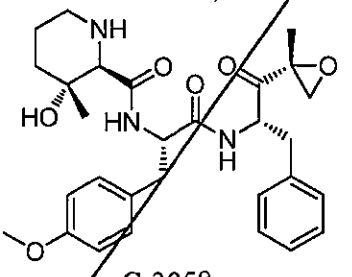
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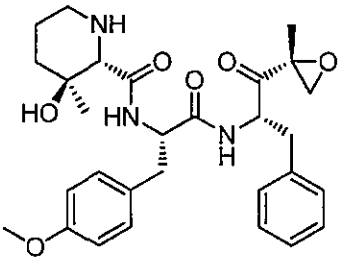
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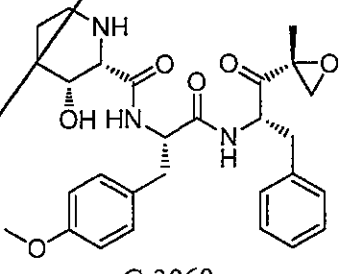
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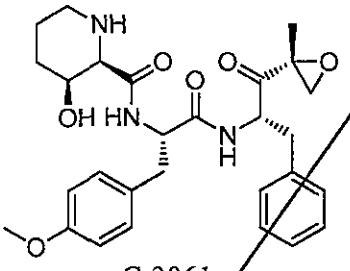
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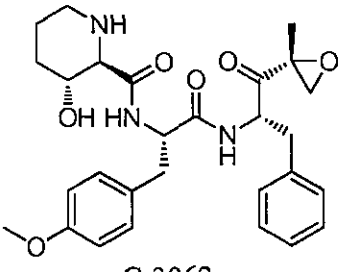
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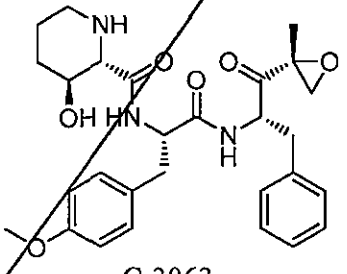
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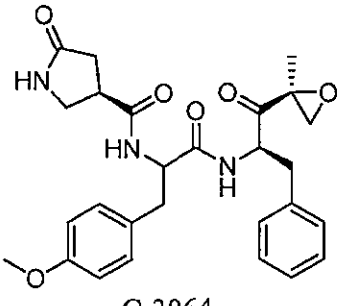
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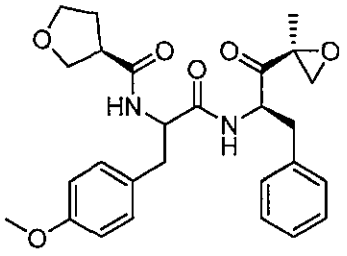
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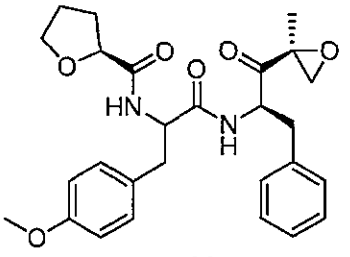
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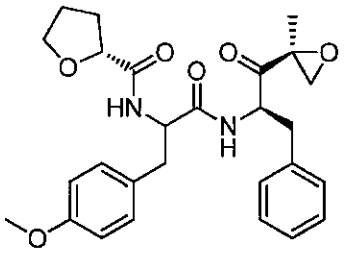
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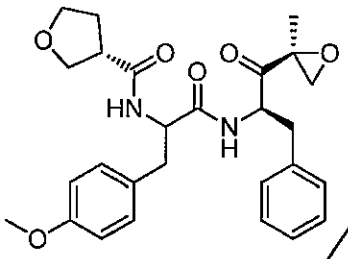
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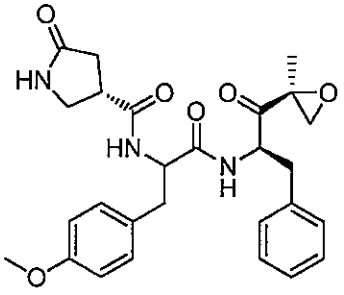
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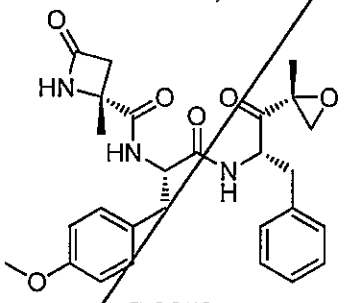
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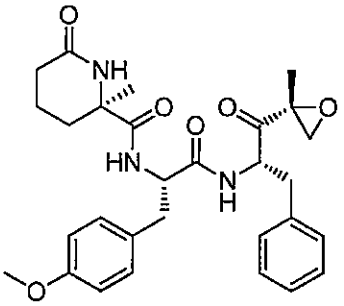
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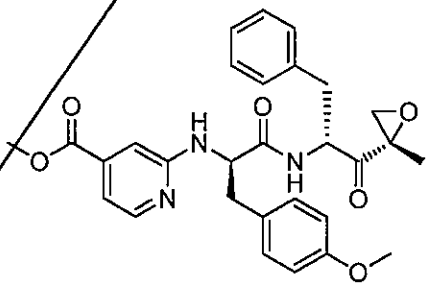
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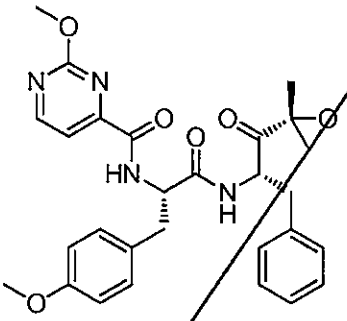
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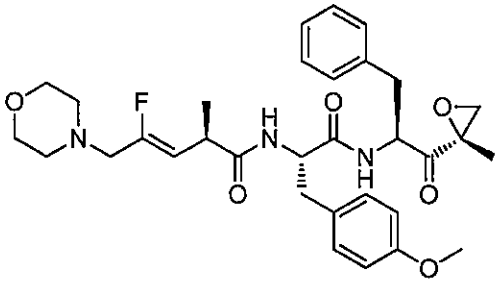
C-3071,



C-3072



C-3063, and



C-3074,

or a pharmaceutically acceptable salt thereof.

47. A pharmaceutical composition comprising the compound of any one of claims 1 to 47, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier or diluent.

48. A method of inhibiting immunoproteasome of a cell comprising contacting the cell with a compound of any one of claims 1 to 46 or the composition of claim 47 in an effective to inhibit the immunoproteasome in the cell.

49. The method of claim 48, wherein the contacting is *in vitro*.

50. The method of claim 48, wherein the contacting will involve administration of the compound or the composition to a subject.

51. The method of claim 50, wherein the administration is to be oral, parenteral, via injection, via inhalation, transdermal, or transmucosal.

52. The method of claim 50 or 51, wherein the subject is a mammal.

53. The method of claim 52, wherein the subject is human.

54. The method of any one of claims 50 to 53, wherein the subject suffers from an autoimmune disease.

55. The method of claim 54, wherein the autoimmune disease is psoriasis, dermatitis, systemic scleroderma, sclerosis, Crohn's disease, ulcerative colitis; respiratory distress syndrome, meningitis; encephalitis; uveitis; colitis; glomerulonephritis; eczema, asthma, chronic inflammation; atherosclerosis; leukocyte adhesion deficiency; rheumatoid arthritis; systemic lupus erythematosus (SLE); diabetes mellitus (e.g., Type I diabetes mellitus or insulin dependent diabetes mellitus); multiple sclerosis; Reynaud's syndrome; autoimmune thyroiditis; allergic encephalomyelitis; Sjørgen's syndrome; juvenile onset diabetes; tuberculosis, sarcoidosis, polymyositis, granulomatosis and vasculitis; pernicious anemia (Addison's disease); diseases involving leukocyte diapedesis; central nervous system (CNS) inflammatory disorder; multiple organ injury syndrome; hemolytic anemia; myasthenia gravis; antigen-antibody complex mediated diseases; anti-glomerular basement membrane disease; antiphospholipid syndrome; allergic neuritis; Graves' disease; Lambert-Eaton myasthenic syndrome; pemphigoid bullous; pemphigus; autoimmune polyendocrinopathies; Reiter's disease; stiff-man syndrome; Beheet disease; giant cell arteritis; immune complex nephritis; IgA nephropathy; IgM polyneuropathies; immune thrombocytopenic purpura (ITP) or autoimmune thrombocytopenia.

56. A therapeutically effective amount of the compound of any one of claims 1 to 46 or the composition of claim 47 for use in the treatment of an immune-related disease, wherein the compound or the composition is to be administered to a subject in need thereof.

57. The use of a therapeutically effective amount of the compound or the composition of any one of claims 1 to 46 or the composition of claim 47 in the manufacture of a medicament for the treatment of an immune-related disease.

58. The compounds or the composition of claim 56, wherein the immune-related disease is rheumatoid arthritis, lupus, inflammatory bowel disease, multiple sclerosis, or Crohn's disease.

59. The use of claim 57, wherein the immune-related disease is rheumatoid arthritis, lupus, inflammatory bowel disease, multiple sclerosis, or Crohn's disease.

60. A therapeutically effective amount of the compound of any one of claims 1 to 46 or the composition of claim 47 for use in the treatment of cancer, wherein the compound or the composition is to be administered to a subject in need thereof.

61. The use of a therapeutically effective amount of the compound or the composition of any one of claims 1 to 46 or the composition of claim 47 in the manufacture of a medicament for the treatment of cancer.

62. The compounds or the composition of claim 60, wherein the cancer is prostate cancer.

63. The use of claim 61, wherein the cancer is prostate cancer.

64. A therapeutically effective amount of the compound of any one of claims 1 to 46 or the composition of claim 47 for use in the treatment of inflammation, wherein the compound or the composition is to be administered to a subject in need thereof.

65. The use of a therapeutically effective amount of the compound or the composition of any one of claims 1 to 46 or the composition of claim 47 in the manufacture of a medicament for the treatment of inflammation.

66. A therapeutically effective amount of a compound of the compound of any one of claims 1 to 46 or the composition of claim 47 for use in the treatment of infection, wherein the compound or the composition is to be administered to a subject in need thereof.

67. The use of a therapeutically effective amount of the compound or the composition of any one of claims 1 to 46 or the composition of claim 47 in the manufacture of a medicament for the treatment of infection.

68. A therapeutically effective amount of the compound of any one of claims 1 to 46 or the composition of claim 47 for use in the treatment of proliferative disease, wherein the compound or the composition is to be administered to a subject in need thereof.

69. The use of a therapeutically effective amount of the compound or the composition of any one of claims 1 to 46 or the composition of claim 47 in the manufacture of a medicament for the treatment of proliferative disease.

70. A therapeutically effective amount of the compound of any one of claims 1 to 46 or the composition of claim 47 for use in the treatment of neurodegenerative disease, wherein the compound or the composition is to be administered to a subject in need thereof.

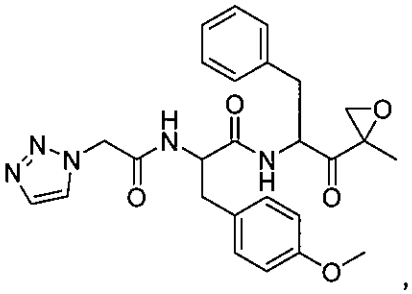
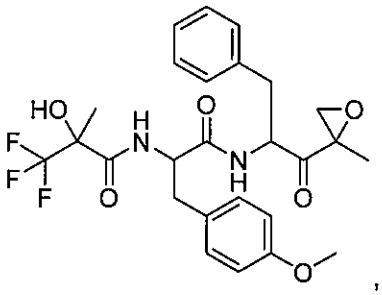
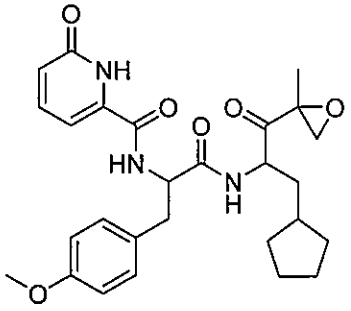
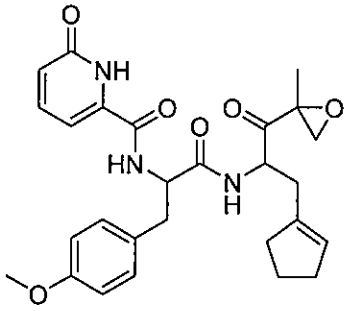
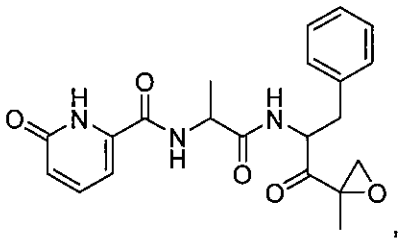
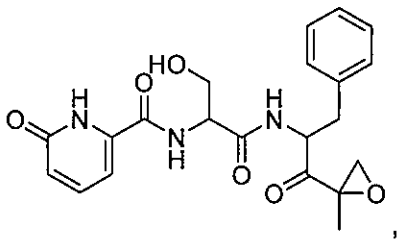
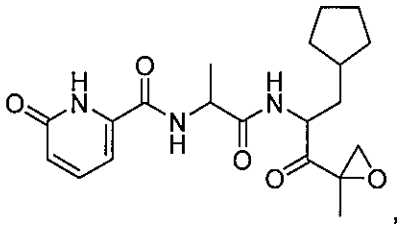
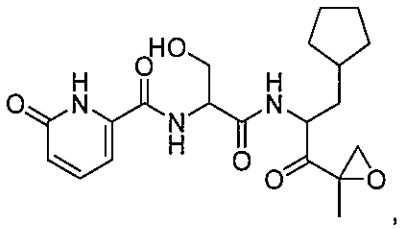
71. The use of a therapeutically effective amount of the compound or the composition of any one of claims 1 to 46 or the composition of claim 47 in the manufacture of a medicament for the treatment of neurodegenerative disease.

72. The compounds or the composition of claim 70, wherein the neurodegenerative disease is multiple sclerosis.

73. The use of claim 71, wherein the neurodegenerative disease is multiple sclerosis.

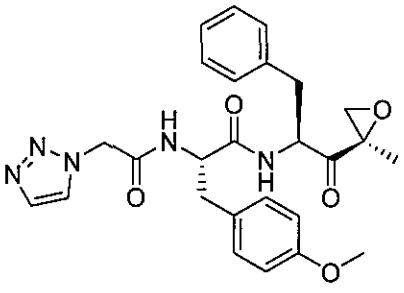
Claims

1. A compound having a structure selected from the group consisting of:

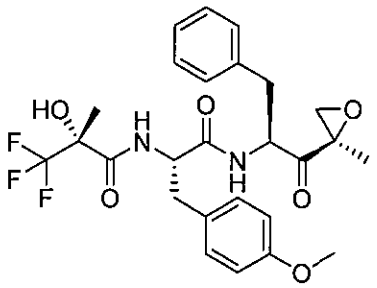

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or a pharmaceutically acceptable salt thereof.

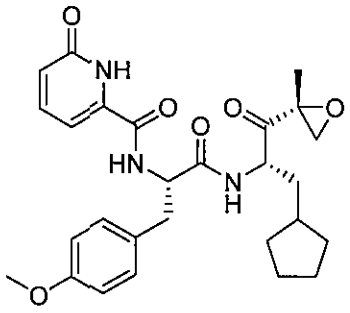
2. A compound having a structure selected from the group consisting of



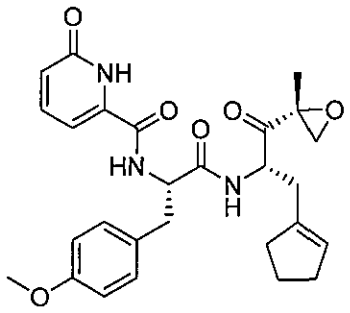
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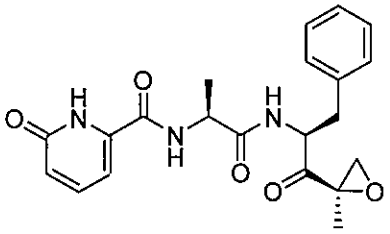
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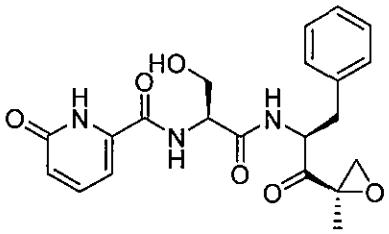
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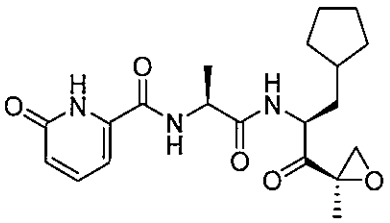
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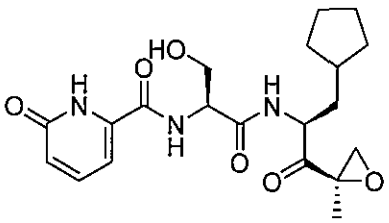
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C-3017,



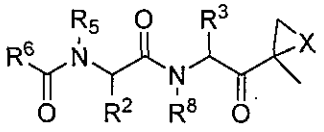
C-3018,



C-3019,

or a pharmaceutically acceptable salt thereof.

3. A compound of Formula (II) or a pharmaceutically acceptable salt thereof,



(II)

wherein:

X is selected from O, S, NH, and N-C_{1-6}alkyl;

R^2 and R^3 are each independently selected from aryl, C_{1-6}aralkyl, heteroaryl, and C_{1-6}heteroaralkyl;

R^5 is selected from hydrogen, OH, C_{1-6}aralkyl, and C_{1-6}alkyl;

R^6 is selected from heterocyclyl and heteroaryl; and

R^8 is selected from hydrogen, C_{1-6}alkyl, and C_{1-6}aralkyl.

4. The compound of claim 3, wherein R^5 and R^8 are each hydrogen.

5. The compound of claim 3 or 4, wherein X is O.

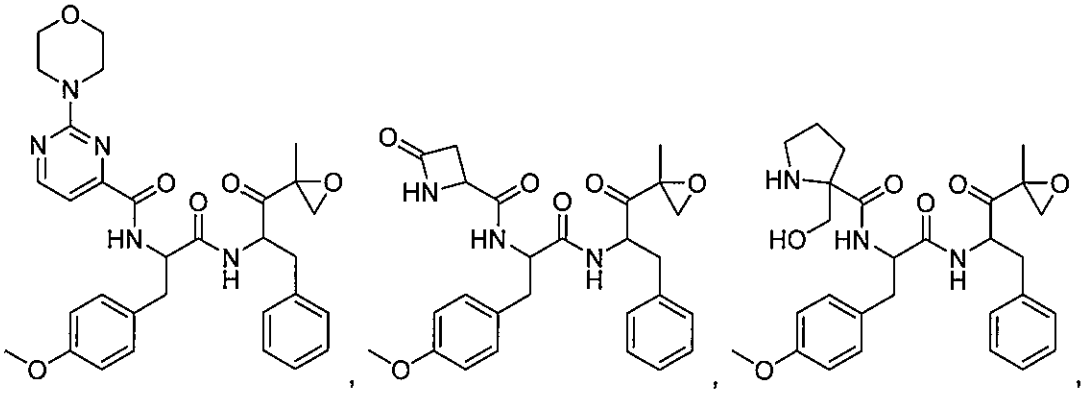
6. The compound of any one of claims 3 to 5, wherein R^2 is selected from C_{1-6}aralkyl and C_{1-6}heteroaralkyl.

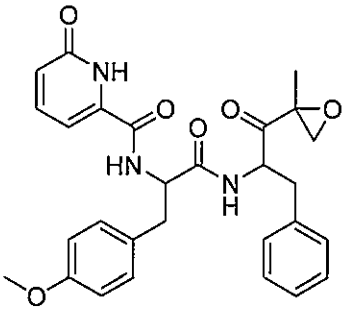
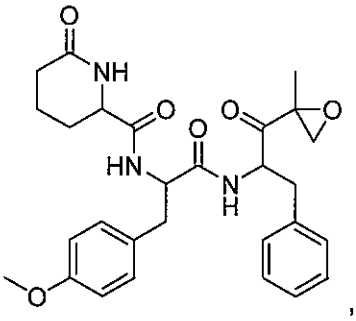
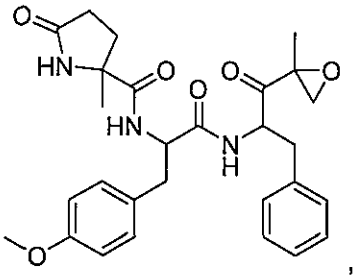
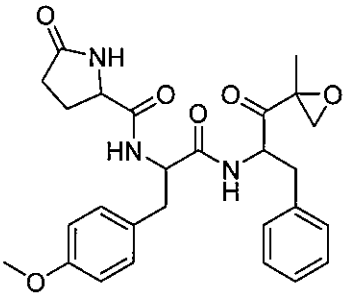
7. The compound of claim 6, wherein R^2 is C_{1-6}aralkyl.

8. The compound of any one of claims 3 to 7, wherein R^3 is selected from C_{1-6}aralkyl and C_{1-6}heteroaralkyl.

9. The compound of claim 8, wherein R^3 is C_{1-6}aralkyl.

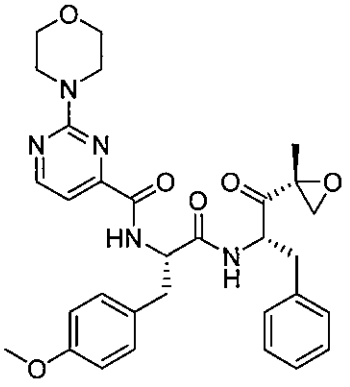
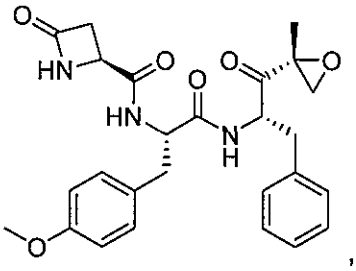
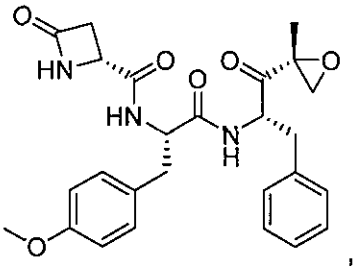
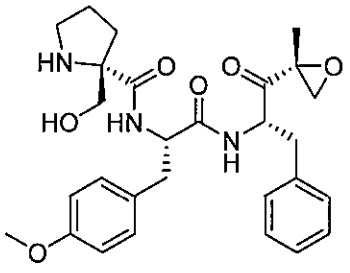
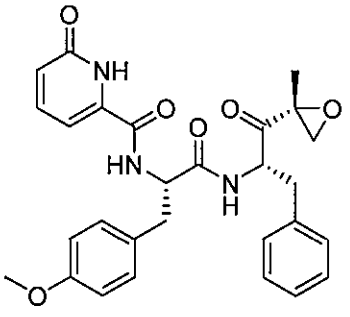
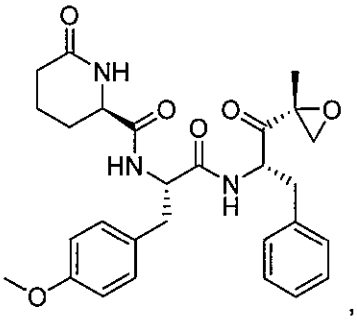
10. The compound of claim 3 having a structure selected from the group consisting of:

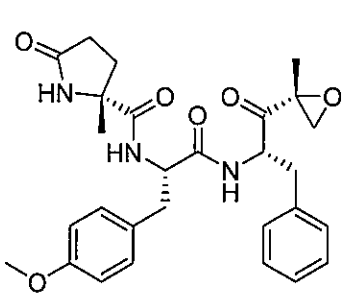
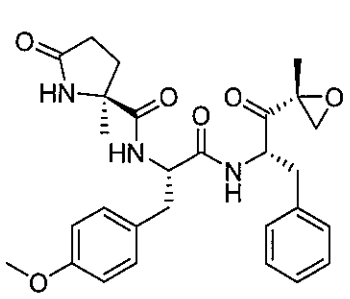
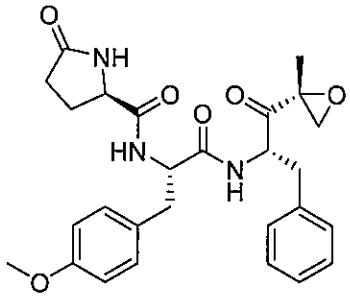
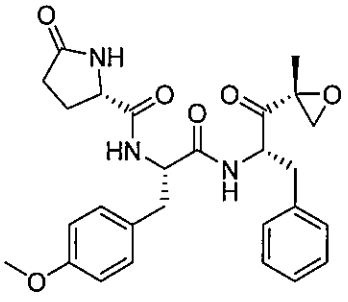



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or a pharmaceutically acceptable salt thereof.

11. The compound of claim 10 having a structure selected from the group consisting of:


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or a pharmaceutically acceptable salt thereof.

12. A pharmaceutical composition comprising the compound of any one of claims 1, 2, and 3 to 11, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable carrier or diluent.

13. The use of a therapeutically effective amount of the compound of any one of claims 1, 2, and 3 to 11 or the composition of claim 12 in the manufacture of a medicament for the treatment of an autoimmune disease.

14. The use of claim 13, wherein the autoimmune disease is psoriasis, dermatitis, systemic scleroderma, sclerosis, Crohn's disease, ulcerative colitis; respiratory distress syndrome, meningitis; encephalitis; uveitis; colitis; glomerulonephritis; eczema, asthma, chronic inflammation; atherosclerosis; leukocyte adhesion deficiency; rheumatoid arthritis; systemic lupus erythematosus (SLE); diabetes mellitus (e.g., Type I diabetes mellitus or insulin dependent diabetes mellitus); multiple sclerosis; Reynaud's syndrome; autoimmune thyroiditis; allergic encephalomyelitis; Sjorgen's syndrome; juvenile onset diabetes; tuberculosis, sarcoidosis, polymyositis, granulomatosis and vasculitis; pernicious anemia (Addison's disease); diseases involving leukocyte diapedesis; central nervous system (CNS) inflammatory disorder; multiple organ injury syndrome; hemolytic anemia; myasthenia gravis; antigen-antibody complex mediated diseases; anti-glomerular basement membrane disease; antiphospholipid syndrome;

allergic neuritis; Graves' disease; Lambert-Eaton myasthenic syndrome; pemphigoid bullous; pemphigus; autoimmune polyendocrinopathies; Reiter's disease; stiff-man syndrome; Beheet disease; giant cell arteritis; immune complex nephritis; IgA nephropathy; IgM polyneuropathies; immune thrombocytopenic purpura (ITP) or autoimmune thrombocytopenia.

15. The use of a therapeutically effect amount of the compound of any one of claims 1, 2, 3 to 11 or the composition of claim 12 in the manufacture of a medicament for the treatment of rheumatoid arthritis, lupus, inflammatory bowel disease, multiple sclerosis, or Crohn's disease.

16. The use of a therapeutically effective amount of the compound of any one of claims 1, 2, 3 to 11 or the composition of claim 12 in the manufacture of a medicament for the treatment of inflammation.

17. The use of a therapeutically effective amount of the compound of any one of claims 1, 2, 3 to 11 or the composition of claim 12 in the manufacture of a medicament for the treatment of a viral infection.

18. The use of a therapeutically effective amount of the compound of any one of claims 1, 2, 3 to 11 or the composition of claim 12 in the manufacture of a medicament for the treatment of multiple sclerosis.