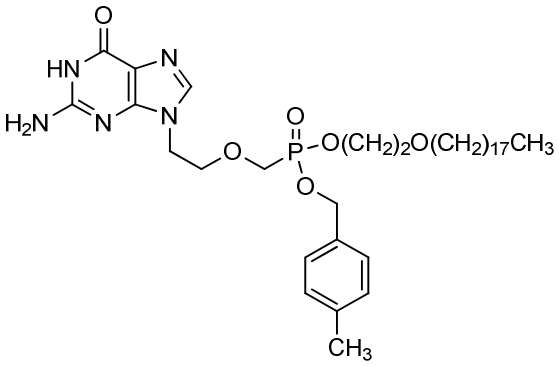
WHAT IS CLAIMED IS:

1. A compound selected from the group consisting of: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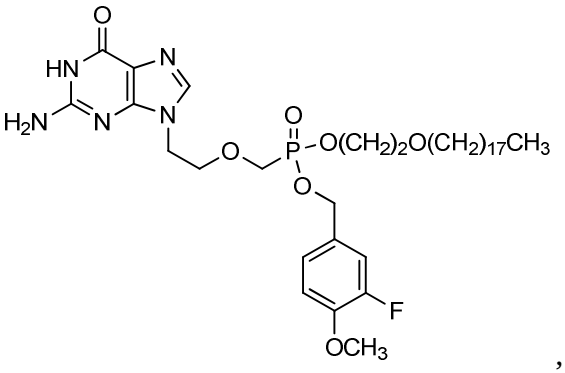
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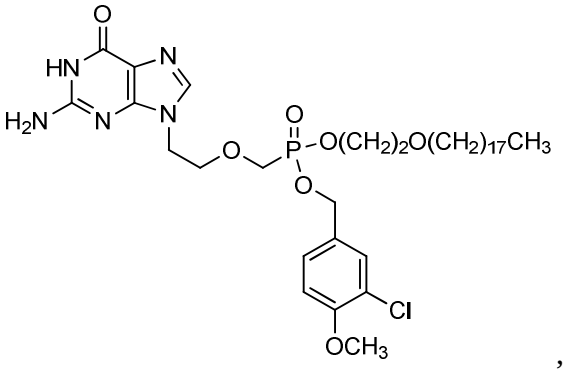
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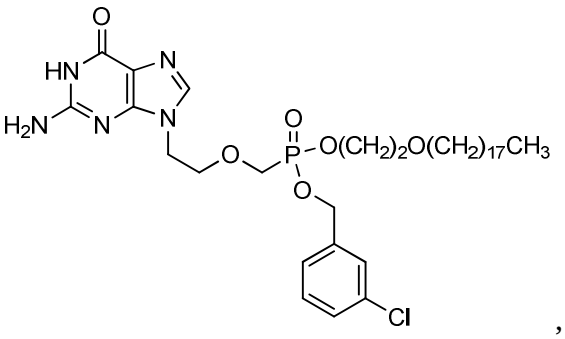
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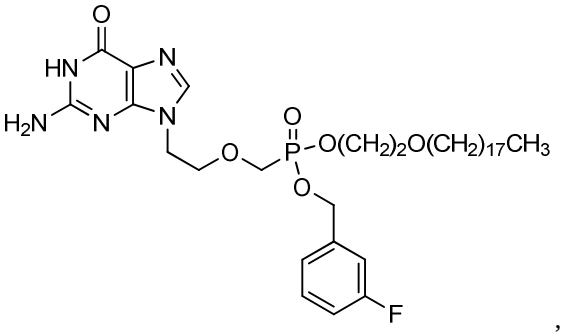
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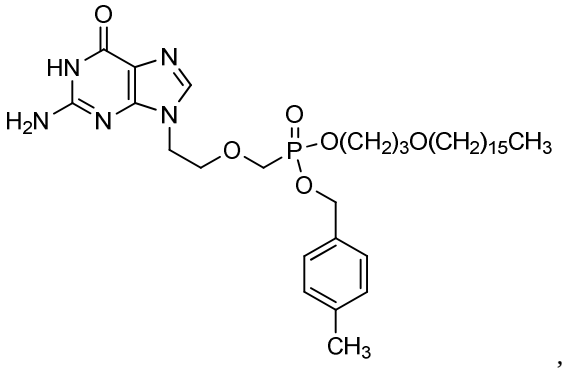
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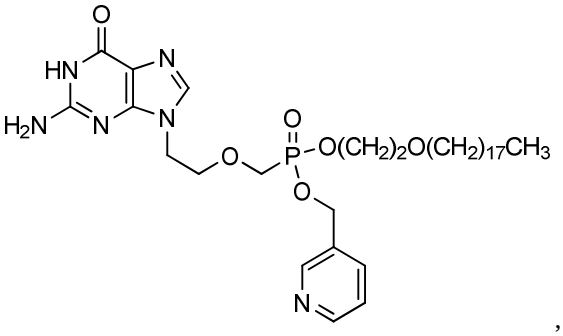
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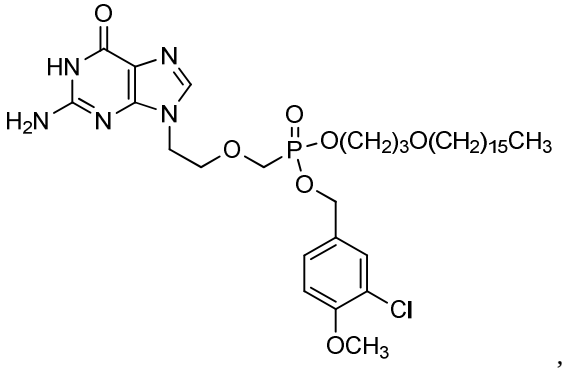
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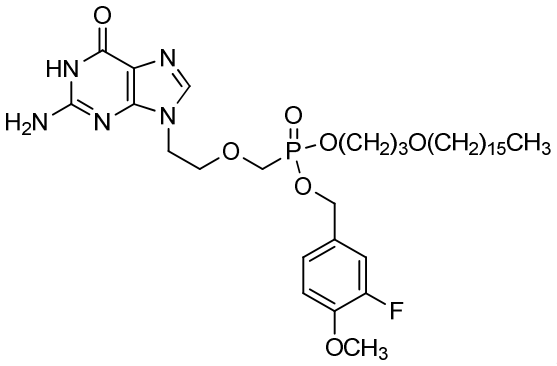

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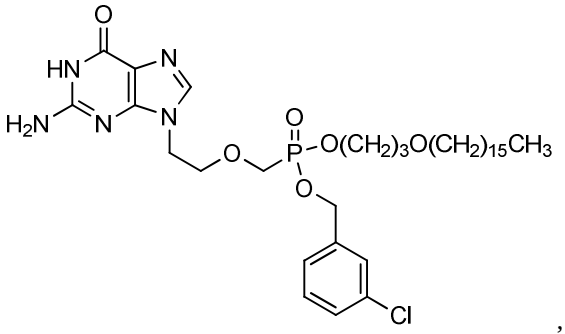

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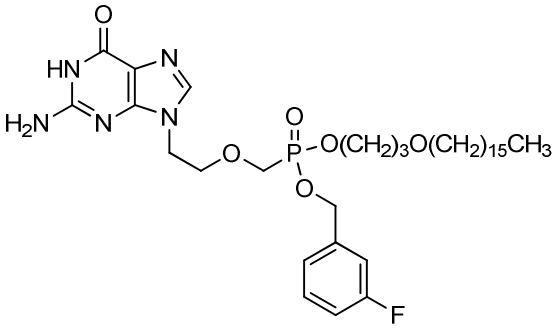
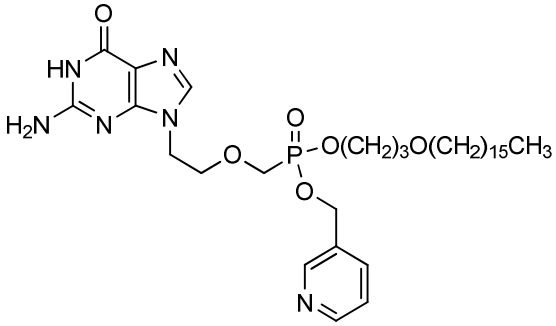
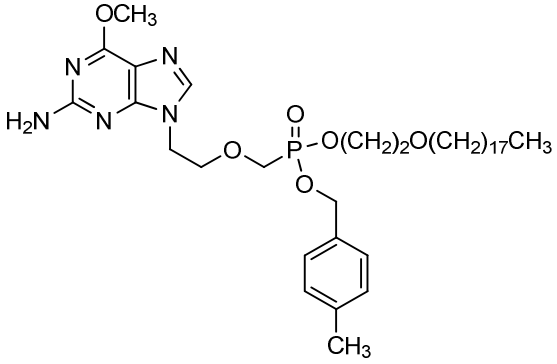


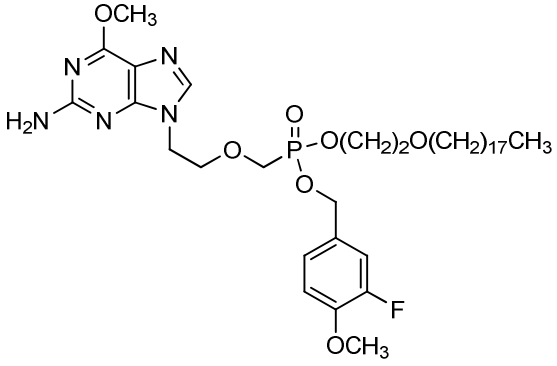


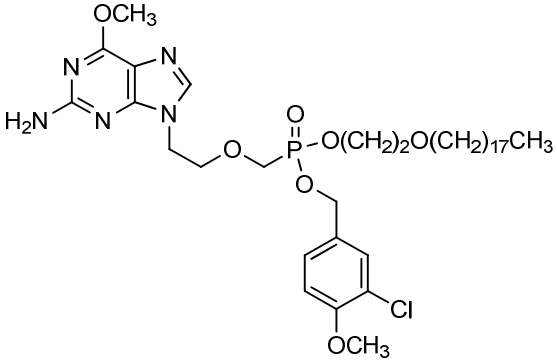
and

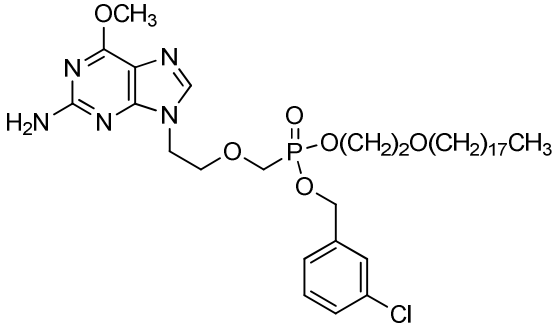
or a pharmaceutically acceptable salt thereof.

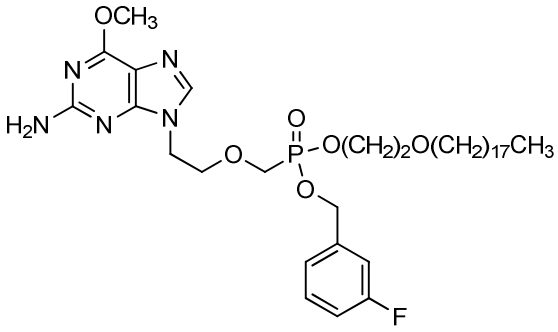
2. A compound selected from the group consisting of:

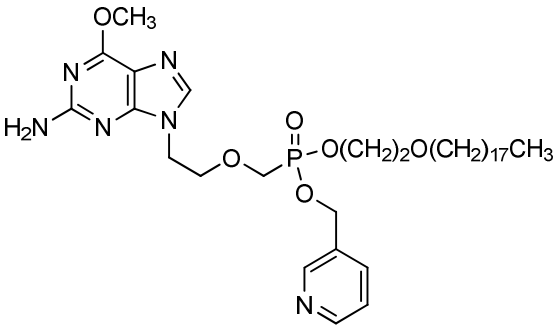


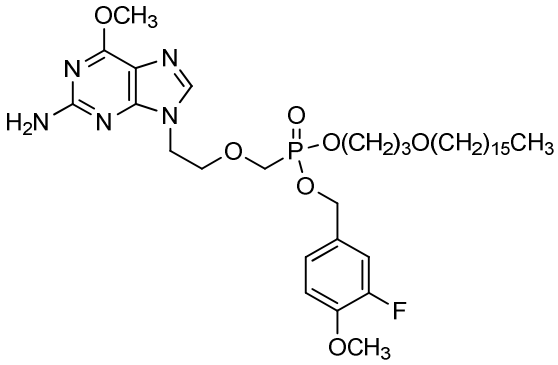


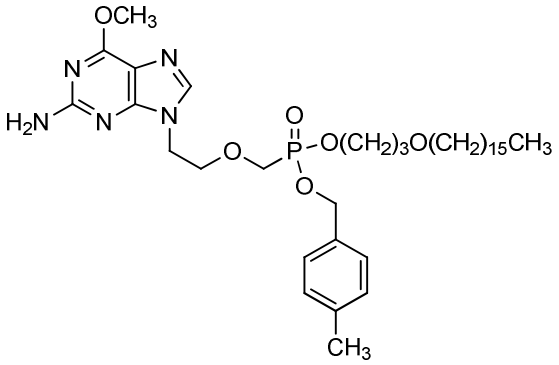


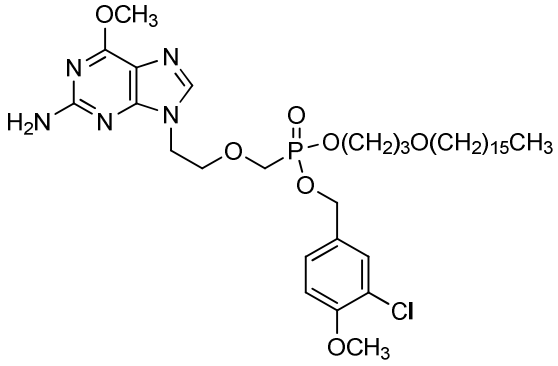


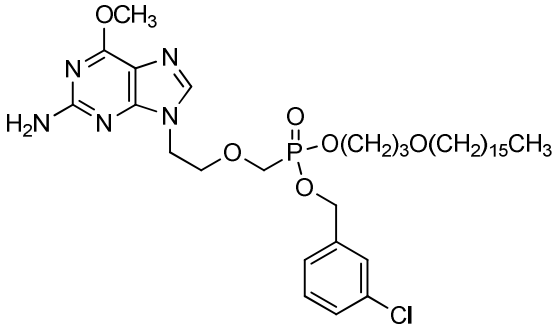


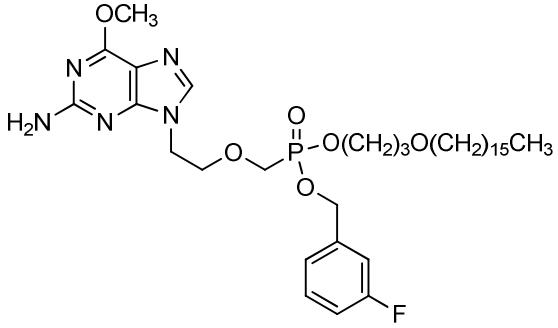


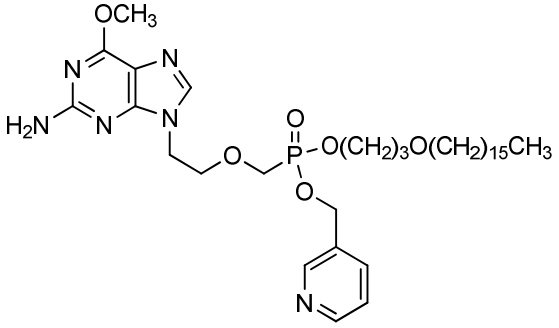


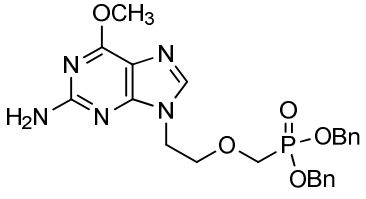


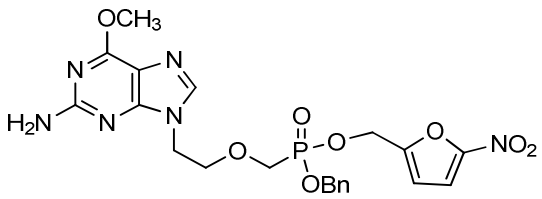


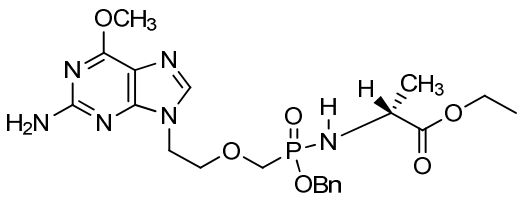


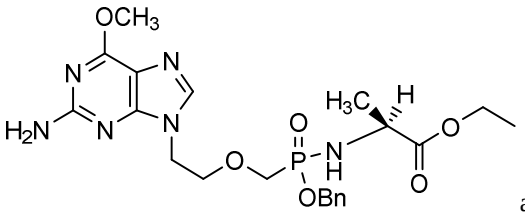












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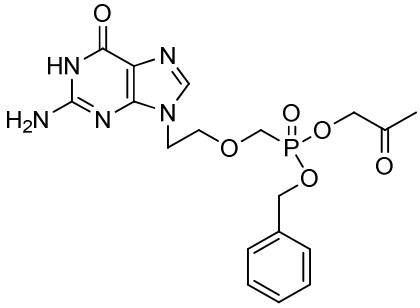
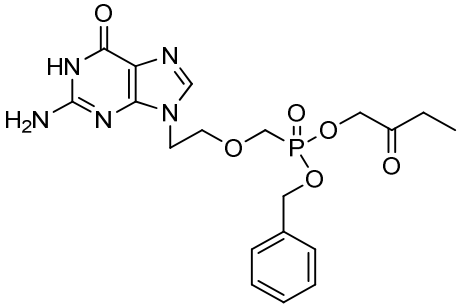
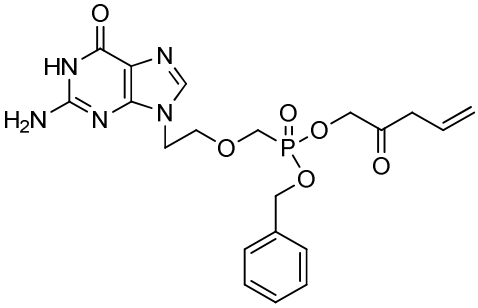
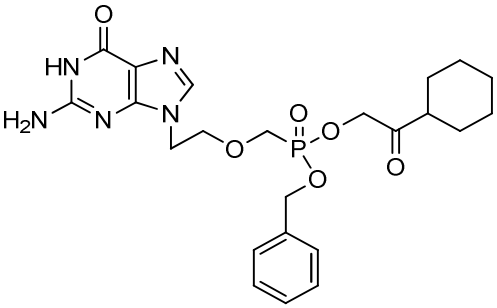


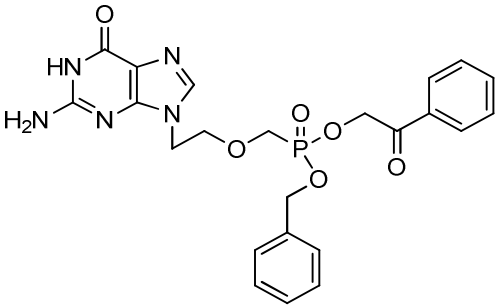
or a pharmaceutically acceptable salt thereof.

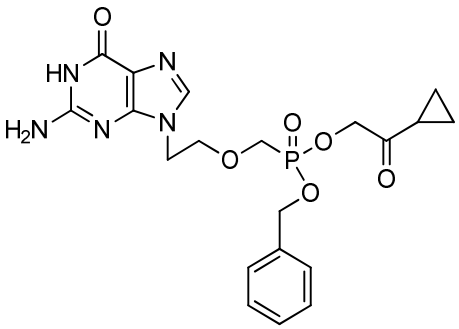
3. A compound selected from the group consisting of:

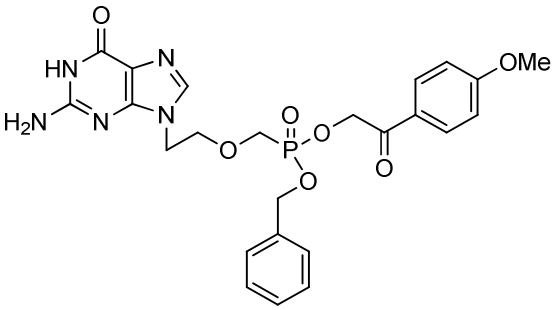


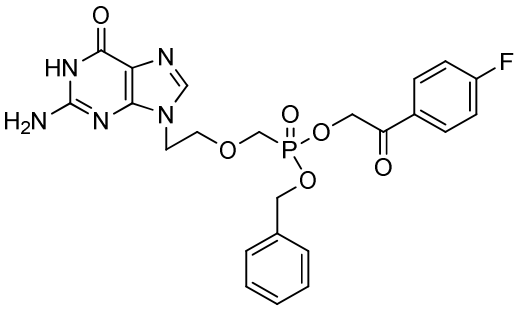


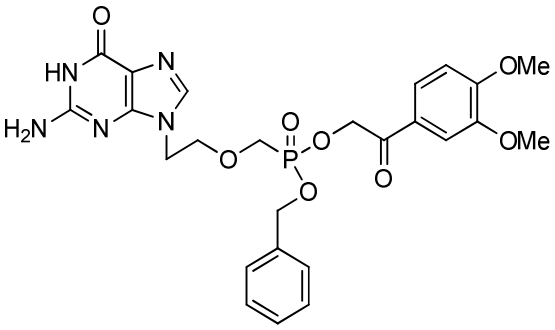


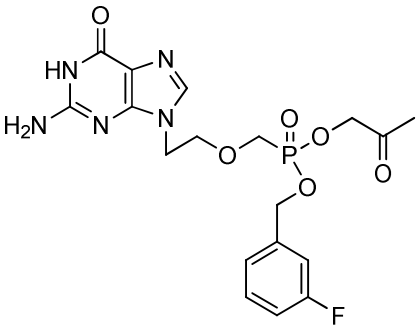


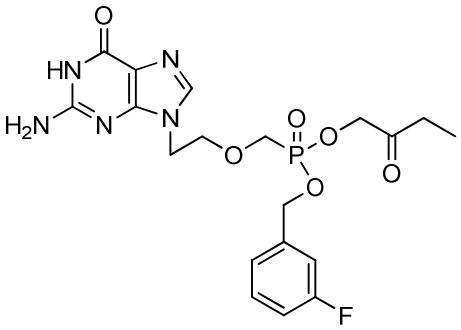


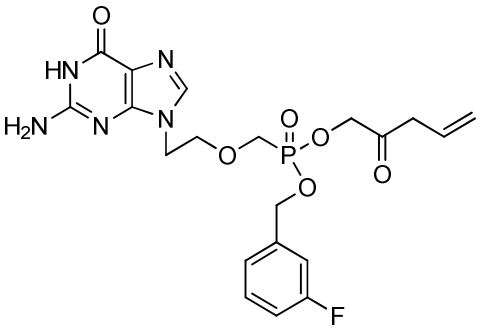


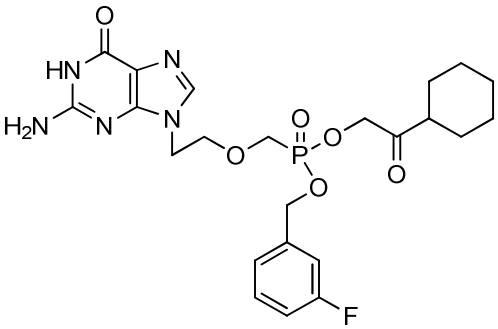


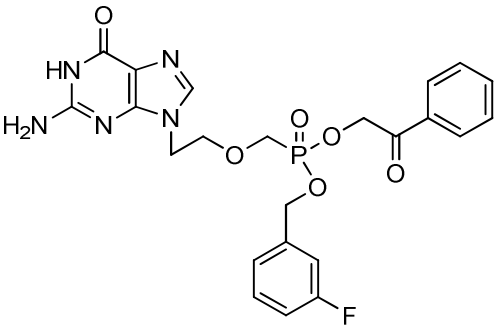


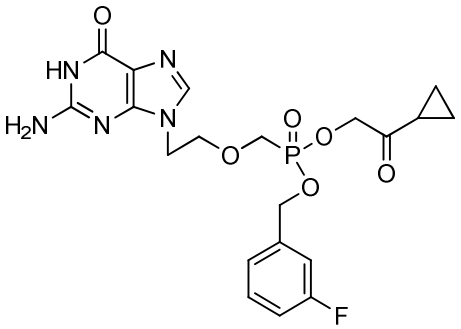


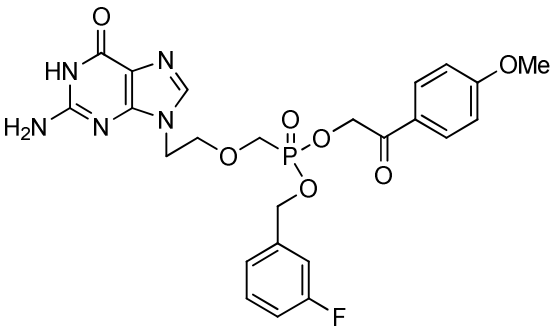


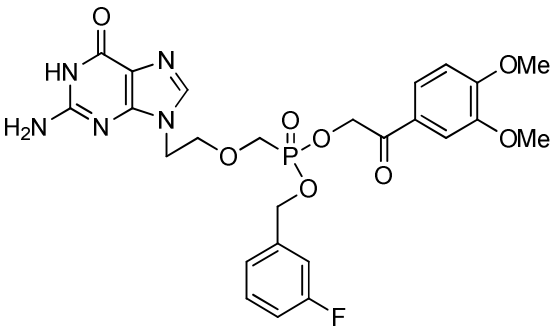


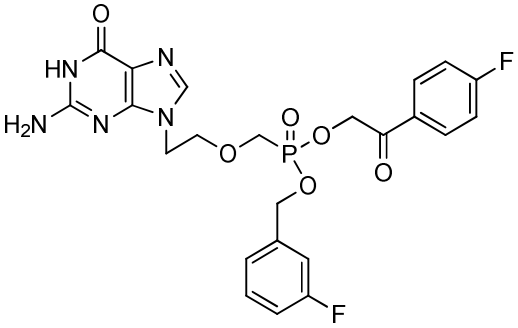
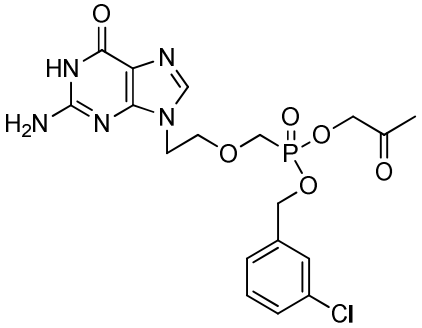
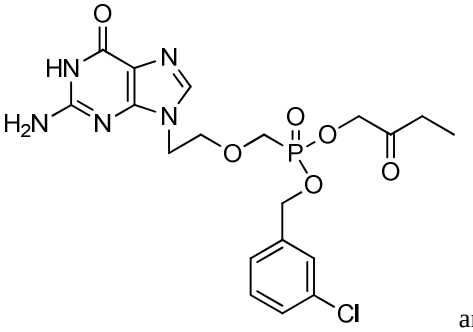
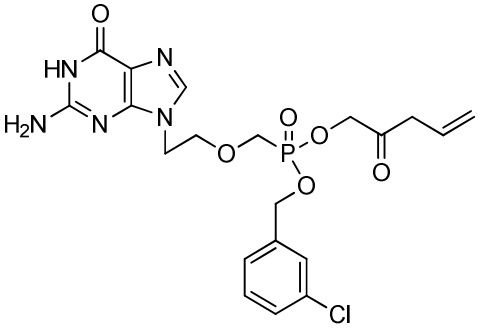








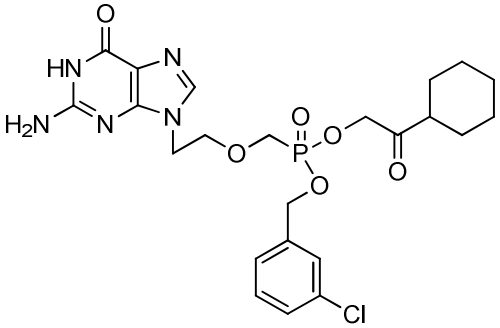
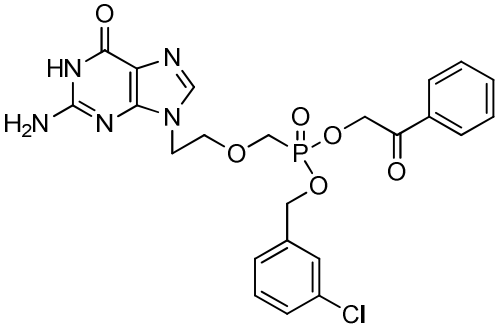
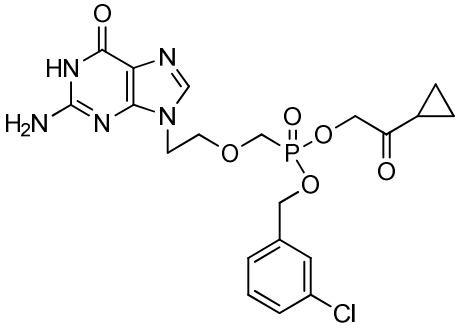
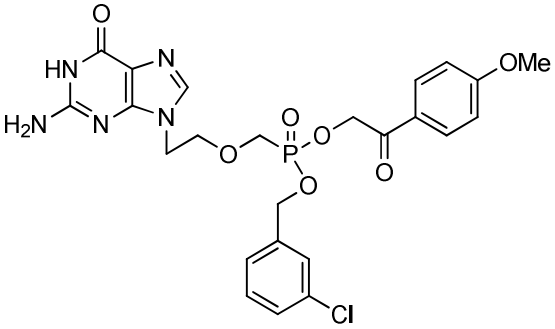


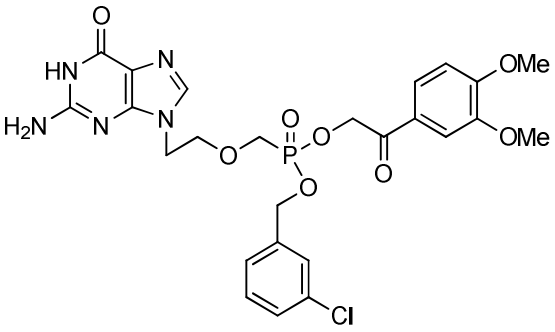





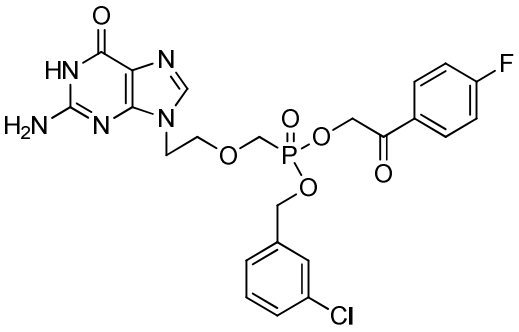
and

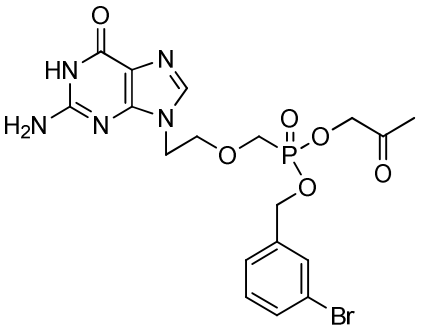
or a pharmaceutically acceptable salt thereof.

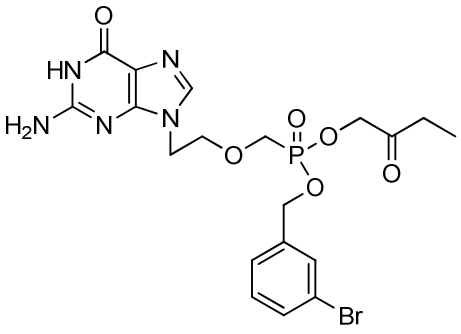
4. A compound selected from the group consisting of:

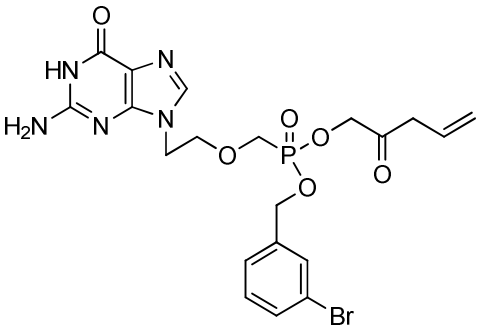





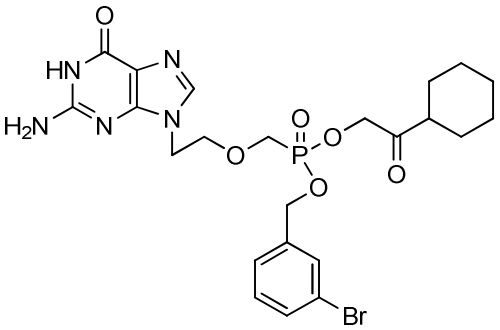


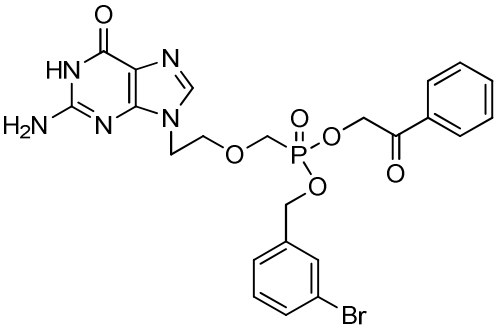


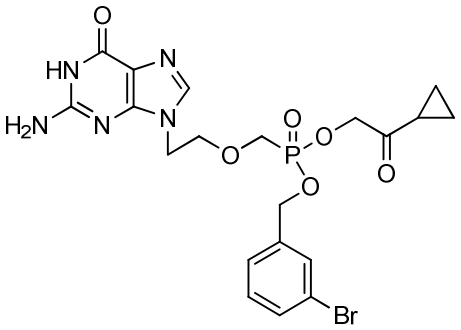


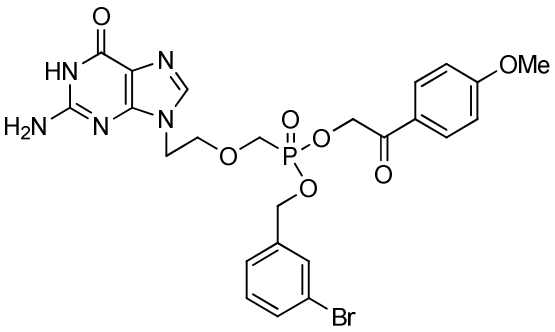


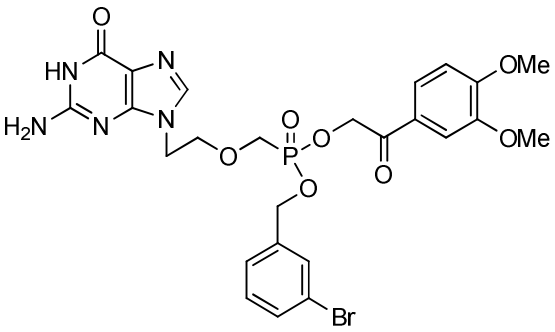


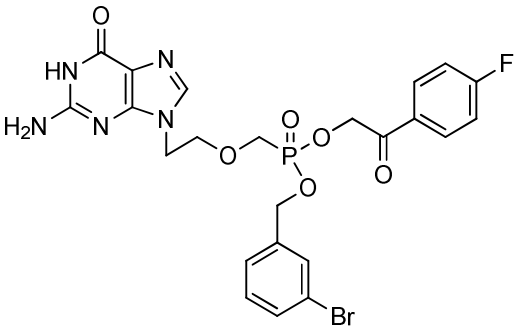
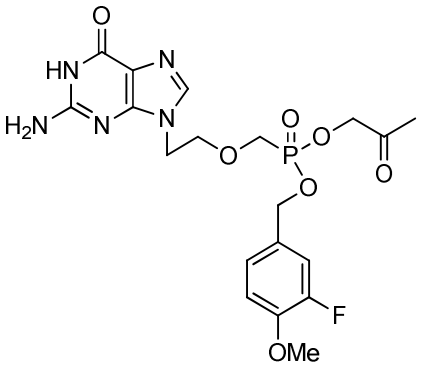
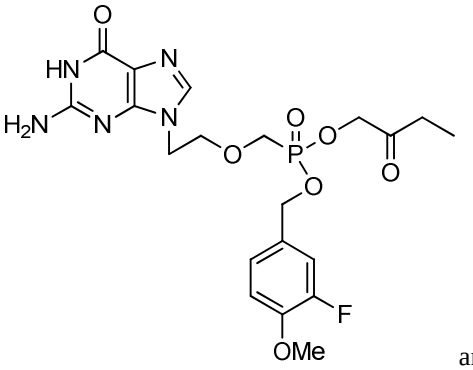
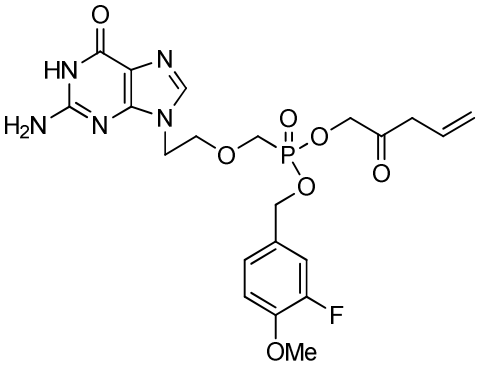








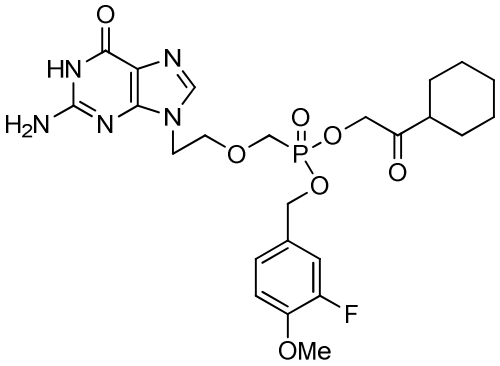
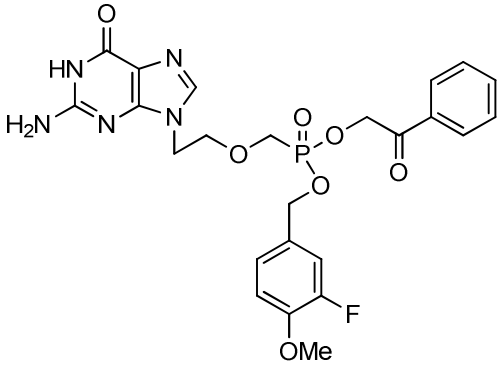
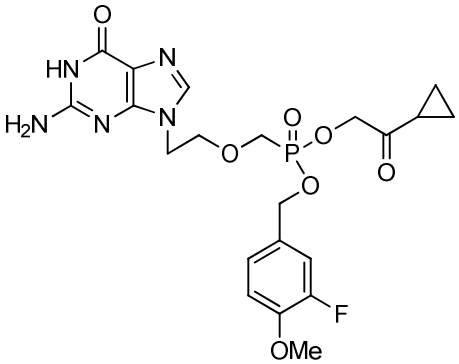
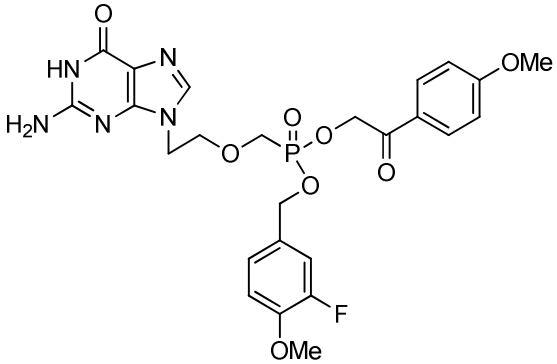


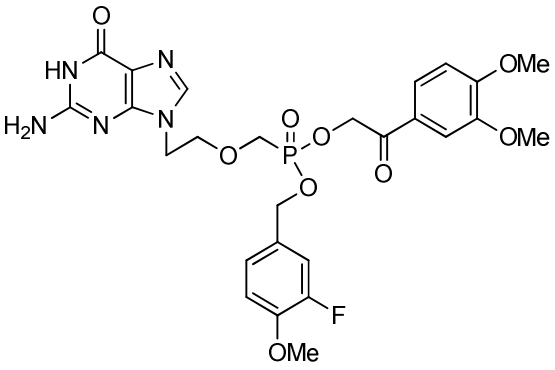





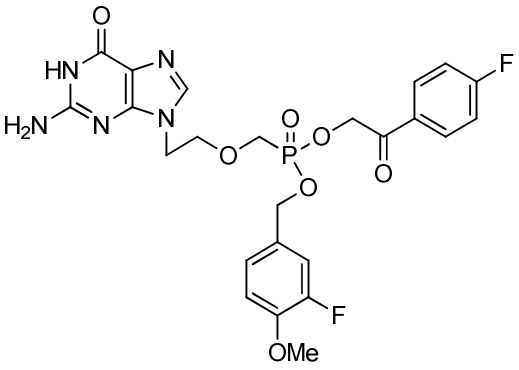
and

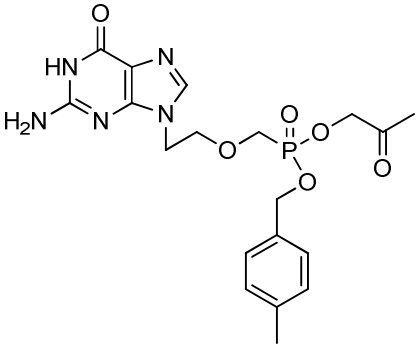
or a pharmaceutically acceptable salt thereof.

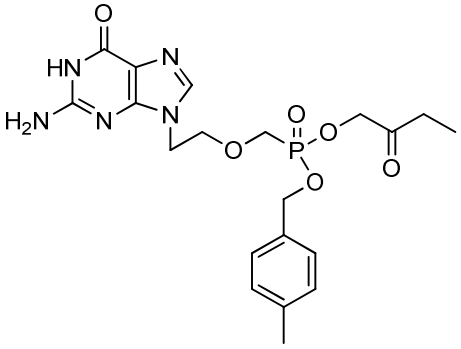
5. A compound selected from the group consisting of:

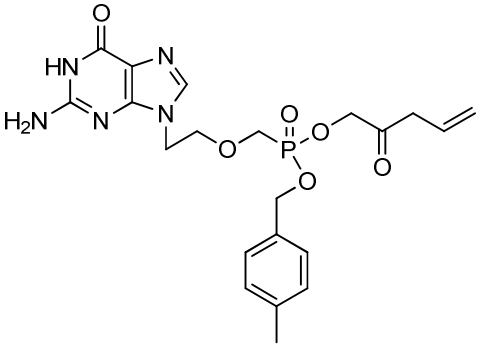





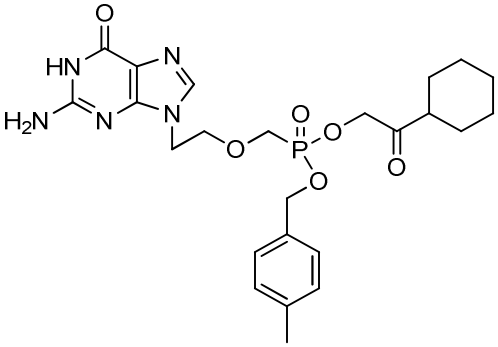


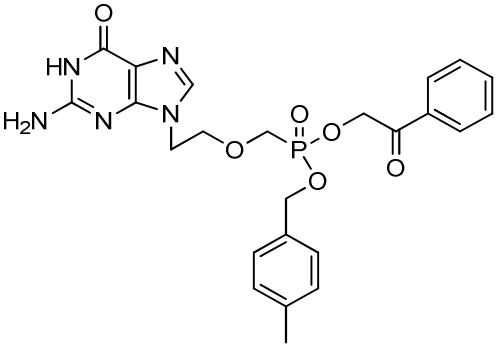


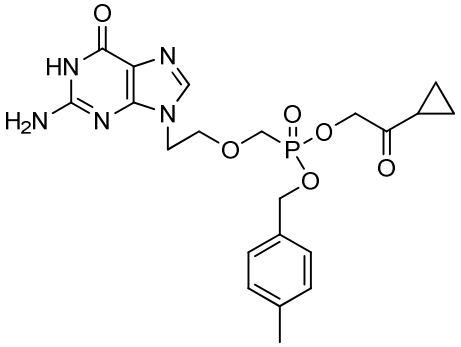


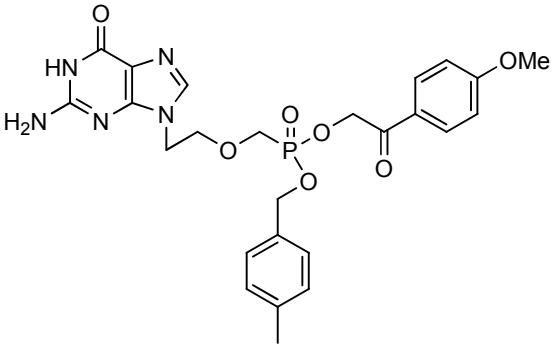
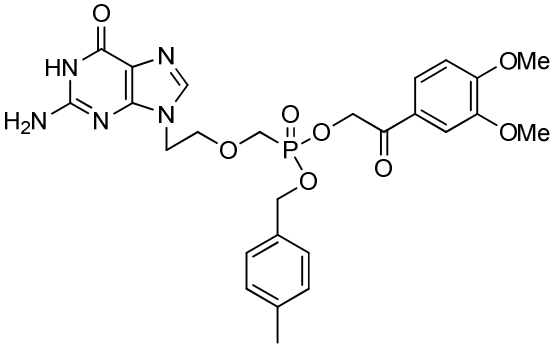
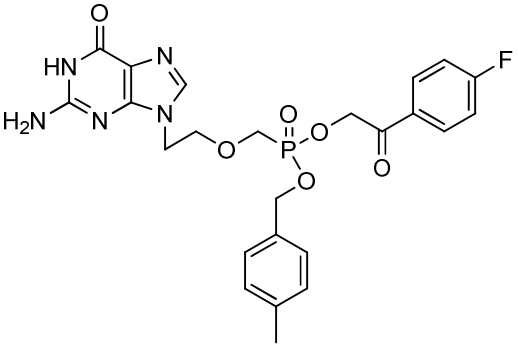
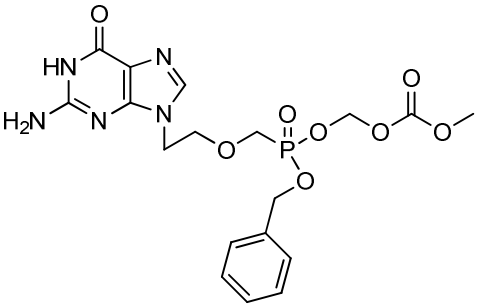








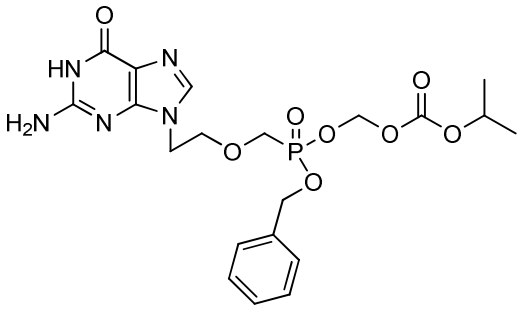
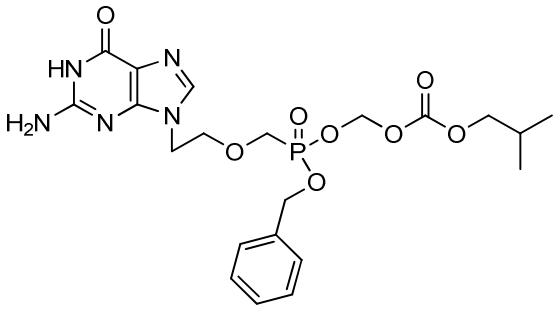
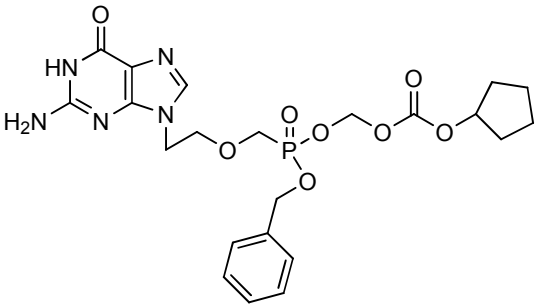
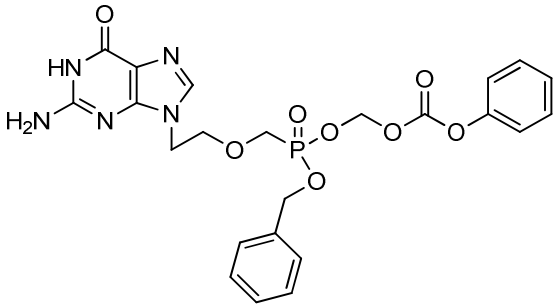


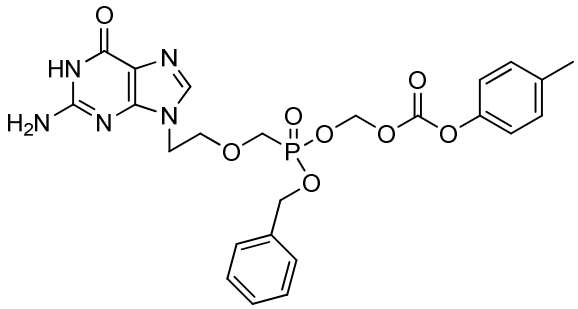





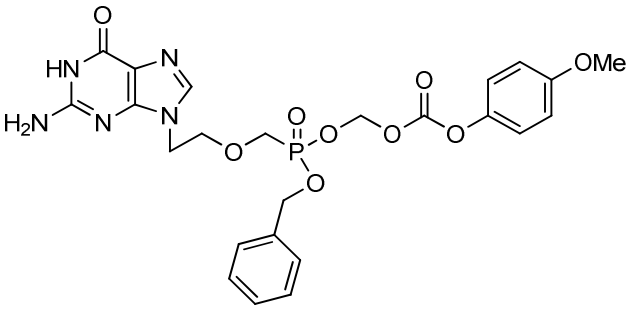
and

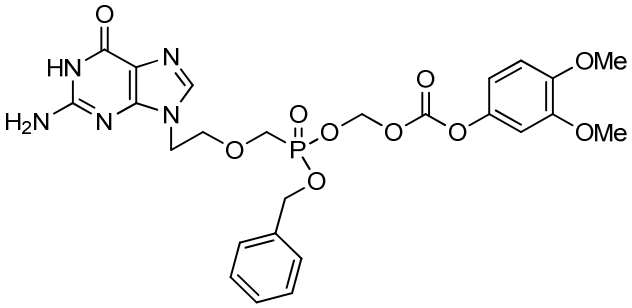
or a pharmaceutically acceptable salt thereof.

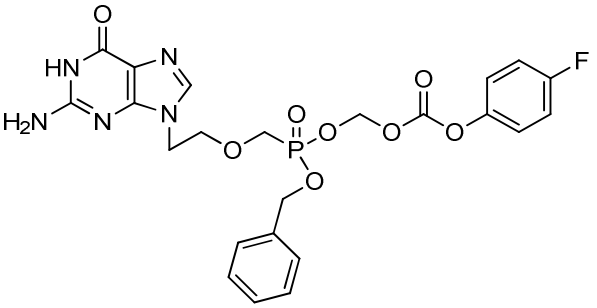
6. A compound selected from the group consisting of:

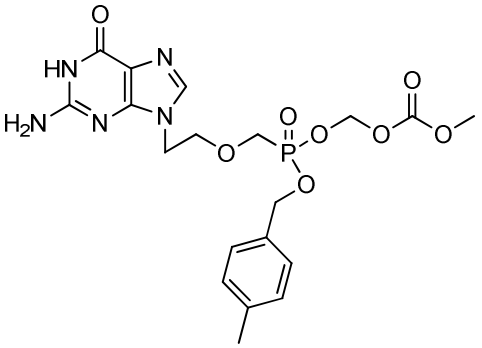





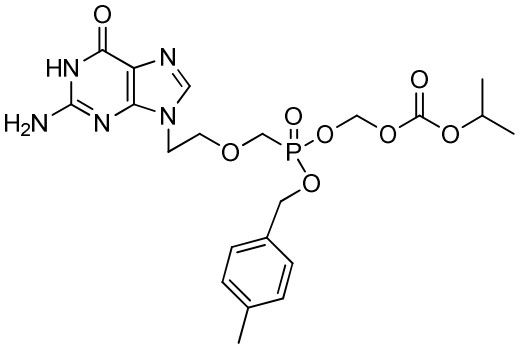


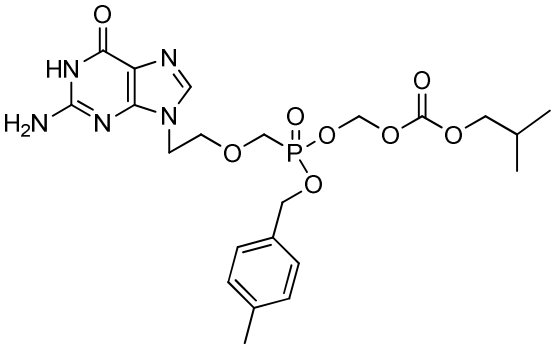


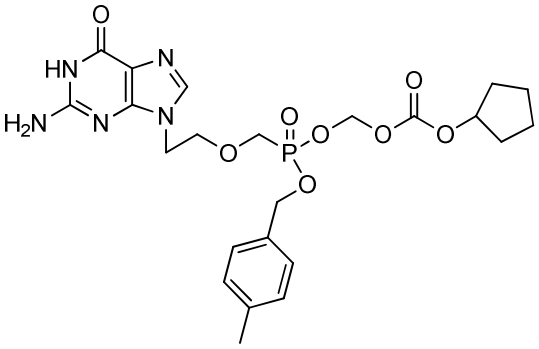


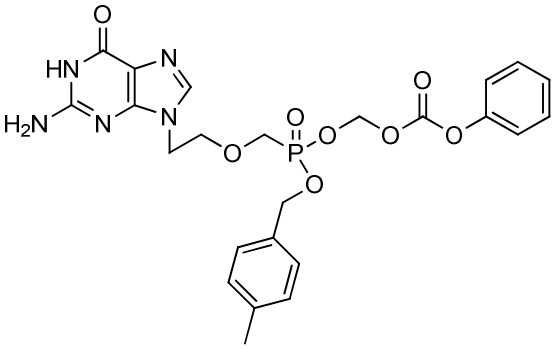


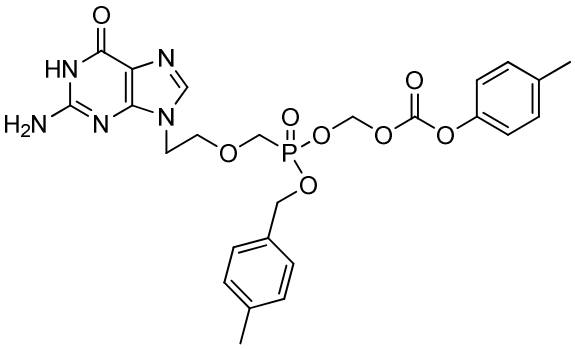


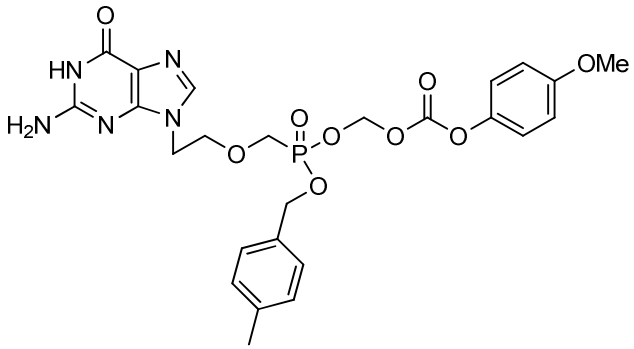
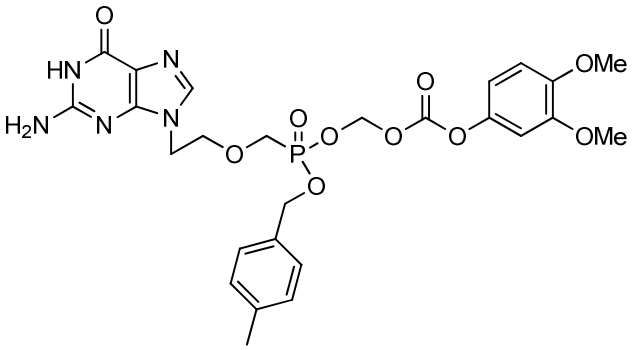
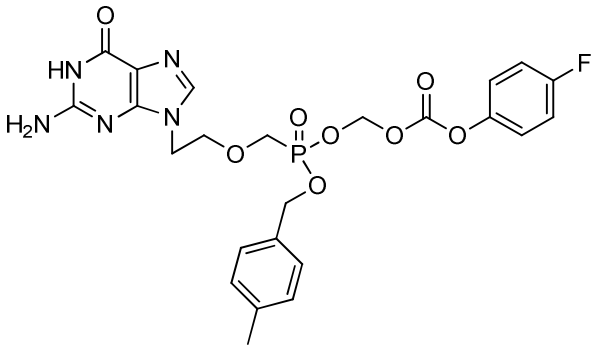
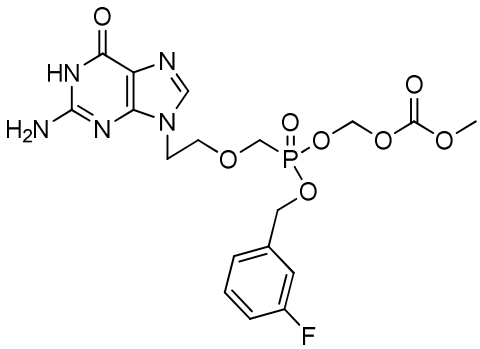








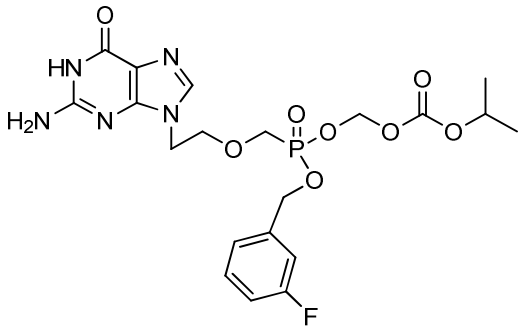
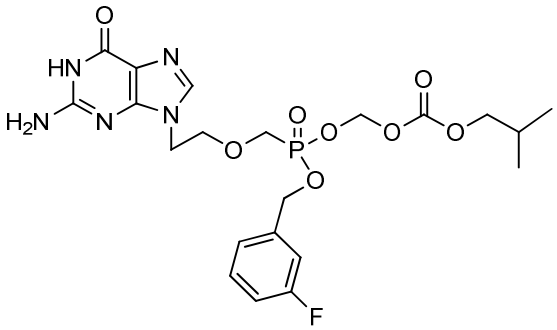
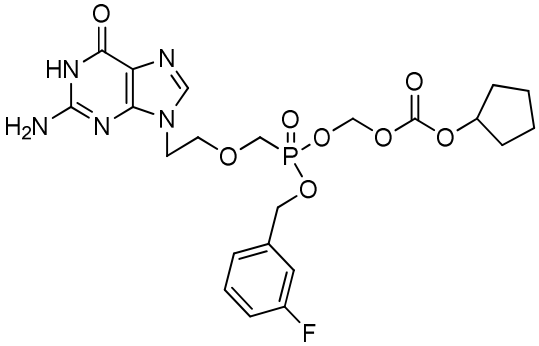
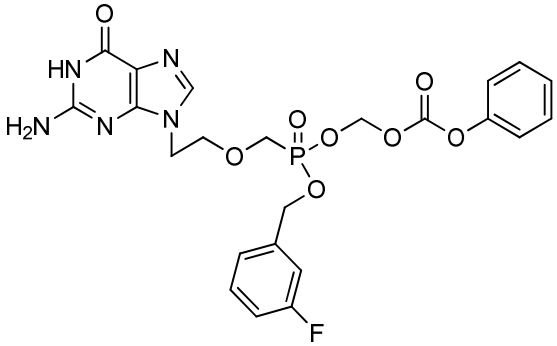


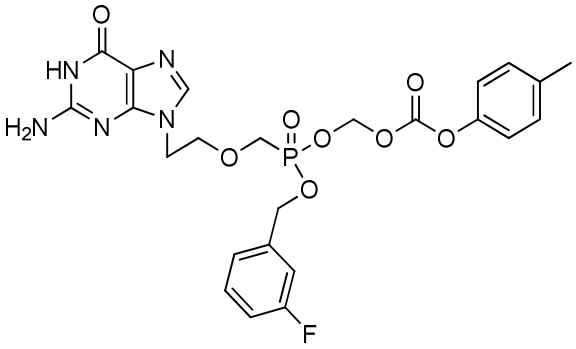





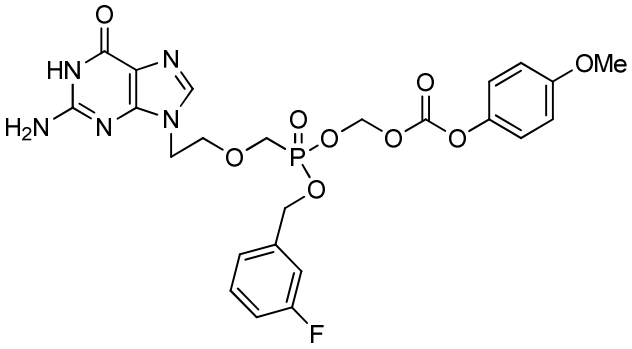
and

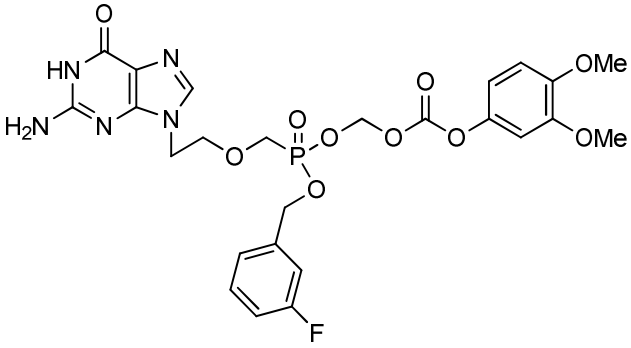
or a pharmaceutically acceptable salt thereof.

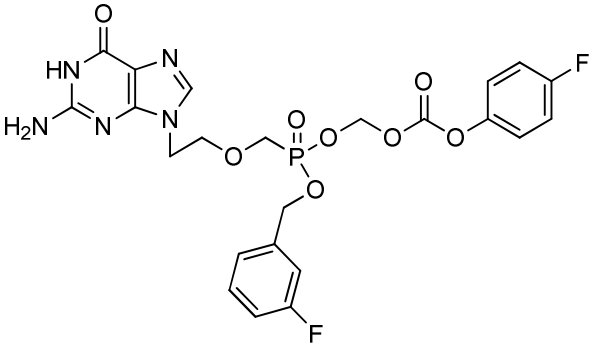
7. A compound selected from the group consisting of:

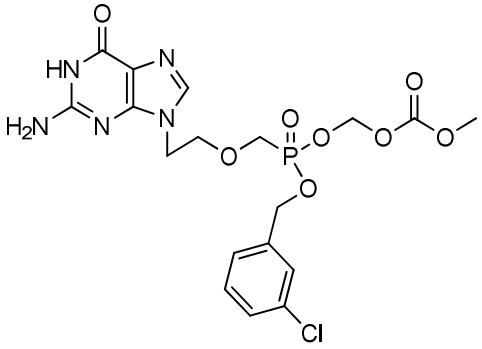





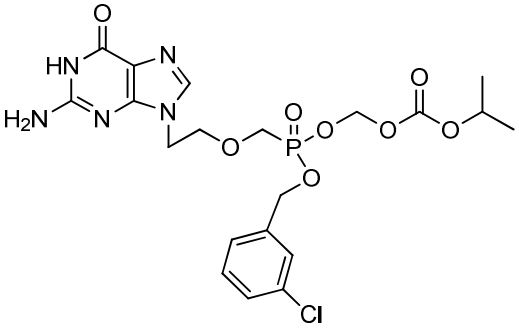


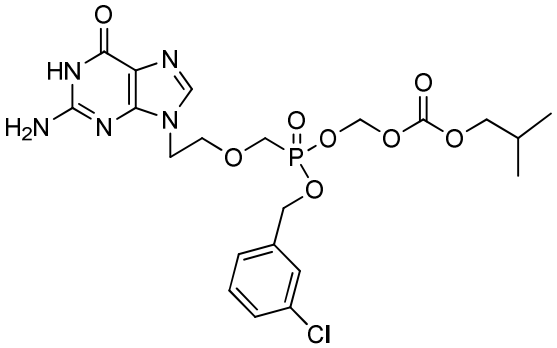


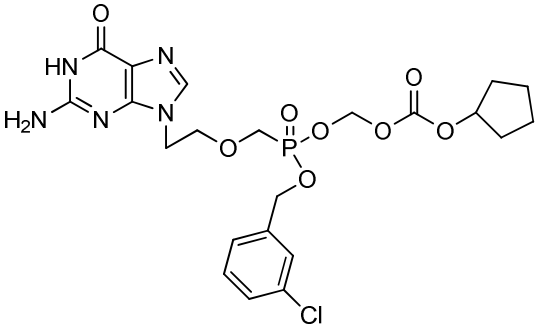


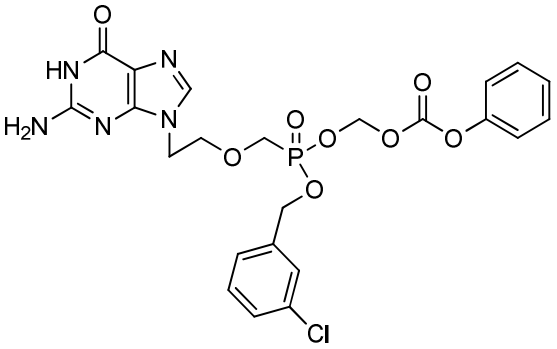


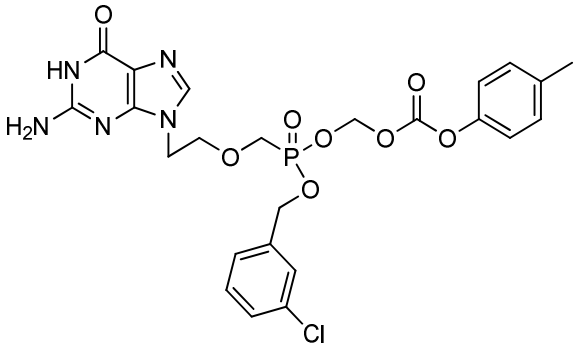


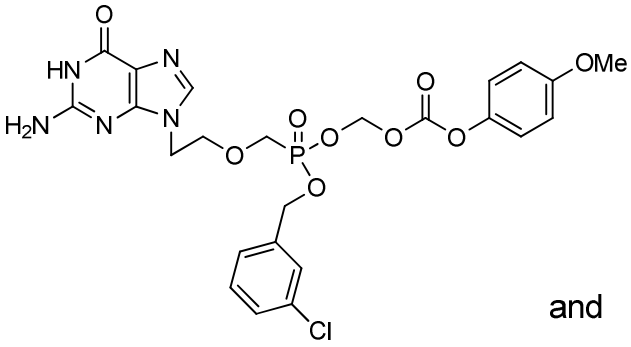












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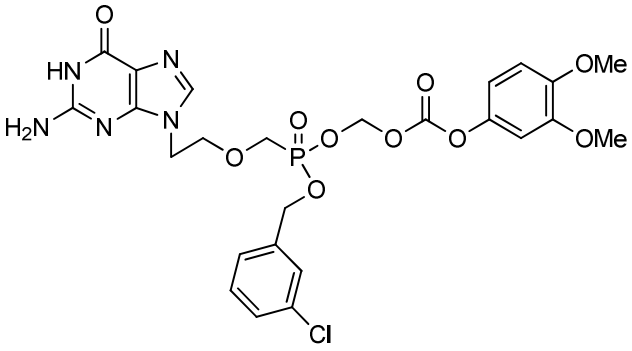
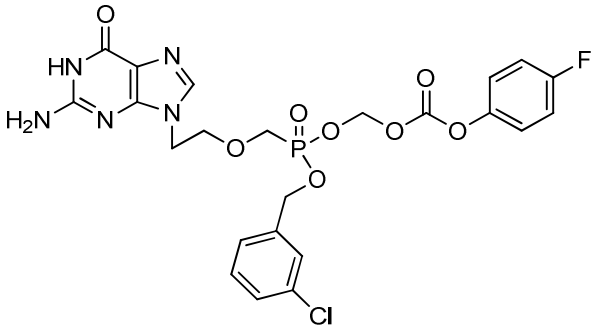
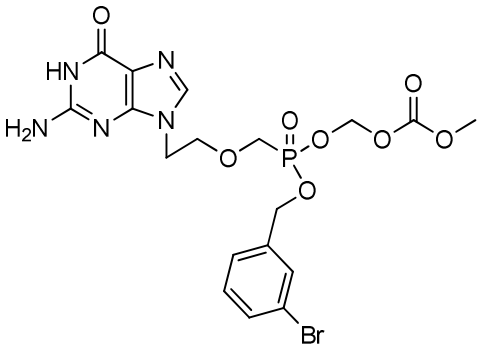
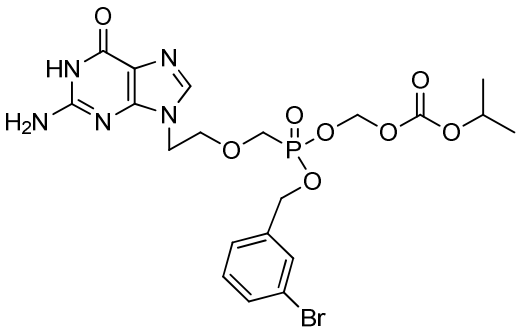


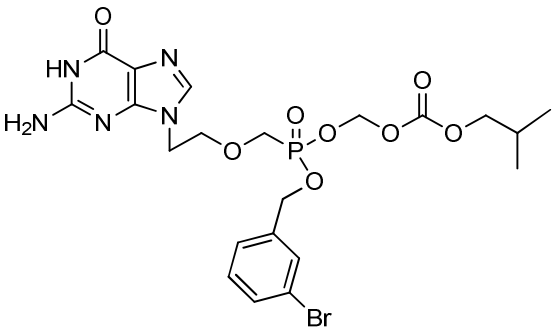
or a pharmaceutically acceptable salt thereof.

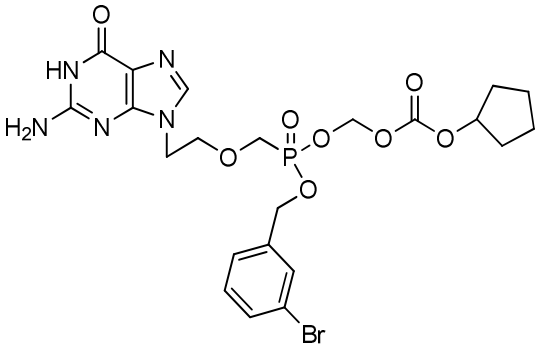
8. A compound selected from the group consisting of:

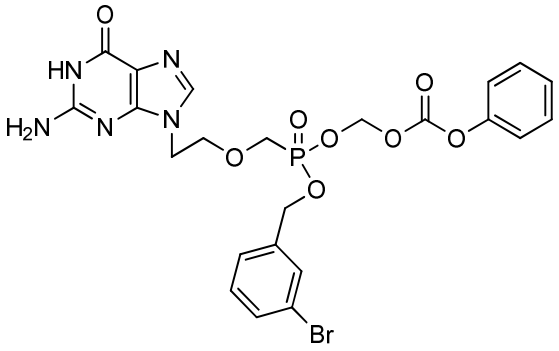


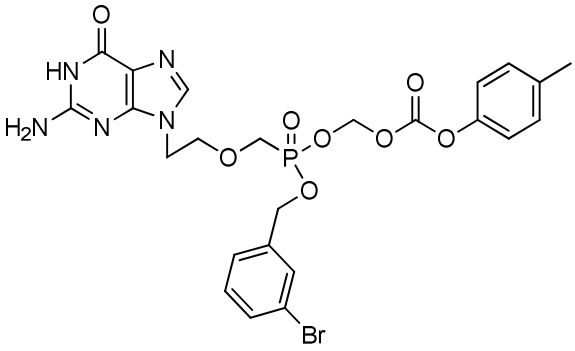


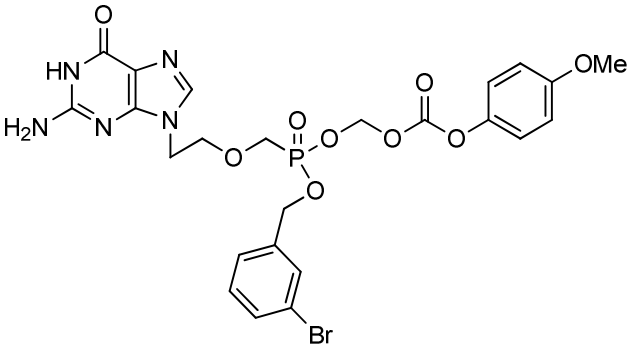


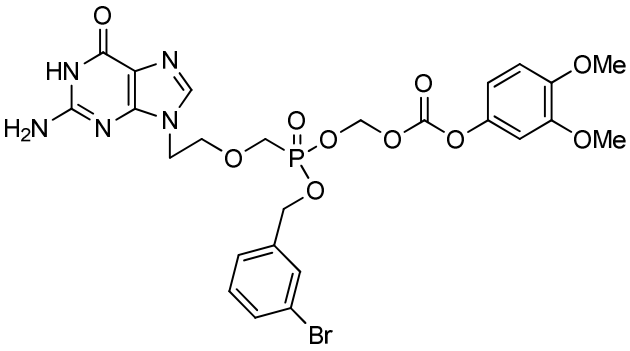


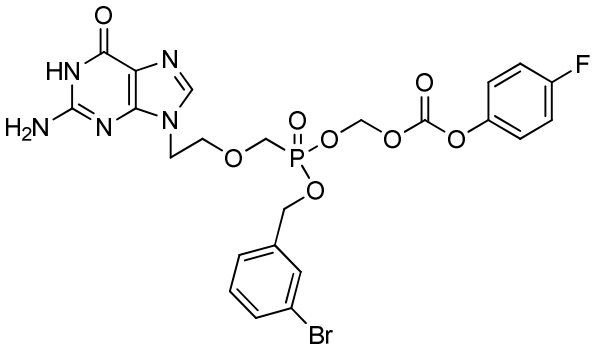


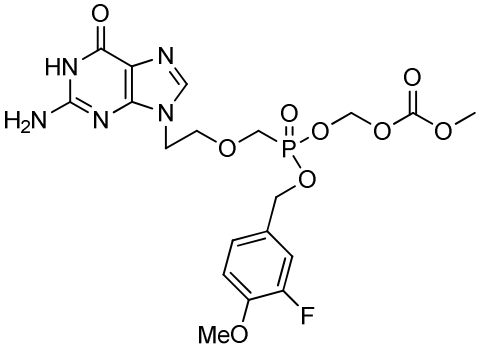


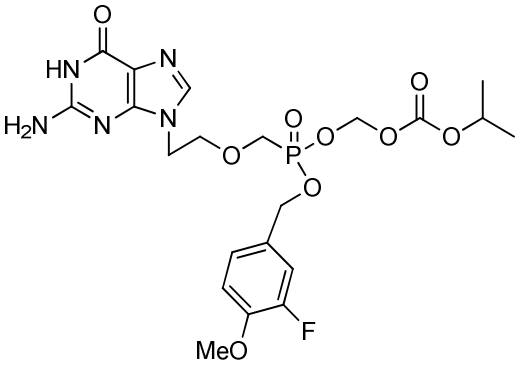


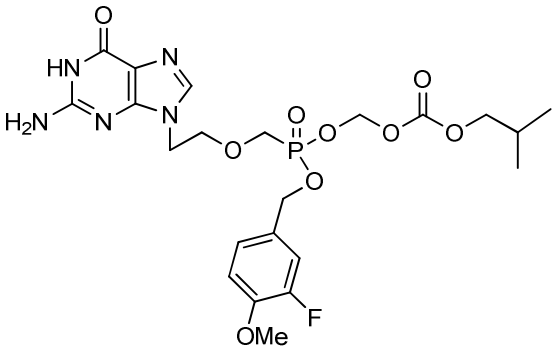


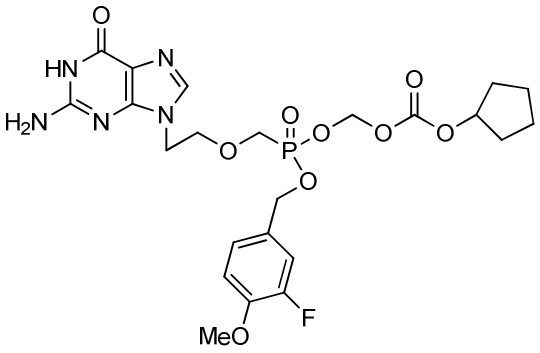


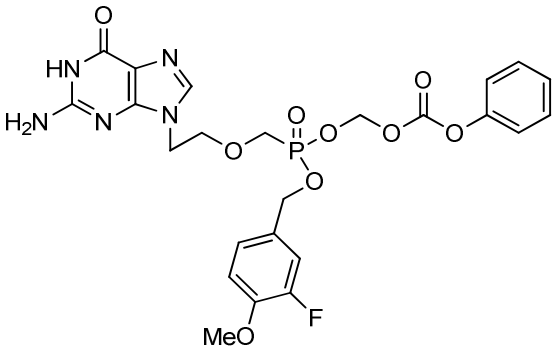


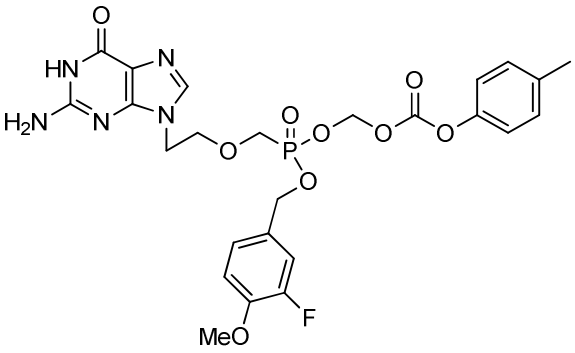






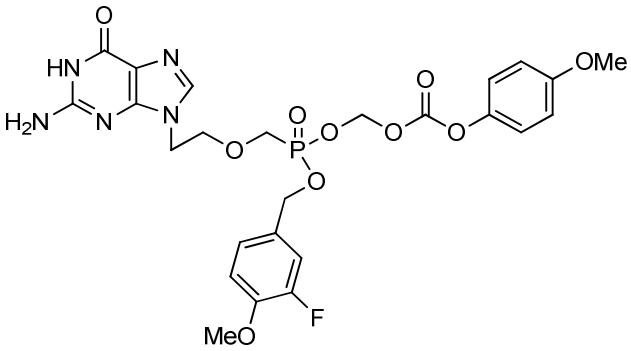


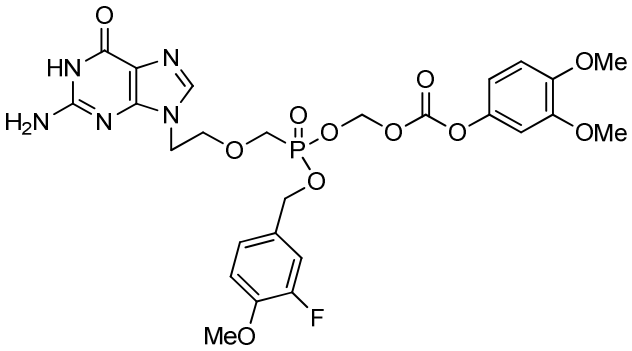


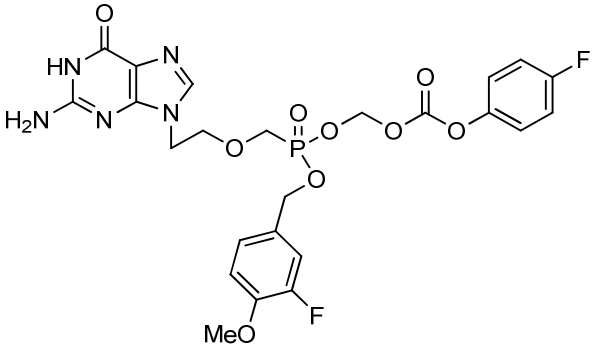


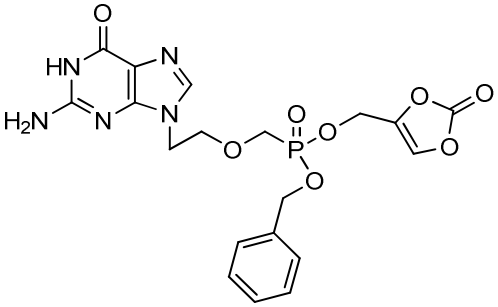
or a pharmaceutically acceptable salt thereof.

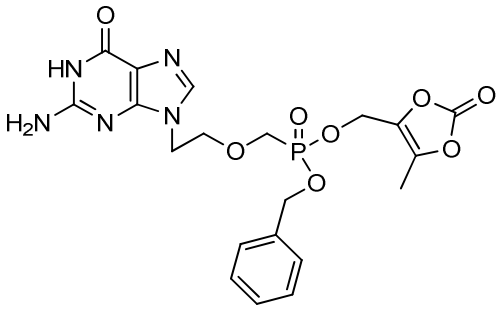
9. A compound selected from the group consisting of:

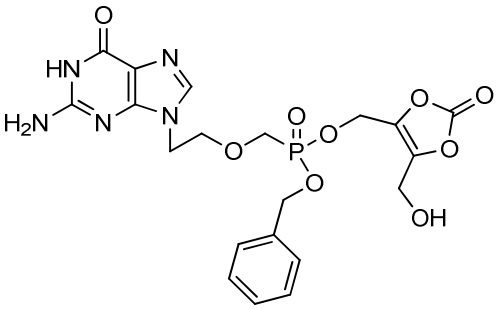


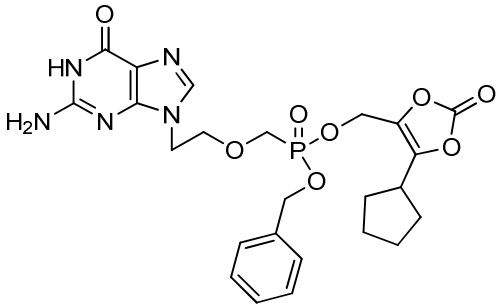


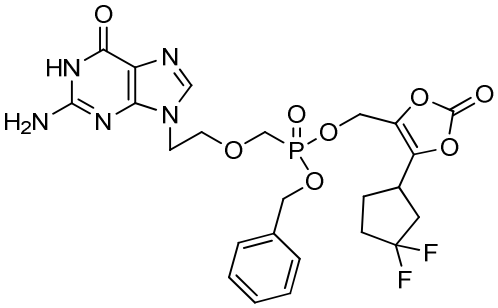


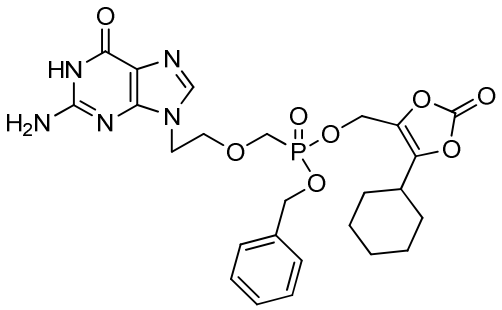


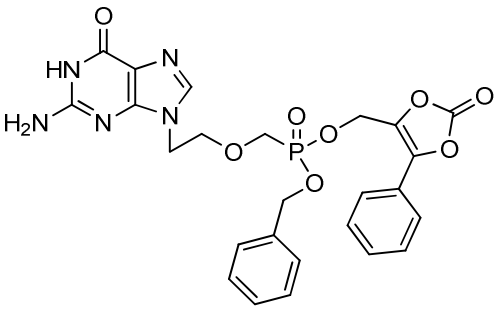


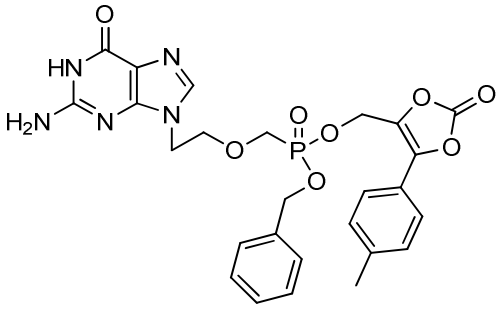


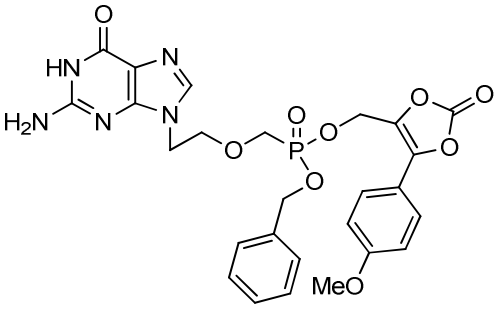


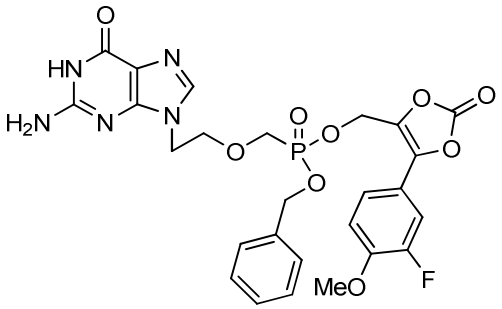


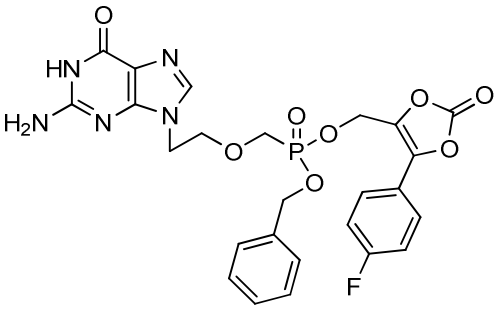


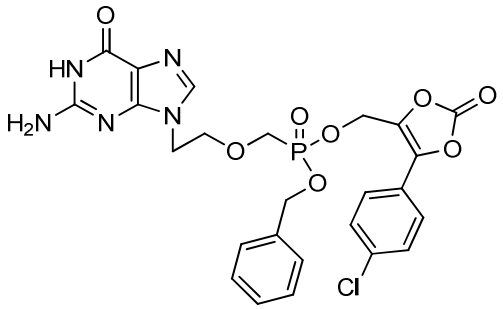
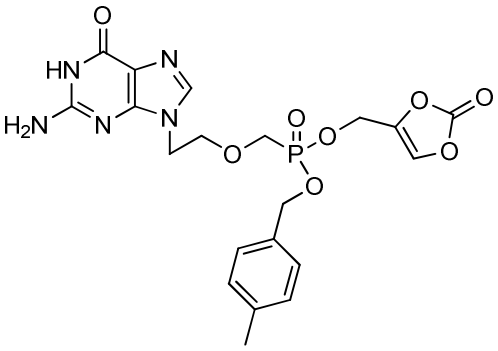
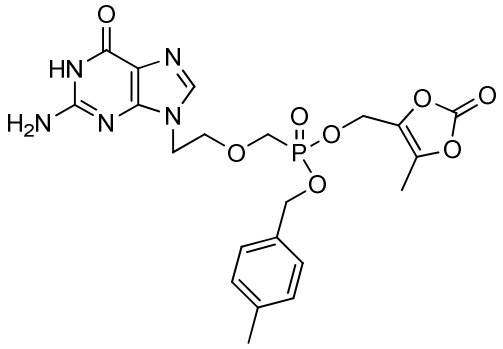
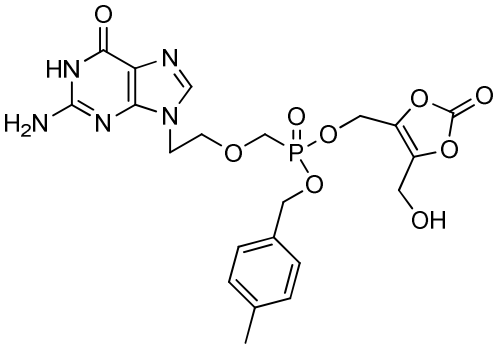
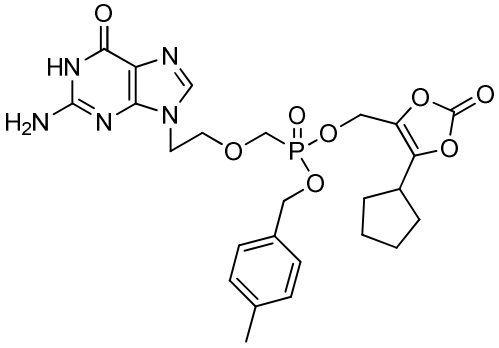
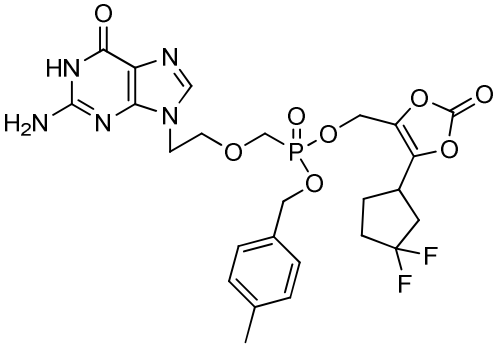








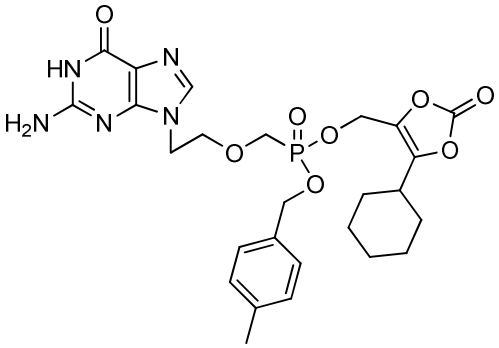
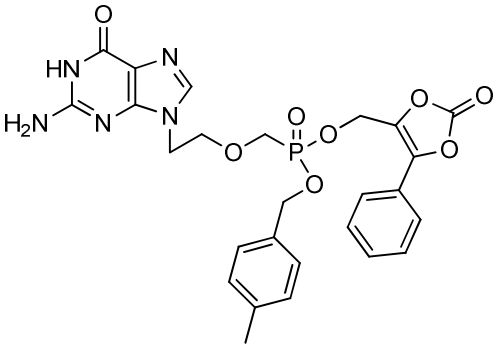


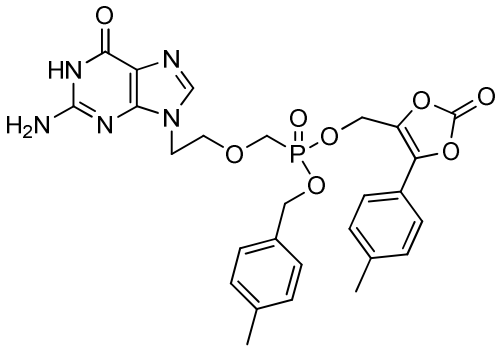







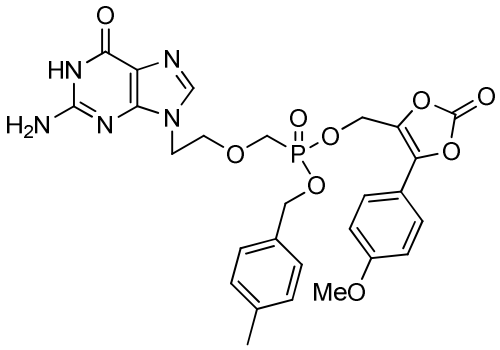
and

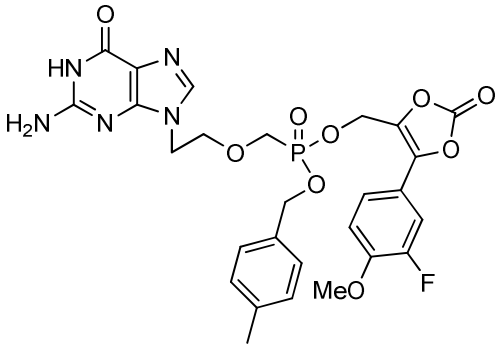
or a pharmaceutically acceptable salt thereof.

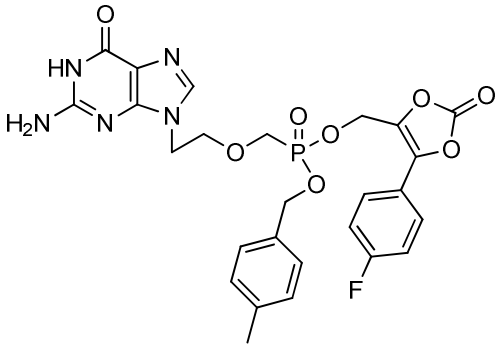
10. A compound selected from the group consisting of:

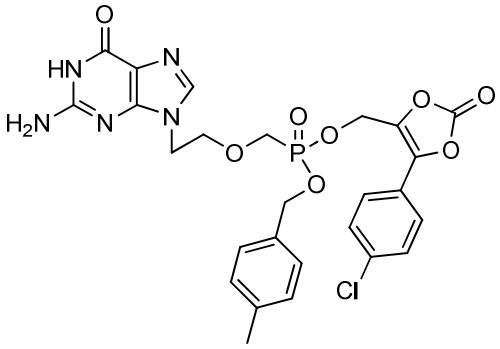



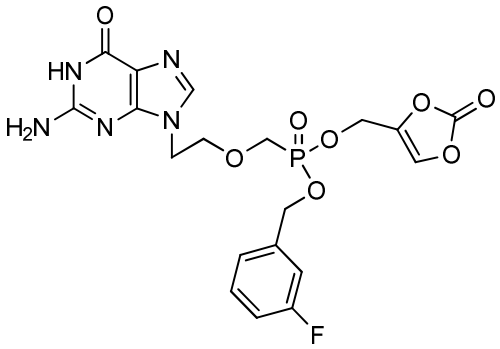


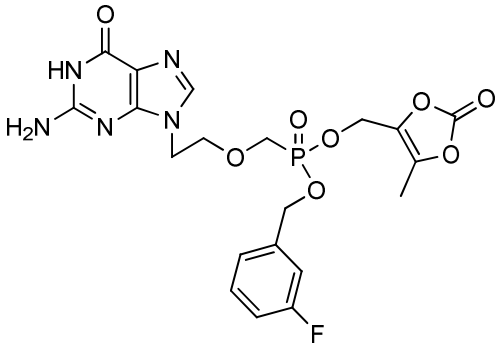


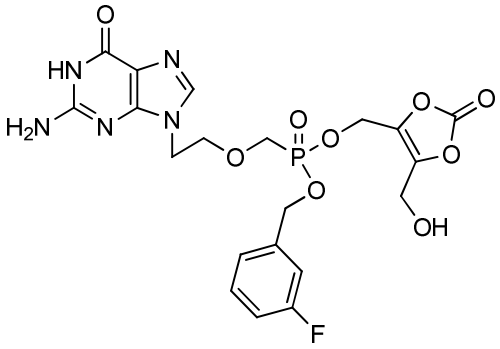


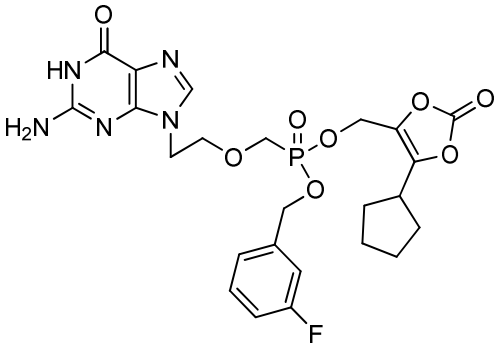
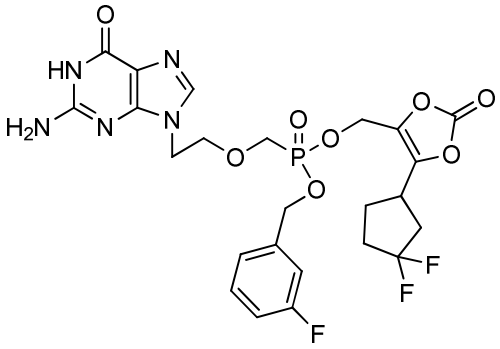
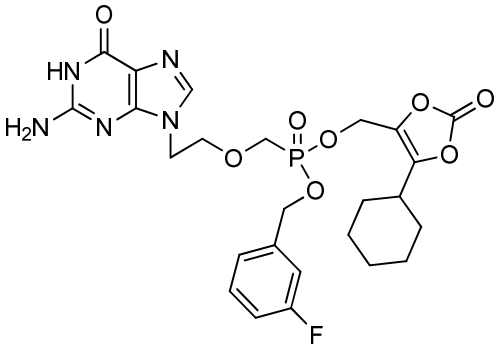
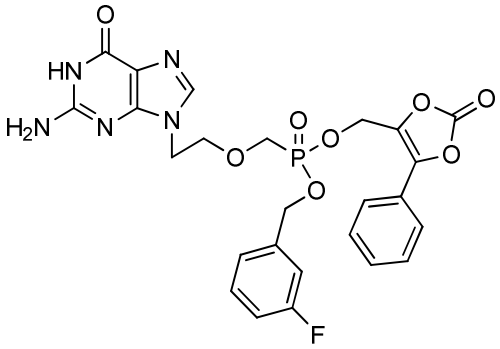
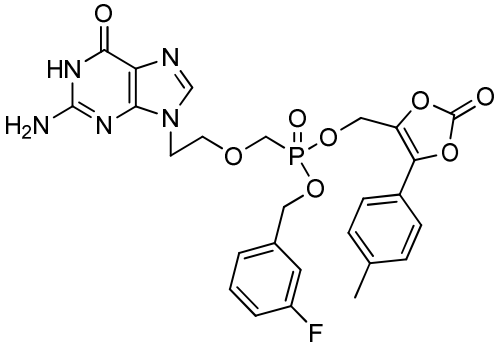
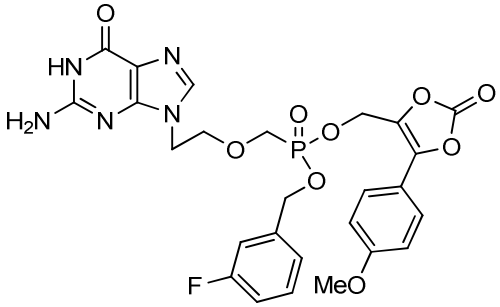
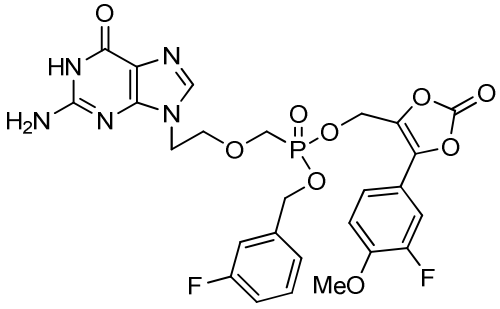
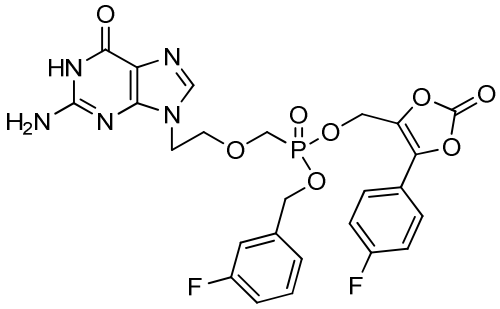








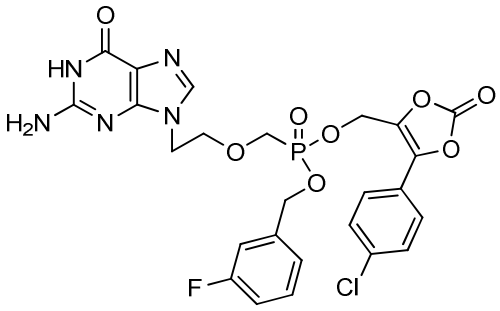


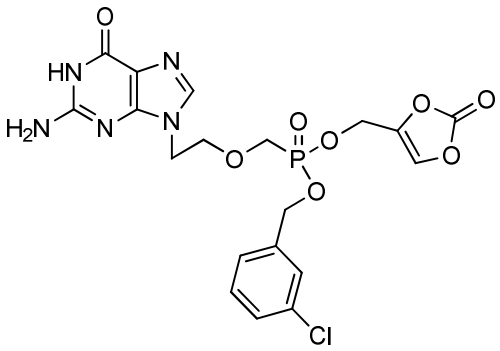









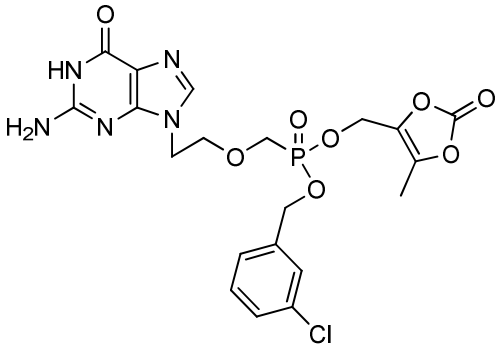
and

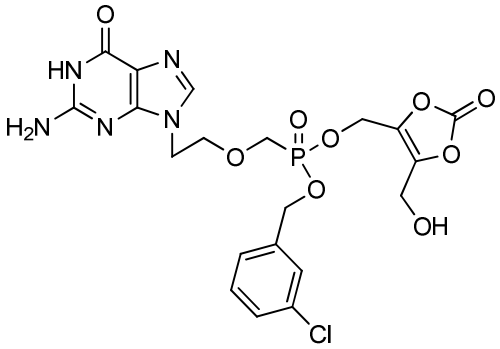
or a pharmaceutically acceptable salt thereof.

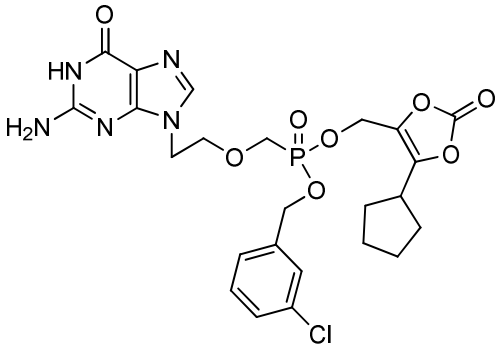
11. A compound selected from the group consisting of:

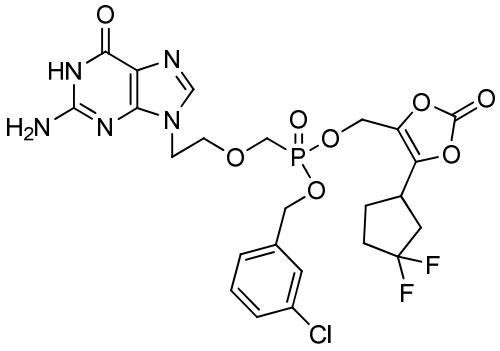


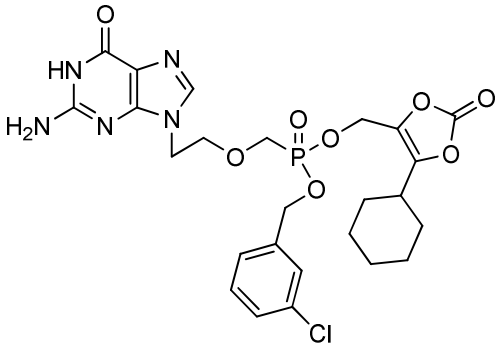


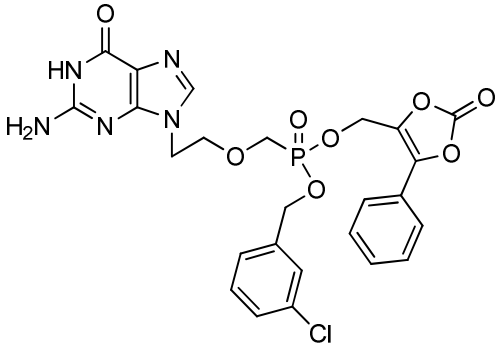


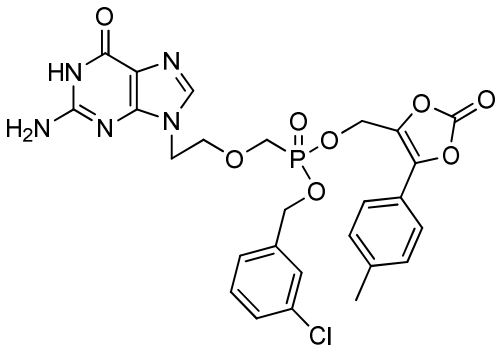


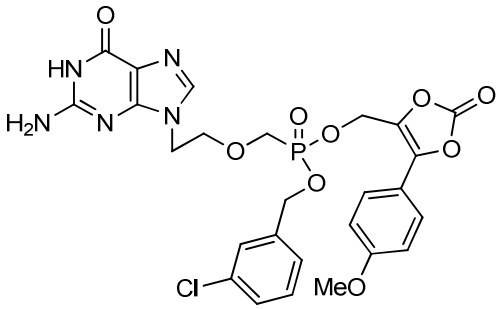


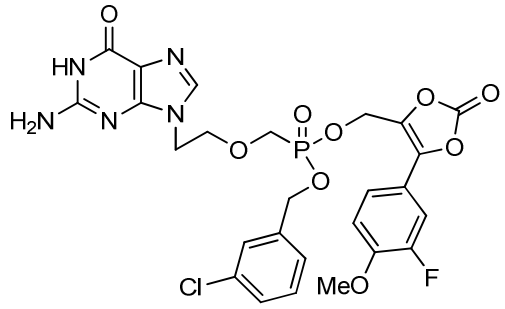


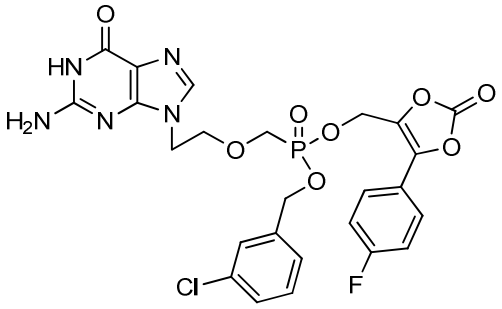


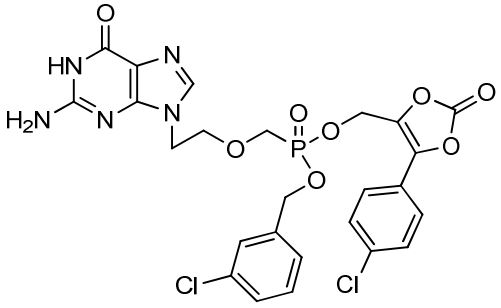


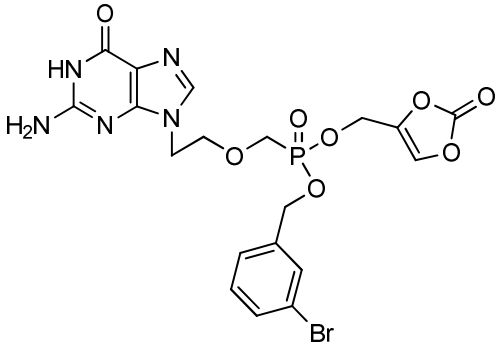


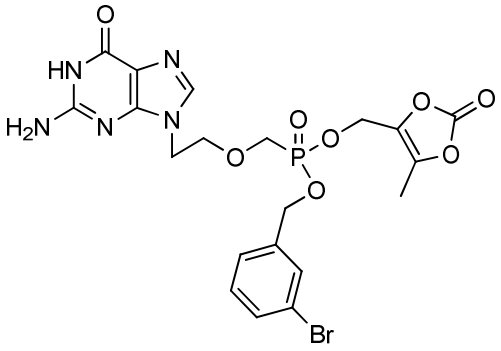


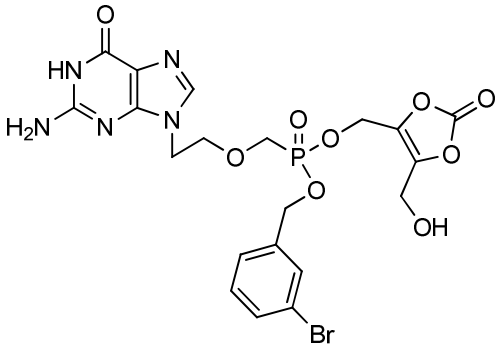


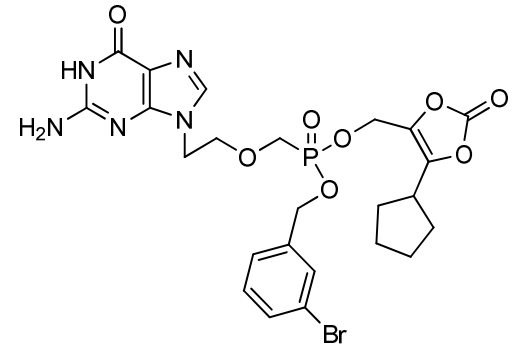
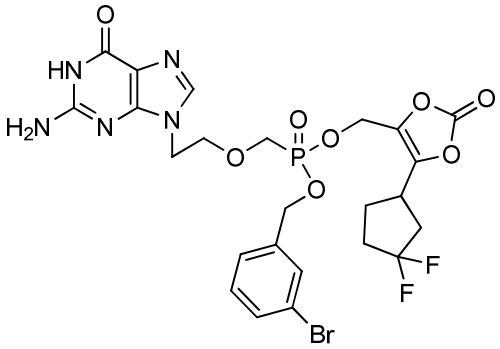
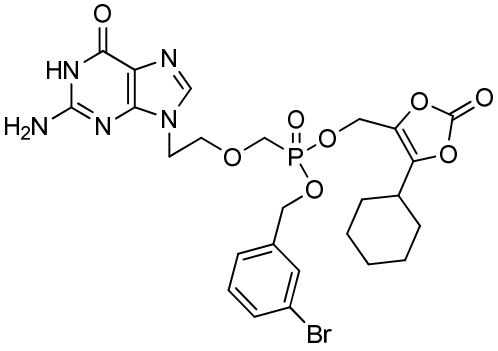
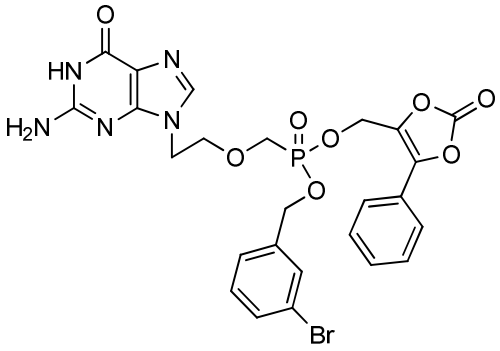








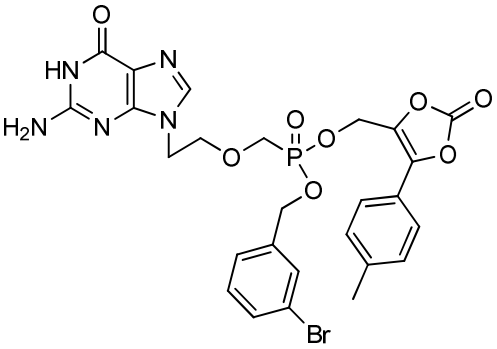
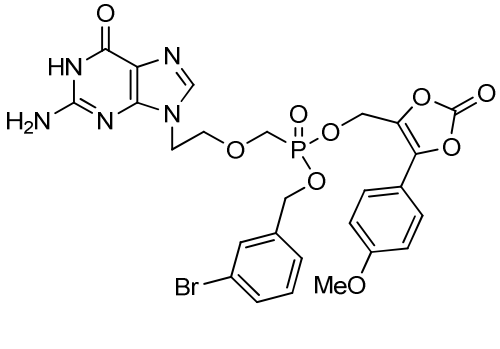
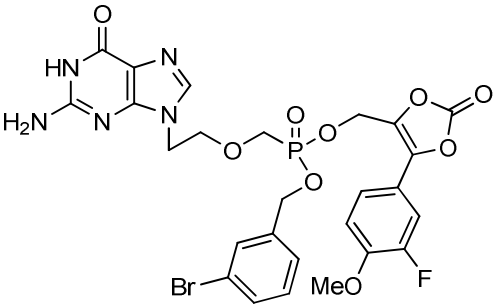
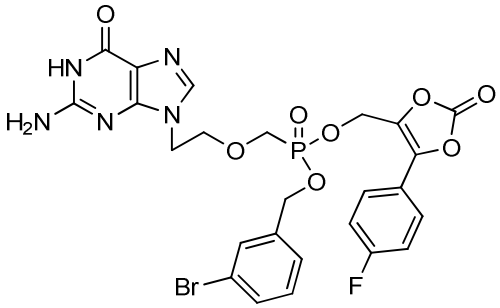


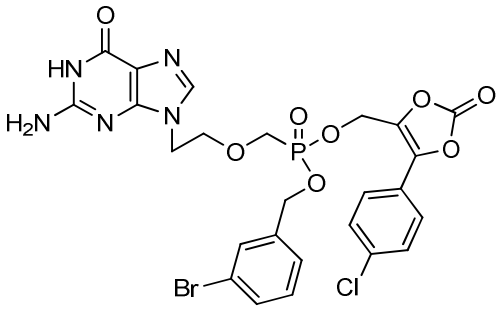





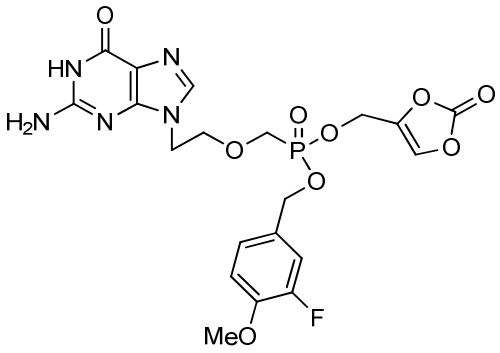
and

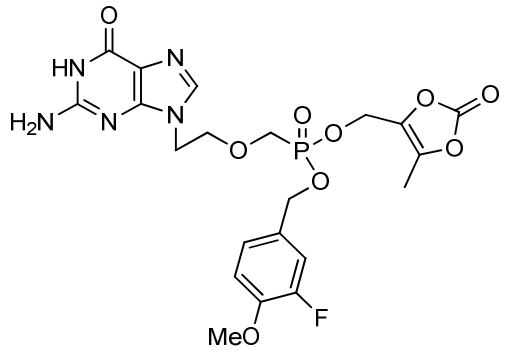
or a pharmaceutically acceptable salt thereof.

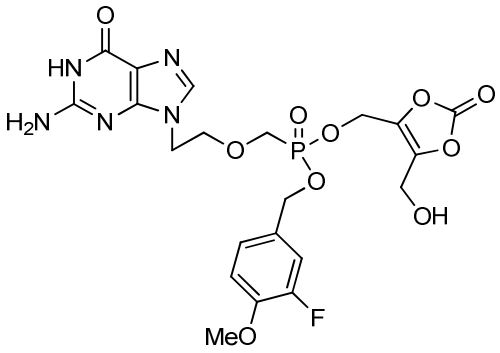
12. A compound selected from the group consisting of:

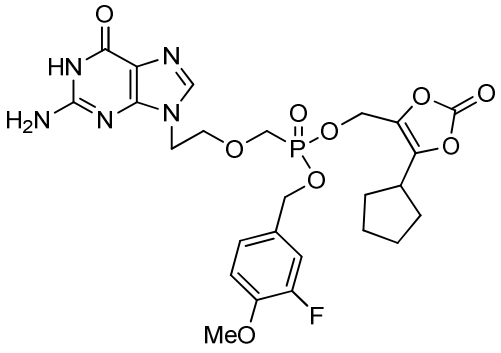





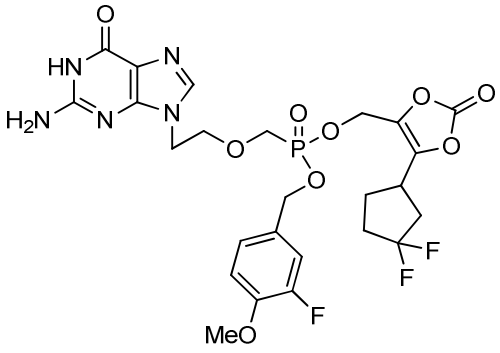


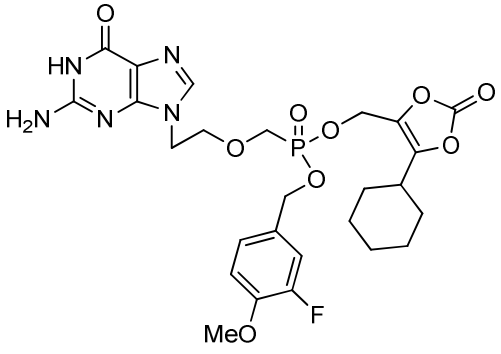


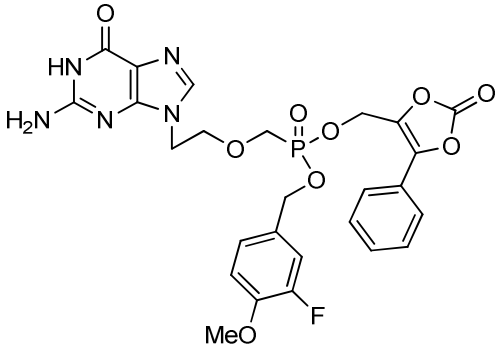


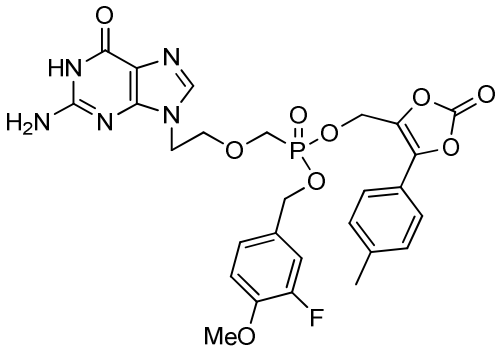


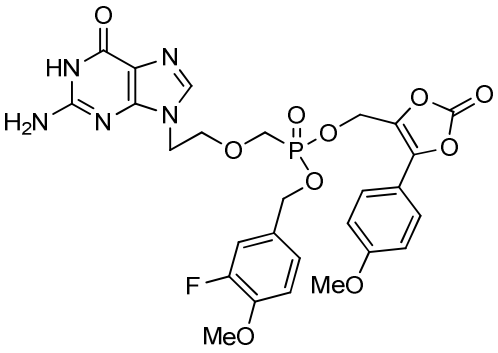


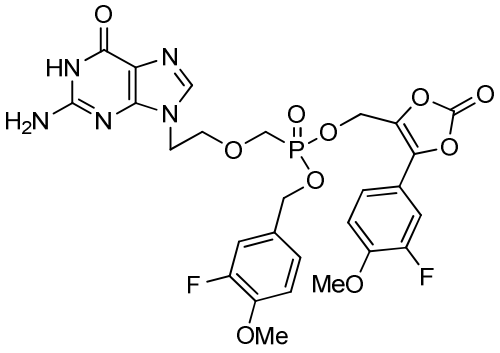












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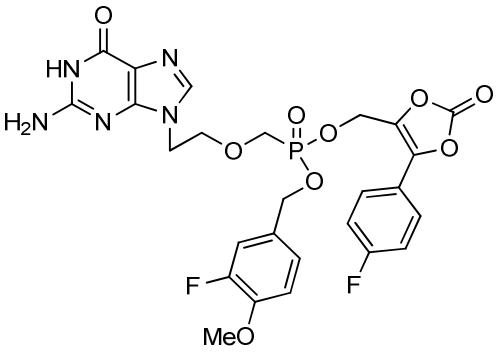
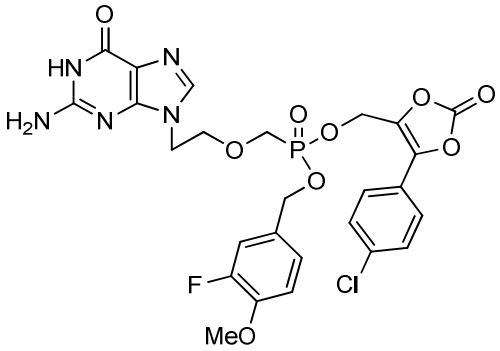
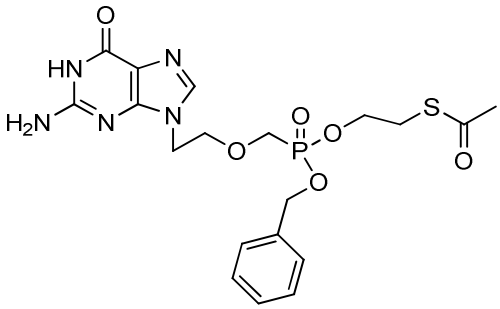
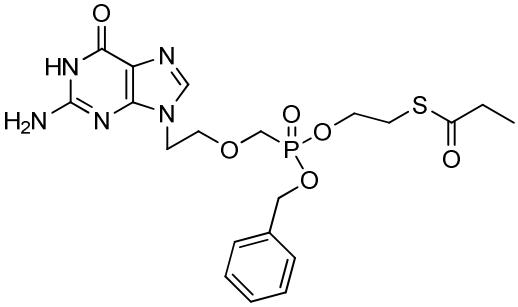


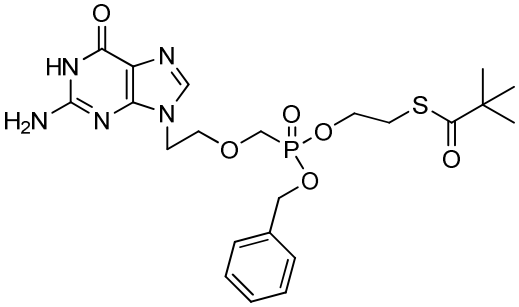
or a pharmaceutically acceptable salt thereof.

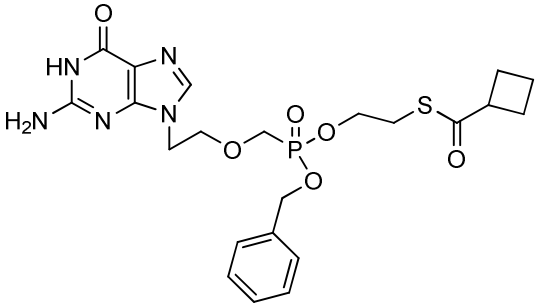
13. A compound selected from the group consisting of:

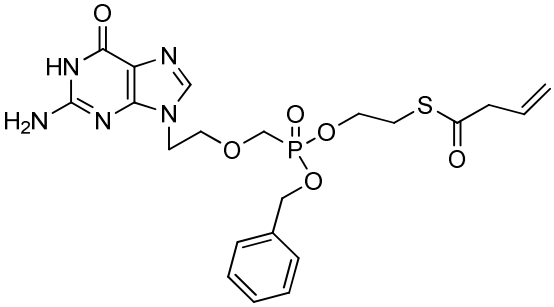


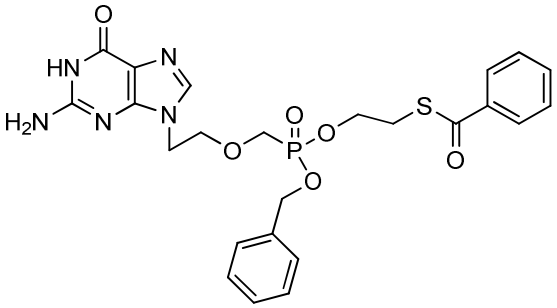


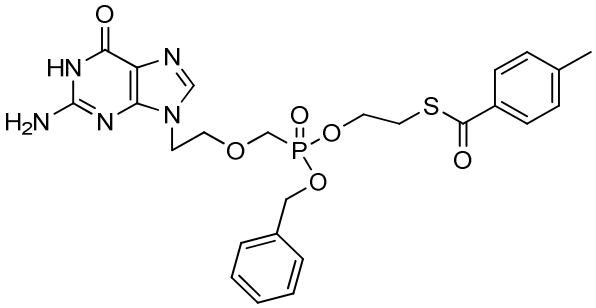


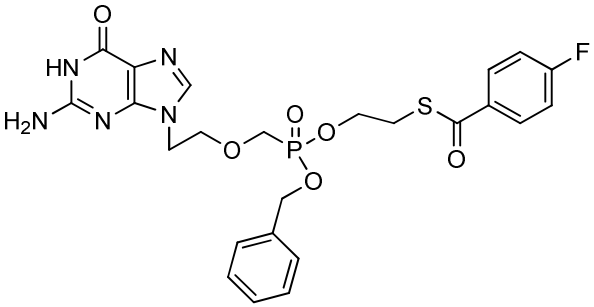


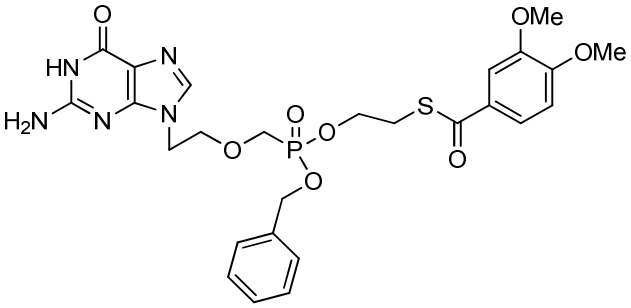


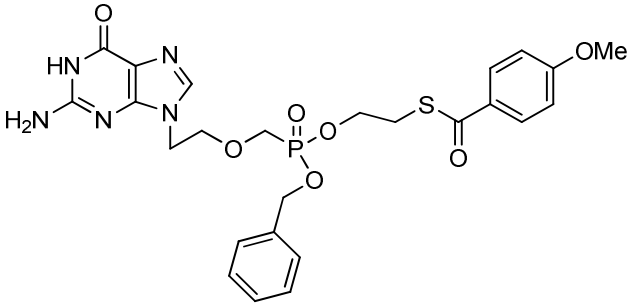


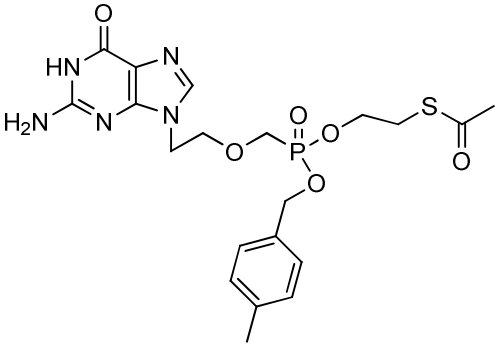


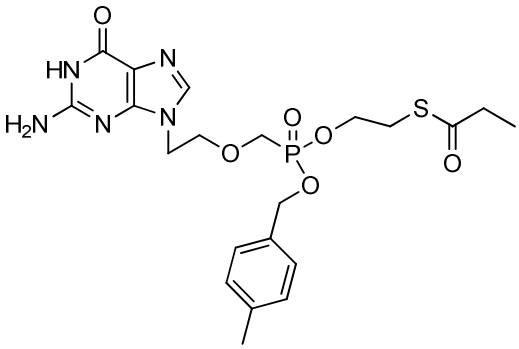


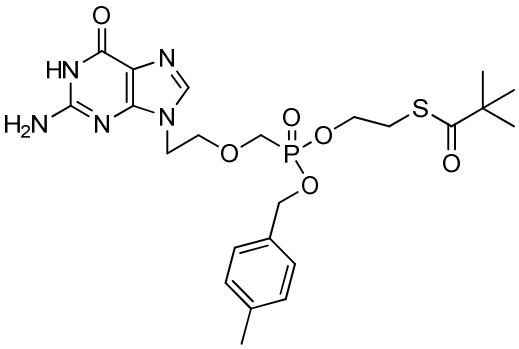


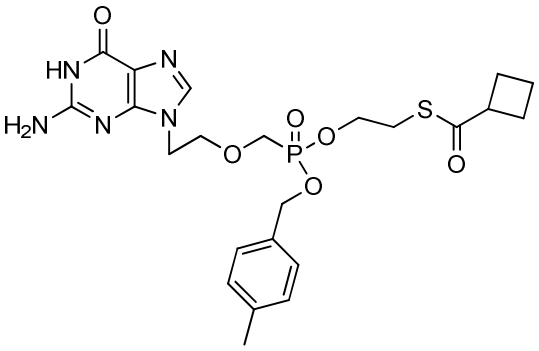


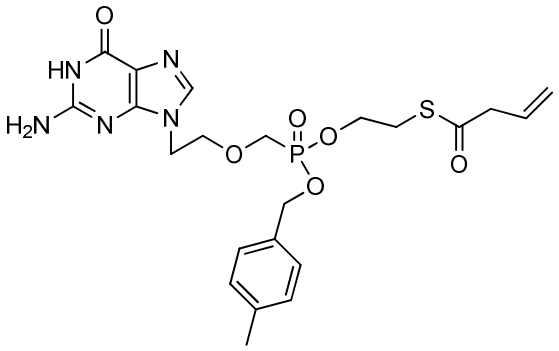


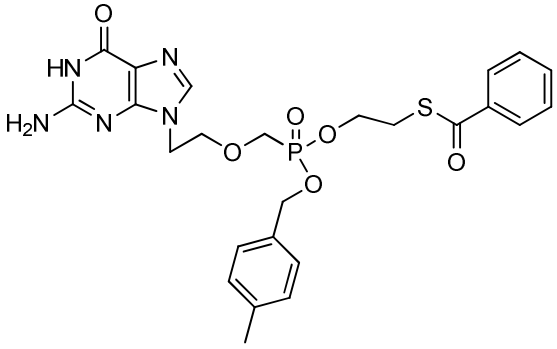


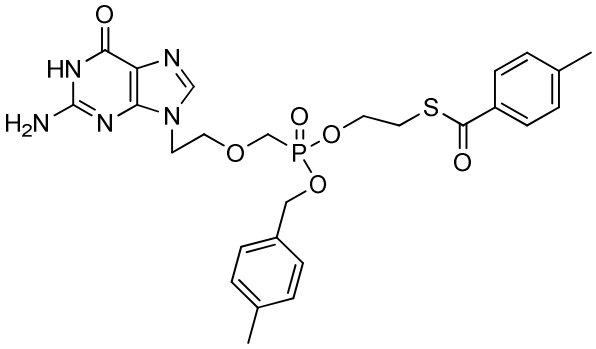








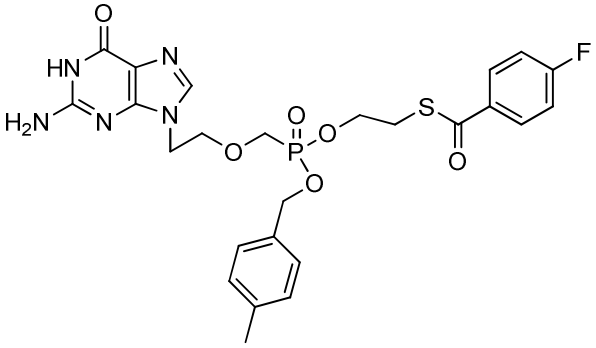


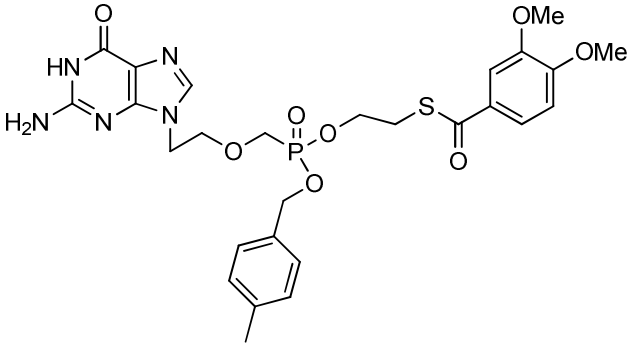


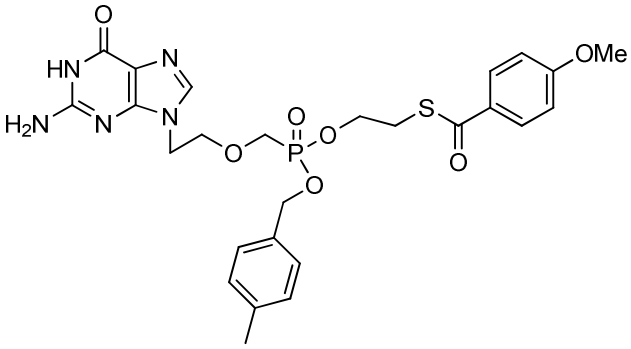
and

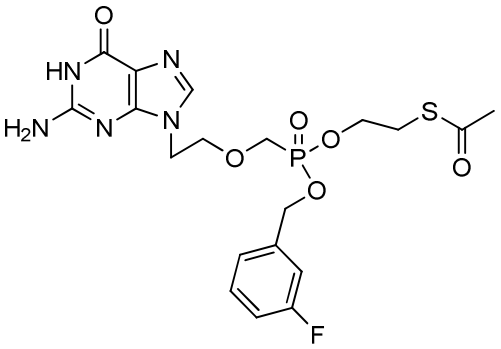
or a pharmaceutically acceptable salt thereof,

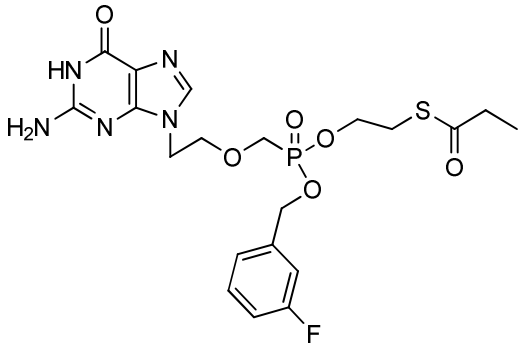
14. A compound selected from the group consisting of:

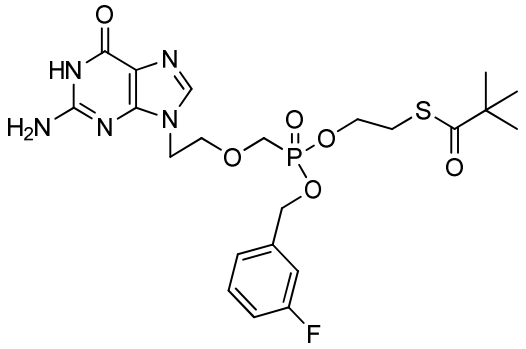


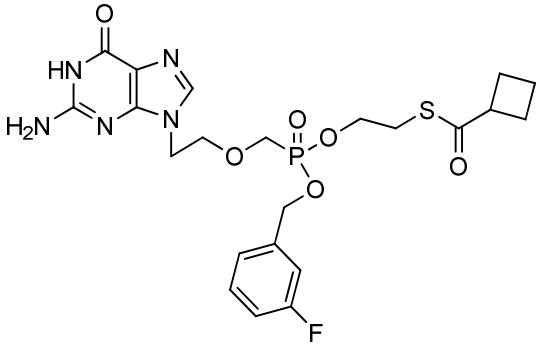


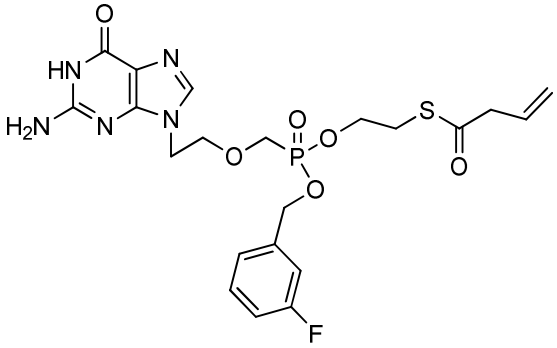


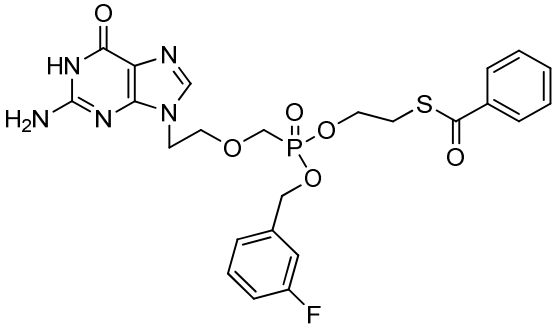


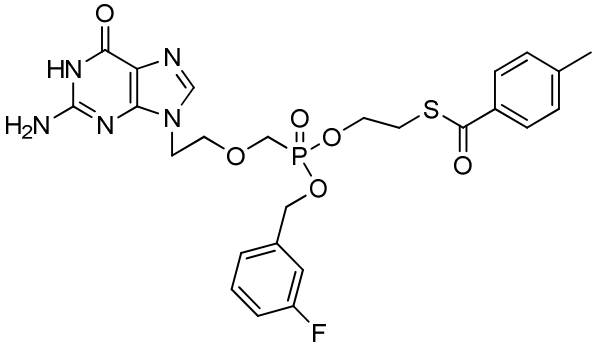


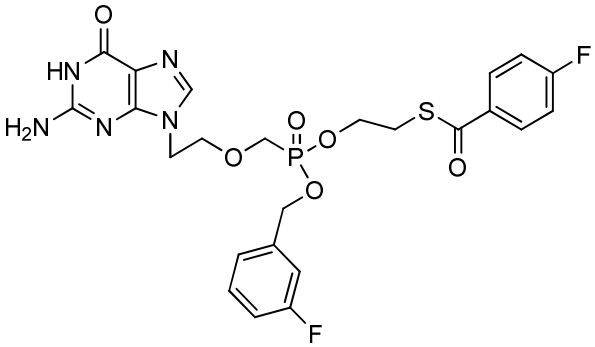


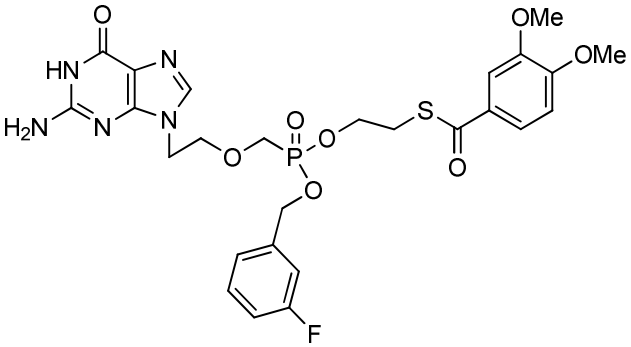


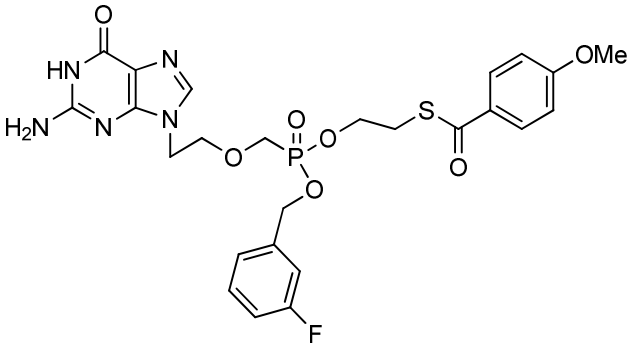


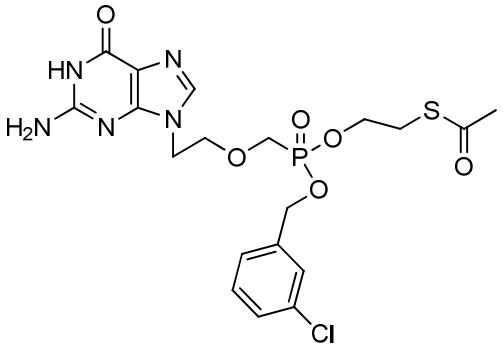


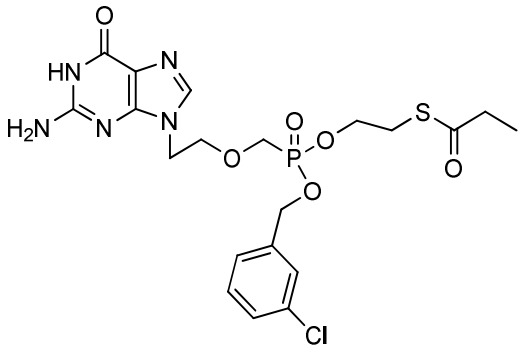












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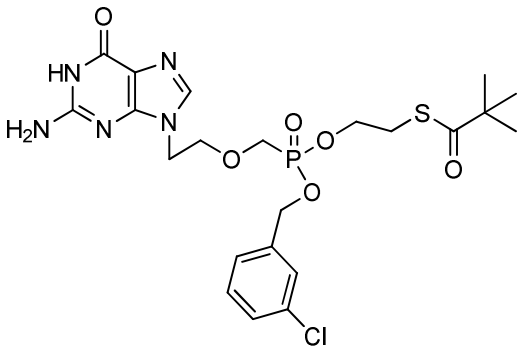
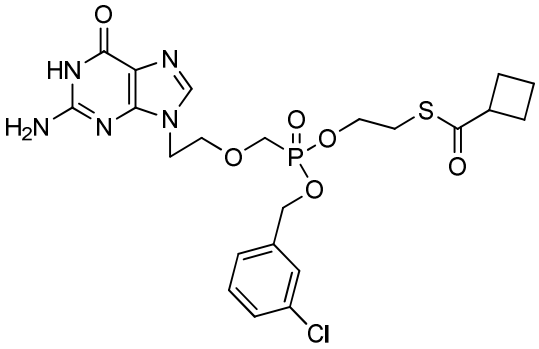
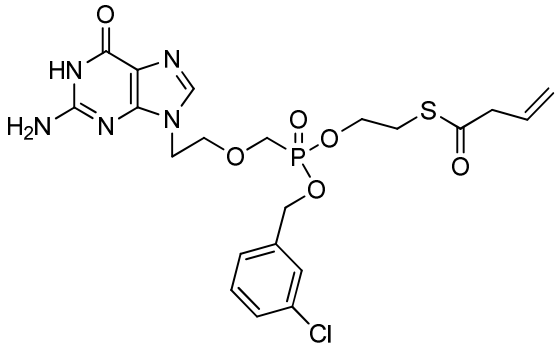
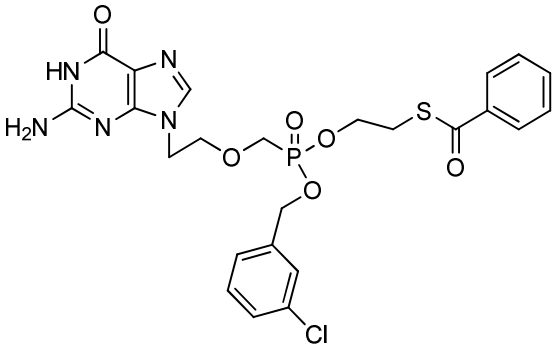


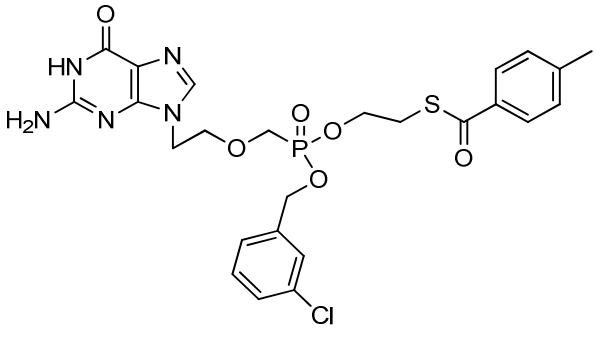
or a pharmaceutically acceptable salt thereof.

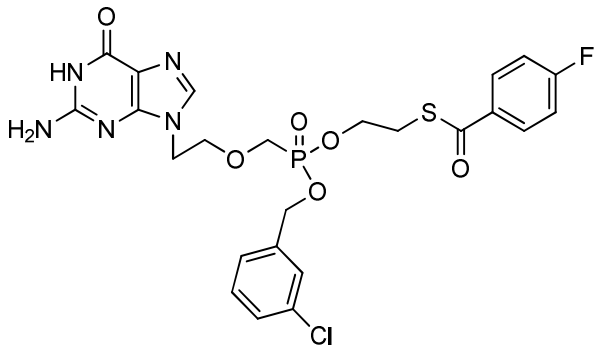
15. A compound selected from the group consisting of:

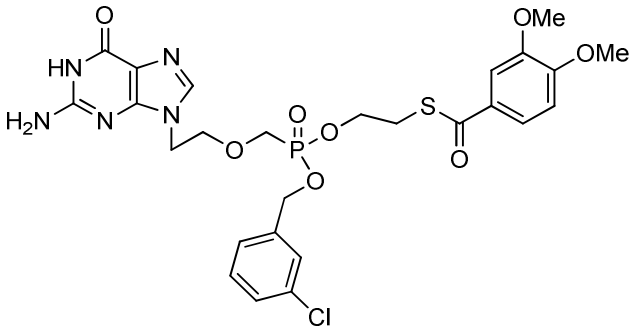


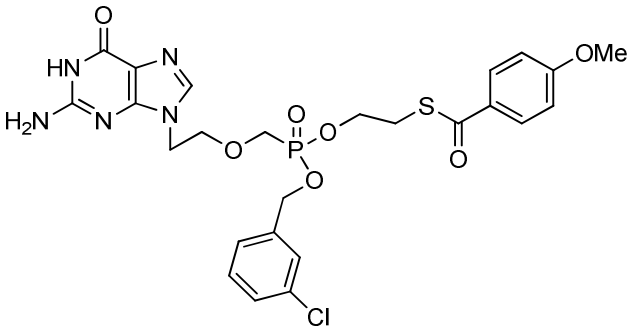


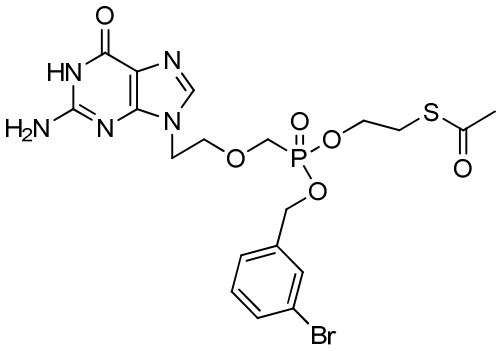


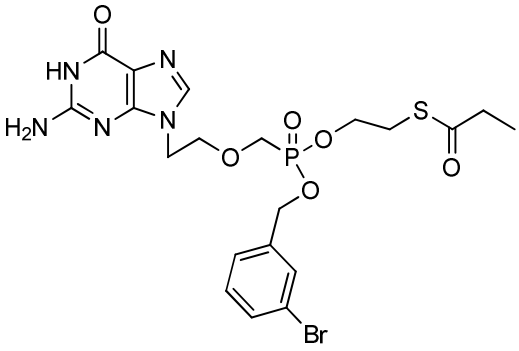


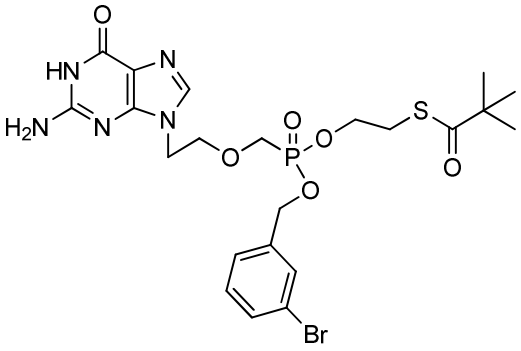


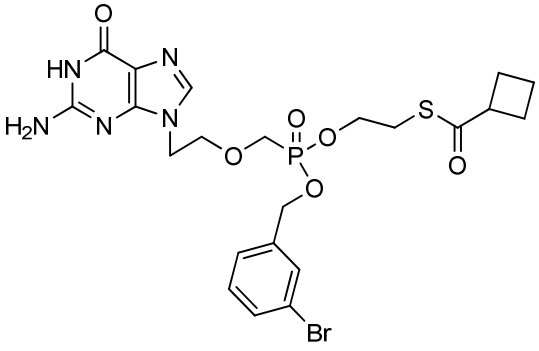


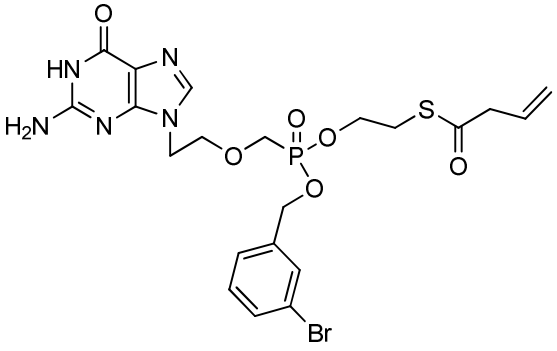


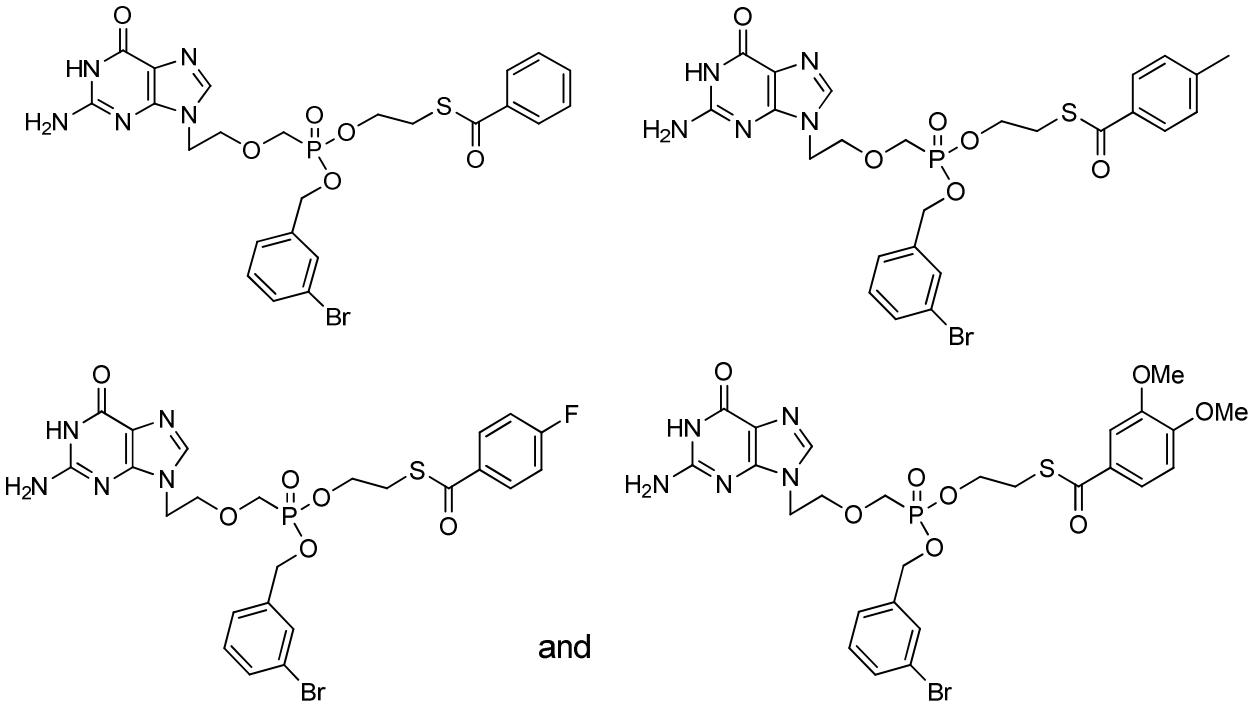






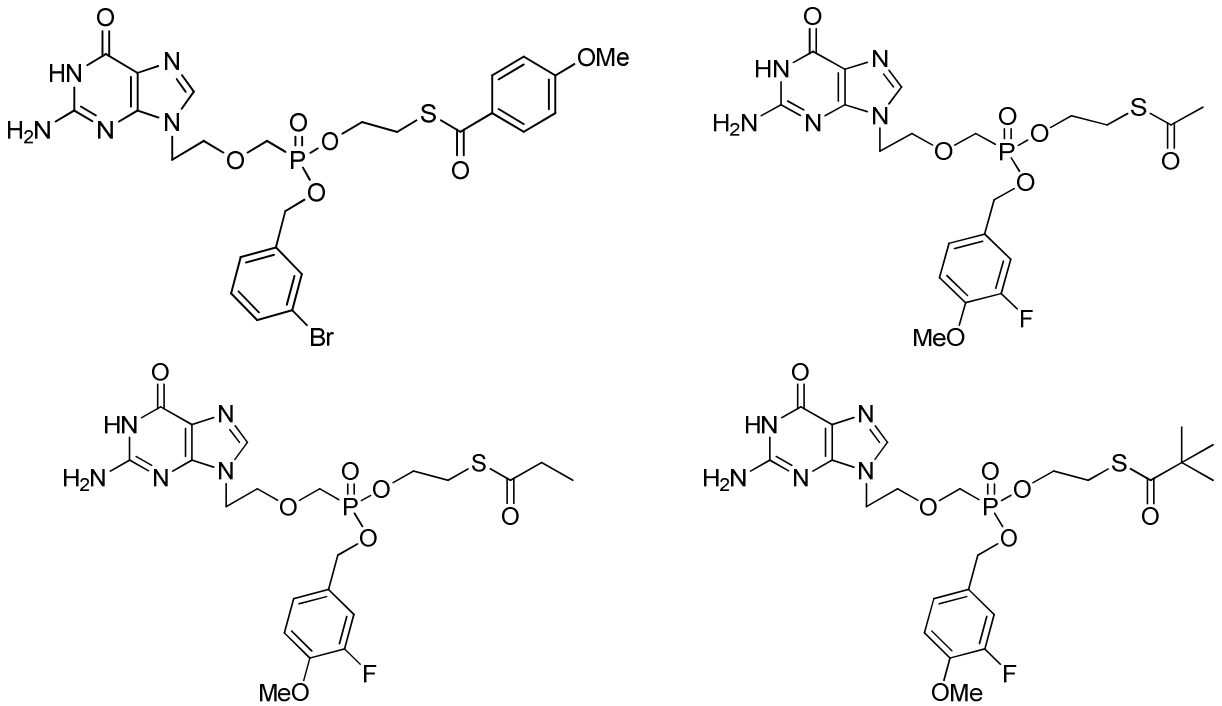


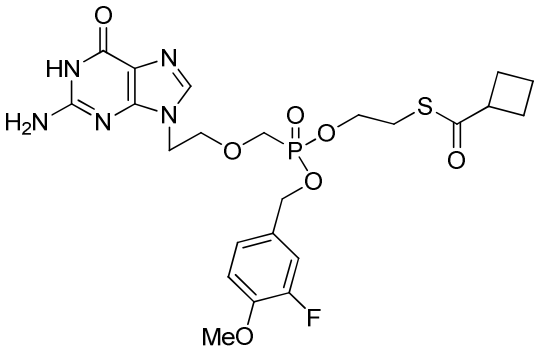


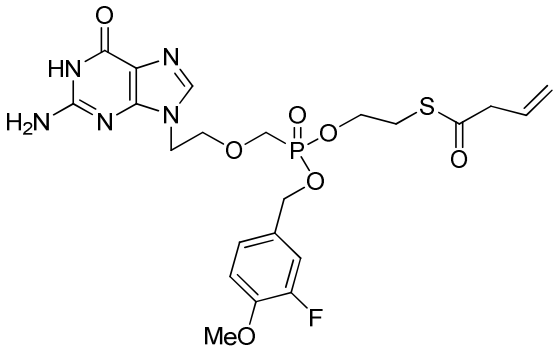


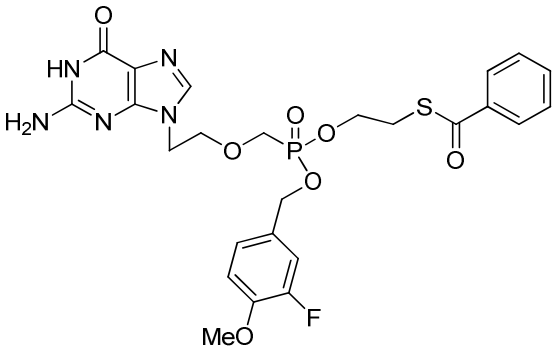
or a pharmaceutically acceptable salt thereof.

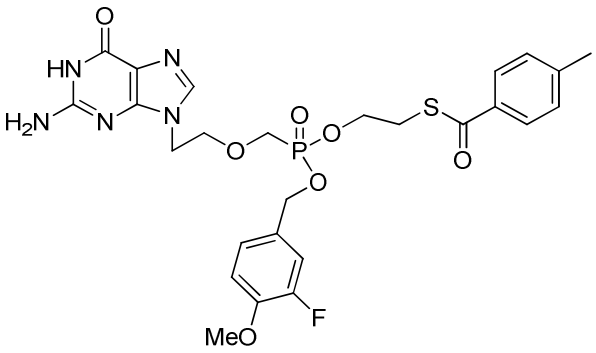
16. A compound selected from the group consisting of:

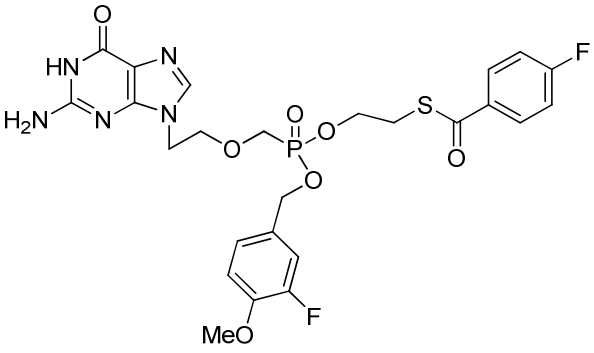


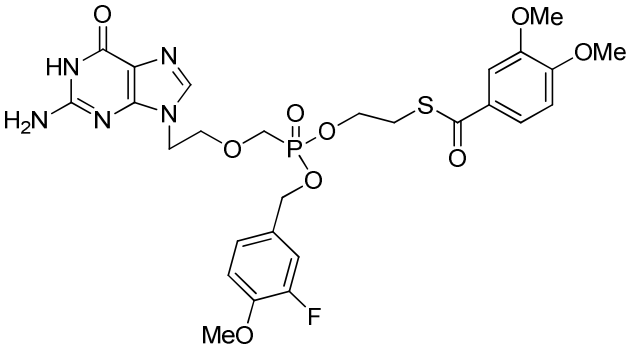


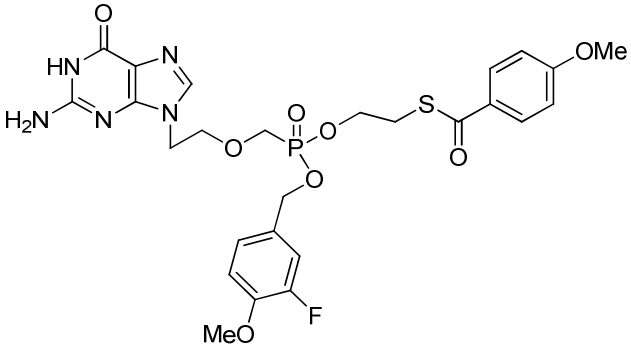


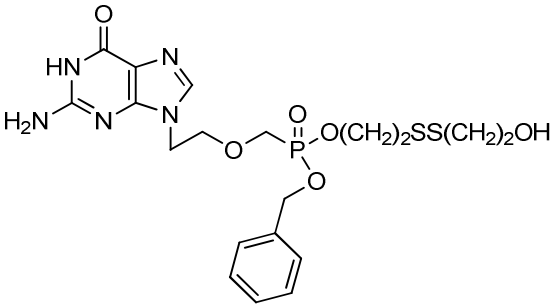


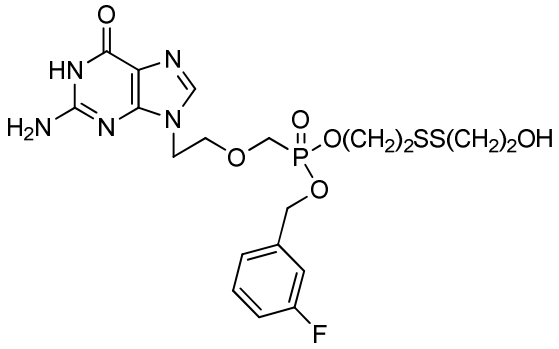


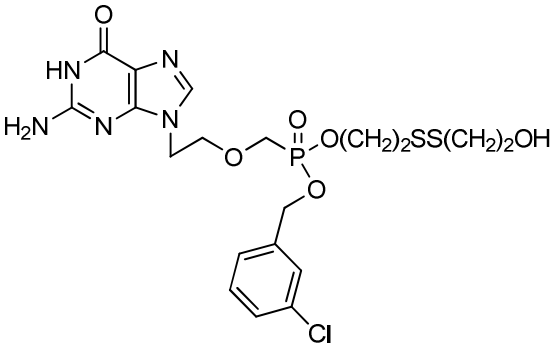


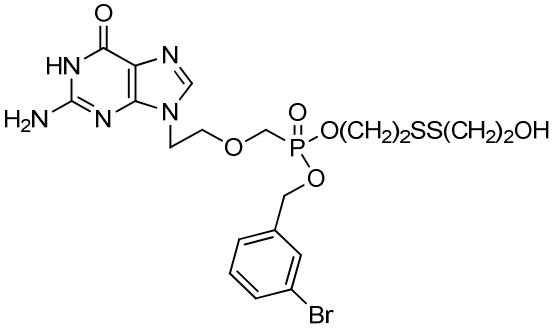












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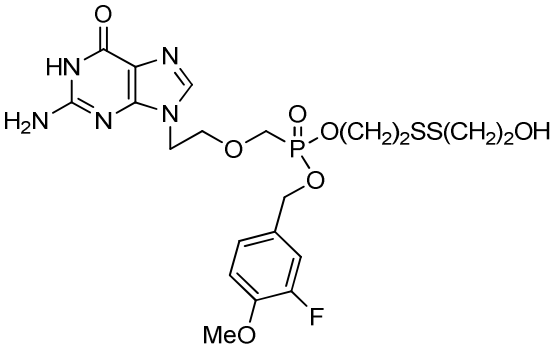
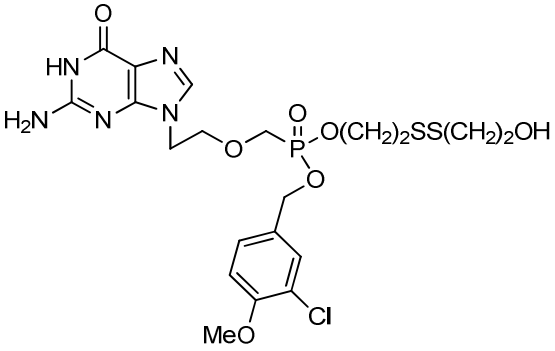
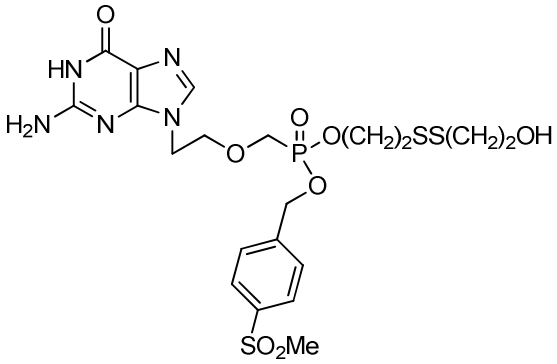
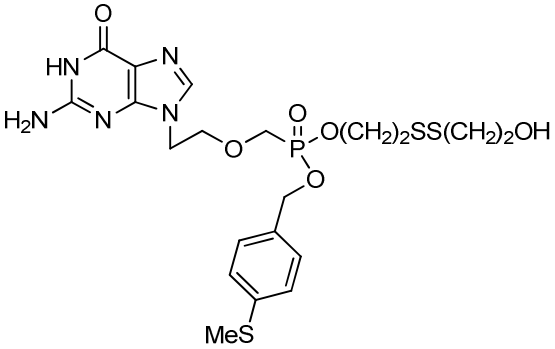


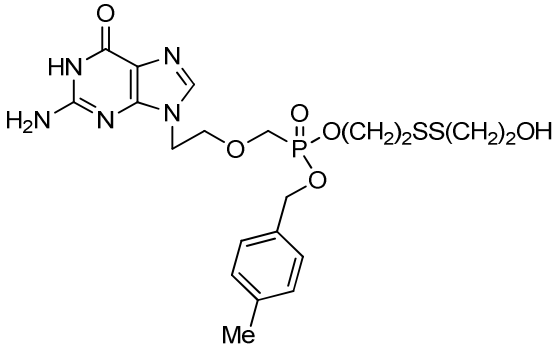
or a pharmaceutically acceptable salt thereof.

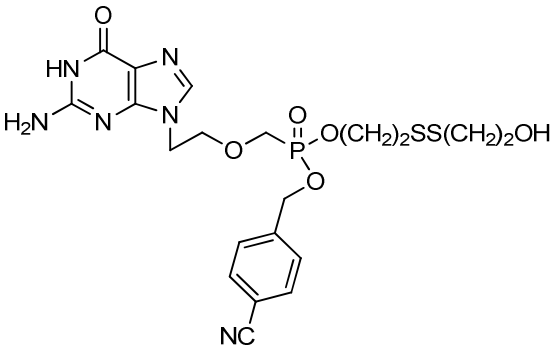
17. A compound selected from the group consisting of:

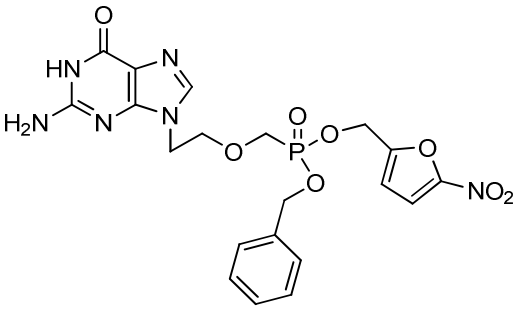


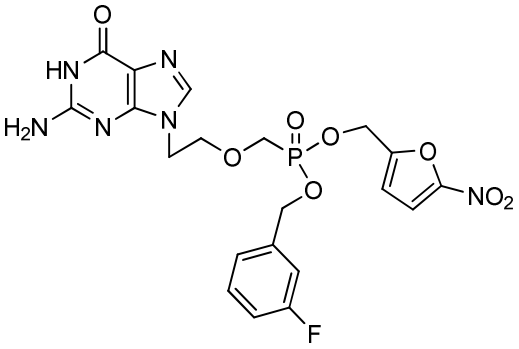


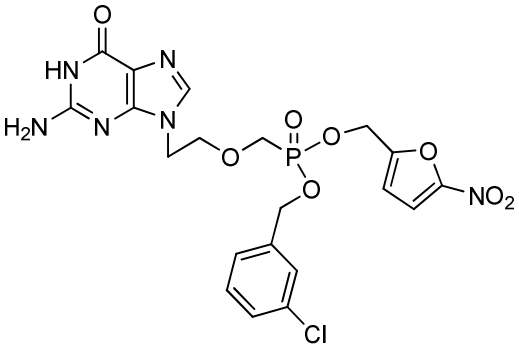


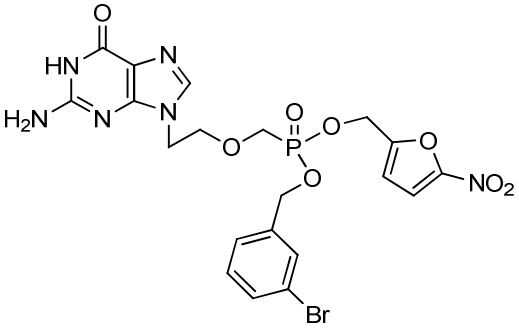


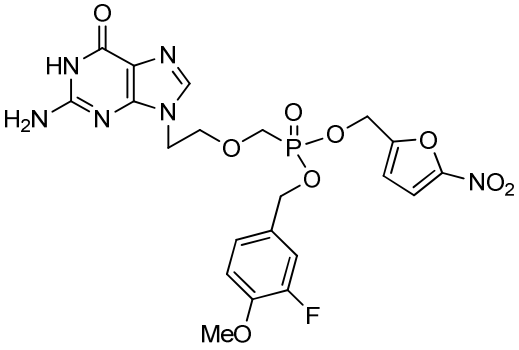


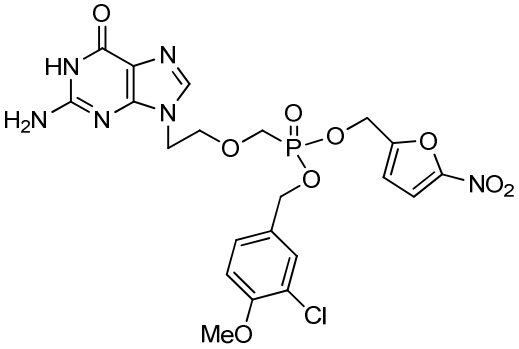


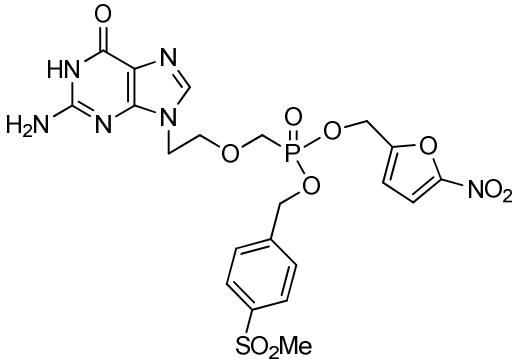


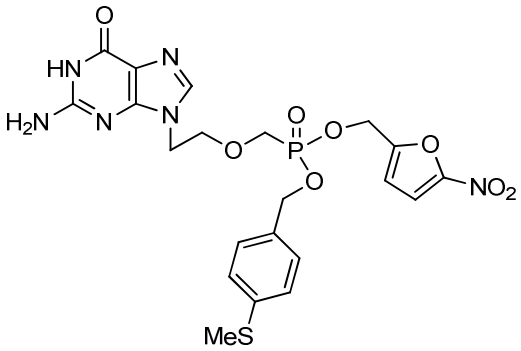


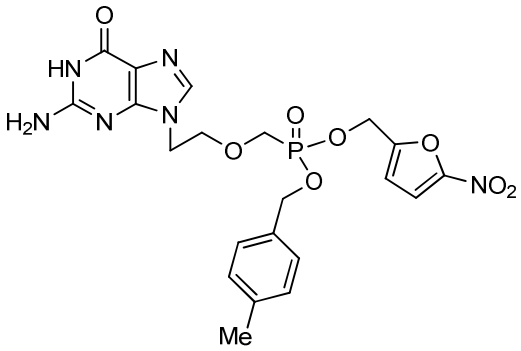


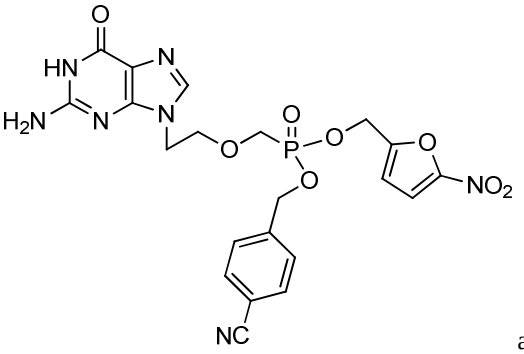












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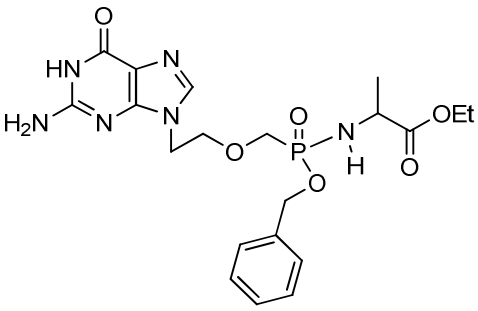
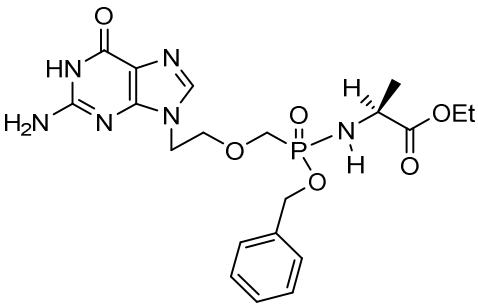


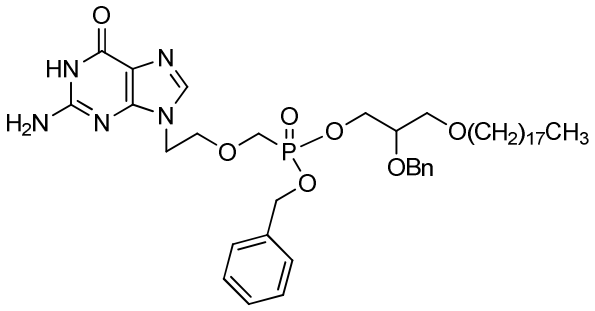
or a pharmaceutically acceptable salt thereof.

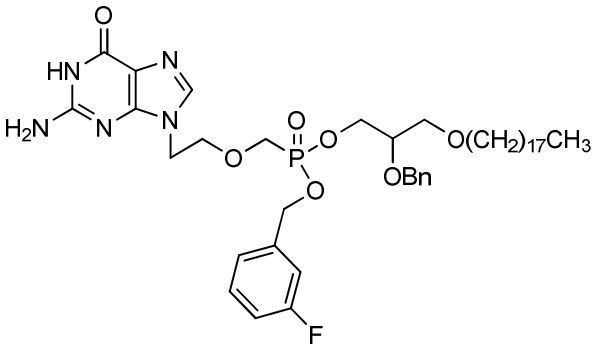
18. A compound selected from the group consisting of:

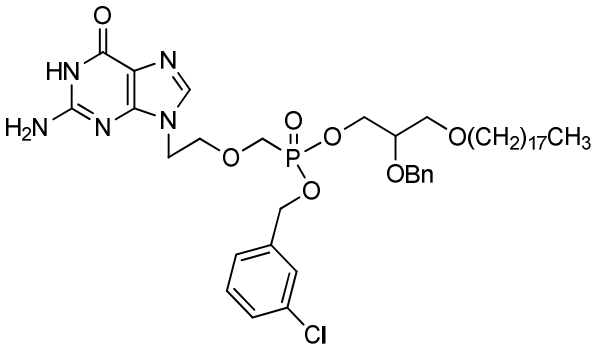


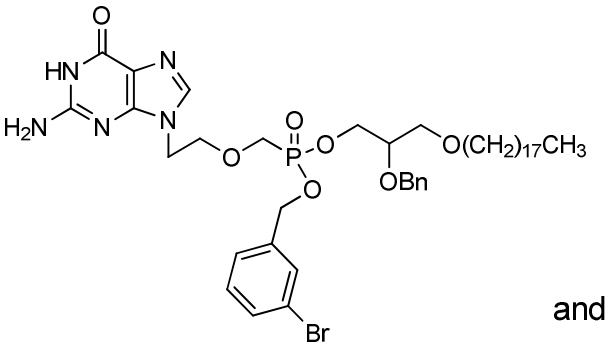
or a pharmaceutically acceptable salt thereof.

19. A compound selected from the group consisting of:









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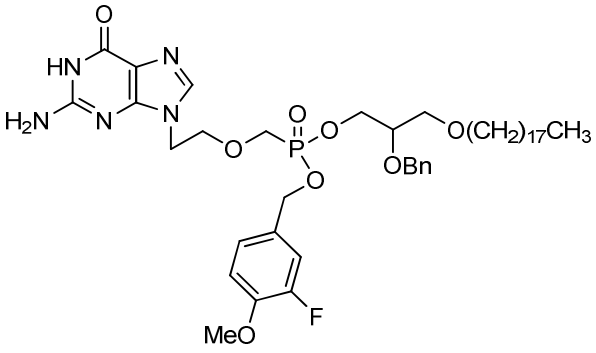
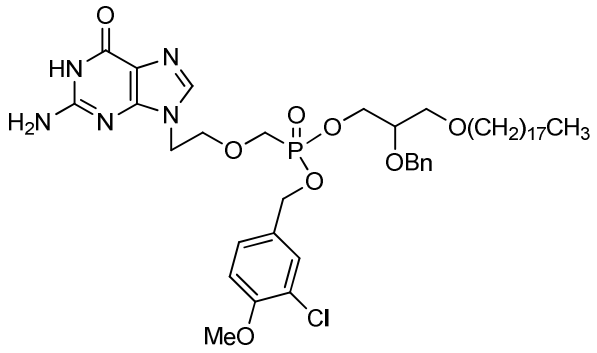
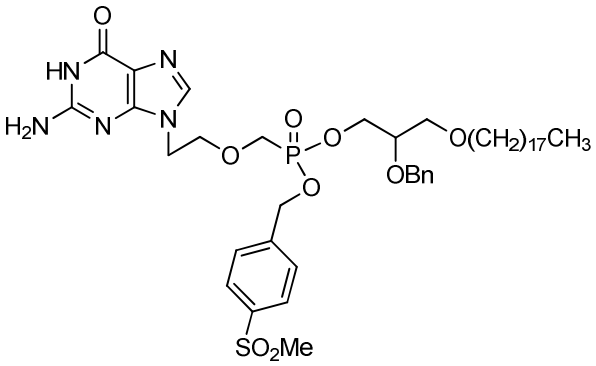
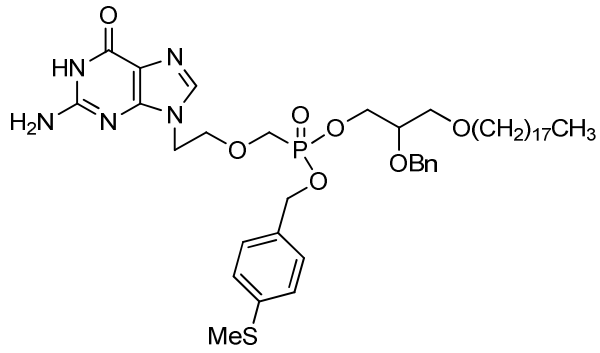


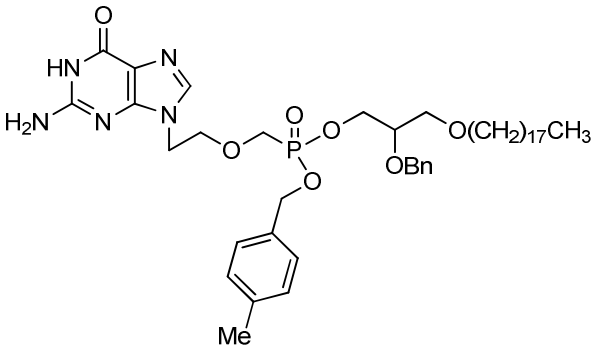
or a pharmaceutically acceptable salt thereof.

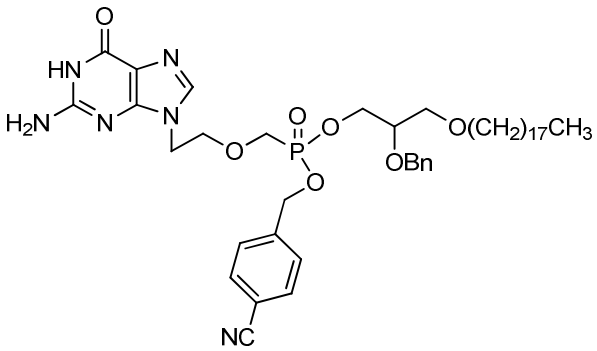
20. A compound selected from the group consisting of:

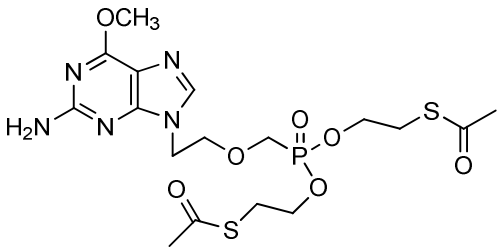


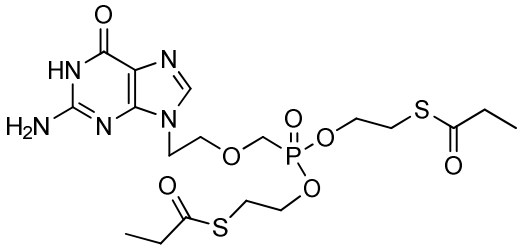


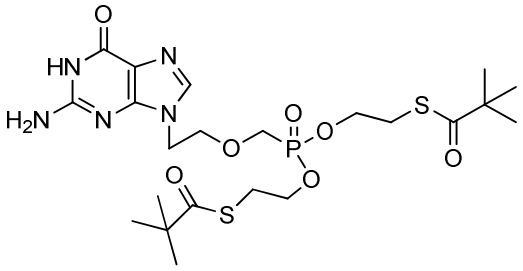


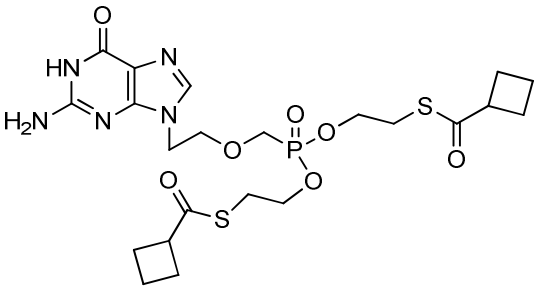


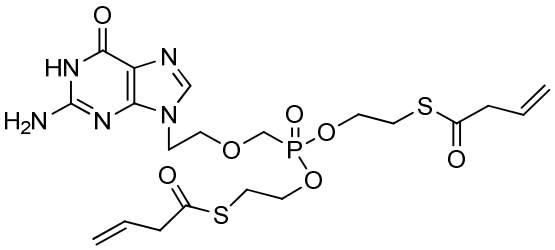


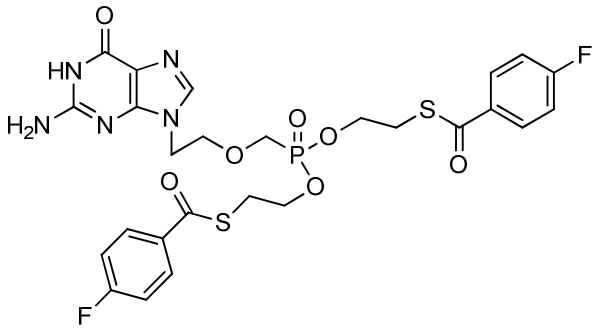


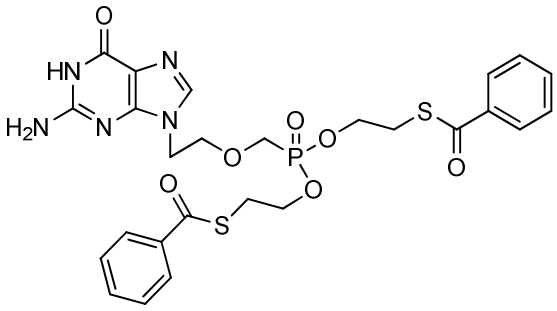


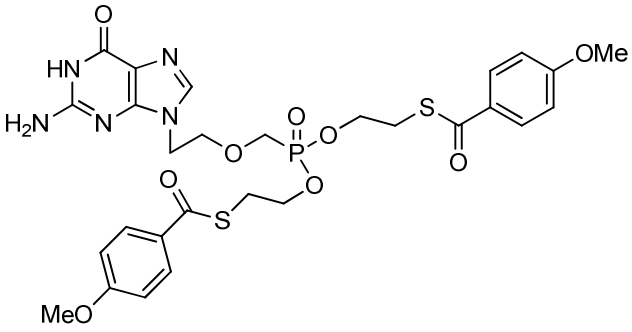


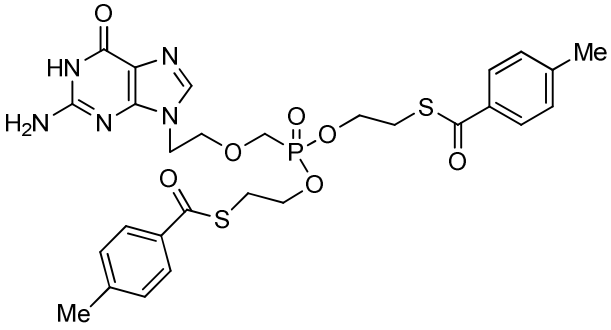


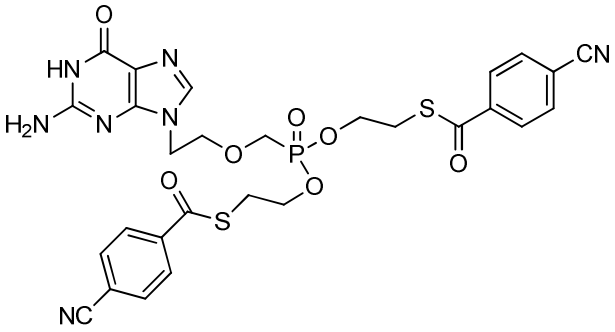


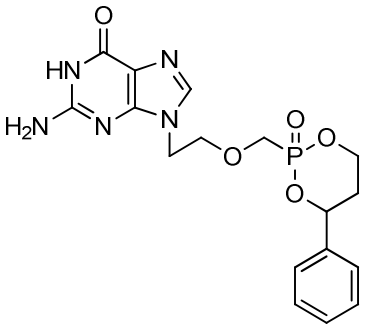


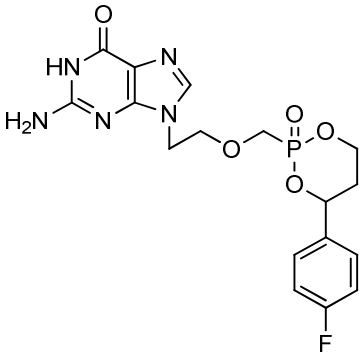




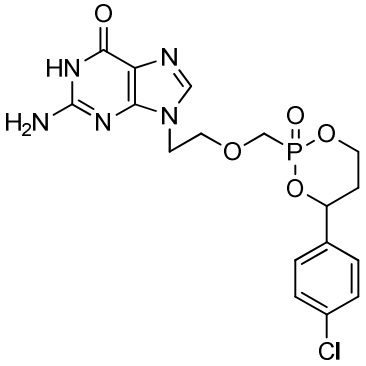






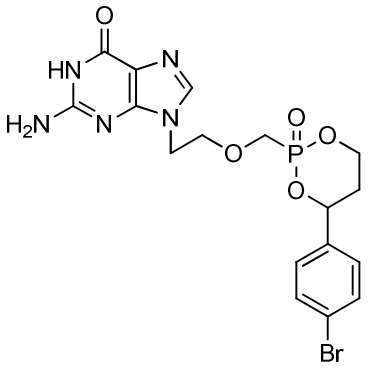
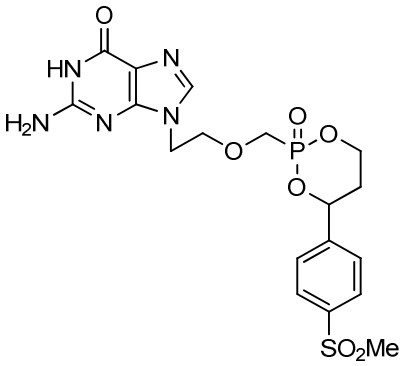
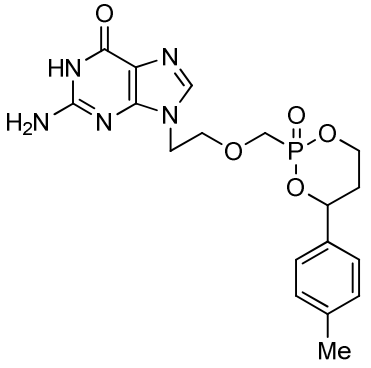
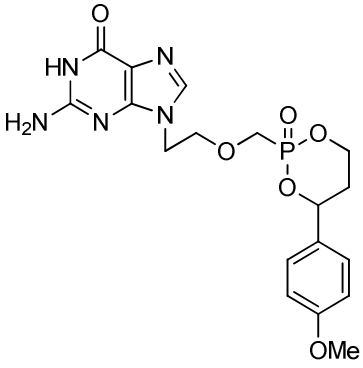
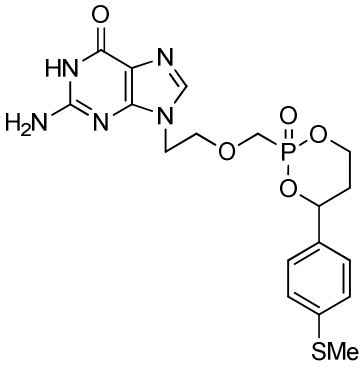
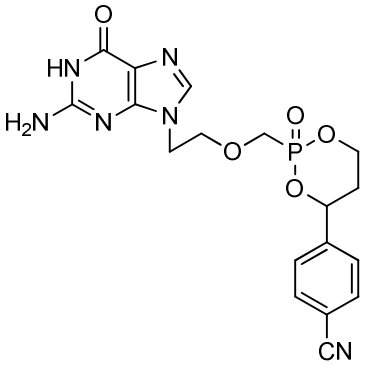
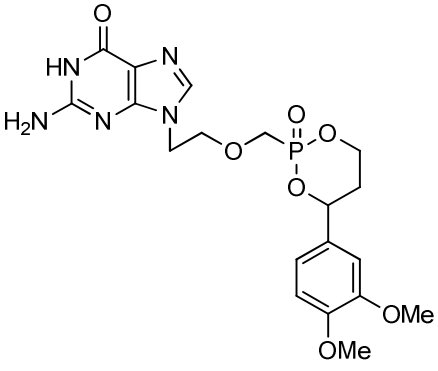
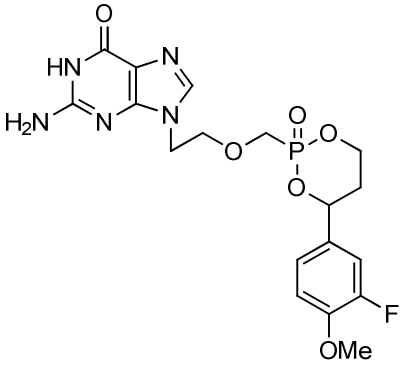


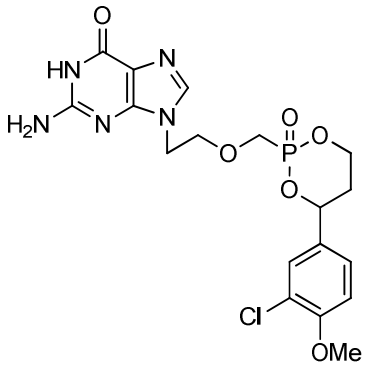
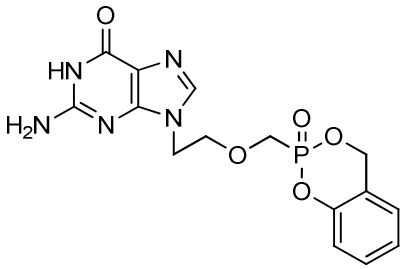
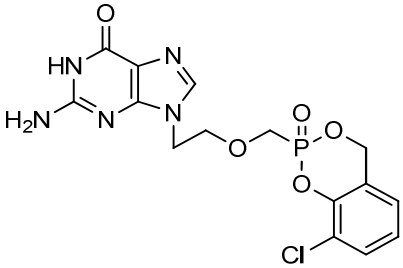
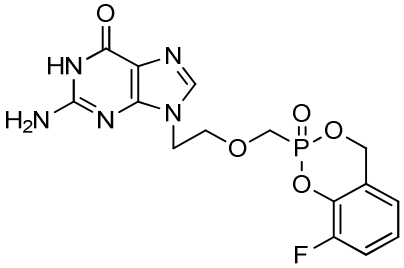
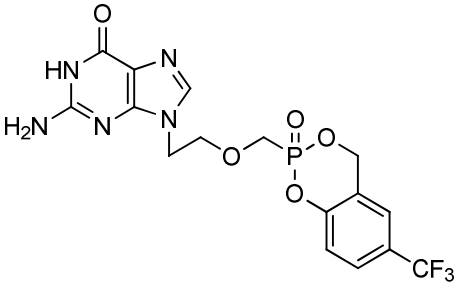
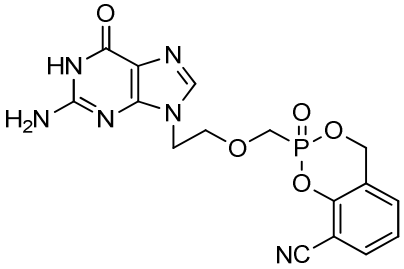
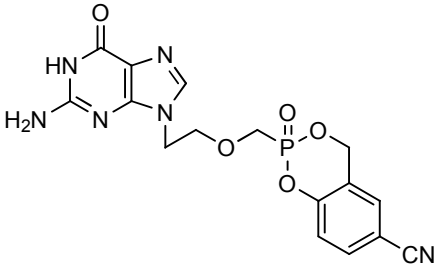
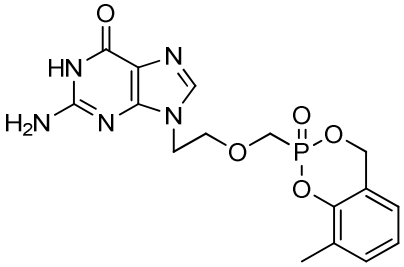
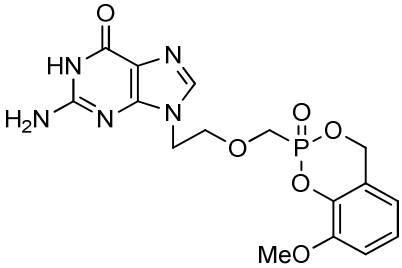
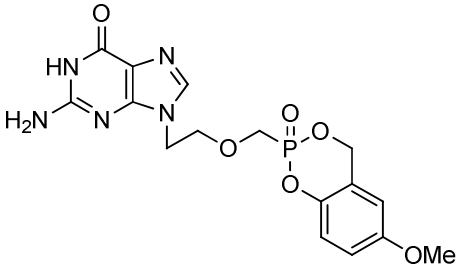
and



or a pharmaceutically acceptable salt thereof.

21. A compound selected from the group consisting of:

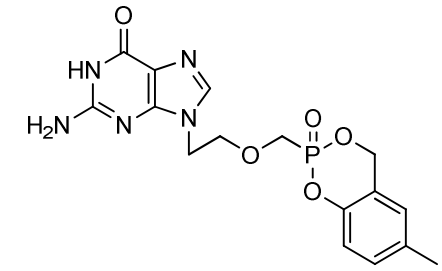









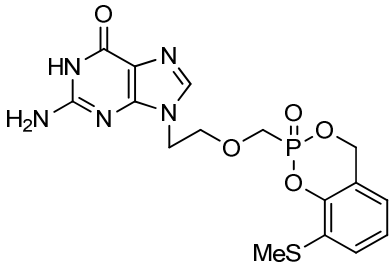











and

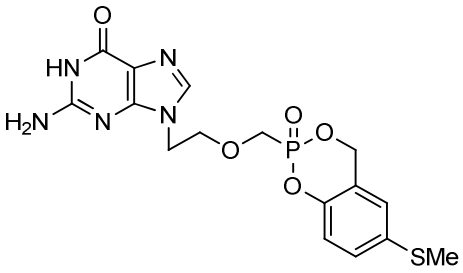
or a pharmaceutically acceptable salt thereof.

22. A compound selected from the group consisting of:



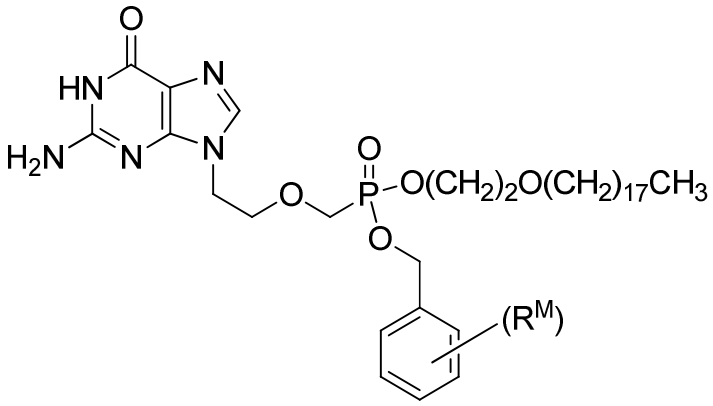


and



or a pharmaceutically acceptable salt thereof.

23. A compound selected from the group consisting of:



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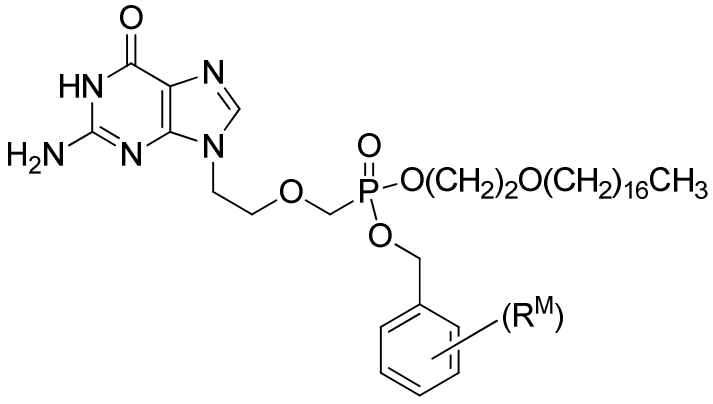

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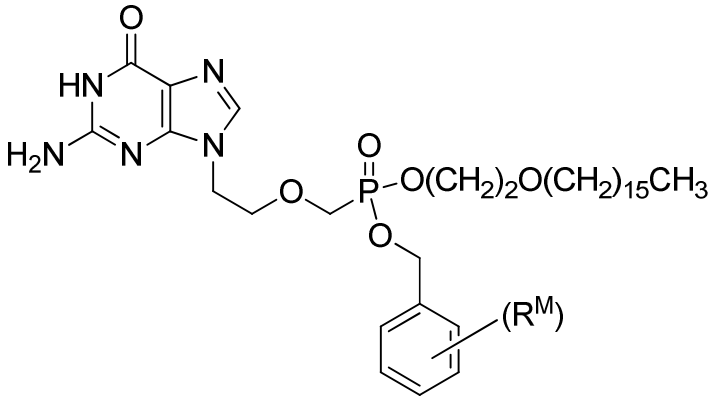
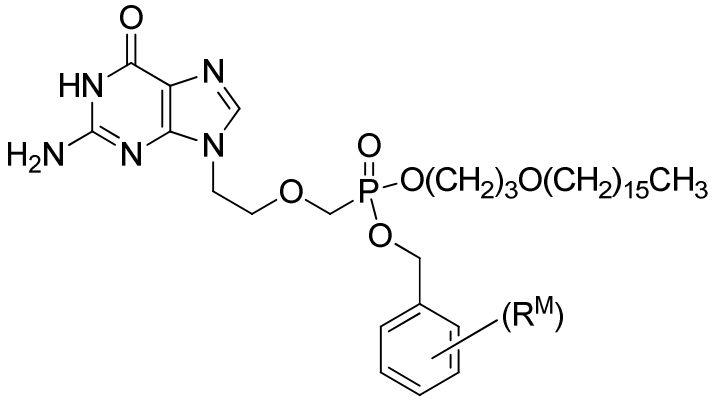
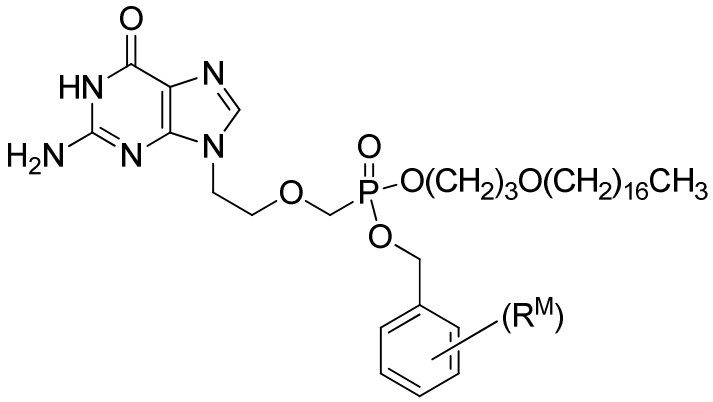
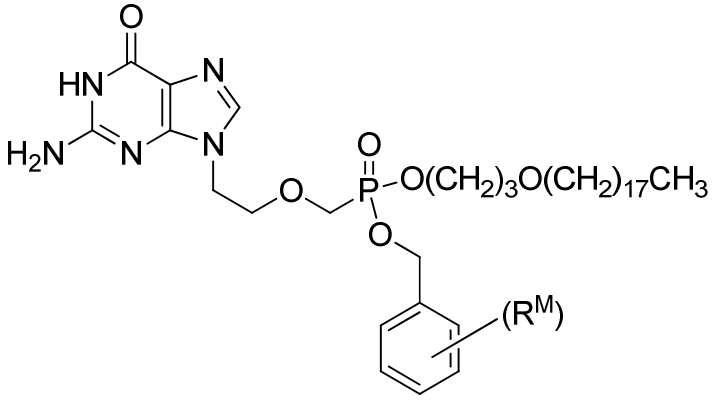

O
HN
N
H2N
N
N
O
O
P
O(CH2)2O(CH2)15CH3
O
(RM)
,

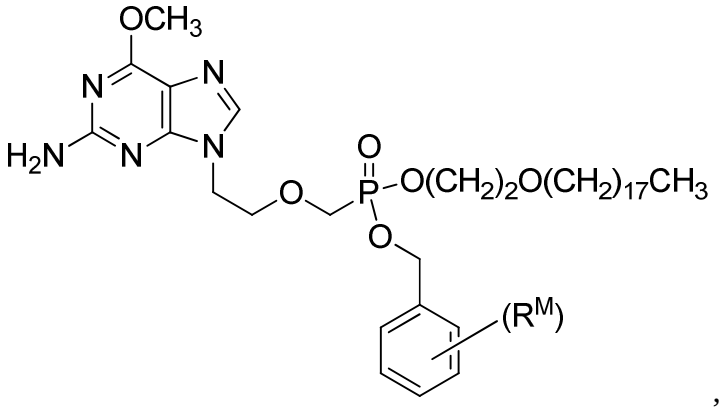

O
HN
N
H2N
N
N
O
O
P
O(CH2)3O(CH2)15CH3
O
(RM)
,


O
HN
N
H2N
N
N
O
O
P
O(CH2)3O(CH2)16CH3
O
(RM)
, and


O
HN
N
H2N
N
N
O
O
P
O(CH2)3O(CH2)17CH3
O
(RM)

wherein R^M is alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, heteroaryl, heterocyclyl, aryl(alkyl), heteroaryl(alkyl), (heterocyclyl)alkyl, hydroxy, alkoxy, acyl, cyano, halogen, thiocarbonyl, O-carbamyl, N-carbamyl, O-thiocarbamyl, N-thiocarbamyl, C-amido, N-amido, S-sulfonamido, N-sulfonamido, C-carboxy, O-carboxy, isocyanato, thiocyanato, isothiocyanato, nitro, azido, silyl, sulfenyl, sulfinyl, sulfonyl, haloalkyl, haloalkoxy, trihalomethanesulfonyl, trihalomethanesulfonamido, amino, mono-substituted amino group or a di-substituted amino group; and
the phenyl ring can be substituted by R^M 1, 2 or 3 times;
or a pharmaceutically acceptable salt thereof.

24. A compound selected from the group consisting of:



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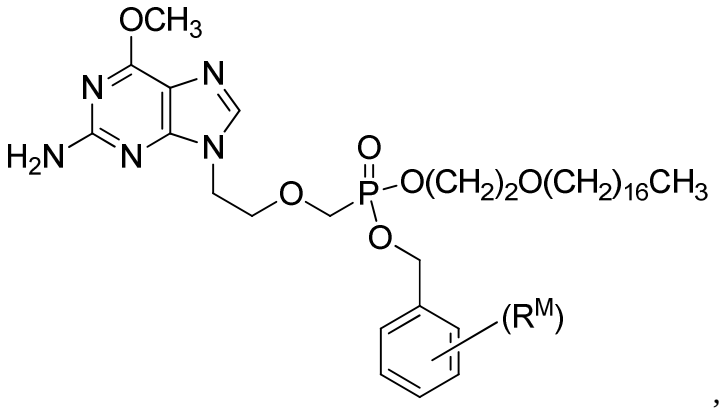

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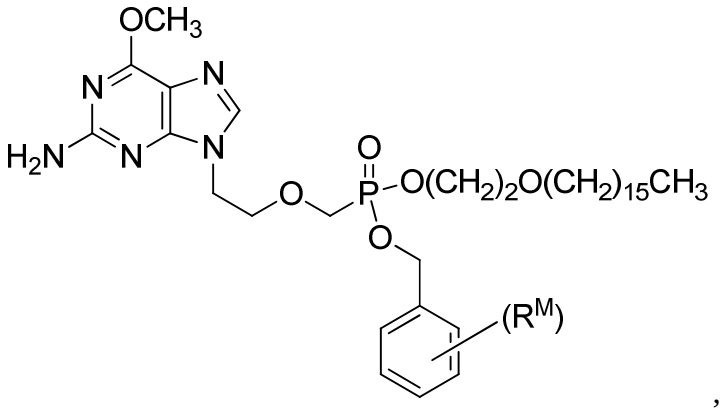
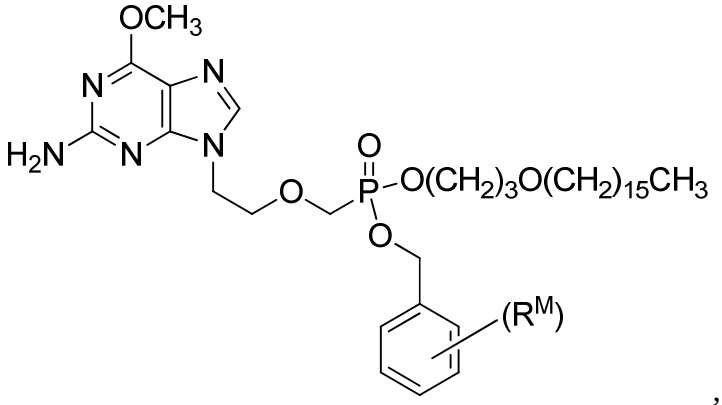

OCH3
N
N
N
N
H2N
O
P
O(CH2)2O(CH2)15CH3
O
(RM)
,


OCH3
N
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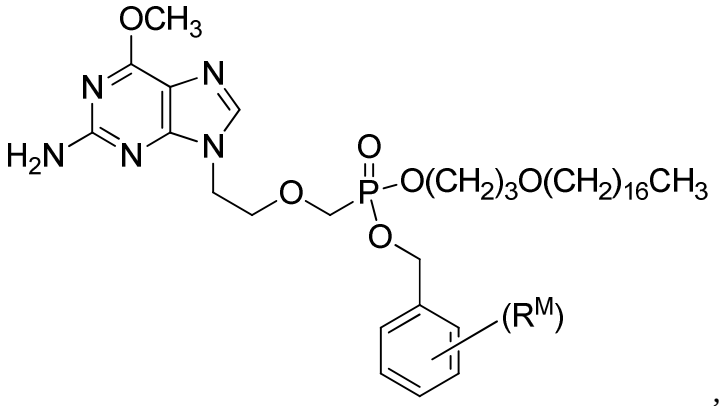
N
N
H2N
O
P
O(CH2)3O(CH2)15CH3
O
(RM)
,


OCH3
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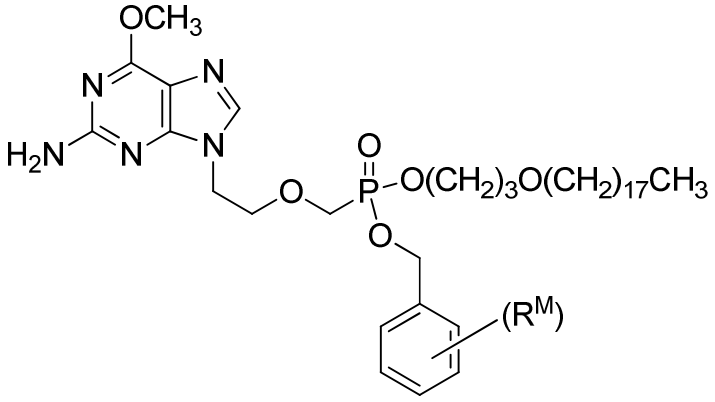
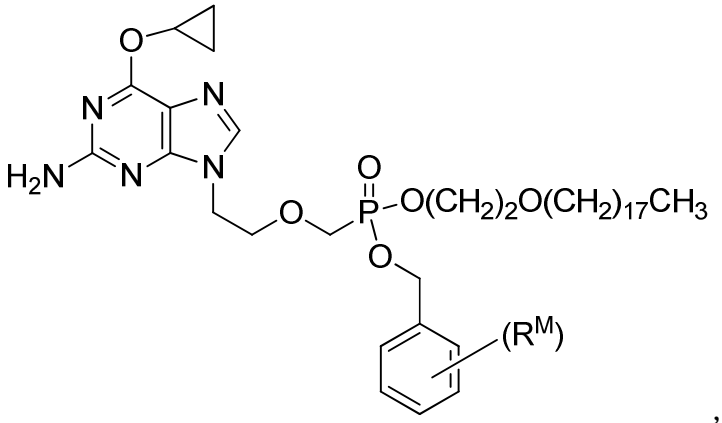
N
H2N
O
P
O(CH2)3O(CH2)16CH3
O
(RM)
,


OCH3
N
N
N
N
H2N
O
P
O(CH2)3O(CH2)17CH3
O
(RM)

wherein R^M is alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, heteroaryl, heterocyclyl, aryl(alkyl), heteroaryl(alkyl), (heterocyclyl)alkyl, hydroxy, alkoxy, acyl, cyano, halogen, thiocarbonyl, O-carbamyl, N-carbamyl, O-thiocarbamyl, N-thiocarbamyl, C-amido, N-amido, S-sulfonamido, N-sulfonamido, C-carboxy, O-carboxy, isocyanato, thiocyanato, isothiocyanato, nitro, azido, silyl, sulfenyl, sulfinyl, sulfonyl, haloalkyl, haloalkoxy, trihalomethanesulfonyl, trihalomethanesulfonamido, amino, mono-substituted amino group or a di-substituted amino group; and
the phenyl ring can be substituted by R^M 1, 2 or 3 times;
or a pharmaceutically acceptable salt thereof.

25. A compound selected from the group consisting of:



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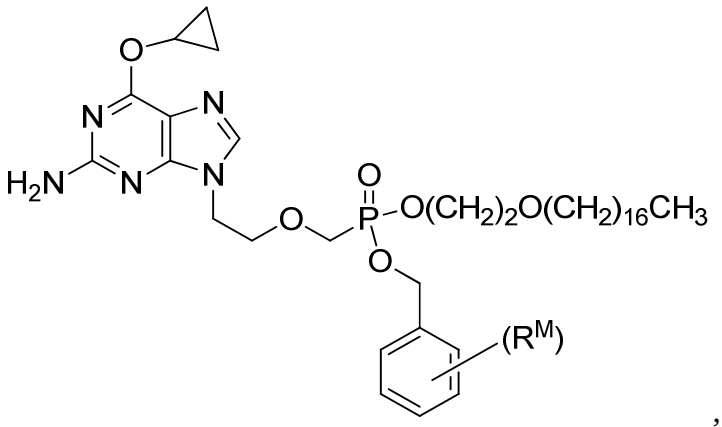

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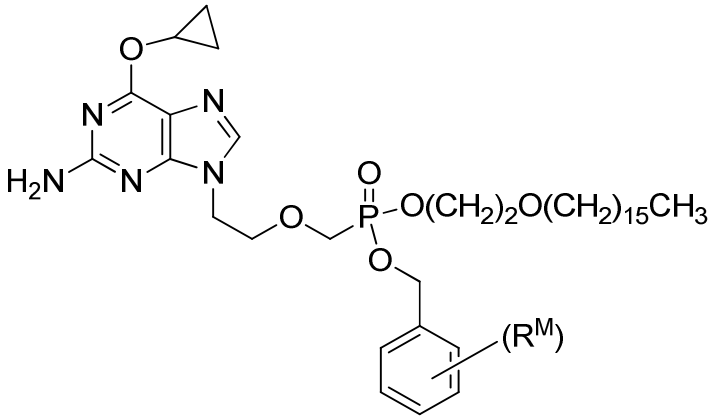
O
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H2N
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O
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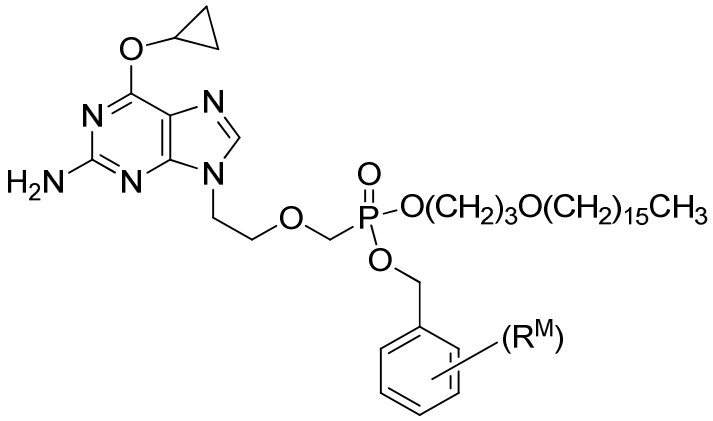
O(CH2)2O(CH2)15CH3
O
(RM)

,


O
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H2N
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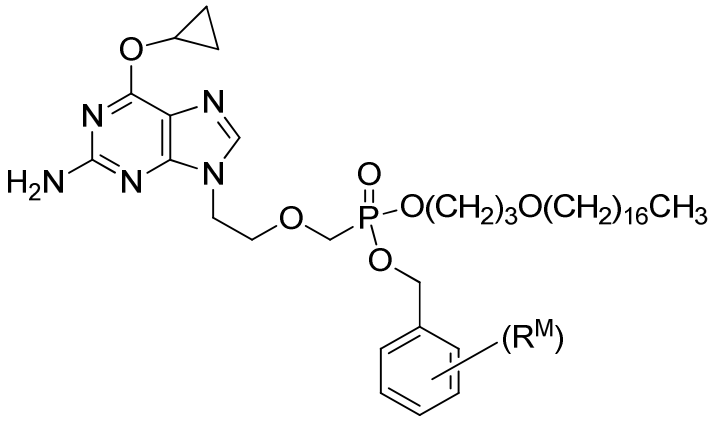
O
P
O(CH2)3O(CH2)15CH3
O
(RM)

,


O
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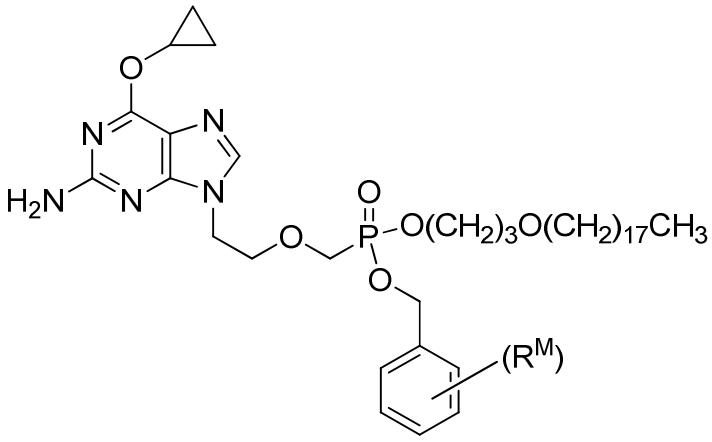
N
H2N
N
N
O
P
O(CH2)3O(CH2)16CH3
O
(RM)

, and



wherein R^M is alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, heteroaryl, heterocyclyl, aryl(alkyl), heteroaryl(alkyl), (heterocyclyl)alkyl, hydroxy, alkoxy, acyl, cyano, halogen, thiocarbonyl, O-carbamyl, N-carbamyl, O-thiocarbamyl, N-thiocarbamyl, C-amido, N-amido, S-sulfonamido, N-sulfonamido, C-carboxy, O-carboxy, isocyanato, thiocyanato, isothiocyanato, nitro, azido, silyl, sulfenyl, sulfinyl, sulfonyl, haloalkyl, haloalkoxy, trihalomethanesulfonyl, trihalomethanesulfonamido, amino, mono-substituted amino group or a di-substituted amino group; and
the phenyl ring can be substituted by R^M 1, 2 or 3 times;
or a pharmaceutically acceptable salt thereof.

26. A pharmaceutical composition, comprising an effective amount of a compound of any of claims 1-18, 19-25, 39-44, 43-53, 54, and 61-64, in a pharmaceutically acceptable carrier.

27. The pharmaceutical composition of claim 26, wherein the composition is suitable for topical delivery.

28. Use of a compound of any of claims 1-18, 19-25, 39-44, 45-53, 54, and 61-64, or a pharmaceutically acceptable salt thereof, optionally in a pharmaceutically acceptable carrier for manufacturing a medicament for the treatment of human papillomavirus in a host infected thereof.

29. The use of claim 28, wherein the human papillomavirus is selected from the group consisting of HPV-16, HPV-18, HPV-31, HPV-33, HPV-35, HPV-39, and HPV-45.

30. The use of claim 28, wherein the human papillomavirus is selected from the group consisting of HPV-51, HPV-52, HPV-56, HPV-58, HPV-59, HPV-68, HPV-73, and HPV-82.

31. The use of claim 29, wherein the human papillomavirus is HPV-16.

32. The use of claim 29, wherein the human papillomavirus is HPV-18.

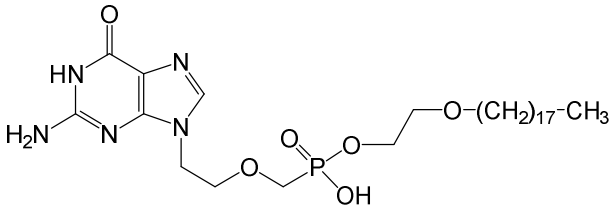
33. The use of claim 28, wherein the host is a human.

34. The use of claim 29, wherein the host is a human.

35. The use of claim 30, wherein the host is a human.

36. The use of claim 31, wherein the host is a human.

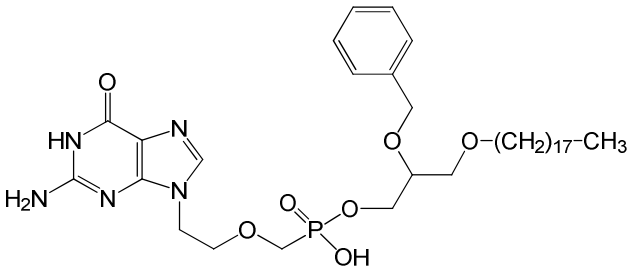
37. Use of a compound having the structure:



,

or its pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treatment of a papillomavirus infection.

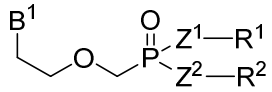
38. Use of a compound having the structure:



,

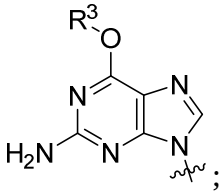
or its pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treatment of a papillomavirus infection.

39. A compound of Formula (I)



or a pharmaceutically acceptable salt thereof;

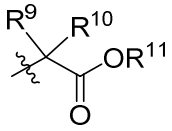
wherein

B^1 is ;

Z^1 and Z^2 are independently selected from oxygen and NR^Z;

R^Z is hydrogen or C_{1-4}alkyl;

R^1 is selected from C_{1-24}alkyl, C_{2-24}alkenyl, -$(CHR^4)_a$-O-C_{1-24}alkyl,



-$(CHR^4)_b$-O-C_{2-24}alkenyl, aryl, aryl(C_{1-4}alkyl)-, heteroaryl, and ;

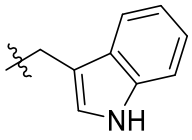
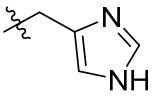
R^2 is aryl(C_{1-4}alkyl)-;

R^3 is selected from C_{1-6}alkyl and C_{3-6}cycloalkyl;

R^4 is selected from hydrogen, -$(CH_2)_c$-S-C_{1-24}alkyl and –O-$(CH_2)_d$-R^{4A};

R^{4A} is selected from hydrogen, C_{1-24}alkyl, and aryl;

R^9 is selected from hydrogen and C_1-$_6$alkyl;

R^{10} is selected from hydrogen, C_1-$_6$alkyl, -CH_2SH, -$CH_2CH_2(C=O)NH_2$, -$CH_2CH_2SCH_3$, -CH_2-phenyl, -CH_2OH, -$CH(OH)CH_3$, , -$CH_2(C=O)OH$, -$CH_2CH_2(C=O)OH$, -$(CH_2)_3NH(C=NH)NH_2$, , and –$(CH_2)_4NH_2$;

R^{11} is selected from hydrogen, C_{1-8}alkyl, cycloalkyl, aryl, and aryl(C_{1-6}alkyl)-;

a and b are independently selected from 1, 2, 3, and 4; and

c and d are independently selected from 0, 1, 2, and 3.

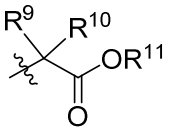
40. The compound of claim 39, wherein R^3 is methyl.

41. The compound of claim 39 or 40, wherein Z^1 is oxygen and Z^2 is oxygen.

42. The compound of claim 39 or 40,
wherein
Z^1 is oxygen;
Z^2 is NR^Z; and
R^Z is hydrogen.

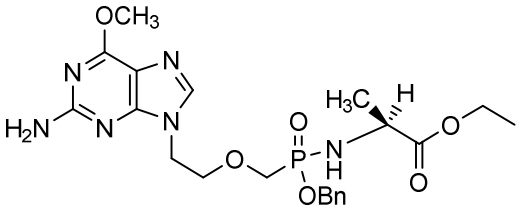
43. The compound of claim 39, 40, 41, or 42
wherein
R^1 is $-(CHR^4)_a-O-C_{1-24}$alkyl;
R^4 is hydrogen; and
a is 2.

44. The compound of claim 39, 40, 41, 42, or 43, wherein R^2 is benzyl.

45. The compound of claim 39, 40, 42, or 44
wherein
R^1 is 

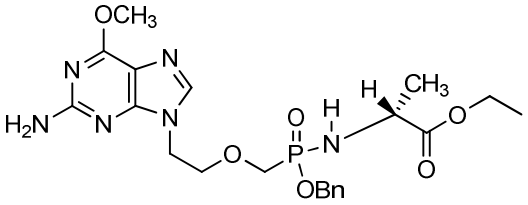
;
R^9 is hydrogen;
R^{10} is methyl; and
R^{11} is methyl or ethyl.

46. The compound of claim 39 of the structure:



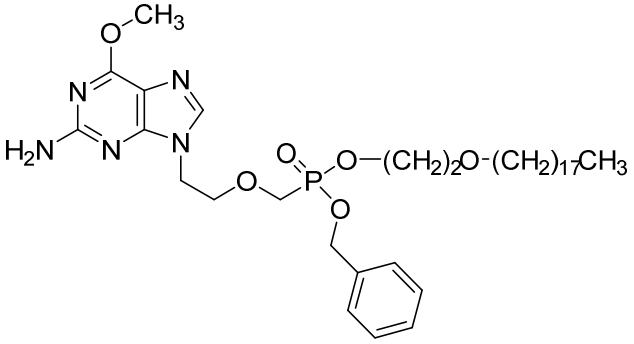
or a pharmaceutically acceptable salt thereof.

47. The compound of claim 39 of the structure:



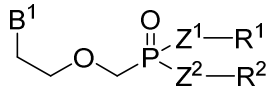
or a pharmaceutically acceptable salt thereof.

48. The compound of claim 39 of the structure:



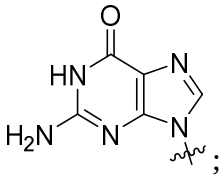
or a pharmaceutically acceptable salt thereof.

49. A compound of Formula (I)



or a pharmaceutically acceptable salt thereof;

wherein

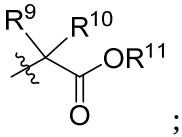
B^1 is ;

Z^1 is oxygen;

Z^2 is NR^Z;

R^Z is hydrogen or C_{1-4}alkyl;

R^1 is selected from C_{2-24}alkenyl, -$(CHR^4)_a$-O-C_{1-24}alkyl,

-$(CHR^4)_b$-O-C_{2-24}alkenyl, heteroaryl, and ;

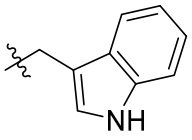
R^2 is aryl(C_{1-4}alkyl)- ;

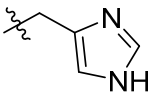
R^4 is selected from hydrogen, -$(CH_2)_c$-S-C_{1-24}alkyl and –O-$(CH_2)_d$-R^{4A};

R^{4A} is selected from hydrogen, C_{1-24}alkyl and aryl;

R^9 is selected from hydrogen and C_1-$_6$alkyl;

R^{10} is selected from hydrogen, C_1-$_6$alkyl, -CH_2SH, -$CH_2CH_2(C=O)NH_2$, -$CH_2CH_2SCH_3$,

-CH_2-phenyl, -CH_2OH, -$CH(OH)CH_3$, , -$CH_2(C=O)OH$, -$CH_2CH_2(C=O)OH$,

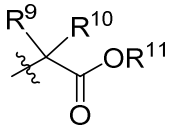
-$(CH_2)_3NH(C=NH)NH_2$, , and –$(CH_2)_4NH_2$;

R^{11} is selected from hydrogen, C_{1-8}alkyl, cycloalkyl, aryl, and aryl(C_{1-6}alkyl)-;

a and b are independently selected from 1, 2, 3, and 4; and

c and d are independently selected from 0, 1, 2, and 3.

50. The compound of claim 49, wherein R^Z is hydrogen.

51. The compound of claim 49 or 50, wherein R^1 is .

52. The compound of claim 51,

wherein

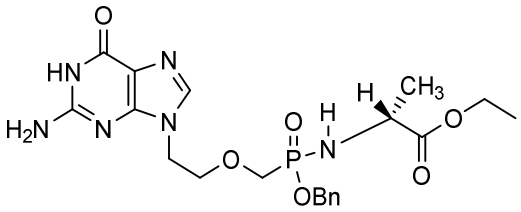
R^9 is hydrogen;

R^{10} is methyl; and

R^{11} is methyl or ethyl.

53. The compound of claim 49, 50, 51, or 52, wherein R^2 is benzyl.

54. The compound of claim 49 of the structure:



or a pharmaceutically acceptable salt thereof.

55. The use of claim 29, wherein the human papillomavirus is HPV-52.

56. The use of claim 29, wherein the human papillomavirus is HPV-58.

57. The pharmaceutical composition of claim 26, wherein the composition is administered as a suppository.

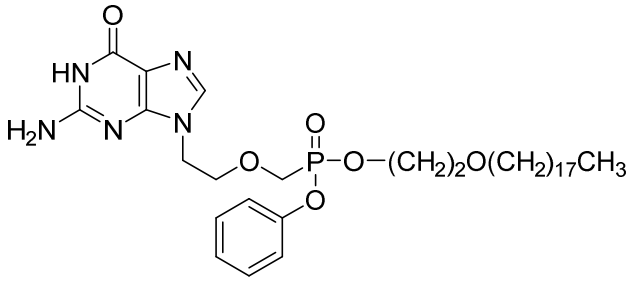
58. The pharmaceutical composition of claim 57, wherein the suppository is an intravaginal ring.

59. Use of a compound of any of 1-18, 19-25, 39-44, 45-53, 54, and 61-64 or a pharmaceutically acceptable salt thereof, optionally in a pharmaceutically acceptable carrier for manufacturing a medicament for the treatment of cervical, rectal, penile, vaginal, or oropharyngeal cancer.

60. Use of a compound of any of 1-18, 19-25, 39-44, 45-53, 54, and 61-64 or a pharmaceutically acceptable salt thereof, optionally in a pharmaceutically acceptable

carrier for manufacturing a medicament for the treatment of cervical intraepithelial neoplasia, vaginal intraepithelial neoplasia, or anal intraepithelial neoplasia.

61. A deuterium isotope of the compound of the formula:

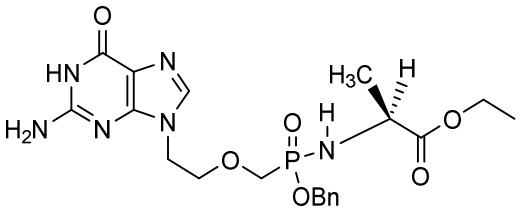


wherein at least one hydrogen-1 has been replaced with a hydrogen-2 (deuterium).

62. The deuterium isotope of the compound of claim 61 which has greater metabolic stability than its undeuterated analog.

63. The deuterium isotope of the compound of claim 61 which has increased in vivo half-life compared to it undeuterated analog.

64. The compound of claim 49 of the structure



or a pharmaceutically acceptable salt thereof.