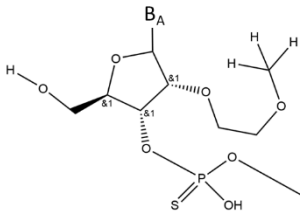
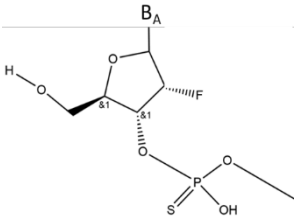
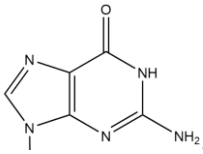
CLAIMS

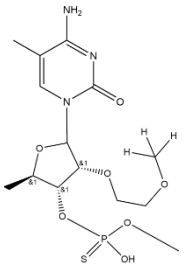
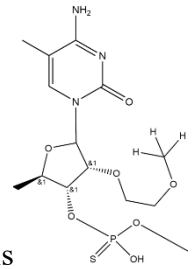
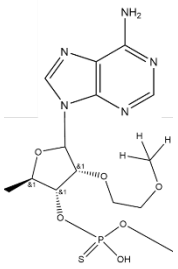
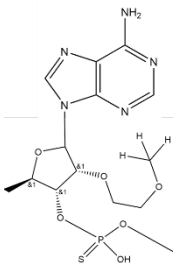
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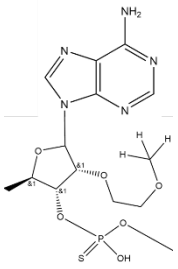
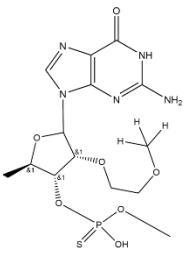
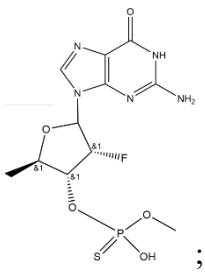
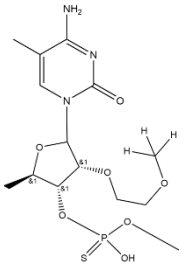
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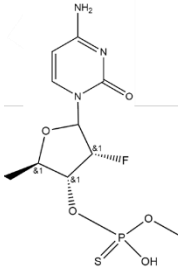
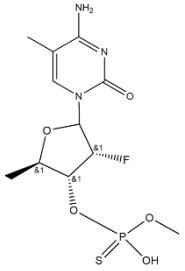
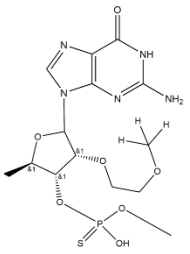
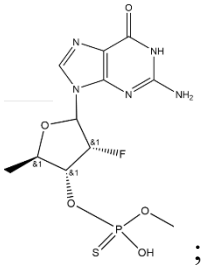
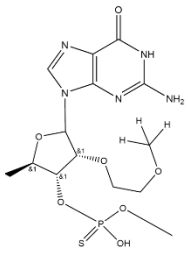
$X_AX_2X_3X_4X_5X_6X_7X_8X_9X_{10}X_{11}X_{12}X_{13}X_{14}X_{15}X_B$ (SEQ ID NO: 2)

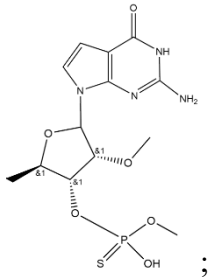
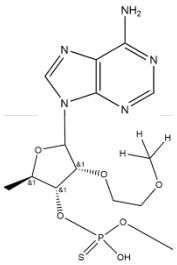
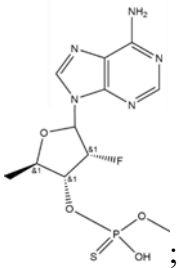
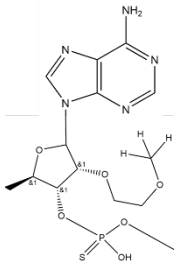
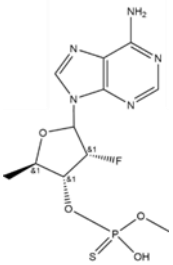
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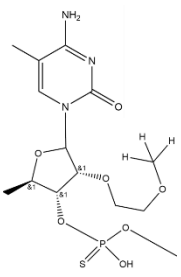
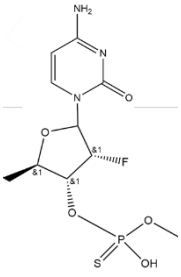
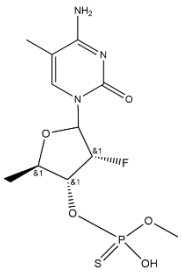
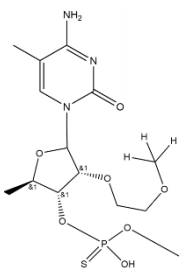
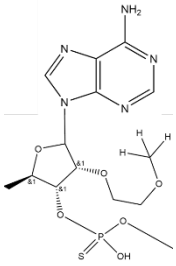
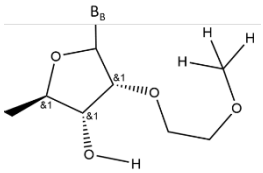
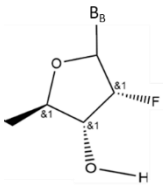
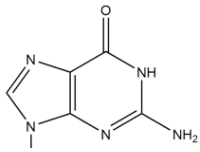
X_A is  or  and B_A is ;

X_2 is ; X_3 is ; X_4 is ; X_5 is ;

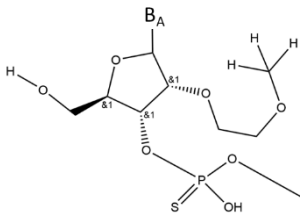
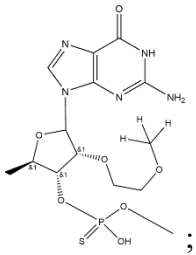
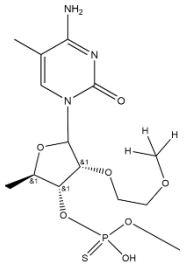
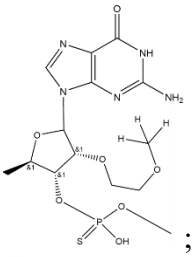
X_6 is ; X_7 is  or ; X_8 is ,

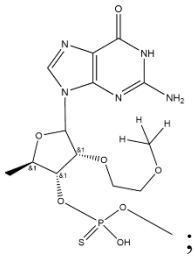
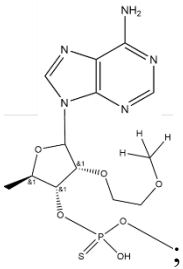
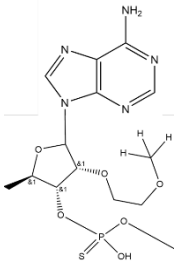
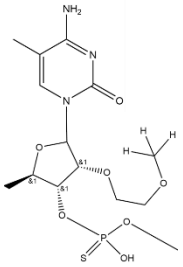
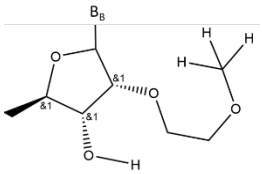
, or ; X_9 is  or ; X_{10} is 

or ; X_{11} is  or ; X_{12} is  or ;

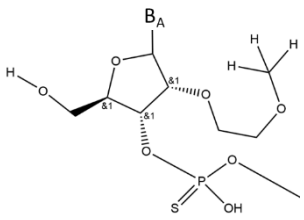
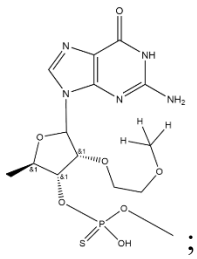
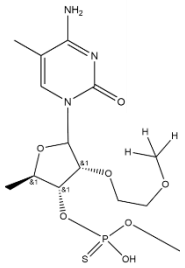
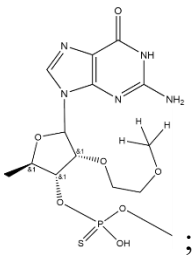
X_{13} is , , or ; X_{14} is ; X_{15} is ; and X_B is  or  and B_B is .

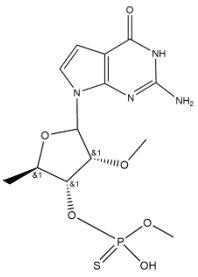
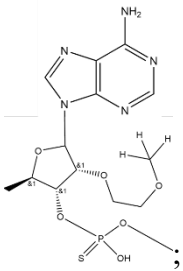
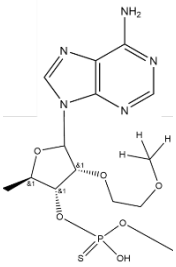
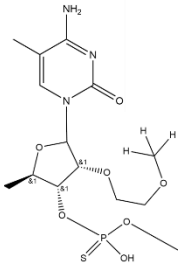
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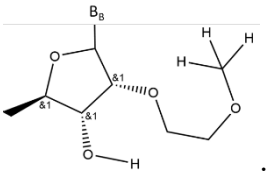
X_A is ; X_7 is ; X_8 is ; X_9 is ;

X_{10} is ; X_{11} is ; X_{12} is ; X_{13} is ; and X_B is .

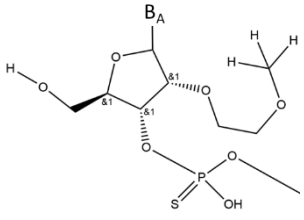
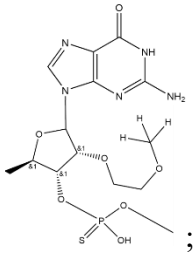
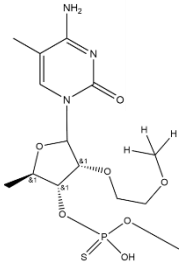
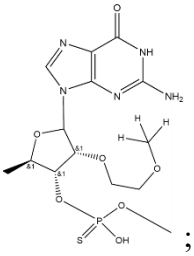
3. The compound of claim 1, wherein

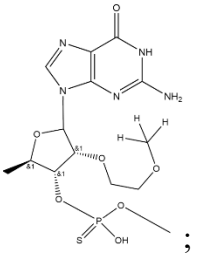
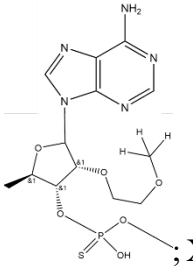
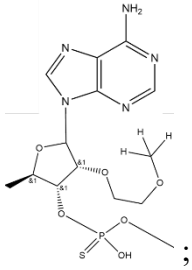
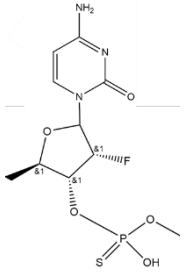
X_A is  ; X_7 is  ; X_8 is  ; X_9 is  ;

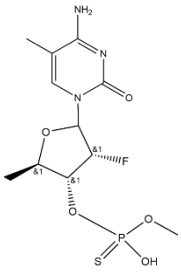
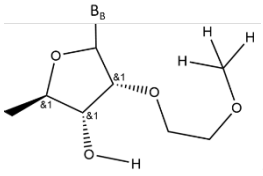
X_{10} is  ; X_{11} is  ; X_{12} is  ; X_{13} is  ; and

X_B is  .

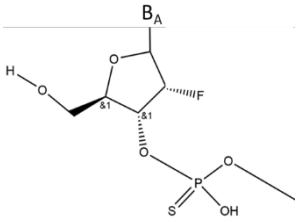
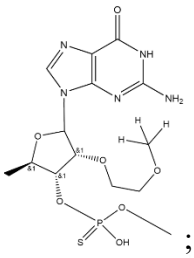
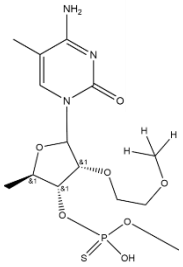
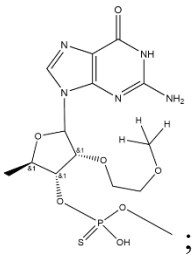
4. The compound of claim 1, wherein

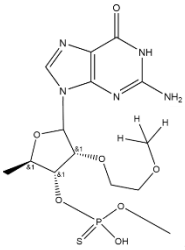
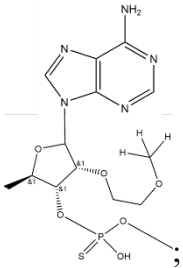
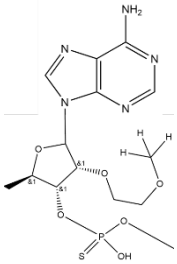
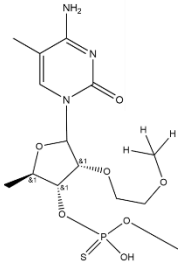
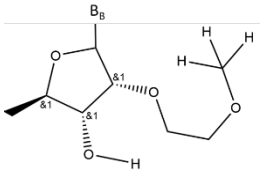
X_A is  ; X_7 is  ; X_8 is  ; X_9 is  ;

X_{10} is  ; X_{11} is  ; X_{12} is  ; X_{13} is  or

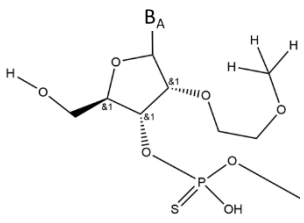
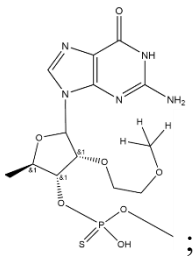
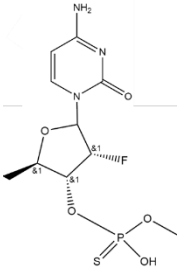
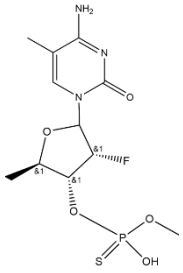

; and X_B is 
.

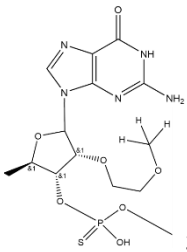
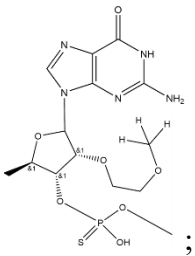
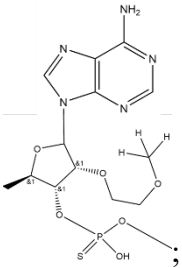
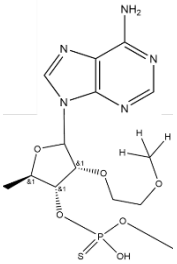
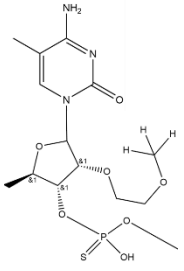
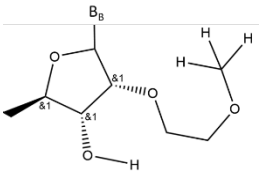
5. The compound of claim 1, wherein

X_A is 
; X_7 is 
; X_8 is 
; X_9 is 
;

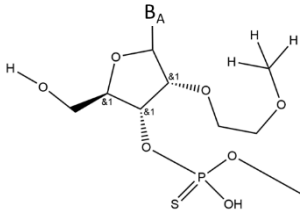
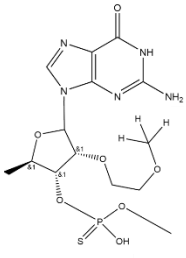
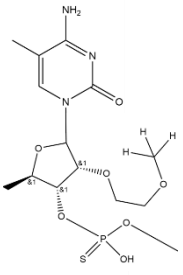
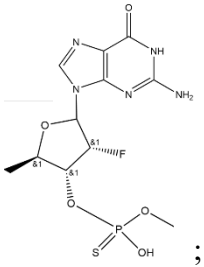
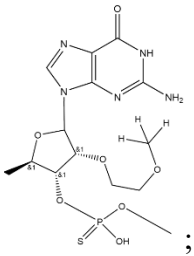
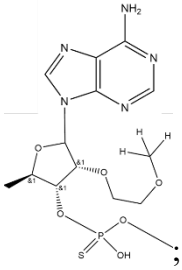
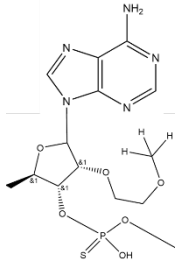
X_{10} is 
; X_{11} is 
; X_{12} is 
; X_{13} is 
; and X_B is 
.

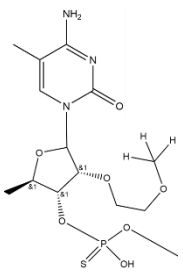
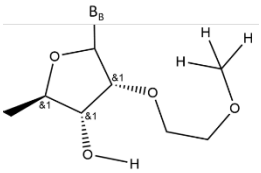
6. The compound of claim 1, wherein

X_A is ; X_7 is ; X_8 is  or ;

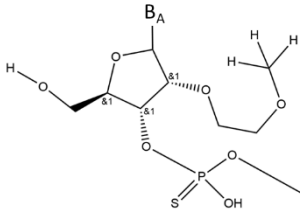
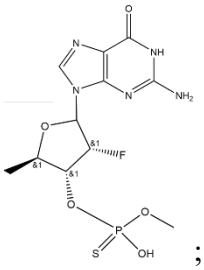
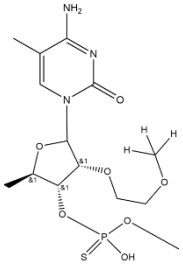
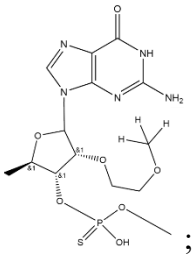
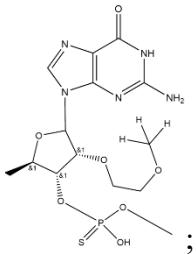
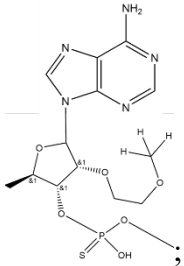
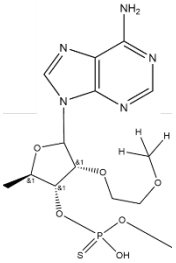
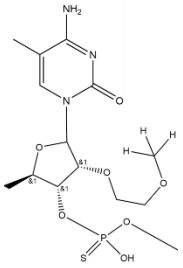
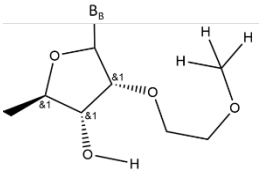
X_9 is ; X_{10} is ; X_{11} is ; X_{12} is ; X_{13} is ; and X_B is .

7. The compound of claim 1, wherein

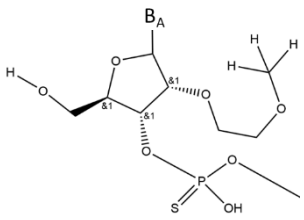
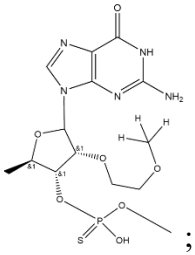
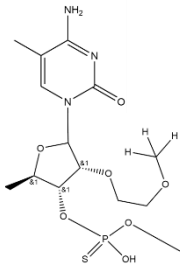
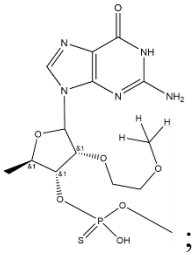
X_A is ; X_7 is ; X_8 is ; X_9 is ; X_{10} is ; X_{11} is ; X_{12} is ; X_{13} is

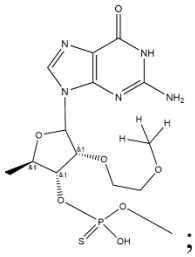
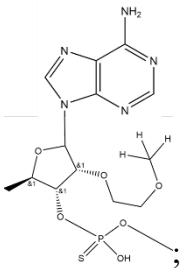
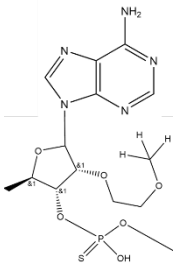
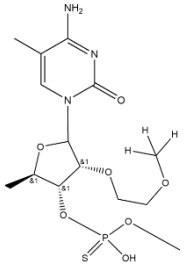
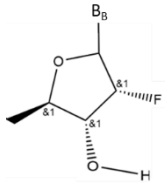

; and X_B is 
.

8. The compound of claim 1, wherein

X_A is 
; X_7 is 
; X_8 is 
; X_9 is 
; X_{10} is 
; X_{11} is 
; X_{12} is 
; X_{13} is 
; and X_B is 
.

9. The compound of claim 1, wherein

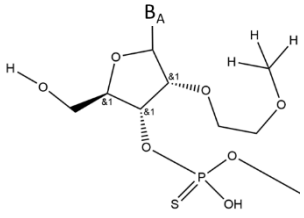
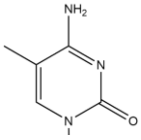
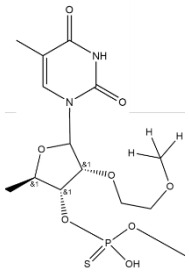
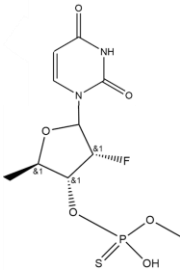
X_A is  ; X_7 is  ; X_8 is  ; X_9 is  ;

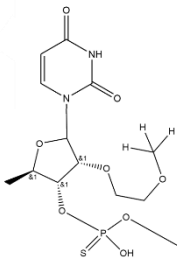
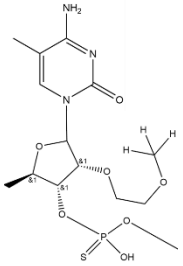
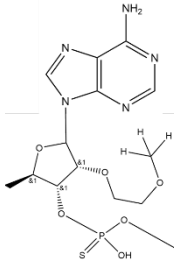
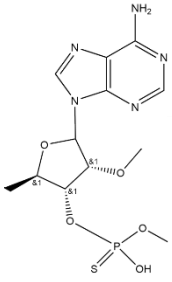
X_{10} is  ; X_{11} is  ; X_{12} is  ; X_{13} is  ; and X_B is  .

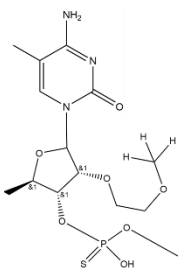
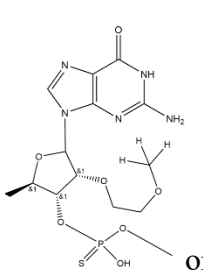
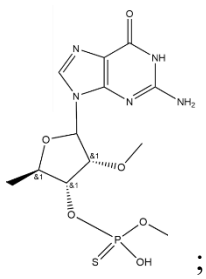
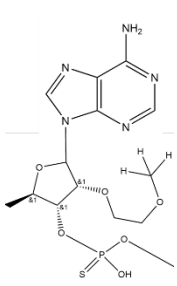
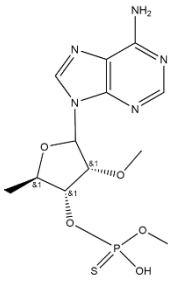
10. A compound of Formula (I):

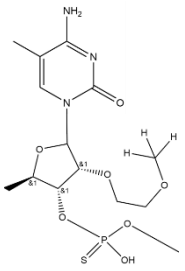
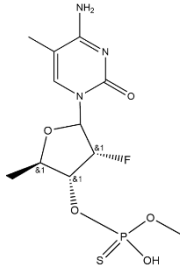
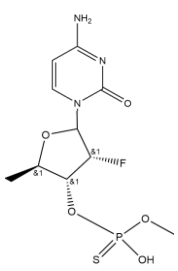
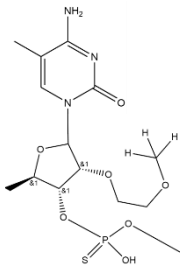
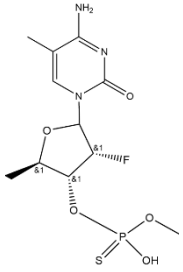
$X_AX_2X_3X_4X_5X_6X_7X_8X_9X_{10}X_{11}X_{12}X_{13}X_{14}X_{15}X_{16}X_{17}X_B$ (SEQ ID NO: 1)

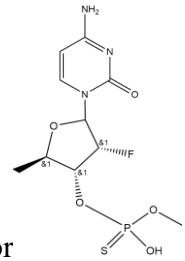
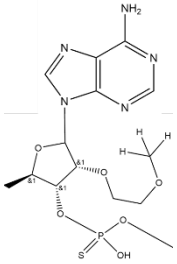
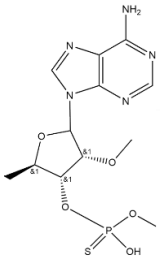
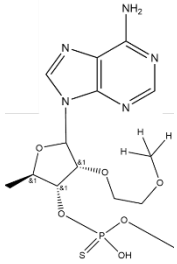
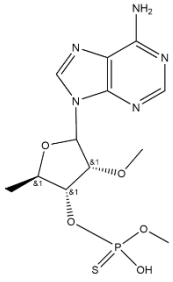
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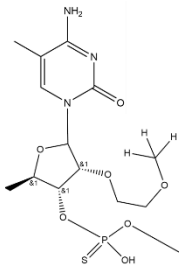
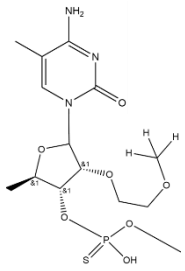
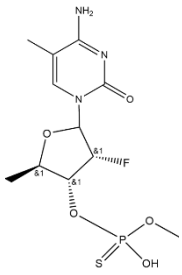
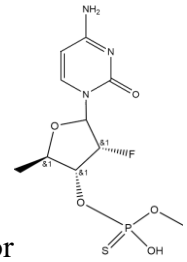
X_A is  and B_A is  ; X_2 is  or  ;

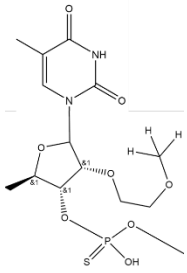
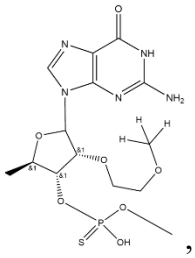
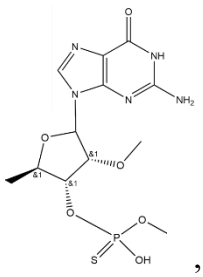
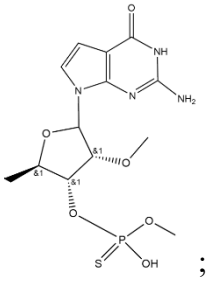
X_3 is  ; X_4 is  ; X_5 is  or  ; X_6 is

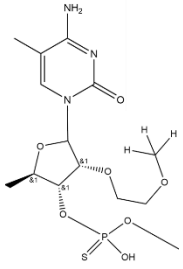
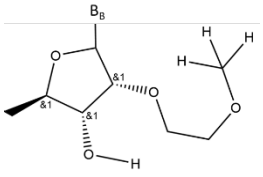
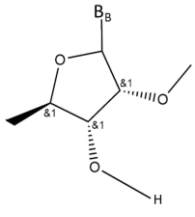
; X_7 is  or ; X_8 is  or ;

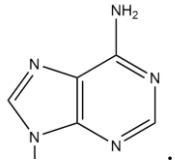
X_9 is ,  or ; X_{10} is , ,

or ; X_{11} is  or ; X_{12} is  or ;

X_{13} is ; X_{14} is , , or ;

X_{15} is ; X_{16} is , , or ;

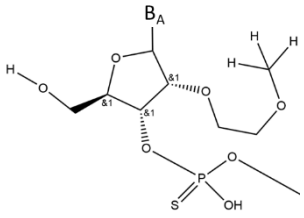
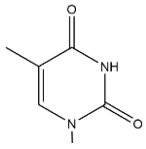
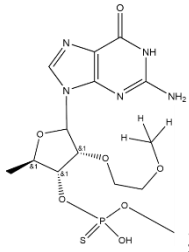
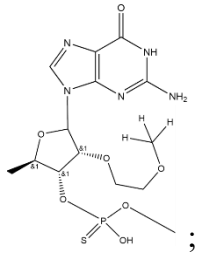
X_{17} is ; and X_B is  or  and B_B is

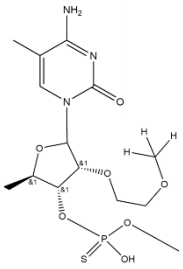
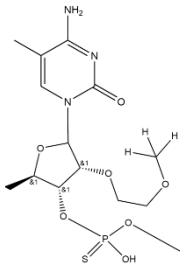
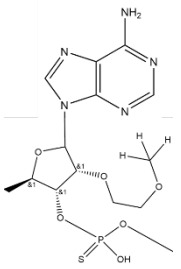
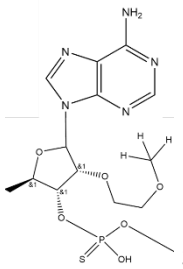

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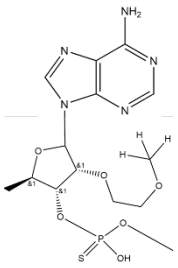
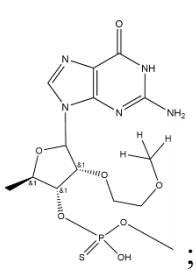
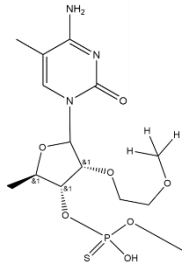
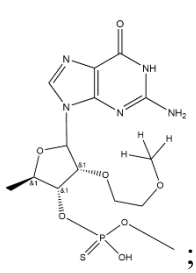
11. A compound of Formula (I):

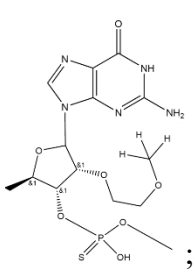
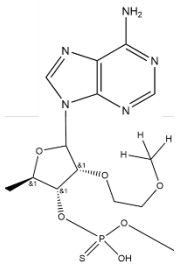
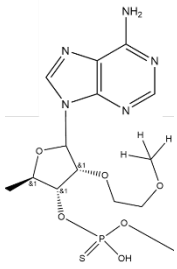
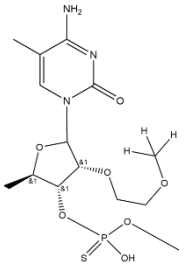
$X_AX_2X_3X_4X_5X_6X_7X_8X_9X_{10}X_{11}X_{12}X_{13}X_{14}X_{15}X_{16}X_{17}X_B$ (SEQ ID NO: 1)

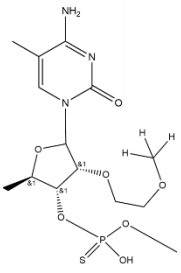
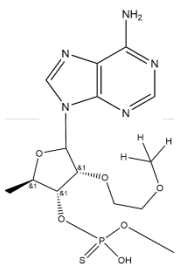
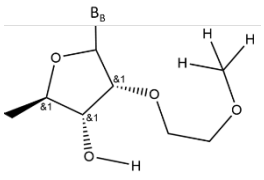
wherein

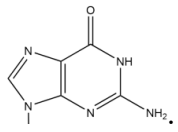
X_A is  and B_A is ; X_2 is ; X_3 is ;

X_4 is ; X_5 is ; X_6 is ; X_7 is ;

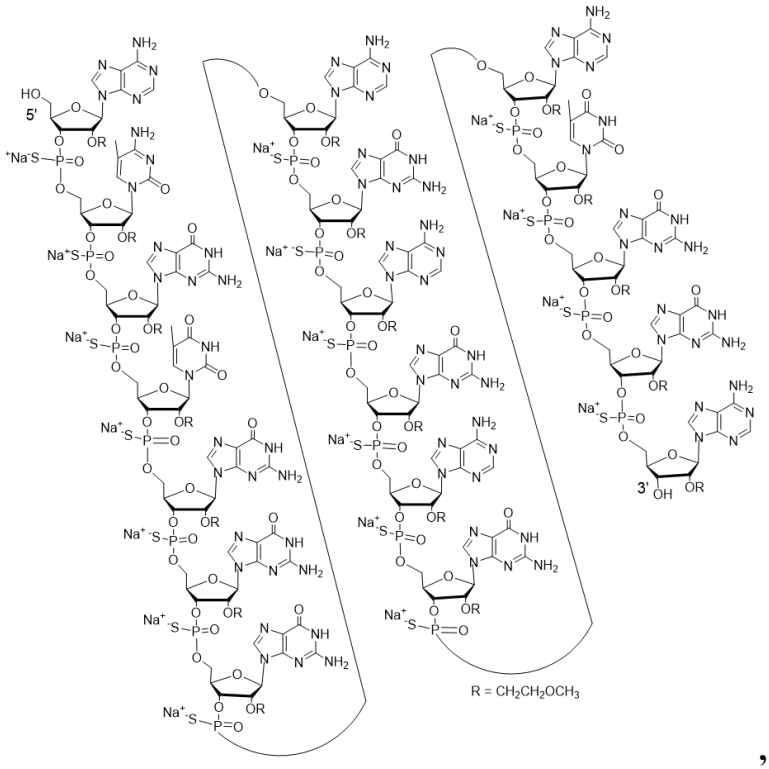
X_8 is ; X_9 is ; X_{10} is ; X_{11} is ;

X_{12} is ; X_{13} is ; X_{14} is ; X_{15} is ;

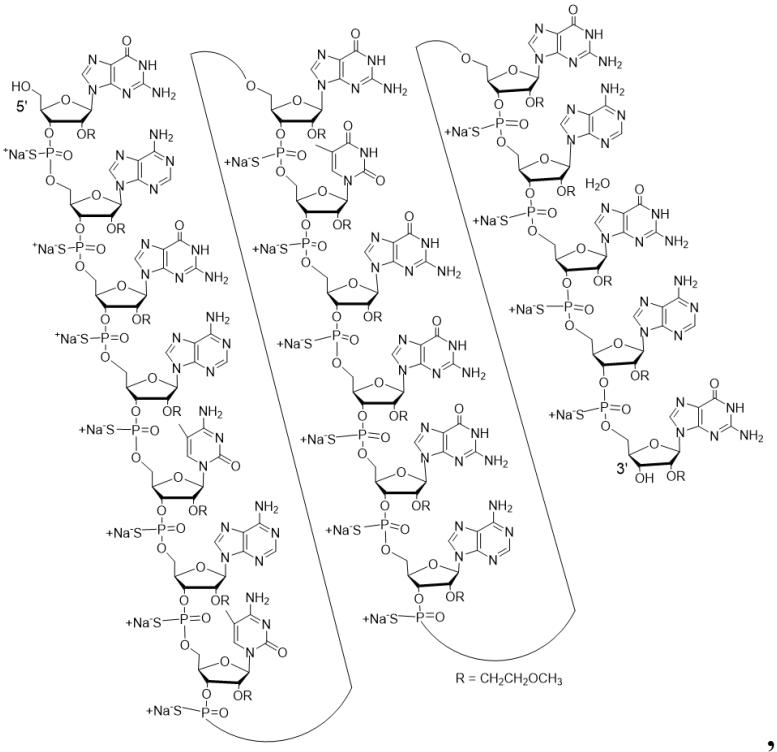
X_{16} is  ; X_{17} is  ; and X_B is  and

B_B is .

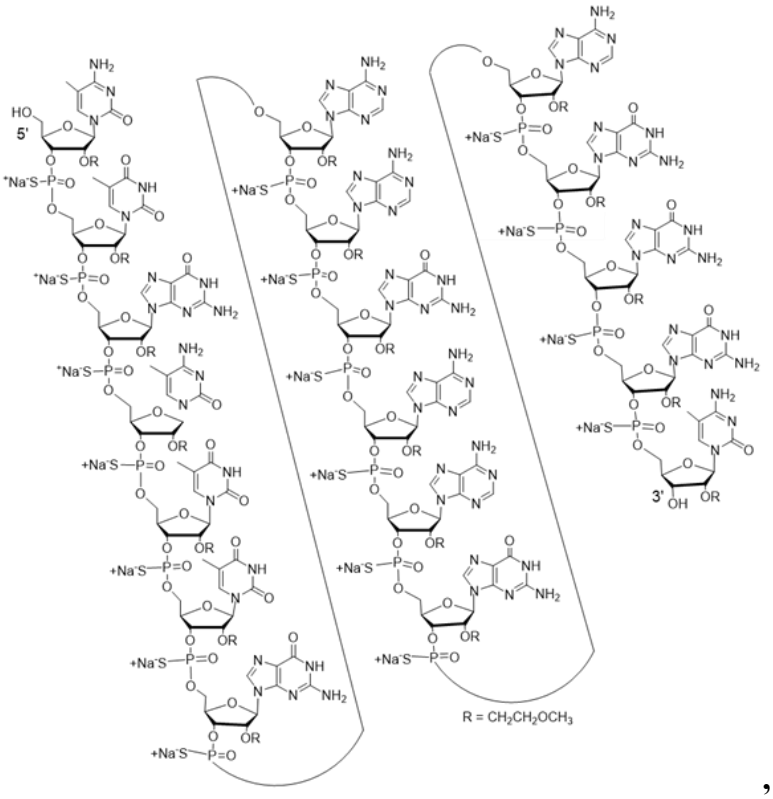
12. A compound selected from the group consisting of (SEQ ID NOs: 7-16, 1, 18-25, and 25-29 disclosed below, respectively, in order of appearance):



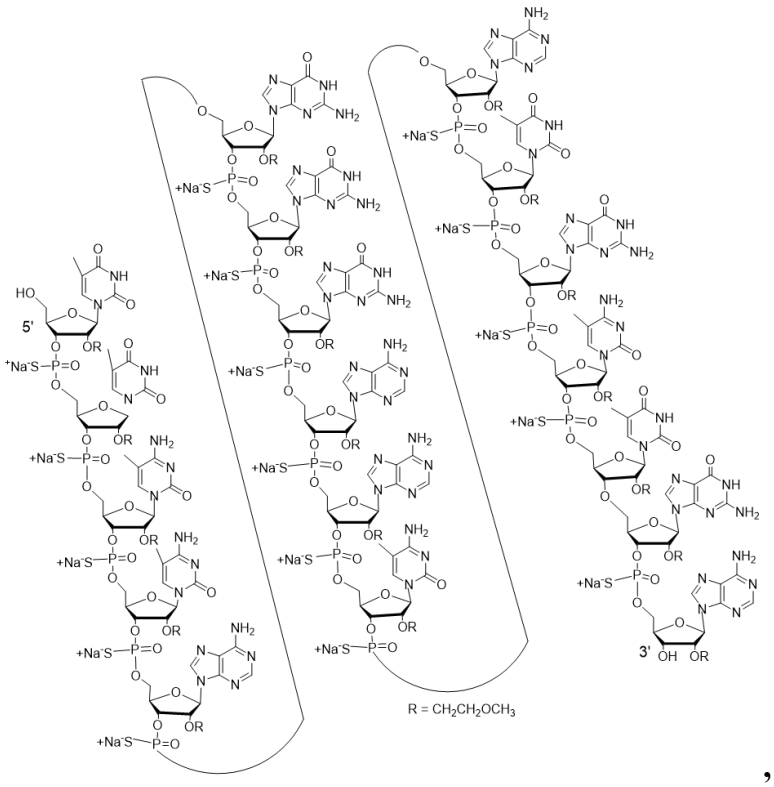
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R = CH2CH2OCH3

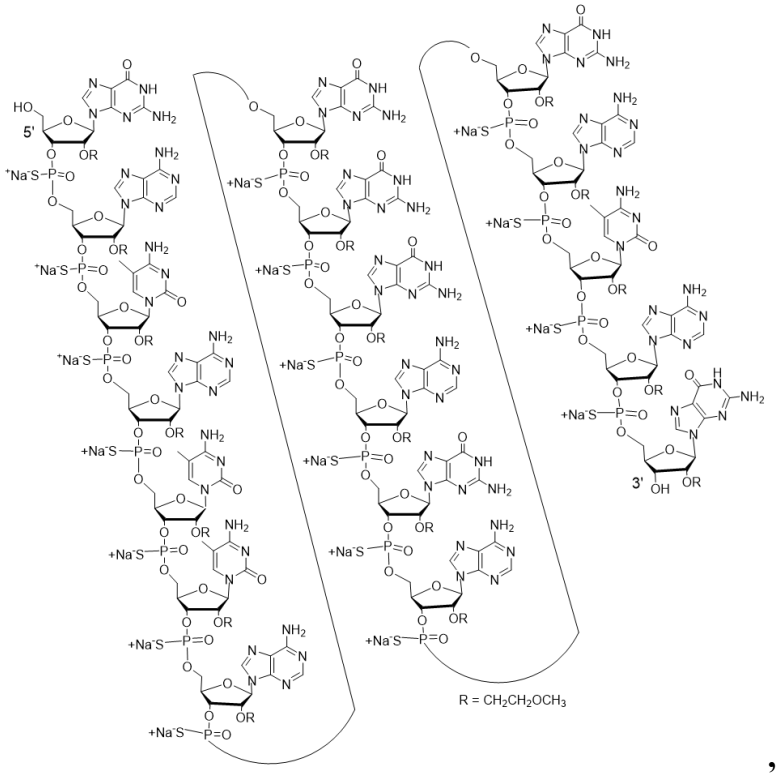
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R = CH2CH2OCH3

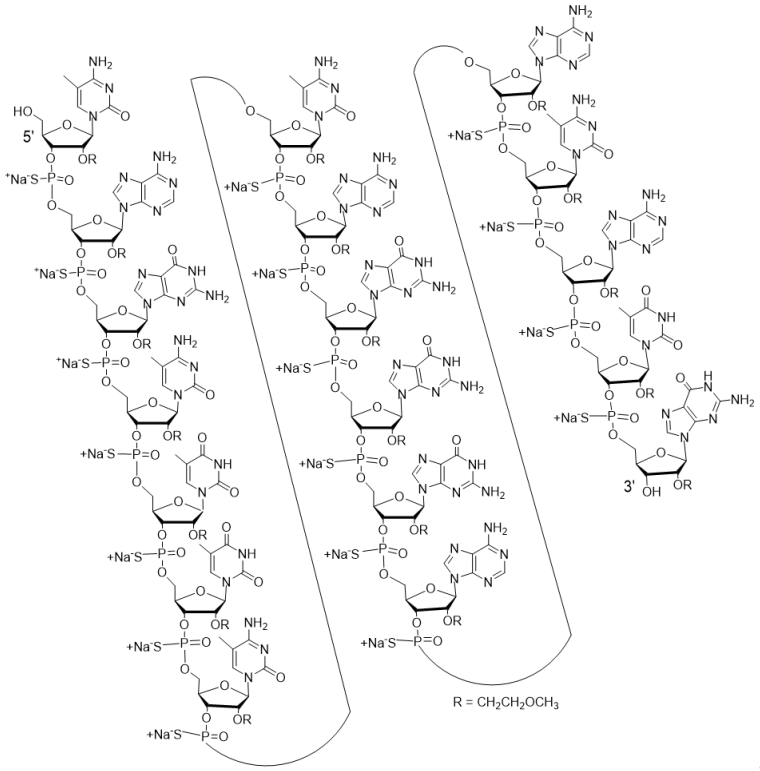
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R = CH2CH2OCH3

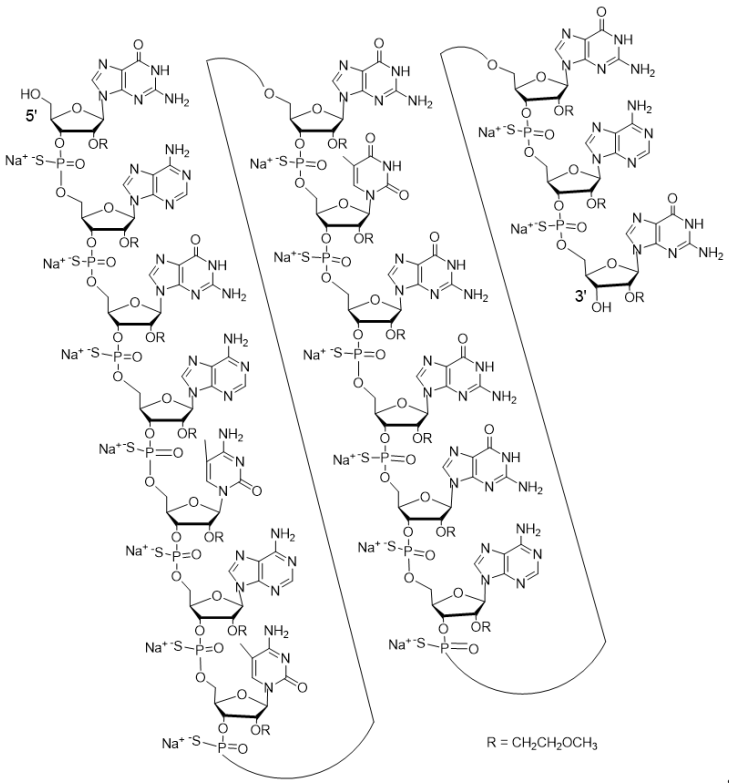
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R = CH2CH2OCH3

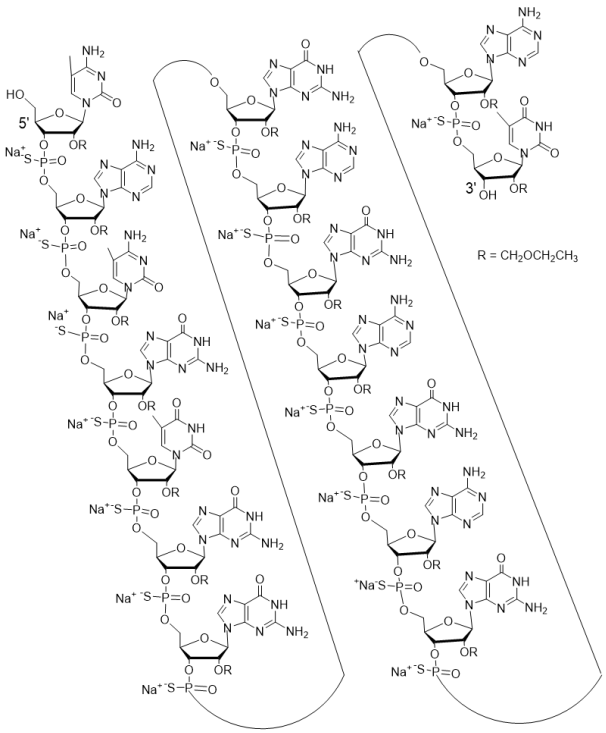
,


5'
3'
R = CH2CH2OCH3

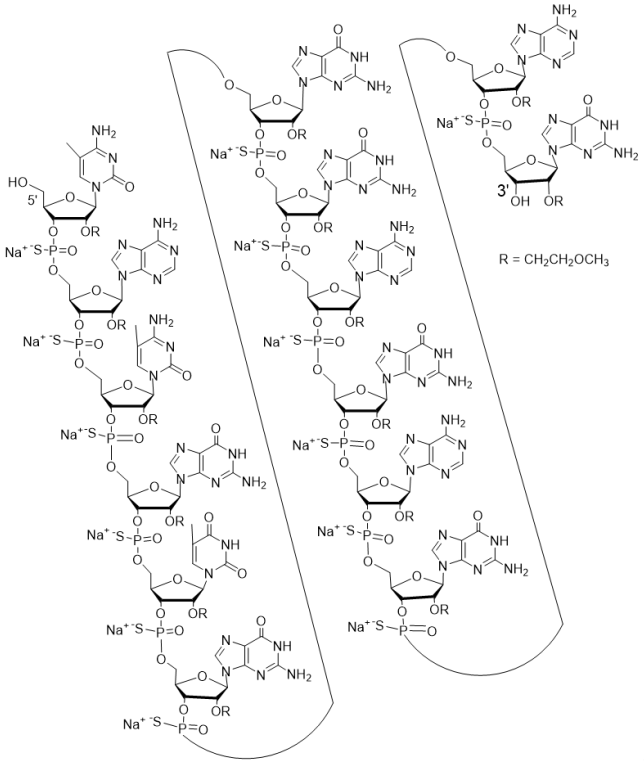
,


5'
3'
R = CH2CH2OCH3

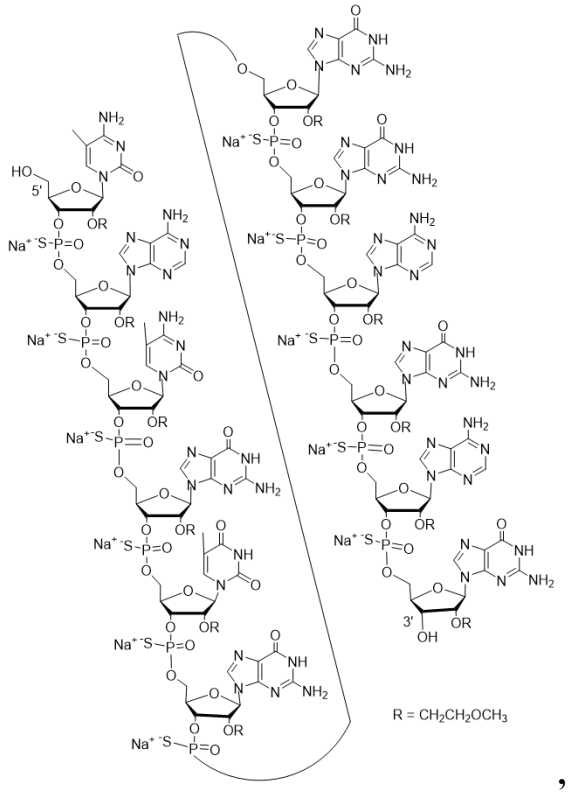
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R = CH2OCH2CH3

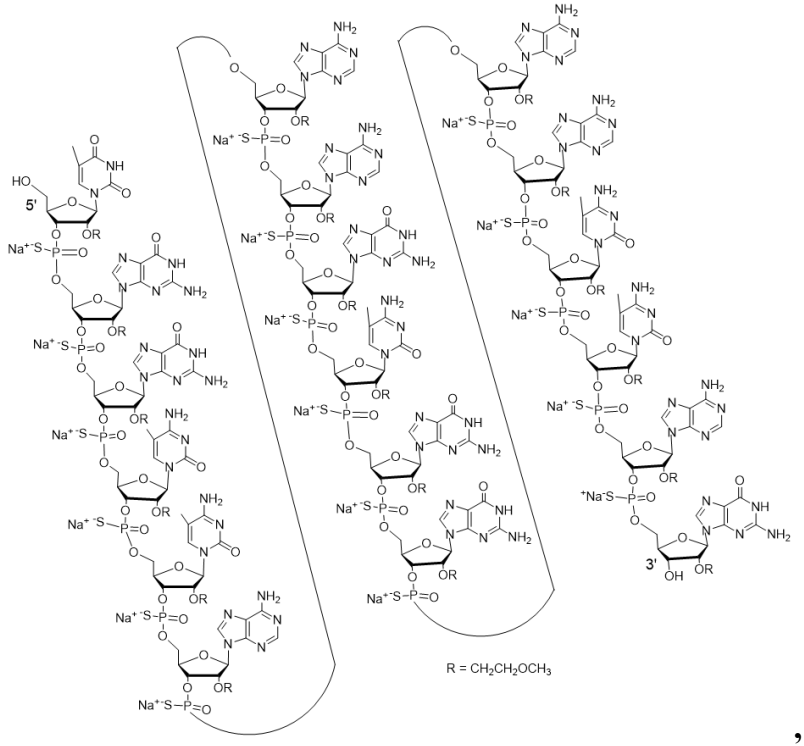
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R = CH2CH2OCH3

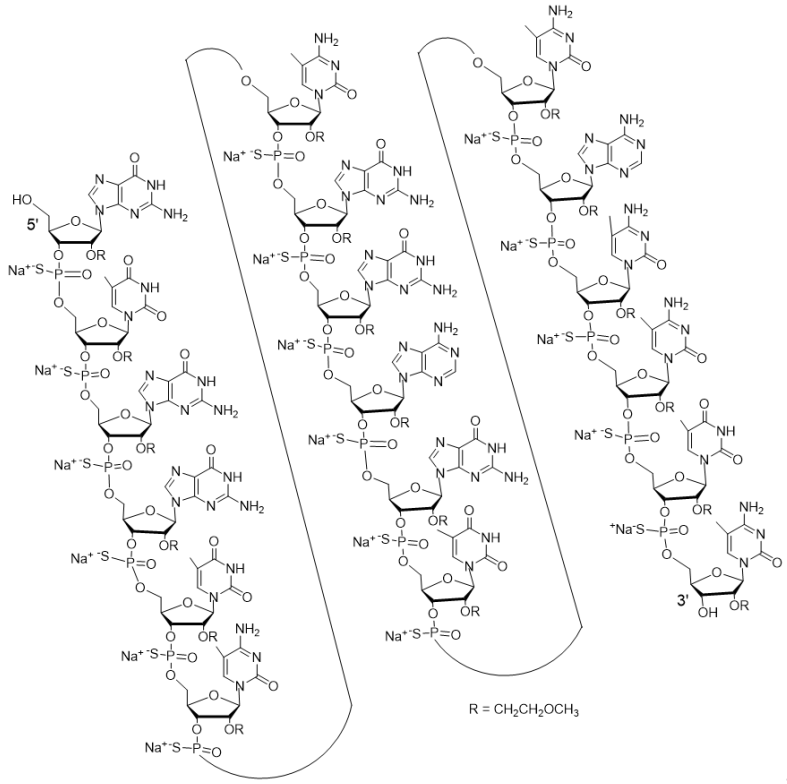
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R = CH2CH2OCH3

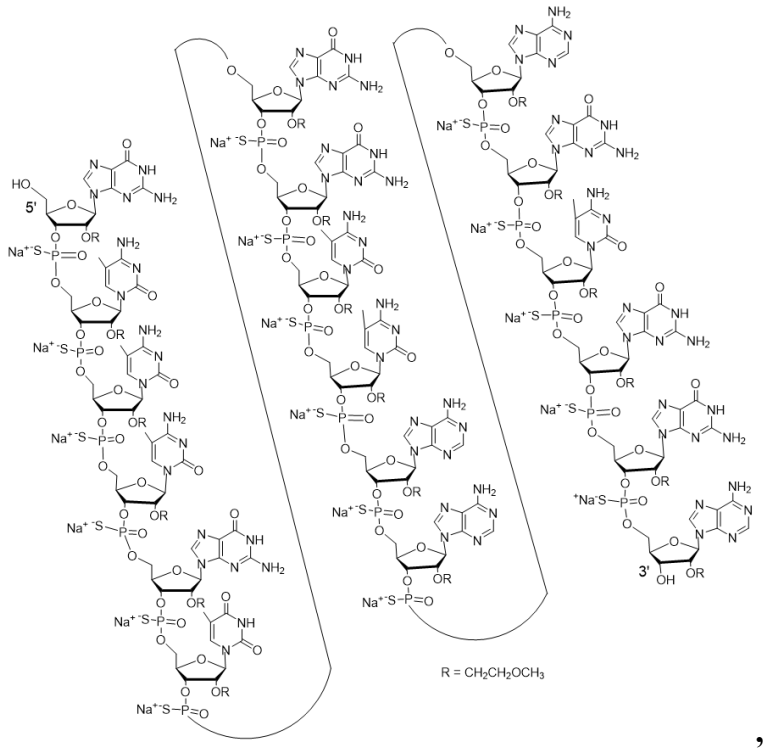
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R = CH2CH2OCH3

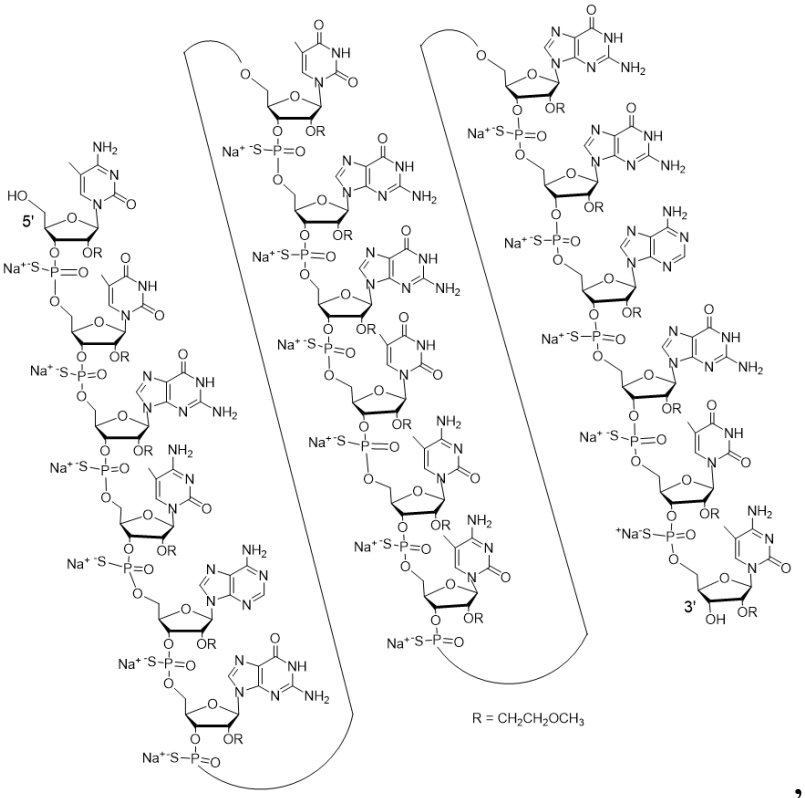
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R = CH2CH2OCH3

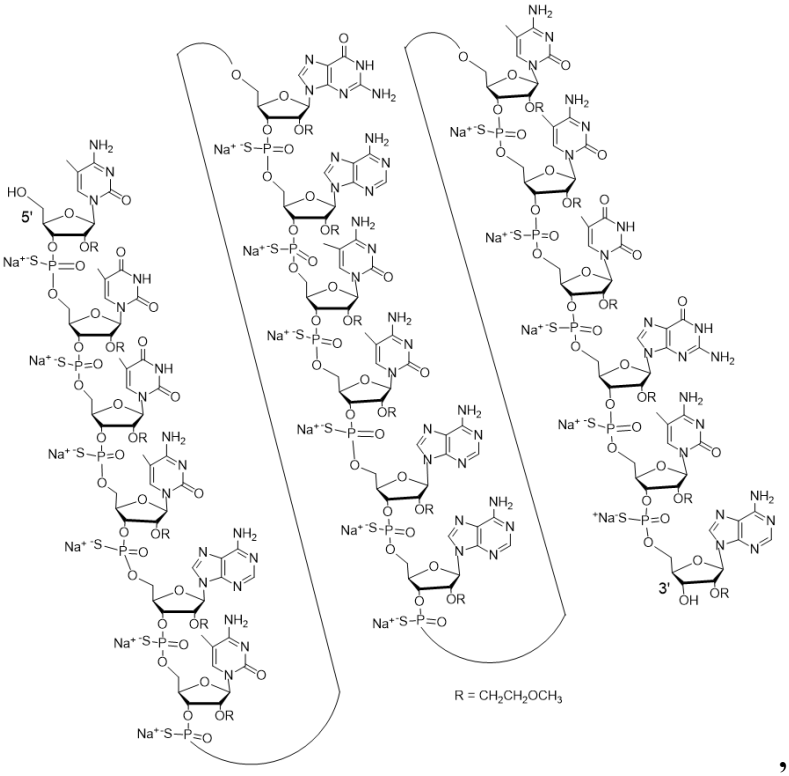
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R = CH2CH2OCH3

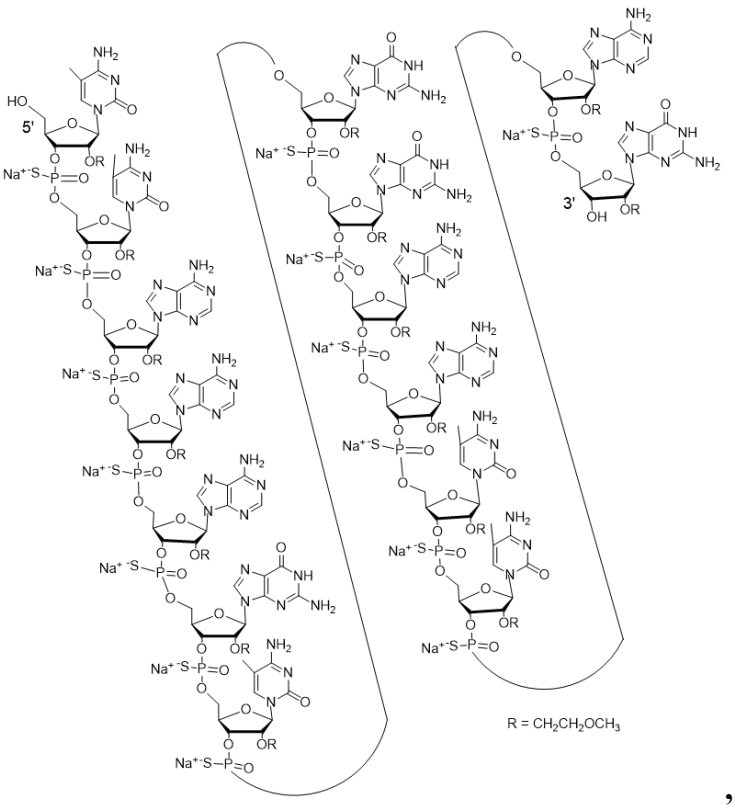
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R = CH2CH2OCH3

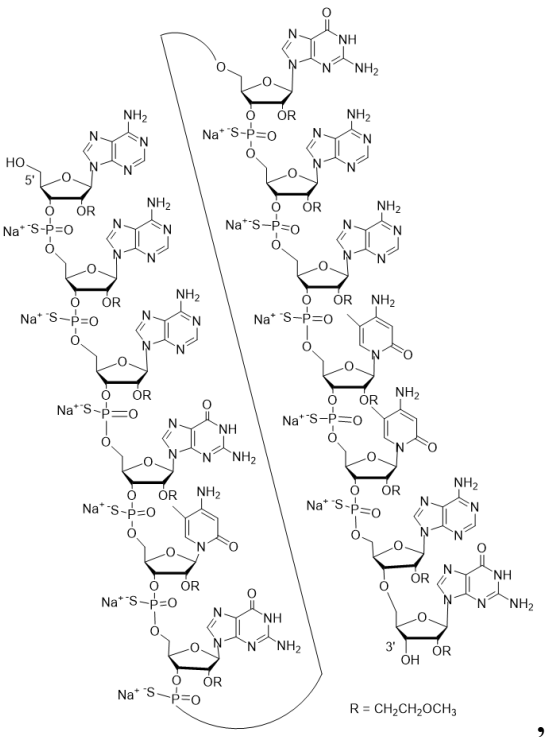
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R = CH2CH2OCH3

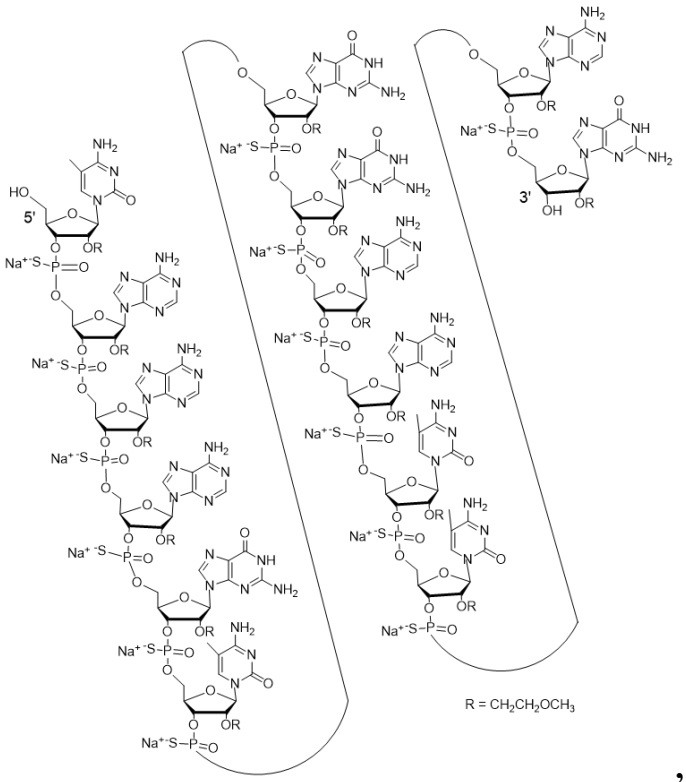
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5'
3'
R = CH2CH2OCH3

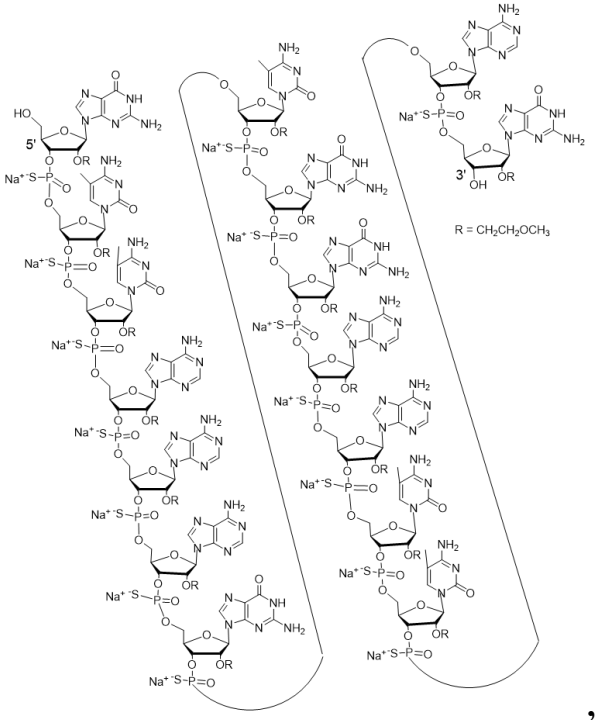
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5'
3'
R = CH2CH2OCH3

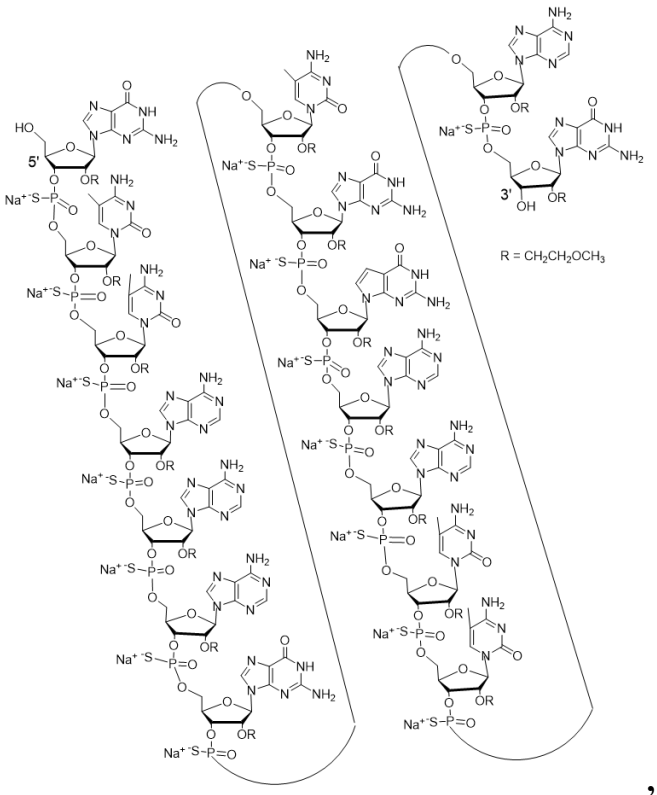
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R = CH2CH2OCH3

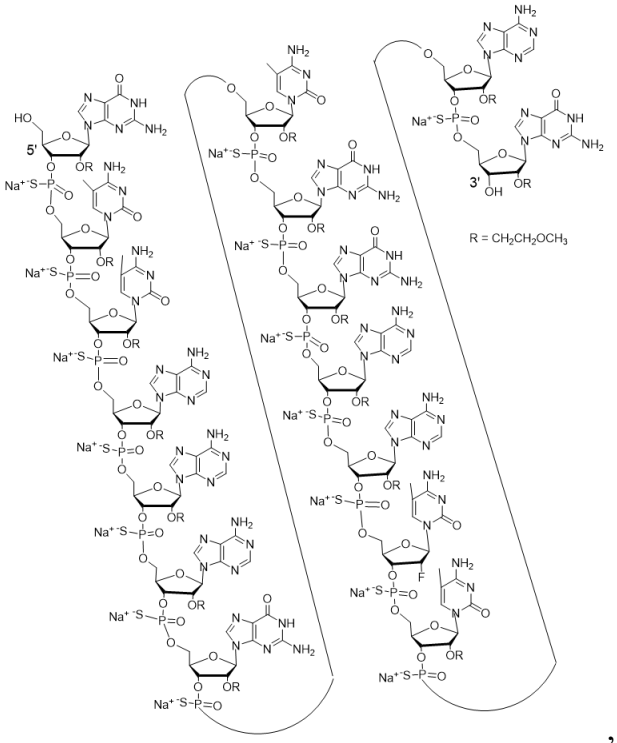
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R = CH2CH2OCH3

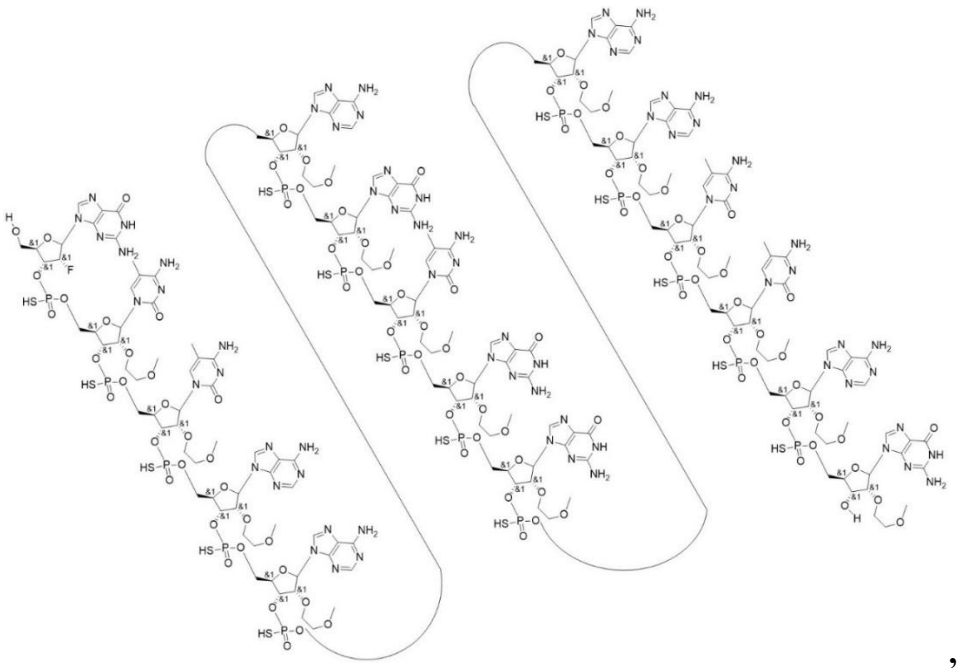
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R = CH2CH2OCH3

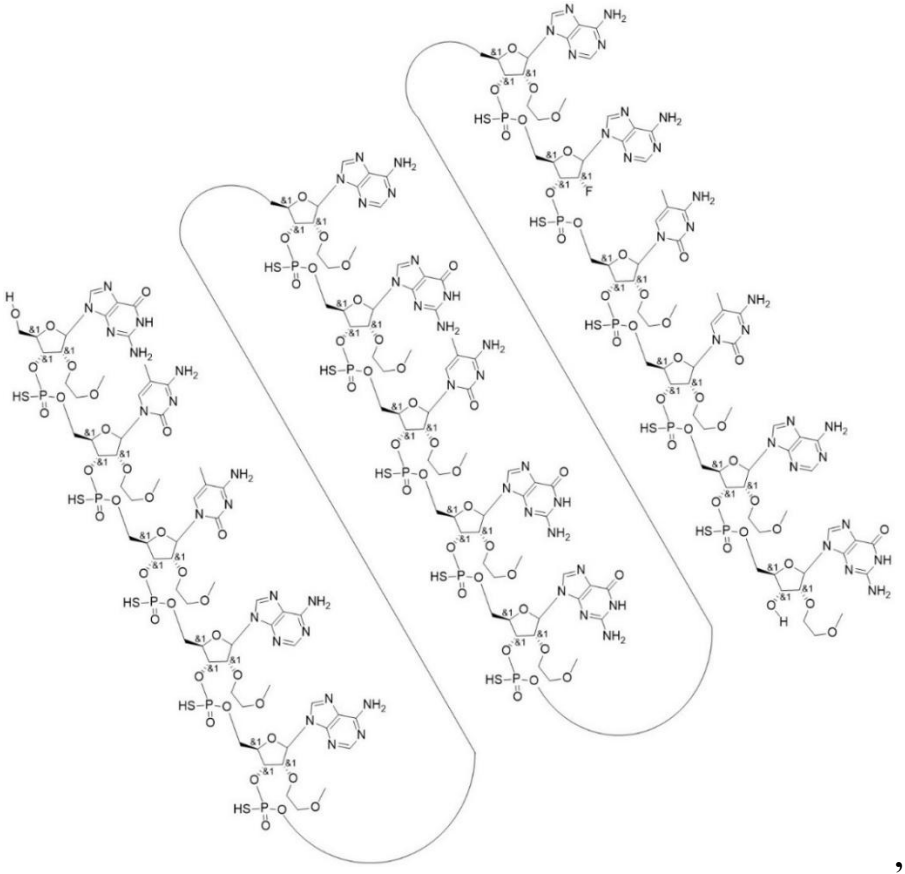
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R = CH2CH2OCH3

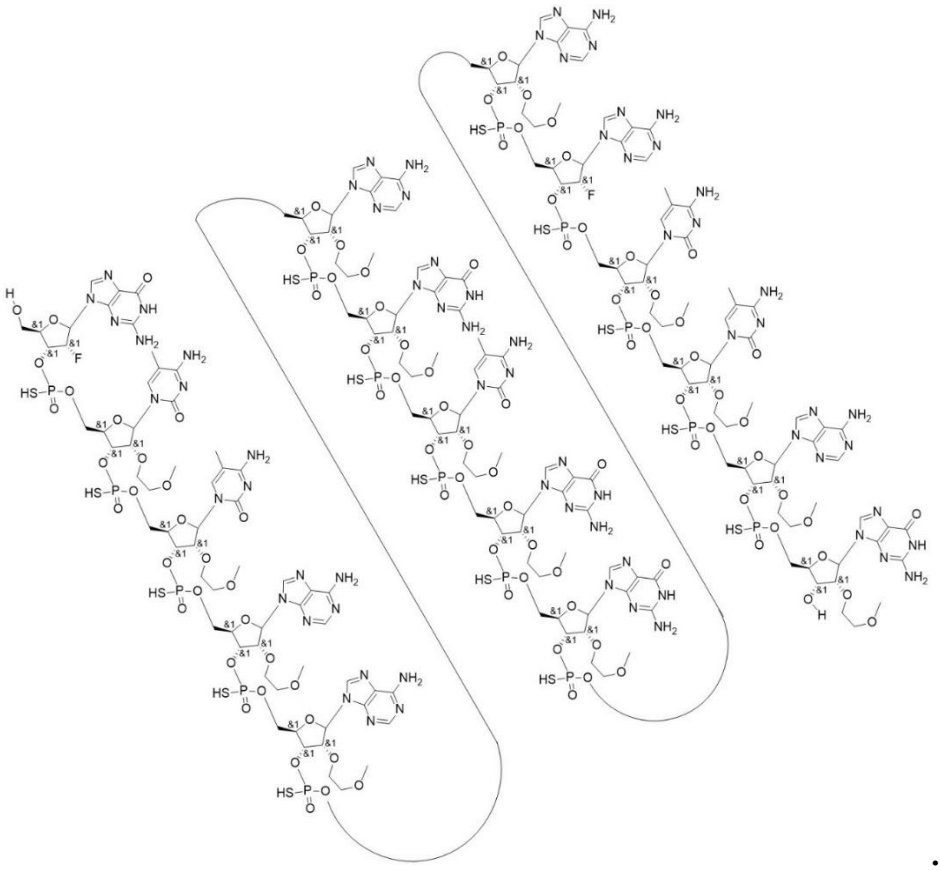
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, and



13. A compound comprising at least 15 contiguous nucleobases of a sequence set forth in any one of SEQ ID NOs: 1, 2, 7-16, 18-29, 220, 253-260, and 274.
14. The compound of claim 13, wherein the compound comprises at least one modified sugar moiety.
15. The compound of claim 14, wherein the at least one sugar moiety comprises a 2'-O-N-methylacetamide (2'-NMA) modified sugar moiety.