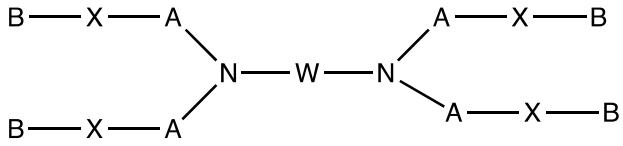
WHAT IS CLAIMED:

1. A compound of formula (I):



(I)

a pharmaceutically acceptable salt thereof, or a stereoisomer of any of the foregoing,

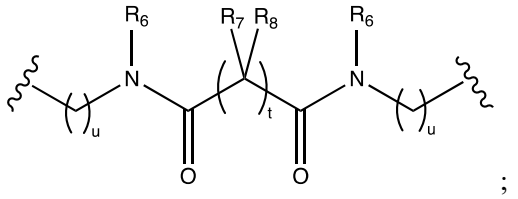
wherein

each **A** is independently C_1-C_{16} branched or unbranched alkyl or C_1-C_{16} branched or unbranched alkenyl, optionally substituted with OH, SH, or halogen;

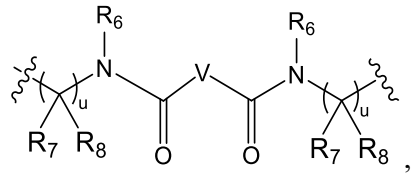
each **B** is independently C_1-C_{20} branched or unbranched alkyl or C_1-C_{20} branched or unbranched alkenyl, optionally substituted with heteroatom or substituted with OH, SH, or halogen;

each **X** is independently –OC(O)-, -C(O)O-, -SS-, -N(**R**^{18})C(O)-, -C(O)N(**R**^{18})-, -C(O-**R**$_{13}$)-O-, -C(O)O$(CH_2)_{\mathbf{a}}$-, -OC(O)$(CH_2)_{\mathbf{a}}$-, -C(O)N(**R**^{18})$(CH_2)_{\mathbf{a}}$-, -N(**R**^{18})C(O)$(CH_2)_{\mathbf{a}}$-, -C(O-**R**$_{13}$)-O-$(CH_2)_{\mathbf{a}}$-, wherein each **R**^{18} is independently H, alkyl, alkenyl, cycloalkyl, hydroxyalkyl, or aminoalkyl, each **R**$_{13}$ is independently C_3-C_{10} alkyl, and each **a** is independently 0-16; and

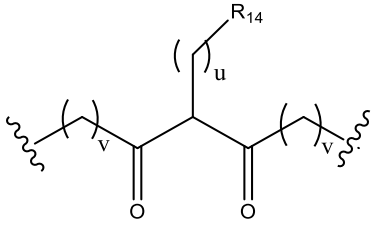
W is



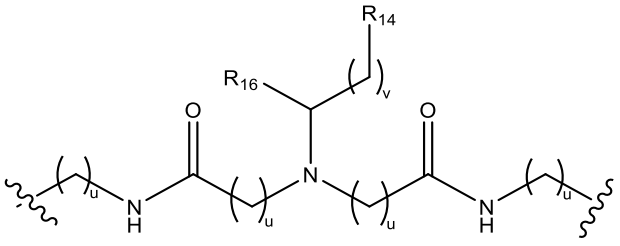
;



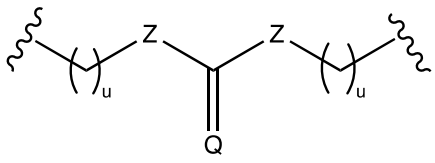
,



,



, or



,

each **R**$_6$ is independently H, C_1-C_3 branched or unbranched alkyl, C_2-C_3 branched or unbranched alkenyl, or cycloalkyl;

each **R**$_7$ and each **R**$_8$ is independently H, C_1-C_3 branched or unbranched alkyl, C_2-C_3 branched or unbranched alkenyl, halogen, OH, SH, $(CH_2)_{\mathbf{s}}R_{17}$, N**R**$_{10}$**R**$_{11}$,

each **R**$_{10}$ and **R**$_{11}$ is independently H, C_1-C_3 alkyl, or **R**$_{10}$ and **R**$_{11}$ are taken together to form a heterocyclic ring; or **R**$_7$ and **R**$_8$ are taken together to form a ring;

each **s** is independently 1, 2, 3, 4, or 5;

each **u** is independently 1, 2, 3, 4, or 5;

each v is independently 0, 1, 2, 3, 4, or 5;

t is 1, 2, 3, 4 or 5;

each **Z** is independently absent, O, S, N**R$_{12}$** , or a divalent heterocyclic, wherein **R$_{12}$** is H, C_1-C_7 branched or unbranched alkyl, or C_2-C_7 branched or unbranched alkenyl;

V is branched or unbrachned C_2-C_{10} alkylene, C_2-C_{10} alkenylene, C_2-C_{10} alkynylene, or C_2-C_{10} heteroalkylene, optionally substituted with one or more OH, SH, and/or halogen groups;

R$_{14}$ is a heterocyclic, N**R$_{10}$R$_{11}$**, C(O)N**R$_{10}$R$_{11}$**, or C(S)N**R$_{10}$R$_{11}$**;

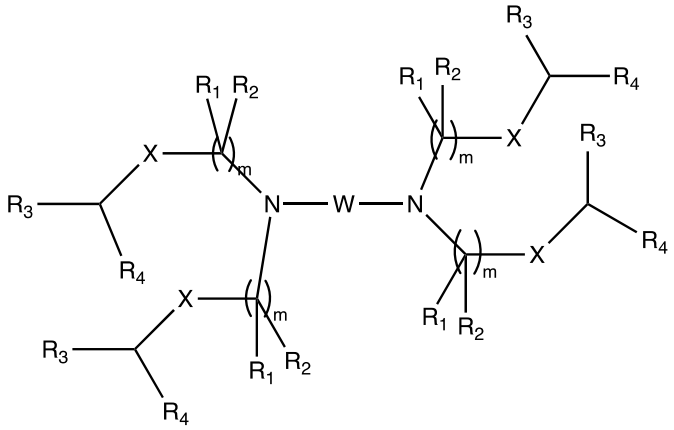
R$_{16}$ is H, =O, =S, or CN;

R$_{17}$ is OH, SH, or $N(CH_3)_2$; and

Q is O, S, or N**R$_{13}$**, wherein each **R$_{13}$** is H, C_1-C_5 alkyl.

2. The compound of claim 1, wherein **B** is C_3-C_{20} alkyl.

3. The compound of claim 1, having formula (II):



(II)

a pharmaceutically acceptable salt thereof, or a stereoisomer of any of the foregoing,

wherein

each **R$_1$** and each **R$_2$** is independently H, C_1-C_3 branched or unbranched alkyl, OH, halogen, SH, or N**R$_{10}$R$_{11}$**, or

each **R$_1$** and each **R$_2$** are independently taken together with the carbon atom(s) to which they are attached to form a cyclic ring;

each **R$_{10}$** and **R$_{11}$** is independently H, C_1-C_3 branched or unbranched alkyl, or **R$_{10}$** and **R$_{11}$** are taken together to form a heterocyclic ring;

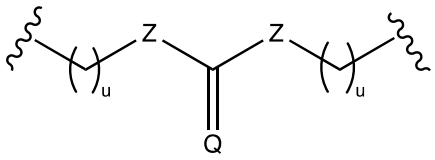
m is 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10; and

each **R$_3$** and each **R$_4$** is independently H, C_2-C_{14} branched or unbranched alkyl (optionally C_3-C_{10} branched or unbranched alkyl), or C_3-C_{10} branched or unbranched alkenyl; provided that at least one of **R$_3$** and **R$_4$** is not H.

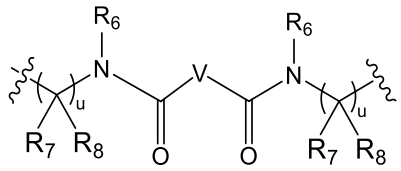
4. The compound of claim 1 or 3, wherein **X** is -OCO-, -COO-, -NHCO-, -CONH-, -C(O-**R$_{13}$**)-O-, -$COO(CH_2)_r$-, -$CONH(CH_2)_r$-, or -C(O-**R$_{13}$**)-O-$(CH_2)_r$-, -O(CO)O-, wherein **R$_{13}$** is C_3-C_{10} branched or

unbranched alkyl and **r** is 1, 2, 3, 4, or 5.

5. The compound of claim 1 or 3, wherein **X** is -OCO- or -COO-.

6. The compound of claim 1 or 3, wherein W is 

, and **Z** is absent, O, S, or NH.

7. The compound of claim 1 or 3, wherein W is 

, and **V** is C_2-C_{10} alkylene, C_2-C_{10} alkenylene, or C_2-C_{10} heteroalkylene.

8. The compound of claim 7, wherein **V** is a branched or unbrachned C_2-C_3 alkylene, optionally substituted with OH, or a branched or unbrachned C_2-C_3 alkenylene.

9. The compound of claim 1, 3, or 7, wherein each $\mathbf{R_6}$ is independently H or methyl.

10. The compound of any one of claims 1, 3, and 7, wherein at least one of $\mathbf{R_7}$ and $\mathbf{R_8}$ is H.

11. The compound of claim 10, wherein each of $\mathbf{R_7}$ and $\mathbf{R_8}$ is H.

12. The compound of any one of claims 3-11, wherein **m** is 5, 6, 7, 8 or 9.

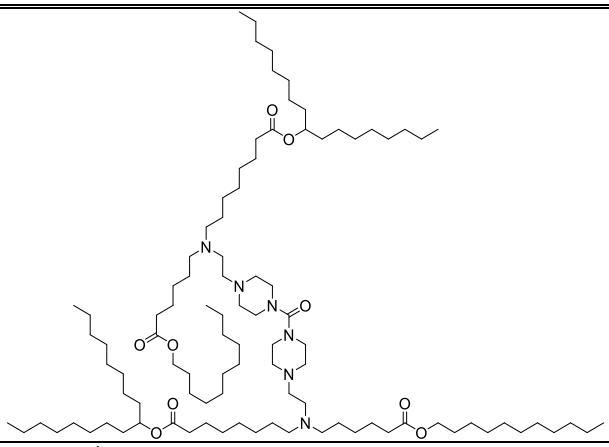
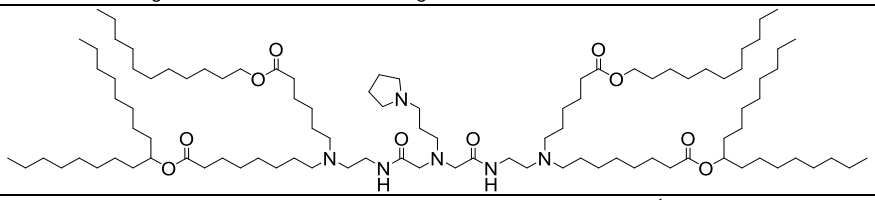
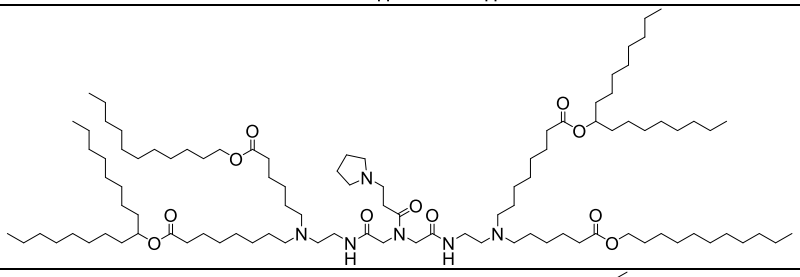
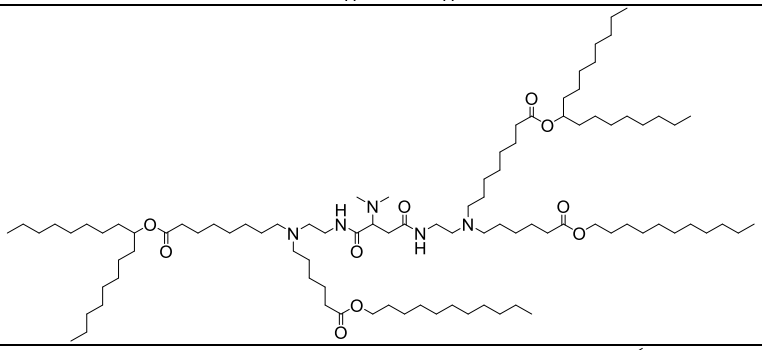
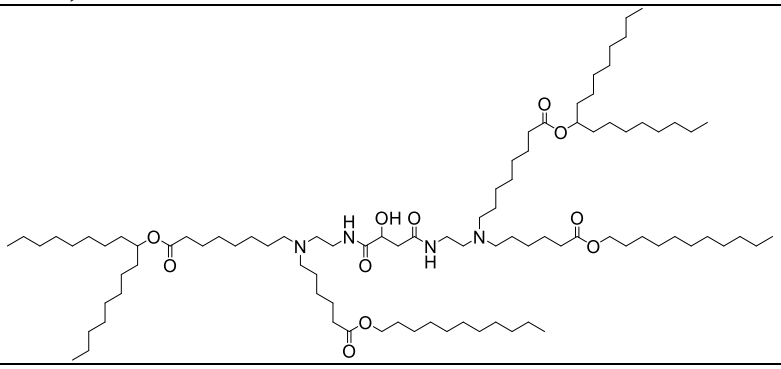
13. The compound of any one of claims 3-12, wherein **s** is 1 or 2.

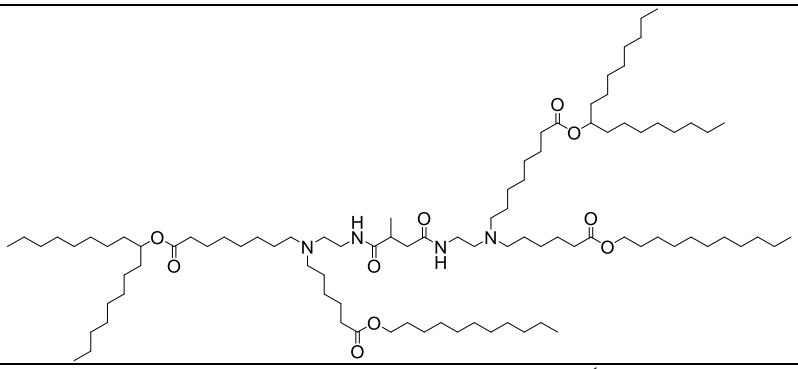
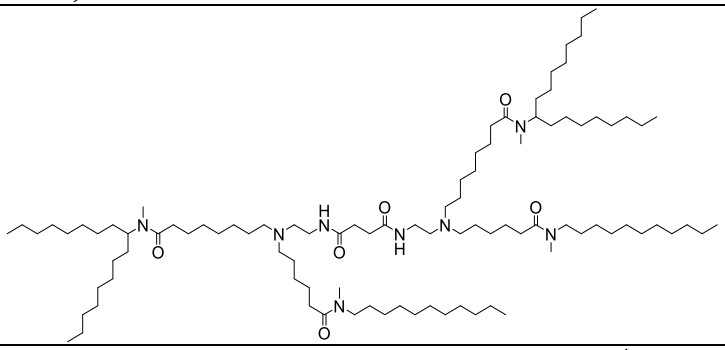
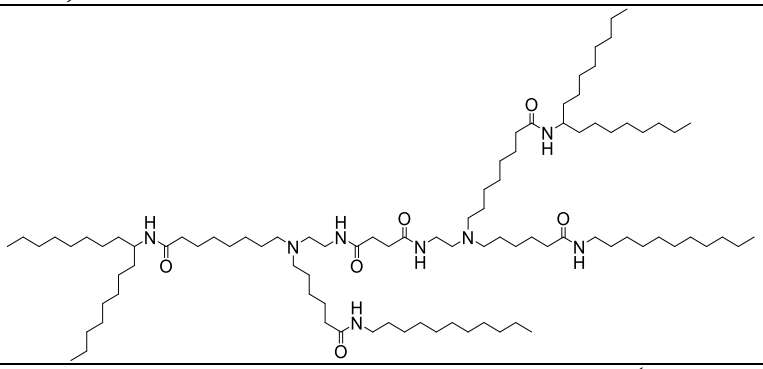
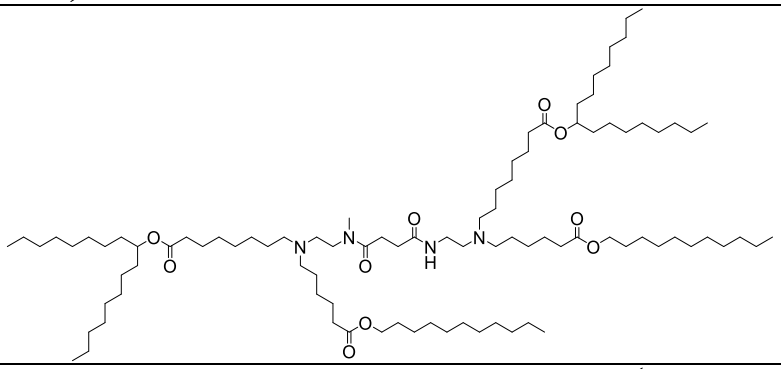
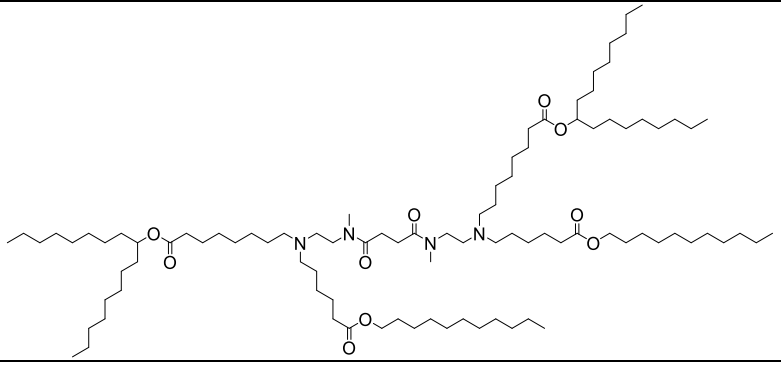
14. The compound of any one of claims 3-13, wherein **u** is 1 or 2.

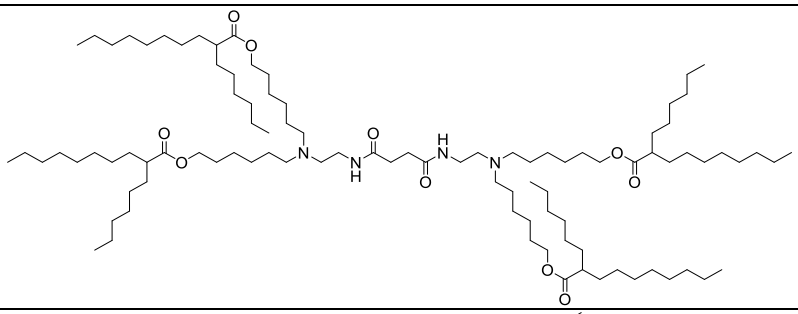
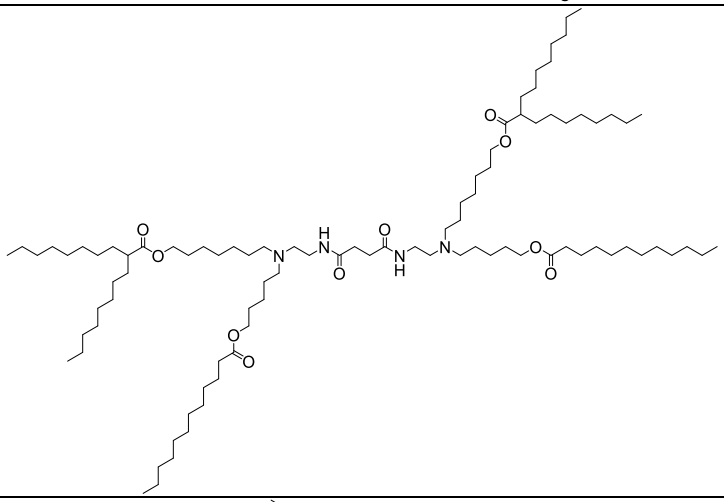
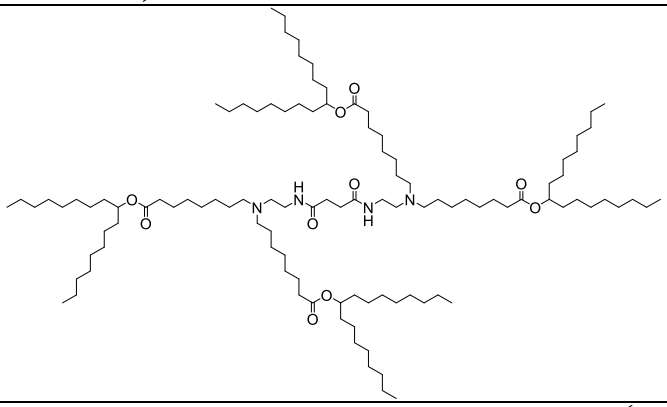
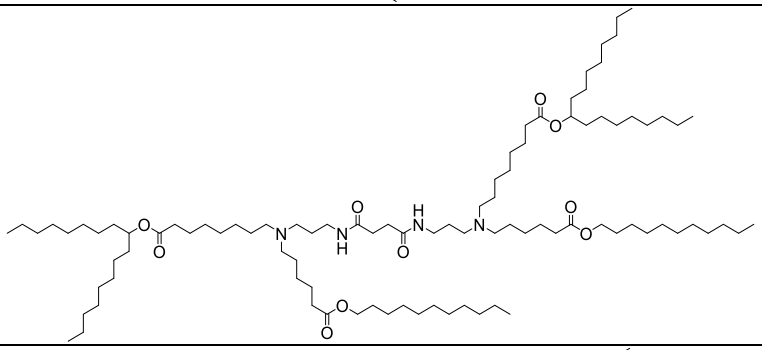
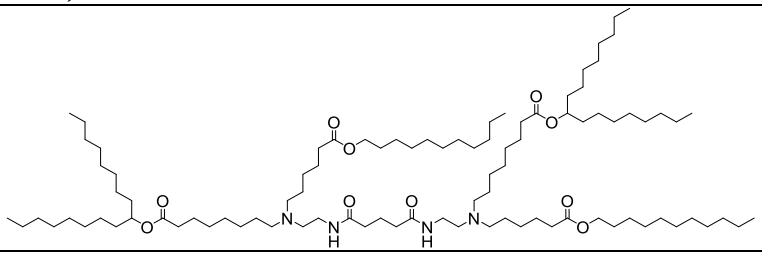
15. The compound of any one of the preceding claims, wherein the pKa of the protonated form of the compound is from 5.1 to 8.0.

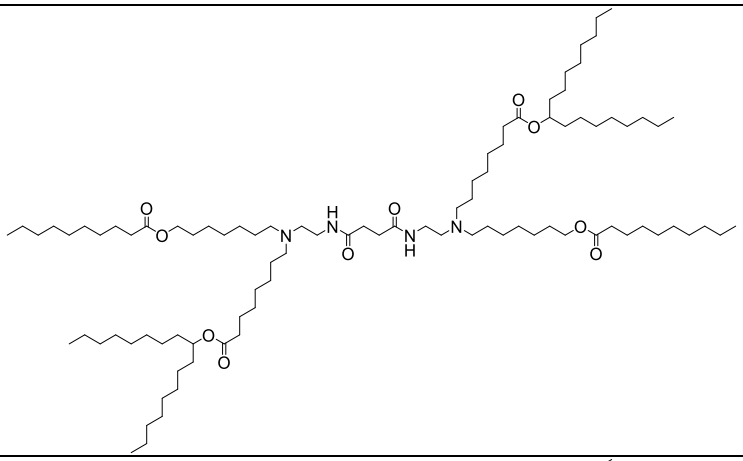
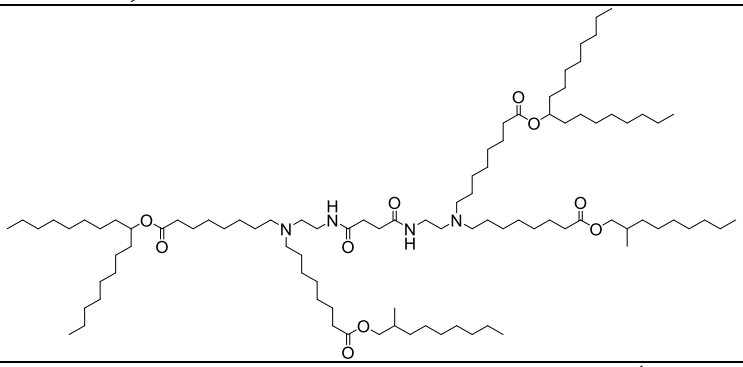
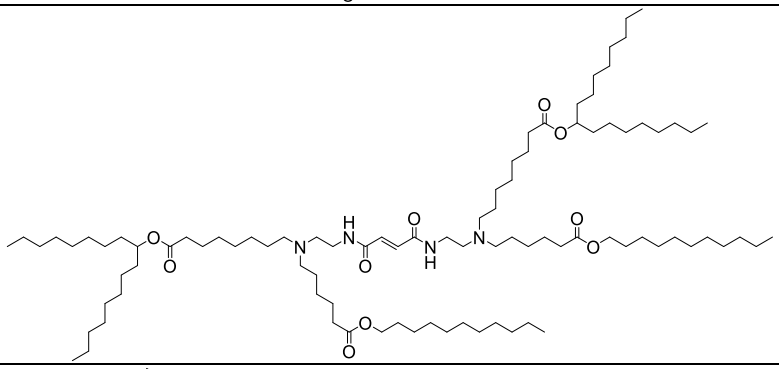
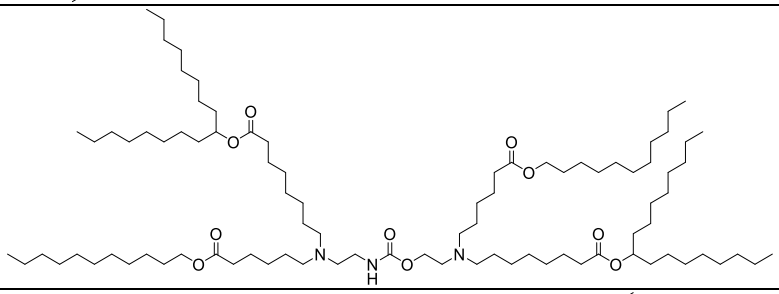
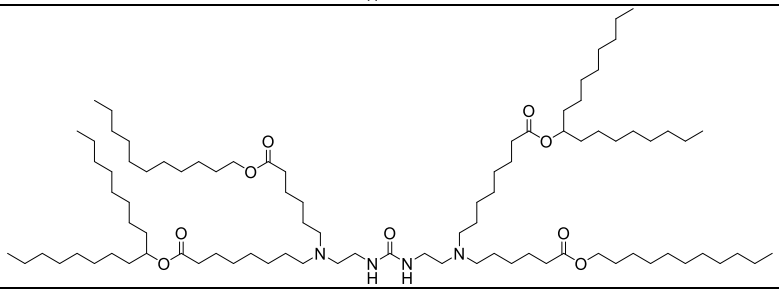
16. The compound of claim 15, wherein the pKa of the protonated form of the compound is from 5.7 to 6.5.

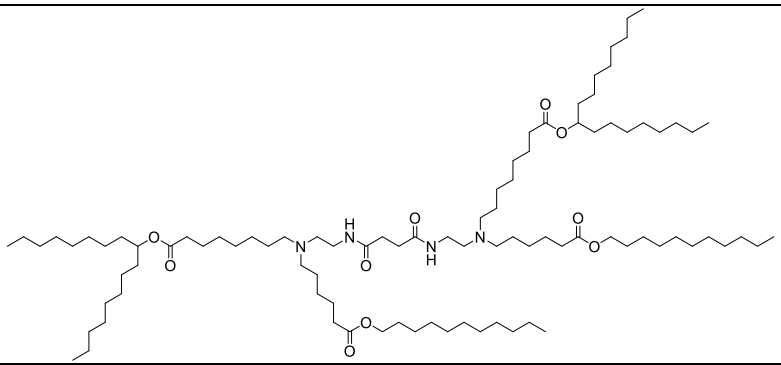
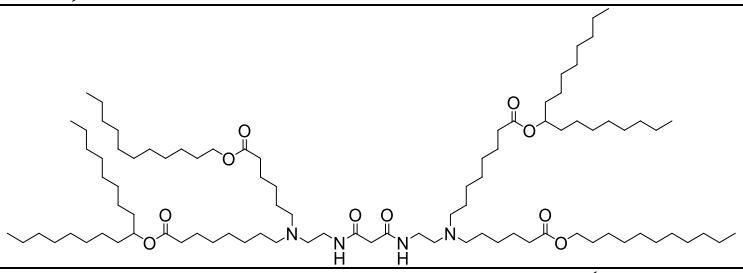
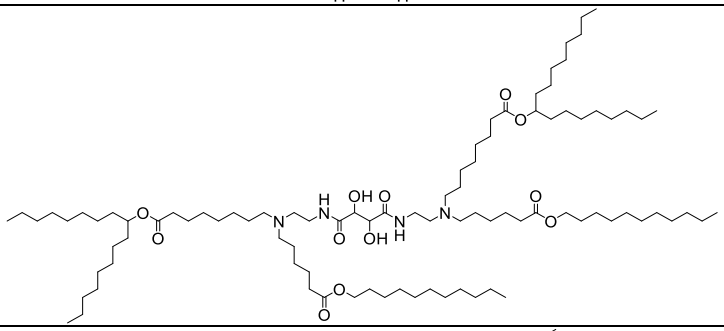
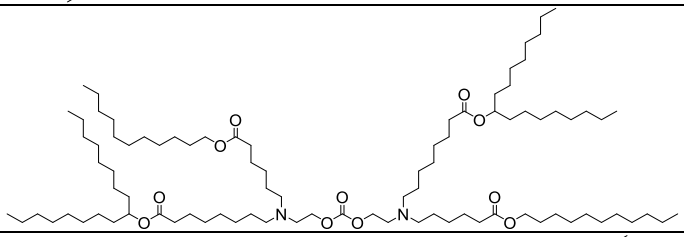
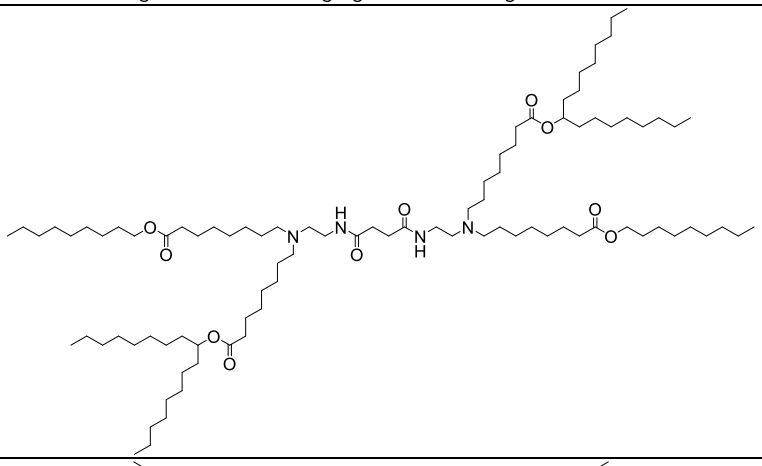
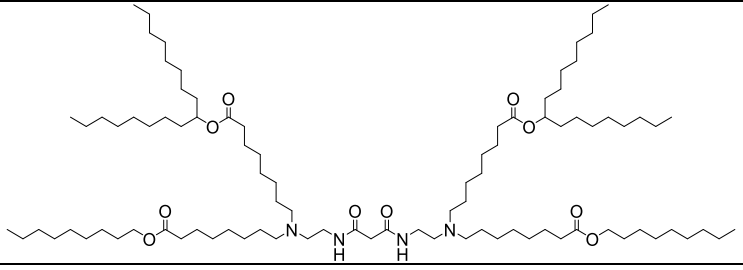
17. The compound of claim 1, wherein the compound is one of the following:

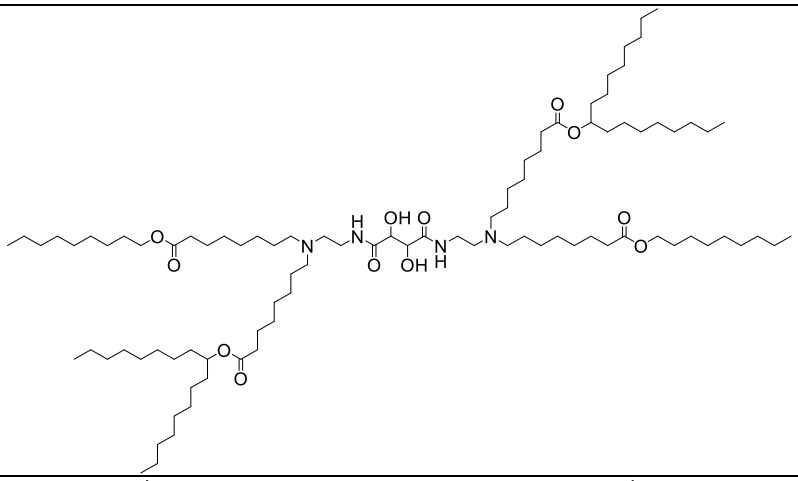
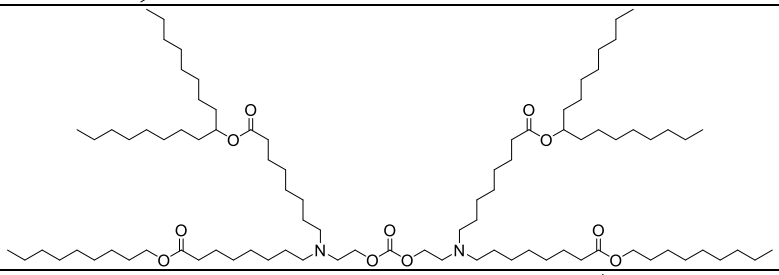
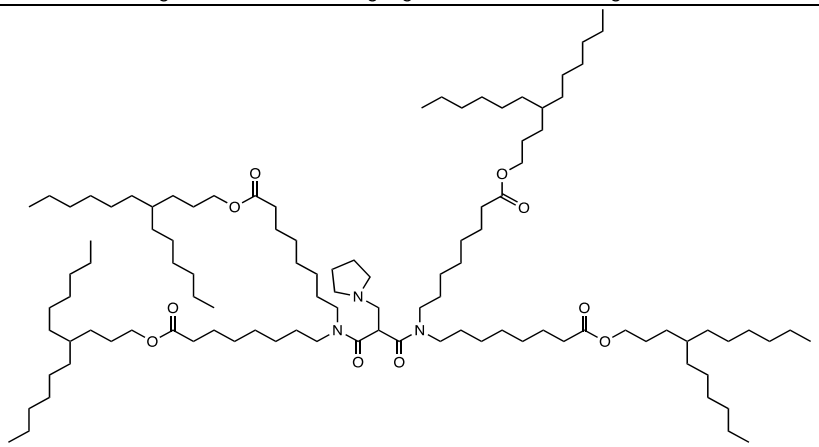
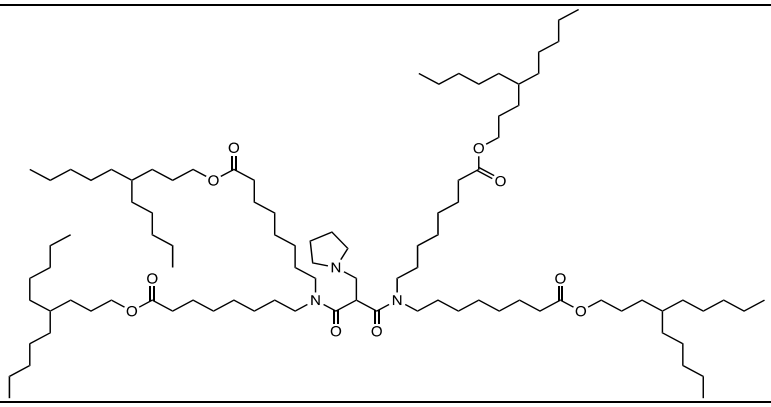
Lipid No.	Structure
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2289	
2288	
2286	
2285	

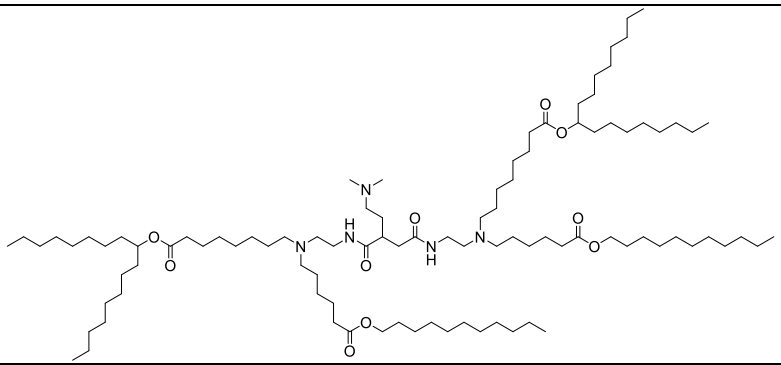
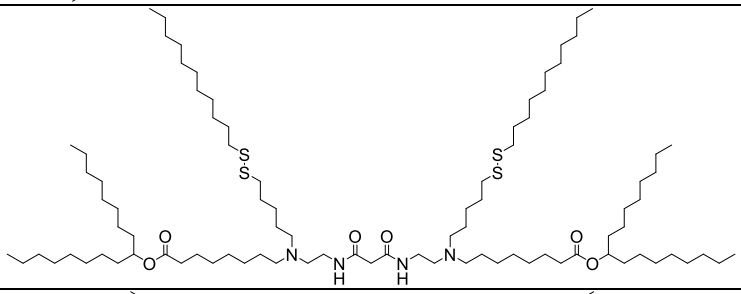
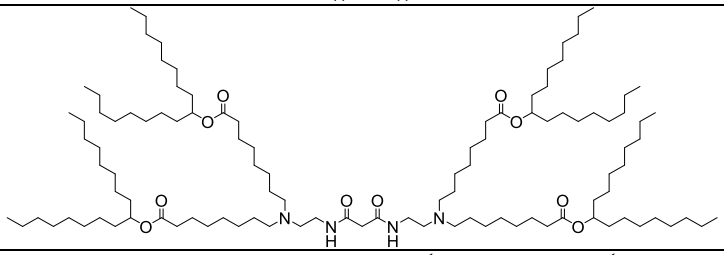
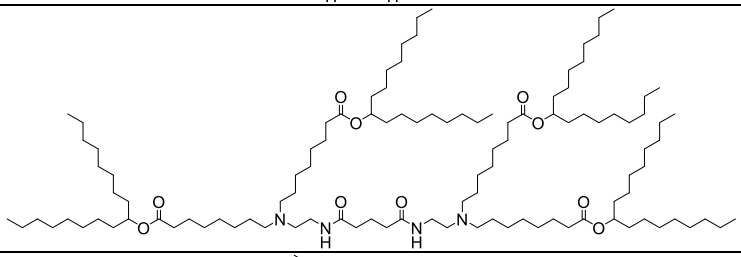
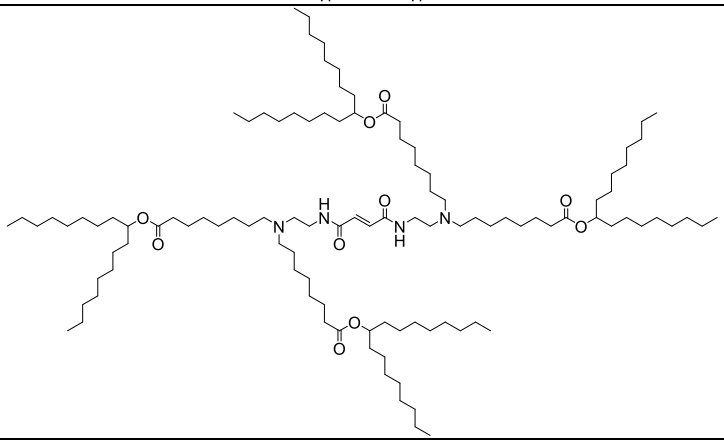
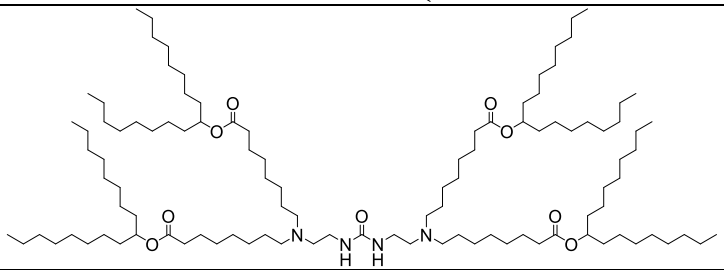
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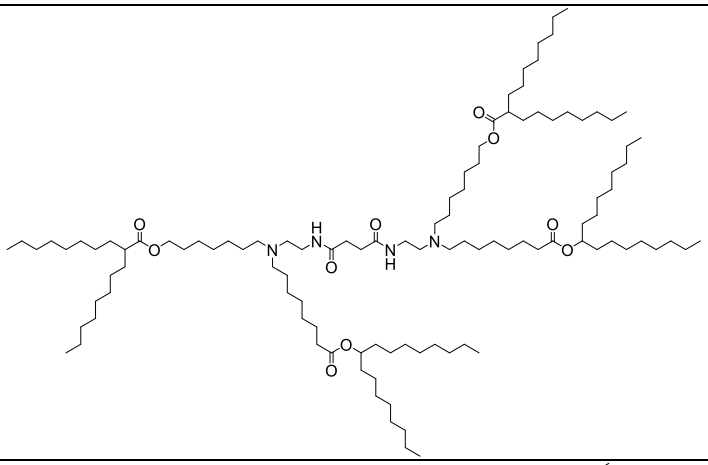
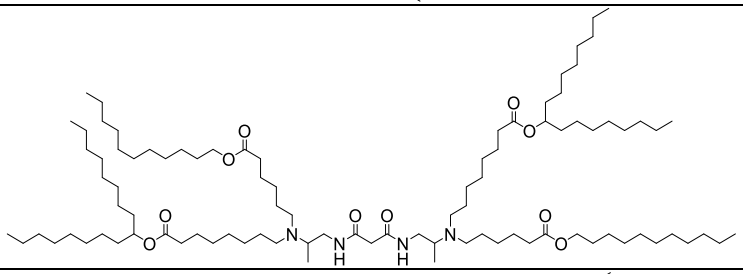
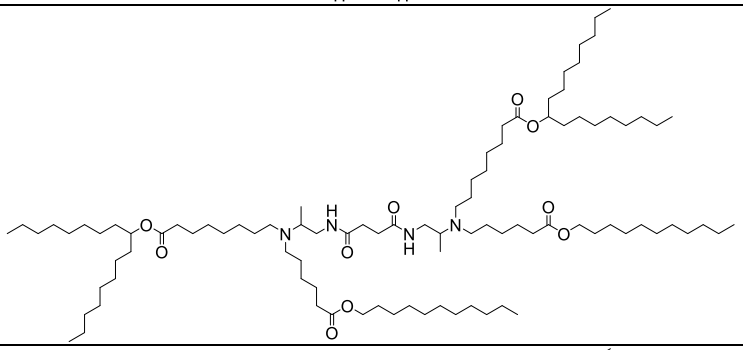
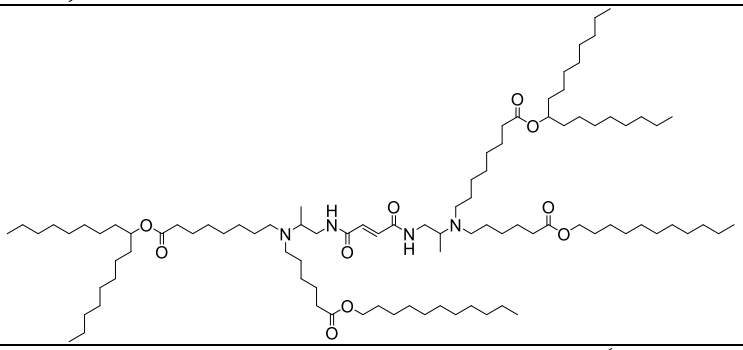
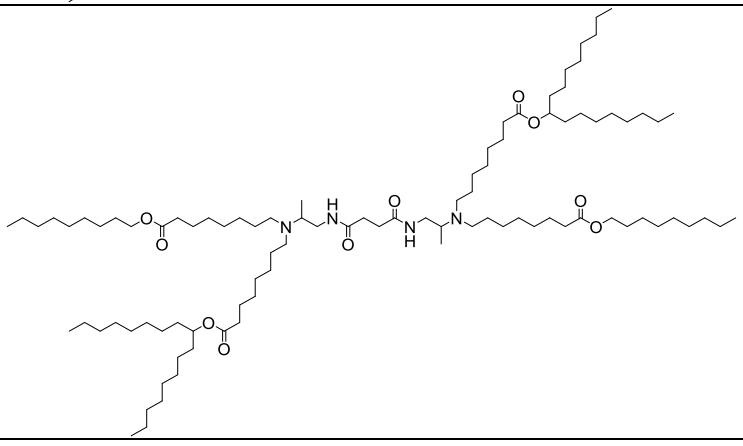
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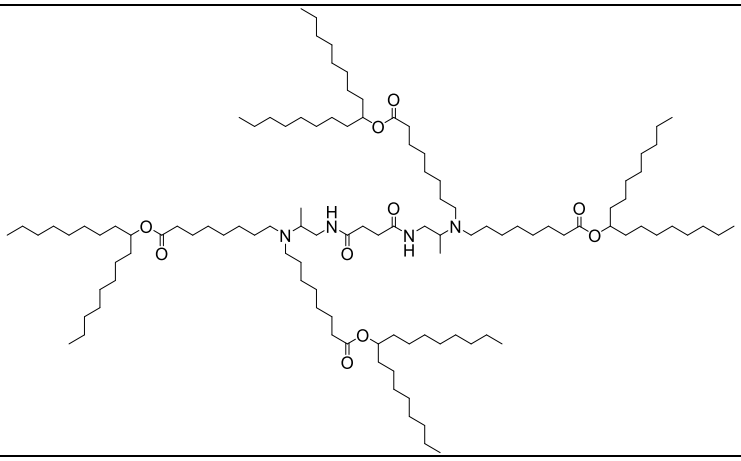
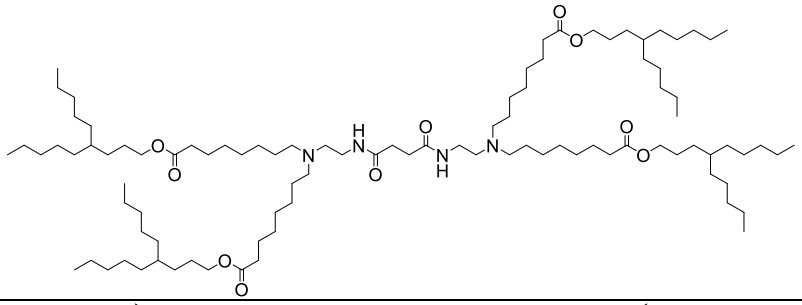
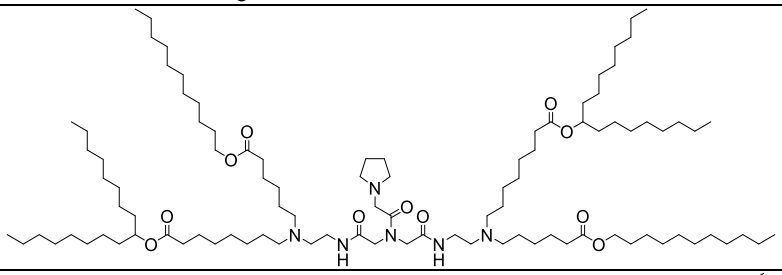
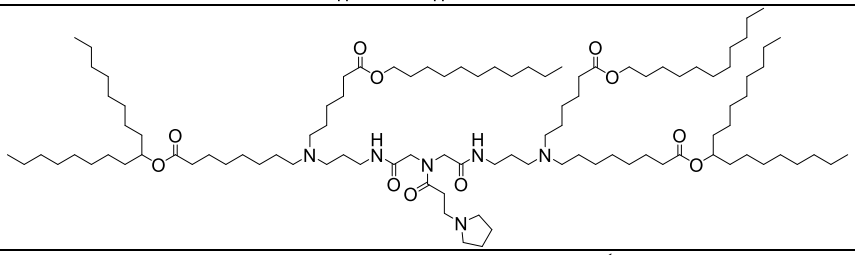
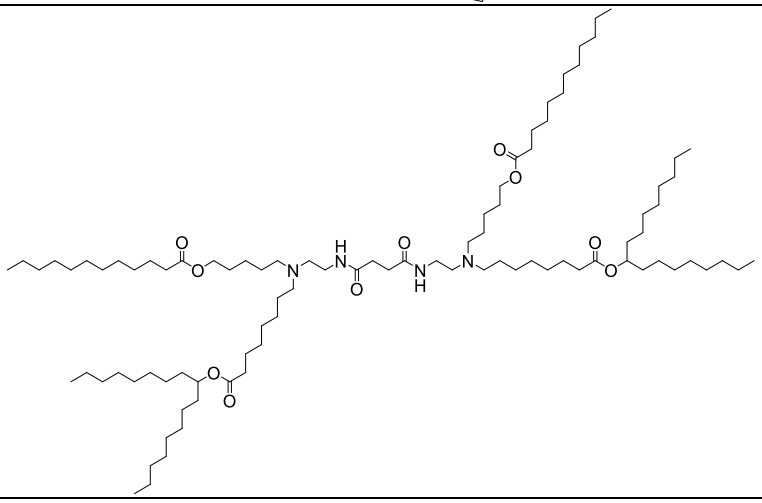
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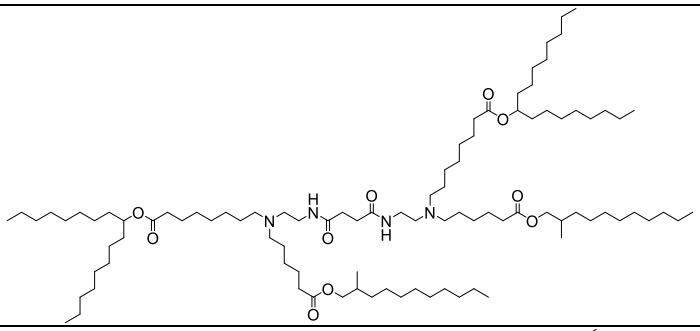
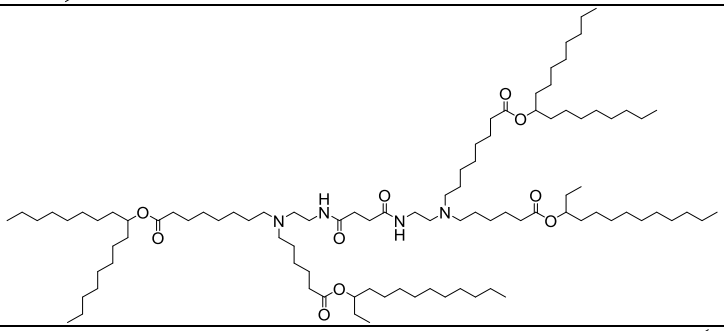
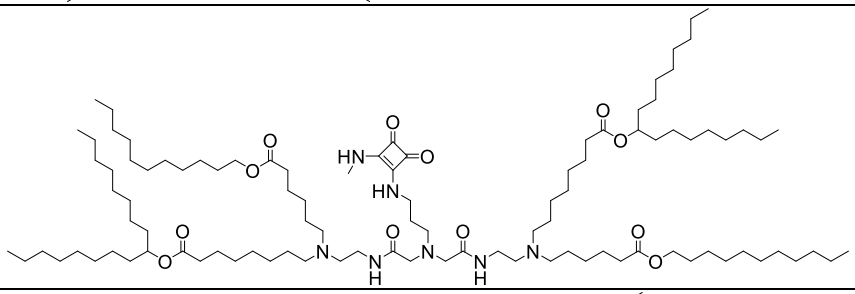
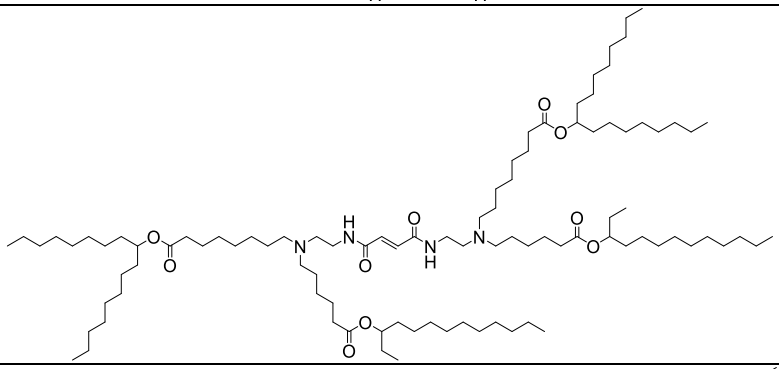
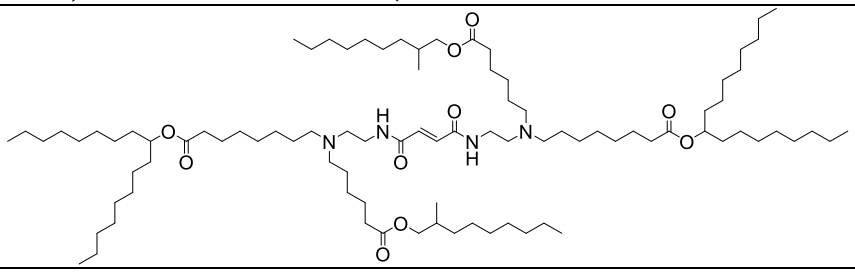
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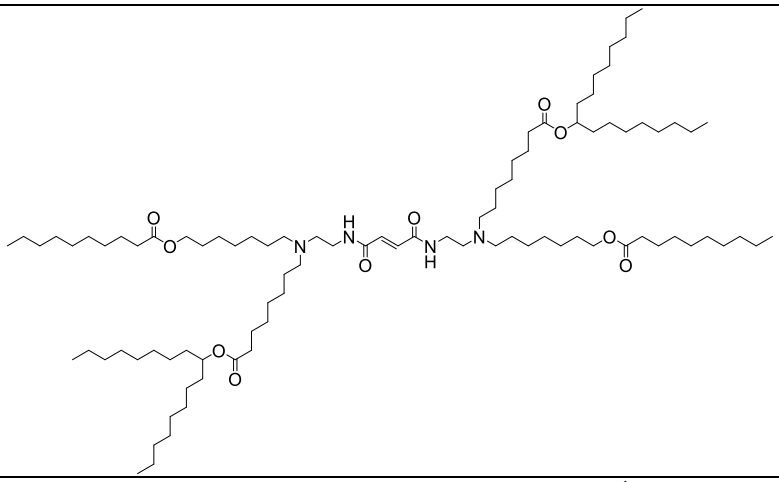
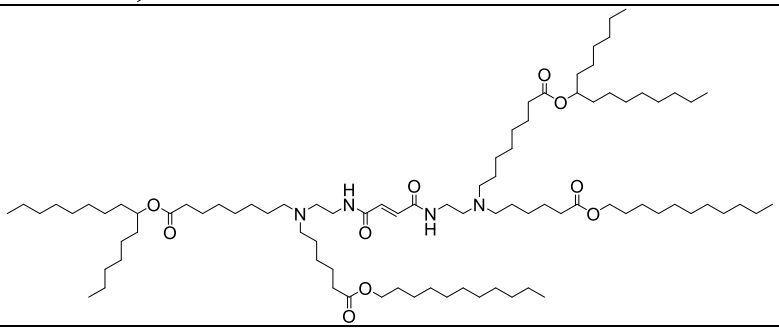
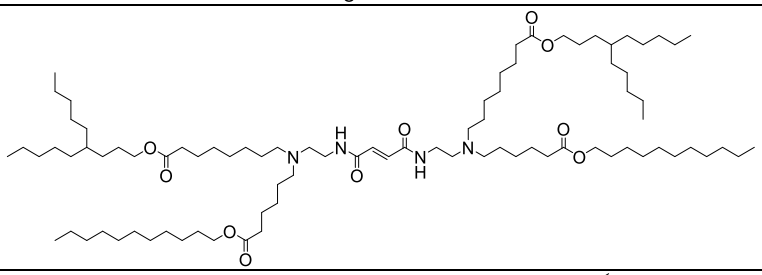
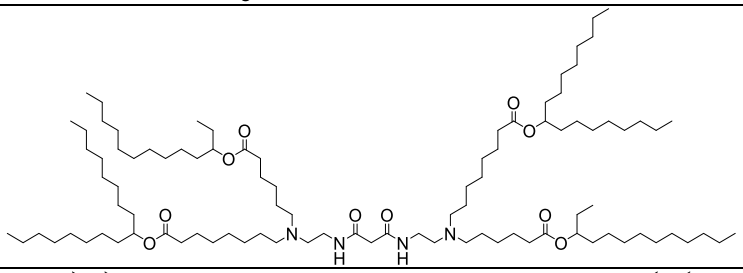
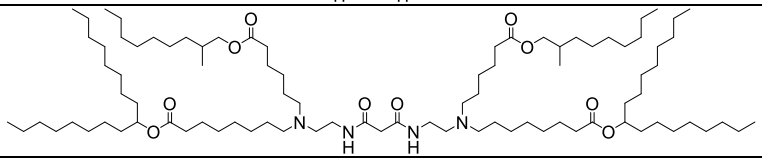
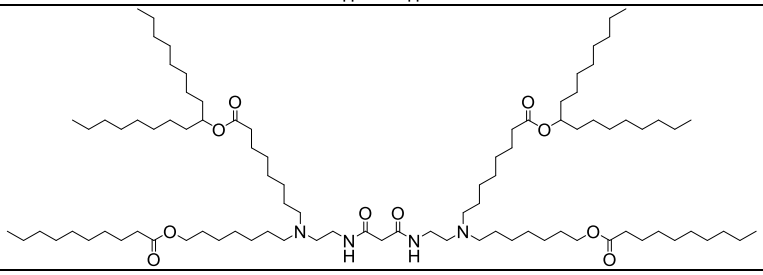
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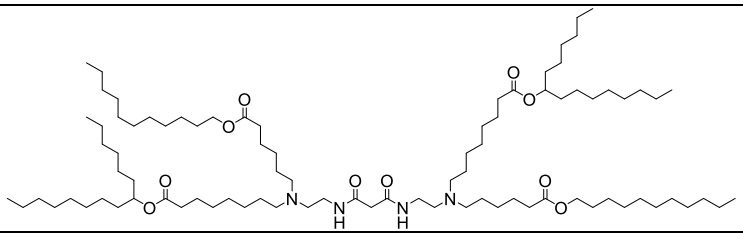
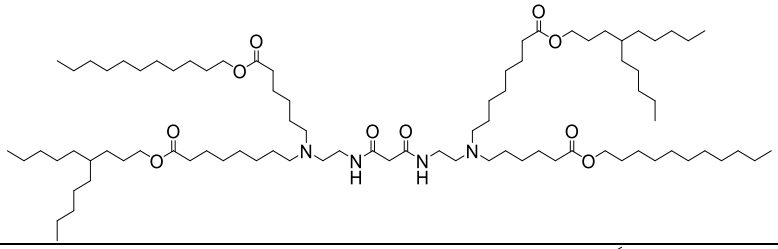
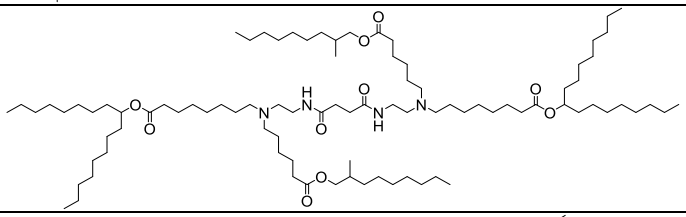
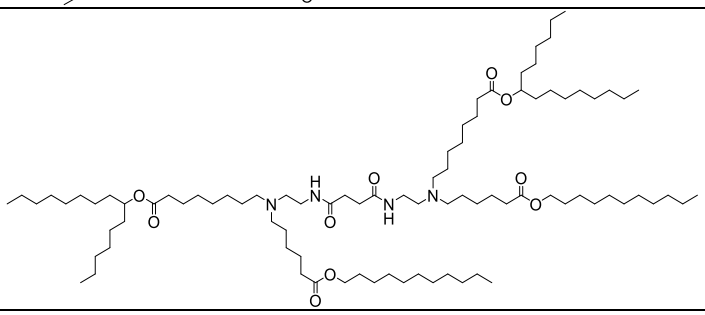
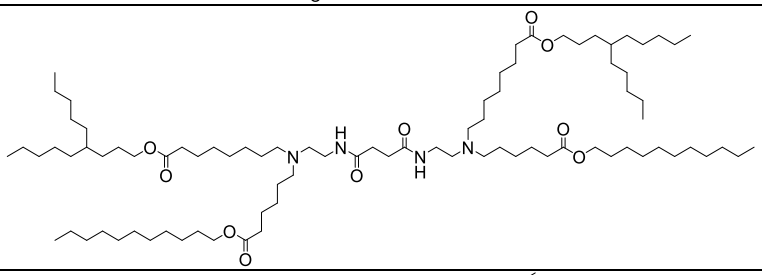
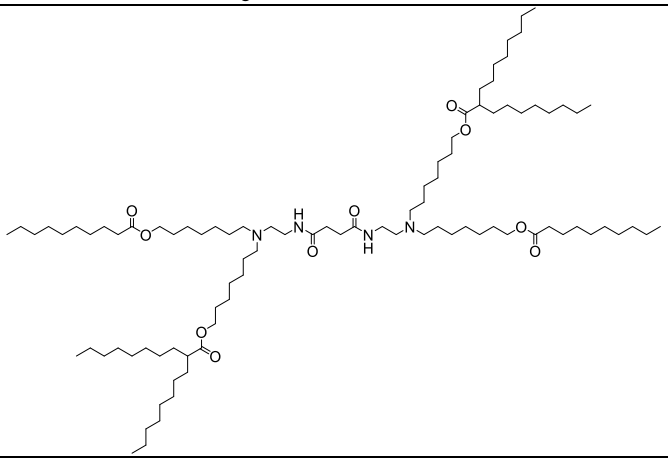
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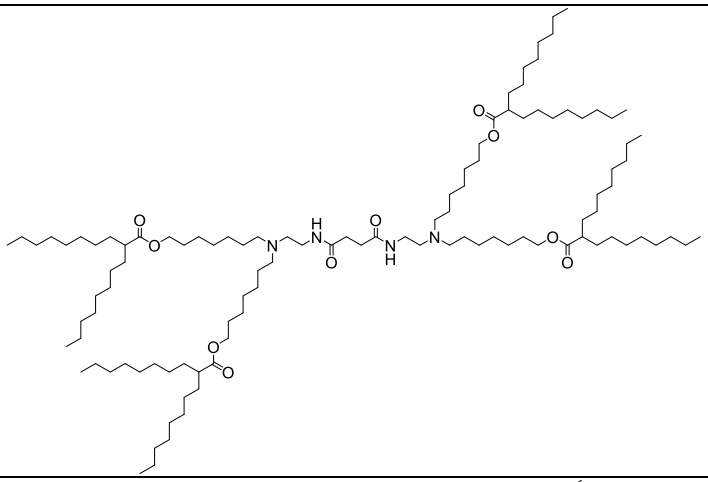
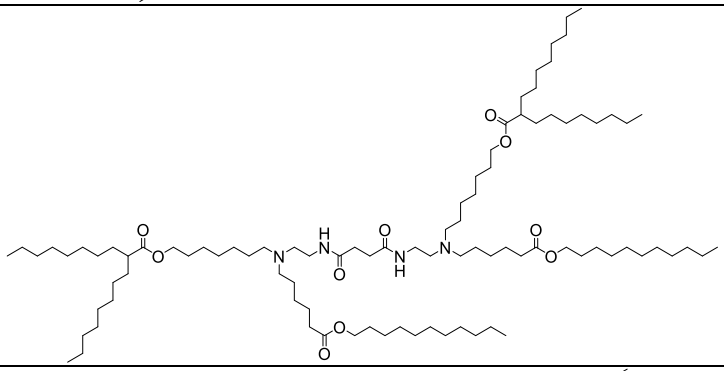
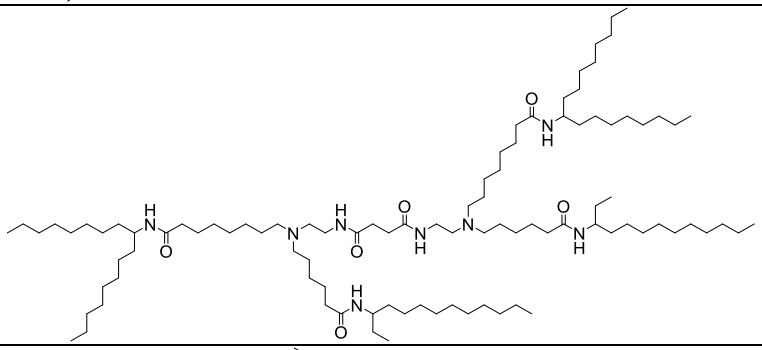
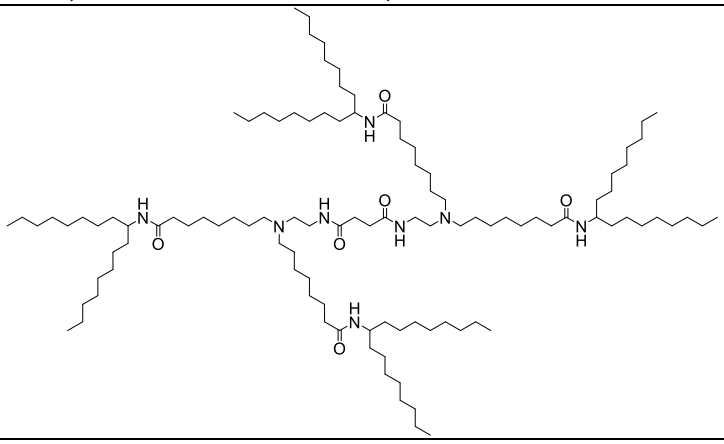
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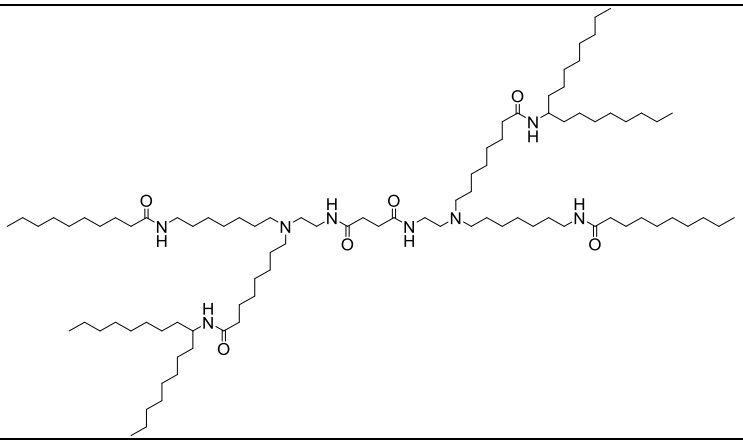
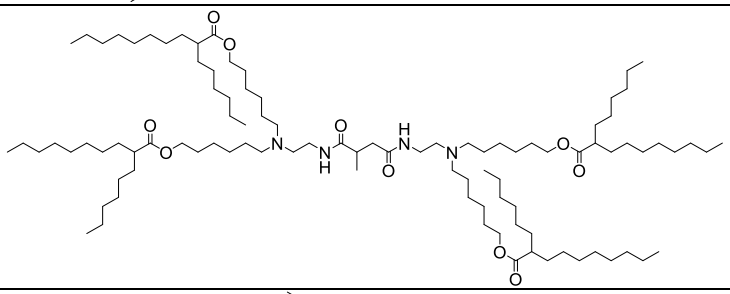
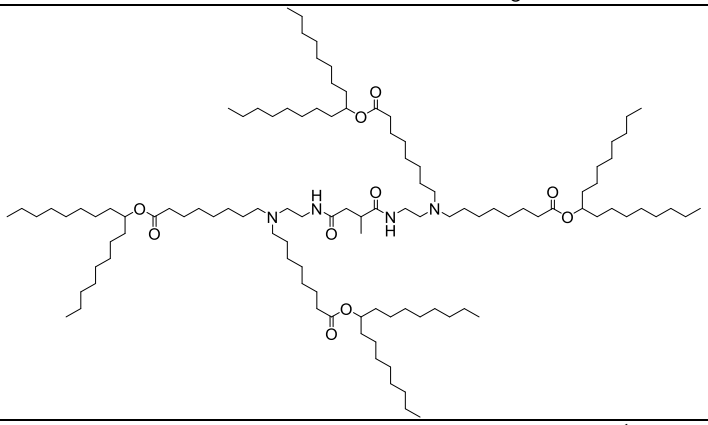
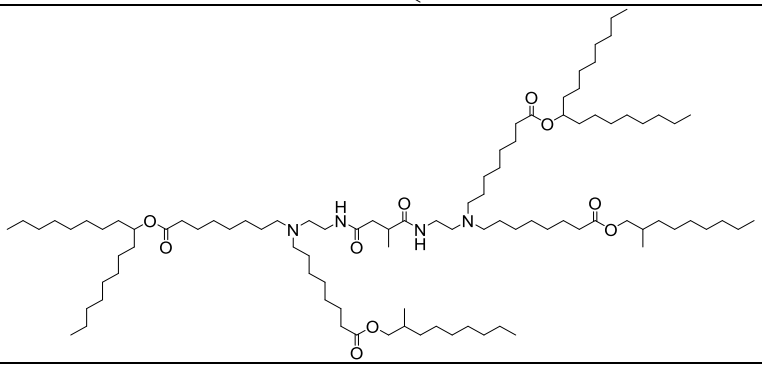
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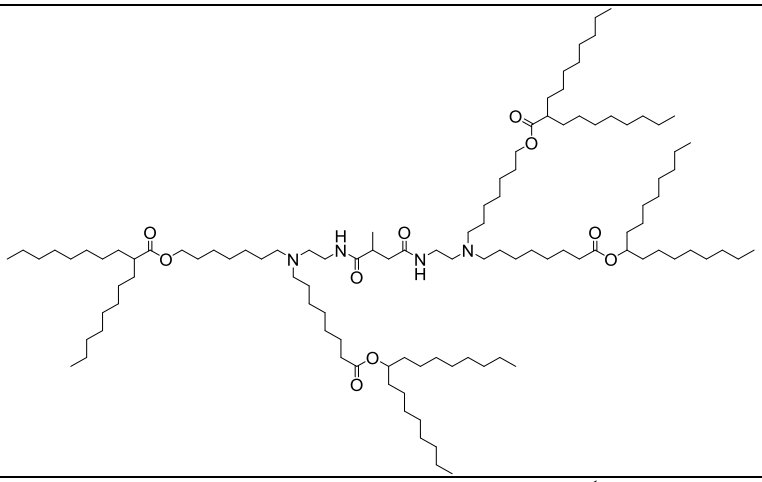
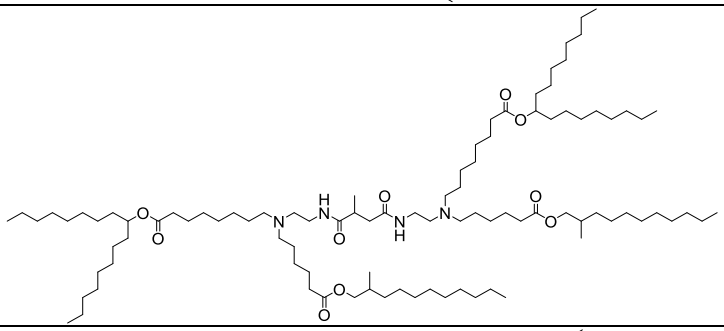
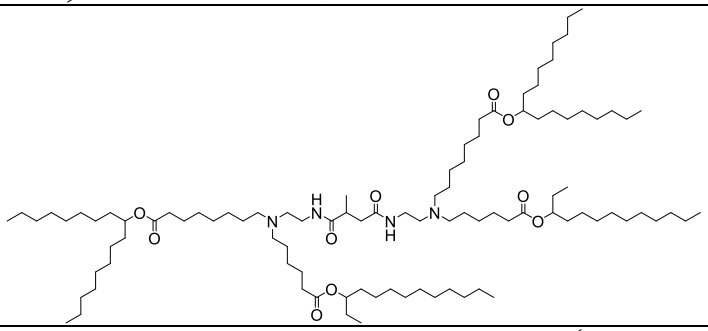
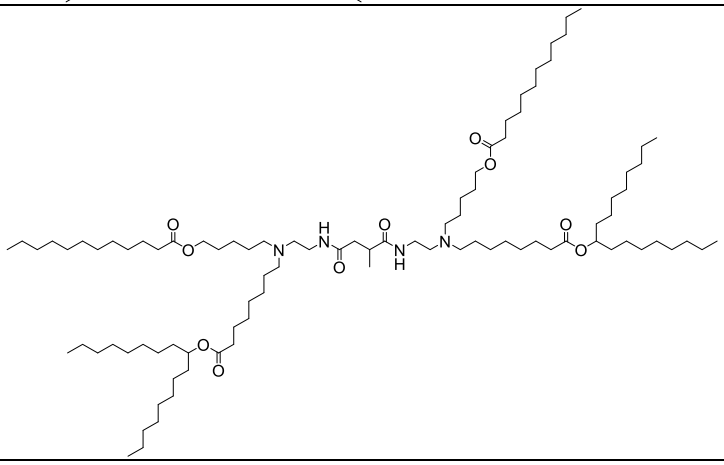
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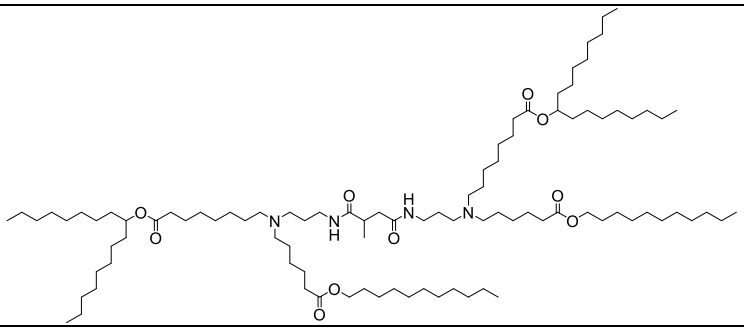
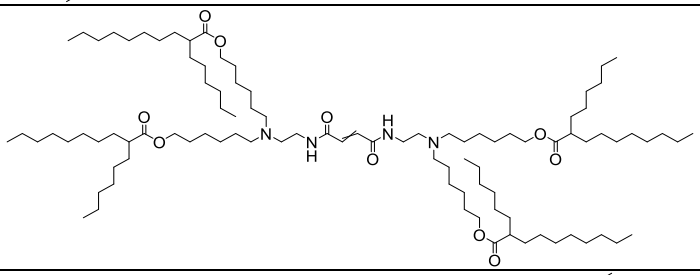
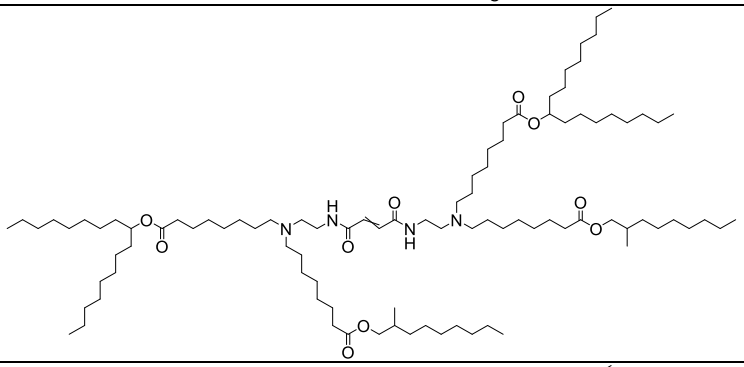
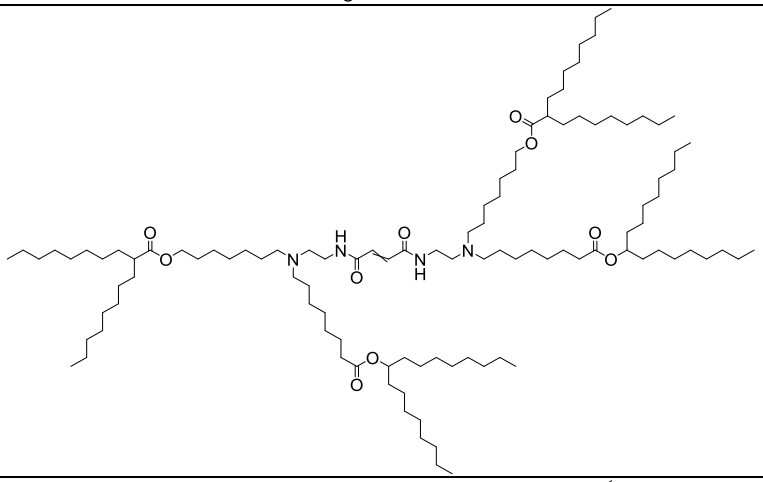
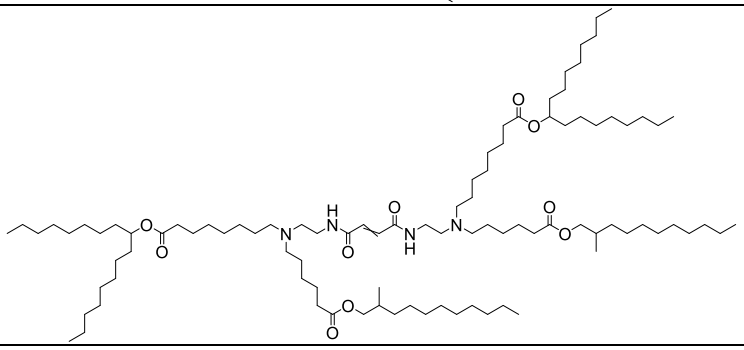
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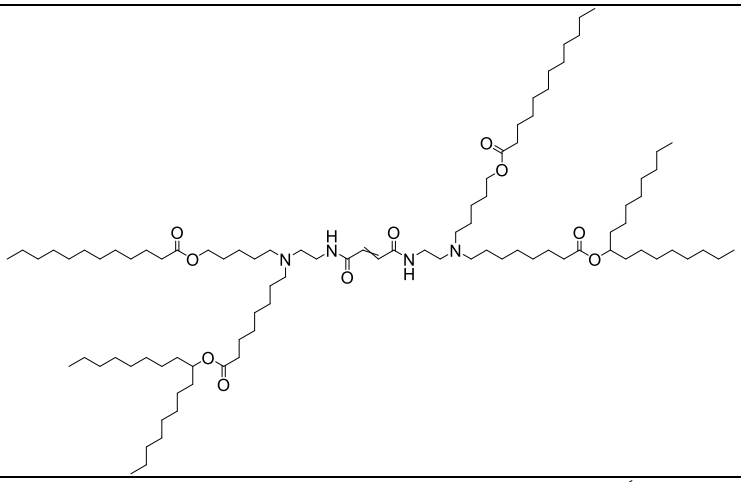
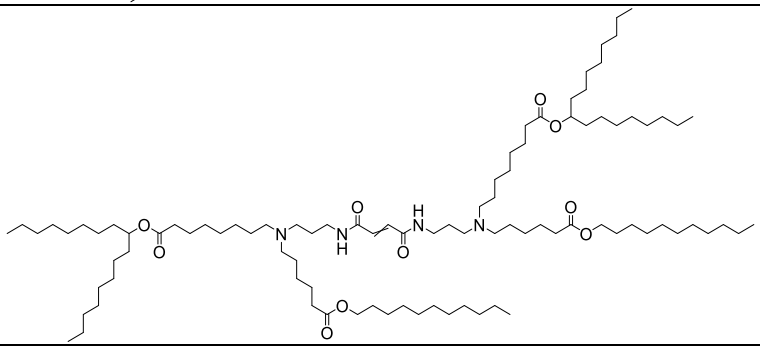
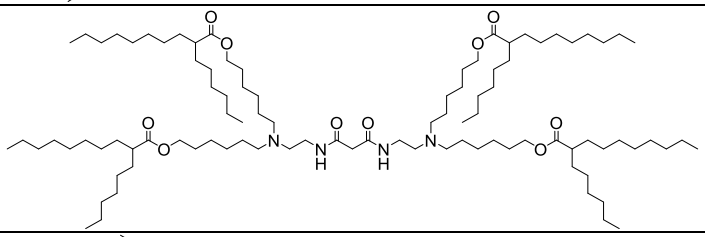
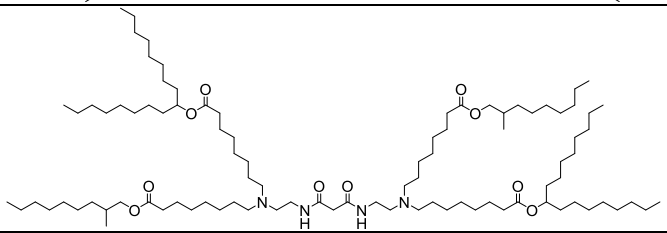
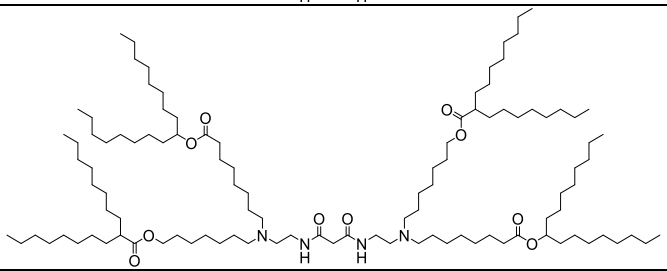
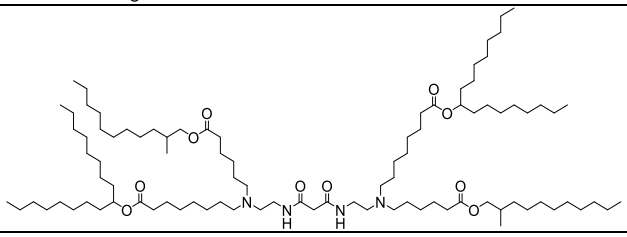
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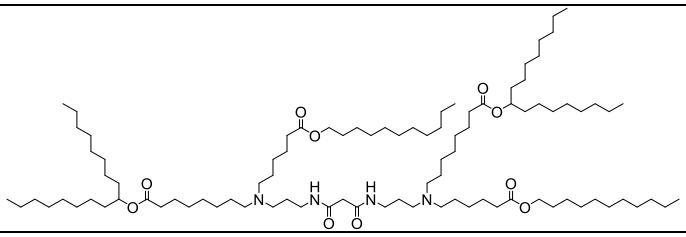
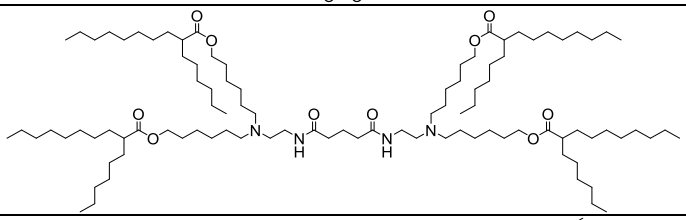
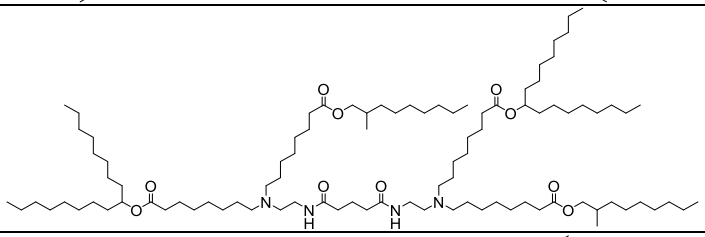
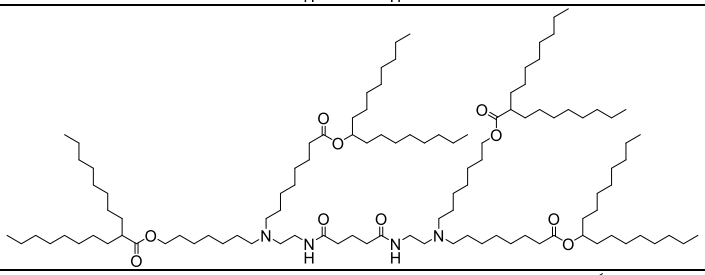
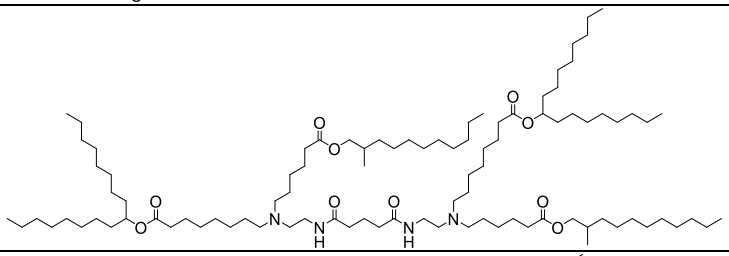
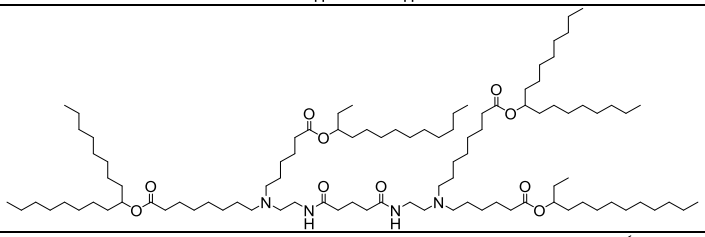
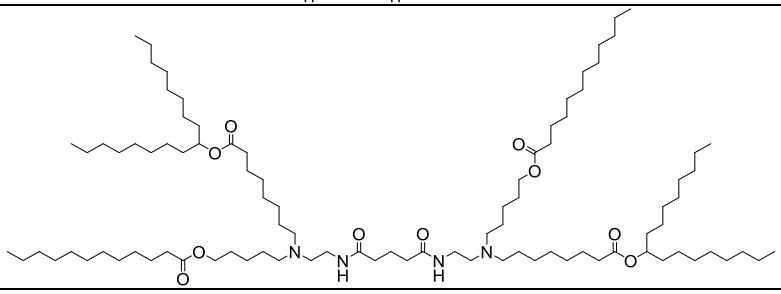
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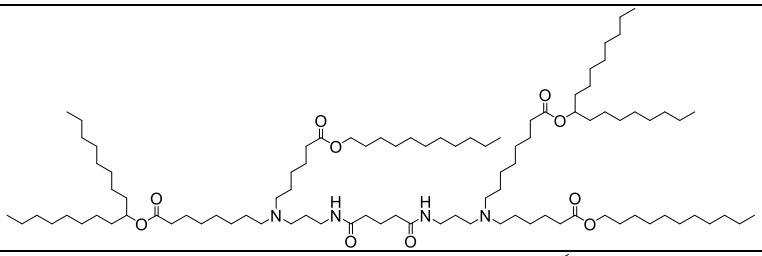
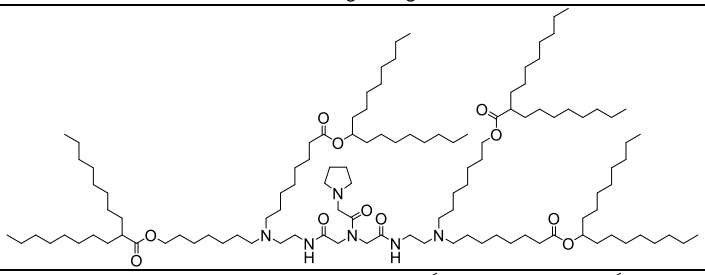
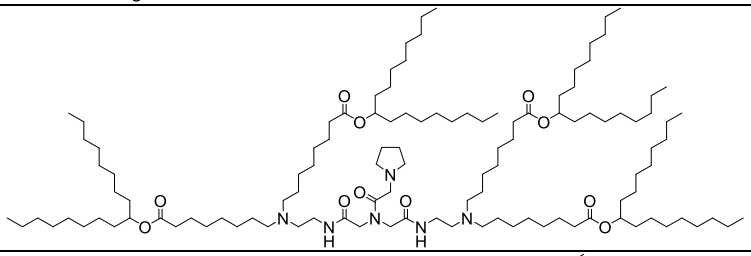
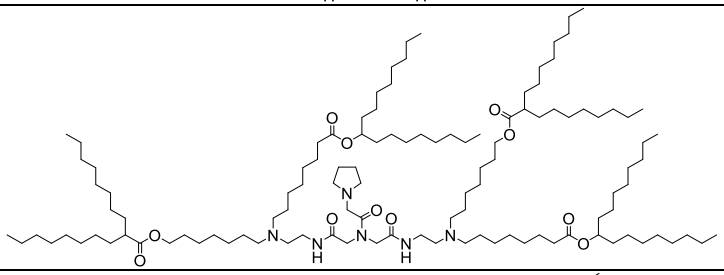
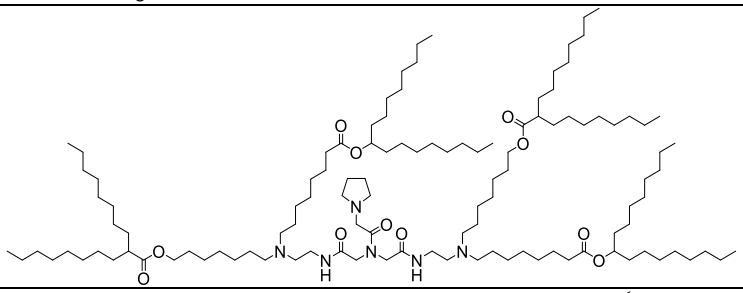
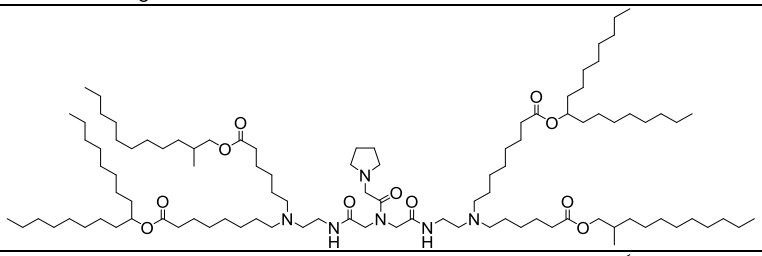
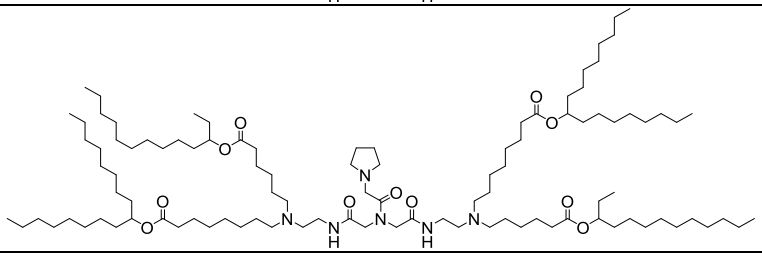
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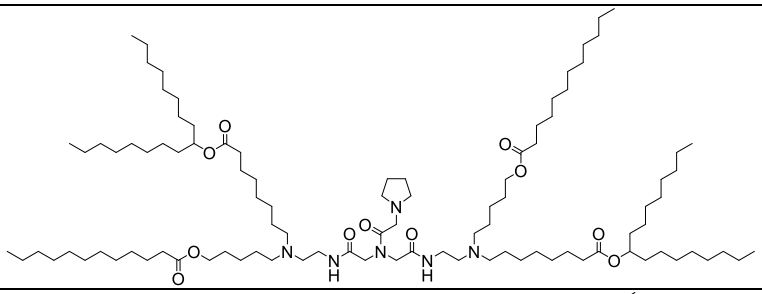
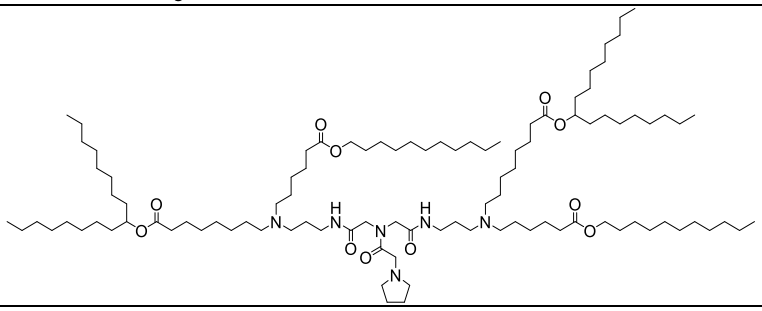
	
	
	
	

18. A combination of the compound of any one of the preceding claims and a lipid component.

19. The combination of claim 18, wherein the combination comprises a 1:1 ratio of the compound and the lipid component.

20. The combination of claim 18 or 19, wherein the combination is a LNP composition.

21. The combination of any one of claims 18-20, wherein the lipid component comprises a helper lipid and a PEG lipid, and optionally a neutral lipid.

22. The combination of any one of claims 18-21, further comprising a nucleic acid component.

23. The combination of claim 22, wherein the nucleic acid component is an RNA or DNA component.

24. The combination of claim 22, having an N/P ratio of 3-10.

25. The combination of claim 23, wherein the nucleic acid component is a RNA component, and wherein the RNA component comprises a mRNA.

26. Use of a composition comprising one or more compounds according to any one of claims 1-17 in the manufacture of a medicament for delivering a therapeutic cargo to a target organ of a subject in need thereof.

27. The use of claim 26, wherein the target organ is the pancreas or the lung, and wherein:

less than 50%, 30%, or 10% of the therapeutic cargo is to be delivered to the liver of the subject; and/or

more than 50%, 70%, or 90% of the therapeutic cargo is to be delivered to the pancreas and/or lung of the subject.