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C07C 235/12 (2006.01)
C07C 237/12 (2006.01)
C07C 323/52 (2006.01)
C07C 323/60 (2006.01)
C07C 333/04 (2006.01)
C12N 15/11 (2006.01)

Norwegian Industrial Property Office

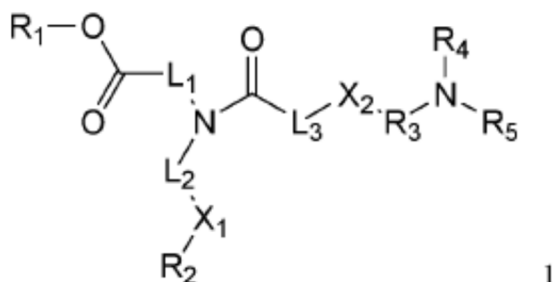
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(54)	Title	IONIZABLE CATIONIC LIPID FOR RNA DELIVERY
(56)	References Cited:	WO-A1-2013/086373 WO-A2-2012/170952

Enclosed is a translation of the patent claims in Norwegian. Please note that as per the Norwegian Patents Acts, section 66i the patent will receive protection in Norway only as far as there is agreement between the translation and the language of the application/patent granted at the EPO. In matters concerning the validity of the patent, language of the application/patent granted at the EPO will be used as the basis for the decision. The patent documents published by the EPO are available through Espacenet (<http://worldwide.espacenet.com>) or via the search engine on our website here: <https://search.patentstyret.no/>

Patentkrav

1. Forbindelse av formel I



5 hvori:

R_1 og R_2 er like eller forskjellige, hvert et lineært eller forgrenet alkyl med 1 til 9 karbonatomer, eller et alkenyl eller alkynyl med 2 til 11 karbonatomer,

L_1 og L_2 er like eller forskjellige, hvert et lineært alkyl som består av 5 til 18 karbonatomer, X_1 er en binding eller er $-CO-O-$ hvorved $-L_2-CO-O-R_2$ dannes,

10 X_2 er S,

L_3 er en binding eller et metylen,

R_3 er et lineært eller forgrenet alkyl som består av 1 til 6 karbonatomer, og

R_4 og R_5 er like eller forskjellige, hvert et lineært eller forgrenet alkyl som består av 1 til 6 karbonatomer;

15 eller et farmasøytisk akseptabelt salt derav,

hvor alkyl er en mettet, rettkjedet eller forgrenet hydrokarbonkjede.

2. Forbindelsen ifølge krav 1, hvori L_3 er en binding.

3. Forbindelsen ifølge krav 1, hvori L_3 er metylen.

4. Forbindelsen ifølge krav 1, hvori L_1 og L_2 er like.

20 5. Forbindelsen ifølge krav 1, hvori L_1 og L_2 er forskjellige.

6. Forbindelsen ifølge krav 1, hvori R_1 og R_2 er like.

7. Forbindelsen ifølge krav 6, hvori R_1 og R_2 hver består av et alkenyl med 2 til 11 karbonatomer.

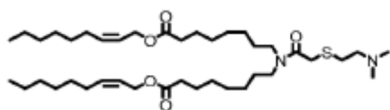
8. Forbindelsen ifølge krav 6, hvori R_1 og R_2 hver består av et lineært eller forgrenet alkyl med 1 til 9 karbonatomer.

9. Forbindelsen ifølge krav 7, hvori alkenylet har én dobbeltbinding.

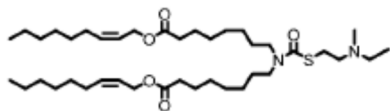
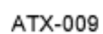
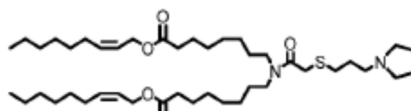
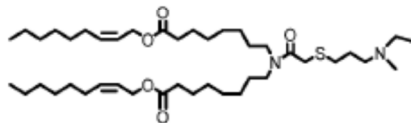
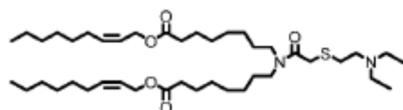
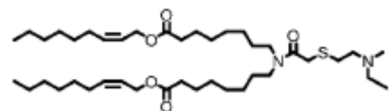
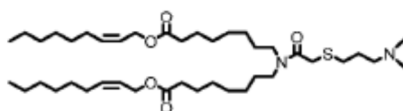
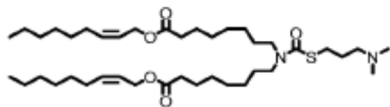
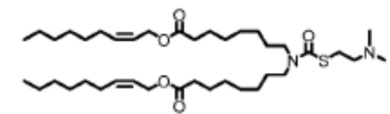
10. Forbindelsen ifølge krav 9, hvori R_1 eller R_2 består av 7, 9 eller 11 karbonatomer.

11. Forbindelsen ifølge krav 1 som velges fra gruppen som består av forbindelsene med de følgende formlene

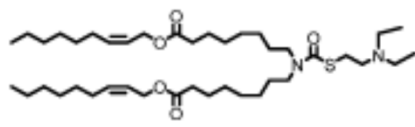
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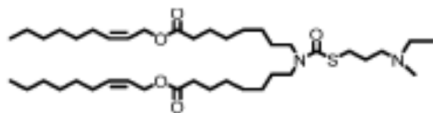
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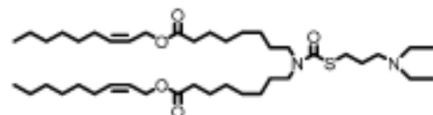
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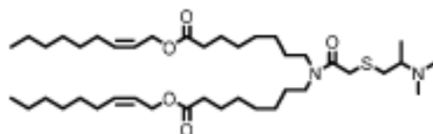
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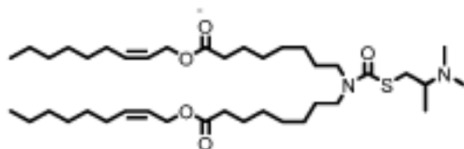
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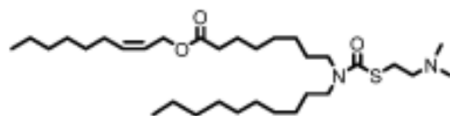
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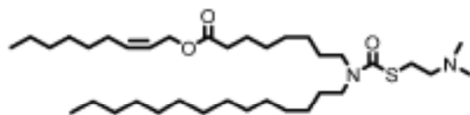
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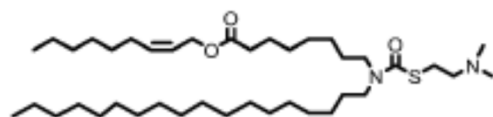
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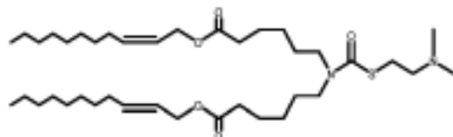
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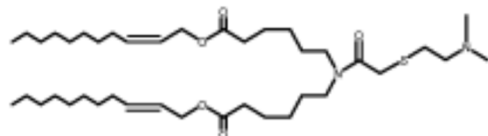
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ATX-026

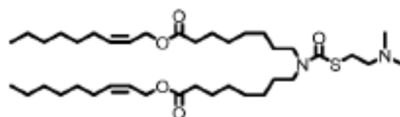


ATX-027



12. Forbindelsen ifølge krav 1 som er:

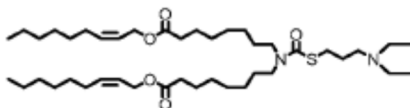
ATX-002



eller et farmasøytisk akseptabelt salt derav.

13. Forbindelsen ifølge krav 1 som er:

ATX-012



5 eller et farmasøytisk akseptabelt salt derav.