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(54) Title: NOVEL LIPIDS FOR DELIVERY OF NUCLEIC ACID SEGMENTS

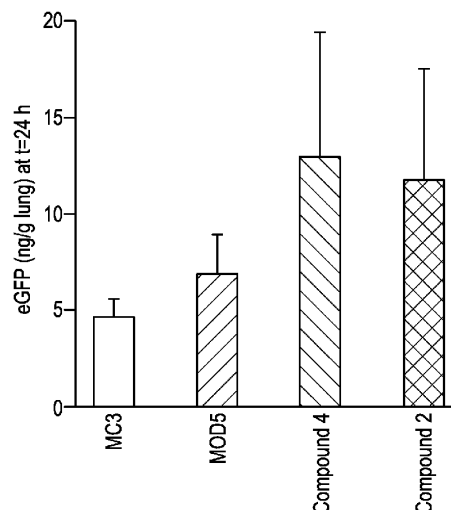
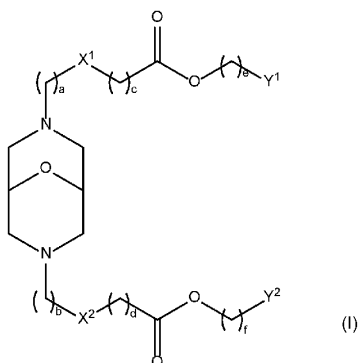


FIG. 1

(57) Abstract: Disclosed herein are compounds of Formula (I) or pharmaceutically acceptable salts thereof, wherein X^1 , Y^1 , X^2 , Y^2 , a, b, c, d, e and f are as defined herein. Also disclosed are lipid nanoparticles comprising a compound of Formula (I) or a pharmaceutically acceptable salt thereof; pharmaceutical compositions comprising a plurality of lipid nanoparticles comprising a compound of Formula (I) or a pharmaceutically acceptable salt thereof and a nucleic acid segment; as well as methods for delivering a nucleic acid segment comprising administering a plurality of lipid nanoparticles comprising a compound of Formula (I) or a pharmaceutically acceptable salt thereof, and a nucleic acid segment.

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