

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
02 June 2022 (02.06.2022)



(10) International Publication Number
WO 2022/115645 A1

(51) International Patent Classification:

A61K 31/7088 (2006.01) A61K 47/08 (2006.01)
A61K 31/7105 (2006.01) C07C 327/06 (2006.01)
A61K 31/713 (2006.01) C07C 327/22 (2006.01)

(21) International Application Number:

PCT/US2021/060877

(22) International Filing Date:

24 November 2021 (24.11.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/118,534 25 November 2020 (25.11.2020) US

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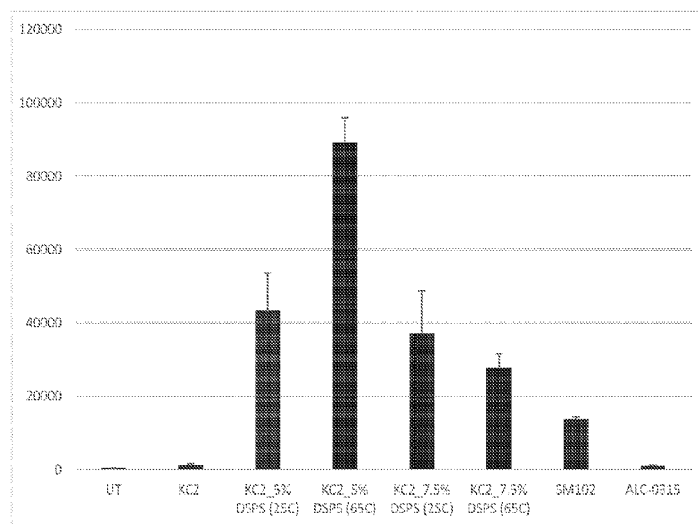
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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN,
KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD,
ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO,
NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW,
SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN,
TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(54) Title: LIPID NANOPARTICLES FOR DELIVERY OF NUCLEIC ACIDS, AND RELATED METHODS OF USE

FIG. 15 (Example 24).



(57) Abstract: The present disclosure provides for improved compositions of ionizable lipid nanoparticles for the delivery of therapeutic nucleic acids to cells. Cationic ionizable lipids are engineered with improved stability to oxidative degradation while in storage, while retaining high transfection activity or potency in cells. These lipids are designed to be biodegradable, thus improving the tolerability of nanoparticles formed with them *in vivo*. In addition, targeting of these nanoparticles in a highly specific manner to dendritic cells is provided for through inclusion of antibody conjugates directed against cell surface receptors.

[Continued on next page]



WO 2022/115645 A1

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *with sequence listing part of description (Rule 5.2(a))*