

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
05 December 2024 (05.12.2024)



(10) International Publication Number
WO 2024/245317 A1

(51) International Patent Classification:

C07K 14/04 (2006.01) A61K 47/28 (2006.01)
A61K 39/25 (2006.01) A61P 31/20 (2006.01)

LU, LV, MC, ME, 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).

(21) International Application Number:

PCT/CN2024/096215

Published:

- with international search report (Art. 21(3))
- with sequence listing part of description (Rule 5.2(a))

(22) International Filing Date:

30 May 2024 (30.05.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

PCT/CN2023/097333

31 May 2023 (31.05.2023) CN

(71) Applicant: SUZHOU ABOGEN BIOSCIENCES CO.,
LTD. [CN/CN]; B1-501, 218 XINGHU AVE, BIOBAY,
SUZHOU INDUSTRIAL PARK, Suzhou, Jiangsu 215123
(CN).

(72) Inventors: SONG, Haifeng; B1-501, 218 XINGHU AVE,
BIOBAY, SUZHOU INDUSTRIAL PARK, Suzhou, Jiang-
su 215123 (CN). JI, Kai; B1-501, 218 XINGHU AVE,
BIOBAY, SUZHOU INDUSTRIAL PARK, Suzhou, Jiang-
su 215123 (CN). LU, Xishan; B1-501, 218 XINGHU AVE,
BIOBAY, SUZHOU INDUSTRIAL PARK, Suzhou, Jiang-
su 215123 (CN).

(74) Agent: CHINA PATENT AGENT (H.K.) LTD., 22/F.,
Great Eagle Center, 23 Harbor Road, Wanchai, Hong Kong
999077 (CN).

(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, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, 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.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, CV,
GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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,

(54) Title: MUTATED FRAGMENT OF VZV GLYCOPROTEIN E

(57) Abstract: Provided herein are fragments of the gE protein of varicella-zoster virus and therapeutic nucleic acid molecules for managing, preventing and/or treating a disease or disorder caused by varicella-zoster virus or by infection therewith. Also provided herein are therapeutic compositions, including vaccines and lipid nanoparticles, comprising the therapeutic nucleic acids and related therapeutic methods and uses.

WO 2024/245317 A1