



(51) International Patent Classification:

A61K 39/12 (2006.01) A61P 31/14 (2006.01)
A61K 39/155 (2006.01) C07K 14/005 (2006.01)

(21) International Application Number:

PCT/EP2024/054257

(22) International Filing Date:

20 February 2024 (20.02.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

23157769.3 21 February 2023 (21.02.2023) EP

(71) Applicant: JANSSEN VACCINES & PREVENTION
B.V. [NL/NL]; Archimedesweg 4, 2333 CN Leiden (NL).

(72) Inventors: LANGEDIJK, Johannes, Petrus, Maria; c/o:
Archimedesweg 4-6, 2333 CN Leiden (NL). BAKKERS,
Mark, Johannes, Gerardus; c/o: Archimedesweg 4-6,
2333 CN Leiden (NL). KOORNNEEF, Annemart; c/o:
Archimedesweg 4-6, 2333 CN Leiden (NL). JURASZEK,
Jaroslaw; c/o: Archimedesweg 4-6, 2333 CN Leiden (NL).

(74) Agent: MSD INTERNATIONAL BUSINESS GMBH;
Tribtschenstrasse, 60, 6005 Lucerne (CH).

(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, 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).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

(54) Title: STABILIZED TRIMERIC RSV FUSION PROTEINS WITHOUT A HETEROLOGOUS TRIMERIZATION DOMAIN

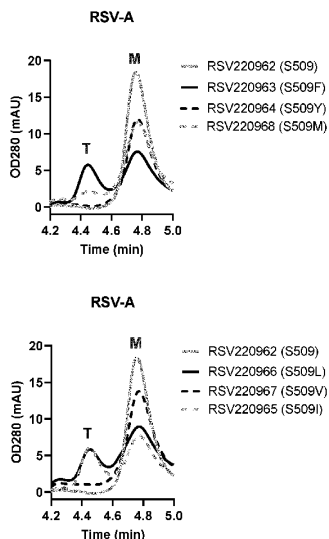


Fig. 2

(57) Abstract: The present invention relates to respiratory syncytial virus (RSV) F proteins, comprising a head region and a stem region, wherein the protein comprises at least one amino acid mutation in the stem region relative to the amino acid sequence of a wild-type RSV F protein, wherein the at least one mutation in the stem region comprises a mutation of the amino acid residue at position 509 into F, I or L, and wherein amino acid positions are numbered according to the numbering of the amino acid residues in SEQ ID NO:1, and to nucleic acids encoding such proteins, as well as to uses thereof.

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))
- in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE