



(51) International Patent Classification:

C07K 16/28 (2006.01) A61P 35/00 (2006.01)

(21) International Application Number:

PCT/US2019/035062

(22) International Filing Date:

31 May 2019 (31.05.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/679,703 01 June 2018 (01.06.2018) US
 62/773,586 30 November 2018 (30.11.2018) US

(71) Applicant: **COMPUGEN LTD** [IL/IL]; 26 Harokmim Street, 5885849 Holon (IL).

(72) Inventors: **DRAKE, Andrew, W.**; c/o Compugen Ltd., 26 Harokmim Street, 5885849 Holon (IL). **KUMAR, Sandeep**; c/o Compugen Ltd., 26 Harokmim Street, 5885849 Holon (IL). **MITRA, Sayantan**; c/o Compugen Ltd., 26 Harokmim Street, 5885849 Holon (IL). **SALLES, Adam**; c/o Compugen Ltd., 26 Harokmim Street, 5885849 Holon (IL). **WHELAN, Sarah**; c/o Compugen Ltd., 26 Harokmim Street, 5885849 Holon (IL). **KASHYAP, Arun**; c/o Com-

pugen Ltd., 26 Harokmim Street, 5885849 Holon (IL). **AKAMA, Keith**; c/o Compugen Ltd., 26 Harokmim Street, 5885849 Holon (IL). **YEVALEKAR, Neha**; c/o Compugen Ltd., 26 Harokmim Street, 5885849 Holon (IL). **SAN-TAMARIA, Carlos Fabricio**; c/o Compugen Ltd., 26 Harokmim Street, 5885849 Holon (IL).

(74) Agent: **TALUKDER, Gargi** et al.; Morgan, Lewis & Bockius, LLP, One Market, Spear Street Tower, San Francisco, CA 94105 (US).

(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, 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, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(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,

(54) Title: ANTI-PVRIG/ANTI-TIGIT BISPECIFIC ANTIBODIES AND METHODS OF USE

FIG. 1

Human PVRIG WT Full length

Human PVRIG sequence starting from position 21 - alternative methionine (Partial length)

MGHRTLVLPWVLLTLCVTAGTPEVWVQVRMEATELSSFTIRCGFLGSGSISLTVSWGGPNGAGGTTLAVLHPER
 GIRQWAPARQARWETQSSISLLEGSGASSPCANTTFCCFKFASPEGSWEACGSLPPSSDPGLSAPPTPAPILRADL
 AGILGVSGVLLFGCVYLLHLRLRRHKHRPAPRLQPSRTSPQAPRARAWAPSQA

(SEQ ID NO: 1)

Human PVRIG sequence starting from position 1 methionine (Partial length)

MRTAQVPAIQPEPGLGAMGHRTLVLPWVLLTLCVTAGTPEVWVQVRMEATELSSFTIRCGFLGSGSISLTVS
 WGGPNGAGGTTLAVLHPERGIRQWAPARQARWETQSSISLLEGSGASSPCANTTFCCFKFASPEGSWEACGSLP
 PSSDPGLSAPPTPAPILRADLAGILGVSGVLLFGCVYLLHLRLRRHKHRPAPRLQPSRTSPQAPRARAWAPSQA

(SEQ ID NO: 2)

Full length transmembrane protein PVRIG [Homo sapiens]

NCBI Reference Sequence: NP_076975.

1 mrtanvpa l qpepglega mghrtlvlpw vlltvtag tpevwvqvr meatelssfti rcgflgsgs isltvsw

61 rcaflsesi slvtvswggp ngeagttlav lhpgrirw apaqarwet qssisileg

121 sgasspcant tfccfkfasp egsweacsl pssdpqlsa pptpapila dlaglvsq

181 vllfvcvll hlrrhkrp apqlpsrts pqaarawa psgasgaah vvatintsc

241 rpatldtaph hggpswwasi pthaahrogg paawastpip arnshsvsn glvagaqerq

301 phtesqitff pcpaprareme eglevr

(SEQ ID NO: 3)

(57) Abstract: Anti-PVRIG, anti-TIGIT, and anti-PVRIG/anti-TIGIT bispecific antibodies are provided, as well as compositions, and methods of using the antibodies for the treatment of cancer.

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))*