

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
23 November 2023 (23.11.2023)



(10) International Publication Number

WO 2023/225141 A1

(51) International Patent Classification:

C07D 473/34 (2006.01) A61P 35/00 (2006.01)

A61K 31/52 (2006.01) A61P 35/02 (2006.01)

A61P 9/12 (2006.01)

(21) International Application Number:

PCT/US2023/022643

(22) International Filing Date:

18 May 2023 (18.05.2023)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/343,225 18 May 2022 (18.05.2022) US

(71) Applicant: **K36 THERAPEUTICS, INC.** [US/US]; 1 Main St., Cambridge, Massachusetts 02142 (US).

(72) Inventors: **CONNOLLY, Terrence Joseph**; c/o K36 Therapeutics, Inc., 1 Main St., Cambridge, Massachusetts 02142 (US). **LEWIS, Chad Arthur**; c/o K36 Therapeutics, Inc., 1 Main St., Cambridge, Massachusetts 02142 (US).

(74) Agent: **ARICO, Joseph W.** et al.; c/o Dechert LLP, One International Place, 40th Floor, 100 Oliver Street, Boston, Massachusetts 02110-2605 (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, 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):

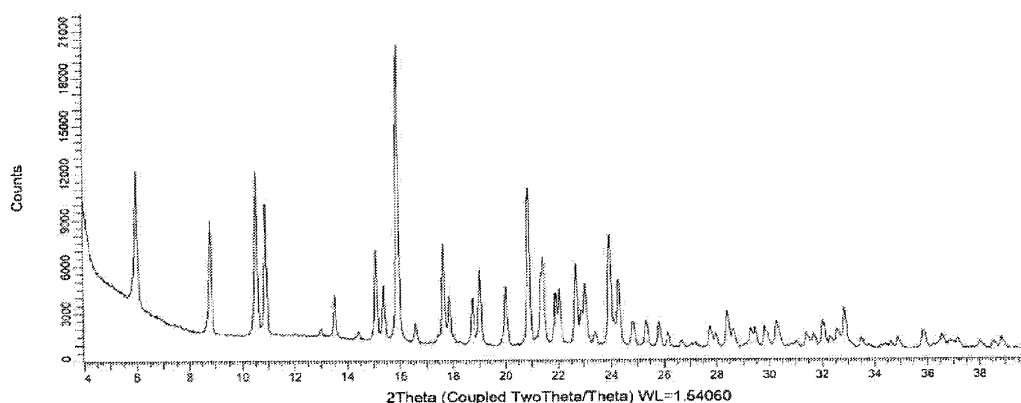
ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF,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

Published:

— with international search report (Art. 21(3))

(54) Title: PIPERIDINYL-METHYL-PURINE AMINE D-TARTARIC ACID SALTS, CRYSTALLINE FORMS, AND THEIR USE IN TREATING MEDICAL DISEASES AND CONDITIONS

FIG. 1



(57) Abstract: The invention provides piperidinyl-methyl-purine amine D-tartaric acid salts, crystalline forms, pharmaceutical compositions, their use in inhibiting NSD2, and their use in the treatment of a disease or condition, such as cancer.

WO 2023/225141 A1