

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
22 May 2025 (22.05.2025)



(10) International Publication Number
WO 2025/106786 A1

(51) International Patent Classification:
C07D 473/34 (2006.01) A61P 35/00 (2006.01)
A61K 31/52 (2006.01)

(21) International Application Number:
PCT/US2024/056081

(22) International Filing Date:
15 November 2024 (15.11.2024)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/600,374 17 November 2023 (17.11.2023) US

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

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

(74) Agent: **STEVENSON, Christian** 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,

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

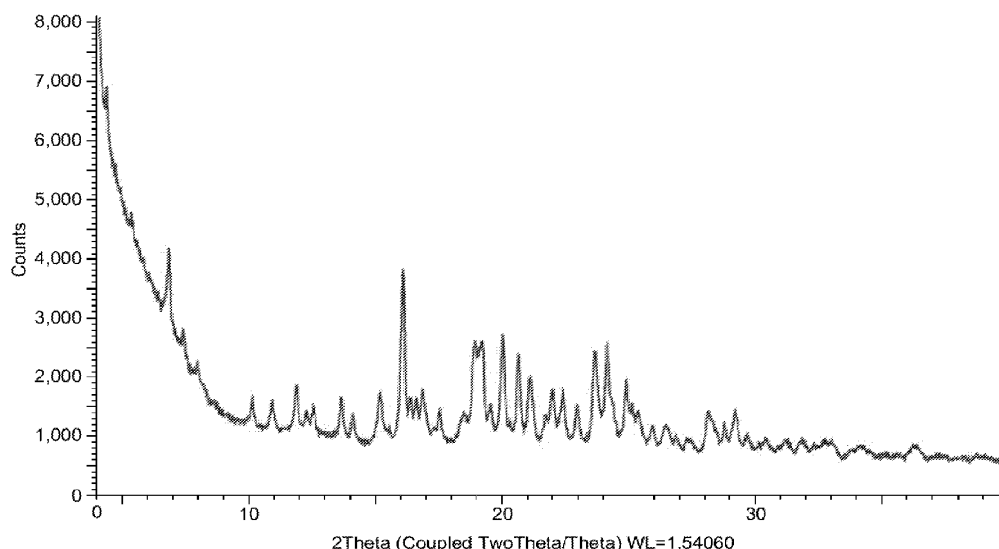


FIG. 1

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

[Continued on next page]

WO 2025/106786 A1

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))*