

(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 2024/250010 A3

(51) International Patent Classification:

A61K 31/395 (2006.01) A61K 31/13 (2006.01)
A61K 31/505 (2006.01) A61K 31/33 (2006.01)

(21) International Application Number:

PCT/US2024/032272

(22) International Filing Date:

03 June 2024 (03.06.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/505,969 02 June 2023 (02.06.2023) US
63/618,980 09 January 2024 (09.01.2024) US

(71) Applicant: **ATOMWISE INC.** [US/US]; 717 Market Street, Suite 800, San Francisco, CA 94103 (US).

(72) Inventor: **MORTEZAEI, Shahab**; c/o Atomwise Inc., 717 Market Street, Suite 800, San Francisco, CA 94103 (US).

(74) Agent: **MANN, Jeffrey, S. 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, 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).

(54) Title: INHIBITORS OF TYK2

(57) Abstract: In exemplary embodiments, inhibitors of Tyrosine Kinase 2 (TYK2), pharmaceutical formulations comprising these compounds, methods of using these compounds to inhibit TYK2, and treat diseases such as autoimmune and inflammatory diseases are provided.



WO 2024/250010 A3