



(51) International Patent Classification:

A61K 51/08 (2006.01) A61P 35/00 (2006.01)
A61K 38/00 (2006.01) C07K 14/00 (2006.01)

(21) International Application Number:

PCT/US2024/059036

(22) International Filing Date:

06 December 2024 (06.12.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

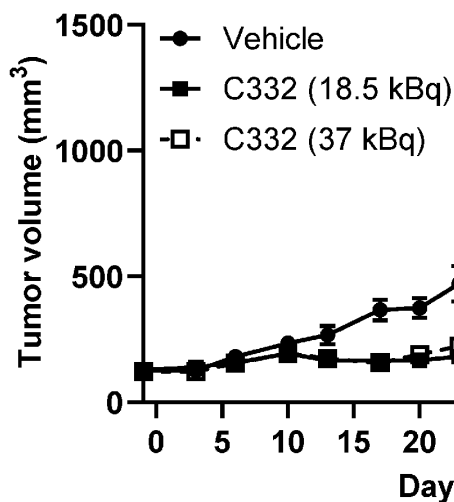
63/607,988	08 December 2023 (08.12.2023)	US
63/636,076	18 April 2024 (18.04.2024)	US
63/650,364	21 May 2024 (21.05.2024)	US
63/650,365	21 May 2024 (21.05.2024)	US
63/721,990	18 November 2024 (18.11.2024)	US

(71) Applicant: **AKTIS ONCOLOGY, INC.** [US/US]; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US).

(72) Inventors: **GOODMAN, Brian Scott**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **SRIVASTAVA, Ved**; 517 Alliance Circle, Cary, North Carolina 27519 (US). **FELDMAN, Paul L.**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **BLACKWELL, III, William C.**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **RODEN, Matthew**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **LIPOVSEK, Dasa**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **KIL, Hyun Joo**; 1325 Dominion Oak Circle, Cary, North Carolina 27519 (US). **KOVACS, Jeff**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **DOLIGALSKI, Michael Lawrence**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **GOBER, Isaiah Nathaniel**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **HABERMAN, Victoria Anne**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **KRYSTEK, JR., Stanley Richard**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **COPELAND,**

(54) Title: B7-H3 MINIPROTEINS, CONJUGATES, AND USES THEREOF

FIG. 19C



(57) Abstract: Provided herein are B7-H3-binding miniproteins, conjugates, and uses thereof. B7-H3 binding peptides and conjugates, including radionuclide conjugates, as well as one or more additional proteins such as a decoy peptide are disclosed herein. Such peptides, conjugates, and/or decoys can be used in compositions and methods of treating, diagnosing, monitoring, and/or imaging a disease, disorder, or condition associated with expression of one or more targets (e.g., B7-H3).

[Continued on next page]

Marci Lynn; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **KOSCIUK, Tatsiana**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **MAKVANDI, Mehran**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **CLAY, Andrew**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US). **LAU, Wai Leung**; 17 Drydock Avenue, 4th Floor, Suite 17-401, Boston, Massachusetts 02210 (US).

(74) **Agent: MUBYANA, Kuwabo** et al.; Goodwin Procter LLP, 100 Northern Avenue, Boston, Massachusetts 02210 (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).

Declarations under Rule 4.17:

— *of inventorship (Rule 4.17(iv))*

Published:

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

— *with sequence listing part of description (Rule 5.2(a))*