

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
05 June 2025 (05.06.2025)



(10) International Publication Number
WO 2025/117639 A1

(51) International Patent Classification:
C07K 16/40 (2006.01) G01N 33/53 (2006.01)

SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

(21) International Application Number:
PCT/US2024/057608

Published:

- with international search report (Art. 21(3))
- with sequence listing part of description (Rule 5.2(a))

(22) International Filing Date:
27 November 2024 (27.11.2024)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/603,097 27 November 2023 (27.11.2023) US

(71) Applicant: **PROFOUNDBIO US CO.** [US/US]; 14241 NE Woodinville-Duvall Rd., #228, Woodinville, WA 98072 (US).

(72) Inventors: **XIAO, Yang**; c/o Profoundbio (Suzhou) Co., Ltd., Suite 101 & 102, Bldg 1, Phase 3, Area A, 1 Xinze Street, SIP, Suzhou, Jiangsu 215125 (CN). **ZHANG, Lin**; c/o Profoundbio (Suzhou) Co., Ltd., Suite 101 & 102, Bldg 1, Phase 3, Area A, 1 Xinze Street, SIP, Suzhou, Jiangsu 215125 (CN). **WANG, Lei**; c/o Profoundbio (Suzhou) Co., Ltd., Suite 101 & 102, Bldg 1, Phase 3, Area A, 1 Xinze Street, SIP, Suzhou, Jiangsu 215125 (CN). **CHEN, Zhu**; c/o Profoundbio US Co., 14241 NE Woodinville Duvall Rd #228, Woodinville, WA 98072 (US).

(74) Agent: **REMILLARD, Jane, E.** et al.; Nelson Mullins Riley & Scarborough LLP, One Financial Center, Suite 3500, Boston, MA 02111 (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: ANTIBODIES AND METHODS FOR PTK7 DETECTION

(57) Abstract: The present disclosure provides antibodies that specifically binds to protein tyrosine kinase 7 (PTK7), as well as methods that employ such antibodies. In some cases, the PTK7 antibodies are used in immunohistochemistry (IHC) assays that can detect the presence of PTK7 expressing cells in tissues from patients.

WO 2025/117639 A1