

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

(19) World Intellectual Property
Organization

International Bureau

(43) International Publication Date
11 May 2023 (11.05.2023)



(10) International Publication Number
WO 2023/080800 A1

(51) International Patent Classification:

G01N 33/542 (2006.01) G01N 33/574 (2006.01)

G01N 33/573 (2006.01)

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))

(21) International Application Number:

PCT/PL2022/050074

Published:

— with international search report (Art. 21(3))
— with amended claims (Art. 19(1))
— with sequence listing part of description (Rule 5.2(a))
— in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE

(22) International Filing Date:

02 November 2022 (02.11.2022)

(25) Filing Language:

Polish

(26) Publication Language:

English

(30) Priority Data:

P.439405 03 November 2021 (03.11.2021) PL

(71) Applicant: URTESTE S.A. [PL/PL]; Ul. Starodworska 1, 80-137 Gdańsk (PL).

(72) Inventors: LESNER, Adam; Ul. Zielone Wzgórze 35, 83-330 Pępowo (PL). GRUBA, Natalia; Ul. Bursztynowa 16, 84-242 Kęłowo (PL).

(74) Agent: KAWCZYŃSKA, Marta; Ul. Bluszczanska 73, 00-712 Warszawa (PL).

(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, 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, 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).

WO 2023/080800 A1

(54) Title: FRET ENZYMATIC SUBSTRATE AND USES THEREOF IN LIVER CANCER.

(57) Abstract: The invention relates to a novel chemical compound - a diagnostic marker for use in medicine, more specifically in cancer diagnosis, in particular the diagnosis of liver cancer. The invention also relates to an in vitro method for detecting enzymatic activity present in a subject's body fluid, in particular derived from liver cancer cells, using the compound. The invention further relates to an in vitro method for diagnosing liver cancer using the compound, a kit comprising the compound and use of the compound for the detection of enzymatic activity specific to liver cancer and use of the compound for the diagnosis of liver cancer. The invention also relates to the compound for use as a diagnostic marker of liver cancer and a method for the treatment of liver cancer comprising a step of carrying out the method for the diagnosis of liver cancer as defined above using the compound.