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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
24 January 2013 (24.01.2013)

WIPO | PCT

(10) International Publication Number
WO 2013/012722 A1

(51) International Patent Classification:
C07K 16/28 (2006.01) *G01N 33/82* (2006.01)
G01N 33/574 (2006.01)

(21) International Application Number:
PCT/US2012/046672

(22) International Filing Date:
13 July 2012 (13.07.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/508,444	15 July 2011 (15.07.2011)	US
61/604,412	28 February 2012 (28.02.2012)	US
61/604,954	29 February 2012 (29.02.2012)	US

(71) Applicant *(for all designated States except US)*: **EISAI R&D MANAGEMENT CO., LTD.** [JP/JP]; 6-10 Koishikawa, 4 Chome, Bunkyo-ku, Tokyo, 112-8088 (JP).

(72) Inventor; and

(75) Inventor/Applicant *(for US only)*: **O'SHANNESSY, Daniel, John** [AU/US]; 515 Gerloff Road, Schwenksville, PA 19473 (US).

(74) Agents: **BROCK, Sean, C.** et al.; Woodcock Washburn LLP, Cira Centre, 12th Floor, 2929 Arch Street, Philadelphia, PA 19104-2891 (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, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH,

[Continued on next page]

(54) Title: ANTI-FOLATE RECEPTOR ALPHA ANTIBODIES AND USES THEREOF

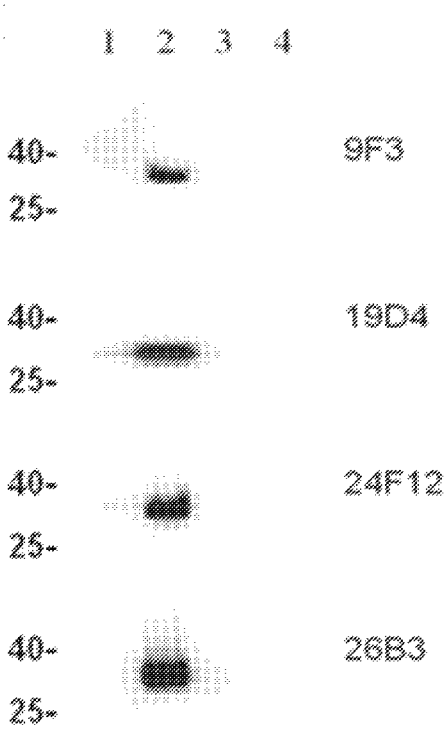


Figure 3B

(57) Abstract: Described herein are antibodies, and antigen-binding fragments thereof, that are specific for folate receptor alpha, related polynucleotides, expression vectors, and cells that express the described antibodies. Also provided are methods of using the described antibodies, and antigen- binding fragments thereof, and related kits. Provided herein are also methods for diagnosing cancers, such as breast cancer, thyroid cancer, colorectal cancer, endometrial cancer, fallopian tube cancer, ovarian cancer, or lung cancer, using the described antibodies, and antigen-binding fragments thereof. The methods involve determining the amount of folate receptor alpha in a sample derived from a subject and comparing this level with the level of folate receptor alpha in a control sample or reference sample.

WO 2013/012722 A1

GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, 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, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

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

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

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

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