

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
21 April 2005 (21.04.2005)

PCT

(10) International Publication Number
WO 2005/035721 A3

(51) International Patent Classification⁷: **C07K 16/00**

(21) International Application Number:
PCT/US2004/032949

(22) International Filing Date: 6 October 2004 (06.10.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/509,850 8 October 2003 (08.10.2003) US

(71) Applicant (for all designated States except US): **EBIO-SCIENCE** [US/US]; 6042 Cornerstone Court West, San Diego, CA 92121 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **SEED, Brian** [—/US]; Boston, MA (US). **LI, Gangzhou** [—/US]; San Diego, CA (US).

(74) Agents: **QUINE, Jonathan, Alan** et al.; Quine Intellectual Property Law Group, P.C., P.O. Box 458, Alameda, CA 94501 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report:
9 September 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NATIVE IMMUNOGLOBULIN BINDING REAGENTS AND METHODS FOR MAKING AND USING SAME

(57) Abstract: Isolated native immunoglobulin binding reagents including antibodies are provided, along with articles of manufacture, compositions and kits that include the native immunoglobulin binding reagents. Labeled reagents and substrates that comprise samples or the reagents are provided. Method of screening for, making and using the reagents are also provided.

WO 2005/035721 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US04/32949

| | | |
|---|--|-----------------------|
| A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : C07K 16/00 US CL : 530/387.1,388.1, According to International Patent Classification (IPC) or to both national classification and IPC | | |
| B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 530/387.1,388.1, Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) Please See Continuation Sheet | | |
| C. DOCUMENTS CONSIDERED TO BE RELEVANT | | |
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| X | PRUD'HOMME et al. Monoclonal antibodies against native and denatured forms of protein of estrogen-induced breast cancer protein (BCEI-pS ₂) obtained by expression of Escherichia coli. Cancer Research. 15 April 1990, Vol. 50, pages 2390-2396, entire document. | 1-37 |
| <input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex. | | |
| * Special categories of cited documents: | | |
| "A" | document defining the general state of the art which is not considered to be of particular relevance | "T" |
| "E" | earlier application or patent published on or after the international filing date | "X" |
| "L" | document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "Y" |
| "O" | document referring to an oral disclosure, use, exhibition or other means | "&" |
| "P" | document published prior to the international filing date but later than the priority date claimed | |
| Date of the actual completion of the international search | Date of mailing of the international search report | |
| 07 July 2005 (07.07.2005) | 22 JUL 2005 Authorized officer Michael A. Belyavsky Telephone No. 571-272-1600 | |
| Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230 | | |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US04/32949

Continuation of B. FIELDS SEARCHED Item 3:

BIOSIS,CAPLUS,SCISEARCH,MEDLINE EMBASE,USPATFULL,PCTFULL

Search terms: inventor name search; native immunoglobulin specific binding antibody, anti-denaturated immunoglobulin, monoclonal