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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
20 April 2006 (20.04.2006)

PCT

(10) International Publication Number
WO 2006/041849 A3

(51) International Patent Classification:
C12N 15/81 (2006.01) *C12N 9/24* (2006.01)
C12P 21/02 (2006.01)

(21) International Application Number:
PCT/US2005/035697

(22) International Filing Date: 3 October 2005 (03.10.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/616,420 6 October 2004 (06.10.2004) US
60/690,470 14 June 2005 (14.06.2005) US

(71) Applicant *(for all designated States except US)*: **NEW ENGLAND BIOLABS, INC.** [US/US]; 240 County Road, Ipswich, MA 01938-2723 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **TARON, Christopher, H.** [US/US]; 36 Belcher Street, Essex, MA 01929 (US). **COLUSSI, Paul, A.** [US/US]; 873 Washington Street, Gloucester MA 01930 (US).

(74) Agent: **STRIMPEL, Harriet, M.**; New England Biolabs, Inc., 240 County Road, Ipswich, MA 01938-2723 (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, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

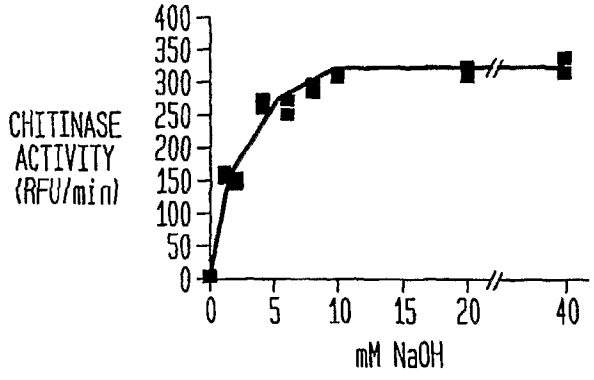
(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, 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*

(88) Date of publication of the international search report:
7 December 2006

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: METHODS AND COMPOSITIONS FOR CONCENTRATING SECRETED RECOMBINANT PROTEIN



(57) Abstract: Methods and compositions are described that relate to obtaining concentrated preparations of secreted recombinant proteins. These proteins are expressed in the form of fusion proteins with a chitin-binding domain (CBD). The fusion proteins are capable of being concentrated in the presence of chitin. Also described is: a shuttle vector that includes a modified LAC4 promoter; a chitinase-negative host cell; a CBD capable of eluting from chitin under non-denaturing conditions; and sterilized chitin, which can be optionally magnetized for facilitating recovery of recombinant protein.

WO 2006/041849 A3