

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
28 June 2007 (28.06.2007)

PCT

(10) International Publication Number
WO 2007/071987 A3

(51) International Patent Classification:

C12N 9/40 (2006.01) A23L 1/09 (2006.01)

C12N 5/10 (2006.01) A23L 1/29 (2006.01)

(21) International Application Number:

PCT/GB2006/004796

(22) International Filing Date:

19 December 2006 (19.12.2006)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

0525857.9 20 December 2005 (20.12.2005) GB

(71) Applicant (for all designated States except US): **LIND-SAY, Clare, Louise** [GB/KE]; Batian House, Hahati Estate, Masai Lane, Nairobi (KE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **TZORTZIS, Georgios** [GR/GB]; 23 Blenheim Road, Reading, Berkshire RG1 5NG (GB). **GOULAS, Athanasios, K.** [GR/GB]; Food Microbial Sciences Unit, School of Food Biosciences, The University of Reading, Reading, Berkshire RG6 6AP (GB). **GOULAS, Theodoros** [GR/GB]; Food Microbial Sciences Unit, School of Food Biosciences, The University of Reading, Reading, Berkshire RG6 6AP (GB).

(74) Agent: **SAUNDERS & DOLLEYMORE**; 9 Rickmansworth Road, Watford, Hertfordshire WD18 0JU (GB).

(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, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, 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
- 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 August 2007

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: ALPHA-GALACTOSIDASE FROM BIFIDOBACTERIUM BIFIDUM AND ITS USE

(57) Abstract: The present invention concerns a new α -galactosidase with transgalactosylating activity isolated from *Bifidobacterium bifidum*. The α -galactosidase is capable of converting mellibiose to α -galactobiose disaccharides which may be incorporated into numerous food products or animal feeds for improving gut health by promoting the growth of bifidobacteria in the gut, and repressing the growth of the pathogenic microflora.



WO 2007/071987 A3