

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
14 October 2004 (14.10.2004)

PCT

(10) International Publication Number
WO 2004/087907 A3

(51) International Patent Classification⁷: **C12N 9/10**

(21) International Application Number:
PCT/IB2004/000903

(22) International Filing Date: 18 March 2004 (18.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/459,053 31 March 2003 (31.03.2003) US

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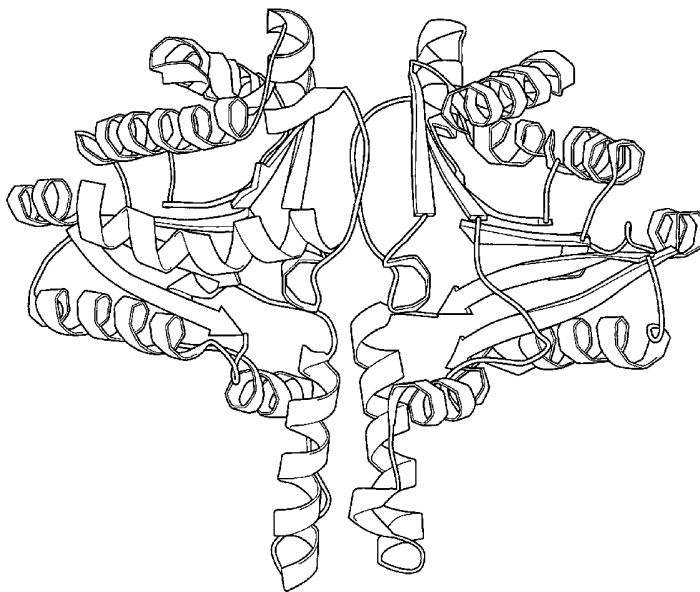
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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, 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, 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).

[Continued on next page]

(54) Title: CRYSTAL STRUCTURE OF STREPTOCOCCUS UNDECAPRENYL PYROPHOSPHATE SYNTHASE AND USES THEREOF



(57) Abstract: The invention is directed generally to the structure of prenyltransferases, particularly undecaprenyl pyrophosphate synthase, an enzyme important in bacterial cell wall synthesis. The invention relates to the crystal structure of undecaprenyl pyrophosphate synthase from *Streptococcus pneumoniae* and its interaction with cofactors and ligands. The invention also relates to the structure of ligand and cofactor binding sites of undecaprenyl pyrophosphate synthase.

WO 2004/087907 A3



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

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.

(88) Date of publication of the international search report:

2 December 2004

INTERNATIONAL SEARCH REPORT

In **onal** Application No
PCT/IB2004/000903

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N9/10

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)
IPC 7 C12N

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 practical, search terms used)

EPO-Internal, BIOSIS, EMBASE, Sequence Search, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6 537 774 B1 (JIANG XINHE ET AL) 25 March 2003 (2003-03-25) the whole document	1-7,9
Y	----- FUJIHASHI MASAHIRO ET AL: "Crystal structure of cis-prenyl chain elongating enzyme, undecaprenyl diphosphate synthase" PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol. 98, no. 8, 10 April 2001 (2001-04-10), pages 4337-4342, XP002269811 ISSN: 0027-8424 the whole document ----- -/-	1-7,9

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the international search

9 July 2004

Date of mailing of the international search report

13.10.04

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INTERNATIONAL SEARCH REPORT

In International Application No
PCT/IB2004/000903

C₂(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KO TZU-PING ET AL: "Mechanism of product chain length determination and the role of a flexible loop in Escherichia coli undecaprenyl-pyrophosphate synthase catalysis" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 276, no. 50, 14 December 2001 (2001-12-14), pages 47474-47482, XP002285389 ISSN: 0021-9258 cited in the application abstract	1-7,9
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INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/IB2004/000903

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