

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
5 August 2004 (05.08.2004)

PCT

(10) International Publication Number
WO 2004/065415 A3

(51) International Patent Classification⁷: **C07K 14/435**

(21) International Application Number:
PCT/EP2004/000423

(22) International Filing Date: 20 January 2004 (20.01.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03001232.2 20 January 2003 (20.01.2003) EP
03026613.4 19 November 2003 (19.11.2003) EP

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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, 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:
20 January 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: L-AMINO ACID OXIDASE WITH CYTOTOXIC ACTIVITY FROM *APLYSIA PUNCTATA*

(57) Abstract: The present invention relates to a cytotoxic polypeptide which is an L-amino acid oxidase isolated from the ink of the sea hare *Aplysia punctata*.



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INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/000423

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07K14/435

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 C07K

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, WPI Data, PAJ, MEDLINE, BIOSIS, EMBASE, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 97/16457 A (PETZELT CHRISTIAN) 9 May 1997 (1997-05-09) cited in the application see whole doc. esp. claims -----	1-41
X	PETZELT C ET AL: "CYTOTOXIC CYPLASIN OF THE SEA HARE, APLYSIA PUNCTATA, CDNA CLONING, AND EXPRESSION OF BIOACTIVE RECOMBINANTS IN INSECT CELLS" NEOPLASIA, DOYMA, BARCELONA,, ES, vol. 4, no. 1, January 2002 (2002-01), pages 49-59, XP008016612 ISSN: 0212-9787 the whole document ----- -/--	1-41

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

☒ Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"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)

"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

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

6 July 2004

Date of mailing of the international search report

12. 11. 2004

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/000423

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/31144 A (MAX PLANCK GESELLSCHAFT ;BUTZKE DANIEL (DE); MACHUY NIKOLAUS (DE);) 18 April 2002 (2002-04-18) cited in the application see whole doc. esp. claims, p.35, Exp. 4, p.37, 1.15 ff., -----	1-41
A	YAMAZAKI M: "ANTITUMOR AND ANTIMICROBIAL GLYCOPROTEINS FROM SEA HARES" COMPERATIVE BIOCHEMISTRY AND PHYSIOLOGY, ELMSFORD, NY, US, vol. 105C, no. 2, 1993, pages 141-146, XP002034987 see whole doc. esp. p.145,1.and 2. col. -----	
A	YAMAZAKI M ET AL: "PURIFICATION OF A CYTOLYTIC FACTOR FROM PUPLE FLUID OF A SEA HARE" FEBS LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 198, no. 1, March 1986 (1986-03), pages 25-28, XP001002735 ISSN: 0014-5793 -----	
P,X	WO 03/057726 A (PETZELT CHRISTIAN) 17 July 2003 (2003-07-17) cited in the application see whole doc. esp.claims and p.2,last par.- p.3 end. and Expls. -----	1-41

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2004/000423

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☒ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
1-41 completely

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-41 (completely)

seq ids 1-6, sequences thereof, recombinant cell therewith,
antibody directed thereof, pharmaceutical compositions
therewith, use as target,

2. claims: 42-50 (completely)

inhibitor of peroxiredoxin I activity (seq id
7,9-29,32-39,41-43,44,45,40,42), pharmaceutical composition
therewith, uses thereof, method of diagnosis or treatment
therewith

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: -

Present claims 28,30,31,32,41 relate to a compound defined by reference to a desirable characteristic or property, namely an APIT inhibitor and an inhibitor of a substance defined by Tables 3-5..

The claims cover all products/compounds/methods/apparatus having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such products/compounds/methods/apparatus. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compound by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, no search has been carried out for those parts of the claims.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/000423

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9716457	A	09-05-1997	DE 19540902 A1 AT 231887 T WO 9716457 A2 DE 59610098 D1 DK 858465 T3 EP 0858465 A2 ES 2191785 T3 US 6171818 B1	07-05-1997 15-02-2003 09-05-1997 06-03-2003 05-05-2003 19-08-1998 16-09-2003 09-01-2001
WO 0231144	A	18-04-2002	AU 1053302 A WO 0231144 A2 EP 1325129 A2 US 2004101940 A1	22-04-2002 18-04-2002 09-07-2003 27-05-2004
WO 03057726	A	17-07-2003	EP 1325929 A2 CA 2472280 A1 WO 03057726 A1	09-07-2003 17-07-2003 17-07-2003