

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
12 January 2006 (12.01.2006)

PCT

(10) International Publication Number
WO 2006/002909 A3

(51) International Patent Classification:

A61K 31/133 (2006.01) A61P 31/12 (2006.01)
A61P 11/06 (2006.01) A61P 37/08 (2006.01)
A61P 31/18 (2006.01)

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(21) International Application Number:

PCT/EP2005/007033

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(22) International Filing Date: 29 June 2005 (29.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

04015248.0 29 June 2004 (29.06.2004) EP
60/636,471 16 December 2004 (16.12.2004) 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, 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.

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(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, 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).

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Published:

— with international search report

(88) Date of publication of the international search report:
22 March 2007

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

(54) Title: SPHINGOLIPIDS AGAINST PATHOLOGICAL PROCESSES IN LIPID RAFTS

(57) Abstract: The present invention relates to specific sphingolipids/sphingolipid derivatives as pharmaceutical compositions as well as their use in the preparation of medicaments for the treatment, prevention and/or amelioration of disorders relating to patho-
logical processes in lipid rafts.



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INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2005/007033

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61K31/133 A61P11/06 A61P31/18 A61P31/12 A61P37/08

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)

A61K

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, CHEM ABS Data, MEDLINE, EMBASE, BIOSIS, 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.
X	ROSENWALD, ANNE G. ET AL: "Inhibition of glycoprotein traffic through the secretory pathway by ceramide" JOURNAL OF BIOLOGICAL CHEMISTRY, 268(7), 4577-9 CODEN: JBCHA3; ISSN: 0021-9258, 1993, XP008067575	1-6,8, 10,11, 14,15
Y	page 4577, column 2, paragraph 6 abstract	16,17,24
X	----- WO 94/10991 A (CARNEGIE INSTITUTION OF WASHINGTON) 26 May 1994 (1994-05-26) claims 2,7	1-6,8, 10,11, 14,15
X	----- WO 00/59517 A (ROGER WILLIAMS HOSPITAL; WANEBO, HAROLD, J; MEHTA, SHASHIKANT) 12 October 2000 (2000-10-12) claims 1,14 ----- -/--	1-6,8, 10,11,21

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

"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

15 August 2006

Date of mailing of the international search report

18 DEC 2006

Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2005/007033

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE CA [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; ITO, AKIRA: "N-acylsphingosine and sphingomyelinase as inhibitors of neuron degeneration and death" XP002394743 retrieved from STN Database accession no. 1996:464360 abstract -& DATABASE WPI Week 1996 Derwent Publications Ltd., London, GB; AN 1996-272724 XP002394745 & JP 08 113535 A (SUMITOMO) 1996 abstract	1-6,8, 10-13, 21,22
X	----- WO 98/02153 A (THE JOHN P. ROBARTS RESEARCH INSTITUTE; OCHI, ATSUGO) 22 January 1998 (1998-01-22) figure 1 claim 16 page 4, lines 24-30	1-6,8, 10,11,18
Y	----- DE 198 41 794 A1 (BEIERSDORF AG) 16 March 2000 (2000-03-16) claims 3,4	16,17,24
Y	----- WO 99/41266 A (EMORY UNIVERSITY; LIOTTA, DENNIS, C; MERRILL, ALFRED, H., JR; KEANE, T) 19 August 1999 (1999-08-19) claims 1,2,28	24
P,X	----- WO 2004/064823 A (ASTON UNIVERSITY; PERRIE, YVONNE; GRIFFITHS, HELEN, ROSEMARY; PHILLIPS) 5 August 2004 (2004-08-05) page 7, paragraph 4; claim 1 page 6, paragraph 1	1-6,8, 10,11, 18-20

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2005/007033

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:
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.:
1-6, 8, 10-22, 24 (partially)

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: 1-6, 8, 10-22, 24 (partially)

A pharmaceutical composition comprising compound 10a and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

2. claims: 1-6, 8, 10-23 (partially)

A pharmaceutical composition comprising compound 10b and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

3. claims: 1-6, 8, 10-22, 24 (partially)

A pharmaceutical composition comprising compound 10c and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

4. claims: 1-6, 8, 10-22 (partially)

A pharmaceutical composition comprising compound 10d and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

5. claims: 1-6, 8, 10-23 (partially)

A pharmaceutical composition comprising compound 10e and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

6. claims: 1-6, 8, 10-23 (partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

A pharmaceutical composition comprising compound 10f and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

7. claims: 1-5, 7, 8, 10-24 (partially)

A pharmaceutical composition comprising compound 10g and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

8. claims: 1-5, 7, 8, 10-24 (partially)

A pharmaceutical composition comprising compound 10h and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

9. claims: 1-6, 9-23 (partially)

A pharmaceutical composition comprising compound 10i and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

10. claims: 1-5, 9-23 (partially)

A pharmaceutical composition comprising compound 10j and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

11. claims: 1-6, 9-23 (partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

A pharmaceutical composition comprising compound 10k and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

12. claims: 1, 3-5, 9-22, 24 (partially)

A pharmaceutical composition comprising compound 10l and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

13. claims: 1-5, 9-22 (partially)

A pharmaceutical composition comprising compound 10m and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

14. claims: 1, 3-5, 9-23 (partially)

A pharmaceutical composition comprising compound 10n and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

15. claims: 1, 3-5, 9-23 (partially)

A pharmaceutical composition comprising compound 10o and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

16. claims: 1-6, 9-23 (partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

A pharmaceutical composition comprising compound 10p and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

17. claims: 1-6, 9-23 (partially)

A pharmaceutical composition comprising compound 10q and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

18. claims: 1-6, 9-23 (partially)

A pharmaceutical composition comprising compound 10r and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

19. claims: 1-6, 9-23 (partially)

A pharmaceutical composition comprising compound 10s and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

20. claims: 1-5, 9-24 (partially)

A pharmaceutical composition comprising compound 10u and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

21. claims: 1-5, 7, 9-24 (partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

A pharmaceutical composition comprising compound 10v and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

22. claims: 1-5, 7, 9-24 (partially)

A pharmaceutical composition comprising compound 10w and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

23. claims: 1-2, 4-5, 7, 9-22, 24 (partially)

A pharmaceutical composition comprising compound 10x and use as defined in claim 1 of said compound for the preparation of a pharmaceutical composition for the treatment, prevention and/or amelioration of a disease/disorder caused by a biochemical/biophysical pathological process occurring on, in or within lipid rafts

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/EP2005/007033

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