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— *with international search report*

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30 March 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: PEPTIDES AND PEPTIDOMIMETICS BINDING TO CD23

(57) Abstract: The present invention describes compounds comprising new and useful peptides and peptidomimetics that can bind to CD23. They are capable of reducing inflammatory responses associated with auto-immune diseases, chronic inflammatory diseases, allergies and other inflammatory conditions such as those mediated by the mammalian immune system. Compounds of the present invention relate to a CD23-binding peptide wherein said peptide comprises an amino-acid sequence of X_1-X_2-X_3-X_4-X_5-X_6-X_7-X_8, wherein: X_1 is Phe, or is absent; X_2 is His or Ala; X_3 is Glu, Ser, Ala, Asn, Lys, or Cys; X_4 is Asn, Phe, Gln, Pro, Ser, or Ala; X_5 is Trp; X_6 is Pro, Arg, Glu, Gly, Cys, or Lys; X_7 is Ser, Pro, Leu, Thr Ala, Gly, Asn, or absent; and X_8 is Phe, Gly, or is absent.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
G01N33/532 C07K7/06 A61K38/08 C07K14/705

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)
G01N C07K 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, PAJ, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 2002 187899 A (CANON INC) 5 July 2002 (2002-07-05) the whole document -----	1-5, 10-14,21
X	JOUAULT T ET AL: "PEPTIDES THAT MIMIC CANDIDA ALBICANS-DERIVED BETA-1,2-LINKED MANNOSIDES" GLYCOBIOLOGY, IRL PRESS,, GB, vol. 11, no. 8, August 2001 (2001-08), pages 693-701, XP009026488 ISSN: 0959-6658 the whole document -----	1-5, 10-14.21
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[X] Further documents are listed in the continuation of box C.

[X] 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)

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"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
11 August 2005	23 12. 2005

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Vogt, T

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DE 197 49 277 A1 (UNIVERSITAET LEIPZIG, 04109 LEIPZIG, DE; UNIVERSITAET LEIPZIG) 20 May 1999 (1999-05-20) the whole document	1-5, 10-14,21
X	SANTAMARIA H ET AL: "Identification of peptide sequences specific for serum antibodies from human papillomavirus-infected patients using phage display libraries" CLINICAL IMMUNOLOGY (ORLANDO), vol. 101, no. 3, December 2001 (2001-12), pages 296-302, XP009045311 ISSN: 1521-6616 the whole document	1-5, 10-14,21
X	ANNI H ET AL: "Selection of phage-display library peptides recognizing ethanol targets on proteins." ALCOHOL (FAYETTEVILLE, N.Y.) NOV 2001, vol. 25, no. 3, November 2001 (2001-11), pages 201-209, XP009045307 ISSN: 0741-8329 the whole document	1-5, 10-13,21
X	WO 2004/026326 A (STICHTING KATHOLIEKE UNIVERSITEIT; FIGDOR, CARL, GUSTAV; TORENSMA, RUU) 1 April 2004 (2004-04-01) the whole document	1-5, 10-14,21
T	MIURA Y ET AL: "Peptides binding to a Gb3 mimic selected from a phage library" BBA - GENERAL SUBJECTS, ELSEVIER SCIENCE PUBLISHERS, NL, vol. 1673, no. 3, 4 August 2004 (2004-08-04), pages 131-138, XP004523265 ISSN: 0304-4165 the whole document	1-5, 10-14,21
A	WO 96/12741 A (GLAXO GROUP LIMITED; BONNEFOY, JEAN-YVES, MARCEL, PAUL) 2 May 1996 (1996-05-02) the whole document	
X	DATABASE EMBL [Online] 1 October 2003 (2003-10-01), GLOECKNER ET AL.: XP002321307 retrieved from EBI Database accession no. Q7USF5 the whole document	1,2

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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 EMBL [Online] 1 March 2004 (2004-03-01), GALAGAN ET AL.: XP002321308 retrieved from EBI Database accession no. Q7RYN4 the whole document -----	1-3
X	DATABASE EPO PROTEINS [Online] 14 June 2002 (2002-06-14), CHAUDHARY ET AL.: XP002321309 retrieved from EBI Database accession no. AX411500 SEQ ID NO: 6 of WO0228886 the whole document -----	1
X	DATABASE GENESEQ [Online] 12 February 2004 (2004-02-12), CHACONAS ET AL.: XP002321310 retrieved from EBI Database accession no. ADF72653 SEQ ID NO: 19 of US2003/0170693 abstract -----	1,10,11, 13,14,21
X	DATABASE EPO PROTEINS [Online] 26 October 2001 (2001-10-26), BEASLEY ET AL.: XP002321311 retrieved from EBI Database accession no. AX256979 SEQ ID NO: 478 from WO 01/72771. DSVNSDLHRA FYGW"FAEQWR A" abstract -----	1,10,11, 13,14,21
P,X	WO 2005/019258 A (GENENTECH, INC; ABBAS, ALEXANDER; CLARK, HILARY; OUYANG, WENJUN; WILLI) 3 March 2005 (2005-03-03) the whole document -----	1-57
A	WO 98/37099 A (IDEC PHARMACEUTICALS CORPORATION; SEIKAGAKU CORPORATION) 27 August 1998 (1998-08-27) -----	

INTERNATIONAL SEARCH REPORT

International application No.
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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. [X] Claims Nos.: 18-20
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims18-20 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

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. [X] 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.:

1-3, 7-34, 51, 53-57 (all partly)

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:

Invention 1: claims 1-3, 7-34, 51, 53-57 (all partly)

Subject matter directed to compounds/ polypeptides/ peptidomimetics comprising the polypeptide with SEQ ID NO: 1.

Invention 2: claims 1-3, 7-34, 51, 53-57 (all partly).

Subject matter directed to compounds/ polypeptides/ peptidomimetics comprising the polypeptide with SEQ ID NO: 1.

Invention 3-10: claims 1-34, 51, 53-57 (all partly)

Subject matter directed to compounds/ polypeptides/ peptidomimetics comprising the polypeptide with SEQ ID NO's: 3-10.

Invention 11: claims 1, 2, 4, 7-34, 51, 53-57 (all partly)

Subject matter directed to compounds/ polypeptides/ peptidomimetics comprising the polypeptide of claim 1, which is not covered by any of the inventions 1-10.

Inventions 12-21: claims 35-50, and 51 (partly)

Subject matter related to peptidomimetics of polypeptides with SEQ ID NOs: 1-10.

Invention 22: Claims 51, 53-57 (partly) and 52

Subject matter directed to the dipeptide Ac- w-n-CO2H

Inventions 23-33: Claims 51, 53-57 (all partly)

Subject matter directed to compounds listed in Tables 1 and 2 not falling within the scope of any of inventions 1-22. Such as compounds: 222, 300, 329, 330, 359, 410, 411, 436, 489, 490 and 492.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/IB2005/001133

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