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C07K 14/47

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LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
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*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: BLOOD GROUP ANTIGEN FUSION POLYPEPTIDES AND METHODS OF USE THEREOF

(57) Abstract: The present invention provides compositions and methods for treating or preventing antibody mediated graft rejection.



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INTERNATIONAL SEARCH REPORT

International Application No.

PCT/IB 02/03379

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K14/705 C07K16/00 C07K19/00 C12N15/62 C12N15/63
 C12N5/10 A61K38/17 C07K14/47

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, BIOSIS, MEDLINE, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98 42750 A (KAROLINSKA INNOVATIONS AB ;HOLGERSSON JAN (SE); LIU JINING (SE)) 1 October 1998 (1998-10-01) abstract; claims page 3, line 35 -page 4, line 6 page 5, line 7 -page 7, line 13 ----	1-14
Y	YE ET AL.: "Cardiac allotransplantation across the ABO-blood group barrier by the neutralization of preformed antibodies: The baboon as a model for the human" LABORATORY ANIMAL SCIENCE, vol. 44, no. 2, April 1994 (1994-04), pages 121-124, XP008014993 cited in the application abstract page 123, right-hand column, last paragraph -page 124, left-hand column ----- -/--	1-14

☒ 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

12 March 2003

Date of mailing of the international search report

31/03/2003

Name and mailing address of the ISA

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Ceder, O

INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB 02/03379

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	PRIETO ET AL: "Expression of human H-type alpha-1,2-fucosyltransferase encoding for blood group H(O) antigen in Chinese hamster ovary cells: Evidence for preferential fucosylation and truncation of polylactosamine sequences" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 272, no. 4, 1997, pages 2089-2097, XP002234429 abstract	1-14
A	----- BENSINGER W I: "PLASMA EXCHANGE AND IMMUNOADSORPTION FOR REMOVAL OF ANTIBODIES PRIOR TO ABO INCOMPATIBLE BONE MARROW TRANSPLANT" ARTIFICIAL ORGANS, BLACKWELL SCIENTIFIC PUBLICATIONS, INC., BOSTON, US, vol. 5, no. 3, 1 August 1981 (1981-08-01), pages 254-258, XP000673998 ISSN: 0160-564X cited in the application abstract	1-14
P,X	----- LÖFLING ET AL.: "Absorption of anti-blood group A antibodies on P-selectin glycoprotein ligand-1/immunoglobulin chimeras carrying blood group A determinants: Core saccharide chain specificity of the Se and H gene encoded alpha1,2 fucosyltransferases in different host cells" GLYCOBIOLOGY, vol. 12, no. 3, March 2002 (2002-03), pages 173-182, XP008014956 the whole document -----	1-14

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB 02/03379

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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:
see FURTHER INFORMATION sheet PCT/ISA/210
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 II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

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

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.:

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

Continuation of Box I.1

As far as claims 13 and 14 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.

Continuation of Box I.1

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB 02/03379

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9842750	A	01-10-1998	
		AU 751760 B2	29-08-2002
		AU 6755198 A	20-10-1998
		BR 9804826 A	25-01-2000
		EP 0923606 A1	23-06-1999
		JP 2000511782 T	12-09-2000
		WO 9842750 A1	01-10-1998
		US 2002028205 A1	07-03-2002