

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
27 March 2003 (27.03.2003)

PCT

(10) International Publication Number
WO 2003/025148 A3

(51) International Patent Classification⁷: **C12N 15/12**,
15/11, 15/00, 15/64, 15/79, C12Q 1/68, C12P 21/02

(21) International Application Number:
PCT/US2002/029964

(22) International Filing Date:
19 September 2002 (19.09.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/323,739 19 September 2001 (19.09.2001) US
Not furnished 13 September 2002 (13.09.2002) US

(63) Related by continuation (CON) or continuation-in-part
(CIP) to earlier application:
US Not furnished (CIP)
Filed on Not furnished

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(81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, 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, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK,
TR), OAPI patent (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
- with sequence listing part of description published sepa-
rately in electronic form and available upon request from
the International Bureau

(88) Date of publication of the international search report:
25 November 2004

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: NOVEL NUCLEIC ACIDS AND POLYPEPTIDES

(57) Abstract: The present invention provides novel nucleic acids, novel polypeptide sequences encoded by these nucleic acids and uses thereof.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/29964

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12N 15/12, 15/11, 15/00, 15/64, 15/79; C12Q 1/68; C12P 21/02
 US CL : 536/23.5, 23.1; 435/320.1, 325, 252.33, 252.3, 6, 69.1

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)
 U.S. : 536/23.5, 23.1; 435/320.1, 325, 252.33, 252.3, 6, 69.1

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 practicable, search terms used)
 Compugen, SEQ ID NO: 1

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 99/46289 A1 (HUMAN GENOME SCIENCES, INC.) 16 September 1999 (16.09.1999), see especially SEQ ID NO: 31.	1-9, 13-15, 19, and 22-26

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	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search

17 September 2004 (17.09.2004)

Date of mailing of the international search report

30 SEP 2004

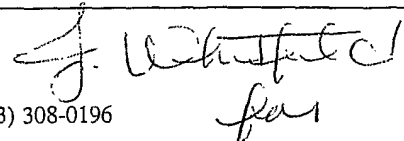
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US02/29964

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

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

1. Claim Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. Claim 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. Claim 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:
Please See Continuation 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.: 1-9, 13-15, 19, and 22-26 as they pertain to SEQ ID NO: 1.

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

BOX II. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1. In order for all inventions to be examined, the appropriate additional examination fees must be paid.

Group I, claim(s) 1-9, 13-15, 19, and 22-26 drawn to polynucleotides, vectors, transformed host cells, nucleic acid molecular hybridization assays, methods for producing polypeptides, and polynucleotide arrays.

Group II, claim(s) 10, 11, 20, and 21, drawn to polypeptides, compositions comprising polypeptides, and polypeptide arrays.

Group III, claim(s) 12 and 16, drawn to antibodies and binding assays.

Group IV, claim(s) 17 and 18, drawn to methods for identifying a compound that binds to a polypeptide.

The inventions listed as Groups I-IV do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons:

Group I is directed to polynucleotides, vectors, host cells, nucleic acid molecular hybridization assays, and polynucleotide arrays which has the special technical features of the properties of SEQ ID NOs: 1-276 as polynucleotides which is not shared by any of the other groups. Group II is directed to polypeptides, compositions containing polypeptides, and polypeptide arrays which has the special technical features of the properties of the polypeptides encoded by SEQ ID NOs: 1-76 as polypeptides which is not shared by either one of the remaining groups. Group III is directed to antibodies and antibody assays, which have the special technical features of binding to polypeptides encoded by SEQ ID NOs: 1-276 and forming an antigen-antibody complex which is not shared by Group IV.

Claims 1-26 require or mention more than one unrelated, independent, and distinct (from one another) polynucleotides or polypeptides. The polynucleotides lack a common special technical feature. The polypeptides lack any common special technical feature when compared to one another. According to PCT Rule 13.2 and to the guidelines in Section (f)(i)A of Annex B of the PCT Administrative Instructions, all alternatives of a Markush Group must have a common property or activity. The instant application does not disclose with specificity any common property or activity among the various nucleic acids, polypeptides, and antibodies mentioned in the claims when compared each to the other. Applicant is required to pay additional search fees for any sequence(s) to be searched beyond the first mentioned sequence (*i.e.* polynucleotides comprising SEQ ID NO: 1). Any additional SEQ ID NO to be searched requires one additional search fee per SEQ ID NO (*i.e.* one search fee per polypeptide SEQ ID NO and one search fee per polynucleotide SEQ ID NO). See MPEP 1850. In addition, claims 22-26 are drawn to combinations of polynucleotides. The simplest "combination" recited and the first "combination" recited requires only SEQ ID NO: 1, and so that is the combination that will be searched. For any additional combination to be searched, applicant is required to name that combination. A total of over 5.82×10^{81} combinations that contain 138 different SEQ ID NOs. There are additional combinations of from 2 to 137 sequences and from 139 to 276 sequences, the number of which will not be calculated for purposes of this communication. Applicant is required to pay one additional fee for each additional combination to be searched. The figures on page 1, part 2 of this communication are not accurate because the limits of fields in the form-completing program are exceeded by the actual number of inventions claimed.