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[Continued on next page]

(54) Title: NUCLEIC ACIDS, PROTEINS, AND ANTIBODIES

(57) Abstract: The present invention relates to novel proteins. More specifically, isolated nucleic acid molecules are provided encoding novel polypeptides. Novel polypeptides and antibodies that bind to these polypeptides are provided. Also provided are vectors, host cells, and recombinant and synthetic methods for producing human polynucleotides and/or polypeptides, and antibodies. The invention further relates to diagnostic and therapeutic methods useful for diagnosing, treating, preventing and/or prognosing disorders related to these novel polypeptides. The invention further relates to screening methods for identifying agonists and antagonists of polynucleotides and polypeptides of the invention. The present invention further relates to methods and/or compositions for inhibiting or enhancing the production and function of the polypeptides of the present invention.



WO 01/055311 A3



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60/246,610	8 November 2000 (08.11.2000)	US	(81) Designated States (national):	AE, AG, AL, AM, AT, AU,	
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60/249,210	17 November 2000 (17.11.2000)	US	(84) Designated States (regional):	ARIPO patent (GH, GM,	
60/249,216	17 November 2000 (17.11.2000)	US		KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian	
60/249,217	17 November 2000 (17.11.2000)	US		patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European	
60/249,211	17 November 2000 (17.11.2000)	US		patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE,	
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4 July 2002

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Previous Correction:

see PCT Gazette No. 36/2001 of 7 September 2001, Section II

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.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US01/01315

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : C12N 15/00; C07K 1/00

US CL : 435/69.1; 530/350

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. : 435/69.1, 530/350

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
435/320.1, 435/69.5

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y,P	Database GenEmbl Accession No. AK025392, WATANABE et al. NEDO human cDNA sequencing project. Direct Submission. 29 September 2000. DNA is 99.4% homologous to nucleic acid (SEQ ID NO:11) claimed in instant application.	1-12, 14-16
Y,P	Database EST Acc. No. AU120376, OTA et al. HRI human cDNA project. Unpublished. 19 October 2000. DNA is 97.4% homologous to nucleic acid (SEQ ID NO:11).	1-12, 14-16

☐ 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

Date of mailing of the international search report

02 AUG 2001

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks
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INTERNATIONAL SEARCH REPORT

International application No.

PC IS01/01315

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.: 1-12, and 14-16 SEQ ID NO:11 (X) and SEQ ID NO:29 (Y).

Remark on Protest☐
☐

The additional search fees were accompanied by the applicant's protest.

No protest accompanied the payment of additional search fees.