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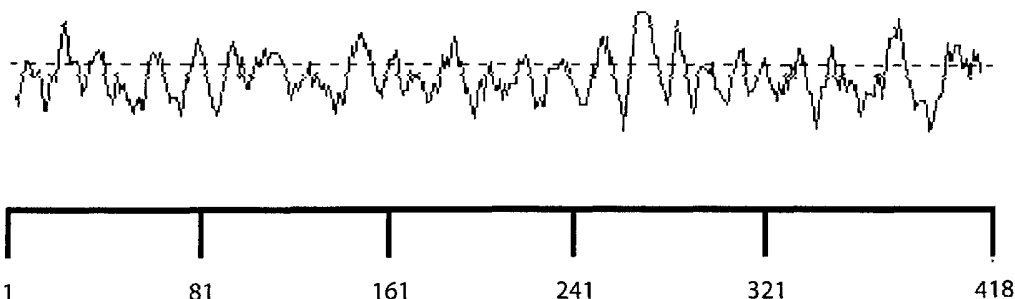
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- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

(54) **Title:** 56739, A NOVEL CUB DOMAIN CONTAINING PROTEIN AND USES THEREOF

CUB Domain



(57) **Abstract:** The invention provides isolated nucleic acids molecules, designated 56739 nucleic acid molecules, which encode novel CUB family members. The invention also provides antisense nucleic acid molecules, recombinant expression vectors containing 56739 nucleic acid molecules, host cells into which the expression vectors have been introduced, and nonhuman transgenic animals in which a 56739 gene has been introduced or disrupted. The invention still further provides isolated 56739 proteins, fusion proteins, antigenic peptides and anti-56739 antibodies. Diagnostic methods utilizing compositions of the invention are also provided.

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/20055

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C12N15/62 C12N5/10 C12N1/21 C07K14/47
C12Q1/68 G01N33/53 G01N33/68

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 C12N C07K C12Q G01N

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)

EMBL, EPO-Internal, WPI Data, PAJ, MEDLINE

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 02714 A (ABBOTT LAB) 21 January 1999 (1999-01-21) Note: 66.5% nt seq identity of SEQ ID NO:15 with SEQ ID NO:3 in 1260 nt overlap (97-1346:9-1255), 67.9% aa seq identity of SEQ ID NO:31 with SEQ ID NO:2 in 421 aa overlap (99-516:2-418). page 4, line 33 -page 10, line 21 examples 1-20 claims 1-44	1,5,7, 9-14
A	WO 99 37757 A (INST NAT SANTE RECH MED ;VERROUST PIERRE J (FR); HAMMOND TIMOTHY G) 29 July 1999 (1999-07-29) page 4, line 4 -page 6, line 19 examples 1-25 figures 5,6	1,5,7
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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
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- *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

14 May 2002

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31/05/2002

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INTERNATIONAL SEARCH REPORT

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PCT/US 01/20055

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	BORK P ET AL.: "The CUB domain. A widespread module in developmentally regulated proteins." JOURNAL OF MOLECULAR BIOLOGY, vol. 231, no. 2, 20 May 1993 (1993-05-20), pages 539-545, XP002198739 ISSN: 0022-2836 the whole document ---	1,4
E	WO 01 72961 A (MURDOCH PAUL R ;SMITHKLINE BEECHAM PLC (GB); SMITHKLINE BEECHAM CO) 4 October 2001 (2001-10-04) Note: 100.0% nt seq identity of SEQ ID NO:3 with SEQ ID NO:3 in 1257 nt overlap (1726-2982:1-1257), 100.0% aa seq identity of SEQ ID NO:36 with SEQ ID NO:2 in 418 aa overlap (576-993:1-418). page 2, line 28 -page 3, line 19 tables I-III claims 1-7 ---	1-20
E	WO 01 79294 A (BURGESS CATHERINE E ;SPYTEK KIMBERLY A (US); VERNET CORINE A M (US) 25 October 2001 (2001-10-25) Note: 100.0% nt seq identity of SEQ ID NO:9 with SEQ ID NO:3 in 1257 nt overlap (1630-2886:1-1257), 100.0% aa seq identity of SEQ ID NO:10 with SEQ ID NO:2 in 418 aa overlap (318-735:1-418). page 3, line 3 -page 6, line 4 page 27, line 24 -page 38, line 30 claims 1-41 -----	1-20

INTERNATIONAL SEARCH REPORT

International Application No. PCT/US 01 /20055

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Present claims 9, 11, and 16-20 relate to a compound defined by reference to a desirable characteristic or property, namely that it selectively binds to a polypeptide of claim 5, or that it modulates, reduces or inhibits the activity or the expression of a polypeptide of claim 5. The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compounds by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to compounds which are antibodies or antisense molecules.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 01/20055

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9902714	A	21-01-1999	WO 9902714 A1	21-01-1999
WO 9937757	A	29-07-1999	AU 2462399 A	09-08-1999
			CA 2319210 A1	29-07-1999
			EP 1047773 A1	02-11-2000
			WO 9937757 A1	29-07-1999
WO 0172961	A	04-10-2001	AU 5696401 A	08-10-2001
			WO 0172961 A2	04-10-2001
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			WO 0179294 A2	25-10-2001
			AU 5909601 A	30-10-2001