

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
27 April 2006 (27.04.2006)

PCT

(10) International Publication Number  
**WO 2006/043060 A3**

(51) International Patent Classification:

C07K 14/435 (2006.01) A61K 48/00 (2006.01)  
C07K 14/705 (2006.01) C12N 15/62 (2006.01)  
A61K 38/17 (2006.01) C12N 15/00 (2006.01)  
C12Q 1/68 (2006.01)

(21) International Application Number:

PCT/GB2005/004032

(22) International Filing Date: 18 October 2005 (18.10.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

0423126.2 18 October 2004 (18.10.2004) GB

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (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

(88) Date of publication of the international search report:  
6 July 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: MAM DOMAIN CONTAINING PROTEIN

(57) Abstract: This invention relates to a novel protein, termed INSP152, herein identified as a secreted protein, in particular, as a MAM domain containing protein and to the use of this protein and nucleic acid sequence from the encoding gene in the diagnosis, prevention and treatment.



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# INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB2005/004032

**A. CLASSIFICATION OF SUBJECT MATTER**  
 C07K14/435    C07K14/705    A61K38/17    C12Q1/68    A61K48/00  
 C12N15/62    C12N15/00

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)  
 C12N C07K A61K C12Q

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, Sequence Search, EMBASE, BIOSIS, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2004/044011 A (AVIDIA RESEARCH INSTITUTE; KOLKMAN, JOOST, A; STEMMER, WILLEM, P., C) 27 May 2004 (2004-05-27) sequence 87	1-17, 19, 23-56
X	WO 02/34783 A (INCYTE GENOMICS, INC; WARREN, BRIDGET, A; XU, YUMING; YUE, HENRY; BATR) 2 May 2002 (2002-05-02) sequence 6	1-17, 19, 23-56
X	WO 02/097031 A (INCYTE GENOMICS, INC; DAFFO, ABEL; JONES, ANISSA, LEE; TRAN, ALANNA-PH) 5 December 2002 (2002-12-05) sequence 1202	1-17, 19, 23-56
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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 *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
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Date of the actual completion of the international search  <b>6 April 2006</b>	Date of mailing of the international search report  <b>08/05/2006</b>
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Name and mailing address of the ISA/ 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	Authorized officer  <b>Loubradou-Bourges, N</b>
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INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB2005/004032

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>CISMASIU VALERIU B ET AL: "The MAM (meprin/A5-protein/PTPmu) domain is a homophilic binding site promoting the lateral dimerization of receptor-like protein-tyrosine phosphatase mu"                      JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 279, no. 26, 25 June 2004 (2004-06-25), pages 26922-26931, XP002375952                      ISSN: 0021-9258                      abstract</p>	1-17,19, 23-56
A	<p>BESCO J ET AL: "GENOMIC STRUCTURE AND ALTERNATIVE SPLICING OF MURINE R2B RECEPTOR PROTEIN TYROSINE PHOSPHATASE (PTPKAPPA, MU, RHO AND PCP-2)"                      BMC GENOMICS, BIOMED CENTRAL, LONDON, GB, vol. 5, no. 14, 11 February 2004 (2004-02-11), XP001182766                      ISSN: 1471-2164                      abstract</p>	1-17,19, 23-56

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2005/004032

## 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.  Claims Nos.: 18, 20-22  
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.: 18, 20-22  
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:  
see FURTHER INFORMATION sheet PCT/ISA/210
  
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:

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 II.1

Although claims 24,26,29-34 ,45 are directed to a diagnostic method practised on the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Although claims 42-44 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.

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## Continuation of Box II.2

Claims Nos.: 18,20-22

Present claims 18, 20-22 relate to compound which has a given desired property or effect, namely the ability to bind to a protein as defined in claim 1-11, or to increase or decrease the level of expression or activity of said protein. However, the description does not provide support and disclosure in the sense of Article 6 and 5 PCT for any such compound having the said property or effect and there is no common general knowledge of this kind available to the person skilled in the art. This non-compliance with the substantive provisions is to such an extent, that the search was performed taking into consideration the non-compliance in determining the extent of the search of the claim (PCT Guidelines 9.19 and 9.20).

The applicant's attention is drawn to the fact that 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. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

## INTERNATIONAL SEARCH REPORT

International application No  
PCT/GB2005/004032

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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		CA 2504670 A1	27-05-2004
		EP 1587843 A2	26-10-2005
WO 0234783 A	02-05-2002	AU 3270702 A	06-05-2002
		CA 2427085 A1	02-05-2002
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		WO 02079449 A2	10-10-2002