



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification ⁷ : C12N 15/53, 9/02, 5/10, A61K 48/00, C12Q 1/68, C07K 16/28</p>	A3	<p>(11) International Publication Number: WO 00/04135</p> <p>(43) International Publication Date: 27 January 2000 (27.01.00)</p>
<p>(21) International Application Number: PCT/US99/16164</p> <p>(22) International Filing Date: 16 July 1999 (16.07.99)</p> <p>(30) Priority Data: 09/116,750 16 July 1998 (16.07.98) US 60/160,074 16 July 1998 (16.07.98) US</p> <p>(63) Related by Continuation (CON) or Continuation-in-Part (CIP) to Earlier Applications US 09/116,750 (CIP) Filed on 16 July 1998 (16.07.98) US 60/160,074 (CIP) Filed on 16 July 1998 (16.07.98)</p> <p>(71) Applicant (for all designated States except US): INCYTE PHARMACEUTICALS, INC. [US/US]; 3174 Porter Drive, Palo Alto, CA 94304 (US).</p> <p>(72) Inventors; and (75) Inventors/Applicants (for US only): BANDMAN, Olga [US/US]; 366 Anna Avenue, Mountain View, CA 94043 (US). TANG, Y., Tom [CN/US]; 4230 Ranwick Court, San Jose, CA 95118 (US). CORLEY, Neil, C. [US/US]; 1240 Dale Avenue, #30, Mountain View, CA 94040 (US).</p>	<p>AZIMZAI, Yalda [US/US]; 2045 Rock Springs Drive, Hayward, CA 94547 (US). BAUGHN, Mariah, R. [US/US]; 14244 Santiago Road, San Leandro, CA 94577 (US).</p> <p>(74) Agents: BILLINGS, Lucy, J. et al.; Incyte Pharmaceuticals, Inc., 3174 Porter Drive, Palo Alto, CA 94304 (US).</p> <p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, 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, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p>Published With international search report.</p> <p>(88) Date of publication of the international search report: 22 June 2000 (22.06.00)</p>	
<p>(54) Title: HUMAN SCAD-RELATED MOLECULES, SCRM-1 AND SCRM-2</p>		
<pre> 9 18 27 36 45 54 5' GAG TGG AAC CCA GAC TTG CTG GTC TGA TCC ATG CAC ATG GCC AGG CTG CTA GGC M H M A R L L G 63 72 81 90 99 108 CTC TGT GCC TGG GCA CGG AAG TCG GTG CGG ATG GCC AGC TCC AGG ATG ACC CGC L C A W A R K S V R M A S S R M T R 117 126 135 144 153 162 CGG GAC CCG CTC ACA AAT AAG GTG GCC CTG GTA ACG GCC TCC ACC GAC GGG ATC R D P L T N K V A L V T A S T D G I 171 180 189 198 207 216 GGC TTC GCC ATC GCC CGG CGT TTG GCC CAG GAC AGG GCC CAC GTG GTC GTC AGC G F A I A R R L A Q D R A H V V V S 225 234 243 252 261 270 AGC CGG AAG CAG CAG AAT GTG GAC CAG GCG GTG GCC ACG CTG CAG GGG GAG GGG S R K Q Q N V D Q A V A T L Q G E G 279 288 297 306 315 324 CTG AGC GTG ACG GGC ACC GTG TGC CAT GTG GGG AAG GCG GAG GAC CGG GAG CGG L S V T G T V C H V G K A E D R E R </pre>		
<p>(57) Abstract</p> <p>The invention provides a human SCAD-related molecules (ScRM) and polynucleotides which identify and encode ScRM. The invention also provides expression vectors, host cells, antibodies, agonists, and antagonists. The invention also provides methods for diagnosing, treating, or preventing disorders associated with expression of ScRM.</p>		

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EE	Estonia	LR	Liberia	SG	Singapore		

INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 99/16164

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 C12N15/53 C12N9/02 C12N5/10 A61K48/00 C12Q1/68
 C07K16/28

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 A61K C07K 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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>GABRIELLI, F. ET AL.: " A nuclear protein, synthesized in growth-arrested human hepatoblastoma cells, is a novel member of the short-chain alcohol dehydrogenase family." EUR. J. BIOCHEM., vol. 232, no. 2, 1 September 1995 (1995-09-01), pages 473-477, XP000862845 cited in the application the whole document</p> <p style="text-align: center;">---</p> <p style="text-align: center;">-/--</p>	1

Further documents are listed in the continuation of box C. Patent family members are listed in annex.

° Special categories of cited documents :

<p>*A* document defining the general state of the art which is not considered to be of particular relevance</p> <p>*E* earlier document but published on or after the international filing date</p> <p>*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)</p> <p>*O* document referring to an oral disclosure, use, exhibition or other means</p> <p>*P* document published prior to the international filing date but later than the priority date claimed</p>	<p>*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</p> <p>*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</p> <p>*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.</p> <p>*&* document member of the same patent family</p>
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Date of the actual completion of the international search	Date of mailing of the international search report
5 January 2000	31. 03. 00

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 CHAMBONNET, F
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INTERNATIONAL SEARCH REPORT

International Application No

PL 1/US 99/16164

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	DONADEL, G. ET AL.: "Identification of a novel nuclear protein synthesized in growth-arrested human hepatoblastoma HepG2 cells." EUR. J. BIOCHEM. 195, 723-729, 1991, XP000863211 the whole document	1
P,X	--- FRANSEN M, VAN VELDHoven PP, SUBRAMANI S: " Identification of peroxisomal proteins by using M13 phage protein VI phage display: molecular evidence that mammalian peroxisomes contain a 2,4-dienoyl-CoA reductase." BIOCHEM JOURNAL, vol. 340, no. PT 2, 1 June 1999 (1999-06-01), pages 561-568, XP000862955 the whole document -----	1,2

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 99/ 16164

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:
Remark: Although claims 17 and 18
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.
2. Claims Nos.: 15-16
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 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:

see additional 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 to 20 partially

Remark on Protest

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

INTERNATIONAL SEARCH REPORT

International Application No. PCT/US 99/16164

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 15 16

Present claims 15 and 16 relate to respectively an agonist and an antagonist of the polypeptide of claim 1 without giving true technical characterization. In consequence, the scope of said claims is ambiguous and vague, and their subject matter is not sufficiently disclosed and supported (Articles 5 and 6 PCT). No search can be carried out for such purely speculative claims whose wording is, in fact a mere recitation of the results to be achieved.

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

International Application No. PCT/US 99/16164

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

1. Claim : partially 1 to 20

A substantially purified polypeptide comprising an amino-acid sequence consisting of SEQ ID NO:1 ,a variant having at least 90% amino acid identity or fragment thereof ; an isolated and purified polynucleotide encoding said polypeptide, or comprising a sequence selected from the group consisting of SEQ ID NO:3, a fragment, a variant or a complementary polynucleotide thereof; an expression vector comprising said polynucleotide, a host cell comprising said vector and method of production using it; a pharmaceutical composition comprising said polypeptide and uses thereof, a purified antibody which specifically binds to said polypeptide, a purified agonist or antagonist of said polypeptide; methods for detecting such a polynucleotide.

2. Claim : partially 1 to 20

A substantially purified polypeptide comprising an amino-acid sequence consisting of SEQ ID NO:2 ,a variant having at least 90% amino acid identity or fragment thereof ; an isolated and purified polynucleotide encoding said polypeptide, or comprising a sequence selected from the group consisting of SEQ ID NO:4, a fragment, a variant or a complementary polynucleotide thereof; an expression vector comprising said polynucleotide, a host cell comprising said vector and method of production using it; a pharmaceutical composition comprising said polypeptide and uses thereof, a purified antibody which specifically binds to said polypeptide, a purified agonist or antagonist of said polypeptide; methods for detecting such a polynucleotide.