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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, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, 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, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

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Declaration under Rule 4.17:

— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

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28 June 2007

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: GENES AND POLYPEPTIDES RELATING TO PROSTATE CANCERS

(57) Abstract: The present application provides novel human gene ELOVL7 whose expression is markedly elevated in prostate cancers. The gene and polypeptide encoded by the gene can be used, for example, in the diagnosis of prostate cancers, as target molecules for developing drugs against the disease, and for attenuating cell growth of prostate cancer.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/JP2006/314714

A. CLASSIFICATION OF SUBJECT MATTER
INV. G01N33/574 C12Q1/48

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)
G01N 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, WPI Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	DATABASE UniProt [Online] 10 May 2005 (2005-05-10), "Homo sapiens ELOVL7 protein" XP002406151 retrieved from EBI accession no. UNIPROT:Q589T3 Database accession no. Q589T3 the whole document -----	1-11, 16-18, 21-29
Y	DATABASE EMBL [Online] 1 April 2005 (2005-04-01), "Homo sapiens ELOVL7 mRNA, complete cds." XP002406152 retrieved from EBI accession no. EM_HUM:AB181393 Database accession no. AB181393 the whole document ----- -/--	1-11, 16-18, 21-29

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 document but 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 7 December 2006	Date of mailing of the international search report 02.02.2007
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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 Adida, Anne
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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-36

Diagnosis/treatment of prostate cancer using the protein having the sequence SEQ ID No:15.

1.1. claims: 1, 2, 29, fully.

Method for diagnosing prostate cancer by detecting the expression level of ELOVL7 and kit.

1.2. claims: 3-11, fully.

Methods of screening for a compound for treating or preventing prostate cancer using ELOVL7.

1.3. claims: 12-17, 27-28, fully.

Compositions comprising products related to EVOVL7 for treating or preventing prostate cancer.

1.4. claims: 18-24, fully.

Methods for treating or preventing prostate cancer by administering products related to EVOVL7.

1.5. claims: 25-26, fully.

Methods for inducing an anti tumor immunity using ELOVL7.

1.6. claims: 30-36, fully.

A double stranded molecule inhibiting ELOVL7 gene expression and a vector comprising it.

2. claims: 37-38, fully.

Method of measuring fatty acid elongation activity using ELOVL7 and kit.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2006/314714

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

Although claims 18-26 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.:
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. 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:

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.:

1-36

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/JP2006/314714

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>WO 03/009814 A2 (MILLENNIUM PHARM INC [US]; SCHLEGEL ROBERT [US]; MONAHAN JOHN E [US];) 6 February 2003 (2003-02-06)</p> <p>page 1, line 16 - line 17 page 3, line 7 - line 34 page 4, line 8 - page 9, line 28 page 31, line 35 - page 32, line 35 page 33, line 14 - line 28 page 35, line 22 - page 36, line 11 page 39, line 5 - line 24 page 40, line 11 - line 35 page 46, line 21 - line 36 page 68, line 11 - page 71, line 35 page 75, line 16 - line 21 page 79, line 30 - page 80, line 18 page 81, line 20 - line 37 page 87, line 29 - line 32 page 96, line 13 - line 30 tables 1,3,5 * SEQ ID NO: 125 and 126 * claim 8</p> <p style="text-align: center;">-----</p>	<p>1-9, 16-18, 21-24, 27-29</p>
Y	<p>WO 2004/031231 A2 (ONCOTHERAPY SCIENCE INC [JP]; JAPAN AS REPRESENTED BY THE PR [JP]; NAK) 15 April 2004 (2004-04-15)</p> <p>page 4, line 14 - line 26 page 7, line 28 - line 33 page 8, line 23 - line 27 page 43, line 32 - page 47, line 9 claims 18,29,30</p> <p style="text-align: center;">-----</p>	<p>10,11, 25,26</p>
X	<p>DATABASE CA [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 21 October 2004 (2004-10-21), BENTWICH, ITZHAK: "Bioinformatically detectable group of regulatory genes encoding small microRNA-like RNAs and their uses to selectively detect or inhibit gene expression" XP002410280 retrieved from STN Database accession no. 141:290093 abstract & WO 2004/044123 A2 (ROSETTA GENOMICS LTD., ISRAEL) 27 May 2004 (2004-05-27)</p> <p>page 4, line 1 - page 7, line 9 page 16, line 24 - line 31 page 21, line 12 - line 18 page 39, line 5 - line 10 page 39, line 32 - page 40, line 11 figure 19 claims 10-13 sequences 30612,391444</p> <p style="text-align: center;">-----</p> <p style="text-align: center;">-/--</p>	<p>12-15, 30,31, 33-36</p>

INTERNATIONAL SEARCH REPORT

International application No

PCT/JP2006/314714

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>DATABASE CA [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; 24 June 2004 (2004-06-24), BENTWICH, ITZHAK: "Bioinformatically detectable group of regulatory genes encoding small microRNA-like RNAs and their uses to selectively detect or inhibition gene expression" XP002410281 retrieved from STN Database accession no. 141:2383 abstract & WO 2004/044123 A2 (ROSETTA GENOMICS LTD., ISRAEL) 27 May 2004 (2004-05-27) page 4, line 1 - page 7, line 9 page 16, line 24 - line 31 page 21, line 12 - line 18 page 39, line 5 - line 10 page 39, line 32 - page 40, line 11 claims 10-13; figure 19 sequences 30612, 391444</p>	<p>12-15, 30,31, 33-36</p>
A	<p>ANONYMOUS: "siRNA Design guidelines"[Online] 24 July 2005 (2005-07-24), XP002410277 Retrieved from the Internet: URL:http://web.archive.org/web/20050724083 330/http://www.ambion.com/techlib/tb/tb_50 6.html> [retrieved on 2006-12-04] the whole document</p>	<p>14,33,36</p>

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/JP2006/314714

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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