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(54) Title: OLIGONUCLEOTIDE COMPOSITIONS TARGETING EGR-1 FORCANCER TREATMENT

(57) Abstract: Oligonucleotides, compositions and methods for modulating the over-expression of EGR-1 in cancer cells. The com-
positions comprise antisense compounds, particularly antisense oligonucleotides, targeted to nucleic acids encoding Egr-1. Methods
include using these compounds for modulation of Egr-1 expression in cancer cells in which Egr-1 is over-expressed for the treatment
of cancer.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/09012

<p>A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : A01N 43/04; A61K 31/70; C07H 21/04 US CL : 536/23.1, 24.5; 514/44 According to International Patent Classification (IPC) or to both national classification and IPC</p>												
<p>B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) U.S. : 536/23.1, 24.5; 514/44 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 practicable, search terms used) Please See Continuation Sheet</p>												
<p>C. DOCUMENTS CONSIDERED TO BE RELEVANT</p> <table border="1"> <thead> <tr> <th>Category *</th> <th>Citation of document, with indication, where appropriate, of the relevant passages</th> <th>Relevant to claim No.</th> </tr> </thead> <tbody> <tr> <td>X</td> <td>US 2003/0232771 A1 (WARD et al) 18 December 2003 (18.12.2003), see page 31, SEQ ID NO: 82.</td> <td>1-2</td> </tr> </tbody> </table>			Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.	X	US 2003/0232771 A1 (WARD et al) 18 December 2003 (18.12.2003), see page 31, SEQ ID NO: 82.	1-2				
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<p><input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.</p>												
<p>* Special categories of cited documents:</p> <table border="0"> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"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</td> </tr> <tr> <td>"E" earlier application or patent published on or after the international filing date</td> <td>"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</td> </tr> <tr> <td>"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)</td> <td>"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</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td>"&" document member of the same patent family</td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> </tr> </table>			"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	
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<p>Date of the actual completion of the international search 03 September 2005 (03.09.2005)</p>		<p>Date of mailing of the international search report 16 NOV 2005</p>										
<p>Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230</p>		<p>Authorized officer Janet Epps-Ford, Ph.D. <i>J. Roberts for</i> Telephone No. 571-272-1600</p>										

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/09012

Box No. 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:

2. Claims Nos.: 3-41
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:
Please See Continuation Sheet

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 No. 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 additional fees, this Authority did not invite payment of any additional fees.
 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 and, where applicable, the payment of a protest fee.
 - The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
 - No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US05/09012

Continuation of Box II Reason 2:

Claims 3-41 appear to be dependent claims, however these claims do not recite wherein the claims are dependent upon a previous claim. The claims reference a particular number, for example, claim 3 recites "an oligonucleotide according to 1," however the claim does not recite wherein the "1" references "claim 1." A similar problem exists in claims 4-41.

Continuation of B. FIELDS SEARCHED Item 3:

USPAT, JPO, EPO, Derwent, CAPlus, Medline, Registry

search terms: 8 nucleobase portion of SEQ ID NO:1, antisense, mai or siRNA, ribozyme, EGR-1, NGF1-A, Krox-24, ZIF268