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Published:

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11 March 2010



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(54) Title: COMPOSITIONS COMPRISING A-RAF, B-RAF, AND C-RAF SIRNA AND METHODS OF USE THEREOF

(57) Abstract: The present invention provides nucleic acid molecules that inhibit A-Raf, B-Raf, and/or C-Raf expression. Methods of using the nucleic acid molecules are also provided.

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2009/044893

A. CLASSIFICATION OF SUBJECT MATTER
INV. C12N15/11 A61K31/713
ADD. A61P35/00

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 A61K A61P

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, BIOSIS, Sequence Search, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P, X	<p>WO 2008/076127 A (INTRADIGM CORP [US]; XIE FRANK Y [US]; LU PATRICK Y [US]; WOODLE MARTI) 26 June 2008 (2008-06-26)</p> <p>table 12 page 68, lines 8-26; claims 1,3,17,21-24 page 16, line 9 page 22, lines 8,9 page 26, lines 11,12 page 39, lines 27-30 page 51, line 30</p> <p align="center">----- -/--</p>	<p>1-5, 8, 10-14, 16-20, 22-27, 29</p>

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.
- *Z* document member of the same patent family

Date of the actual completion of the international search

5 November 2009

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21/01/2010

Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US2009/044893

Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.b of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
 - a. type of material
 - a sequence listing
 - table(s) related to the sequence listing
 - b. format of material
 - on paper
 - in electronic form
 - c. time of filing/furnishing
 - contained in the international application as filed
 - filed together with the international application in electronic form
 - furnished subsequently to this Authority for the purpose of search
2. In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2009/044893

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KARASARIDES M ET AL: "B-RAF is a therapeutic target in melanoma" ONCOGENE, NATURE PUBLISHING GROUP, GB BASINGSTOKE, HANTS, vol. 23, no. 37, 19 August 2004 (2004-08-19), pages 6292-6298, XP002493793 ISSN: 0950-9232	16, 19
Y	page 6293; figure 1d	1-15, 17, 18, 20, 21, 23, 24, 26-29
X	----- WO 2006/040357 A (GALAPAGOS N V [BE]; KLAASSEN HUBERTUS JOHANUS MATH [BE]; BRYN REGINALD) 20 April 2006 (2006-04-20) page 80, lines 4-6 page 1, lines 10-18	16, 19, 22, 25
Y	page 112 - page 114	1-15, 17, 18, 20, 21, 23, 24, 26-29
A	----- WO 03/076651 A (KINETEK PHARMACEUTICALS INC [CA]; DELANEY ALLEN D [CA]) 18 September 2003 (2003-09-18) page 2, paragraph 3; claims 7, 8	1-29
A	----- WO 98/50530 A (RIBOZYME PHARM INC [US]; JARVIS THALE [US]; MATULIC ADAMIC JASENKA [YU]) 12 November 1998 (1998-11-12) page 157; table 14	1-29

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2009/044893

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.:
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 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:

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 fees, this Authority did not invite payment of 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.:

see annex

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.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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

1. claims: 1-29 partially

An isolated small interfering RNA (siRNA) polynucleotide that downregulates expression of A-Raf; related products, compositions and methods.

2. claims: 1-29 partially

An isolated small interfering RNA (siRNA) polynucleotide that downregulates expression of B-Raf; related products, compositions and methods.

3. claims: 1-29 partially

An isolated small interfering RNA (siRNA) polynucleotide that downregulates expression of C-Raf; related products, compositions and methods.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2009/044893

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