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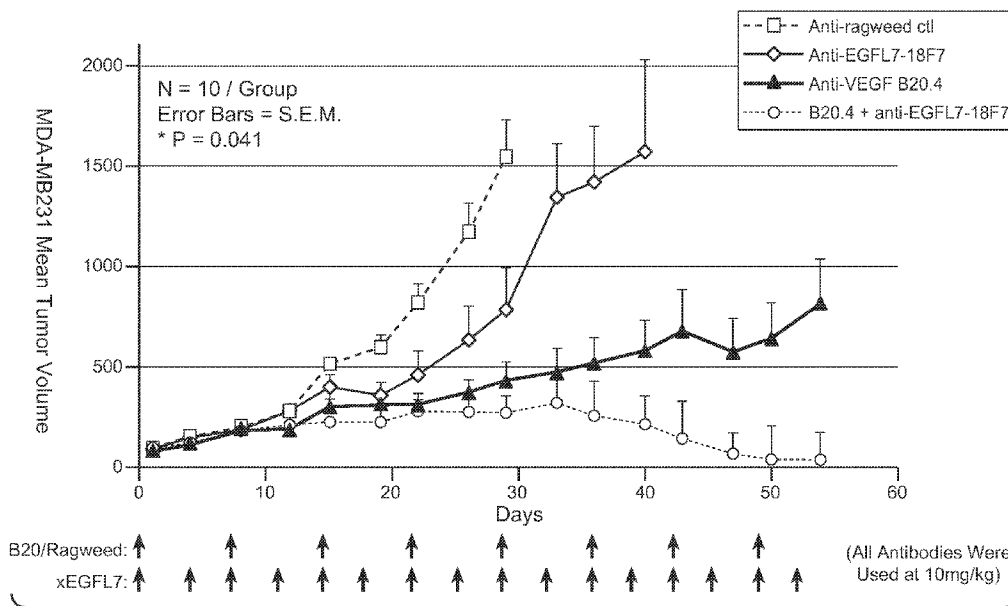
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(54) Title: ANTIBODIES TO EGFL7 AND METHODS FOR THEIR USE

Anti-EGFL7 Mab 18F7 Enhances the Activity of B20.4.1



(57) Abstract: The invention provides anti-EGFL7 antibodies, and compositions comprising and methods of using these antibodies.

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
 INV. **C07K16/22** **A61P35/00** **A61P27/02**

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)
C07K

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, EMBASE, MEDLINE, 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	<p>WO 2005/117968 A (GENENTECH INC [US]; FILVAROFF ELLEN [US]; HONGO JO-ANNE S [US]; PARKER) 15 December 2005 (2005-12-15) page 45, line 3 - line 22 page 45, line 37 - page 48, line 33 page 51, line 15 - page 52, line 29; claims 1-20; example 4</p>	1-57
A	<p>DATABASE BIOSIS [Online] BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; March 2006 (2006-03), SCHMIDT MAIKE ET AL: "Vascular changes in mouse tumors following endothelial cell targeted therapy" XP002475046 Database accession no. PREV200600337155 abstract</p> <p style="text-align: center;">-/--</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.
- *&* document member of the same patent family

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INTERNATIONAL SEARCH REPORT

International application No

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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>& FASEB JOURNAL, vol. 20, no. 5, Part 2, March 2006 (2006-03), page A1100, EXPERIMENTAL BIOLOGY 2006 MEETING; SAN FRANCISCO, CA, USA; APRIL 01 05, 2006 ISSN: 0892-6638</p> <p>-----</p> <p>HOOGENBOOM H R: "Selecting and screening recombinant antibody libraries" NATURE BIOTECHNOLOGY, NATURE PUBLISHING GROUP, NEW YORK, NY, US, vol. 23, no. 9, September 2005 (2005-09), pages 1105-1116, XP002348401 ISSN: 1087-0156 page 1110, left-hand column, last paragraph - page 1112, left-hand column, paragraph 2; table 2</p> <p>-----</p> <p>PARKER L H ET AL: "The endothelial-cell-derived secreted factor Egfl7 regulates vascular tube formation" NATURE, NATURE PUBLISHING GROUP, LONDON, GB, vol. 428, no. 6984, 15 April 2004 (2004-04-15), pages 754-758, XP002372367 ISSN: 0028-0836 the whole document</p> <p>-----</p> <p>CAMPAGNOLO LUISA ET AL: "EGFL7 is a chemoattractant for endothelial cells and is up-regulated in angiogenesis and arterial injury" AMERICAN JOURNAL OF PATHOLOGY, vol. 167, no. 1, July 2005 (2005-07), pages 275-284, XP002474014 ISSN: 0002-9440 the whole document</p> <p>-----</p> <p>WO 2005/012359 A (GENENTECH INC [US]; FUH GERMAINE [US]; GERBER HANSPETER [US]; LIANG WE) 10 February 2005 (2005-02-10) cited in the application the whole document</p> <p>-----</p>	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/064242

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:

Although claims 33-57 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 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 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.:

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

Information on patent family members

International application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2005117968 A	15-12-2005	AU 2005249377 A1	15-12-2005
		BR PI0509420 A	04-09-2007
		CA 2563445 A1	15-12-2005
		CN 1997394 A	11-07-2007
		EP 1734998 A2	27-12-2006
		JP 2007532685 T	15-11-2007
		KR 20070029687 A	14-03-2007
		US 2007031437 A1	08-02-2007
WO 2005012359 A	10-02-2005	AU 2004262006 A1	10-02-2005
		BR PI0412637 A	26-09-2006
		CA 2533297 A1	10-02-2005
		EP 1648939 A2	26-04-2006
		JP 2007526756 T	20-09-2007
		KR 20060067950 A	20-06-2006
		MX PA06001319 A	04-05-2006
		US 2005106667 A1	19-05-2005