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(72) Inventors; and

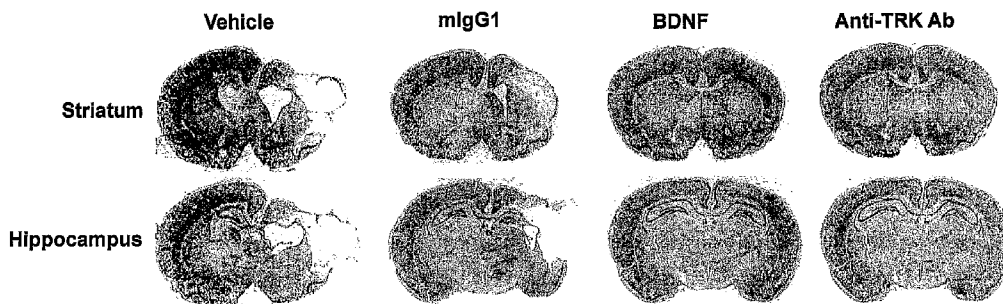
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ANTI-TRKB MONOCLONAL ANTIBODIES AND USES THEREOF



(57) Abstract: The present invention provides monoclonal antibodies for human TrkB. In certain embodiments the inventive antibodies bind and activate human TrkB. In certain embodiments the inventive antibodies are selective for human TrkB in that they do not bind (or activate) human TrkA or human TrkC. In some embodiments the inventive monoclonal antibodies cross-react with murine TrkB. Humanized or veneered versions of the inventive antibodies are also encompassed. Pharmaceutical compositions that comprise inventive antibodies are provided as are methods for preparing the inventive antibodies and methods of using these for treatment, detection or purification purposes.

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
 INV. C07K16/28 A61K39/395 G01N33/577 C12N5/18 A61P3/00
 A61P17/00 A61P25/00 A61P31/00 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)
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, WPI Data, BIOSIS, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	R&D SYSTEMS, INC.: "Monoclonal Anti-mouse TrkB Antibody, Catalog Number: MAB1494" 21 December 2004 (2004-12-21), R&D SYSTEMS, INC. , XP002411650 the whole document	1-69
X	R&D SYSTEMS, INC.: "Monoclonal Anti-human TrkB Antibody, Catalog Number: MAB3971" 13 September 2004 (2004-09-13), R&D SYSTEMS, INC. , XP002411651 the whole document	1-69
X	R&D SYSTEMS, INC.: "Monoclonal Anti-human TrkB Antibody, Catalog Number: MAB397" 7 September 2003 (2003-09-07), R&D SYSTEMS, INC. , XP002411652 the whole document	1-69
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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
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- *O* document referring to an oral disclosure, use, exhibition or other means
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- *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

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Bayer, Annette

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2006/021878

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>GEETHA T ET AL: "Association of the atypical protein kinase C-interacting protein p62/ZIP with nerve growth factor receptor TrkA regulates receptor trafficking and Erk5 signaling" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOCHEMICAL BIOLOGISTS, BIRMINGHAM,, US, vol. 278, no. 7, 5 December 2002 (2002-12-05), pages 4730-4739, XP002372986 ISSN: 0021-9258 "Materials" on page 4731</p>	1-69
X	<p>WO 95/15180 A (UNIV CALIFORNIA [US]) 8 June 1995 (1995-06-08) page 7, line 25 - page 11, line 4 page 12, line 19 - page 13, line 28 page 15, line 14 - line 32 page 16, line 9 - page 17, line 10 page 22, line 25 - page 23, line 4 page 26, lines 11-15,29-36 page 38, line 12 - page 39, line 5 claims 1-9,13-20</p>	1-69
X	<p>WO 96/01837 A (PHILADELPHIA CHILDREN HOSPITAL [US]) 25 January 1996 (1996-01-25) page 4, line 27 - page 5, line 2 page 6, line 25 - page 7, line 12 page 11, line 21 - page 12, line 6 page 24, line 30 - page 26, line 10 claims 16-21</p>	1-70
T	<p>QIAN MING D ET AL: "Novel agonist monoclonal antibodies activate TrkB receptors and demonstrate potent neurotrophic activities" JOURNAL OF NEUROSCIENCE, vol. 26, no. 37, September 2006 (2006-09), pages 9394-9403, XP009076184 ISSN: 0270-6474 the whole document</p>	1-70

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2006/021878

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 61-68 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:

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.:

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

Information on patent family members

International application No

PCT/US2006/021878

Patent document cited in search report		Publication date		Patent family member(s)		Publication date
WO 9515180	A	08-06-1995	AU	1262095 A		19-06-1995
			US	5753225 A		19-05-1998
WO 9601837	A	25-01-1996	AU	2913395 A		09-02-1996
			US	5601820 A		11-02-1997