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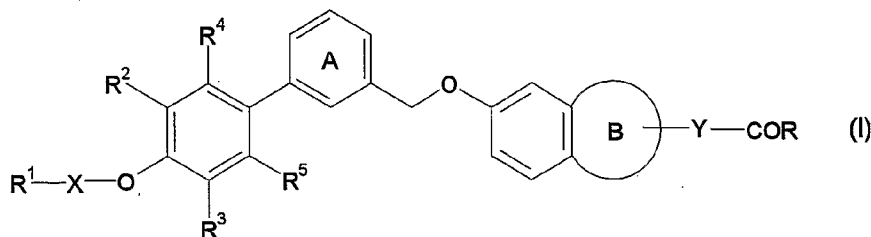
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(54) Title: FUSED CYCLIC COMPOUNDS



(57) Abstract: The present invention provides a compound represented by the formula (I): wherein each symbol is as defined in the description, or a salt thereof. The compound or a salt thereof or a prodrug thereof has a GPR40 receptor function modulating action and is useful as an insulin secretagogue or an agent for the prophylaxis or treatment of diabetes and the like.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/JP2007/063208A. CLASSIFICATION OF SUBJECT MATTER
INV. C07D409/12 A61K31/192 A61P3/10

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)
C07D

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, BEILSTEIN 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.
Y	EP 1 630 152 A (TAKEDA PHARMACEUTICAL COMPANY [JP]) 1 March 2006 (2006-03-01) cited in the application examples 50-62,69-72	1-18
Y	paragraphs [0014], [0235], [0334]	19
Y	WO 2005/063729 A (TAKEDA PHARMACEUTICAL COMPANY [JP]; YASUMA TSUNEO [JP]; KITAMURA SHUJI) 14 July 2005 (2005-07-14) examples 78,99,100,113,114	1-17
Y	WO 2005/087710 A (TAKEDA PHARMACEUTICAL [JP]; YASUMA TSUNEO [JP]; NEGORO NOBUYUKI [JP];) 22 September 2005 (2005-09-22) abstract; examples 250-253 -/--	1-18

 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
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- * & * 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.
P,Y	- & EP 1 726 580 A (TAKEDA PHARMACEUTICAL COMPANY [JP]) 29 November 2006 (2006-11-29) examples 250-253 -----	1-18
A	EP 1 559 422 A (TAKEDA PHARMACEUTICAL COMPANY [JP]) 3 August 2005 (2005-08-03) the whole document -----	1-17
P,A	EP 1 698 624 A (TAKEDA PHARMACEUTICAL COMPANY [JP]) 6 September 2006 (2006-09-06) the whole document -----	1-17
P,A	EP 1 731 505 A (TAKEDA PHARMACEUTICAL COMPANY [JP]) 13 December 2006 (2006-12-13) the whole document -----	1-17
A	TRALDI, O.; ET AL.: ORGANIC MASS SPECTROMETRY, vol. 20, no. 1, 1985, pages 53-57, XP002460665 page 54; examples 1-4,d,and,e -----	18,19
Y	CUI X, BURGESS K: "Catalytic homogeneous asymmetric hydrogenations of largely unfunctionalized alkenes" CHEMICAL REVIEWS, vol. 105, no. 9, 2005, pages 3272-3296, XP002535915 AMERICAN CHEMICAL SOCIETY, WASHINGTON, DC. the whole document in particular section 6.2 -----	19
Y	BARBARO P ET AL: "Progress in stereoselective catalysis by metal complexes with chiral ferrocenyl phosphines" COORDINATION CHEMISTRY REVIEWS, ELSEVIER SCIENCE, AMSTERDAM, NL, vol. 248, no. 21-24, 1 December 2004 (2004-12-01), pages 2131-2150, XP004917423 ISSN: 0010-8545 section 2.1.1, in particular equation (10) -----	19
Y	BURK M J: "Modular phospholane ligands in asymmetric catalysis" ACCOUNTS OF CHEMICAL RESEARCH., vol. 33, no. 6, 2000, pages 363-372, XP002535916 ACS, WASHINGTON, DC. the whole document in particular figure 6 -----	19

INTERNATIONAL SEARCH REPORT

International application No.
PCT/JP2007/063208

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.:

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: 1-17

A compound of formula (1); compositions containing them and uses thereof

2. claims: 18-19

A production method of a compound of formula (III) and a compound according to claim 18

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/JP2007/063208

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