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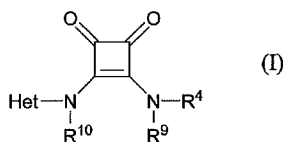
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(54) Title: SQUARATE KINASE INHIBITORS



(57) Abstract: The present application provides compounds of Formula (I): and pharmaceutically acceptable salts thereof and pharmaceutical compositions thereof, wherein Het, R⁹, and R¹⁰ are defined herein. Compounds of formula (I) are useful as inhibitors of MAP kinase activated protein kinase 2 (MK2).

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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER		
INV. C07D401/12	C07D405/12	C07D207/44
A61P17/00	A61P19/00	A61K31/4409
		A61P11/00
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) 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, CHEM ABS Data, BEILSTEIN Data		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2004/011418 A (SCHERING CORP [US]; PHARMA COPEIA INC [US]) 5 February 2004 (2004-02-05) page 89, lines 5-10; claims 1,16 page 93	1-48
X	----- SERGEY A IVANOVSKY ET AL: "Synthesis of the Substituted 3-Cyclobutene-1,2-diones" SYNTHETIC COMMUNICATIONS, TAYLOR & FRANCIS, PHILADELPHIA, PA, vol. 37, no. 15, 1 January 2007 (2007-01-01), pages 2527-2542, XP008103047 ISSN: 0039-7911 page 2529, compound 9 ----- -/--	1-48
<input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input checked="" type="checkbox"/> 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
Date of the actual completion of the international search 27 April 2009		Date of mailing of the international search report 14/05/2009
Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016		Authorized officer Beysse-Kahana, Ellen

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	US 5 464 867 A (ANTANE MADELENE M [US] ET AL) 7 November 1995 (1995-11-07) column 1, line 12; claim 1	1
X	GRÜNEFELD, ET AL.: "Zur Reaktion von Quadratsäuredimethylester mit N,N-disubstituierten Hydrazin-Derivaten" ARCHIV DER PHARMAZIE, vol. 318, 1985, pages 984-988, XP002518747 page 985, compound 3	1-42
P,X	WO 2007/140233 A (ABBOTT LAB [US]; DIEBOLD ROBERT B [US]; DJURIC STEVAN W [US]; GIRANDA) 6 December 2007 (2007-12-06) page 1, line 10; claim 1	1-48

INTERNATIONAL SEARCH REPORT

International application No.
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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 allsearchable 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 reportcovers 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: 2-39, 44 and partially 1, 40-43, 45-48

A compound according to present formula (I) wherein R4 = a cyclic moiety

2. claims: partially 1, 40-43, 45-48

A compound according to present formula (I) wherein R4 = a CR1R2R3

3. claims: partially 1, 40-43, 45-48

A compound according to present formula (I) wherein R4 = a carbon chain

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2008/070312

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2004011418 A	05-02-2004	AU 2003259302 A1	16-02-2004
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