



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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US 989,677 (CON)
Filed on 14 December 1992 (14.12.92)(71) Applicant (for all designated States except US): MERCK
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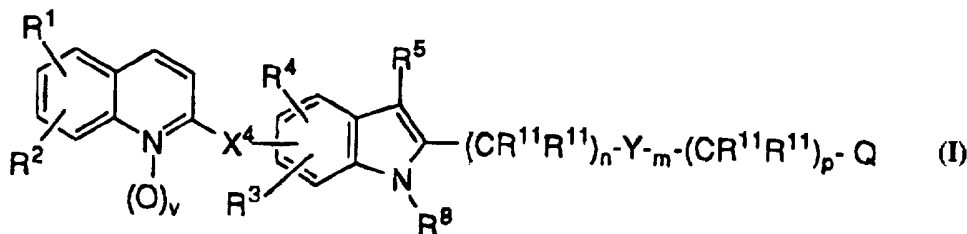
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JP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO,
RU, SD, SK, UA, US, UZ, European patent (AT, BE, CH,
DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE),
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NE, SN, TD, TG).

Published

*With international search report.**Before the expiration of the time limit for amending the
claims and to be republished in the event of the receipt of
amendments.*(88) Date of publication of the international search report:
18 August 1994 (18.08.94)

(54) Title: (QUINOLIN-2-YLMETHOXY)INDOLES AS INHIBITORS OF THE BIOSYNTHESIS OF LEUKOTRIENES



(57) Abstract

Compounds having formula (I) are inhibitors of leukotriene biosynthesis. These compounds are useful as anti-asthmatic, anti-allergic, anti-inflammatory, and cytoprotective agents. They are also useful in treating diarrhea, hypertension, angina, platelet aggregation, cerebral spasm, premature labor, spontaneous abortion, dysmenorrhea, and migraine.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/CA 93/00527

A. CLASSIFICATION OF SUBJECT MATTER
IPC 5 A61K31/475

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)
IPC 5 A61K

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	CA,A,2 060 557 (MERCK FROSST CANADA INC) 6 August 1992 see page 12 - page 13; examples ---	1-27, 31-33
X	EP,A,0 419 049 (MERCK FROSST CANADA INC) 27 March 1991 see page 5 - page 6; claims ---	1-27, 31-33
X	CAN. J. PHYSIOL. PHARMACOL., vol.70, no.6, 1992 pages 799 - 813 C. BRIDEAU ET AL. 'Pharmacology of MK-0591 (3-[1-(4-chlorobenzyl)-3-(t-butylthio)-5- (quinolin-2-ylmethoxy)indol-2-yl]-2,2-dime- thyl propanoic acid), a potent, orally active, leukotriene biosynthesis inhibitor.' see the whole document ---	1-3
	-/--	

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

* Special categories of cited documents :

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- "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
- "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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Date of the actual completion of the international search

8 March 1994

Date of mailing of the international search report

20.07.94

Name and mailing address of the ISA

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Authorized officer

KLAVER, T

INTERNATIONAL SEARCH REPORT

Int. l. Application No

PCT/CA 93/00527

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	BIOORG. MED. CHEM. LETT., vol.2, no.11, 1992 P.PRASIT ET AL. 'A new class of leukotriene biosynthesis inhibitors: the discovery of MK0591.' see the whole document -----	1-3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/CA93/00527

Box I Observations where certain claims were found unsearchable (Continuation of item 1 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:
REMARK: Although claims 1-27 are directed to a method of treatment of

(diagnostic method practised on) 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 II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. Use of the compounds of formula I in relation to certain medical utilities (claims 1-27, 31-33).
 2. Hydrazine derivatives as intermediates in the synthesis of the compounds of formula I (claims 28-30).
-
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.:

1-27, 31-33

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/CA 93/00527

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