

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
24 June 2004 (24.06.2004)

PCT

(10) International Publication Number
WO 2004/052869 A1

(51) International Patent Classification⁷: **C07D 241/26**,
A61P 3/10, A61K 31/50, C07D 213/78, 241/20, 213/76,
213/75, 413/04, 417/06, 403/06, 405/04, 405/06, 403/04,
409/04, A61K 31/501, 31/44, 31/4436

(21) International Application Number:
PCT/EP2003/014055

(22) International Filing Date:
11 December 2003 (11.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/432,806 12 December 2002 (12.12.2002) US
60/524,531 24 November 2003 (24.11.2003) US

(71) Applicant: **F. HOFFMANN-LA ROCHE AG** [CH/CH];
124 Grenzacherstrasse, CH-4070 Basle (CH).

(72) Inventors: **CHEN, Shaoqing**; 52 Whitehead Road,
Bridgewater, NJ 08807 (US). **CORBETT, Wendy, Lea**;
1012 Stanton-Lebanon Road, Lebanon, NJ 08833 (US).
GUERTIN, Kevin, Richard; 14 Wedgewood Drive, Apt.
20, Verona, NJ 07044 (US). **HAYNES, Nancy-Ellen**;
508 Linden Place, Cranford, NJ 07016 (US). **KESTER,**
Robert, Francis; 162 Forest Hill Road, West Orange, NJ
07052 (US). **MENNONA, Francis, A.**; 380 Bloomfield
Avenue, Nutley, NJ 07110 (US). **MISCHKE, Steven,**
Gregory; 118 Beechwood Road, Florham Park, NJ 07932

(US). **QIAN, Yimin**; 81 Agawam Drive, Wayne, NJ
07470 (US). **SARABU, Ramakanth**; 3 Candlewick Drive,
Towaco, NJ 07082 (US). **SCOTT, Nathan, Robert**; 14
Pitcairn Road, Livingstone, NJ 07039 (US). **THAKKAR,**
Kshitij, Chhabilbhai; 134 Passaic Avenue, Apt.A-13,
Nutley, NJ 07110 (US).

(74) Agent: **WITTE, Hubert**; 124 Grenzacherstrasse,
CH-4070 Basle (CH).

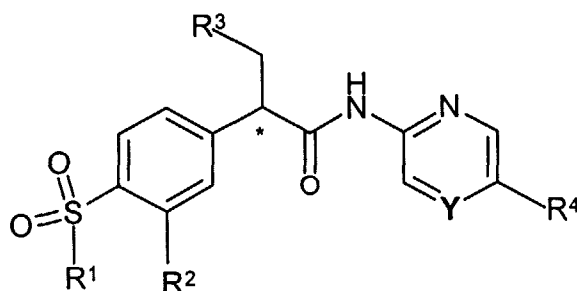
(81) Designated States (*national*): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,
GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR,
KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT,
RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (*regional*): ARIPO patent (BW, GH,
GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,
ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,
SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA,
GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— with international search report

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: 5-SUBSTITUTED-PYRAZINE OR PYRIDINE GLUCOKINASE ACTIVATORS



(I)

(57) Abstract: The present invention provides a compound according to formula (I) where the substituent designations are provided in the specification. Pharmaceutical compositions comprising a compound according to formula (I) are also provided, said compounds being glucokinase activators which are useful in the treatment of type II diabetes.



WO 2004/052869 A1