Title (en)

THIAZOLIDINONES FOR USE AS INHIBITORS OF POLO-LIKE KINASE (PLK)

Title (de)

THIAZOLIDINONE ALS INHIBITOREN DER POLO LIKE KINASE (PLK) ALS ARZNEIMITTEL

Title (fr)

THIAZOLIDINONES EN TANT QU'INHIBITEURS DE LA POLO-LIKE KINASE (PLK)

Publication

EP 1844027 A1 20071017 (DE)

Application

EP 06706691 A 20060202

Priority

- EP 2006001037 W 20060202
- DE 102005005395 A 20050203
- US 65123205 P 20050210

Abstract (en)

[origin: DE102005005395A1] Thiazolidinone compounds (I) and their salts, solvates, hydrates, stereoisomers, diastereomers and enantiomers are new. Thiazolidinone compounds of formula (I) and their salts, solvates, hydrates, stereoisomers, diastereomers, and enantiomers are new. Q : (hetero)aryl; A, B 1>1-6C alkyl or 1-6-C alkoxy (both optionally substituted by halo, -OH, 2-9C heterocycloalkyl, -NR 3>R 4> or -CO(NR 3>)-M) (where the heterocycloalkyl contains N, O or S and optionally: interrupted by -(CO)-, -SO 2- or double bond in the ring; and the ring is optionally substituted by -CN, halo, halo substituted 1-6C alkyl, 3-6C cycloalkyl, 1-6C hydroxyalkyl, -COR 2> or -NR 3>R 4>), H, halo, -OH, -NH 2, -NO 2, NR 3>R 4>, -NR 3>(CO)-L, -NR 3>(CO)-NR 3>-L, -COR 2>, -CO(NR 3>)-M, -NR 3>(CS)NR 3>R 4>, -NR 3>SO 2-L, -SO 2-NR 3>R 4> or -SO 2(NR 3>)-M; L : 1-6C alkyl or heteroaryl (both optionally substituted by -OH, 1-6C hydroxyalkoxy, 1-6C alkoxyalkoxy, 2-6C heterocycloalkyl or -NR 3>R 4>, where the heterocycloalkyl contains N, O or S and optionally interrupted by -(CO)-, -SO 2- or double bond in the ring; and the ring is optionally substituted by -CN, halo, halo substituted 1-6C alkyl, 3-6C cycloalkyl, 1-6C hydroxyalkyl, -COR 2> or -NR 3>R 4>); M : 1-6C alkyl (optionally substituted by -NR 3>R 4> or 2-6C heterocycloalkyl), where the heterocycloalkyl contains N, O or S and optionally interrupted by -(CO)-, -SO 2- or double bond in the ring; and the ring is optionally substituted by -CN, halo, halo substituted 1-6C alkyl, 3-6C cycloalkyl, 1-6C hydroxyalkyl, -COR 2> or -NR 3>R 4>; either W 1>heteroaryl or 2-9C heterocycloalkyl, where the heterocycloalkyl contains N, O or S and optionally interrupted by -(CO)-, -SO 2- or double bonds in the ring; and X, Y 1>1-6C alkyl, aryl (both optionally substituted by halo, -OH, 1-6C alkoxy, 1-6C alkylthio or aryl), -COOR 5>, -CONR 3>R 4> or H; or W 1>+X+Y 1>3-6C cycloalkyl ring or 2-6C heterocycloalkyl ring, where the heterocycloalkyl contains N, O or S and optionally interrupted by -(CO)-, -SO 2- or double bonds in the ring; and the ring is optionally substituted by 1-6C alkyl, 3-6C cycloalkyl, 1-6C hydroxyalkyl or -NR 3>R 1>; R 1>1-4C alkyl, 3C-cycloalkyl, allyl or propargyl (all optionally substituted by -CN or halo); R 2>-OH, 1-6C alkyl, 1-6C alkoxy or -NR 3>R 4>; either R 3>, R 4>1-6C alkyl, 1-6C alkoxy, CO-(1-6C)-alkyl, aryl (all optionally substituted by halo, -OH, 2-6C heterocycloalkyl, 1-6C hydroxyalkoxy or -NR 3>R 4>) or H, where the heterocycloalkyl contains N, O or S and optionally interrupted by -(CO)-, -SO 2- or double bond in the ring; and 2-6C heterocycloalkyl ring substituted by -CN, halo, 1-6C alkyl, 1-6C hydroxyalkyl, 1-6C alkoxy, 3-6C cycloalkyl, -NR 3>R 4> or -CO-NR 3>R 4>; or R 3>R 4>2-6C heterocycloalkyl ring, where the heterocycloalkyl contains N, O or S and optionally interrupted by -(CO)-, -SO 2- or double bonds in the ring; and the ring optionally substituted by halo, 1-6C alkyl, 3-6C cycloalkyl, 1-6C hydroxyalkyl, 1-6C alkoxyalkyl, -CN, -OH or -NR 3>R 4>; and R 5>1-6C alkyl (optionally substituted by halo, -OH, 2-6C heterocycloalkyl, 1-6C hydroxyalkoxy or -NR 3>R 4>), where the heterocycloalkyl contains N, O or S and optionally interrupted by -(CO)-, -SO 2- or double bonds in the ring; and the ring optionally substituted by 1-6C alkyl, 3-6C cycloalkyl, 1-6C hydroxyalkyl, 1-6C alkoxyalkyl, -CN, -OH or -NR 3>R 4>. An independent claim is also included for an intermediate substituted heterocyclic compound of formula (II). R x>1-3C alkyl. [Image] [Image] ACTIVITY : Cytostatic; Immunosuppressive; Endocrine-Gen.; Cardiovascular-Gen.; Antimicrobial; Neuroprotective. MECHANISM OF ACTION : Polo-like kinase inhibitor.

IPC 8 full level

A61K 31/41 (2006.01); **A61K 31/435** (2006.01); **A61P 35/00** (2006.01); **C07D 277/14** (2006.01); **C07D 417/06** (2006.01); **C07D 417/12** (2006.01); **C07D 417/14** (2006.01)

CPC (source: EP US)

A61P 9/10 (2017.12 - EP); **A61P 13/12** (2017.12 - EP); **A61P 17/02** (2017.12 - EP); **A61P 17/06** (2017.12 - EP); **A61P 17/14** (2017.12 - EP); **A61P 21/04** (2017.12 - EP); **A61P 25/00** (2017.12 - EP); **A61P 25/14** (2017.12 - EP); **A61P 25/16** (2017.12 - EP); **A61P 25/28** (2017.12 - EP); **A61P 31/04** (2017.12 - EP); **A61P 31/10** (2017.12 - EP); **A61P 31/12** (2017.12 - EP); **A61P 31/18** (2017.12 - EP); **A61P 31/20** (2017.12 - EP); **A61P 31/22** (2017.12 - EP); **A61P 33/06** (2017.12 - EP); **A61P 35/00** (2017.12 - EP); **A61P 35/02** (2017.12 - EP); **A61P 37/02** (2017.12 - EP); **A61P 43/00** (2017.12 - EP); **C07D 277/14** (2013.01 - EP US); **C07D 417/06** (2013.01 - EP US); **C07D 417/12** (2013.01 - EP US); **C07D 417/14** (2013.01 - EP US)

Citation (search report)

See references of WO 2006082107A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA HR MK YU

DOCDB simple family (publication)

DE 102005005395 A1 20060810; AR 052370 A1 20070314; AU 2006210153 A1 20060810; BR PI0606140 A2 20090602; CA 2596967 A1 20060810; CN 101155791 A 20080402; DO P2006000024 A 20060815; EP 1844027 A1 20071017; GT 200600039 A 20060906; JP 2008529985 A 20080807; MX 2007009387 A 20070816; PA 8661701 A1 20061207; PE 20061085 A1 20061111; TW 200639155 A 20061116; US 2006223833 A1 20061005; US 7511059 B2 20090331; UY 29358 A1 20060731; WO 2006082107 A1 20060810; ZA 200707520 B 20081126

DOCDB simple family (application)

DE 102005005395 A 20050203; AR P060100355 A 20060201; AU 2006210153 A 20060202; BR PI0606140 A 20060202; CA 2596967 A 20060202; CN 200680011119 A 20060202; DO 2006000024 A 20060201; EP 06706691 A 20060202; EP 2006001037 W 20060202; GT 200600039 A 20060202; JP 2007553562 A 20060202; MX 2007009387 A 20060202; PA 8661701 A 20060203; PE 2006000130 A 20060202; TW 95103845 A 20060203; US 34566606 A 20060202; UY 29358 A 20060202; ZA 200707520 A 20070831