

Title (en)
PYRIDINONES TO TREAT AND PREVENT BACTERIAL INFECTIONS

Title (de)
PYRIDINONE ZUR BEHANDLUNG UND VORBEUGUNG BAKTERIELLER INFEKTIONEN

Title (fr)
PYRIDINONES POUR LE TRAITEMENT ET LA PREVENTION D'INFECTIONS BACTERIENNES

Publication
EP 1233967 A4 20030709 (EN)

Application
EP 00982170 A 20001120

Priority
• US 0031879 W 20001120
• US 16662199 P 19991119

Abstract (en)
[origin: WO0136426A1] Novel pyridinones and their derivatives which are effective in treating or preventing Gram-negative bacterial infections are provided. The pyridinones are stable and easily derivatized; the methods by which these derivatizations occur is described. Two regioselective and functional group tolerant methods for the synthesis of the novel pyridiones are also provided. One such sythetic method involves reacting an imine and a Meldrum's acid derivative in solution. The other synthetic method is a solid phase synthetis of the pyridiones in which an imine is prepared bound to a solid support and a Meldrum's acid derivative is reacted with the imine. Novel imine intermediates useful in the solid phase and solution methods of synthesizing the pyridiones are also described.

IPC 1-7
C07D 513/04; C07D 498/04; C07D 471/04; A61K 31/435; C07D 279/06; C07D 277/12; C07F 9/6561; A61K 31/542; A61K 31/429; A61P 31/04

IPC 8 full level
C07D 277/12 (2006.01); **C07D 279/06** (2006.01); **C07D 513/04** (2006.01); **C07F 9/6561** (2006.01)

CPC (source: EP)
A61P 31/04 (2017.12); **C07D 277/12** (2013.01); **C07D 279/06** (2013.01); **C07D 513/04** (2013.01); **C07F 9/6561** (2013.01)

Citation (search report)
• [Y] DD 84850 A
• [X] EP 0133038 A2 19850213 - LILLY CO ELI [US]
• [XY] CAPPS N. K. ET AL.: "Synthesis of bicyclic pyridone and dihydropyridone analogs of .beta.-lactam antibiotics", JOURNAL OF THE CHEMICAL SOCIETY, PERKIN TRANSACTIONS 1., no. 12, 1991, CHEMICAL SOCIETY. LETCHWORTH., GB, pages 3077 - 3086, XP009003793, ISSN: 0300-922X
• [X] PADWA ET AL.: "An Isomuenchnone-Based Method for the Synthesis of Highly Substituted 2(1H)-Pyridones", JOURNAL OF ORGANIC CHEMISTRY, AMERICAN CHEMICAL SOCIETY. EASTON, US, vol. 64, no. 23, 1999, pages 8648 - 8659, XP002177362, ISSN: 0022-3263
• [X] FANG F.G. ET AL.: "Total synthesis of the angiotensin-converting enzyme inhibitor A58365A: on the use of pyroglutamate as a chiral educt", TETRAHEDRON LETTERS., vol. 30, no. 28, 1989, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM., NL, pages 3621 - 3624, XP009004076, ISSN: 0040-4039
• See references of WO 0136426A1

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
WO 0136426 A1 20010525; **WO 0136426 B1 20011206**; AU 1923501 A 20010530; CA 2390658 A1 20010525; EP 1233967 A1 20020828; EP 1233967 A4 20030709

DOCDB simple family (application)
US 0031879 W 20001120; AU 1923501 A 20001120; CA 2390658 A 20001120; EP 00982170 A 20001120