

Title (en)

MICROBIOLOGICAL METHOD FOR THE PRODUCTION OF 7 ALPHA-SUBSTITUTED 11 ALPHA-HYDROXYSTERIODS

Title (de)

MIKROBIOLOGISCHE VERFAHREN ZUR HERSTELLUNG VON 7ALPHA-SUBSTITUIERTEN 11ALPHA-HYDROXYSTERIODEN

Title (fr)

PROCEDES MICROBIOLOGIQUES POUR LA PRODUCTION DE 11-ALPHA HYDROXYSTERIOIDES 7-ALPHA SUBSTITUES

Publication

EP 1523568 A2 20050420 (DE)

Application

EP 03740474 A 20030724

Priority

- DE 10233723 A 20020724
- EP 0308111 W 20030724
- US 40295302 P 20020814

Abstract (en)

[origin: WO2004011663A2] Disclosed is a new synthetic pathway for the production of precursors for the production of compounds having general formula (8,10,12). During said synthesis, compounds of general form (4,B) are produced in a microbiological reaction. The meanings of radicals R<7>, R<10>, R<11>, R<13>, R<17> and R<17'> and group U-V-W-X-Y-Z are defined in the patent claims.

IPC 1-7

C12P 33/10; **C12P 33/16**; **C07J 1/00**; **C07J 3/00**; **C07J 5/00**; **C07J 7/00**; **C07J 9/00**; **C07J 11/00**; **C07J 31/00**; **C07J 41/00**; **A61K 31/56**

IPC 8 full level

C07J 1/00 (2006.01); **C07J 3/00** (2006.01); **C07J 5/00** (2006.01); **C07J 7/00** (2006.01); **C07J 9/00** (2006.01); **C07J 11/00** (2006.01); **C07J 31/00** (2006.01); **C07J 41/00** (2006.01); **C12P 33/10** (2006.01); **C12P 33/16** (2006.01)

CPC (source: EP KR)

A61K 31/56 (2013.01 - KR); **A61P 15/08** (2017.12 - EP); **C07J 1/00** (2013.01 - EP KR); **C07J 1/0051** (2013.01 - EP); **C07J 3/00** (2013.01 - EP); **C07J 5/00** (2013.01 - EP); **C07J 7/00** (2013.01 - EP); **C07J 9/00** (2013.01 - EP); **C07J 11/00** (2013.01 - EP); **C07J 31/00** (2013.01 - EP); **C07J 41/00** (2013.01 - EP); **C12P 33/10** (2013.01 - EP KR); **C12P 33/16** (2013.01 - EP KR)

Citation (search report)

See references of WO 2004011663A2

Citation (examination)

- US 2658023 A 19531103 - SHULL GILBERT M, et al
- EP 1167380 A2 20020102 - SEARLE & CO [US]
- US 2985563 A 19610523 - FERNANDO CARVAJAL
- US 3203869 A 19650831 - CARLOS CASAS-CAMPILLO
- US 3004047 A 19611010 - JOSEF FRIED, et al
- US 3341557 A 19670912 - BABCOCK JOHN C, et al

Designated contracting state (EPC)

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

Designated extension state (EPC)

AL LT LV MK

DOCDB simple family (publication)

WO 2004011663 A2 20040205; **WO 2004011663 A3 20040715**; **WO 2004011663 A9 20040506**; AU 2003281677 A1 20040216; BR 0313210 A 20050628; CA 2492079 A1 20040205; CA 2492079 C 20120110; CN 100339486 C 20070926; CN 1671858 A 20050921; CO 5690563 A2 20061031; CR 7672 A 20060529; EA 008147 B1 20070427; EA 010572 B1 20081030; EA 200500224 A1 20050825; EA 200601030 A1 20061027; EC SP055630 A 20050418; EP 1523568 A2 20050420; HK 1081999 A1 20060526; HR P20050172 A2 20050430; IL 166358 A0 20060116; JP 2006503813 A 20060202; JP 4417838 B2 20100217; KR 101041328 B1 20110614; KR 20050026507 A 20050315; MX 260952 B 20081001; MX PA05001024 A 20050516; NO 20050980 L 20050223; NZ 537871 A 20061027; NZ 549529 A 20080430; PH 12005500143 B1 20110325; PL 373808 A1 20050919; RS 20050045 A 20070604; RS 51855 B 20120229

DOCDB simple family (application)

EP 0308111 W 20030724; AU 2003281677 A 20030724; BR 0313210 A 20030724; CA 2492079 A 20030724; CN 03817696 A 20030724; CO 05015699 A 20050221; CR 7672 A 20050203; EA 200500224 A 20030724; EA 200601030 A 20030724; EC SP055630 A 20050224; EP 03740474 A 20030724; HK 06102071 A 20060217; HR P20050172 A 20050222; IL 16635805 A 20050118; JP 2004523777 A 20030724; KR 20057001140 A 20030724; MX PA05001024 A 20030724; NO 20050980 A 20050223; NZ 53787103 A 20030724; NZ 54952903 A 20030724; PH 12005500143 A 20050121; PL 37380803 A 20030724; YU P4505 A 20030724