

Title (en)

CLONING OF CYTOCHROME P450 GENES FROM NICOTIANA

Title (de)

KLONIERUNG VON CYTOCHROM-P450-GENEN AUS NICOTIANA

Title (fr)

CLONAGE DES GENES DU CYTOCHROME P450 A PARTIR DE NICOTIANA

Publication

EP 1572911 A4 20080625 (EN)

Application

EP 03716460 A 20030312

Priority

- US 0307430 W 20030312
- US 36368402 P 20020312

Abstract (en)

[origin: WO03078577A2] The present invention relates to P450 enzymes and nucleic acid sequences encoding P450 enzymes in Nicotiana, and methods of using those enzymes and nucleic acid sequences to alter plant phenotypes.

IPC 1-7

C12N 15/11; C12N 15/87; A01H 11/00

IPC 8 full level

A01H 1/00 (2006.01); **A01H 5/00** (2006.01); **C12N 9/02** (2006.01); **C12N 15/09** (2006.01)

CPC (source: EP KR)

A01H 1/00 (2013.01 - KR); **C12N 9/0077** (2013.01 - EP KR); **C12N 15/52** (2013.01 - KR); **C12N 15/8243** (2013.01 - KR)

Citation (search report)

- [PA] WO 02072758 A2 20020919 - UNIV KENTUCKY RES FOUND [US]
- [E] WO 2004035745 A2 20040429 - US SMOKELESS TOBACCO CO [US], et al
- [A] DATABASE EMBL [online] 16 June 2000 (2000-06-16), "Arabidopsis thaliana cDNA clone:SQ080d10F, 3' end.", XP002479136, retrieved from EBI accession no. EMBL:AV557806 Database accession no. AV557806
- [T] SIMINSZKY BALAZS ET AL: "Conversion of nicotine to nornicotine in Nicotiana tabacum is mediated by CYP82E4, a cytochrome P450 monooxygenase", PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol. 102, no. 41, October 2005 (2005-10-01), pages 14919 - 14924, XP002478568, ISSN: 0027-8424
- [X] CHAPPLE CLINT: "Molecular-genetic analysis of plant cytochrome P450-dependent monooxygenases", ANNUAL REVIEW OF PLANT PHYSIOLOGY AND PLANT MOLECULAR BIOLOGY ANNUAL REVIEWS INC. (A), P.O. BOX 10139, 4139 EL CAMINO WAY, PALO ALTO, CALIFORNIA 94306, USA SERIES : ANNUAL REVIEW OF PLANT PHYSIOLOGY AND PLANT MOLECULAR BIOLOGY (ISSN 1040-2519), 1998, pages 311 - 343, XP002479155, ISSN: 0-8243-0649-X & ASAMIZU E ET AL: "A LARGE SCALE ANALYSIS OF CDNA IN ARABIDOPSIS THALIANA: GENERATION OF 12,028 NON-REDUNDANT EXPRESSED SEQUENCE TAGS FROM NORMALIZED ANDSIZE-SELECTED CDNA LIBRARIES", DNA RESEARCH, UNIVERSAL ACADEMY PRESS, JP, vol. 7, 1 January 2000 (2000-01-01), pages 175 - 180, XP001018592, ISSN: 1340-2838
- See references of WO 03078577A2

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

DOCDB simple family (publication)

WO 03078577 A2 20030925; WO 03078577 A8 20080110; WO 03078577 A9 20040122; AP 2004003122 A0 20040930;
AU 2003220165 A1 20030929; AU 2003220165 A8 20080306; BR 0308351 A 20070417; CA 2477452 A1 20030925; CN 101166824 A 20080423;
EP 1572911 A2 20050914; EP 1572911 A4 20080625; JP 2005531297 A 20051020; JP 2010131027 A 20100617; KR 20040091124 A 20041027;
MX PA04008785 A 20050930

DOCDB simple family (application)

US 0307430 W 20030312; AP 2004003122 A 20030312; AU 2003220165 A 20030312; BR 0308351 A 20030312; CA 2477452 A 20030312;
CN 03805747 A 20030312; EP 03716460 A 20030312; JP 2003576572 A 20030312; JP 2010019868 A 20100201; KR 20047014250 A 20030312;
MX PA04008785 A 20030312