

Title (en)

METHODS FOR THE IDENTIFICATION OF INHIBITORS OF BIOTIN SYNTHASE EXPRESSION OR ACTIVITY IN PLANTS

Title (de)

VERFAHREN ZUR IDENTIFIZIERUNG VON INHIBITOREN DER EXPRESSION ODER AKTIVITÄT VON BIOTINSYNTASE IN PFLANZEN

Title (fr)

METHODES PERMETTANT D'IDENTIFIER LES INHIBITEURS DE L'EXPRESSION OU DE L'ACTIVITE DE LA BIOTINE SYNTHASE CHEZ LES PLANTES

Publication

EP 1386008 A4 20050119 (EN)

Application

EP 02769381 A 20020507

Priority

- US 0214473 W 20020507
- US 28931201 P 20010507

Abstract (en)

[origin: WO02090596A1] The present inventors have discovered that Biotin synthase (BS) is essential for plant growth. Specifically, inhibition of BS gene expression in plant seedlings results in severe chlorosis and reduced growth. Thus, BS can be used as a target for the identification of herbicides. Accordingly, the present invention provides methods for the identification of compounds that inhibit BS expression or activity, and as such, the methods of the invention are useful for the identification of herbicides.

IPC 1-7

C12Q 1/68

IPC 8 full level

C12Q 1/25 (2006.01); **C12Q 1/68** (2006.01); **C12Q 1/6895** (2018.01)

CPC (source: EP)

C12Q 1/25 (2013.01); **C12Q 1/6895** (2013.01); **C12Q 2600/158** (2013.01); **G01N 2333/9015** (2013.01); **G01N 2430/20** (2013.01); **G01N 2500/04** (2013.01)

Citation (search report)

- [PX] US 2001039042 A1 20011108 - ALLEN STEPHEN M [US], et al
- [Y] RENDINA ALAN R ET AL: "The design and synthesis of inhibitors of dethiobiotin synthetase as potential herbicides", March 1999, PESTICIDE SCIENCE, VOL. 55, NR. 3, PAGE(S) 236-247, ISSN: 0031-613X, XP002306698
- [Y] PATTON DAVID A ET AL: "An embryo-defective mutant of arabidopsis disrupted in the final step of biotin synthesis", PLANT PHYSIOLOGY (ROCKVILLE), vol. 116, no. 3, March 1998 (1998-03-01), pages 935 - 946, XP002306697, ISSN: 0032-0889
- See references of WO 02090596A1

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 02090596 A1 20021114; EP 1386008 A1 20040204; EP 1386008 A4 20050119

DOCDB simple family (application)

US 0214473 W 20020507; EP 02769381 A 20020507