

Title (en)
DNA ENCODING OAT ACETYL CoA CARBOXYLASE

Title (de)
FÜR HAFER ACETYL-COA-CARBOXYLASE KODIERENDE DNA SEQUENZ

Title (fr)
ADN CODANT ACETYLE CoA CARBOXYLASE DE L'AVOINE

Publication
EP 1092011 A1 20010418 (EN)

Application
EP 99930517 A 19990622

Priority
• US 9914022 W 19990622
• US 9024098 P 19980622
• US 9164098 P 19980702

Abstract (en)
[origin: WO9967367A1] The present invention provides the complete cDNA sequence of maize acetyl CoA carboxylase and methods for conferring herbicide tolerance and/or altering the oil content of plants by introducing and expressing a plant acetyl CoA carboxylase gene in plant cells. The method of imparting herbicide tolerance to a plant includes the steps of introducing an expression cassette encoding a plant acetyl CoA carboxylase or an antisense DNA sequence complementary to the sequence for a plant acetyl CoA carboxylase gene operably linked to a promoter functional in plant cells, into the cells of a plant tissue and expressing the plant acetyl CoA carboxylase gene in an amount effective to render the acetyl CoA carboxylase and/or plant cell tolerant to the herbicides. The method of altering the oil content in a plant includes the steps of introducing an expression cassette into plant cells and expressing the acetyl CoA carboxylase gene in an amount effective to alter the oil content of the cells. The expression cassette can also be introduced into other host cells to increase yield of a plant acetyl CoA carboxylase so that crystallized enzyme can be used to screen and identify other herbicides that bind to and inhibit the enzyme. Also provided is a partial DNA sequence encoding oat acetyl CoA carboxylase.

IPC 1-7
C12N 9/00; **C12N 15/82**; **A01H 5/00**; **A01H 5/10**

IPC 8 full level
C12N 9/00 (2006.01); **C12N 15/82** (2006.01)

CPC (source: EP)
C12N 9/93 (2013.01); **C12N 15/8247** (2013.01); **C12N 15/8274** (2013.01)

Citation (search report)
See references of WO 9967367A1

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

DOCDB simple family (publication)
WO 9967367 A1 19991229; **WO 9967367 A9 20000706**; AU 4704499 A 20000110; CA 2332643 A1 19991229; EP 1092011 A1 20010418

DOCDB simple family (application)
US 9914022 W 19990622; AU 4704499 A 19990622; CA 2332643 A 19990622; EP 99930517 A 19990622