

Title (en)  
ISOFLAVONOID METHYLATION ENZYME

Title (de)  
ENZYME DER ISOFLAVONOIDMETHYLIERUNG

Title (fr)  
ENZYME DE METHYLATION DU GROUPE DES ISOFLAVONOIDES

Publication  
**EP 1183376 A1 20020306 (EN)**

Application  
**EP 00932467 A 20000515**

Priority  
• US 0013389 W 20000515  
• US 13502699 P 19990520

Abstract (en)  
[origin: WO0071736A1] Methods of genetically manipulating biologically active 4'-*O*-methylated isoflavonoids have been found based upon the regiospecificity of isoflavone 7-OMT in vivo. Upon transformation and expression of an isoflavonoid *O*-methyltransferase gene, up-regulation of IOMT in the transgenic plants can be used to increase the accumulation of 4'-*O*-methylated isoflavonoid phytoalexins, providing for increased disease resistance to the plant. Similar methods can be used to increase accumulation of 4'-*O*-methylated isoflavonoid nutraceuticals in plants. For down-regulation of IOMT in plants that naturally make 4'-*O*-isoflavonoid phytoalexins and 4'-*O*-methylated isoflavonoid nutraceuticals, IOMT gene sequences can be transformed in the antisense orientation.

IPC 1-7  
**C12N 15/82**; **C12N 15/29**; **C12N 9/10**; **C07K 16/16**; **A01H 5/00**

IPC 8 full level  
**A01H 5/00** (2006.01); **A23L 1/30** (2006.01); **A61K 31/352** (2006.01); **A61K 36/48** (2006.01); **A61P 5/30** (2006.01); **A61P 7/00** (2006.01); **A61P 31/04** (2006.01); **A61P 35/00** (2006.01); **A61P 39/06** (2006.01); **C12N 5/10** (2006.01); **C12N 9/10** (2006.01); **C12N 15/09** (2006.01); **C12N 15/29** (2006.01); **C12N 15/82** (2006.01); **C12P 17/06** (2006.01)

CPC (source: EP)  
**A61P 5/30** (2017.12); **A61P 7/00** (2017.12); **A61P 31/04** (2017.12); **A61P 35/00** (2017.12); **A61P 39/06** (2017.12); **C12N 9/1007** (2013.01); **C12N 15/8243** (2013.01); **C12N 15/825** (2013.01); **C12N 15/8282** (2013.01)

Citation (search report)  
See references of WO 0071736A1

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 0071736 A1 20001130**; AR 030390 A1 20030820; AU 5018700 A 20001212; AU 780464 B2 20050324; CA 2373751 A1 20001130; EP 1183376 A1 20020306; JP 2004500803 A 20040115

DOCDB simple family (application)  
**US 0013389 W 20000515**; AR P000102477 A 20000522; AU 5018700 A 20000515; CA 2373751 A 20000515; EP 00932467 A 20000515; JP 2000620113 A 20000515