

Title (en)  
METHOD FOR REMODELLING CELL WALL POLYSACCHARIDE STRUCTURES IN PLANTS

Title (de)  
VERFAHREN ZUR UMSTRUKTURIERUNG VON POLYSACCHARIDEN DER ZELLWAND IN PFLANZEN

Title (fr)  
PROCEDE DE REMODELAGE DES STRUCTURES DE POLYSACCHARIDE DE PAROI CELLULAIRE DANS LES PLANTES

Publication  
**EP 1301607 A1 20030416 (EN)**

Application  
**EP 01903610 A 20010212**

Priority  
• EP 01903610 A 20010212  
• DK 0100093 W 20010212  
• EP 00610020 A 20000210  
• US 54498800 A 20000407

Abstract (en)  
[origin: WO0159137A1] Methods for providing transgenic plants and parts hereof that, relative to the wild type state, is modified in a complex cell wall polysaccharide structure including pectins and hemicelluloses, the modification being in the overall glycosidic linkage pattern or the monosaccharide profile, comprising transforming a plant cell with a nucleotide sequence that causes an altered production of a complex cell wall polysaccharide-modifying enzyme such as <i>endo</i>-rhamnogalacturonan hydrolase, an <i>endo</i>-rhamnogalacturonan lyase, an <i>endo</i>-galactanase, an <i>endo</i>-arabinanase, an arabinofuranosidase, a galactosidase such as a beta-galactosidase, a xylosidase and an <i>exo</i>-galactosidase. The modification can occur <i>in vivo</i> or post harvest, in which latter case the modifying enzyme is separated in the growing plant from its substrate, e.g. by targeting the enzyme to the Golgi, the endoplasmic reticulum or a vacuole, or is in a form that is inactive in the plant. After harvest the enzyme is brought into contact with its substrate or it is activated to provide the desired post harvest modification of the cell wall polysaccharide. The transgenic plant materials have improved functionalities and are useful in food and feed manufacturing and as pharmaceutically or medically active substances.

IPC 1-7  
**C12N 15/82**; **A61L 27/20**

IPC 8 full level  
**A01H 5/00** (2006.01); **A23L 1/05** (2006.01); **A23L 1/30** (2006.01); **A23L 29/20** (2016.01); **A61K 31/715** (2006.01); **A61K 31/732** (2006.01); **A61K 31/736** (2006.01); **A61K 36/00** (2006.01); **A61L 15/16** (2006.01); **A61L 15/28** (2006.01); **A61L 24/08** (2006.01); **A61L 26/00** (2006.01); **A61L 27/00** (2006.01); **A61L 27/20** (2006.01); **A61L 28/00** (2006.01); **A61L 31/00** (2006.01); **A61P 17/02** (2006.01); **A61P 29/00** (2006.01); **A61P 35/00** (2006.01); **A61P 37/00** (2006.01); **C12N 9/10** (2006.01); **C12N 9/24** (2006.01); **C12N 9/38** (2006.01); **C12N 9/88** (2006.01); **C12N 15/09** (2006.01); **C12N 15/82** (2006.01); **C12P 19/04** (2006.01)

CPC (source: EP)  
**A61L 15/28** (2013.01); **A61L 24/08** (2013.01); **A61L 27/20** (2013.01); **A61P 17/02** (2017.12); **A61P 29/00** (2017.12); **A61P 35/00** (2017.12); **A61P 37/00** (2017.12); **C12N 9/1048** (2013.01); **C12N 9/2402** (2013.01); **C12N 9/2468** (2013.01); **C12N 9/2471** (2013.01); **C12N 9/88** (2013.01); **C12N 15/8242** (2013.01); **C12N 15/8246** (2013.01); **C12N 15/8257** (2013.01); **C12Y 302/01023** (2013.01)

Citation (search report)  
See references of WO 0159137A1

Citation (examination)  
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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 0159137 A1 20010816**; AU 3153401 A 20010820; CN 1237176 C 20060118; CN 1418254 A 20030514; EP 1301607 A1 20030416; JP 2004505603 A 20040226

DOCDB simple family (application)  
**DK 0100093 W 20010212**; AU 3153401 A 20010212; CN 01807501 A 20010212; EP 01903610 A 20010212; JP 2001558473 A 20010212