

Title (en)  
MICROMONOSPORA ECHINOSPORA GENES ENCODING FOR BIOSYNTHESIS OF CALICHEAMICIN AND SELF-RESISTANCE THERETO

Title (de)  
GENE AUS MICROMONOSPORA ECHINOSPORA, WELCHE FÜR ENZYME DER CALICHEAMICIN-BIOSYNTHESE KODIEREN UND EIGENRESISTENZ DAGEGEN

Title (fr)  
CODAGE DE GENES DE MICROMONOSPORA ECHINOSPORA POUR LA BIOSYNTHESE DE LA CALICHEAMICINE, ET AUTORESISTANCE VIS-A-VIS DE CETTE SUBSTANCE

Publication  
**EP 1356026 A2 20031029 (EN)**

Application  
**EP 01274067 A 20011128**

Priority  
• US 0144285 W 20011128  
• US 72479700 A 20001128

Abstract (en)  
[origin: WO02079465A2] An isolated gene cluster of *Micromonospora echinospora* which codes for calicheamicin biosynthesis. The biosynthetic gene cluster contains genes encoding proteins and enzymes used in the biosynthetic production of calicheamicin, including the aryltetrasaccharide and aglycone. The gene cluster also includes the gene coding for the protein conferring calicheamicin resistance. The invention also provides isolated genes of the biosynthetic cluster and their corresponding proteins. In addition, the invention relates to DNA hybridizing with the calicheamicin gene cluster and the isolated genes of that cluster. Expression vectors containing genes of the biosynthetic gene and their functional variants are also provided. The invention also relates to host cells conjugated with DNA isolated from the *Micromonospora echinospora* spp. *calichensis* genome.  
[origin: WO02079465A2] An isolated gene cluster of *Micromonospora echinospora* which codes for calicheamicin biosynthesis. The biosynthetic gene cluster contains genes encoding proteins and enzymes used in the biosynthetic production of calicheamicin, including the aryltetrasaccharide and aglycone. The gene cluster also includes the gene coding for the protein conferring calicheamicin resistance. The invention also provides isolated genes of the biosynthetic cluster and their corresponding proteins. In addition, the invention relates to DNA hybridizing with the calicheamicin gene cluster and the isolated genes of that cluster. Expression vectors containing genes of the biosynthetic gene and their functional variants are also provided. The invention also relates to host cells conjugated with DNA isolated from the *Micromonospora echinospora* spp. *calichensis* genome.

IPC 1-7  
**C12N 9/00**

IPC 8 full level  
**A61K 31/7048** (2006.01); **A61P 35/00** (2006.01); **A61P 35/02** (2006.01); **C07H 17/08** (2006.01); **C07K 14/195** (2006.01); **C07K 14/36** (2006.01); **C12N 1/21** (2006.01); **C12N 9/00** (2006.01); **C12N 15/09** (2006.01); **C12N 15/52** (2006.01); **C12P 17/00** (2006.01); **C12P 19/56** (2006.01); **C12P 19/62** (2006.01); **C12P 19/64** (2006.01)

CPC (source: EP)  
**A61P 35/00** (2017.12); **A61P 35/02** (2017.12); **C07K 14/36** (2013.01); **C12N 9/00** (2013.01); **C12N 15/52** (2013.01); **C12P 17/00** (2013.01); **C12P 19/56** (2013.01); **C12P 19/62** (2013.01); **C12P 19/64** (2013.01)

Citation (search report)  
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