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(71) Applicant (for all designated States except US): BAYER AKTIENGESELLSCHAFT [DE/DE]; D-51368 Leverkusen (DE).

(72) Inventors; and

(75) Inventors/Applicants (US only): Anneliese CRUEGER [DE/DE]; Ruhrstrasse 35, D-40699 Erkrath (DE). Heiner APELER [DE/DE]; Neuer Triebel 71, D-42111 Wuppertal (DE). Werner SCHRÖDER [DE/DE]; Am Rohm 91, D-42113 Wuppertal (DE). Hermann PAPE [DE/DE]; Mehringweg 36, D-48158 Münster (DE). Klaus GOEKÉ [DE/DE]; Halinger Dorfstrasse 99, D-58708 Menden (DE). Wolfgang PIEPERSBERG [DE/DE]; Küllenhahner Strasse 218c, D-42349 Wuppertal (DE). Jürgen DISTLER [DE/DE]; Düppeler Strasse 44, D-42107 Wuppertal (DE). Paz Marta DIAZ-GUARDAMINO URIBE [ES/DE]; Wiesenstrasse 101, D-42105 Wuppertal (DE). Martin JARLING [DE/DE]; Möwenstrasse 4, D-42281 Wuppertal (DE). Ansgar STRATMANN [DE/DE]; Am Oberen Brühl 4, D-79379 Müllheim (DE).

(74) Joint Representative: BAYER AKTIENGESELLSCHAFT; D-51368 Leverkusen (DE).

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(54) Title: ACARBOSE (ACB) CLUSTER FROM *ACTINOPLANES* SP. SE 50/110

(54) Bezeichnung: ACARBOSE ACB-CLUSTER AUS *ACTINOPLANES* SP. SE 50/110

(57) Abstract

The invention concerns biosynthesis genes from the acarbose gene cluster from *Actinoplanes* sp. SE 50/110, their isolation from *Actinoplanes* sp. or from producers of pseudooligosaccharides, a process for isolating these biosynthesis genes, the proteins coded by said genes, the expression of the proteins in heterologous host strains, and the use of the acarbose biosynthesis genes for optimizing the process.

(57) Zusammenfassung

Die Erfindung betrifft Biosynthesegene aus dem Acarbose-Gencluster aus *Actinoplanes* sp. SE 50/110, deren Isolierung aus *Actinoplanes* sp. oder aus Produzenten von Pseudooligosacchariden, Verfahren zur Isolierung dieser Biosynthesegene, die von den genannten Genen kodierten Proteine, die Expression der Proteine in heterologen Wirtsstämmen sowie die Verwendung der Acarbose-Biosynthesegene zur Verfahrensoptimierung.