

Title (en)  
PROCESS FOR OBTAINING ACYLOINS, PYRUVATE DECARBOXYLASES SUITABLE THEREFOR AND THEIR PRODUCTION AND DNA SEQUENCES OF THE PDC GENE CODING THEM

Title (de)  
VERFAHREN ZUR GEWINNUNG VON ACYLOINEN, DAFÜR GEEIGNETE PYRUVAT-DECARBOXYLASE SOWIE DEREN HERSTELLUNG UND DNA-SEQUENZ DES FÜR DIESE KODIERENDEN PDC-GENS

Title (fr)  
PROCEDE DE PREPARATION D'ACYLOINES, DECARBOXYLASES DE PYRUVATE APPROPRIEES ET LEUR PREPARATION, ET SEQUENCE D'ADN DU GENE PDC LES CODANT

Publication  
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Application  
**EP 96919594 A 19960522**

Priority  
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Abstract (en)  
[origin: US6004789A] A process for obtaining a pyruvate decarboxylase by isolation from a producer organism. The pyruvate decarboxylase is capable of forming (R)-(-)-phenylacetylcarbinole (I) in  $\geq 95\%$  enantiomer unit with a product ratio of (I) to 2-hydroxypropiophenone of  $\geq 95\%$ . In addition, the pyruvate decarboxylase has a specific activity with regard to phenylacetylcarbinole formation of  $>1$  U/mg. It is the aim of the invention to obtain a pyruvate decarboxylase with improved synthesis capacity concerning the formation of (R)-(-)-phenylacetylcarbinole. The process of the invention developed for this purpose is characterized in that use is made of a producing organism with a gene coding for pyruvate decarboxylase from *Zymomonas mobilis*, in the DNA sequence of which the tryptophane radical coding codon TGG is replaced at position 1174-1176 by a codon which codes for an amino acid radical with a reduced volume ratio.

IPC 1-7  
**C12N 15/60**; **C12N 9/88**; **C12P 7/26**; **C07C 49/245**

IPC 8 full level  
**C12N 9/02** (2006.01); **C12N 9/88** (2006.01); **C12N 15/00** (2006.01); **C12N 15/09** (2006.01); **C12N 15/60** (2006.01); **C12P 7/26** (2006.01); **C12P 7/42** (2006.01); **C12R 1/19** (2006.01)

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