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(54) Title: NUCLEIC ACID SEQUENCES ENCODING ENANTIOSELECTIVE AMIDASES

(57) Abstract: The invention relates to a nucleic acid sequence encoding an enantioselective amidase with an amino acid sequence, which amino acid sequence has at least 70% identity with SEQ ID NO: 2. The invention also relates to a process for the fermentation, comprising a batch and a feed phase, of a microorganism in a fermentation medium, wherein the microorganism expresses a nucleic acid according to the invention and wherein between 0.5 and 50mg/l fermentation medium Zn²⁺ is fed during the fermentation. The invention also relates to a process for the preparation of an enantiomerically enriched carboxylic acid and/or an enantiomerically enriched carboxylic acid amide, in which a mixture of the corresponding D- and L-carboxylic acid amides is contacted with an expression product according to the invention in the presence of between 0.01mM and 100mM Zn²⁺, whereby one of the enantiomers of the carboxylic acid amide is enantioselectively hydrolysed to form the corresponding enantiomerically enriched carboxylic acid, while the other enantiomer of the carboxylic acid amide remains unchanged.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/55 C12N9/80 C12P41/00 C12P13/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C12P

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

WPI Data, PAJ, CAB Data, SEQUENCE SEARCH, BIOSIS, EPO-Internal, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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X	WO 00 63354 A (MITSUBISHI RAYON CO ;YU FUJIO (JP); NAKAMURA TETSUJI (JP)) 26 October 2000 (2000-10-26) cited in the application	2
Y	the whole document - & EP 1 174 499 A (MITSUBISHI RAYON CO., LTD) 23 January 2002 (2002-01-23) the whole document	1-8

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
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