

Title (en)

GENES CODING FOR PHOSPHOENOLPYRUVATE-SUGAR-PHOSPHOTRANSFERASE PROTEINS

Title (de)

GENE, DIE FÜR PHOSPHOENOLPYRUVAT-ZUCKER-PHOSPHOTRANSFERASE PROTEINE CODIEREN

Title (fr)

GENES CODANT DES PROTEINES PHOSPHOENOLPYRUVATE-SUCRE PHOTOTRANSFERASE

Publication

EP 1444334 A2 20040811 (DE)

Application

EP 02783045 A 20021031

Priority

- DE 10154276 A 20011105
- EP 0212140 W 20021031

Abstract (en)

[origin: WO03040357A2] The invention relates to novel nucleic acid molecules, the use thereof in the construction of bio-engineered improved microorganisms and to methods for the production of fine chemicals, especially amino acids with the aid of said bio-engineered improved microorganisms.

IPC 1-7

C12N 9/12; **C12N 9/00**; **C12N 15/54**; **C12N 15/21**; **C12N 15/77**; **C12P 1/04**

IPC 8 full level

C12N 1/21 (2006.01); **C12N 9/12** (2006.01); **C12N 15/21** (2006.01); **C12N 15/31** (2006.01); **C12N 15/54** (2006.01)

CPC (source: EP KR US)

C12N 9/1205 (2013.01 - EP US); **C12N 9/1223** (2013.01 - EP US); **C12N 15/52** (2013.01 - KR)

Citation (search report)

See references of WO 03040357A2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

WO 03040357 A2 20030515; **WO 03040357 A3 20031224**; BR 0213770 A 20041019; CN 1589324 A 20050302; DE 10154276 A1 20030515; EP 1444334 A2 20040811; EP 1801205 A2 20070627; EP 1801205 A3 20070704; KR 20050042459 A 20050509; US 2004248264 A1 20041209; ZA 200404420 B 20060531

DOCDB simple family (application)

EP 0212140 W 20021031; BR 0213770 A 20021031; CN 02823078 A 20021031; DE 10154276 A 20011105; EP 02783045 A 20021031; EP 07103392 A 20021031; KR 20047006795 A 20040504; US 49455304 A 20040503; ZA 200404420 A 20040604