

Title (en)

GENETICALLY OPTIMISED MICROORGANISM FOR PRODUCING MOLECULES OF INTEREST

Title (de)

GENETISCH OPTIMIERTER MIKROORGANISMUS ZUR PRODUKTION VON MOLEKÜLEN VON INTERESSE

Title (fr)

MICROORGANISME GÉNÉTIQUEMENT OPTIMISÉ POUR LA PRODUCTION DE MOLÉCULES D'INTÉRÊT

Publication

**EP 3574083 A1 20191204 (FR)**

Application

**EP 18702647 A 20180126**

Priority

- FR 1750694 A 20170127
- EP 2018052005 W 20180126

Abstract (en)

[origin: WO2018138289A1] The invention relates to a genetically modified microorganism expressing a functional type I or II RuBisCO enzyme and a functional phosphoribulokinase (PRK), and in which the glycolysis pathway is at least partially inhibited, said microorganism being genetically modified such that it produces an exogenous molecule and/or overproduces an endogenous molecule. According to the invention, the oxidative branch of the pentose phosphate pathway can also be at least partially inhibited. The invention further relates to the use of such a genetically modified microorganism for producing or overproducing a molecule of interest, and to methods for the synthesis or bioconversion of molecules of interest.

IPC 8 full level

**C12N 1/13** (2006.01); **C12N 1/15** (2006.01); **C12N 1/19** (2006.01); **C12N 1/21** (2006.01); **C12N 9/02** (2006.01); **C12N 9/04** (2006.01); **C12N 9/12** (2006.01); **C12N 9/18** (2006.01); **C12N 9/88** (2006.01); **C12N 15/52** (2006.01)

CPC (source: EP KR US)

**C12N 9/0006** (2013.01 - EP KR); **C12N 9/0008** (2013.01 - EP KR); **C12N 9/1205** (2013.01 - EP KR US); **C12N 9/1217** (2013.01 - EP KR); **C12N 9/18** (2013.01 - EP KR); **C12N 9/88** (2013.01 - EP KR US); **C12N 15/52** (2013.01 - EP KR); **C12P 7/42** (2013.01 - US); **C12P 7/62** (2013.01 - US); **C12P 7/625** (2013.01 - US); **C12P 13/001** (2013.01 - US); **C12P 13/14** (2013.01 - US); **C12Y 101/01044** (2013.01 - EP); **C12Y 101/01049** (2013.01 - EP); **C12Y 102/01012** (2013.01 - EP); **C12Y 207/01019** (2013.01 - EP US); **C12Y 207/02003** (2013.01 - EP); **C12Y 301/01031** (2013.01 - EP); **C12Y 401/01039** (2013.01 - EP US); **C12Y 101/01044** (2013.01 - KR); **C12Y 101/01049** (2013.01 - KR); **C12Y 102/01012** (2013.01 - KR); **C12Y 207/01019** (2013.01 - KR); **C12Y 207/02003** (2013.01 - KR); **C12Y 301/01031** (2013.01 - KR); **C12Y 401/01039** (2013.01 - KR)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**WO 2018138289 A1 20180802**; BR 112019015458 A2 20200331; CN 110678541 A 20200110; EP 3574083 A1 20191204; FR 3062394 A1 20180803; FR 3062394 B1 20210416; JP 2020506723 A 20200305; JP 2023011947 A 20230124; JP 7240329 B2 20230315; KR 102643557 B1 20240307; KR 20190115447 A 20191011; US 12018300 B2 20240625; US 2020277592 A1 20200903; US 2022348897 A1 20221103

DOCDB simple family (application)

**EP 2018052005 W 20180126**; BR 112019015458 A 20180126; CN 201880021659 A 20180126; EP 18702647 A 20180126; FR 1750694 A 20170127; JP 2019561349 A 20180126; JP 2022182031 A 20221114; KR 20197024086 A 20180126; US 201816480569 A 20180126; US 202217573877 A 20220112