

Title (en)
OPTIMIZED TETRAHYDROCANNABINOLIC ACID (THCA) SYNTHASE POLYPEPTIDES

Title (de)
OPTIMIERTE POLYPEPTIDE FÜR TETRAHYDROCANNABINSÄURE (THCA)-SYNTHASE

Title (fr)
POLYPEPTIDES OPTIMISÉS DE L'ACIDE TÉTRAHYDROCANNABIDIOLIQUE (THCA) SYNTHASE

Publication
EP 4031657 A1 20220727 (EN)

Application
EP 20786122 A 20200917

Priority
• US 201962902300 P 20190918
• US 2020051261 W 20200917

Abstract (en)
[origin: WO2021055597A1] The present disclosure provides engineered variants of a tetrahydrocannabinolic acid synthase (THCAS) polypeptide comprising an amino acid sequence of SEQ ID NO:44 with one or more amino acid substitutions, nucleic acids comprising nucleotide sequences encoding said engineered variants, methods of making modified host cells comprising said nucleic acids, modified host cells expressing said engineered variants, methods of producing cannabinoids or cannabinoid derivatives, and methods of screening engineered variants of the tetrahydrocannabinolic acid synthase (THCAS) polypeptide.

IPC 8 full level
C12N 9/02 (2006.01); **C12N 15/52** (2006.01); **C12N 15/82** (2006.01); **C12P 7/22** (2006.01); **C12P 7/42** (2006.01); **C12P 17/06** (2006.01)

CPC (source: EP IL)
C07K 14/415 (2013.01 - EP IL); **C12N 9/0004** (2013.01 - EP IL); **C12N 15/52** (2013.01 - EP IL); **C12P 7/42** (2013.01 - EP IL); **C12P 17/06** (2013.01 - EP IL); **C12Y 121/03007** (2015.07 - EP IL)

Citation (search report)
See references of WO 2021055597A1

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

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WO 2021055597 A1 20210325; AU 2020349513 A1 20220505; BR 112022004797 A2 20220621; CA 3152803 A1 20210325; CN 115038786 A 20220909; EP 4031657 A1 20220727; IL 291328 A 20220501; JP 2022548904 A 20221122; MX 2022003203 A 20220608

DOCDB simple family (application)
US 2020051261 W 20200917; AU 2020349513 A 20200917; BR 112022004797 A 20200917; CA 3152803 A 20200917; CN 202080078001 A 20200917; EP 20786122 A 20200917; IL 29132822 A 20220313; JP 2022517341 A 20200917; MX 2022003203 A 20200917