

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
26 September 2024 (26.09.2024)



(10) International Publication Number
WO 2024/196925 A3

(51) International Patent Classification:

C12N 15/09 (2006.01) C12N 15/81 (2006.01)
C12N 15/63 (2006.01) C12N 15/82 (2006.01)
C12N 15/70 (2006.01)

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(21) International Application Number:

PCT/US2024/020520

(22) International Filing Date:

19 March 2024 (19.03.2024)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/491,230 20 March 2023 (20.03.2023) US

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(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG,
KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY,
MA, MD, MG, MK, MN, MU, MW, MX, MY, MZ, NA,
NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO,
RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS,
ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, CV,
GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, SD, SL, ST,
SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ,
RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ,
DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT,
LU, LV, MC, ME, MK, MT, NL, NO, PL, PT, RO, RS, SE,

(54) Title: RECOMBINANT POLYPEPTIDES FOR BIOSYNTHESIS OF THYMOHYDROQUINONE (THQ)

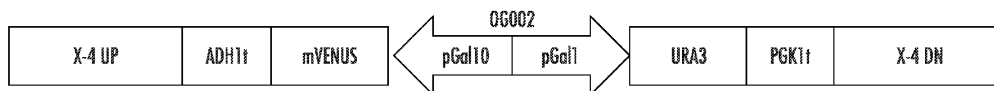


FIG. 1A

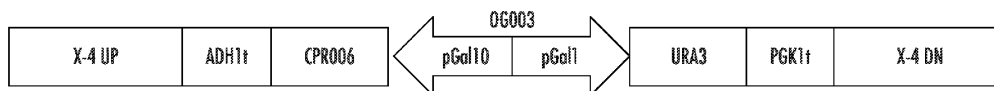


FIG. 1B

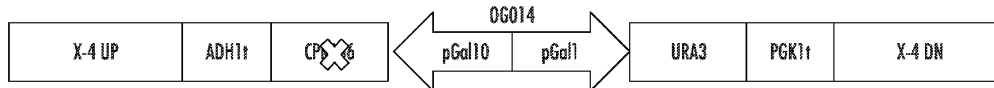


FIG. 1C

(57) Abstract: The present disclosure relates to recombinant polypeptides with cytochrome P450 (CYP) activity capable of selectively catalyzing the conversion of precursor compounds, carvacrol and/or thymol, to the product compound, thymohydroquinone (THQ), and recombinant host cells that heterologously express genes encoding these polypeptides (e.g., in yeast) and that can be used for enhanced fermentative bioproduction of the product compound THQ.

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SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*
- *with sequence listing part of description (Rule 5.2(a))*

(88) Date of publication of the international search report:

16 January 2025 (16.01.2025)