



(51) International Patent Classification:

C12N 9/02 (2006.01) C07K 14/78 (2006.01)
C12N 15/81 (2006.01) C07K 19/00 (2006.01)

(21) International Application Number:

PCT/US2020/032512

(22) International Filing Date:

12 May 2020 (12.05.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/847,769 14 May 2019 (14.05.2019) US

(71) Applicant: **PROVENANCE BIOFABRICS, INC.**
[US/US]; 6445 Avenida Wilfredo, La Jolla, California
92037 (US).

(72) Inventors: **VIDANES, Genevieve M.**; c/o Provenance
Biofabrics, Inc., 6445 Avenida Wilfredo, La Jolla, Cali-
fornia 92037 (US). **DUEBER, John**; c/o Provenance Bio-
fabrics, Inc., 6445 Avenida Wilfredo, La Jolla, Califor-
nia 92037 (US). **GARTNER, Zev**; c/o Provenance Bio-

fabrics, Inc., 6445 Avenida Wilfredo, La Jolla, California
92037 (US). **VAZIRANI, Chirag**; c/o Provenance Bio-
fabrics, Inc., 6445 Avenida Wilfredo, La Jolla, California
92037 (US).

(74) Agent: **MALLON, Joseph J.**; Knobbe Martens Olson &
Bear LLP, 2040 Main Street, Fourteenth Floor, Irvine, Cal-
ifornia 92614 (US).

(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, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP,
KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME,
MG, MK, MN, 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, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ,

(54) Title: EXPRESSION OF MODIFIED PROTEINS IN A PEROXISOME

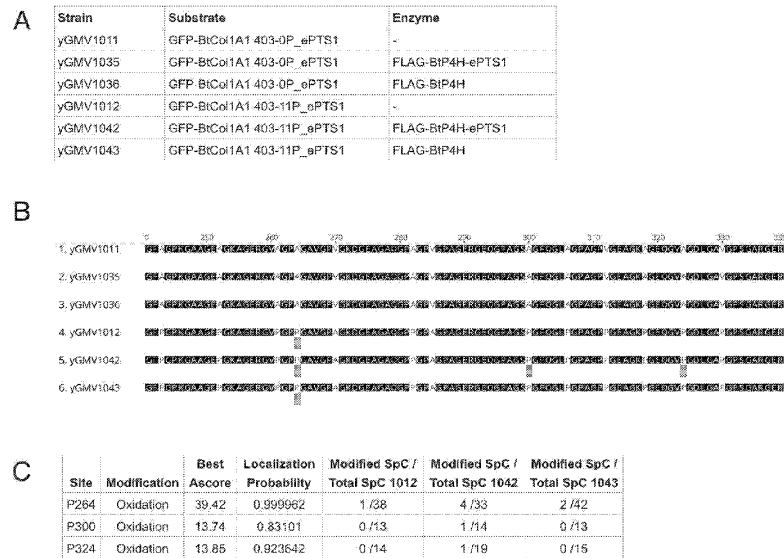


FIG. 7

(57) Abstract: Disclosed herein include methods and compositions for making proteins in peroxisomes as well as methods of making cells for producing proteins in peroxisomes. Also disclosed herein are cells for producing a protein in a peroxisome, and methods for producing a protein in a eukaryotic cell containing a peroxisome as described herein.

[Continued on next page]

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, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

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:

30 December 2020 (30.12.2020)