

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
25 November 2021 (25.11.2021)



(10) International Publication Number
WO 2021/236860 A2

(51) International Patent Classification:
C12N 9/00 (2006.01)

(21) International Application Number:
PCT/US2021/033287

(22) International Filing Date:
20 May 2021 (20.05.2021)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/028,769 22 May 2020 (22.05.2020) 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, 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, IT, 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,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,

(54) Title: REDUCTASE ENZYMES AND PROCESSES FOR MAKING AND USING REDUCTASE ENZYMES

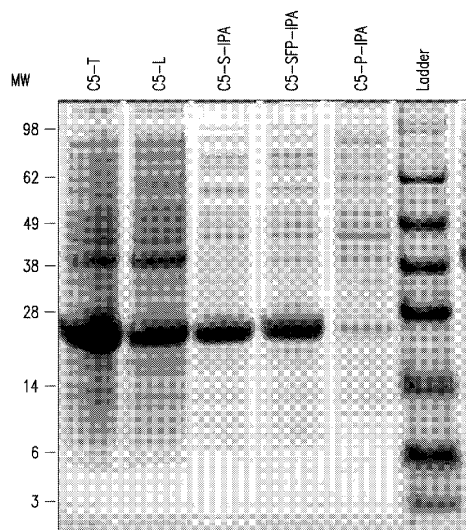


FIG. 1

(57) Abstract: The present disclosure provides ketoreduc-
tase enzymes having improved properties as compared to
a naturally occurring wild-type ketoreductase enzyme includ-
ing the capability of reducing *N*-(7-((2*S*,4*R*,5*R*)-4-fluoro-3,3-di-
hydroxy-5-(hydroxymethyl) tetrahydrofuran-2-yl)-4-oxo-4,7-dihy-
dro-3*H*-pyrrolo[3,2-*d*]pyrimidin-2-yl)isobutyramide. Also provided
are polynucleotides encoding the ketoreductase enzymes, host
cells capable of expressing the ketoreductase enzymes, and
methods of using the ketoreductase enzymes to synthe-
size *N*-(9-((2*R*,3*S*,4*S*,5*R*)-4-fluoro-3-hydroxy-5-(hydroxymethyl)te-
trahydrofuran-2-yl)-6-oxo-6,9-dihydro-1*H*-purin-2-yl)isobutyramide.

[Continued on next page]

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:

- *without international search report and to be republished
upon receipt of that report (Rule 48.2(g))*
- *with sequence listing part of description (Rule 5.2(a))*