



(43) International Publication Date
23 May 2013 (23.05.2013)

(10) International Publication Number
WO 2013/074650 A1

(51) International Patent Classification:

C12N 9/04 (2006.01) *C12P 17/10* (2006.01)
C12P 13/00 (2006.01) *C12N 9/00* (2006.01)
C12P 7/00 (2006.01)

(21) International Application Number:

PCT/US2012/065046

(22) International Filing Date:

14 November 2012 (14.11.2012)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/561,665 18 November 2011 (18.11.2011) US

(71) Applicant: **CODEXIS, INC.** [US/US]; 200 Penobscot Drive, Redwood City, California 94063 (US).

(72) Inventors; and

(71) Applicants : **CABIROL, Fabien** [FR/DE]; Bergerstrasse 24, 40213 Dusseldorf (DE). **CHEN, Haibin** [CN/SI]; 61 Science Park Road, #03-15/24 The Galen, Singapore Science Park II, Singapore 117525 (SG). **GOHEL, Anupam** [IN/SI]; 61 Science Park Road, #03-15/24 The Galen, Singapore Science Park II, Singapore 117525 (SG). **COLLIER, Steven, J.** [GB/SI]; 61 Science Park Road, #03-15/24 The Galen, Singapore Science Park II, Singapore 117525 (SG). **SMITH, Derek** [GB/SI]; 12 Holland Avenue, #10-31, Singapore 272012 (SG). **KOSJEK, Birgit** [AT/US]; 680 Summit Avenue, Westfield, New Jersey 07090 (US). **JANEY, Jacob** [US/US]; 50 West 72nd Street, Apt. 1505, New York, New York 10023 (US).

(74) Agents: **WHITING, Adam, K.** et al.; Codexis, Inc., 200 Penobscot Drive, Redwood City, California 94063 (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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, 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, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, 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, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report (Art. 21(3))
- with sequence listing part of description (Rule 5.2(a))

(54) Title: BIOCATALYSTS FOR THE PREPARATION OF HYDROXY SUBSTITUTED CARBAMATES

(57) Abstract: The present disclosure relates to engineered ketoreductase polypeptides for the preparation of hydroxyl substituted carbamate compounds, and polynucleotides, vectors, host cells, and methods of making and using the ketoreductase polypeptides.



WO 2013/074650 A1