



(51) International Patent Classification:

C12N 15/68 (2006.01) C12N 9/02 (2006.01)
C12N 9/06 (2006.01)

(21) International Application Number:

PCT/US2010/030404

(22) International Filing Date:

8 April 2010 (08.04.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/167,676 8 April 2009 (08.04.2009) US

(71) Applicant (for all designated States except US): **BRISTOL-MYERS SQUIBB COMPANY** [US/US]; Route 206 & Province Line Road, Princeton, NJ 08543 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BASCH, Jonathan** [US/US]; 216 Wllington Road, Dewitt, NJ 13214 (US). **FRANCESCHINI, Thomas** [US/US]; 8635 Honeycomb Path, Cicero, NJ 13039 (US). **LIU, Suo, Win** [US/US]; 4997 Firethorn Circle, Manlius, NJ 13104 (US). **CHIANG, Shu-jen** [US/US]; 4884 Edgeworth Drive, Manlius, NJ 13104 (US).

(74) Agent: **MENSAH, Kwame, N.**; McDonnell Boehnen Hulbert & Berghoff LLP, 300 S. Wacker Drive, Suite 3100, Chicago, IL 60606 (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, 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, PE, PG, PH, PL, PT, RO, RS, RU, 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, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (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, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

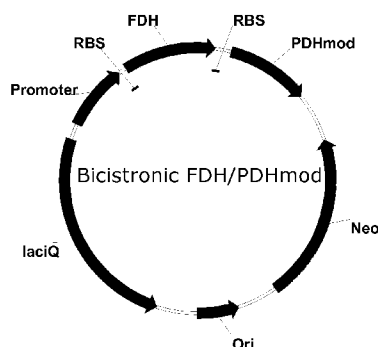
Published:

— with international search report (Art. 21(3))

— with sequence listing part of description (Rule 5.2(a))

(54) Title: A GENETICALLY STABLE PLASMID EXPRESSING PDH AND FDH ENZYMES

Figure 1



(57) Abstract: Bi-cistronic plasmids used for the expression of formate dehydrogenase (FDH) and modified phenylalanine dehydrogenase (PDHmod) are provided.