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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
28 August 2014 (28.08.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/128135 A1

(51) International Patent Classification:
C12P 21/02 (2006.01)

(21) International Application Number:
PCT/EP2014/053171

(22) International Filing Date:
19 February 2014 (19.02.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
13156288.6 22 February 2013 (22.02.2013) EP

(71) Applicant *(for all designated States except US)*: **F. HOFFMANN-LA ROCHE AG** [CH/CH]; Grenzacher Strasse 124, CH-4070 Basel (CH).

(71) Applicant *(for US only)*: **HOFFMANN-LA ROCHE INC.** [US/US]; 340 Kingsland Street, Nutley, NJ 07110 (US).

(72) Inventors: **KOPETZKI, Erhard**; Kastnerhofstrasse 21, 82377 Penzberg (DE). **SCHANTZ, Christian**; Im Wiesfeld 11, 82377 Penzberg (DE).

(74) Agents: **SKOLAUT, Alexander** et al.; Roche Diagnostics GmbH, Patent Department (LPP.....6164), P.O. Box 11 52, 82372 Penzberg (DE).

(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, IR, IS, JP, KE, KG, 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, SA, 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, KM, ML, MR, NE, SN, TD, TG).

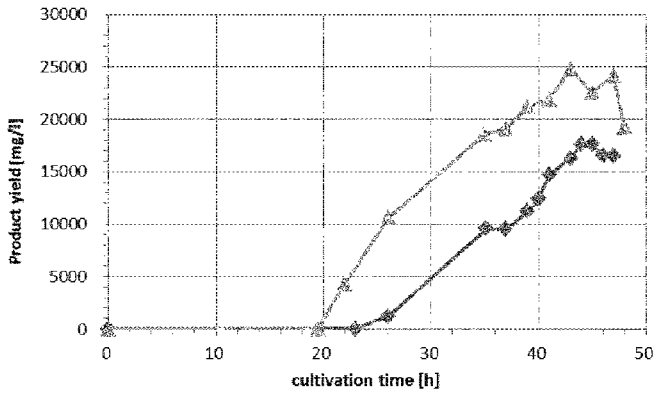
Published:

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

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

(54) Title: USE OF AN AMINO ACID AUXOTROPHY CURED PROKARYOTIC STRAIN FOR THE RECOMBINANT PRODUCTION OF A POLYPEPTIDE

Figure 2



(57) Abstract: Herein is reported a method for producing a polypeptide in a prokaryotic cell, comprising the step of cultivating a prokaryotic cell comprising one or more nucleic acids encoding the polypeptide in a chemically defined minimal growth medium and recovering the polypeptide from the prokaryotic cell or the periplasm of the prokaryotic cell or from the medium, wherein the prokaryotic cell is an amino acid auxotrophy cured prokaryotic cell, wherein growth of the amino acid auxotrophy cured prokaryotic cell compared to the non-cured prokaryotic cell under the same cultivation conditions and in the same growth medium requires the supplementation of fewer amino acids to the growth medium, and wherein the chemically defined minimal growth medium is free of the amino acid corresponding to the auxotrophy that has been cured in the auxotrophy cured prokaryotic cell.

WO 2014/128135 A1