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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
9 January 2014 (09.01.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/006124 A1

(51) **International Patent Classification**:
A61K 47/48 (2006.01) *A61K 39/395* (2006.01)
C07K 16/00 (2006.01)

(21) **International Application Number**:
PCT/EP2013/064100

(22) **International Filing Date**:
4 July 2013 (04.07.2013)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:
12174947.7 4 July 2012 (04.07.2012) 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, New Jersey 07110 (US).

(72) **Inventors**: **BENZ, Joerg**; Terrassenweg 5, 79618 Rheinfelden (DE). **BRINKMANN, Ulrich**; Feichtlstrasse 12, 82362 Weilheim (DE). **DENGL, Stefan**; Schleissheimer Strasse 44a, 80333 Muenchen (DE). **DZIADEK, Sebastian**; Elilandstrasse 2, 83671 Benediktbeuern (DE). **GEORGES, Guy**; Am Berggraben 11, 82392 Habach (DE). **GROTE, Michael**; Saelweiherstraße 15, 82377 Penzberg (DE). **HAAS, Alexander**; Wolfratshauserstrasse292, 81479 Muenchen (DE). **HOFFMANN, Eike**; Kienbachstrasse 1B, 82211 Herrsching a. Ammersee (DE).

(74) **Agents**: **BURGER, 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, 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, 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).

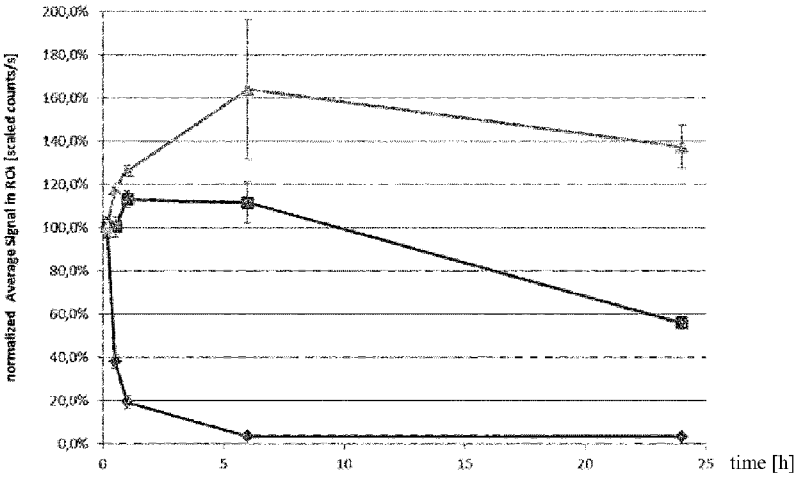
Published:

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

[Continued on next page]

(54) **Title**: COVALENTLY LINKED ANTIGEN-ANTIBODY CONJUGATES

Figure 42



(57) **Abstract**: Herein is reported a conjugate comprising an antigen and an antibody that specifically binds to the antigen wherein a covalent bond is formed between the antigen and an amino acid residue in the CDR2 of the antibody, an antibody comprising a cysteine residue at amino acid position 53 (according to Kabat) in the heavy chain CDR2 and uses thereof.

WO 2014/006124 A1

— *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))*