

(51) International Patent Classification:
A61K 47/48 (2006.01)(21) International Application Number:
PCT/US2015/061310(22) International Filing Date:
18 November 2015 (18.11.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
62/081,914 19 November 2014 (19.11.2014) US

(71) Applicant: IMMUNOGEN, INC. [US/US]; 830 Winter Street, Waltham, MA 02451 (US).

(72) Inventor: HUTCHINS, Benjamin, M.; 329 Stow Road, Boxborough, MA 01719 (US).

(74) Agents: LU, Yu et al.; Mccarter & English, LLP, 265 Franklin Street, Boston, MA 02110 (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, IR, IS, JP, KE, KG, KN, KP, KR,

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, 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, 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, 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).

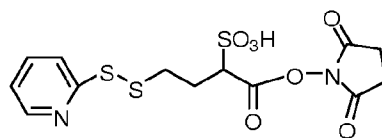
Declarations under Rule 4.17:

- as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))
- as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

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

(54) Title: PROCESS FOR PREPARING CELL-BINDING AGENT-CYTOTOXIC AGENT CONJUGATES



(I)

(57) Abstract: The present invention provides a novel process for preparing a cell-binding agent cytotoxic agent conjugate. The process comprises the steps of: (a) reacting a cytotoxic agent with a bifunctional crosslinking reagent represented by the structural formula(I) or a salt thereof, in a buffer solution comprising a buffering agent to provide a first mixture comprising a cytotoxic agent-linker compound, wherein the buffer solution has high buffer capacity; and (b) reacting the first mixture comprising the cytotoxic agent-linker compound from step (a) with a cell-binding agent in a solution having a pH of 4 to 9 to provide a second mixture comprising the cell-binding agent cytotoxic agent conjugate. The cell-binding agent cytotoxic agent conjugates prepared according to the processes described herein are also included in the present invention.