



(51) International Patent Classification:

C12Q 1/68 (2006.01) *G01N 33/531* (2006.01)
G01N 33/52 (2006.01) *G01N 33/58* (2006.01)

(21) International Application Number:

PCT/US2011/067481

(22) International Filing Date:

28 December 2011 (28.12.2011)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/460,349 30 December 2010 (30.12.2010) US

(71) Applicant (for all designated States except US):

VENTANA MEDICAL SYSTEMS, INC. [US/US]; 1910 E. Innovation Park Drive, Tucson, AZ 85755 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MAY, Eric, J. [US/US]; 1137 North Apollo Drive, Chandler, AZ 85224 (US). MURILLO, Adrian, E. [US/US]; 38943 South Fur-

long Court, Tucson, AZ 85739 (US). KOSMEDER, Jerome, W. [US/US]; 5530 N. Moccasin Trail, Tucson, AZ 85750 (US).

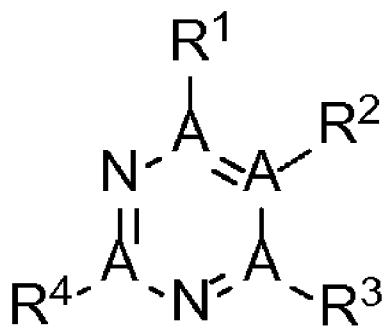
(74) Agents: KIMBLE, Kyle, W. et al.; Ventana Medical Systems, Inc., 1910 E. Innovation Park Drive, Tucson, AZ 85755 (US).

(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, 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.

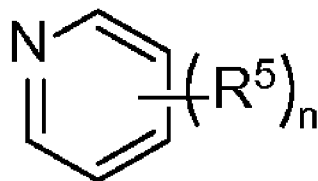
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU,

[Continued on next page]

(54) Title: ENHANCED DEPOSITION OF CHROMOGENS UTILIZING PYRIMIDINE ANALOGS



(57) Abstract: This disclosure relates to compositions that enhance the deposition of detectable moieties on tissue samples, methods utilizing these compositions and kits including these compositions. The compositions include a deposition enhancer having a formula and/or where R¹, R², R³, and R⁴ are independently selected from aliphatic, aryl, halogen, a heteroatom-containing moiety, and hydrogen; R¹ and/or R³ can be bound to R² to form a fused, aromatic ring system; R⁵ is selected from a heteroatom-containing moiety; A is selected from, a carbon atom, a heteroatom, other than sulfur, and any combination thereof; n is 1-5, an enzyme, a specific binding moiety and a detectable moiety.





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))*