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(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 (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).

**Declarations under Rule 4.17:**

— of inventorship (Rule 4.17(iv))

**Published:**

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

— 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))

(88) Date of publication of the international search report:  
3 May 2012

(54) Title: HAPTEN CONJUGATES FOR TARGET DETECTION

(57) Abstract: Embodiments of hapten conjugates including a hapten, an optional linker, and a peroxidase-activatable aryl moiety are disclosed. In some embodiments, the peroxidase-activatable aryl moiety is tyramine or a tyramine derivative. Embodiments of methods for making and using the hapten conjugates also are disclosed. In particular embodiments, the hapten conjugates are used in a signal amplification assay. In certain embodiments, the hapten is an oxazole, a pyrazole, a thiazole, a benzofurazan, a triterpene, a urea, a thiourea other than a rhodamine thiourea, a nitroaryl other than dinitrophenyl or trinitrophenyl, a rotenoid, a cyclolignan, a heterobiaryl, an azoaryl, a benzodiazepine, or 7-diethylamino-3-carboxycoumarin. The hapten is coupled to the peroxidase-activatable aryl moiety directly or indirectly via a linker. In certain embodiments, the hapten conjugates are used in multiplexed assays.



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INTERNATIONAL SEARCH REPORT

International application No  
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A. CLASSIFICATION OF SUBJECT MATTER  
**INV. C07C213/00 G01N33/58 A61K47/48**  
**ADD.**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
**C07C G01N A61K**

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
**EPO-Internal , BIOSIS, Sequence Search , EMBASE, CHEM ABS Data, WPI Data, BEI LSTEIN Data**

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	EP 0 933 355 A1 (UNIV MAASTRICHT [NL] ) 4 August 1999 (1999-08-04)  Abstract; par. 25; par. 40; par. 42 par. 44; examples.  -----	1-14, 17, 18, 27-31, 33-55
Y	Anonymous: "Tyramide Signal Amplification (TSA) Technology", Handbook of Fluorescent Probes and Research Products, 9th Ed. 2002, 1 January 2002 (2002-01-01), pages 152-159, XP55007657, Retrieved from the Internet: URL: http://www.mobitec.com/probes/ [retrieved on 2011-09-21] the whole document  -----  -/--	1-14, 17, 18, 27-31, 33-55

Further documents are listed in the continuation of Box C.  See patent family annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance  
 "E" earlier document but published on or after the international filing date  
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  
 "O" document referring to an oral disclosure, use, exhibition or other means  
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.  
 "&" document member of the same patent family

Date of the actual completion of the international search <b>24 February 2012</b>	Date of mailing of the international search report <b>09/03/2012</b>
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer <b>Lopez Garcia, F</b>
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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2011/042849

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos. :  
  
1-14, 17, 18, 27-31, 33-55
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos. :

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

## FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 13, 18(completely) ; 1-11, 27, 28, 30, 31, 33-55 (partially)

Hapten conjugate as defined in claim 1 wherein the hapten selected from oxazole, pyrazole and thiazole and methods using the same.

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- 2-12. claims: 1-12, 14-17, 19-55 (all partially)

Hapten conjugate as defined in claim 1 and methods using the same. The haptens have been grouped as follows:

Invention 2: benzofurazan ; Invention 3: tri terpene;  
 Invention 4: urea and thiourea; Invention 5: nitroaryl ;  
 Invention 6: rotenoid; Invention 7: cyclolignan; Invention 8: heterobiaryl ; Invention 9: azoaryl ; Invention 10: benzodiazepine; Invention 11: 2,3,6,7, -tetrahydro-11-oxo-1H ,5H,11H- [I] benzopyrano [6,7,8-ij]quinoline-10-carboxylic acid; Invention 12: 7-diethyl amino-3-carboxycoumarin.

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## INTERNATIONAL SEARCH REPORT

International application No

PCT/US2011/042849

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	wo 2008/063378 A2 (VENTANA MED SYST INC [US] ; KOSMEDER JERRY W [US] ; LEFEVER MARK [US] ; J) 29 May 2008 (2008-05-29)  Abstract; p. 98, 1. 4-p. 101 , 1. 11. -----	1-14, 17, 18, 27-31 , 33-55
X	WEI WANG ET AL: "(-) -Baci 11amide C: the convergent approach" , ORGANIC & BIOMOLECULAR CHEMISTRY, vol . 8, no. 3, 1 January 2010 (2010-01-01) , page 529 , XP55007666, ISSN: 1477-0520, DOI : 10. 1039/b918214d Abstract, scheme 1 in combination with table 1. -----	1-4, 8-11 , 13, 18,30
X	US 3 912 756 A (WOLFF HANS PETER ET AL) 14 October 1975 (1975-10-14)  Abstract; examples. -----	1-4, 8-11 , 13, 18,30
X	wo 00/18744 AI (FUJISAWA PHARMACEUTICAL CO [JP] ; HATTORI KOUJI [JP] ; TANAKA AKI RA [JP] ) 6 April 2000 (2000-04-06) Abstract; example 2.82 . -----	1-4, 8-11 , 13, 18,30
X	wo 01/12188 AI (PHARMACIA & UPJOHN SPA [IT] ; UPJOHN CO [US] ; PEVARELLO PAOLO [IT] ; ORS) 22 February 2001 (2001-02-22) Abstract; compounds on p. 41 and 42 . -----	1-4, 8-11 , 13, 18,30
X	US 2002/132844 AI (SHROFF HITESH [US] ET AL) 19 September 2002 (2002-09-19)  Abstract; 4th compound on p. 10. -----	1-4, 8-11 , 13, 18,30
X	BIANUCCI A M ET AL: "BENZODIAZEPINE RECEPTOR AFFINITY AND INTERACTION OF SOME N-(INDOL-3-YLGLYXYLYL)AMINO DERIVATIVES" , JOURNAL OF MEDICINAL CHEMISTRY, AMERICAN CHEMICAL SOCIETY, US, vol . 35, no. 12, 1 January 1992 (1992-01-01) , pages 2214-2220, XP001056519 , ISSN: 0022-2623 , DOI : 10. 1021/JM00090A011 Compound 10 ----- -/--	1-4, 8-11 ,30

## INTERNATIONAL SEARCH REPORT

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JORDAN A M ET AL: "MELANOCYTE-DIRECTED ENZYME PRODRUG THERAPY (MDEPT) : DEVELOPMENT OF SECOND GENERATION PRODRUGS FOR TARGETED TREATMENT OF MALIGNANT MELANOMA" , BIOORGANIC & MEDICINAL CHEMISTRY, PERGAMON, GB, vol . 9, no. 6, 1 January 2001 (2001-01-01) , pages 1549-1558, XP002282348, ISSN: 0968-0896, DOI : 10.1016/S0968-0896(01)00039-6 Compound 31.	1-4, 8-11 ,30
X	----- us 4 922 022 A (DIXON JOHN [GB] ET AL) 1 May 1990 (1990-05-01) Compound in col . 34, 1. 29-30.	1-4, 8-11 ,30
X	----- BIGGE C F ET AL: "Synthesis of N-desmethyl PNQX: elaboration into an immunogenic conjugate and a radiolabeled ligand; radioimmunoassay for the AMPA/NMDA antagonist, PNQX" , BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, PERGAMON, ELSEVIER SCIENCE, GB, vol . 7, no. 15, 5 August 1997 (1997-08-05) , pages 1979-1984, XP004136370, ISSN: 0960-894X, DOI : 10.1016/S0960-894X(97)00344-2 Compound 9.	1-4, 8-11 ,30
X	----- JORDAN ALLAN M ET AL: "Synthesis and analysis of urea and carbamate prodrugs as candidates for melanocyte-directed enzyme prodrug therapy (MDEPT) " , BIOORGANIC AND MEDICINAL CHEMISTRY, vol . 10, no. 8, August 2002 (2002-08) , pages 2625-2633 , XP002669129 , ISSN: 0968-0896 Compounds 5 and 9.	1-4, 8-11 ,30
X	----- CHENG J F ET AL: "A convenient solution and solid-phase synthesis of DELTA<sup>5</sup>-2-oxopiperazines via N-acyliminium ions cyclization" , TETRAHEDRON LETTERS, ELSEVIER, AMSTERDAM, NL, vol . 43, no. 36, 2 September 2002 (2002-09-02) , pages 6293-6295 , XP027242165 , ISSN: 0040-4039 [retrieved on 2002-09-02] Compound 1e	1-4, 8-11 ,30
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	TOBE M ET AL: "Di scovery of Qui nazol i nes as a Novel Structural Class of Potent Inhi bitors of NF-kB Acti vati on" , BIOORGANIC & MEDICINAL CHEMISTRY, PERGAMON , GB, vol . 11, no. 3, 1 January 2003 (2003-01-01) , pages 383-391 , XP002980883 , ISSN: 0968-0896, DOI : 10. 1016/50968-0896(02)00440-6 Compound on p. 390, LH col . par. 1 "6-ni tro-4- (4-phenoxyphenethyl ami no) qui naz ol ine" . -----	1-4, 8-11 ,30
X	CUNY G D: "Synthesi s of (+/-) -aporphi ne uti lizing Pi ctet-Spengl er and i ntramol ecul ar phenol ortho-aryl ati on reacti ons" , TETRAHEDRON LETTERS, ELSEVI ER, AMSTERDAM, NL, vol . 45, no. 26, 21 June 2004 (2004-06-21) , pages 5167-5170, XP004512256, ISSN: 0040-4039 , DOI : 10. 1016/J .TETLET.2004.04. 194 Compound 12 . -----	1-4, 8-11 ,30
X	EP 1 466 902 AI (TAKEDA CHEMICAL INDUSTRI ES LTD [JP] TAKEDA PHARMACEUTICAL [JP] ) 13 October 2004 (2004-10-13) Compound of exampl e 188 -----	1-4, 8-11 ,30
X	US 2005/009871 AI (RAMESH USHA V [US] ET AL) 13 January 2005 (2005-01-13) Compound 223 -----	1-4, 8-11 ,30
X	wo 2005/042464 AI (KAROBIO AB [SE] ; JERNSTEDT HENRI K [SE] ; GARG NEERAJ [SE] ; GUSTAVSSON A) 12 May 2005 (2005-05-12) Compounds 36, 51, 72 -----	1-4, 8-11 ,30
X	wo 2005/042530 AI (BOEHRINGER INGELHEIM CA LTD [CA] ; SIMONEAU BRUNO [CA] ; BORDELEAU JOSEE) 12 May 2005 (2005-05-12) Compound 1120 -----	1-4, 8-11 ,30
X	wo 2005/066139 A2 (MI LLENNIUM PHARM INC [US] ; FLEMING PAUL E [US] ; SHI ZHAN [US] ; CHEN SH) 21 July 2005 (2005-07-21) Compound 52 -----	1-4, 8-11 ,30
X	US 2002/032199 AI (POSS MICHAEL A [US] ET AL) 14 March 2002 (2002-03-14) Compound i n parargraph 548 -----	1-4, 8-11 ,30
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	wo 2005/037779 A2 (INST MEDIZINTECHNOLOGIE MAGDEB [DE] ; KEYNEUROTEK AG [DE] ; ANSORGE SI EG) 28 April 2005 (2005-04-28) Compounds D5.037 , D4.064 -----	1-4, 8-11 ,30
X	US 6 589 983 B1 (TANI KAWA KEIZO [JP] ET AL) 8 July 2003 (2003-07-08) Col . 10, tabl e 7, 1. 47 and 48. -----	1-4, 8-11 ,30
X	STEFAN BECKER ET AL: "Si ngl e-Cel l Hi gh-Throughput Screeni ng To Identif y Enanti osel ecti ve Hydrolyti c Enzymes" , ANGEWANDTE CHEMIE INTERNATIONAL EDITION , vol . 47, no. 27, 23 June 2008 (2008-06-23) , pages 5085-5088, XP55018834, ISSN: 1433-7851 , DOI : 10.1002/ani e.200705236 Compound 6 -----	1-4, 8-11 ,30
X	YANG K ET AL: "Desi gn and synthesi s of novel chl orampheni col ami ne deri vati ves as potent ami nopepti dase N (APN/CD13) i nhi bi tors" , BIOORGANIC & MEDICINAL CHEMISTRY, PERGAMON, GB, vol . 17, no. 11, 1 June 2009 (2009-06-01) , pages 3810-3817 , XP026118926, ISSN: 0968-0896, DOI : 10.1016/J .BMC.2009.04.038 [retri eved on 2009-04-24] Compound 6k -----	1-4, 8-11 ,30
X,P	wo 2010/121963 A1 (NERVIANO MEDICAL SCI ENCES SRL [IT] ; BRASCA MARIA GABRI ELLA [IT] ; CASAL) 28 October 2010 (2010-10-28) Compound on p. 42 , 3rd paragaph -----	1-4, 8-11 ,30
X	RZEPECKI ET AL: "New Heterocycl ic beta-Sheet Li gands with Pepti di c Recogni ti on El ements" , JOURNAL OF ORGANIC CHEMISTRY, AMERICAN CHEMICAL SOCI ETY, EASTON. ; US, vol . 69, no. 16, 6 February 2004 (2004-02-06) , pages 5168-5178, XP002295003 , ISSN: 0022-3263 , DOI : 10.1021/J00400111 Compound 9a -----	1-4, 8-11 ,30
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International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MARTIN KESSLER ET AL: "Sequenti ally Photocl eavabl e Protecti ng Groups in Sol id-Phase Synthesi s", ORGANIC LETTERS, vol . 5, no. 8, 1 Apri l 2003 (2003-04-01) , pages 1179-1181 , XP55018908, ISSN: 1523-7060, DOI : 10. 1021/ol 027454g Compound 13b -----	1-4, 8-11 ,30
X	KATHLEEN L. WERT ET AL: "Hofmann degradati on of .beta. -hydroxy ammoni um sal ts, .al pha. - and .beta. -Hydroxyl audanosi ne, 7-hydroxygl auci ne, and 13-hydroxyxyl opi ni ne" , THE JOURNAL OF ORGANIC CHEMISTRY, vol . 47, no. 26, 1 December 1982 (1982-12-01) , pages 5141-5150, XP55018904, ISSN: 0022-3263 , DOI : 10. 1021/jo00147a020 Compound 13 (R=N02) on p. 5148, LH col . -----	1-4, 8-11 ,30
X	KAMETANI T ET AL: "STUDI ES ON THE SYNTHESES OF HETEROCYCLIC COMPOUNDS. DCXXVII : THE FORMATION OF 2,3,9,10-TETRAMETHOXYBENZUC 3/4 ACRIDINE BY TREATMENT OF 6,7-DIMETHOXY-I- (4,5-DIMETHOXY-2-NITROPHEN ETHYL) -2- METHYLI SOQUI NOLINE WITH TRI ETHYL PHOSPHITE" , CHEMICAL & PHARMACEUTICAL BULLETIN , PHARMACEUTICAL SOCI ETY OF JAPAN, vol . 23, no. 9, 1 January 1975 (1975-01-01) , pages 2025-2028, XP002049516, ISSN: 0009-2363 Compound 8 -----	1-4, 8-11 ,30
X	J TRÖGER ET AL: "Bei trage zur Erforschung der Angosturaal kal oi de" , ARCHIV DER PHARMAZI E, vol . 250, 1 January 1912 (1912-01-01) , pages 494-531 , XP55018903 , DOI : 10. 1002/ardp. 19122500143 Nitro gal i pi n on p. 511 . -----	1-4, 8-11 ,30
X	LUDWIG REICHEL ET AL: "Über die Nitri erung von 3' .4'-Dimethoxy-f lavanon und Deri vaten" , JUSTUS LI EBIGS ANNALEN DER CHEMI E, vol . 712, 1 January 1968 (1968-01-01) , pages 146-151 , XP55018891 , ISSN: 0075-4617 Compounds 4 and 6. -----	1-4, 8-11 ,30
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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	TADASHI KATAOKA ET AL: "Synthesis and structure-activity relationships of thioflavone derivatives as specific inhibitors of the ERK-MAP kinase signaling pathway", BIOORGANIC & MEDICINAL CHEMISTRY, vol. 12, no. 9, 1 May 2004 (2004-05-01), pages 2397-2407, XP55018893, ISSN: 0968-0896, DOI: 10.1016/j.bmc.2004.02.002 Compound 5h	1-4, 8-11,30
X	NOUR EDDINE FAHMI ET AL: "Site-Specific Incorporation of Glycosylated Serine and Tyrosine Derivatives into Proteins", JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, vol. 129, no. 12, 1 March 2007 (2007-03-01), pages 3586-3597, XP55018882, ISSN: 0002-7863, DOI: 10.1021/ja067466n Compound 14	1-4, 8-11,30
X	RASTRELLI L ET AL: "New 12a-hydroxyrotenoids from <i>Gliricidia sepium</i> bark", JOURNAL OF NATURAL PRODUCTS, AMERICAN CHEMICAL SOCIETY, US, vol. 62, no. 1, 1 January 1999 (1999-01-01), pages 188-190, XP009156290, ISSN: 0163-3864 Compound 3	1-3, 8-11,30
X	YANG X W ET AL: "Abiesanol A, a novel biflavanol with unique six connective hexacyclic rings isolated from <i>Abies georgei</i> ", TETRAHEDRON LETTERS, ELSEVIER, AMSTERDAM, NL, vol. 49, no. 19, 5 May 2008 (2008-05-05), pages 3042-3044, XP022594824, ISSN: 0040-4039, DOI: 10.1016/J.TETLET.2008.03.065 [retrieved on 2008-03-16] Fig. 1.	1-3, 8-11,30

## INTERNATIONAL SEARCH REPORT

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>ABIDI ET AL: "High-efficiency resolution of isomeric rotenone compounds by high-performance liquid chromatography" , JOURNAL OF CHROMATOGRAPHY, ELSEVIER SCIENCE PUBLISHERS B.V, NL, vol . 317 , 28 December 1984 (1984-12-28) , pages 383-401 , XP026553871 , ISSN: 0021-9673 , DOI : 10.1016/50021-9673 (01)91678-4 [retrieved on 1984-12-28] Fig. 1, compound 7A-7D, 8A-8D.</p> <p>-----</p>	1-3 , 8-11 ,30
X	<p>CHEN CHAO-TSEN ET AL: "A highly selective fluorescent chemosensor for lead ions" , JOURNAL OF THE AMERICAN CHEMICAL SOCIETY, AMERICAN CHEMICAL SOCIETY, WASHINGTON, DC; US, vol . 124, no. 22, 5 June 2002 (2002-06-05) , pages 6246-6247 , XP009156291 , ISSN: 0002-7863 Compounds 1, 2.</p> <p>-----</p>	1-3 , 8-11 ,30
X	<p>ISABELLE AUJARD ET AL: "o-Nitrobenzyl Photolabile Protecting Groups with Red-Shifted Absorption: Syntheses and Uncaging Cross-Sections for One- and Two-Photon Excitation" , CHEMISTRY - A EUROPEAN JOURNAL, vol . 12, no. 26, 6 September 2006 (2006-09-06) , pages 6865-6879 , XP55018835 , ISSN: 0947-6539 , DOI : 10.1002/chem. 200501393 Compounds 5c, 8c, 9c, 10c</p> <p>-----</p>	1-3 , 8-11 ,30
X	<p>US 2005/019711 A1 (TAKIZAWA HIROO [JP] ) 27 January 2005 (2005-01-27) Compound D-163</p> <p>-----</p>	1-3 , 8-11 ,30
X	<p>ROMAN&amp;EMSP14;V. R0ZHKOV ET AL: "Fluorogenic Transformations Based on Formation of C#xF8FF;C Bonds Catalyzed by Palladium: An Efficient Approach for High Throughput Optimizations and Kinetic Studies" , ADVANCED SYNTHESIS &amp; CATALYSIS, vol . 350, no. 1, 4 January 2008 (2008-01-04) , pages 71-75 , XP55018573 , ISSN: 1615-4150, DOI : 10.1002/adsc. 200700384 Compound 7b</p> <p>-----</p>	1-3 , 8-11 ,30

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PCT/US2011/042849

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>H. S. YATHI RAJAN ET AL:  "7-Di ethyl ami no-3- [(2 Z  ) -3- (6-methoxy-2-naphthyl )prop-2-enoyl ] -2  H -chromen-2-one" ,  ACTA CRYSTALLOGRAPHICA SECTION E STRUCTURE  REPORTS ONLINE,  vol . 63, no. 3, 15 March 2007 (2007-03-15)  , pages 01140-01141 , XP55018723 ,  ISSN: 1600-5368, DOI :  10. 1107/S1600536807004771  Compound I</p>	<p>1-3 ,  8-11 ,30</p>
X	<p>-----  US 5 455 143 A (ALI M ZAKI [US] )  3 October 1995 (1995-10-03)  Compounds 4-8</p>	<p>1-3 ,  8-11 ,30</p>
E	<p>-----  Wo 2012/003478 A2 (VENTANA MED SYST INC  [US] ; HONG RUI [US] ; WANG HONG [US] ;  LEFEVER MARK) 5 January 2012 (2012-01-05)  Compound on top of p. 79; compound  CD0-PEG8-Arg-PL-Tyr on p. 156  -----</p>	<p>1-11 ,27 ,  28,30</p>

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