

INFORME DE BÚSQUEDA DE PATENTES				
N° de solicitud: NC20170008403				
CRITERIOS PARA LA BÚSQUEDA (anexar pantallazo o reporte en PDF, junto con los boléanos utilizados**)				
Palabras clave utilizadas		PRMT5; CANCER; ADENOSYL AND METHIONINE; S-ADENOSYL METHIONINE; PROTEIN AND ARGININE AND METHYLTRANSFERASE; CELL S PROLIFERATION; ARGININE AND RESIDUES AND METHYLATION.		
CLASIFICACIONES UTILIZADAS PARA LA BÚSQUEDA		CIP: C07H 19/14, C07H 19/167, C07H 19/24, A61K 31/52, A61P 35/00. CPC (Opcional):		
DOCUMENTOS CONSIDERADOS RELEVANTES (documentos patentes, literatura no patente, etc...)				
Informes/Base de datos	N° de solicitud/ Autor*	Fecha de Publicación/Presentación (DD/MM/AAAA)	Reiv. afectadas (con indicación, si procede, de las partes relevantes)	Categoría especiales de los documentos citados**
ORBIT, ESPACENET, USPTO Y PATBASE	US6492348	10/Diciembre/2002	1 a 15 Novedad	X
	CHRISTA E MÜLLER ET AL	23/Diciembre/2010	1 a 15 Novedad	X
	US2004043960	04/Marzo/2004	1 a 15 Novedad	X
	KANCHAN DEVKOTA ET AL	2014	1 a 15 Novedad	X
	RITESH KUMAR ET AL	2007	1 a 15 Novedad	X
	PEI-PEI KUNG ET AL	02/Junio/2005	1 a 15 Novedad	X
** Categorías especiales de documentos citados:				
“A” documento que define el estado general de la técnica no considerado como particularmente relevante. “E” solicitud de patente o patente anterior pero publicada en la fecha de presentación internacional o en fecha posterior. “P” documento publicado antes de la fecha de presentación internacional pero con posterioridad a la fecha de prioridad reivindicada.			“X” documento particularmente relevante; la invención reivindicada no puede considerarse nueva o que implique una actividad inventiva por referencia al documento aisladamente considerado. “Y” documento particularmente relevante; la invención reivindicada no puede considerarse que implique una actividad inventiva cuando el documento se asocia a otro u otros documentos de la misma naturaleza, cuya combinación resulta evidente para un experto en la materia.	

Literatura no patente *Se incluye entre otros, toda la referencia de la literatura no patente.	
Fecha del reporte de búsqueda:	15/08/2018

ESPACENET

Cited in	International search	[XPAI] * WO2015200680 (EPIZYME INC [US]) [XP] 1-3 * pages 171-178; claims 1-15,56,57,79,86-89; tables 1A,10 * [A] 5-25 [I] 4;
		[X] * US6492348 (BAYS DAVID EDMUND [GB], et al) [X] 1-4 * examples 2,3,6,7,11,13-18,...; claims 1,2,16 *;
		[X] * US2004043960 (ZABLOCKI JEFF [US], et al) [X] 1-4 * example 9; claim 1 *;
		[A] - MATTHIJS VAN HAREN ET AL, "Synthesis and evaluation of protein arginine N-methyltransferase inhibitors designed to simultaneously occupy both substrate binding sites", ORGANIC & BIOMOLECULAR CHEMISTRY, (20141023), vol. 13, no. 2, doi:10.1039/C4OB01734J, ISSN 1477-0520, pages 549 - 560, XP055271873 [A] 1-25 * the whole document * * schemes 1-5;; figure 3; table 1 * DOI: * http://dx.doi.org/10.1039/C4OB01734J
		[A] - DONGHANG CHENG ET AL, "Small Molecule Regulators of Protein Arginine Methyltransferases", JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 279, no. 23, doi:10.1074/JBC.M401853200, ISSN 0021-9258, (2004), pages 23892 - 23899, (20040331), XP002647699 [A] 1-25 * the whole document * * figure 1; table 1 * DOI: * http://dx.doi.org/10.1074/JBC.M401853200
		[XPA] - DAVID SMIL ET AL, "Discovery of a Dual PRMT5-PRMT7 Inhibitor", ACS MEDICINAL CHEMISTRY LETTERS, (20150302), vol. 6, no. 4, doi:10.1021/ml500467h, ISSN 1948-5875, pages 408 - 412, XP055271830 [XP] 1-3 * the whole document * * supporting information;; figure 1 * [A] 4-25 DOI: * http://dx.doi.org/10.1021/ml500467h
		[X] - CHRISTA E MÜLLER ET AL, "Recent developments in adenosine receptor ligands and their potential as novel drugs", BIOCHIMICA ET BIOPHYSICA ACTA (BBA) - BIOMEMBRANES, vol. 1808, no. 5, doi:10.1016/J.BBAMEM.2010.12.017, ISSN 0005-2736, (2010), pages 1290 - 1308, (20101223), XP028157805 [X] 1-4 * figure 1; compound 7 * DOI: * http://dx.doi.org/10.1016/j.bbamem.2010.12.017
		[X] - KANCHAN DEVKOTA ET AL, "Analogues of the Natural Product Sinefungin as Inhibitors of EHMT1 and EHMT2", ACS MEDICINAL CHEMISTRY LETTERS, (2014), vol. 5, no. 4, doi:10.1021/ml4002503, ISSN 1948-5875, pages 293 - 297, XP055271475 [X] 1-4 * figure 1; compounds 3,4 * DOI: * http://dx.doi.org/10.1021/ml4002503
		[X] - RITESH KUMAR ET AL, "Activation and inhibition of DNA methyltransferases by S-adenosyl-L-homocysteine analogues", BIOORGANIC & MEDICINAL CHEMISTRY, (2007), vol. 16, no. 5, doi:10.1016/J.BMC.2007.11.075, ISSN 0968-0896, pages 2276 - 2285, XP022526127 [X] 1-3 * table 1; compounds 5,9 * DOI: * http://dx.doi.org/10.1016/j.bmc.2007.11.075
		[X] - PEI-PEI KUNG ET AL, "Design, synthesis, and biological evaluation of novel human 5'-deoxy-5'-methylthioadenosine phosphorylase (MTAP) substrates", BIOORGANIC & MEDICINAL CHEMISTRY LETTERS, vol. 15, no. 11, ISSN 0960-894X, (2005), pages 2829 - 2833, (20050602), XP027801098 [X] 1-3 * tables 1-4; compounds 1,2,9-34 *
		[X] - ERICA W VAN TILBURG ET AL, "5'-O-ALKYL ETHERS OF N,2-SUBSTITUTED ADENOSINE DERIVATIVES: PARTIAL AGONISTS FOR THE ADENOSINE A1 AND A3 RECEPTORS", JOURNAL OF MEDICINAL CHEMISTRY, (2001), vol. 44, no. 18, doi:10.1021/JM001114O, ISSN 0022-2623, pages 2966 - 2975, XP002197488 [X] 1-3 * table 1; compounds 18-29 *

USPTO

Claims **1-25** are rejected under 35 U.S.C. §102(a)(1) as being anticipated by **van Haren et al.** (PTO-1449 ref. **AT2**).

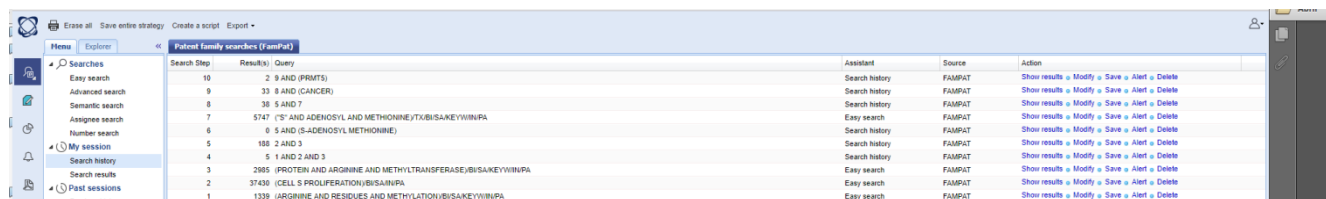
Applicant is referred to the abstract at page 549 wherein he reference teaches the importance of PRMT activity in the treatment of “cancer”, and to page 550 wherein Figures 3A and 3B disclose two pyrrolo[2,3-**d**]pyrimidine nucleoside-like compounds and four adenosine nucleoside analogues that have the noted activity, thereby anticipating the instant claimed subject matter.

Claims **1-25** are rejected under 35 U.S.C. §102(a)(2) as being anticipated by **Cortez et al. ‘532** (PTO-892 ref. **I**; US **9,840,532**).

Applicant is referred to chemical structures, associated substituent definitions, and medicinal testing results beginning at the bottom of column 1 and ending at columns 67-70 wherein pyrrolo[2,3-**d**]pyrimidines have been disclosed and claimed to be active in the treatment of cancer, thereby anticipating the instant claimed subject matter.

No claim is allowed.

ORBIT



The screenshot shows the ORBIT software interface with a search history table. The table has columns for Search Step, Results, Query, Assistant, Source, and Action. The search history is as follows:

Search Step	Results	Query	Assistant	Source	Action
10	2	9 AND (PRMTS)	Search history	FAMPAT	Show results ▾ Modify ▾ Save ▾ Alert ▾ Delete
9	33	8 AND (CANCER)	Search history	FAMPAT	Show results ▾ Modify ▾ Save ▾ Alert ▾ Delete
8	38	5 AND 7	Search history	FAMPAT	Show results ▾ Modify ▾ Save ▾ Alert ▾ Delete
7	5747	(‘S’ AND ADENOSYL AND METHIONINE)/TX/BISAKKEYWIRPA	Easy search	FAMPAT	Show results ▾ Modify ▾ Save ▾ Alert ▾ Delete
6	0	5 AND (S-ADENOSYL METHIONINE)	Search history	FAMPAT	Show results ▾ Modify ▾ Save ▾ Alert ▾ Delete
5	108	2 AND 3	Search history	FAMPAT	Show results ▾ Modify ▾ Save ▾ Alert ▾ Delete
4	5	1 AND 2 AND 3	Search history	FAMPAT	Show results ▾ Modify ▾ Save ▾ Alert ▾ Delete
3	2065	(PROTEIN AND ARGININE AND METHYLTRANSFERASE)/BISAKKEYWIRPA	Easy search	FAMPAT	Show results ▾ Modify ▾ Save ▾ Alert ▾ Delete
2	37430	(CELL S PROLIFERATION)/BISAKKEYWIRPA	Easy search	FAMPAT	Show results ▾ Modify ▾ Save ▾ Alert ▾ Delete
1	1339	(ARGININE AND RESIDUES AND METHYLATION)/BISAKKEYWIRPA	Easy search	FAMPAT	Show results ▾ Modify ▾ Save ▾ Alert ▾ Delete

Easy search

Menu Filter Explorer

33 results for 8 AND (CANCER) - Collection: FAHPAT

Display

#	Title	Publ. date	Publication number	1st app. date	Relevance
1	Earliest application date : 2017-11-30				
1	Methods of treating cancer	2016-06-07	WO2016109536	2017-11-30	N/A
2	Earliest application date : 2016-12-02				
2	Mat2a inhibitors for treating mtaip null cancer	2017-06-08	CA308743	2016-12-02	N/A
3	Earliest application date : 2016-03-10				
3	Pim1 inhibitors for the treatment of cancer with reduced mtaip activity	2016-09-15	WO2016145150	2016-03-10	N/A
4	Earliest application date : 2016-02-01				
4	Combination therapy for treating cancer	2016-08-04	WO2016123626	2016-02-01	N/A
5	Earliest application date : 2015-11-06				
5	Ezh2 inhibitors and uses thereof	2016-05-12	CA2964629	2015-11-06	N/A
6	Earliest application date : 2013-02-11				
6	Modulators of methyl modifying enzymes, compositions and uses thereof	2013-08-15	CA2862299	2013-02-11	N/A
7	Earliest application date : 2012-05-31				
7	Suv39h2 as a target gene for cancer therapy	2012-12-06	WO2012144936	2012-05-31	N/A
8	Earliest application date : 2011-08-17				
8	Ehmt2 as a target gene for cancer therapy and diagnosis	2012-02-23	WO2012023295	2011-08-17	N/A
9	Earliest application date : 2011-06-22				
9	Ctcf for target genes of cancer therapy and diagnosis	2011-12-29	WO2011161960	2011-06-22	N/A
10	Earliest application date : 2011-02-02				
10	Pim1 and pim2 for target genes of cancer therapy and diagnosis	2011-08-11	WO2011096210	2011-02-02	N/A
11	Earliest application date : 2009-08-25				
11	Vhsr1 and vhsr1t1 for target genes of cancer therapy and diagnosis	2011-08-11	WO2011096211	2011-02-02	N/A
12	Earliest application date : 2009-08-25				
12	Pim1 for target genes of cancer therapy and diagnosis	2010-03-04	WO2010023077	2009-08-25	N/A
13	Earliest application date : 2005-04-15				
13	Series of recipe of alive liver cell element, and application	2006-04-19	CN1758045	2005-04-15	N/A
14	Earliest application date : 2005-01-18				
14	Methods of detecting methyl transferase activity and methods of screening for methyl transferase activity modulators	2005-08-04	WO2005071102	2005-01-18	N/A
15	Earliest application date : 2003-06-20				
15	Oligonucleotide inhibitors of mbd2/dra demethylase and uses thereof	2003-12-31	WO200401027	2003-06-20	N/A
16	Earliest application date : 2002-11-25				

Translate Edit Preview

Blood concentration of ADMA	Cancer patients	Healthy individuals	
High	a: True positive	b: False positive	Positive predictive value a/(a+b)
Low	c: False negative	d: True negative	Negative predictive value d/(c+d)
	Sensitivity a/(a+c)	Specificity d/(b+d)	

List of publications

Publ. number	Publ. date	Document type
PCT WO2011096210	2011-08-11	A1 - Published application with search report
Priority Numbers & Dates	2010US-61301020	2010-02-03
Application Numbers & Dates	2011WO-JP05052	2011-02-02

Abstract

Objective methods for diagnosing a predisposition to developing cancer, particularly bladder cancer, gastric cancer, colorectal cancer, breast cancer, esophageal cancer, lung cancer, lymphoma, pancreatic cancer and testicular cancer, are described herein. In one embodiment, the diagnostic method involves determining an expression level of PRMT1 or PRMT6 gene. The present invention further provides methods of screening for therapeutic agents useful in the treatment of PRMT1 or PRMT6 associated diseases, such as a cancer, e.g., bladder cancer, diffuse-type gastric cancer, breast cancer, esophageal cancer, NSCLC, SCLC, lymphoma, pancreatic cancer, testicular cancer, cervical cancer, osteosarcoma, prostate cancer and CML. The present invention further provides methods of inhibiting the cell growth and treating or alleviating symptoms of PRMT1 or PRMT6 associated diseases. The present invention also features products, including double-stranded molecules and vectors encoding thereof as well as to compositions containing them.

Inventor(s)

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PATBASE

PatBase

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Subaccount: NELSON VELASCO

#	Search query	Results	Options
4	3 AND ADENOSYL AND METHIONINE	1	View Browse Hits Optimise more...
3	2 AND (PRMT5)	16	View Browse Hits Optimise more...
2	1 AND (CANCER)	67	View Browse Hits Optimise more...
1	STAC=(PROTEIN AND ARGININE AND METHYLTRANSFERASE)	144	View Browse Hits Optimise more...

Information Shortcuts

Command Reference

Bibliographic data
Textual data
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Menu Search History Session Folder Order Help Logoff

Search 3 "2 AND (PRMT5)" 1-10 of 16 next>>

Display format: Classic Sorted by: Publication date asc Print Save/export Snapshot Visual explorer Analytics

1) Family number: 33118016 (US2009298155A)

Similar Translate Full-text Status Citations

Title: [EN] EPIGENETIC REGULATORY COMPLEX FOR CONTROL OF GENE EXPRESSION

Abstract: Source: US2009298155A [EN] An epigenetic regulatory polypeptide complex comprises at least a first domain having site-specific DNA binding activity and at least a second domain having an **arginine methyltransferase** activity, wherein the second domain is capable of methylating an **arginine** residue located in the tail region of a histone H2A. The complex is able to regulate gene expression in cells, particularly in mammalian stem cells by controlling the methylation of R3 in the tail regions of histones H2A and H4. The complex is exemplified by a polypeptide complex comprising the DNA binding activity of Blimp1 and the **arginine methyltransferase** activity of **Prrmt5**.

Classifications: Classification Explorer

International (IPC): A61K38/45 A61P35/00 A61P43/00 C07K14/47 C07K19/00 C12N15/09 C12N15/11 C12N15/54 C12N15/63 C12N5/02 C12N5/08 C12N5/10 C12N9/10 (AdvancedInvention); A61K38/43 A61P35/00 A61P43/00 C07K14/43 C07K14/435 C07K19/00 C12N15/09 C12N15/11 C12N15/54 C12N15/63 C12N5/02 C12N5/08 C12N5/10 C12N9/10 (CoreInvention)

International (IPC): C12N9/10

CPC: C07K14/4702 C07K14/4748 C07K2319/80 C12N9/1007 C07K2319/00

European: C07K14/47A1 C07K14/47A3A C12N9/10A1 M07K319/00 M07K319/00E M07K319/80

US: 435/193 435/193P 435/320 1 435/320 100S 435/366 435/366S 435/375 435/375S 435/377 435/377S

PatBase - US2009298155_A1

Figure 1: Schematic diagram of the epigenetic regulatory polypeptide complex. The complex consists of a DNA binding domain (Blimp1) and an arginine methyltransferase domain (Prrmt5). The DNA binding domain is shown binding to a DNA sequence. The arginine methyltransferase domain is shown methylating an arginine residue on a histone H2A protein. The complex is shown regulating gene expression in a cell.