INFORME DE BÚSQUEDA DE PATENTES				
N° de solicitud: N° 16073017				
CRITERIOS PARA LA BÚSQUEDA (Anexar pantallazo o reporte en PDF, junto con los boléanos utilizados*. Para el caso de secuencias, anexar alineamientos)				
Palabras clave utilizadas	Anti - DLL3 monoclonal antibodies, DLL3 protein, DLL3 modulators, DELTA-LIKE 3, delta-like protein 3, Delta 3, cáncer treatment, Antibody Drug Conjugates (ADCs), Pyrrolobenzodiazepine (PBDs).			
CLASIFICACIONES UTILIZADAS PARA LA BÚSQUEDA	**CIP**: A61K 47/48			
	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 o números de secuencias)	Categorías especiales de los documentos citados***
SIPI	CO14184798	22/Agosto/2014	Rv. 1 a 5, 7 y 9 a 15, 18 a 41, 43 (Pág. 153, Rv. 155 y 156 – Pág. 154, Rv. 158 – 162 - Fig. 11 A y B)	X
EPO (22/02/2017)	WO2006/065533	22/06/2006	Rv. 6 y 8 (Pág. 15, líneas 24 a 30 – Pág. 16, líneas 1 a 4).	Y
	US2007141066	21/06/2007	-	A
	WO2013126746	29/08/2013	-	X
	WO2015127407	27/08/2015	-	-
	WO2014125273	21/08/2014	-	-
USPTO	US2012328624	27/12/2012	-	A
	US4676980	30/06/1987	-	
	US4816567	28/03/1989	-	
	US5112946	12/05/1992	-	
	US5122368	16/06/1992	-	
	US5223409	29/06/1993	-	
Patbase*	US2012328624	27/12/2012	-	A
	US2004259114	23/12/2004	-	
	US2011256157	20/10/2011	-	
Patent Lens	CO14184798	22/Agosto/2014	-Cadena ligera (VL) de SEQ ID NO: 204 y una cadena pesada (VH) de SEQ ID NO: 205; las cuales presentan 100% de identidad y cobertura respeto a las SEQ ID NO: 389 (VL) y SEQ ID NO: 391 (VH) reclamadas por la solicitante. - Cadena ligera (VL) de SEQ ID NO: 206 y una cadena pesada (VH) de SEQ ID NO: 207; las cuales presentan 100% de identidad y cobertura respeto a las SEQ ID NO: 393 (VL) y SEQ ID NO: 395 (VH) reclamadas por la solicitante. - Cadena ligera (VL) de SEQ ID NO: 210 y una cadena pesada (VH) de SEQ ID NO: 211; las	X

			cuales presentan 100% de identidad y cobertura respeto a las SEQ ID NO: 401 (VL) y SEQ ID NO: 403 (VH) reclamadas por la solicitante. - Cadena ligera (VL) de SEQ ID NO: 212 y una cadena pesada (VH) de SEQ ID NO: 213; las cuales presentan 100% de identidad y cobertura respeto a las SEQ ID NO: 405 (VL) y SEQ ID NO: 407 (VH) reclamadas por la solicitante.	

*** 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.
**** Indicar entre paréntesis la Autoridad que realizó la búsqueda o el informe preliminar Ejs: EPO, JP, INAPI.	

Literatura no patente (Science Direct)	-Chapman G *et al*., "Notch inhibition by the ligand DELTA-LIKE 3 defines the mechanism of abnormal vertebral segmentation in spondylocostal dysostosis". Hum Mol Genet. Mar. 1, 2011;20(5):905-16. PMED: 21147753. -Dunwoodie *et al,* "Mouse DLL3: a novel divergent Delta gene which may complement the function of other Delta homologues during early pattern formation in the mouse embryo." Development. Aug. 1997;124(16):3065-76. -Geffers I *et al*., "Divergent functions and distinct localization of the Notch ligands DLL1 and DLL3 in vivo." J Cell Biol. Jul. 30, 2007; 178(3):465-76. PMID: 17664336. -Henke RM *et al.* "Ascl1 and Neurog2 form novel complexes and regulate Delta-like3 (DLL3) expression in the neural tube." Dev Biol. Apr. 15, 2009; 328(2):529-40 PMID:19389376. -Hoyne GF, *et al.,* "A cell autonomous role for the Notch ligand Delta-like 3 in alphabeta T-cell development." Immunol Cell Biol. Apr. 2011; 89(6):696-705. PMID: 21151194.

Fecha del reporte de búsqueda:	04/08/2017

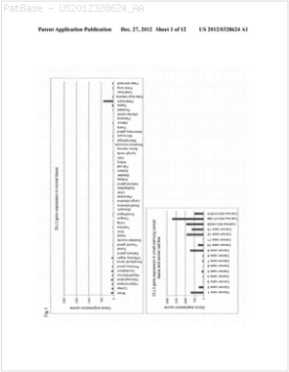
Búsqueda en PatBase

TAC= (Antibod* AND DLL3) AND CPC = (C07K OR A61K)
TAC= (Antibod* AND (DLL3 OR Delta3)) AND CPC = (C07K OR A61K)
TAC= (Antibod* NEAR DLL3) AND CPC = (C07K OR A61K)
TAC= ((Antibod* AND DLL3) AND (Conjugate* NEAR Pyrrolobenzodiazepine)) CPC = (C07K OR A61K)

13) Family number: 49385487 (US2012328624A) Similar • Translate • Full-text • Status • Citations

Title: [EN] ANTI-**DLL3** **ANTIBODY**

Abstract: Source: US2012328624A [EN] It is intended to disclose an **antibody** which binds to **DLL3** protein. Preferably, the **antibody** of the present invention recognizes a region from amino acids 216 to 492 in human **DLL3** having the amino acid sequence as set forth in SEQ ID NO: 1. The present invention also provides a pharmaceutical composition, for example, an anticancer agent, comprising the **antibody** of the present invention as an active ingredient. The present invention further discloses a method for diagnosing cancer using the **antibody** of the present invention and a diagnostic drug for cancer comprising the **antibody** of the present invention.



Classifications: Classification Explorer
International (IPC 8-9): A61K39/395 A61K47/48 A61P35/00 C07K16/18 C07K16/28 C07K16/30 C12N15/02 C12Q1/02 C12Q1/68 G01N33/50 G01N33/574 G01N33/68 (Advanced/Invention);
A61K39/00 (Advanced/Non-invention)
CPC: C07K16/3023 A61K2039/505 C07K2317/24 C07K2317/30 C07K2317/732 C07K2317/77 C07K2319/30 C12Q1/6886 C12Q2600/118 G01N33/574 G01N2333/4703 A61K47/48592
European: C07K16/30D C12Q1/68M6B G01N33/574 M07K317/240 M07K317/732 M07K317/770 M07K319/30 M12Q600/118 S01N333/47A1
US: 424/139.1 424/178.1 435/375 435/7.23 530/387.9 530/391.7

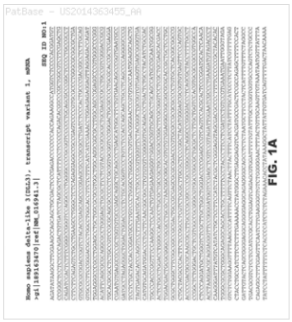
Family: Family Explorer

Publication number	Publication date	Application number	Application date	Links
EP2530091 A1	20121205	EP20110736812	20110128	
EP2530091 A4	20130710	EP20110736812	20110128	
JP2011093097 A1	20130530	JP20110551775T	20110128	

15) Family number: 54632025 (US2014363455A) Similar • Translate • Full-text • Status • Citations

Title: [EN] **DLL3** MODULATORS AND METHODS OF USE

Abstract: Source: US2014363455A [EN] Novel modulators, including **antibodies** and derivatives thereof, and methods of using such modulators to treat proliferative disorders are provided.



Classifications: Classification Explorer
International (IPC 8-9): A61K31/407 A61K31/551 A61K31/5517 A61K39/395 A61K45/00 A61K47/42 A61K47/48 A61P11/00 A61P35/00 C07K C07K14/47 C07K16/00 C07K16/18 C07K16/28 C07K16/30 C07K16/46 C12N1/15 C12N1/19 C12N1/21 C12N15/00 C12N15/09 C12N15/13 C12N15/63 C12N5/10 C12P21/08 G01N33/53 G01N33/563 G01N33/574 G01N33/577 (Advanced/Invention);
A61K39/00 (Advanced/Non-invention);
A61K A61P C07K (Subclass/Invention)
CPC: A61K31/5517 A61K2039/505 C07K16/30 A61K47/48469 A61K47/48569 C07K2317/24 C07K2317/33 C07K2317/34 C07K2317/92 C07K2319/30 A61K47/48723 C07K2317/565 A61K39/3955 A61K47/48561 A61K47/48592 C07K16/3023 C07K2317/70 C07K2317/77 G01N33/57423 G01N33/57492 G01N2333/70596 C07K2317/21 C07K2317/31 C07K2317/35 C07K2317/55 C07K2317/54 C07K2317/622 C07K16/2809 C07K2317/76 A61K47/48715 C07K16/3069 C07K2317/73 C07K16/18 A61K47/48384 A61K47/48538 C07K16/28
US: 1/1 424/130.1 424/134.1 424/139.1 424/141.1 424/178.1 424/179.1 424/181.1 435/235.1 435/252.3 435/320.1 435/325 435/326 435/352 435/354 435/358 435/69.1 435/7.23 530/387.1 530/387.3 530/387.9 530/388.1 530/391.7 530/391.9 536/23.53

Family: Family Explorer

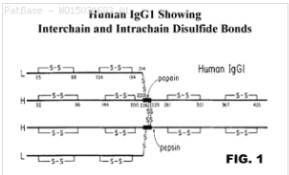
Publication number	Publication date	Application number	Application date	Links
AU2013203459 AA	20130912	AU20130203459	20130222	
CA2865404 AA	20140822	CA20132865404	20130222	
CL2014002240 A1	20150515	CL20140002240	20140822	
CN104520324 A	20150415	CN201380010475	20130222	

19) Family number: 58643786 (WO15031698A8) Similar • Translate • Full-text • Status • Citations

Title: [EN] SITE-SPECIFIC **ANTIBODY** CONJUGATION METHODS AND COMPOSITIONS
[FR] PROCEDES DE CONJUGAISON D'ANTICORPS REGIOSPECIFIQUES ET COMPOSITIONS

Abstract: Source: WO15031698A8 [EN] Provided are **antibody** drug conjugates (ADCs), and methods of using such ADCs to treat proliferative disorders. In some aspects, the disclosure provides engineered **antibodies** that immunospecifically react with a determinant on tumor initiating cells, such as **DLL3**, SEZ6, or CD324. The **antibodies** comprising one or more unpaired cysteine residues provide site(s) for the selective and controlled conjugation to a therapeutic or diagnostic agent.

[FR] L'invention concerne de nouveaux conjugues anticorps-medicament (ADC) et des methodes d'utilisation de ces ADC pour traiter des troubles proliferatifs. Plus specifiquement, l'invention porte sur un anticorps genetiquement construit qui reagit avec un determinant de **DLL3**, SEZ6 ou CD324. Les anticorps comprennent un ou plusieurs residus cysteine non apparies, qui constituent un/des sites pour la conjugaison selective et controlee a un agent de diagnostic ou therapeutique.



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CPC: C07K16/2896 A61K2039/505 C07K2317/24 C07K2317/53 C07K2317/73 A61K47/48569 A61K47/481 A61K47/48384 G01N33/57407 A61K47/48561 G01N33/57423 C07K16/28 C07K2317/33 C07K2317/34 C07K2317/77 A61K47/48369 A61K31/5517 A61K47/48592

Family: Family Explorer

Publication number	Publication date	Application number	Application date	Links
AU2014312210 AA	20150305	AU20140312210	20140828	
AU2014312215 AA	20150305	AU20140312215	20140828	

21) Family number: 60178245 (WO15127407A1) Similar • Translate • Full-text • Status • Citations

Title: [EN] ANTI-**DLL3** **ANTIBODIES** AND DRUG CONJUGATES FOR USE IN MELANOMA
[FR] ANTICORPS ANTI-**DLL3** ET CONJUGUES DE MEDICAMENTS DESTINES A ETRE UTILISES DANS UN MELANOME

Abstract: Source: WO15127407A1 [EN] Anti-**DLL3** **antibodies** and **antibody** drug conjugates for use in the diagnosis and treatment of melanoma.

[FR] La presente invention concerne des anticorps Anti-**DLL3** et des conjugues anticorps-medicament destines a etre utilises dans le diagnostic et le traitement d'un melanome.

PatBase – WO15127407_R1

Binding Characteristics of Anti-DLL3 Antibodies

Clone	Bin	Domain	Affinity (nM)
SC16.4	F	EGF4	0.5[F]
SC16.8	A	EGF5	0.5[F]
SC16.10	E	EGF2	4.0[F]
SC16.13	B	EGF2	2.0[B]
SC16.15	G	N-terminal	0.5[B]
SC16.25	C	N-terminal	0.2[B]
SC16.34	D	DSL	0.2[B]
SC16.39	I	EGF6	1.0[F]
SC16.46	A	EGF1	0.5[F]
SC16.51	H	N-terminal	2.0[F]
SC16.56	D	DSL	1.0[B]
SC16.65	B	EGF2	0.9[B]
SC16.67	D	EGF3	0.5[F]

[B] Biacore; [F] ForteBio

FIG. 5

Classifications: Classification Explorer
International (IPC 8-9): A61K39/395 A61K47/48 G01N33/574 (Advanced/Invention)
CPC: A61K39/395 G01N33/5743 G01N2800/52 A61K47/48438 A61K47/48561 A61K47/48623

Family: Family Explorer

Publication number	Publication date	Application number	Application date	Links
WO15127407 A1	20150827	WO2015US17171	20150223	

Priority: Priority Map
US20140942796P 20140221
Probable Assignee: STEMCENTRX INC

3) Family number: 45887051 (US2011256157A) Similar • Translate • Full-text • Status • Citations

Title: [EN] **PYRROLOBENZODIAZEPINES** AND **CONJUGATES** THEREOF

Abstract: Source: US2011256157A [EN] **Conjugates** and compounds for making **conjugates** which are PBD molecules linked via the N10 position are disclosed, along with the use of the **conjugates** for treating proliferative diseases, including cancer.

PatBase – US2011256157_AA

Patent Application Publication Oct. 20, 2011 Sheet 1 of 4 US 2011/0256157 A1

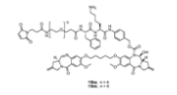

Figure 1a

Figure 1b

Classifications: Classification Explorer
International (IPC 8-9): A61K31/551 A61K31/5517 A61K38/05 A61K39/395 A61K47/42 A61K47/48 A61P35/00 B65D85/84 C07D C07D487/02 C07D487/04 C07D519/00 C07K16/00 C07K16/18 C07K16/28 C07K16/30 C07K17/02 C07K5/062 C07K5/065 (Advanced/Invention);
A61P35/00 (Advanced/Non-invention);
A61K47/00 A61K47/48 A61P35/00 C07D487/00 C07D487/04 (Core/Invention);
A61K31/5517 A61P35/00 C07D487/04 (Core/Non-invention);
A61K A61P C07D (Subclass/Invention)
CPC: A61K47/48638 A61K47/48561 A61K47/48584 C07D487/04 C07D519/00
European: A61K47/48T4B28 A61K47/48T4B30B A61K47/48T4B30P C07D487/04 C07D519/00
US: 206/524.1 206/524.100S 424/178.1 424/181.1 424/181.100P 530/391.7 530/391.9 530/391.900S 540/496 540/496S 540/561

Family: Family Explorer

Publication number	Publication date	Application number	Application date	Links
AU2011239507 AA	20111020	AU20110239507	20110415	
AU2011239507 BB	20150409	AU20110239507	20110415	