

INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2017/014139

A. CLASSIFICATION OF SUBJECT MATTER

C07K 14/47(2006.01)i, C07K 16/18(2006.01)i, C07K 16/28(2006.01)i, A61K 47/68(2017.01)i

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)

C07K 14/47; A61K 39/395; C07H 21/04; C07K 19/00; C07K 16/00; C12N 15/09; C07K 16/46; A61K 38/26; C07K 14/505; A61K 47/48; C07K 16/18; C07K 16/28; A61K 47/68

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

Korean Utility models and applications for Utility models: IPC as above
Japanese Utility models and applications for Utility models: IPC as above

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS (KIPO internal) & Keywords: immunoglobulin Fc fragment, physiologically active polypeptide, immunity, linker, Fc gamma receptor, complement, coherence

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KR 10-2015-0140177 A (HANMI PHARM. CO., LTD.) 15 December 2015 See abstract; claims 1-13; paragraphs [0009], [0049], [0051], [0059]-[0065], [0077]-[0080] and [0116].	1-29
X	KR 10-2005-0047032 A (HANMI PHARM. CO., LTD.) 19 May 2005 See abstract; claims 1-45; pages 3-5.	1-29
A	KR 10-2015-0008012 A (HANMI PHARM. CO., LTD.) 21 January 2015 See claims 1-16; paragraphs [0058] and [0064]-[0069].	1-29
A	US 2005-0202538 A1 (GILLIES, S. D. et al.) 15 September 2005 See abstract; claims 1-12.	1-29
A	US 2013-0224198 A1 (WANG, H. et al.) 29 August 2013 See claims 1-16.	1-29

 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

"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

"E" earlier application or patent but published on or after the international filing date

"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

"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)

"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

"O" document referring to an oral disclosure, use, exhibition or other means

"&" document member of the same patent family

"P" document published prior to the international filing date but later than the priority date claimed


Date of the actual completion of the international search

Date of mailing of the international search report

20 MARCH 2018 (20.03.2018)

20 MARCH 2018 (20.03.2018)

Name and mailing address of the ISA/KR


 Korean Intellectual Property Office
 Government Complex-Daejeon, 189 Seonsa-ro, Daejeon 302-701,
 Republic of Korea

Facsimile No. +82-42-481-8578

Authorized officer

Telephone No.

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2017/014139

Patent document cited in search report	Publication date	Patent family member	Publication date		
KR 10-2015-0140177 A	15/12/2015	AR 100768 A1	02/11/2016		
		AU 2015-269039 A1	08/12/2016		
		CA 2950576 A1	10/12/2015		
		CN 106661118 A	10/05/2017		
		EA 201692279 A1	31/05/2017		
		EP 3152236 A1	12/04/2017		
		HU 1700024 A2	29/05/2017		
		JP 2017-521381 A	03/08/2017		
		MX 2016015668 A	27/02/2017		
		NO 20161980 A1	14/12/2016		
		PH 12016502430 A1	06/03/2017		
		SG 11201610098 A	29/12/2016		
		TW 201625314 A	16/07/2016		
		US 2017-0100488 A1	13/04/2017		
		WO 2015-186988 A1	10/12/2015		
		KR 10-2005-0047032 A	19/05/2005	AR 069458 A1	20/01/2010
				AT 522548 T	15/09/2011
AT 540980 T	15/01/2012				
AT 555133 T	15/05/2012				
AU 2004-282984 A1	14/07/2005				
AU 2004-282984 B2	14/07/2011				
AU 2004-282985 A1	30/06/2005				
AU 2008-330315 A1	04/06/2009				
AU 2008-330315 B2	21/06/2012				
BR P10406605 A	06/12/2005				
BR P10406606 A	06/12/2005				
BR P10819864 A2	23/05/2017				
CA 2512657 A1	26/05/2005				
CA 2512657 C	07/01/2014				
CA 2512933 A1	26/05/2005				
CA 2512933 C	06/12/2011				
CA 2706627 A1	04/06/2009				
CA 2706627 C	18/11/2014				
CN 101878036 A	03/11/2010				
CN 101878036 B	14/05/2014				
CN 103212084 A	24/07/2013				
CN 1723219 A	18/01/2006				
CN 1723219 B	26/05/2010				
CN 1723220 A	18/01/2006				
DK 1682583 T3	07/05/2012				
DK 2227243 T3	06/10/2014				
DK 2239273 T3	09/12/2013				
DK 2256134 T3	24/02/2014				
EP 1682581 A1	26/07/2006				
EP 1682581 B1	25/04/2012				
EP 1682582 A1	26/07/2006				
EP 1682582 B1	31/08/2011				
EP 1682583 A1	26/07/2006				

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2017/014139

Patent document cited in search report	Publication date	Patent family member	Publication date
		EP 1682583 B1	11/01/2012
		EP 1682584 A1	26/07/2006
		EP 1682584 B1	17/04/2013
		EP 2227243 A2	15/09/2010
		EP 2227243 B1	13/08/2014
		EP 2239273 A1	13/10/2010
		EP 2239273 B1	09/10/2013
		EP 2256134 A1	01/12/2010
		EP 2256134 B1	08/01/2014
		ES 2372495 T3	20/01/2012
		ES 2378167 T3	09/04/2012
		ES 2383300 T3	20/06/2012
		ES 2426169 T3	21/10/2013
		ES 2438098 T3	15/01/2014
		ES 2454666 T3	11/04/2014
		ES 2521497 T3	12/11/2014
		HK 1149570 A1	21/03/2014
		HK 1150029 A1	19/12/2014
		HK 1150612 A1	11/07/2014
		IL 205667 A	30/11/2010
		IL 205667 B	30/11/2016
		JP 2007-531513 A	08/11/2007
		JP 2007-532098 A	15/11/2007
		JP 2007-536211 A	13/12/2007
		JP 2007-537992 A	27/12/2007
		JP 2011-256211 A	22/12/2011
		JP 2011-505355 A	24/02/2011
		JP 2012-001560 A	05/01/2012
		JP 2012-224635 A	15/11/2012
		JP 4762904 B2	31/08/2011
		JP 4870569 B2	08/02/2012
		JP 5216216 B2	19/06/2013
		JP 5226080 B2	03/07/2013
		JP 5425150 B2	26/02/2014
		KR 10-0725314 B1	07/06/2007
		KR 10-0775343 B1	08/11/2007
		KR 10-1135244 B1	24/04/2012
		KR 10-2005-0047030 A	19/05/2005
		KR 10-2005-0047031 A	19/05/2005
		KR 10-2005-0047033 A	19/05/2005
		KR 10-2006-0054252 A	22/05/2006
		KR 10-2008-0098216 A	07/11/2008
		KR 10-2009-0056796 A	03/06/2009
		MX 2010005866 A	23/06/2010
		MX PA05007210 A	10/02/2006
		MX PA05007211 A	10/02/2006
		MY 155454 A	15/10/2015
		NZ 585314 A	26/10/2012
		RU 2005120239 A	20/04/2006
		RU 2005120240 A	20/04/2006

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2017/014139

Patent document cited in search report	Publication date	Patent family member	Publication date
		RU 2010126478 A	10/01/2012
		RU 2446816 C2	10/04/2012
		TW 200936154 A	01/09/2009
		TW 1403331 B	01/08/2013
		US 2006-0269553 A1	30/11/2006
		US 2006-0275254 A1	07/12/2006
		US 2006-0276633 A1	07/12/2006
		US 2007-0041967 A1	22/02/2007
		US 2008-0085862 A1	10/04/2008
		US 2008-0124347 A1	29/05/2008
		US 2009-0238838 A1	24/09/2009
		US 2010-0255014 A1	07/10/2010
		US 2010-0261248 A1	14/10/2010
		US 2010-0330108 A1	30/12/2010
		US 2011-0245472 A1	06/10/2011
		US 2013-0288333 A1	31/10/2013
		US 2015-0025227 A1	22/01/2015
		US 2015-0025228 A1	22/01/2015
		US 7736653 B2	15/06/2010
		US 7737260 B2	15/06/2010
		US 8029789 B2	04/10/2011
		US 8110665 B2	07/02/2012
		US 8263084 B2	11/09/2012
		US 8822650 B2	02/09/2014
		US 8846874 B2	30/09/2014
		US 9750820 B2	05/09/2017
		WO 2005-047334 A1	26/05/2005
		WO 2005-047335 A1	26/05/2005
		WO 2005-047336 A1	26/05/2005
		WO 2005-047337 A1	26/05/2005
		WO 2008-136611 A1	13/11/2008
		WO 2009-069983 A2	04/06/2009
		WO 2009-069983 A3	20/08/2009
KR 10-2015-0008012 A	21/01/2015	AR 094904 A1	09/09/2015
		AR 096891 A1	03/02/2016
		AU 2014-221531 A1	27/08/2015
		AU 2014-221534 A1	20/08/2015
		AU 2014-287880 A1	11/02/2016
		CA 2899418 A1	04/09/2014
		CA 2901873 A1	04/09/2014
		CA 2918023 A1	15/01/2015
		CL 2015002330 A1	28/12/2015
		CN 104995206 A	21/10/2015
		CN 105229025 A	06/01/2016
		CN 105517578 A	20/04/2016
		EA 201690116 A1	29/07/2016
		EP 2963055 A1	06/01/2016
		EP 2963056 A1	06/01/2016
		EP 3020418 A1	18/05/2016

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2017/014139

Patent document cited in search report	Publication date	Patent family member	Publication date
		HK 1211944 A1	03/06/2016
		HK 1217202 A1	30/12/2016
		HK 1223017 A1	21/07/2017
		HU 1600209 A2	30/05/2016
		IL 240714 A	29/10/2015
		IL 240717 A	29/10/2015
		JP 2016-510003 A	04/04/2016
		JP 2016-510004 A	04/04/2016
		JP 2016-529227 A	23/09/2016
		KR 10-2014-0106452 A	03/09/2014
		MX 2015009799 A	29/10/2015
		MX 2015010471 A	25/04/2016
		MX 2016000343 A	05/05/2016
		NO 20160175 A	03/02/2016
		PE 14092015 A1	07/10/2015
		PH 12015501814 A1	07/12/2015
		PH 12015501815 A1	07/12/2015
		PH 12016500075 A1	18/04/2016
		RU 2015133462 A	31/03/2017
		RU 2015138536 A	03/04/2017
		SG 11201505615 A	29/09/2015
		SG 11201506095 A	29/09/2015
		TW 201513884 A	16/04/2015
		TW 201520224 A	01/06/2015
		US 2016-0000931 A1	07/01/2016
		US 2016-0008483 A1	14/01/2016
		US 2016-0158378 A1	09/06/2016
		WO 2014-133324 A1	04/09/2014
		WO 2014-133327 A1	04/09/2014
		WO 2015-005748 A1	15/01/2015
US 2005-0202538 A1	15/09/2005	AU 2004-309063 A1	14/07/2005
		AU 2004-309063 B2	28/10/2010
		BR P10417916 A	10/04/2007
		CA 2391080 A1	25/05/2001
		CA 2551916 A1	14/07/2005
		CA 2551916 C	29/04/2014
		CN 1902222 A	24/01/2007
		DK 1699821 T3	16/07/2012
		EP 1228214 A2	07/08/2002
		EP 1699821 A1	13/09/2006
		EP 1699821 B1	20/06/2012
		ES 2387028 T3	12/09/2012
		JP 2003-514552 A	22/04/2003
		JP 2008-504008 A	14/02/2008
		JP 2012-107042 A	07/06/2012
		KR 10-2006-0124656 A	05/12/2006
		RU 2006127554 A	10/02/2008
		US 2005-0192211 A1	01/09/2005
		US 2009-0092607 A1	09/04/2009

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2017/014139

Patent document cited in search report	Publication date	Patent family member	Publication date
		US 7211253 B1	01/05/2007
		US 7465447 B2	16/12/2008
		WO 01-36489 A2	25/05/2001
		WO 01-36489 A3	08/11/2001
		WO 2005-063808 A1	14/07/2005
US 2013-0224198 A1	29/08/2013	AU 2007-209722 A1	02/08/2007
		AU 2007-209722 B2	26/07/2012
		BR P10706742 A2	05/04/2011
		CA 2650072 A1	02/08/2007
		CA 2650072 C	24/11/2015
		CN 101321870 A	10/12/2008
		CN 101321870 B	04/07/2012
		CN 102516399 A	27/06/2012
		CN 102516399 B	22/03/2017
		CN 102816242 A	12/12/2012
		CN 102816242 B	20/10/2017
		DK 1994157 T3	22/06/2015
		DK 2450373 T3	22/06/2015
		EP 1994157 A1	26/11/2008
		EP 1994157 B1	18/03/2015
		EP 2450373 A2	09/05/2012
		EP 2450373 A3	26/09/2012
		EP 2450373 B1	18/03/2015
		ES 2539759 T3	03/07/2015
		ES 2539778 T3	06/07/2015
		HK 1125673 A1	23/11/2012
		HK 1170507 A1	21/08/2015
		IL 192801 A	11/02/2009
		IL 192801 B	31/05/2016
		JP 2009-524415 A	02/07/2009
		JP 2013-066477 A	18/04/2013
		JP 2016-006116 A	14/01/2016
		JP 5222153 B2	26/06/2013
		JP 6103579 B2	29/03/2017
		KR 10-1235124 B1	07/03/2013
		KR 10-2008-0109739 A	17/12/2008
		KR 10-2012-0014936 A	20/02/2012
		MX 2008009322 A	17/10/2008
		NZ 569702 A	30/03/2012
		RU 2008134389 A	10/03/2010
		SG 10201404308 A	30/10/2014
		SG 169351 A1	30/03/2011
		TW 200904829 A	01/02/2009
		TW 1454482 B	01/10/2014
		US 2007-0178112 A1	02/08/2007
		US 2009-0297522 A1	03/12/2009
		US 2010-0098716 A1	22/04/2010
		US 2010-0099145 A1	22/04/2010
		US 2017-0114110 A1	27/04/2017

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/KR2017/014139

Patent document cited in search report	Publication date	Patent family member	Publication date
		US 7625564 B2	01/12/2009
		US 7964375 B2	21/06/2011
		US 8431132 B2	30/04/2013
		US 9375487 B2	28/06/2016
		WO 2007-085084 A1	02/08/2007
		ZA 200805920 A	26/08/2009