

**INTERNATIONAL SEARCH REPORT**

International application No.  
**PCT/KR2017/008788**

**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.: 24  
because they relate to subject matter not required to be searched by this Authority, namely:  
Claim 24 pertains to a method for treatment of the human body by therapy, and thus pertains to subject matter on which the International Searching Authority is not required to carry out an international search under the provisions of PCT Article 17 (2)(a)(i) and PCT Rule 39.1(iv).
- 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:

- 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 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.:
- 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.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2017/008788

## A. CLASSIFICATION OF SUBJECT MATTER

C12Q 1/68(2006.01)i, G01N 33/574(2006.01)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)

C12Q 1/68; A61K 31/404; A61K 31/517; G01N 33/574

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) &amp; Keywords: p53-independent MDM2 modulating gene, p53-non mutational cancer, acute myeloid leukemia, treatment, screening

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	KIM, Dong Min et al., "Genome-scale Functional Analysis of the Human Genes Modulating p53 Activity by Regulating MDM2 Expression in a p53-independent Manner", Biochemical and Biophysical Research Communications, 2016, vol. 478, pages 976-981 See abstract; and pages 977-978.	1-23,25-26
A	ZHAO, Yuhan et al., "The Regulation of MDM2 Oncogene and Its Impact on Human Cancers", Acta Biochim Biophys Sin, 2014, vol. 46, no. 3, pages 180-189 See pages 180, 186.	1-23,25-26
A	BOUSKA, Alyssa et al., "Mdm2 Promotes Genetic Instability and Transformation Independent of p53", Molecular and Cellular Biology, August 2008, vol. 28, no. 15, pages 4862-4874 See pages 4862, 4871-4872.	1-23,25-26
A	US 2014-0336202 A1 (DUKE UNIVERSITY) 13 November 2014 See abstract; paragraphs [0026], [0038], [0063]; and claim 1.	1-23,25-26
A	US 2004-0170971 A1 (KINZLER, Kenneth W. et al.) 02 September 2004 See claims 1-8, 24-27.	1-23,25-26



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 application or patent 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

"&amp;" document member of the same patent family

Date of the actual completion of the international search

08 MAY 2018 (08.05.2018)

Date of mailing of the international search report

08 MAY 2018 (08.05.2018)

Name and mailing address of the ISA/KR



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**INTERNATIONAL SEARCH REPORT**  
Information on patent family members

International application No.

**PCT/KR2017/008788**

Patent document cited in search report	Publication date	Patent family member	Publication date
US 2014-0336202 A1	13/11/2014	CA 2858565 A1	04/07/2013
		EP 2788004 A1	15/10/2014
		EP 2788004 A4	30/12/2015
		WO 2013-101436 A1	04/07/2013
US 2004-0170971 A1	02/09/2004	AT 159985 T	15/11/1997
		AU 4278893 A	08/11/1993
		AU 681851 B2	11/09/1997
		CA 2133306 A1	14/10/1993
		CA 2133306 C	02/10/2012
		DE 69315068 T2	09/04/1998
		DK 0635068 T3	20/04/1998
		DK 0635068 T4	20/07/2009
		EP 0635068 A1	25/01/1995
		EP 0635068 B1	05/11/1997
		EP 0635068 B2	22/04/2009
		ES 2110608 T3	16/02/1998
		ES 2110608 T5	25/08/2009
		GR 3025961 T3	30/04/1998
		JP 07-505294 A	15/06/1995
		JP 4381476 B2	09/12/2009
		US 2008-0305490 A1	11/12/2008
		US 5411860 A	02/05/1995
		US 5420263 A	30/05/1995
		US 5519118 A	21/05/1996
		US 5550023 A	27/08/1996
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WO 93-20238 A3	11/11/1993		