

INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP2017/021041

A. CLASSIFICATION OF SUBJECT MATTER

A61K31/353(2006.01)i, A61K31/198(2006.01)i, A61P1/16(2006.01)i, A61P3/02(2006.01)i, A61P25/00(2006.01)i, A61P43/00(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)

A61K31/353, A61K31/198, A61P1/16, A61P3/02, A61P25/00, A61P43/00

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

Jitsuyo Shinan Koho	1922-1996	Jitsuyo Shinan Toroku Koho	1996-2017
Kokai Jitsuyo Shinan Koho	1971-2017	Toroku Jitsuyo Shinan Koho	1994-2017

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

CAPLUS/REGISTRY/MEDLINE/EMBASE/BIOSIS (STN), JSTPlus/JMEDPlus/JST7580 (JDreamIII), Science Direct, PubMed, Ichushi WEB

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	LI, Changhong et al., Green tea polyphenols control dysregulated glutamate dehydrogenase in transgenic mice by hijacking the ADP activation site, Journal of Biological Chemistry, 2011.09.30, Vol.286, No.39, ISSN:1083-351X, pp.34164-34174, Abstract, page 34164, right column, the last paragraph to page 34165, left column, 1st paragraph, page 34170, left column, 1st paragraph	1, 2, 10, 11, 19-21, 29, 30
Y		5, 9, 14, 18, 24, 27, 28, 33, 36, 37
X	JP 2013-505292 A (Pharmaking Co., Ltd.), 14 February 2013 (14.02.2013), paragraphs [0003] to [0005] & WO 2011/037411 A2 paragraphs [5] to [7] & US 2012/0196936 A1 & EP 2480226 A2	3, 12, 19, 22, 31

 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

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"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

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"&" document member of the same patent family

Date of the actual completion of the international search
06 July 2017 (06.07.17)Date of mailing of the international search report
18 July 2017 (18.07.17)Name and mailing address of the ISA/
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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	JP 2007-191426 A (Ito En, Ltd.), 02 August 2007 (02.08.2007),	4, 13, 19, 23, 32
Y	claims 1 to 6; paragraph [0012] & WO 2007/083821 A1	6-9, 15-18, 25-28, 34-37
X	JP 2008-31148 A (Kao Corp.), 14 February 2008 (14.02.2008),	4, 13, 19, 23, 32
Y	claims 1 to 9; paragraph [0003] & EP 2036551 A1 claims 1 to 9; paragraph [0006] & US 2009/0197944 A1 & WO 2008/004333 A1	6-9, 15-18, 25-28, 34-37
X	JP 2013-526487 A (Dalhousie University), 24 June 2013 (24.06.2013),	4, 13, 19, 23, 32
Y	claims 1, 7; paragraphs [0024], [0050] & WO 2011/140655 A1 claims 1, 7; paragraphs [0024], [0068] & US 2013/0065843 A1 & EP 2579886 A1	6-9, 15-18, 25-28, 34-37
X	JP 2016-160216 A (Kao Corp.), 05 September 2016 (05.09.2016),	4, 13, 19, 23, 32
Y	claims 7 to 15; paragraph [0011] (Family: none)	6-9, 15-18, 25-28, 34-37
X	SINGAL, Anjali et al., Green tea extract and catechin ameliorate chronic fatigue-induced	4, 13, 19, 23, 32
Y	oxidative stress in mice, Journal of Medicinal Food, 2005, Vol.8, No.1, ISSN:1096-620X, pp.47- 52, Abstract	6-9, 15-18, 25-28, 34-37
X	SACHDEVA, Anand Kamal, et al., Protective effect of epigallocatechin gallate in murine	4, 13, 19, 23, 32
Y	water-immersion stress model of chronic fatigue syndrome, Basic and Clinical Pharmacology and Toxicology, 2010, Vol.106, No.6, ISSN:1742-7835, pp.490-496, Abstract	6-9, 15-18, 25-28, 34-37
X	SACHDEVA, Anand Kamal et al., Epigallocatechin gallate ameliorates behavioral and biochemical	4, 13, 19, 23, 32
Y	deficits in rat model of load-induced chronic fatigue syndrome, Brain Research Bulletin, 2011.07.28, Vol.86, Nos.3-4, ISSN:0361-9230, pp.165-172, Abstract	6-9, 15-18, 25-28, 34-37
X	Masaaki TANAKA, "Hiro to Kinosei Shokuhin 5. Hiro Dobutsu Model ni yoru Shokuhin Kino Seibun	4, 13, 19, 23, 32
Y	no Hyoka", Functional Food, 2010, vol.3, no.4, ISSN:1882-3971, pages 324 to 329, abstract, 1. Hiro Dobustu Model, 3. Catechin	6-9, 15-18, 25-28, 34-37

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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.
Y	WO 2009/048148 A1 (Kyowa Hakko Bio Co., Ltd.), 16 April 2009 (16.04.2009), claims; paragraphs [0037], [0038] & EP 2210600 A1 claims; paragraphs [0037], [0038] & JP 2014-193919 A & US 2010/0292332 A1	5-9, 14-18, 24-28, 33-37