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(71) Applicants: **KT & G CORPORATION** [KR/KR]; 71, Beotkkot-gil, Daedeok-gu, Daejeon 34337 (KR). **KOREA GINSENG CORP.** [KR/KR]; 71, Beotkkot-gil, Daedeok-gu, Daejeon 34337 (KR).

(72) Inventors: **SHIN, Han-Jae**; 30, Gajeong-ro, Yuseong-gu, Daejeon 34128 (KR). **KIM, Hyo Keun**; 30, Gajeong-ro, Yuseong-gu, Daejeon 34128 (KR). **LEE, Moon-Yong**; 30,

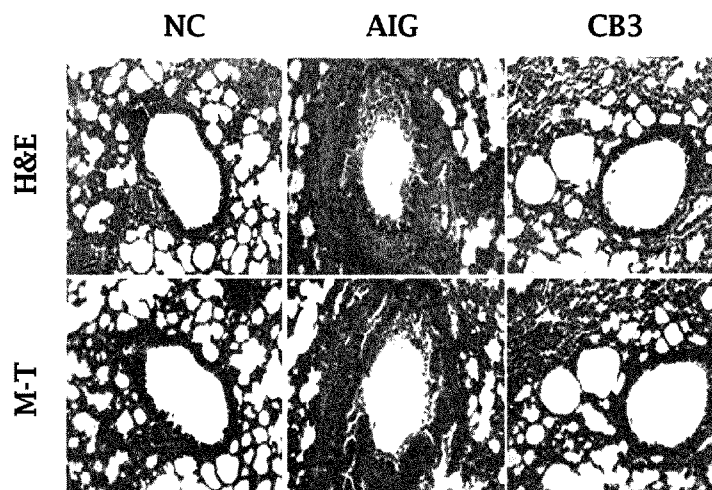
Gajeong-ro, Yuseong-gu, Daejeon 34128 (KR). **GWAK, Hyo-Min**; 30, Gajeong-ro, Yuseong-gu, Daejeon 34128 (KR). **MIN, Hye-Jeong**; 30, Gajeong-ro, Yuseong-gu, Daejeon 34128 (KR). **KIM, Young-sin**; 30, Gajeong-ro, Yuseong-gu, Daejeon 34128 (KR). **HAN, Chang Kyun**; 30, Gajeong-ro, Yuseong-gu, Daejeon 34128 (KR). **KYUNG, Jongsu**; 30, Gajeong-ro, Yuseong-gu, Daejeon 34128 (KR). **IN, Gyo**; 30, Gajeong-ro, Yuseong-gu, Daejeon 34128 (KR). **KIM, Jong Han**; 30, Gajeong-ro, Yuseong-gu, Daejeon 34128 (KR). **KIM, Sung Won**; 30, Gajeong-ro, Yuseong-gu, Daejeon 34128 (KR). **JANG, Kyoung Hwa**; 30, Gajeong-ro, Yuseong-gu, Daejeon 34128 (KR). **KIM, Seung-Hyung**; 104-1103, Malgeun Achim APT., 262, Galma-ro, Seo-gu, Daejeon 35314 (KR).

(74) Agent: **SHIN, Dong In**; #503, V-Charmant Bldg., 28, Hyoryeong-ro 55 gil, Seocho-gu, Seoul 06654 (KR).

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(54) Title: A COMPOSITION COMPRISING A COMBINED HERB EXTRACT OF SALVIA PLEBIA AND RED GINSENG AS ACTIVE INGREDIENTS FOR PREVENTING OR TREATING A RESPIRATORY INFLAMMATION AND THE USE THEREOF

[Fig. 1]



(57) Abstract: The present invention relates to a composition and health functional food for preventing and treating a respiratory inflammation disease using a mixed herbal mixture. Through various experiments, for example, determination of the cell number of BAL (bronchoalveolar lavage) (Experimental Example 1); Determination of CD11b+/Gr-1+ ratio in leukocyte within BAL fluid (Experimental Example 2); Determination of expressed RNA level of inflammatory cytokines in lung tissue (Experimental Example 3); Determination of expressed RNA level of inflammatory cytokines in BALF (Experimental Example 4); Lung histology (Experimental Example 5); Brief Clinical test (Experimental Example 7) etc, it has been verified that the inventive combined extract showed more potent inhibiting effect on respiratory inflammation disease than each herb extract. Therefore, the herbal extract of the present invention can be usefully used in a pharmaceutical composition, health functional food, and health supplement food for preventing and treating respiratory inflammation disease.



HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

**(84) Designated States** (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

**Published:**

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**(88) Date of publication of the international search report:**

20 December 2018 (20.12.2018)

**A. CLASSIFICATION OF SUBJECT MATTER**

A61K 36/537(2006.01)i, A61K 36/258(2006.01)i, A23L 33/105(2016.01)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)  
A61K 36/537; A23L 1/30; A61K 36/258; A61P 29/00; A23L 33/105Documentation 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  
Japanese utility models and applications for utility modelsElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
eKOMPASS(KIPO internal) & Keywords: Salvia plebeia R. Br., red ginseng, herb extract, respiratory inflammation disease, rhinitis, asthma**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KR 10-2016-0146007 A (KT & G CORPORATION et al.) 21 December 2016 See paragraph [0063]; and claims 1-8.	1-11, 13
Y	KR 10-2012-0129474 A (KEUMSANKUN) 28 November 2012 See paragraph [0058]; and claims 1-9.	1-11, 13
Y	JANG, H.-H. et al., "Anti-inflammatory effects of Salvia plebeia R. Br extract in vitro and in ovalbumin-induced mouse model", Biological Research, 2016, Article No. 49:41, pages 1-11 See abstract and page 8.	1-11, 13
Y	LIM, C.-Y. et al., "Comparative study of Korean white ginseng and Korean red ginseng on efficacies of OVA-induced asthma model in mice", Journal of Ginseng Research, 2015, Vol. 39, No. 1, pages 38-45 See abstract and pages 39, 43.	1-11, 13
Y	JUNG, J. H. et al., "The effect of Korean red ginseng on allergic inflammation in a murine model of allergic rhinitis", Journal of Ginseng Research, 2013, Vol. 37, No. 2, pages 167-175 See abstract and pages 172-174.	1-11, 13

 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

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**14 November 2018 (14.11.2018)**

Name and mailing address of the ISA/KR

International Application Division  
Korean Intellectual Property Office  
189 Cheongsa-ro, Seo-gu, Daejeon, 35208, Republic of Korea

Facsimile No. +82-42-481-8578

Authorized officer

LEE, Ki Cheul

Telephone No. +82-42-481-3353



**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.: 12  
because they relate to subject matter not required to be searched by this Authority, namely:  
Claim 12 pertains to a method for treatment of the human body by therapy and thus relates to a subject matter which this International Searching Authority is not required, under PCT Article 17(2)(a)(i) and PCT Rule 39.1(iv), to search.
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 an additional fees, this Authority did not invite payment of any 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**

Information on patent family members

International application No.

**PCT/KR2018/005361**

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
KR 10-2016-0146007 A	21/12/2016	KR 10-1794567 B1	07/11/2017
KR 10-2012-0129474 A	28/11/2012	None	