

together with four known ones (4, 5, 6, 7) were isolated from the methanolysis products of the total saponin mixture, and their structures were elucidated by spectral evidences as follows: 1, 3 β , 15 α , 16 α , 28-tetrahydroxy-olean-12-ene, 2, 22-O-tigloyl-A1-barrigenol, 3, 28-O-tigloyl-A1-barrigenol, 4, primulagenin A, 5, camelliagenin A, 6, A1-barrigenol, 7, 16-O-tigloyl camelliagenin A.

[PD2-3] [04/20/2001 (Fri) 13:30 - 14:30 / Hall 4]

Constituents from the roots of *Sophora flavescens*

Kim JS^o, Han SJ, Byun JH, Xu YN, Yoo SW, Kang SS, Son KH^a, Chang HW^b, Kim HP^c

Natural Products Research Institute, Seoul National University,^aDepartment of Food and Nutrition, Andong National University,^bCollege of Pharmacy, Yeongnam University,^cCollege of Pharmacy, Kangwon National University

Lupenone, hexadecyl ferulate, (-)-sophocarpine and three isoflavonoids such as genistein, calycosin and 3-methoxydaidzein were isolated from the roots of *Sophora flavescens*.

[PD2-4] [04/20/2001 (Fri) 13:30 - 14:30 / Hall 4]

Isolation and Quantitative Determination of Matrine from *Sophorae Radix*

Kim JS^o, Kang SS, Han SJ, Lee KS¹, Chang SY², Won DH²

Natural Products Research Institute, Seoul National University, ¹Dept. of Pharmacy, Chung Buk National University, ²Natural Medicines Standardization Division, Korea Food and Drug Administration

HPLC method was applied to the quantitative analysis of lupine alkaloid, matrine from alkaloid fraction of *Sophorae Radix* (*Sophora flavescens*). The average content of matrine from 20 *Sophorae Radices* showed 0.13 \pm 0.06%.

[PD2-5] [04/20/2001 (Fri) 13:30 - 14:30 / Hall 4]

Effect of the Essential Oil components from *Magnolia sieboldii* on NO and PGE₂ production in murine macrophages

Lim SS^{1o}, Ban HS², Kim YP², Choi YJ¹, Lee YS¹, Cho SH³, Shin KH¹, Ohuchi K²

¹Natural Products Research Institute Seoul National University ²Laboratory of Pathophysiological Biochemistry, Graduate School of Pharmaceutical Sciences, Tohoku University, Japan ³Kong Ju University of Education

The essential oil components of the flowers of *Magnolia sieboldii* was analyzed qualitatively and quantitatively by gas chromatography(GC) and gas chromatography/mass spectrometric (GC/MS) analysis. As a result, sixty compounds were identified, of which β -myrcene(12.72 %), α -terpinene (14.83 %) and β -elemene (18.0 %) were revealed to be the major constituents. The whole essential oil and its major components were tested for their effects on nitric oxide (NO) and prostaglandin E₂ (PGE₂) production in rat peritoneal macrophages induced by lipopolysaccharide

(LPS). It was shown that the whole essential oil inhibited the PGE₂ production in concentration dependent manner and these effects on NO and PGE₂ production shown by the essential oil can be attributed to one of the major components, α -terpinene.

[PD2-6] [04/20/2001 (Fri) 13:30 – 14:30 / Hall 4]

Establishment of an ELISA for the Determination of IH-901 Using the Antibody against Ginsenoside Re-Bovine Serum Albumin conjugate

Cho SH¹, Jung DW^{1,○}, Sung JH², Sung CK¹

¹Lab. of Pharmacognosy, College of Pharmacy, Chonnam National University, Kwangju 500-757 and

²Central Research Institute, Il-hwa Pharmaceutical Co., Kuri 471-711, Korea

A specific enzyme-linked immunosorbent assay (ELISA) for the determination of IH-901, a major and active metabolite of ginsenoside Rb₁, was explored.

Recently, we reported that the production of IH-901-specific antibody (Ab) from rabbits immunized with ginsenoside Re (G-Re)-bovine serum albumin conjugate. Using the polyclonal Ab, a competitive indirect ELISA was established. Four criteria were set to optimize the ELISA procedures: 1) Coating antigen concentration; 2) Primary Ab dilution; 3) Dilution of peroxidase-labeled secondary Ab; 4) Durations of primary and secondary Ab incubation time.

The measuring range of the assay extended from 0.5 ng/well to 250 ng/well. The Abs cross-reacted with some protopanaxatriol-type ginsenosides, such as G-F₁, G-Re, and G-Rg₁. However, they exhibited minor cross-reactivities with G-Rb₁ (0.3%), protopanaxadiol (0.04%) and other ginsenosides tested (G-Rh₁: 1.5%; G-Rh₂: 0.1%). The ELISA method can be a very useful tool for the pharmacokinetic study of IH-901 because of its high sensitivity and specificity.

[PD2-7] [04/20/2001 (Fri) 13:30 – 14:30 / Hall 4]

Isolation of soya-cerebroside I from the roots of *Trichosanthes kirilowii*

Kim JS, Byun JH[○], Kang SS

Natural Products Research Institute, Seoul National University, Seoul 110-460

In addition to known cucurbitacines, a glucosphingosine type cerebroside and amino acids were isolated from the roots of *Trichosanthes kirilowii*. The structure of cerebroside was determined as soya-cerebroside I by means of spectroscopic methods. Fifteen amino acids were identified as aspartic acid, glutamic acid, serine, glycine, histidine, citrulline, threonine, alanine, proline, tyrosine, valine, isoleucine, leucine, phenylalanine and tryptophan, among which the major components such as citrulline, phenylalanine, leucine/isoleucine and valine were isolated.

[PD2-8] [04/20/2001 (Fri) 13:30 – 14:30 / Hall 4]

Additional antioxidative saponins from the fruits of *Ternstroemia japonica* Thunberg

Shin MH^{○*}, Jung JH, Nam KI, Cho YM, Suh JY, and Im KS