

## Phytochemical Survey of Herb Drugs(VI)\*

Lin Keun Woo\*\*, Choung Sang Suh\*\*\*, and Sang Hak To\*\*

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### 禹麟根·徐廷祥·都象學：國產生藥의 植物化學的 調查(VI)

國產生藥 75 種에 對하여 植物化學的 調查를 하고 그 中 알칼로이드의 存在를 thin layer chromatography 로 檢出한 結果를 報告한다.

As the projects of this institute, 280 species of plants which are currently used as herb drugs in Korea were screened on the presence of alkaloids, phenolic compounds, flavonoids, chalcones, lactones, glycosides, carbohydrates, terpenoids, steroids, proteins, polypeptides, saponins, and organic acids, and the most reliable presence of alkaloids detected by thin layer chromatography is added by screening of 75 species.

### EXPERIMENTAL AND RESULT

Plant material pharmacognostically identified was extracted with H<sub>2</sub>O, EtOH and Et<sub>2</sub>O at room temperature respectively.

The solvent was removed from the extracts using vacuum when necessary. 10 to 20 g. of each extract was dissolved in 10% HCl solution and extracted with Et<sub>2</sub>O. The H<sub>2</sub>O layer was made alkaline and extracted with CHCl<sub>3</sub>.

The CHCl<sub>3</sub> layer was evaporated and the residue was dissolved in dilute HCl solution to be subjected to alkaloid test by Meyer's reagent.

Thin layer chromatography (silica gel G., Merck's) was carried out on the fraction which responded to the alkaloid reaction.

TABLE I. ...The R<sub>f</sub> values detected. The ascending method was used with silica gel G.(Merck's) for thin layer chromatography at room temp. Solvent mixture: BHH, BuOH-H<sub>2</sub>O-AcOH(5:4:1); AB, 0.1% aqueous ammonia-BuOH(1:1); BH, BuOH-2% HCl(96:20). Detecting reagents: D, Dragendorff's reagent; P, 2% Plantinum chloride iodine solution; I, Iodine; N, Ninhydrin reagent; F, Fluorescence.

### REFERENCE

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\*\* Natural Products Research Institute, Seoul National University, Seoul, Korea

\*\*\* Department of Chemistry, Chon Puk University, Chon Joo, Korea.

TABLE I

Plant Name	Part Used	Extract	Rf		
			BHH	AB	BH
<i>Corydalis Maximowiczii</i> Nakai	Herba	H <sub>2</sub> O	0.2(FN)		
"	"	EtOH	0.24(FN) 0.32(ID) 0.64(FID)	0.96(FN) 0.16(FID) 0.56(FIDN) 0.96(FIDP)	0.36(FND) 0.21, 0.70(FIDP)
"	"	Et <sub>2</sub> O	0.53(F) 0.91(FID)	0.96(FIDP)	0.96(FI)
<i>Bursa Koreana</i> Nakai	Folium	H <sub>2</sub> O	0.91(F)	0.96(FIN)	0.21(FND) 0.35(FDPP) 0.96(FID)
"	"	EtOH	0.36(FIDN) 0.91(FID)	0.24(ID) 0.96(FIN)	
"	"	Et <sub>2</sub> O	0.91(FID)	0.72(F)	0.70(FI)
<i>Artemisia annua</i> L.	Folium	EtOH	0.91(FID)	0.83(FP) 0.96(FID)	0.35(FD) 0.7(FID) 0.91(F)
<i>Capsella Bursa-pastoris</i> Medicus	Root	EtOH	0.91(FI)	0.72(F)	0.35(FP) 0.84(F)
<i>Lycium chinense</i> Maxi	Folium	EtOH	0.27(FN)	0.21(F)	0.20, 0.7(F)
"	"	Et <sub>2</sub> O	0.72(FI)	0.72(FIN)	0.30(F) 0.72(FIN)
<i>Hylomecon verrale</i> Nakai	Herba	EtOH	0.21(FP) 0.91(F)	0.28 0.96(F)	0.35, 0.56, 0.91(F)
"	"	Et <sub>2</sub> O	0.25(FP) 0.50(FDIN) 0.9(FN)	0.38(I) 0.84(F)	
<i>Caulophyllum robustum</i> Maxi	Rhizoma	H <sub>2</sub> O	0.10(FIDN) 0.22(FIDN) 0.55(ID)	0.05(ID) 0.21(F)	0.2(FID)
"	"	EtOH		0.21(ID)	0.15(D)
<i>Magnolia parviflora</i> Sieb. & Zucc.	Flos	EtOH	0.05(FD) 0.689(FI)	0.52(FD) 0.62(F)	0.052(F) 0.05(FI)
<i>Lactuca Bungeana</i> Nakai	Herba	EtOH	0.70(FD)	0.18, 0.56(FID)	0.68(F)
<i>Digitalis purpurea</i> L.	Folium	EtOH	0.23(FI) 0.73(FIDN)	0.21(F) 0.71(FI)	
<i>Chenopodium album</i> L. var. <i>centrobaun</i> Makino	Folium	EtOH	0.23(F) 0.65(FID)	0.16(ID) 0.59(FI)	0.65(FI)
<i>Oenothera sensibilis</i> L.	Herba	EtOH	0.23(ID) 0.70(FID)	0.18(FD) 0.62(F)	0.75(FI)
<i>Erigeron annuus</i> Pers	Folium	EtOH	0.21(FI) 0.78(FID)	0.18(FD) 0.68(FID)	0.75(FID)
<i>Adenocaulon adhaerens</i> Maxi.	Herba	EtOH	0.25(FI)	0.05(F)	0.13, 0.75(F)
<i>Pyrola japonica</i> Klenze	Herba	EtOH	0.16(FD)	0.10(F)	0.25(F)