# การศึกษาทางพฤกษเคมีของเนียมหูเสือ

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#### PHYTOCHEMICAL STUDY OF Coleus amboinicus Lour.

Miss Ratiphan Laungsuwon.

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จากการสกัดแยกสารเคมีจากค้นเนียมหูเสือ (Coleus amboinicus Lour.) สามารถแยกสารใน กลุ่มโมโนเทอปืนไกลโคไซค์ ได้ 2 ชนิค คือ 1,4-dihydroxy-2-iso-propyl-5-methylphenyl-1-0-β-D-glucopyranoside (thymoquinol-β-D-glucopyranoside) กับ 1-hydroxy-5-iso-propyl-2-methylphenyl-1-0-β-D-glucopyranoside (carvacrol-β-D-glucopyranoside) และสาร 5-(hydroxymethyl)-2-furaldehyde การพิสูจน์เอกลักษณ์ของสารที่สกัดแยกได้ ทำโดยการวิเคราะห์ UV, IR, MS, 1-D และ 2-D NMR ร่วมกับการเปรียบเทียบกับข้อมูลที่ได้มีรายงานไว้แล้ว

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RATIPHAN LAUNGSUWON: PHYTOCHEMICAL STUDY OF COLEUS AMBOINICUS LOUR.

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Two monoterpene glycosides, 1,4-dihydroxy-2-iso-propyl-5-methylphenyl-1-0- $\beta$ -D-glucopyranoside (thymoquinol- $\beta$ -D-glucopyranoside) and 1-hydroxy-5-iso-propyl-2-methylphenyl-1-0- $\beta$ -D-glucopyranoside (carvacrol- $\beta$ -D-glucopyranoside), and 5-(hydroxymethyl) -2-furaldehyde were isolated from *Coleus amboinicus* Lour. Identification of the isolated compounds was accomplished by analysis of the UV, IR, MS, 1-D and 2-D NMR spectral data, as well as comparison with reported data.

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#### **ABBREVIATIONS**

Acetone- $d_6$  = deuterated acetone

°C = degree celsius

<sup>13</sup>C-NMR = Carbon-13 Nuclear Magnetic Resonance

 $CHCl_3$  = chloroform

cm = centimeter

COSY = Correlated Spectroscopy

 $\delta$  = chemical shift

1-D = one dimensional

2-D = two dimensional

d = doublet

dd = doublet of doublets

DEPT = Distortionless Enhancement by Polarization Transfer

 $\varepsilon$  = molar absorptivity

EIMS = Electron Impact Mass Spectra

eV = electron volt

g = gram

<sup>1</sup>H-NMR = Proton Nuclear Magnetic Resonance

HETCOR = Heteronuclear correlation spectroscopy

HMBC H-detected Heteronuclear Multiple Bond Coherence

HSQC = 'H-detected High Sensitive Quantum Coherence

Hz = hertz

IR = Infrared

J = coupling constant

KBr = Potassium Bromide

kg = kilogram

 $\lambda_{max}$  = wavelength at maximum absorption (nm)

m = multiplet

 $M^+$  = molecular ion

m/z = mass-to-charge ratio

MeOH = methanol

MHz = megahertz

mg = milligram

ml = milliliter

MS = Mass Spectrum

 $v_{max}$  = wavenumber at maximum absorption

nm = nano meter

NMR = Nuclear Magnetic Resonance

NOESY = Nuclear Overhauser Effect Correlated Spectroscopy

ppm = part per million

q = quartet

rel. int. = relative intensity

s = singlet

sp. = species

t = triplet

TLC = Thin Layer Chromatography

UV = Ultraviolet