CHEMICAL CONSTITUENTS OF *GONIOTHALAMUS TAPISOIDES*

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ABSTRACT

Goniothalamus tapisoides Mat Salleh, a plant from Annonaceae family, has been studied. Collected from Sarawak, the bark of this plant were dried and grounded before phytochemical study was performed. The chromatographic separation on the dichloromethane extracts of the bark gave eleven compounds – six known and five new. Six known compounds were identified as goniothalamin **1**, pterodondiol **164**, liriodenine **114**, 9-deoxygoniopypyrone **15**, benzamide **161** and cinnamic acid **155**. Five new compounds are goniomicin A **157**, goniomicin B **158**, goniomicin C **159**, goniomicin D **160** and tapisoidin **162**.

ABSTRAK

Goniothalamus tapisoides Mat Salleh, sejenis tumbuhan dari famili Annonaceae, telah dikaji. Dikumpulkan dari Sarawak, bahagian kulit pokok tumbuhan ini terlebih dahulu dikering dan dikisarkan sebelum kajian fitokimia dijalankan. Pemisahan secara kromatografi pada ekstrak diklorometana untuk bahagian kulit telah memencilkan sebelas sebatian – enam dikenali dan lima baru. Enam sebatian yang dikenali telah dipencilkan daripada bahagian kulit telah dikenalpasti sebagai goniotalamin **1**, pterodondiol **164**, liriodenina **114**, 9-deoxygoniopypyron **15**, benzamida **161** and asid sinamik **155**. Lima sebatian yang baru adalah goniomicin A **157**, goniomicin B **158**, goniomicin C **159**, goniomicin D **160** dan tapisoidin **162**.

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CONTENTS

		Page
ACKNOWLEDGEMENTS		i
LIST OF TABLES		iv
LIST OF SCHEMES		v
LIST OF FIGURES		v
ABBREVIATIONS		vi
CHAPTER 1		
1.1	INTRODUCTION	1
1.2	ANNONACEAE: DISTRIBUTION AND HABITAT	3
1.3	ANNONACEAE: GENERAL APPEARANCE AND MORPHOLOGY	4
1.4	GENUS – *Goniothalamus*	7
1.5	BOTANICAL ASPECT OF *Goniothalamus tapisoides* Mat Salleh	7
1.6	MEDICINAL ANNONACEAE	8
CHAPTER 2		
2.1	GENERAL	10
2.2	STRYL-LACTONES	11
	2.2.1 Styryl-pyrones	12
	2.2.2 Furano-pyrones	13
	2.2.3 Furano-furones	13
	2.2.4 Pyrano-pyrones	14
	2.2.5 Butenolides	14
	2.2.6 Heptolides	15
2.3	ACETOGENINS	15
	2.3.1 Non-tetrahydrofuran	16
	2.3.2 Mono-tetrahydrofuran	17
	2.3.3 Adjacent bis-tetrahydrofuran	18
	2.3.4 Non-adjacent bis-tetrahydrofuran	18
	2.3.5 Tri-tetrahydrofuran	19
	2.3.6 Tetrahydropyran	19
2.4	TERPENES	20
2.5	ALKALOIDS	21
2.6	FLAVONOIDS	21

2.7 BIOACTIVITIES 40

CHAPTER 3

3.1 COMPOUNDS OF *Goniothalamus tapisoides* 44

3.1.1 Goniothalamin **1** 45
3.1.2 Goniomicin A **157** 49
3.1.3 Goniomicin B **158** 58
3.1.4 Goniomicin C **159** 66
3.1.5 Goniomicin D **160** 74
3.1.6 9-Deoxygoniopypyrone **15** 82
3.1.7 Cinnamic acid **155** 86
3.1.8 Benzamide **161** 90
3.1.9 Liriodenine **40** 94
3.1.10 Tapisoidin **162** 97
3.1.11 Pterodondiol **164** 107

3.2 BIOSYNTHETIC RELATIONSHIPS OF THE ISOLATED COMPOUNDS 111

CHAPTER 4

4.1 CYTOTOXIC ACTIVITY 112

CHAPTER 5

5.1 CONCLUSION 114

CHAPTER 6

6.1 GENERAL METHODS 116
6.2 PLANT MATERIALS 117
6.3 EXTRACTION 117
6.4 ISOLATION AND PURIFICATION 118
6.5 CYTOTOXIC ASSAY 119
6.6 GENERAL SPECTRAL DATA OF ISOLATED COMPOUNDS 121

REFERENCES 127

LIST OF TABLES

Table 1.1	Genera of Annonaceae	6
Table 1.2	The medicinal uses of *Goniothalamus* species	8
Table 2.1	Common Classification of Terpene Groups	20
Table 2.2	Chemical Constituents from *Goniothalamus* species	23
Table 2.3	Mono THF Acetogenins with 35 carbons	33
Table 2.4	Mono THF Acetogenins with 37 carbons	34
Table 2.5	Mono THF Acetogenins	35
Table 2.6	Antitumor activity of *Goniothalamus* species	40
Table 3.1	Isolated Compounds from *Goniothalamus tapisoides*	44
Table 3.2	^{1}H, ^{13}C and HMBC Spectral Data of **1** in $CDCl_3$	46
Table 3.3	^{1}H, ^{13}C and HMBC Spectral Data of **157** in $CDCl_3$	50
Table 3.4	^{1}H, ^{13}C and HMBC Spectral Data of **158** in $CDCl_3$	59
Table 3.5	^{1}H, ^{13}C and HMBC Spectral Data of **159** in $CDCl_3$	67
Table 3.6	^{1}H, ^{13}C and HMBC Spectral Data of **160** in $CDCl_3$	75
Table 3.7	^{1}H, ^{13}C and HMBC Spectral Data of **15** in $CDCl_3$	83
Table 3.8	^{1}H, ^{13}C and HMBC Spectral Data of **155** in $CDCl_3$	87
Table 3.9	^{1}H and ^{13}C Spectral Data of **161** in $CDCl_3$	91
Table 3.10	^{1}H and ^{13}C Spectral Data of **40** in $CDCl_3$	95
Table 3.11	^{1}H and ^{13}C Spectral Data of **162** and Piperlactam S in $CDCl_3$	99
Table 3.12	^{1}H, ^{13}C and HMBC Spectral Data of **162** in $CDCl_3$	100
Table 3.13	^{1}H, ^{13}C and HMBC Spectral Data of **164** in $CDCl_3$ 108	
Table 4.1	Cytotoxic activity of crude extracts from *G. tapisoides* against lung cancer cell (A549)	112
Table 4.2	Cytotoxic activity of crude extracts from *G. tapisoides* against breast cancer cell (MCF-7)	112
Table 4.3	Cytotoxic activity of crude extracts from *G. tapisoides* against prostate cancer cell (DU-149)	112
Table 4.3	Cytotoxic activity of **1**	113
Table 5.1	Solvents used for column chromatography of crude DCM extract	119
Table 5.2	Chromatographic Solvent Systems and Yield of Compounds from *Goniothalamus tapisoides* (stem bark)	120

LIST OF SCHEMES

Scheme 1.1	Classification of Annonaceae	5
Scheme 3.1	Dehydration and cyclization of **157** to form **1**	51
Scheme 3.2	Proposed biosynthetic relationship of **1**, **15**, **157**, **158**, **159** and **160**	111

LIST OF FIGURES

Figure 3.1	^{1}H NMR Spectrum of **1**	47
Figure 3.2	^{13}C NMR Spectrum of **1**	48
Figure 3.3	^{1}H NMR Spectrum of **157**	52
Figure 3.4	^{13}C NMR Spectrum of **157**	53
Figure 3.5	DEPT 135 and DEPT 90 Spectrum of **157**	54
Figure 3.6	HSQC Spectrum of **157**	55
Figure 3.7	COSY Spectrum of **157**	56
Figure 3.8	HMBC Spectrum of **157**	57
Figure 3.9	^{1}H NMR Spectrum of **158**	60
Figure 3.10	^{13}C NMR Spectrum of **158**	61
Figure 3.11	DEPT 135 Spectrum of **158**	62
Figure 3.12	HSQC Spectrum of **158**	63
Figure 3.13	COSY Spectrum of **158**	64
Figure 3.14	HMBC Spectrum of **158**	65
Figure 3.15	^{1}H NMR Spectrum of **159**	68
Figure 3.16	^{13}C NMR Spectrum of **159**	69
Figure 3.17	DEPT 135 Spectrum of **159**	70
Figure 3.18	HSQC Spectrum of **159**	71
Figure 3.19	COSY Spectrum of **159**	72
Figure 3.20	HMBC Spectrum of **159**	73
Figure 3.21	^{1}H NMR Spectrum of **160**	76
Figure 3.22	^{13}C NMR Spectrum of **160**	77
Figure 3.23	DEPT 135 Spectrum of **160**	78
Figure 3.24	HSQC Spectrum of **160**	79
Figure 3.25	COSY Spectrum of **160**	80
Figure 3.26	HMBC Spectrum of **160**	81
Figure 3.27	^{1}H NMR Spectrum of **15**	84

Figure 3.28	^{13}C NMR Spectrum of **15**	85
Figure 3.29	^{1}H NMR Spectrum of **155**	88
Figure 3.30	IR Spectrum of **155**	89
Figure 3.31	^{1}H NMR Spectrum of **161**	92
Figure 3.32	IR Spectrum of **161**	93
Figure 3.33	^{1}H NMR Spectrum of **40**	96
Figure 3.34	^{1}H NMR Spectrum of **162**	101
Figure 3.35	^{13}C NMR Spectrum of **162**	102
Figure 3.36	DEPT 135 Spectrum of **162**	103
Figure 3.37	HSQC Spectrum of **162**	104
Figure 3.38	COSY Spectrum of **162**	105
Figure 3.39	HMBC Spectrum of **162**	106
Figure 3.40	^{1}H NMR Spectrum of **164**	109
Figure 3.41	^{13}C NMR Spectrum of **164**	110
Figure 5.1	Structures of compounds isolated from *Goniothalamus tapisoides*	115

ABBREVIATIONS

α	Alpha
Å	Armstrong
β	Beta
γ	Gamma
br s	Broad singlet
CC	Column chromatography
$CDCl_3$	Deuterated chloroform
CH_3	Methyl group
cm^{-1}	Per centimeter
COSY	H-H correlation spectroscopy
δ	Chemical shift
DEPT	Distortioness Enchancement by Polarisation Transfer
db	Double bond
dd	Doublet of doublets
ddd	Doublet of doublet of doublet
dt	Doublet of triplet
er	*erythro*
ε	Molar absorptivity
Ed_{50}	Effective doss of 50% activity
FT-NMR	Fourier Transform-Nuclear Magnetic Resonance

1H	Proton NMR
g	Gram
GCMS	Gas Chromatography Mass Spectrometry
HMBC	Heteronuclear Chemical Shift Correlation
HPLC	High Performance Liquid Chromatography
Hz	Hertz
IC_{50}	Concentration required to inhibit of 50% activity
IR	Infrared
J	Coupling constant (Hz)
L	Litre
λ	Lambda (maximum wavelength)
m	Metre
m	Multiplet
m/z	Mass to charge ratio
MeOH	Methanol
MHz	Mega Hertz
MS	Mass spectrum
ml	Mililitre
μg/ml	Microgram per mililitre
nm	Nanometer
NMR	Nuclear Magnetic Resonance
NOE	Nuclear Overhauser Effect
OCH_3	Methoxyl group
OCH_2O	Methylenedioxy group
OH	Hydroxyl group
ppm	Parts per million
q	Quartet
quin	Quintet
s	Singlet
t	Triplet
th	*threo*
TLC	Thin Layer Chromatography
UV	Ultraviolet
^{13}C	Carbon-13 NMR
2D NMR	Two dimensional NMR