SUPPLEMENTARY MATERIAL

Two new sesquiterpenes from *Chloranthus japonicus* Sieb

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Abstract

Two new sesquiterpenes, namely, 1 β ,10 β -dihydroxy-eremophil-7(11), 8-dien-12,8-olide (**1**) and 8,12-epoxy-1 β -hydroxyeudesm-3,7,11-trien-9-one (**2**), together with three known sesquiterpenoids, shizukolidol (**3**), 4 α -hydroxy-5 α (H)-8 β -methoxyeudesm-7(11)-en-12,8-olide (**4**), and neolitacumone B (**5**), and two known monoterpenes, (3R,4S,6R)-*p*-menth-1-en-3,6-diol (**6**) and (*R*)-*p*-menth-1-en-4,7-diol (**7**), were isolated from the whole plant of *Chloranthus japonicus* Sieb. Their structures were elucidated on the basis of spectroscopic data analysis and comparison with those of related known compounds. Compounds **4-7** were isolated from this plant for the first time.

Keywords: *Chloranthus japonicus*; sesquiterpenes; monoterpenes

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Table S1. ^1H NMR (500 MHz) and ^{13}C NMR (125 MHz) data of **1** and **2** (recorded in CDCl_3 , δ in ppm, J in Hz).

Position	Compound 1		Compound 2	
	δ_{C}	δ_{H}	δ_{C}	δ_{H}
1	74.6	3.88 br s	66.3	4.40 m
2	28.9	1.67 m (H- α) 2.16 m (H- β)	38.3	1.39 dd (13.3, 10.4, H- α) 2.69 dd (13.3, 5.9, H- β)
3	25.2	1.36 m (H- α) 1.65 m (H- β)	126.3	5.56 br s
4	34.2	2.13 m	135.2	
5	43.0		45.6	2.80 m
6	32.8	2.65 d (16.4, H- α) 2.44 d (16.4, H- β)	21.8	2.42 dd (16.5, 11.9, H- α) 2.86 dd (16.5, 4.4, H- β)
7	148.0		137.2	
8	152.2		146.1	
9	110.6	5.79 s	190.2	
10	74.4		46.9	
11	123.4		120.7	
12	170.9		144.7	7.39 q (1.0)
13	8.6	1.91 s	7.8	2.03 d (1.0)
14	15.5	0.89 d (6.9)	15.9	1.10 s
15	15.4	1.01 s	20.7	1.82 d (1.5)

Figure S1. Key HMBC, COSY and NOESY correlations for **1** and **2**.

Figure S2. ¹H NMR Spectrum of **1** in CDCl₃.

Figure S3. ¹³C NMR Spectrum of **1** in CDCl₃.

Figure S4. DEPT NMR Spectrum of **1** in CDCl₃.

Figure S5. HSQC Spectrum of **1** in CDCl_3 .

Figure S6. ^1H - ^1H COSY Spectrum of **1** in CDCl_3 .

Figure S7. HMBC Spectrum of **1** in CDCl_3 .

Figure S8. NOESY Spectrum of **1** in CDCl₃.

Technical Institute of Physics and Chemistry Mass Spectrometry Sample Analysis Report

Analysis Name: SXW-31
Sample: YY-23
Comment: ESI Positive

Acquisition Date: 10/22/2014
Instrument: Q-Exactive
Operator: TIPC

Shimadzu-31_141022172240_#46-70 RT: 0.10-0.14 AV: 4 NL: 2.26E8
T: FTMS + p ESI Full ms [50.00-750.00]

Figure S9. HR-ESI-MS Spectrometry of **1**.

Figure S10. ¹H NMR Spectrum of **2** in CDCl₃.

Figure S11. ¹³C NMR Spectrum of **2** in CDCl₃.

Figure S12. DEPT NMR Spectrum of **2** in CDCl₃.

Figure S13. HSQC Spectrum of **2** in CDCl₃.

Figure S14. ^1H - ^1H COSY Spectrum of **2** in CDCl_3 .

Figure S15. HMBC Spectrum of **2** in CDCl₃.

Figure S16. NOESY Spectrum of **2** in CDCl_3 .

Technical Institute of Physics and Chemistry Mass Spectrometry Sample Analysis Report

Analysis Name:	SXW-32	Acquisition Date:	10/22/2014
Sample:	YY-17	Instrument :	Q-Exactive
Comment:	ESI Positive	Operator:	TIPC

Shenwei-32_141022172556 #48-71 RT: 0.10-0.14 AV: 4 NL: 3.74ES
T: FTMS + p ESI Full ms [50.00-750.00]

Figure S17. HR-ESI-MS Spectrometry of **2**.