SUPPLEMENTARY MATERIAL

A new coumarin from the roots of *Micromelum minutum*

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Abstract

A new coumarin, minutuminolate (**1**) together with eleven known coumarins (**2-12**), were isolated from the roots of *Micromelum minutum*. The structures of these compounds were established on the basis of their 1D and 2D NMR spectroscopic data. Compounds **2**, **5**, **10**, **11** and **12** showed cytotoxicity against KB cell line. In addition compounds **2**, **3**, **4**, **7**, **11** and **12** also showed weak cytotoxicity against NCI-H187 cell line.

Key words: *Micromelum minutum*; Rutaceae; coumarin; cytotoxicity

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Table S1. ^1H and ^{13}C NMR spectroscopic data of **1** (400 MHz, CDCl_3)

No.	δ_{H} (J in Hz)	δ_{C}
2		159.8
3	6.25, d (9.4)	114.2
4	7.62, d (9.4)	142.8
5	7.44, d (8.6)	129.6
6	6.85, d (8.6)	108.0
7		159.6
8		117.8
9		151.6
10		112.6
1'		186.4
2'		140.7
3'		142.7
4'	1.82, s	21.6
5'	2.27, s	20.4
1''		170.7
2''	1.92, d (6.8)	42.4
3''	1.77, m	25.1
4''	0.72, d (6.8)	22.2
5''	0.72, d (6.8)	22.2
7-OMe	3.86, s	56.5

Figure S1. COSY (bold line) and Selected HMBC (H/C) correlations for **1**.

Analysis Info

Analysis Name OSKKU5801240041.d
 Method MKE_tune_wide_20130204.m
 Sample Name RL014M
 RL014M

Acquisition Date 1/23/2015 3:43:49 PM
 Operator Administrator
 Instrument micrOTOF 72

Acquisition Parameter

Source Type	ESI	Ion Polarity	Positive	Set Corrector Fill	79 V
Scan Range	n/a	Capillary Exit	180.0 V	Set Pulsar Pull	406 V
Scan Begin	50 m/z	Hexapole RF	400.0 V	Set Pulsar Push	388 V
Scan End	3000 m/z	Skimmer 1	45.0 V	Set Reflector	1300 V
		Hexapole 1	25.0 V	Set Flight Tube	9000 V
				Set Detector TOF	1910 V

#	m/z	I	I %	S/N	FWHM	Res.
1	359.1484	371	0.1	61.2	0.0374	9615
2	381.1318	348448	100.0	57803.1	0.0461	8270
3	382.1335	65007	18.7	10786.1	0.0400	9548
4	383.1360	6519	1.9	1081.7	0.0367	10434
5	384.1403	619	0.2	102.5	0.0396	9701
6	397.1052	38398	11.0	6392.4	0.0431	9211
7	398.1080	6177	1.8	1028.4	0.0391	10176
8	399.1051	2636	0.8	438.8	0.0392	10192
9	400.1080	378	0.1	62.7	0.0438	9137
10	413.2653	2385	0.7	398.1	0.0385	10742
11	414.2683	539	0.2	89.8	0.0405	10231
12	416.2647	554	0.2	92.3	0.0406	10249
13	603.0925	631	0.2	114.7	0.0628	9607
14	687.1537	466	0.1	92.0	0.0767	8954
15	739.2656	585	0.2	122.8	0.0745	9919

Figure S2. Mass spectrum of 1

Figure S3. IR spectrum of **1**

Figure S4. ^1H NMR spectrum of **1** recorded in CDCl_3 at 400 MHz.

Figure S5. ¹³C NMR spectrum of **1** recorded in CDCl₃ at 100 MHz.

Figure S6. DEPT spectrum of **1** recorded in CDCl₃.

Figure S8. COSY spectrum of **1** recorded in CDCl_3 .

Figure S9. HMBC spectrum of **1** recorded in CDCl_3 .

Figure S10. NOESY spectrum of **1** recorded in CDCl₃.