SUPPLEMENTARY MATERIAL

Two novel steroidal derivatives from chloroform soluble extract of *Hoya longifolia*

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Steroidal derivatives namely fologenin (**1**) and hoyagenin (**4**) have been isolated from chloroform-soluble extract of the whole plant of *Hoya longifolia* (family: *Asclepiadaceae*), and their structures were determined by using ¹H NMR, ¹³C NMR, ¹H-¹H COSY, and FABMS spectral techniques as well as chemical degradation and derivatisation.

Keywords: *Asclepiadaceae*; *Hoya longifolia*; steroid; pregnane; fologenin; hoyagenin.

Table S1. ^{13}C NMR data (300 MHz) for compounds **1** and **4** (CDCl_3) (δ in ppm)

Position	1 (δ_{C})	4 (δ_{C})
1	30.30	122.3
2	29.6	110.1
3	82.8	159.3
4	38.7	114.3
5	143.9	137.0
6	121.1	33.3
7	23.7	29.7
8	33.2	40.1
9	42.3	24.8
10	32.2	133.1
11	75.8	77.4
12	72.8	66.4
13	84.5	63.0
14	78.8	75.0
15	38.7	24.8
16	14.1	27.0
17	52.5	76.4
18	8.1	20.0
19	22.9	146.7
20	76.2	115.6
21	23.7	-
22	-	-
C-3'	-	56.0
p- Methoxy	55.9	-
Benzyl-CH ₂	73.1	-
Aromatic carbons	145.0	-
	111.2	-
	154.5	-
	115.4	-
	132.2	-
	118.8	-
	143.9	-
	108.3	-

146.6	-
114.2	-
130.0	-
113.4	-

Scheme S1. FAB mass fragmentation of fologenin (**1**).

Scheme S2. FAB mass fragmentation of fologenin (**1**).

Scheme S3. FAB mass fragmentation of hoyagenin (**4**).

¹H NMR Spectrum of compound 1

¹³C NMR Spectrum of compound 1

PSHL-05

Current Data Parameters

NAME 1x 001010
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20070408
Time 5.40
INSTRUM spect
PROBHD 5 mm MSL1013
PULPROG zgpg30
TD 26840
SOLVENT CDCl3
NS 16
DS 4
SWH 4156.407 Hz
FIDRES 2.134200 Hz
AQ 0.240000 sec
RG 145.7
SW 310.000 MHz
DE 6.00 dB
TE 298.2 K
AS 0.0000000 sec
SI 1.0000000 sec
F1 0.0000000 sec
F2 0.0000000 sec
F3 0.0000000 sec
F4 0.0000000 sec
F5 0.0000000 sec
F6 0.0000000 sec
F7 0.0000000 sec
F8 0.0000000 sec
F9 0.0000000 sec
F10 0.0000000 sec
F11 0.0000000 sec
F12 0.0000000 sec
F13 0.0000000 sec
F14 0.0000000 sec
F15 0.0000000 sec
F16 0.0000000 sec
F17 0.0000000 sec
F18 0.0000000 sec
F19 0.0000000 sec
F20 0.0000000 sec
F21 0.0000000 sec
F22 0.0000000 sec
F23 0.0000000 sec
F24 0.0000000 sec
F25 0.0000000 sec
F26 0.0000000 sec
F27 0.0000000 sec
F28 0.0000000 sec
F29 0.0000000 sec
F30 0.0000000 sec
F31 0.0000000 sec
F32 0.0000000 sec
F33 0.0000000 sec
F34 0.0000000 sec
F35 0.0000000 sec
F36 0.0000000 sec
F37 0.0000000 sec
F38 0.0000000 sec
F39 0.0000000 sec
F40 0.0000000 sec
F41 0.0000000 sec
F42 0.0000000 sec
F43 0.0000000 sec
F44 0.0000000 sec
F45 0.0000000 sec
F46 0.0000000 sec
F47 0.0000000 sec
F48 0.0000000 sec
F49 0.0000000 sec
F50 0.0000000 sec
F51 0.0000000 sec
F52 0.0000000 sec
F53 0.0000000 sec
F54 0.0000000 sec
F55 0.0000000 sec
F56 0.0000000 sec
F57 0.0000000 sec
F58 0.0000000 sec
F59 0.0000000 sec
F60 0.0000000 sec
F61 0.0000000 sec
F62 0.0000000 sec
F63 0.0000000 sec
F64 0.0000000 sec
F65 0.0000000 sec
F66 0.0000000 sec
F67 0.0000000 sec
F68 0.0000000 sec
F69 0.0000000 sec
F70 0.0000000 sec
F71 0.0000000 sec
F72 0.0000000 sec
F73 0.0000000 sec
F74 0.0000000 sec
F75 0.0000000 sec
F76 0.0000000 sec
F77 0.0000000 sec
F78 0.0000000 sec
F79 0.0000000 sec
F80 0.0000000 sec
F81 0.0000000 sec
F82 0.0000000 sec
F83 0.0000000 sec
F84 0.0000000 sec
F85 0.0000000 sec
F86 0.0000000 sec
F87 0.0000000 sec
F88 0.0000000 sec
F89 0.0000000 sec
F90 0.0000000 sec
F91 0.0000000 sec
F92 0.0000000 sec
F93 0.0000000 sec
F94 0.0000000 sec
F95 0.0000000 sec
F96 0.0000000 sec
F97 0.0000000 sec
F98 0.0000000 sec
F99 0.0000000 sec
F100 0.0000000 sec

***** CHANNEL f1 *****

NUC1 1H
P1 8.00 dB
PL1 0.00 dB
PL2 0.00 dB
PL3 0.00 dB
PL4 0.00 dB
PL5 0.00 dB
PL6 0.00 dB
PL7 0.00 dB
PL8 0.00 dB
PL9 0.00 dB
PL10 0.00 dB
PL11 0.00 dB
PL12 0.00 dB
PL13 0.00 dB
PL14 0.00 dB
PL15 0.00 dB
PL16 0.00 dB
PL17 0.00 dB
PL18 0.00 dB
PL19 0.00 dB
PL20 0.00 dB
PL21 0.00 dB
PL22 0.00 dB
PL23 0.00 dB
PL24 0.00 dB
PL25 0.00 dB
PL26 0.00 dB
PL27 0.00 dB
PL28 0.00 dB
PL29 0.00 dB
PL30 0.00 dB
PL31 0.00 dB
PL32 0.00 dB
PL33 0.00 dB
PL34 0.00 dB
PL35 0.00 dB
PL36 0.00 dB
PL37 0.00 dB
PL38 0.00 dB
PL39 0.00 dB
PL40 0.00 dB
PL41 0.00 dB
PL42 0.00 dB
PL43 0.00 dB
PL44 0.00 dB
PL45 0.00 dB
PL46 0.00 dB
PL47 0.00 dB
PL48 0.00 dB
PL49 0.00 dB
PL50 0.00 dB
PL51 0.00 dB
PL52 0.00 dB
PL53 0.00 dB
PL54 0.00 dB
PL55 0.00 dB
PL56 0.00 dB
PL57 0.00 dB
PL58 0.00 dB
PL59 0.00 dB
PL60 0.00 dB
PL61 0.00 dB
PL62 0.00 dB
PL63 0.00 dB
PL64 0.00 dB
PL65 0.00 dB
PL66 0.00 dB
PL67 0.00 dB
PL68 0.00 dB
PL69 0.00 dB
PL70 0.00 dB
PL71 0.00 dB
PL72 0.00 dB
PL73 0.00 dB
PL74 0.00 dB
PL75 0.00 dB
PL76 0.00 dB
PL77 0.00 dB
PL78 0.00 dB
PL79 0.00 dB
PL80 0.00 dB
PL81 0.00 dB
PL82 0.00 dB
PL83 0.00 dB
PL84 0.00 dB
PL85 0.00 dB
PL86 0.00 dB
PL87 0.00 dB
PL88 0.00 dB
PL89 0.00 dB
PL90 0.00 dB
PL91 0.00 dB
PL92 0.00 dB
PL93 0.00 dB
PL94 0.00 dB
PL95 0.00 dB
PL96 0.00 dB
PL97 0.00 dB
PL98 0.00 dB
PL99 0.00 dB
PL100 0.00 dB

***** CHANNEL f2 *****

NUC2 13C
P1 18.00 dB
PL1 0.00 dB
PL2 0.00 dB
PL3 0.00 dB
PL4 0.00 dB
PL5 0.00 dB
PL6 0.00 dB
PL7 0.00 dB
PL8 0.00 dB
PL9 0.00 dB
PL10 0.00 dB
PL11 0.00 dB
PL12 0.00 dB
PL13 0.00 dB
PL14 0.00 dB
PL15 0.00 dB
PL16 0.00 dB
PL17 0.00 dB
PL18 0.00 dB
PL19 0.00 dB
PL20 0.00 dB
PL21 0.00 dB
PL22 0.00 dB
PL23 0.00 dB
PL24 0.00 dB
PL25 0.00 dB
PL26 0.00 dB
PL27 0.00 dB
PL28 0.00 dB
PL29 0.00 dB
PL30 0.00 dB
PL31 0.00 dB
PL32 0.00 dB
PL33 0.00 dB
PL34 0.00 dB
PL35 0.00 dB
PL36 0.00 dB
PL37 0.00 dB
PL38 0.00 dB
PL39 0.00 dB
PL40 0.00 dB
PL41 0.00 dB
PL42 0.00 dB
PL43 0.00 dB
PL44 0.00 dB
PL45 0.00 dB
PL46 0.00 dB
PL47 0.00 dB
PL48 0.00 dB
PL49 0.00 dB
PL50 0.00 dB
PL51 0.00 dB
PL52 0.00 dB
PL53 0.00 dB
PL54 0.00 dB
PL55 0.00 dB
PL56 0.00 dB
PL57 0.00 dB
PL58 0.00 dB
PL59 0.00 dB
PL60 0.00 dB
PL61 0.00 dB
PL62 0.00 dB
PL63 0.00 dB
PL64 0.00 dB
PL65 0.00 dB
PL66 0.00 dB
PL67 0.00 dB
PL68 0.00 dB
PL69 0.00 dB
PL70 0.00 dB
PL71 0.00 dB
PL72 0.00 dB
PL73 0.00 dB
PL74 0.00 dB
PL75 0.00 dB
PL76 0.00 dB
PL77 0.00 dB
PL78 0.00 dB
PL79 0.00 dB
PL80 0.00 dB
PL81 0.00 dB
PL82 0.00 dB
PL83 0.00 dB
PL84 0.00 dB
PL85 0.00 dB
PL86 0.00 dB
PL87 0.00 dB
PL88 0.00 dB
PL89 0.00 dB
PL90 0.00 dB
PL91 0.00 dB
PL92 0.00 dB
PL93 0.00 dB
PL94 0.00 dB
PL95 0.00 dB
PL96 0.00 dB
PL97 0.00 dB
PL98 0.00 dB
PL99 0.00 dB
PL100 0.00 dB

F1 - Acquisition Parameters

FAB MS of compound 1

[Mass Spectrum]
Data : 6E05JUNE063 Date : 05-Jun-2006 15:15
Sample: PSHL-05 DR N K KHARE LUCKNOW #220
Note : -
Inlet : Direct Ion Mode : FAB+
Spectrum Type : Normal Ion [MF-Linear]
RT : 0.00 min Scan# : (1,2)
BP : m/z 149.0000 Int. : 74.17
Output m/z range : 68.1751 to 911.4985 Cut Level : 0.00 %

FAB MS of Compound 1 (part expansion)

¹H NMR Spectrum of compound 4

¹³C NMR Spectrum of compound 4

FAB MS of compound 4

FAB Mass Spectrum of hoyagenin