Supporting Information

Two Androstane Derivatives from the Cultures of Fungus Marasmiellus ramealis (Bull.) Singer

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S1: Fig. 2 and 3

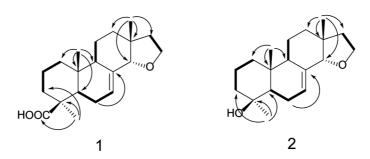


Figure 2. Key $^{1}\text{H-}^{1}\text{H COSY}(-)$ and HMBC (H \rightarrow C) correlations of 1-2.

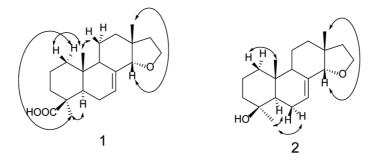
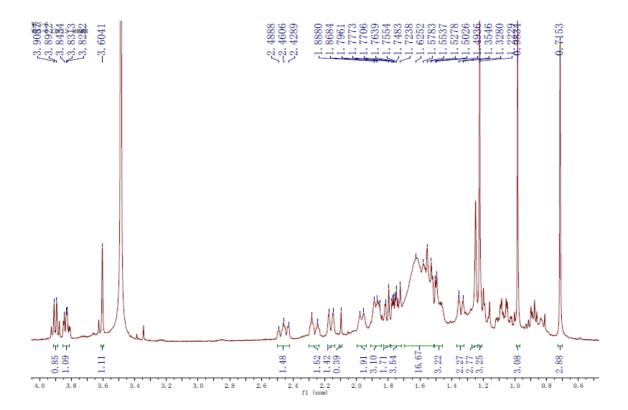
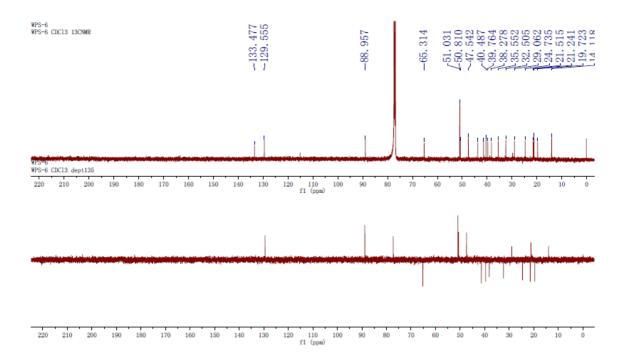


Figure 3. Key ROESY (\leftrightarrow) correlations of 1-2.

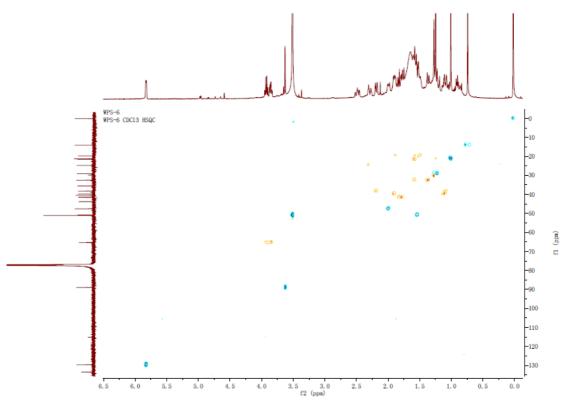
S2: ¹H NMR of 4α -Methyl-15-oxa-androstane-7-ene- 4β -carboxylic acid (1)



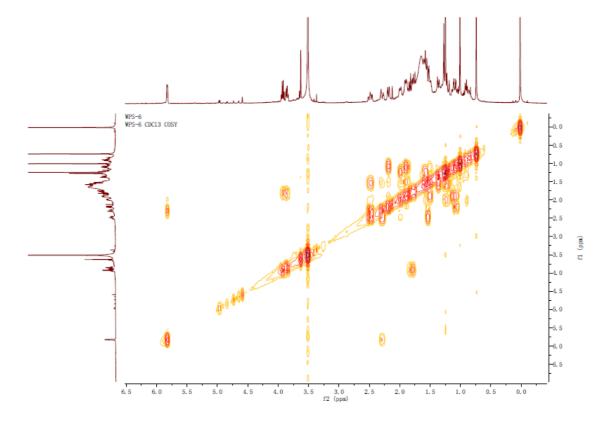
S3: DEPT of 4α -Methyl-15-oxa-androstane-7-ene- 4β -carboxylic acid (1)



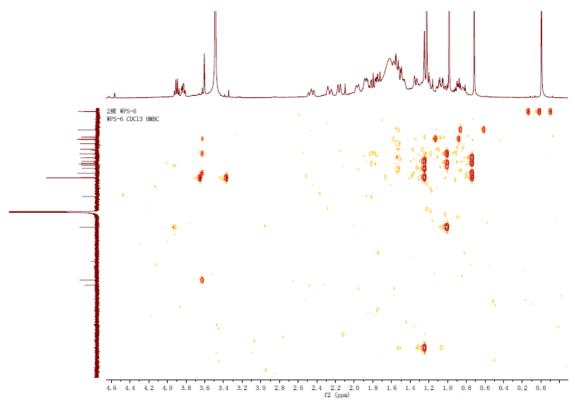
S4: HSQC of 4α -Methyl-15-oxa-androstane-7-ene-4 β -carboxylic acid (1)



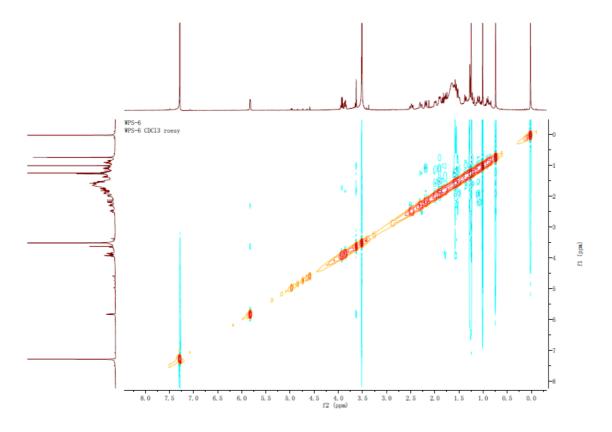
S5: ¹H-¹H COSY of 4α-Methyl-15-oxa-androstane-7-ene-4β-carboxylic acid (1)



S6: HMBC of 4α -Methyl-15-oxa-androstane-7-ene-4 β -carboxylic acid (1)

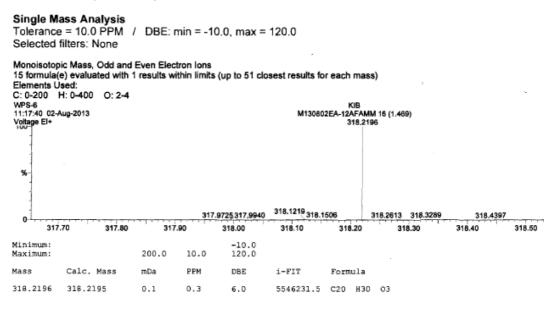


S7: ROESY of 4α -Methyl-15-oxa-androstane-7-ene-4 β -carboxylic acid (1)

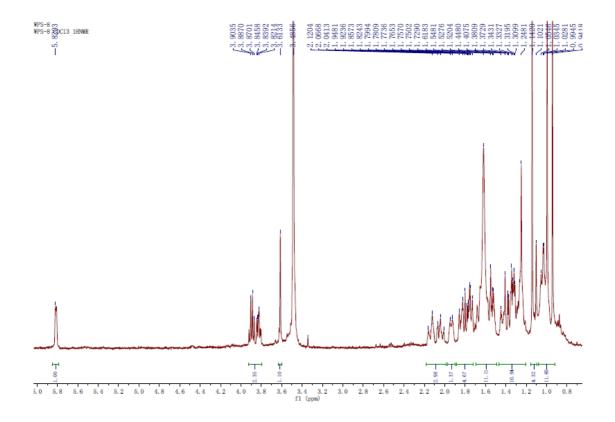


S8: HREIMS of 4α -Methyl-15-oxa-androstane-7-ene- 4β -carboxylic acid (1)

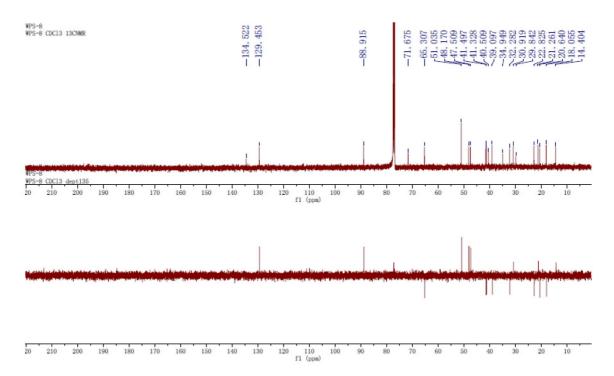
Elemental Composition Report



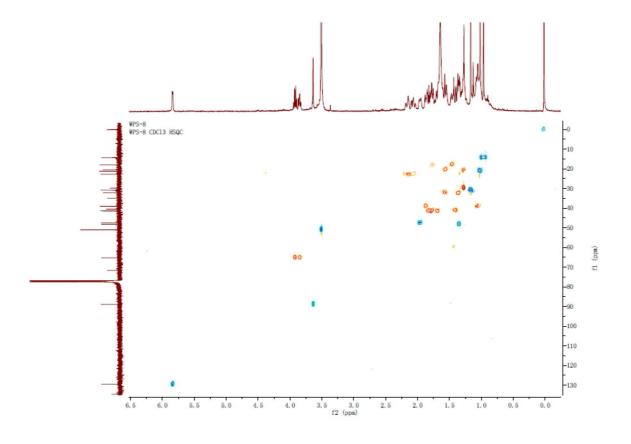
S9: ¹H NMR of 4α -Methyl-15-oxa-androstane-7-ene- 4β -hydroxyl (2)



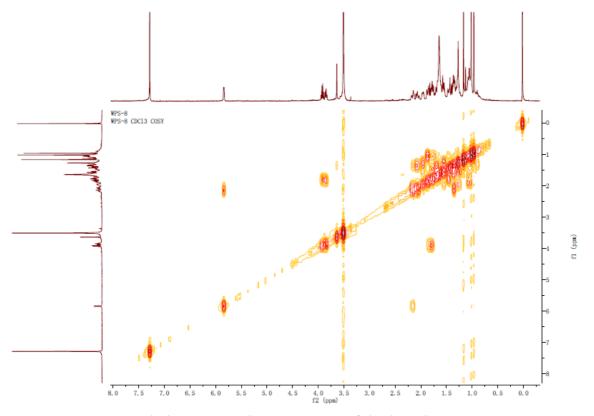
S10: DEPT of 4α-Methyl-15-oxa-androstane-7-ene-4β-hydroxyl (2)



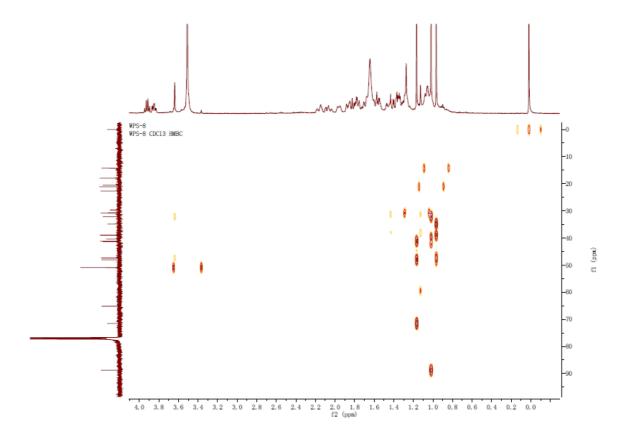
S11: HSQC of 4α -Methyl-15-oxa-androstane-7-ene- 4β -hydroxyl (2)



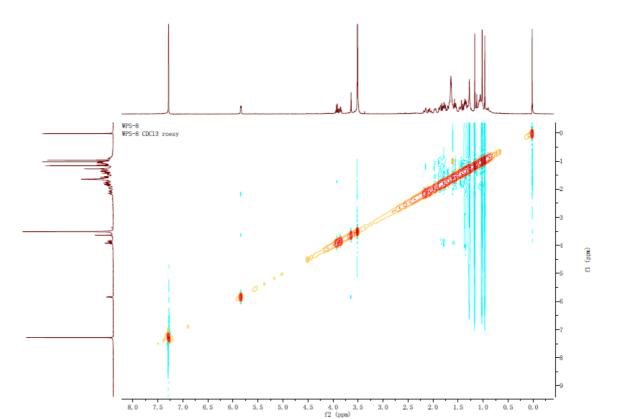
S12: $^{1}\text{H-}^{1}\text{H}$ COSY of 4α -Methyl-15-oxa-androstane-7-ene- 4β -hydroxyl (2)



S13: HMBC of 4α -Methyl-15-oxa-androstane-7-ene-4 β -hydroxyl (3)



S14: ROESY of 4α -Methyl-15-oxa-androstane-7-ene-4 β -hydroxyl (2)



S15: HRESIMS of 4α -Methyl-15-oxa-androstane-7-ene-4 β -hydroxyl (2)

Qualitative Analysis Report

Data Filename 140402ESIA24.d Sample Name wps-8 Position Sample Type Sample

Instrument Name Agilent G6230 TOF MS **User Name** KIB Acq Method ESI.m Acquired Time 4/2/2014 1:49:54 PM

IRM Calibration Status DA Method ESIN.m

Comment

Sample Group Info.

Acquisition SW 6200 series TOF/6500 series Version Q-TOF B.05.01 (B5125.1)

User Spectra

Fragmentor Voltage 200	Collision Energy 0	Ionization Mode ESI	
x10 4 +ESI Scan (0.858 n	nin) Frag=200.0V 140402	2ESIA21.dl	
7-		313.2140	
6-			
5-			
4-			
3-			
2-			
1-			
313.12 31	3.14 313.16 313.18 Counts v	3 313.2 313.22 313. s. Mass-to-Charge (m/z)	24 313.26 313.28

Peak List

m/z	Z	Abund	
471.2	1	1262531.5	

Formula Calculator Element Limits

Element	Min	Max	
С	0	200	
Н	0	400	
0	1	5	
Na	1	1	

Formula Calculator Results

Formula	CalculatedMass	Mz	Diff.(mDa)	Diff. (ppm)	DBE
C19 H30 Na O2	313.2143	313,2140	0.3	1.0	4.5

⁻⁻⁻ End Of Report ---