

## Supplementary Information

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Figure S1. <sup>1</sup>H NMR Spectrum (500 MHz) of compound 1 in MeOD.

<sup>1</sup>H NMR Spectrum of yall

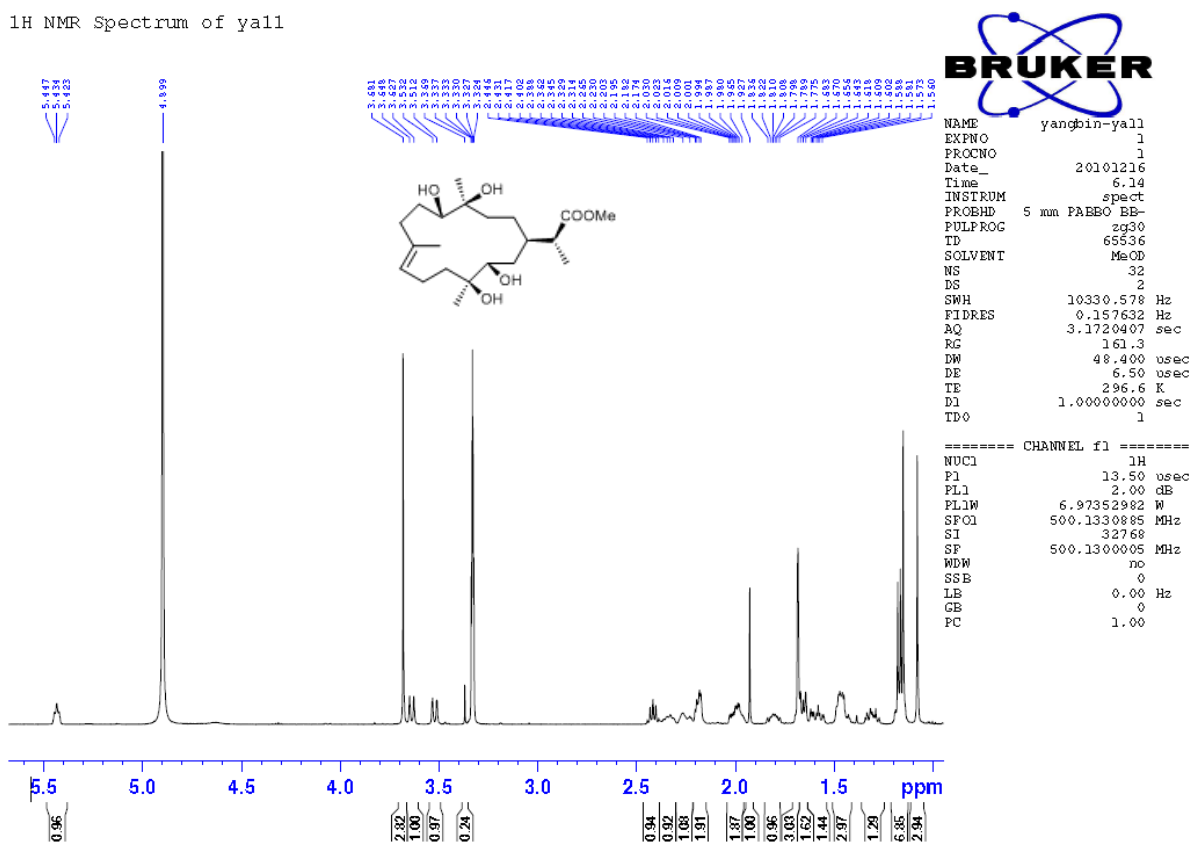


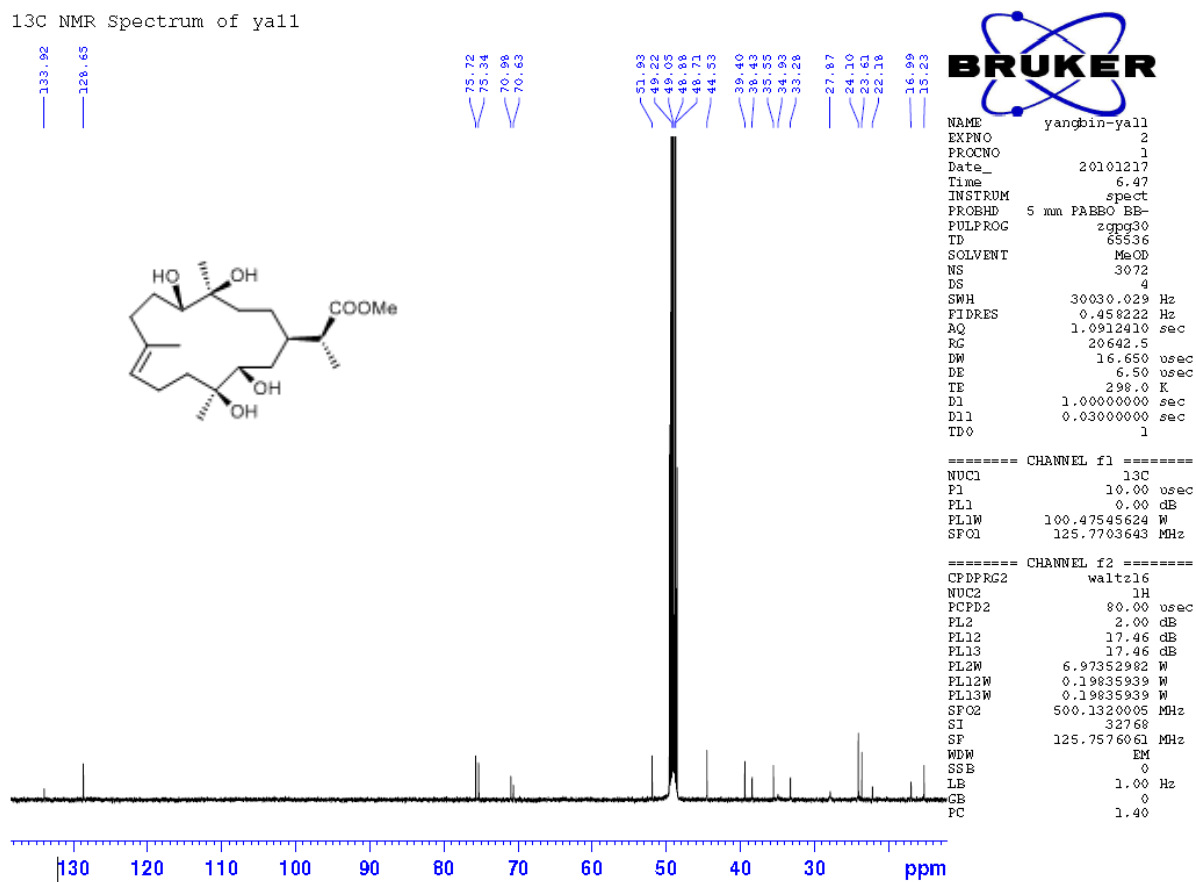
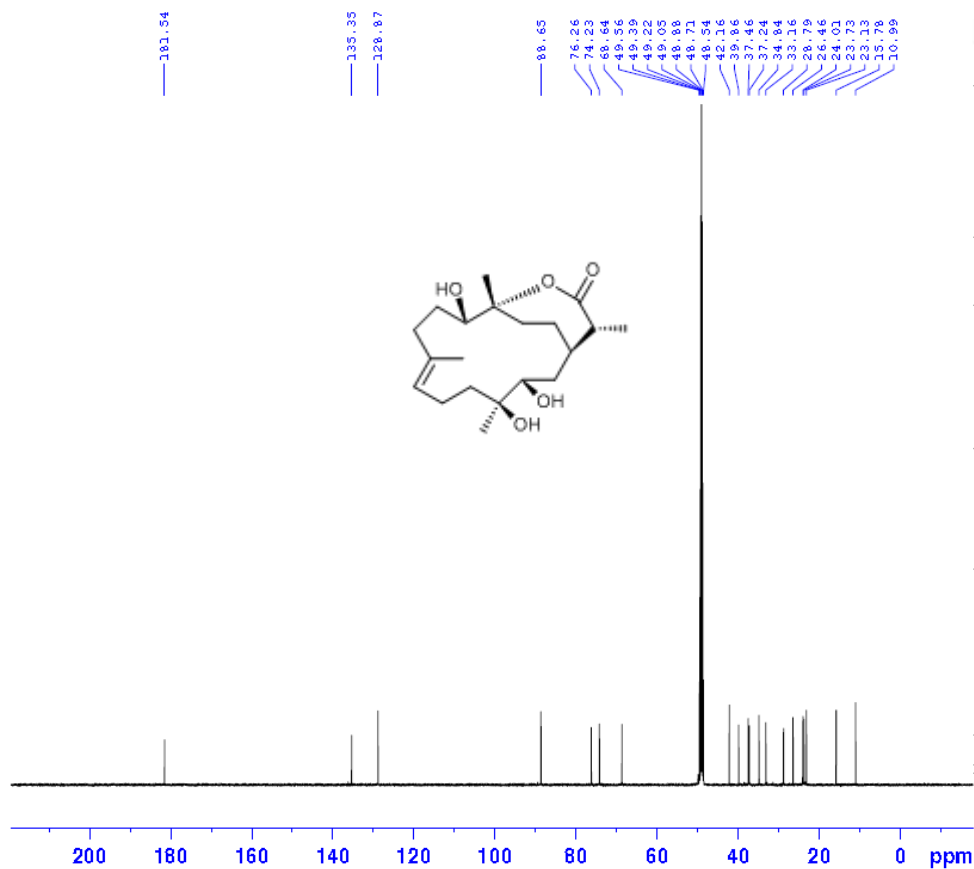
Figure S2.  $^{13}\text{C}$  NMR Spectrum (125 MHz) of compound 1 in MeOD.



Figure S4. <sup>13</sup>C NMR Spectrum (125 MHz) of compound 2 in MeOD.

13C NMR Spectrum of ya9



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NAME yangbin-ya9
EXPNO 2
PROCNO 1
Date_ 20101214
Time 7.01
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT MeOD
NS 1681
DS 4
SWH 30030.029 Hz
FIDRES 0.458222 Hz
AQ 1.0912410 sec
RG 20642.5
DW 16.650 usec
DE 6.50 usec
TE 297.7 K
D1 1.00000000 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 10.00 usec
PL1 0.00 dB
PL1W 100.47545624 W
SFO1 125.7703643 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 2.00 dB
PL12 17.46 dB
PL13 17.46 dB
PL2W 6.97352982 W
PL12W 0.19835939 W
PL13W 0.19835939 W
SFO2 500.1320005 MHz
SI 32768
SF 125.7576084 MHz
WDW EM
SSE 0
LB 1.00 Hz
GB 0
PC 1.40

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Figure S5. <sup>1</sup>H NMR Spectrum (500 MHz) of compound 3 in CDCl<sub>3</sub>.

1HNMR Spectrum of ya30

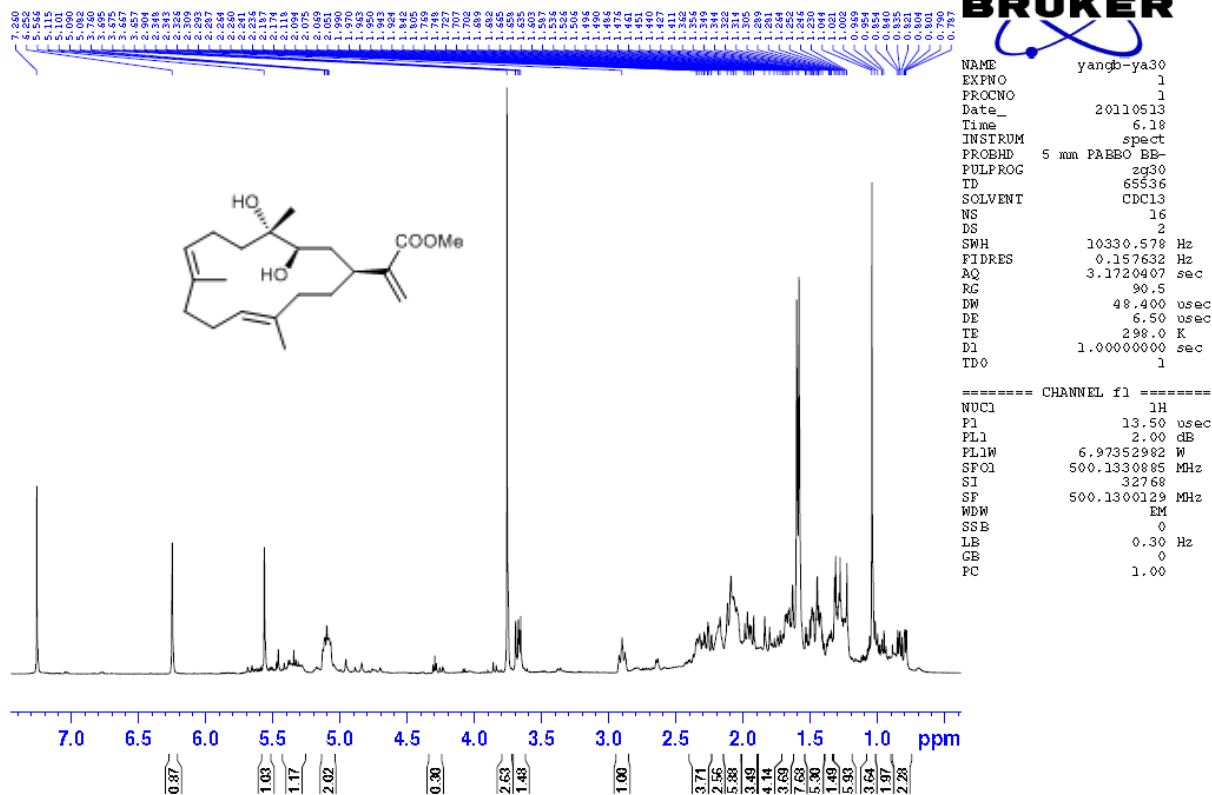


Figure S6. <sup>13</sup>C NMR Spectrum (125 MHz) of compound 3 in CDCl<sub>3</sub>.

13c NMR Spectrum of ya30

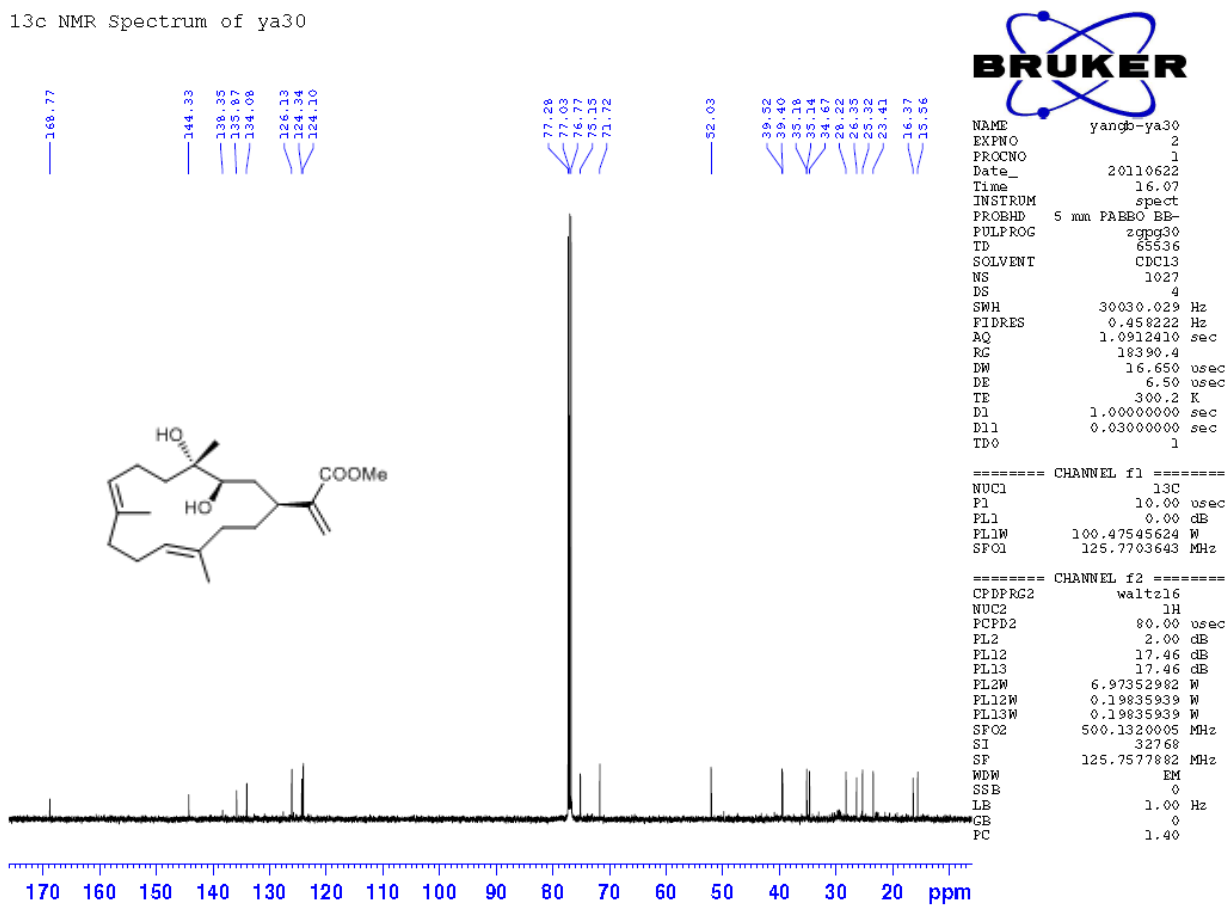


Figure S7. <sup>1</sup>H NMR Spectrum (500 MHz) of compound 4 in CDCl<sub>3</sub>.

1HNMR Spectrum of ya28

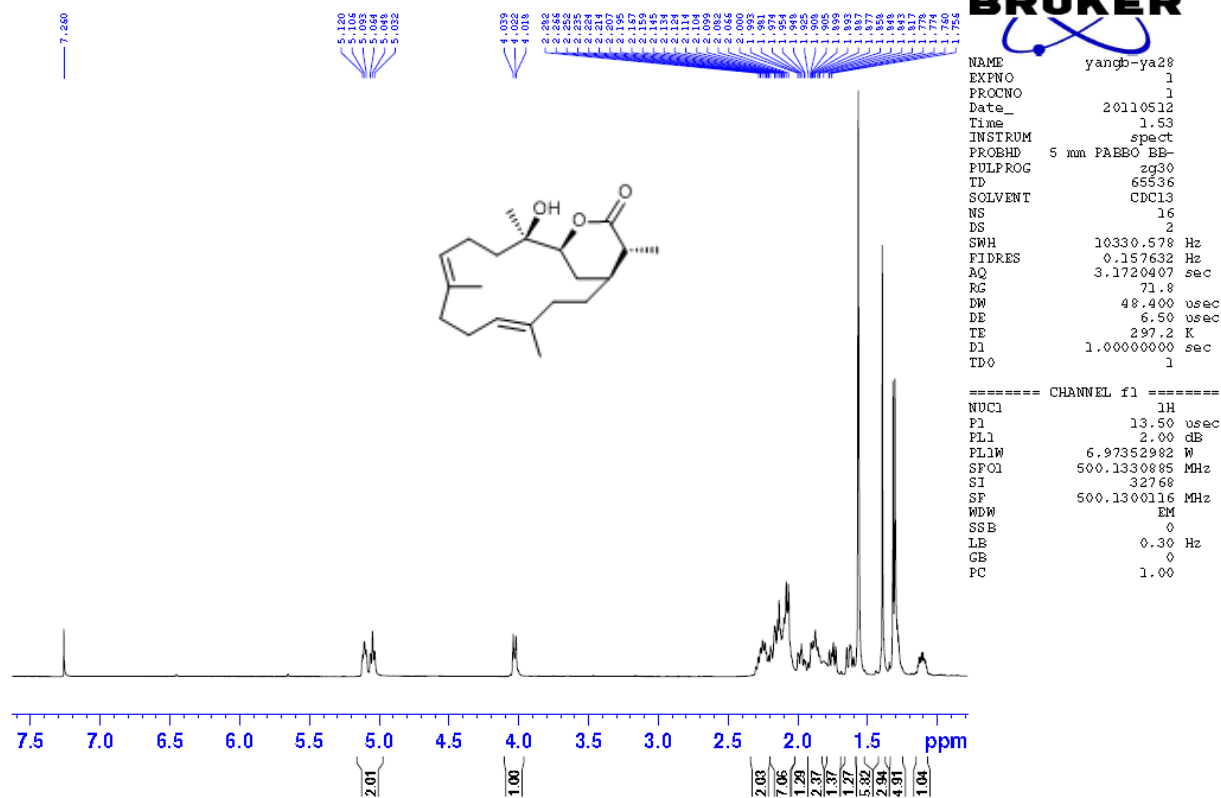
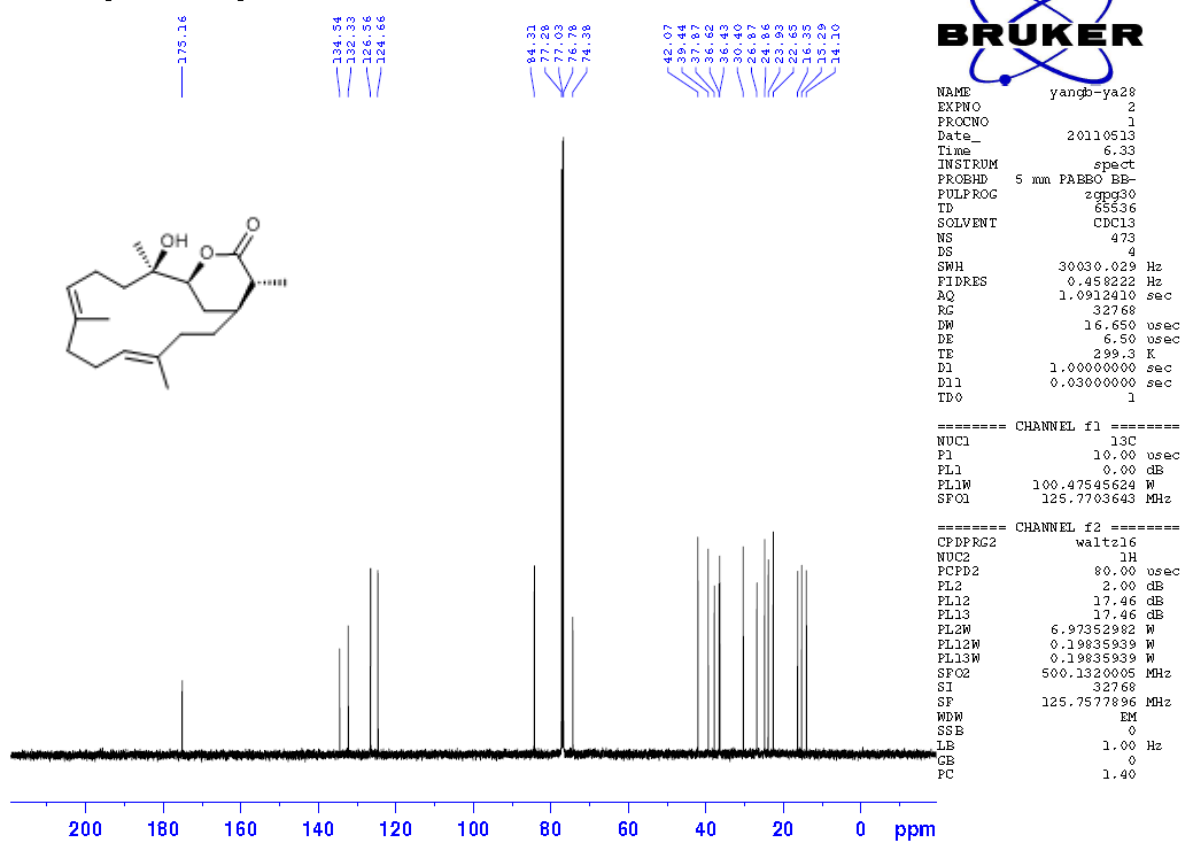




Figure S8. <sup>13</sup>C NMR Spectrum (125 MHz) of compound 4 in CDCl<sub>3</sub>.

13CNMR Spectrum of ya28



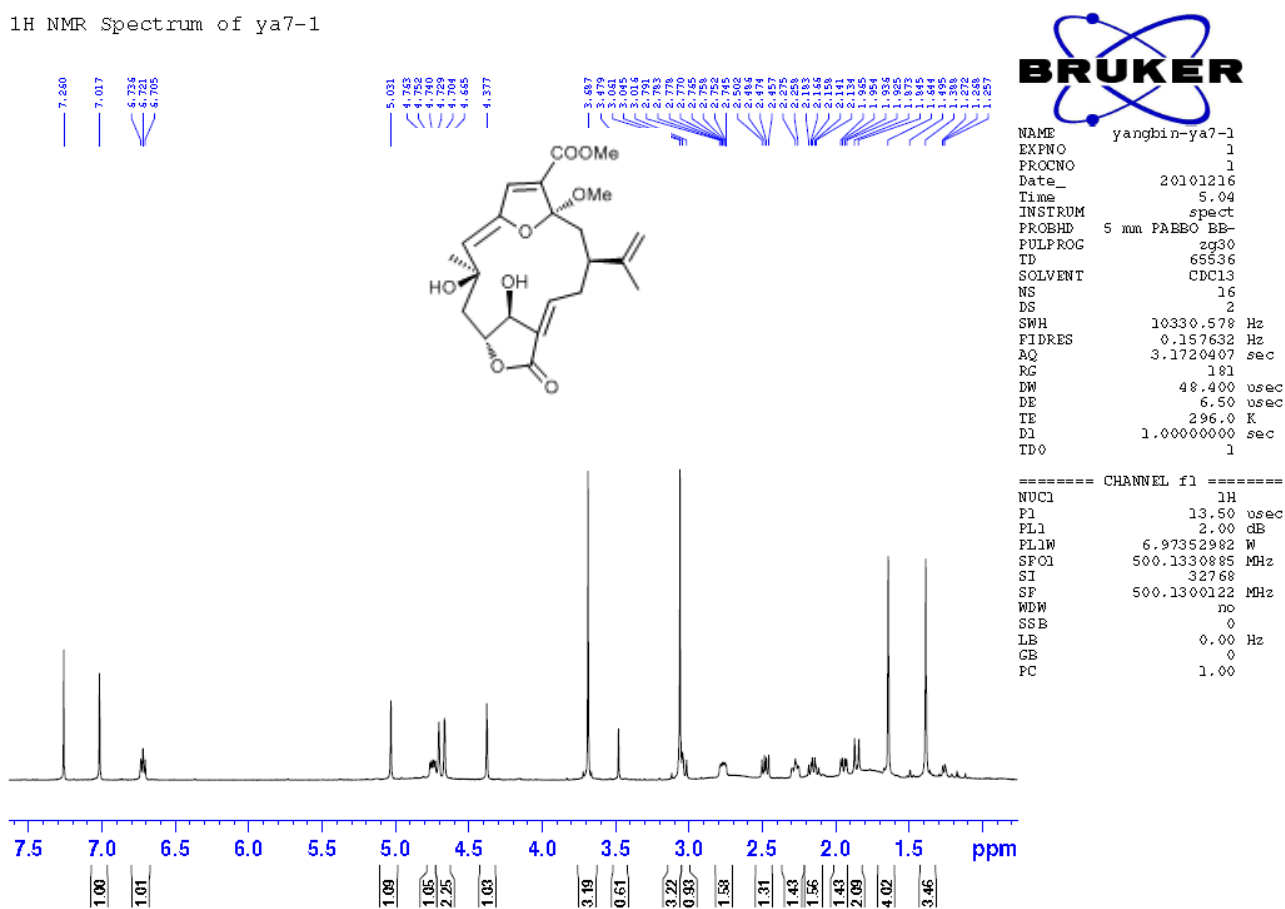
**Figure S9.** <sup>1</sup>H NMR Spectrum (500 MHz) of compound **5** in CDCl<sub>3</sub>.<sup>1</sup>H NMR Spectrum of ya7-1

Figure S10. <sup>13</sup>C NMR Spectrum (125 MHz) of compound 5 in CDCl<sub>3</sub>.

13C NMR Spectrum of ya7-1

