Supplementary data

Phenolics isolated from *Aframomum meleguta* enhance proliferation and ossification markers in bone cells

Ashraf B. Abdel-Naim [1,2], Abdullah A. Alghamdi [3], Mardi M. Algandaby [1,4], Fahad A. Al-Abbasi [1,3], Ahmed M. Al-Abd [2,5], Hossam M. Abdallah [6,7], Ali M. El-Halawany [7], Masao Hattori [8]

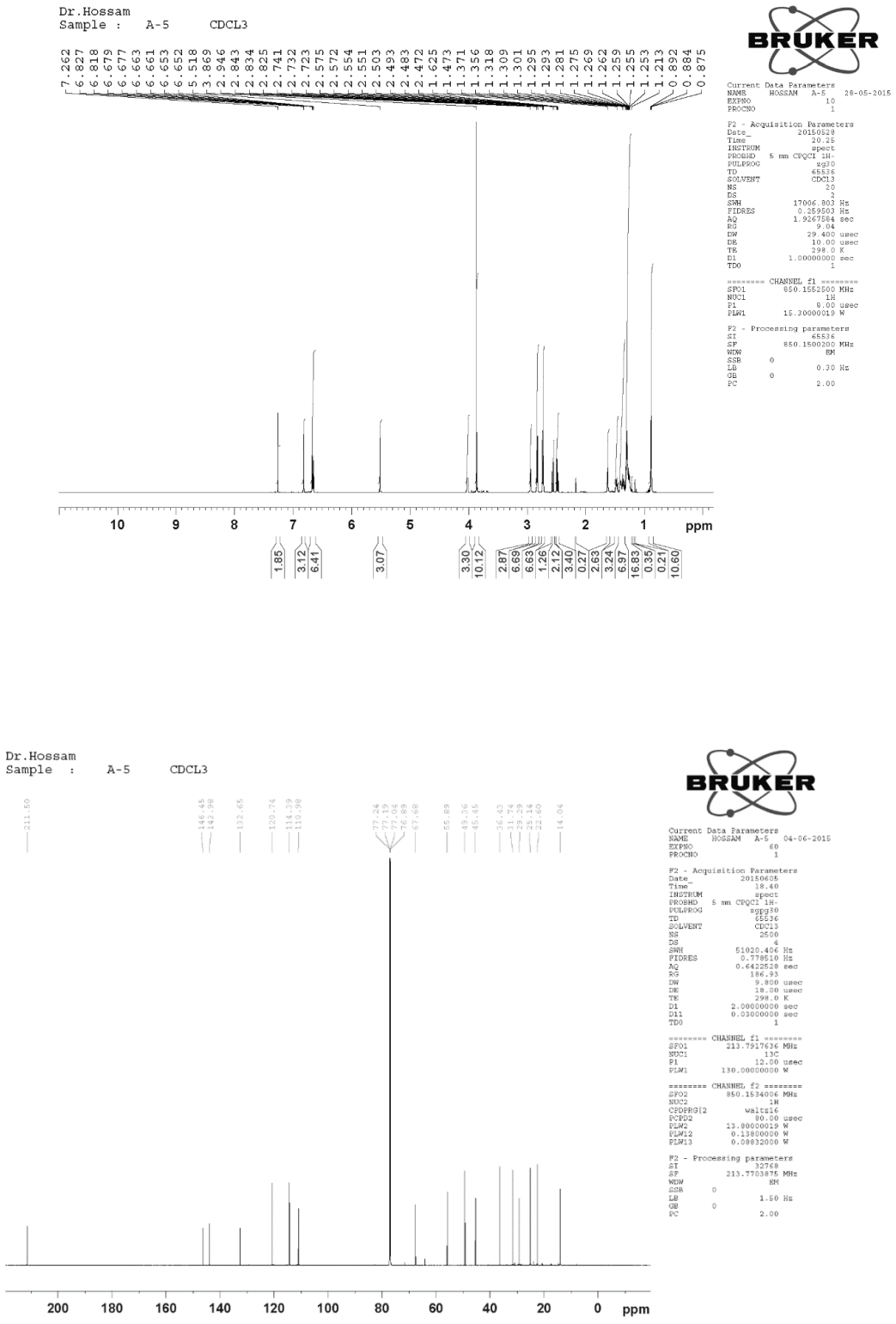
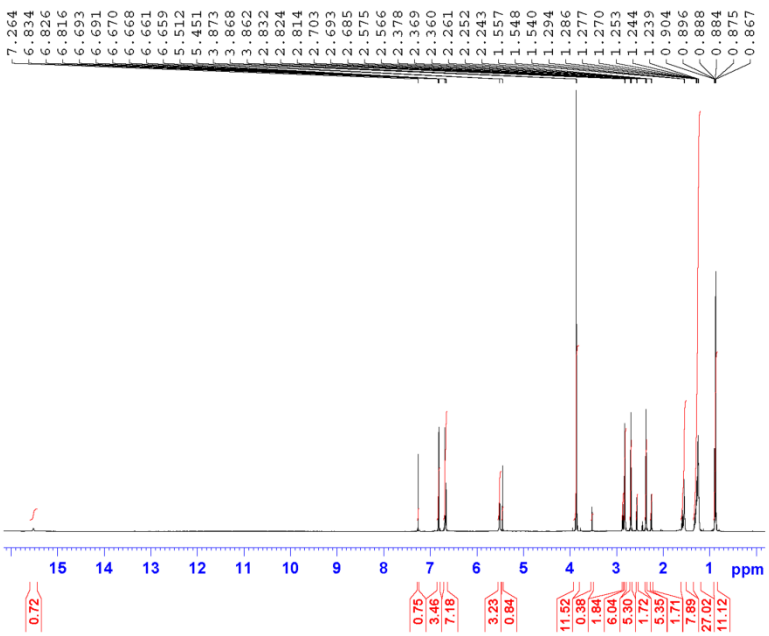


Figure S1. ^{1}H and ^{13} C NMR charts of **6-gingerol**
(Samples were recorded on DRX-850 spectrometer (Bruker BioSpin, Billerica,MA, USA).

Dr.Hossam
Sample : PARADOL CDCL3



Current Data Parameters
NAME HOSSAM PARAD 21-01-2015
EXPNO 10
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150121
Time 13.40
INSTRUM spect
PROBHD 5 mm CPQCI 1H-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 32
DS 2
SWH 17006.803 Hz
FIDRES 0.259503 Hz
AQ 1.9267584 sec
RG 7.85
DW 29.400 usec
DE 10.00 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1

======== CHANNEL f1 ========
SFO1 850.1552500 MHz
NUC1 1H
P1 8.00 usec
PLW1 15.30000019 W

F2 - Processing parameters
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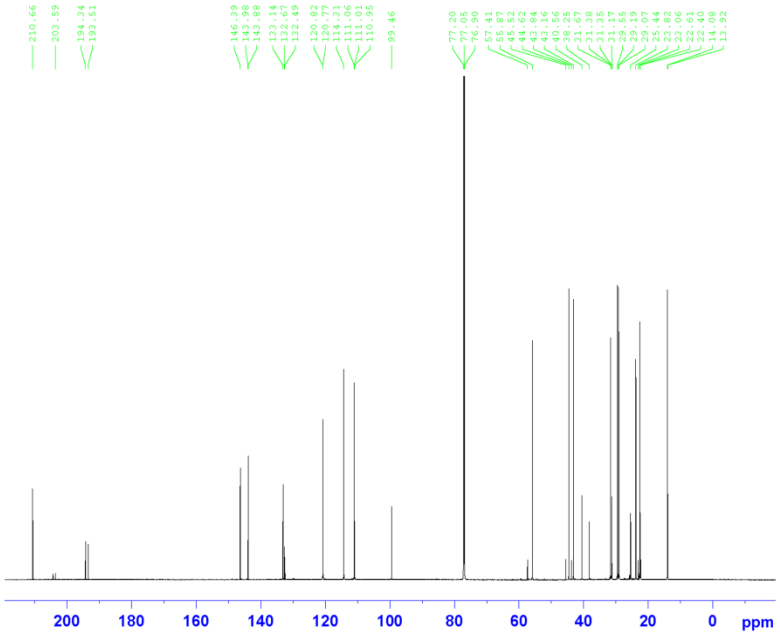
SF 850.1500185 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 2.00

Dr.Hossam
Sample : PARADOL CDCL3



Current Data Parameters
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EXPNO 40
PROCNO 1

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TD 65536
SOLVENT CDCl3
NS 4096
DS 4
SWH 51020.406 Hz
FIDRES 0.778510 Hz
AQ 0.6422528 sec
RG 196.93
DW 9.800 usec
DE 10.00 usec
TE 298.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

======== CHANNEL f1 ========
SFO1 213.7917636 MHz
NUC1 13C
P1 12.00 usec
PLW1 130.00000000 W

======== CHANNEL f2 ========
SFO2 850.1534006 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 80.00 usec
PLW2 13.80000019 W
PLW12 0.13800000 W
PLW13 0.08832000 W

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SSB 0
LB 1.50 Hz
GB 0
PC 2.00

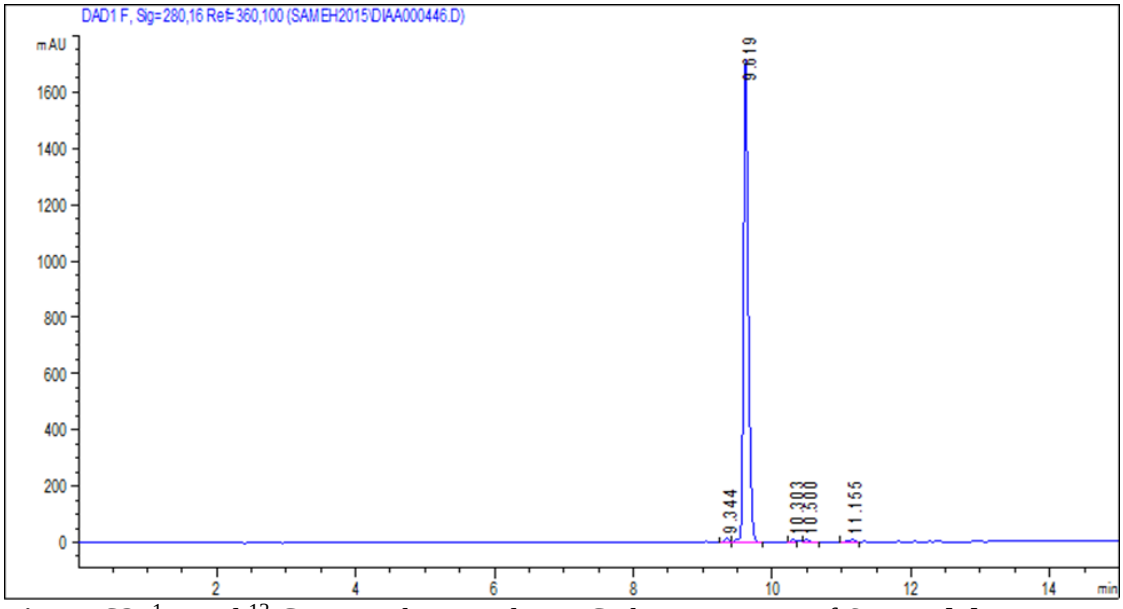
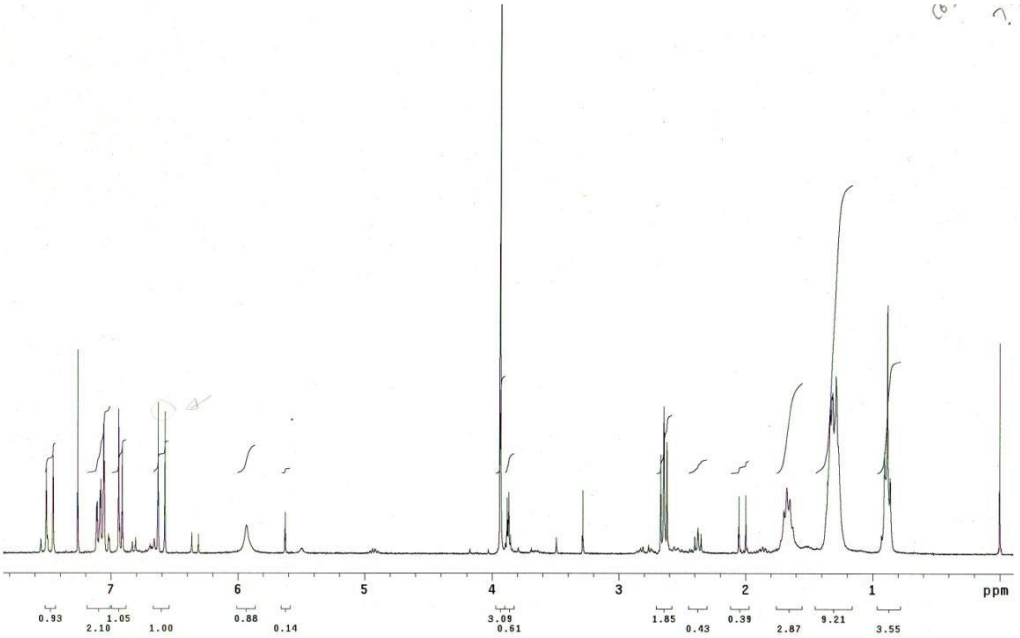
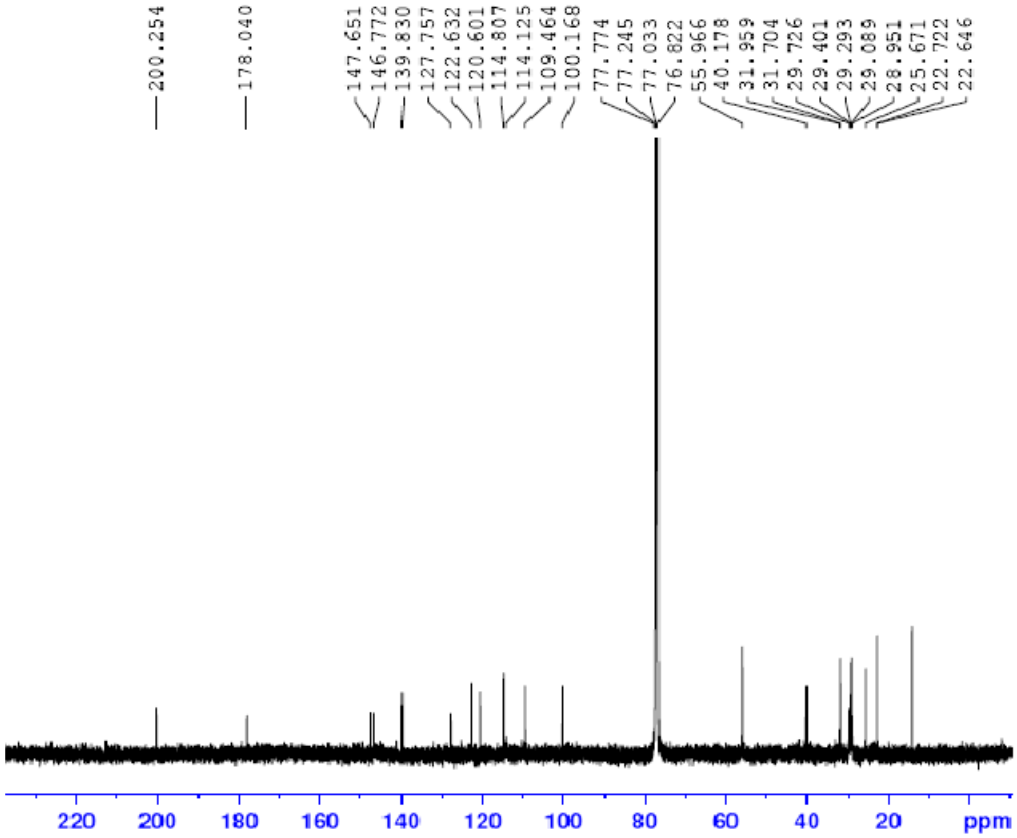


Figure S2. ^{1}H and ^{13} C NMR charts and HPLC chromatogram of **6-paradol**
(Samples were recorded on DRX-850 spectrometer (Bruker BioSpin, Billerica,MA, USA).


7
6
5
4
3
2
1
ppm
0.93
2.10
1.05
1.00
0.88
0.14
3.09
0.61
1.85
0.43
0.39
2.87
9.21
3.55


200.254
178.040
147.651
146.772
139.830
127.757
122.632
120.601
114.807
114.125
109.464
100.168
77.774
77.245
77.033
76.822
55.966
40.178
31.959
31.704
29.726
29.401
29.293
29.089
28.951
25.671
22.722
22.646
220
200
180
160
140
120
100
80
60
40
20
ppm

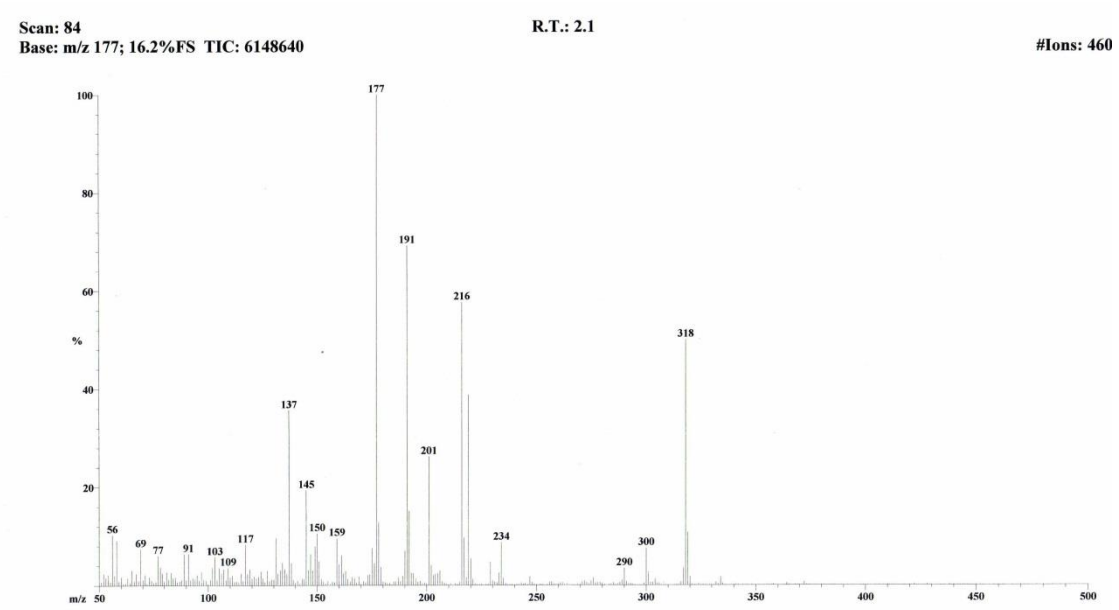
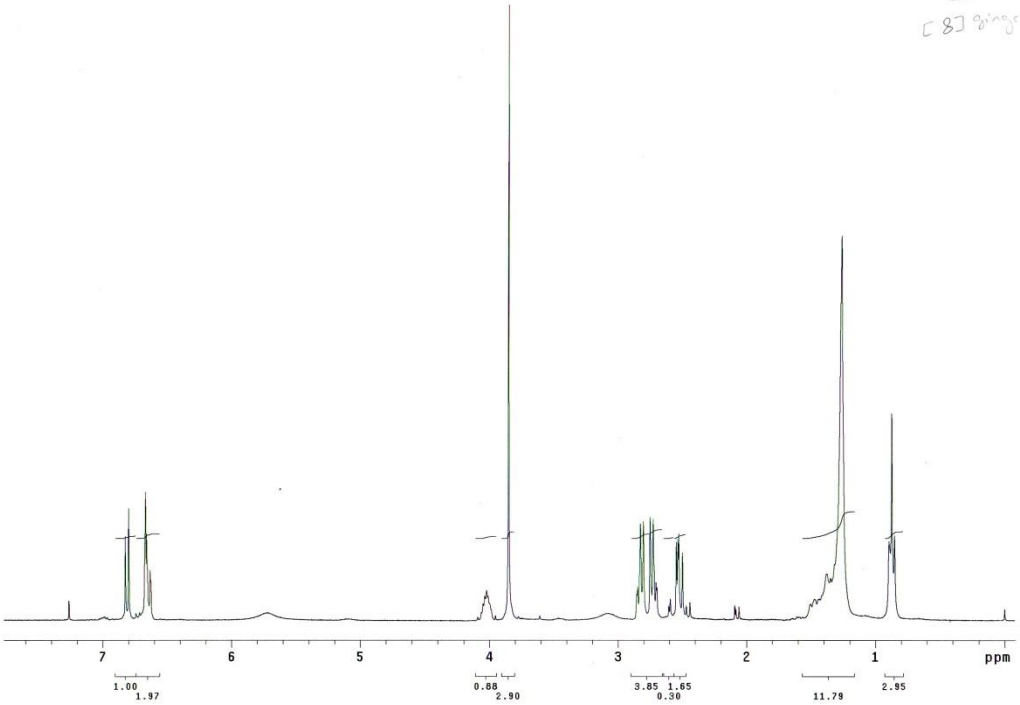
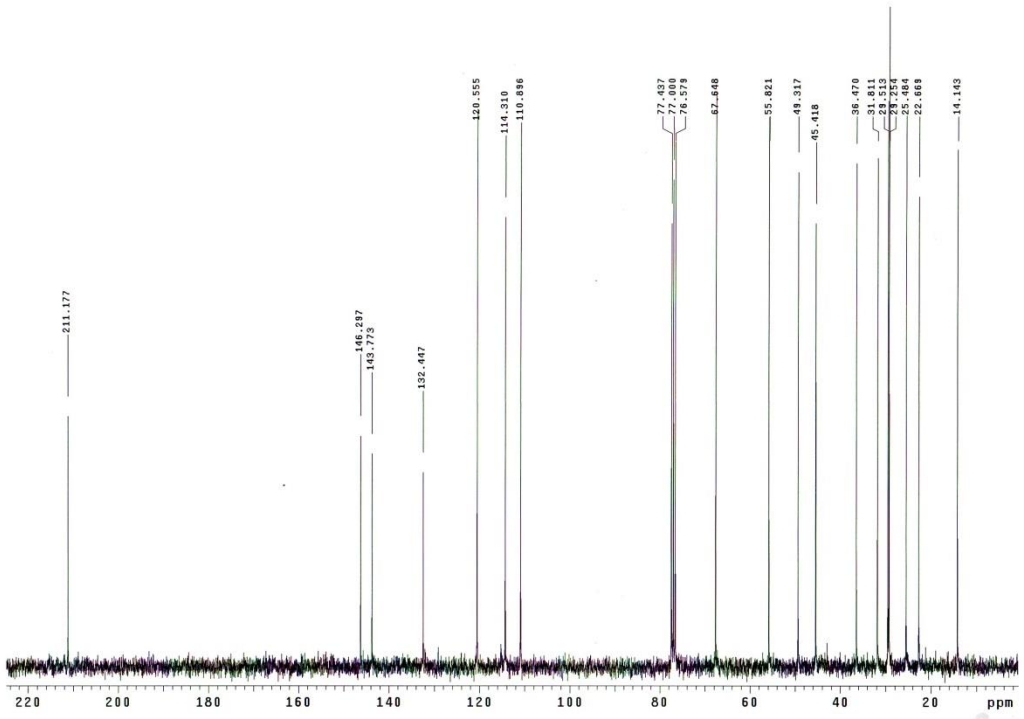


Figure S3. ^{1}H and ^{13}C NMR and Ms Charts of 8-**dehydrogingerdione (3)**

3-7-3

[8] gingerol





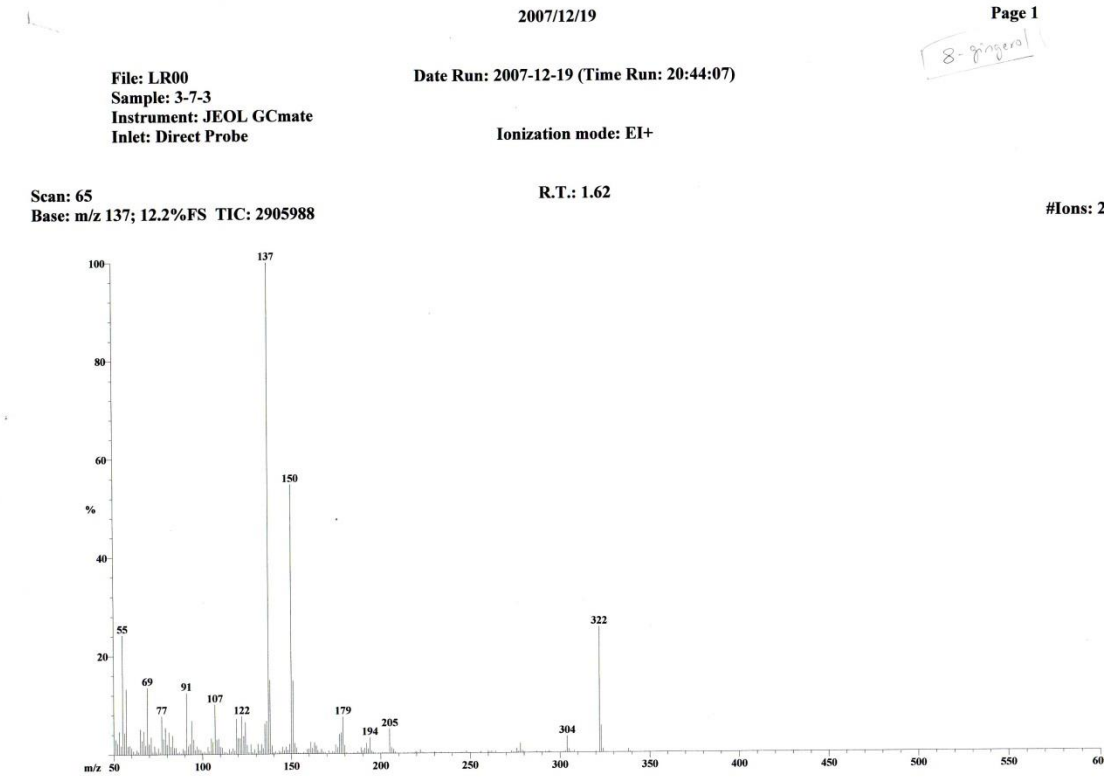
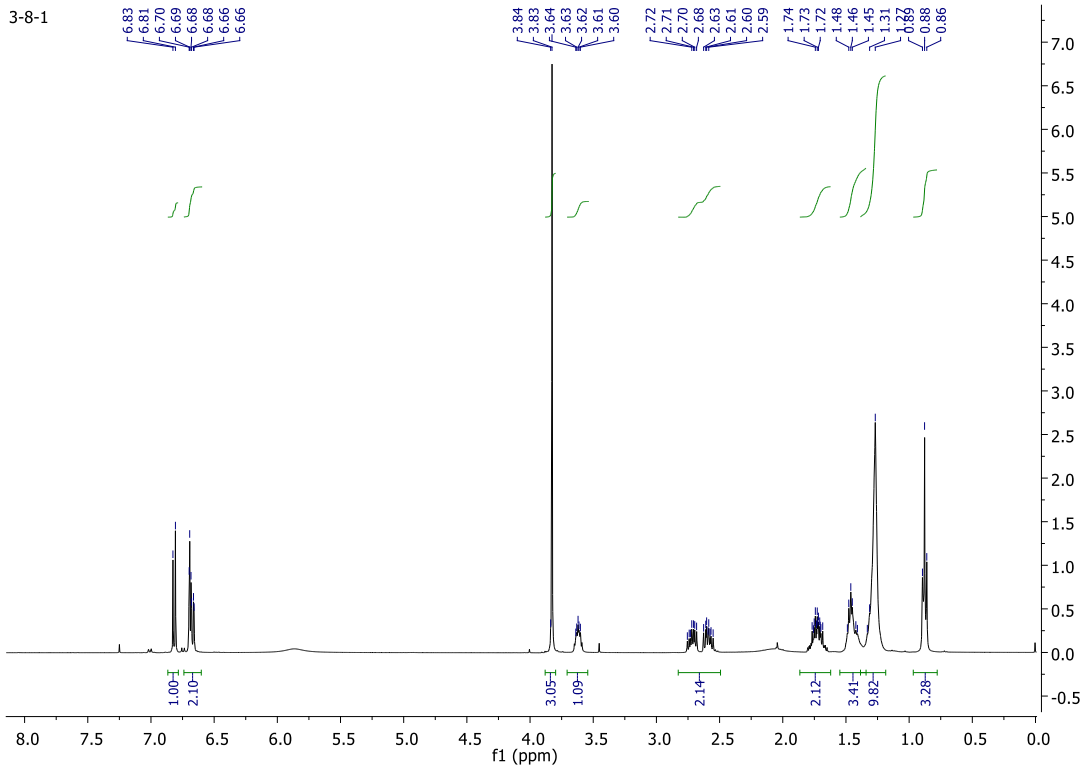


Figure S4. ^{1}H and ^{13} C NMR and MS charts of **8-gingerol (4)**



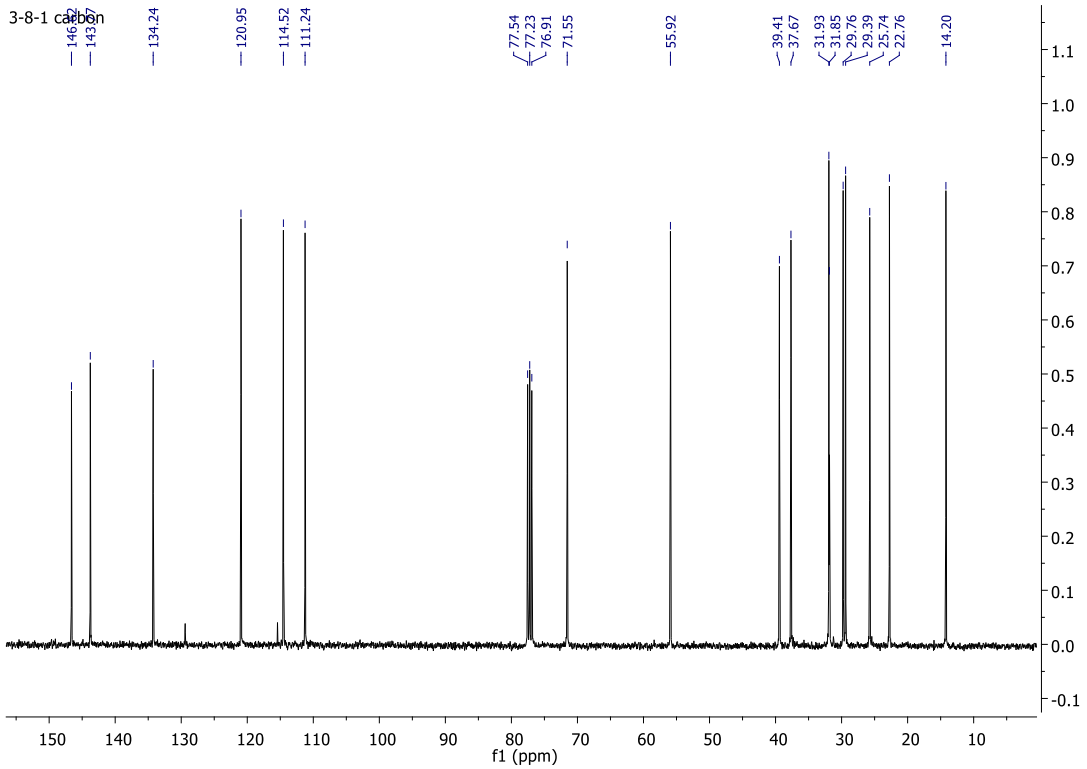
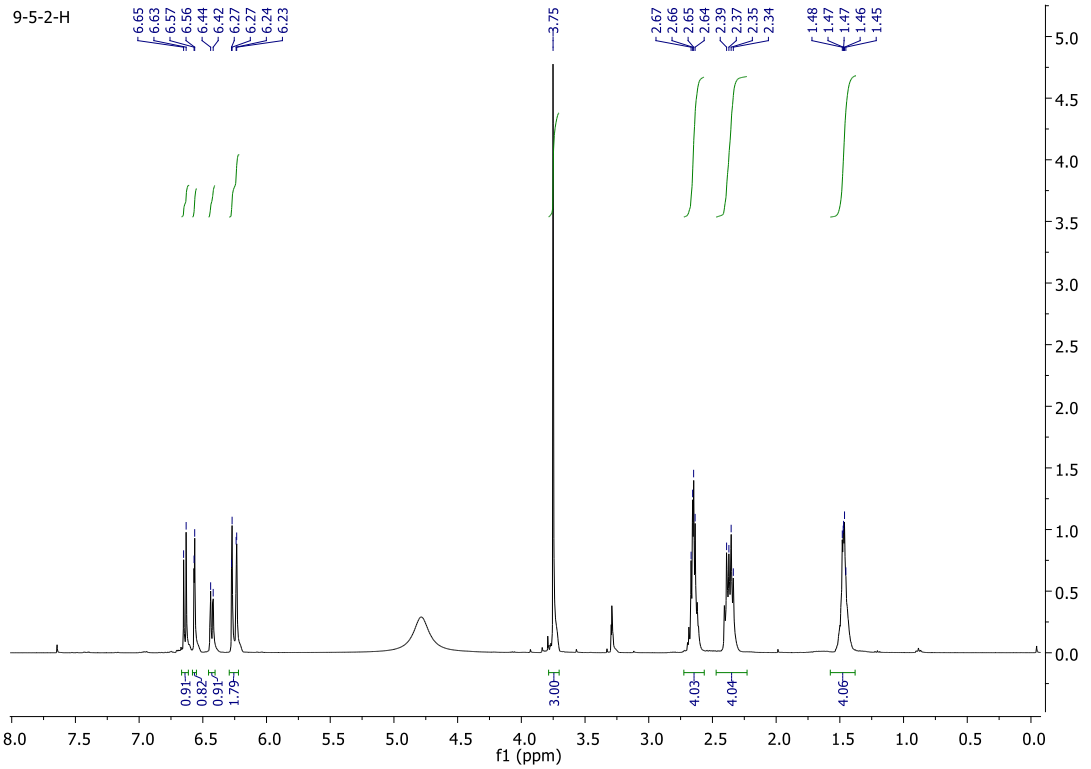
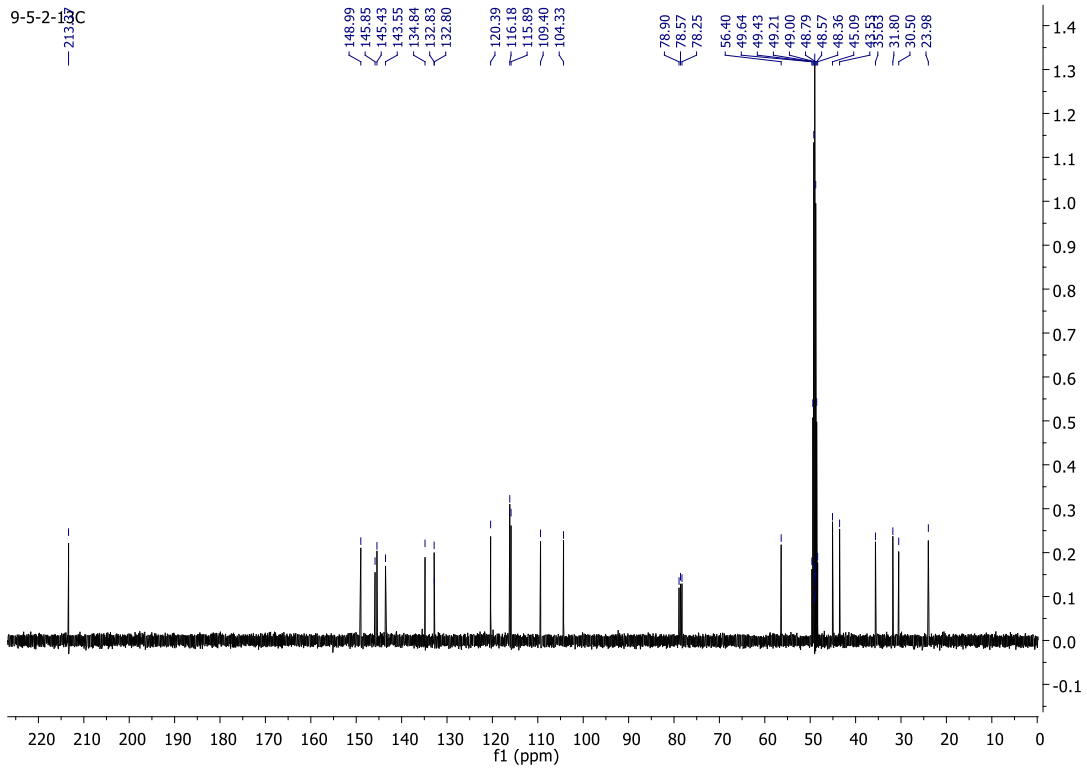


Figure S5. ^{1}H and ^{13}C NMR charts of **dihydro-6-paradol (5)**


9-5-2-H
6.65
6.63
6.57
6.56
6.44
6.42
6.27
6.27
6.24
6.23
3.75
2.67
2.66
2.65
2.64
2.39
2.37
2.35
2.34
1.48
1.47
1.47
1.46
1.45
0.91
0.82
0.91
1.79
3.00
4.03
4.04
4.06
f1 (ppm)


9-5-2-13C
213.37
148.99
145.85
145.43
143.55
134.84
132.83
132.80
120.39
116.18
115.89
109.40
104.33
78.90
78.57
78.25
56.40
49.64
49.43
49.21
49.00
48.79
48.57
48.36
45.09
43.53
35.63
31.80
30.50
23.98
f1 (ppm)

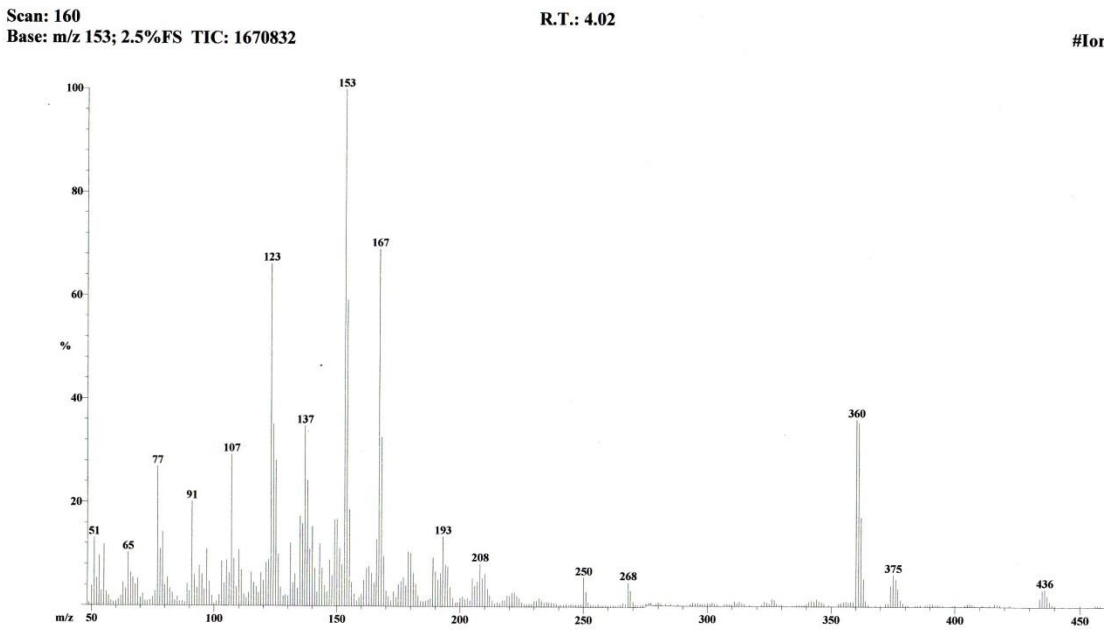


Figure S6. ^{1}H and ^{13} C NMR and Ms charts of **dihydrogingerenone-A (6)**

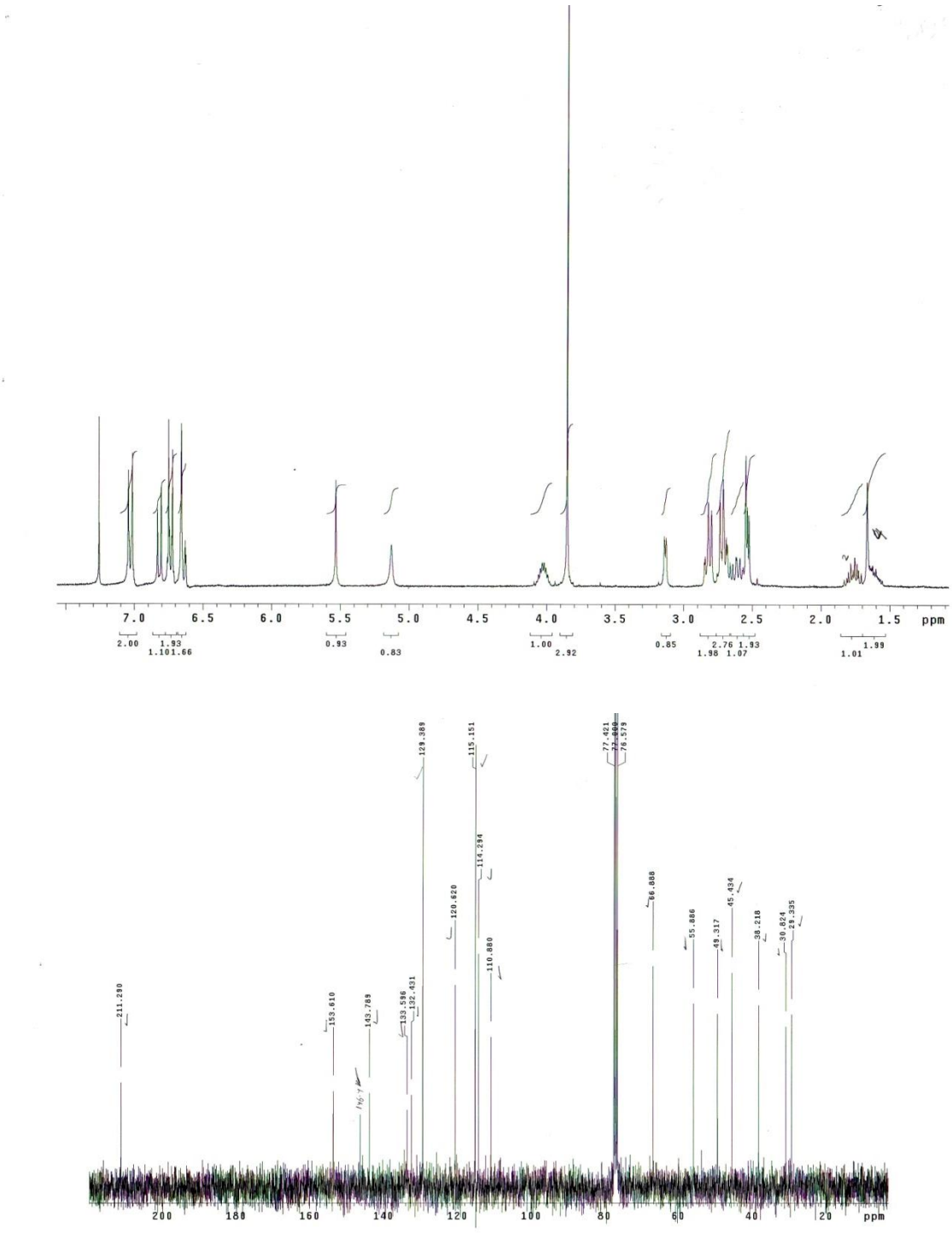


Figure S7. ^{1}H and ^{13} C NMR charts of **dihydrogingerenone-C (7)**

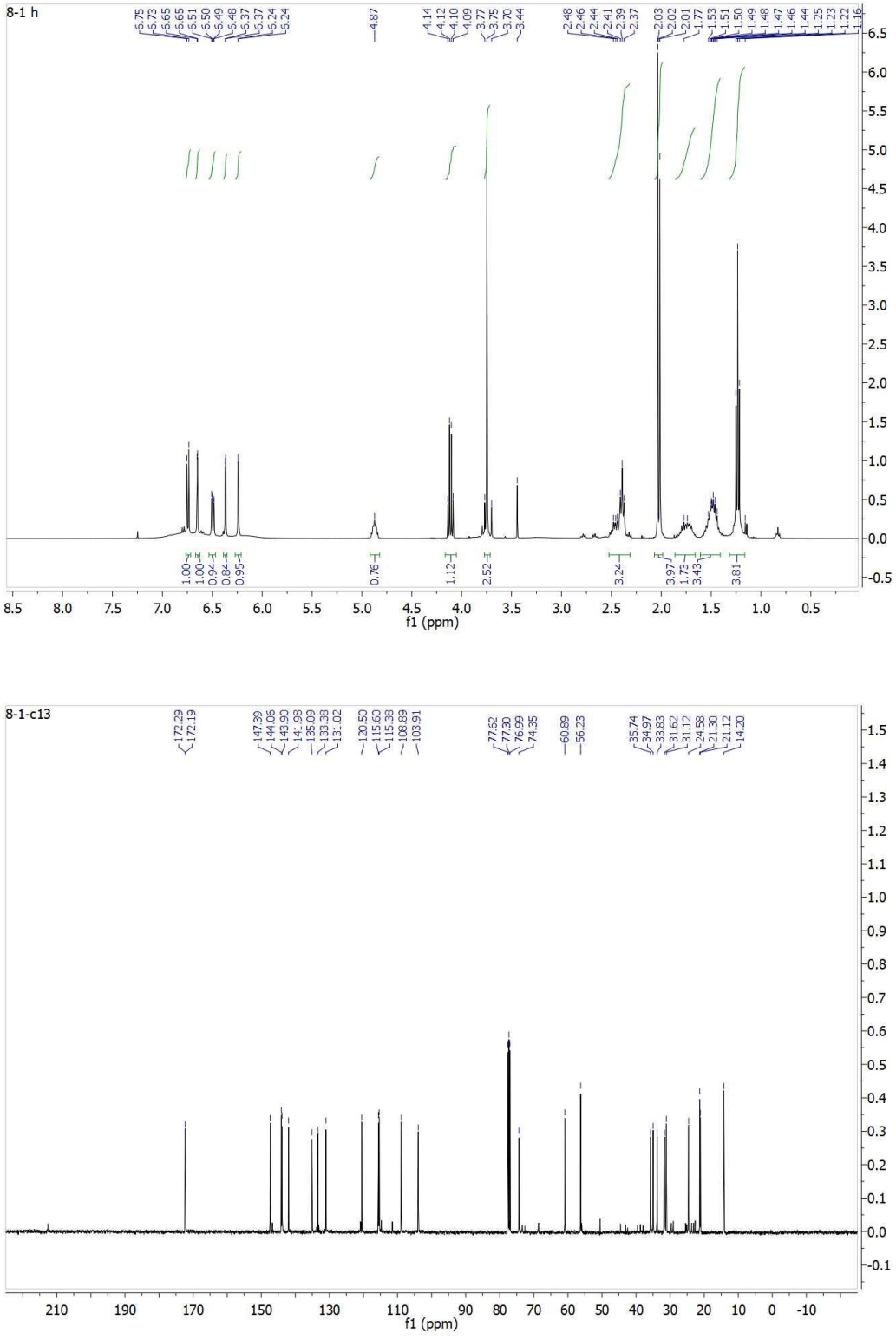


Figure S8. ^{1}H and ^{13} C NMR charts of **compound 8**

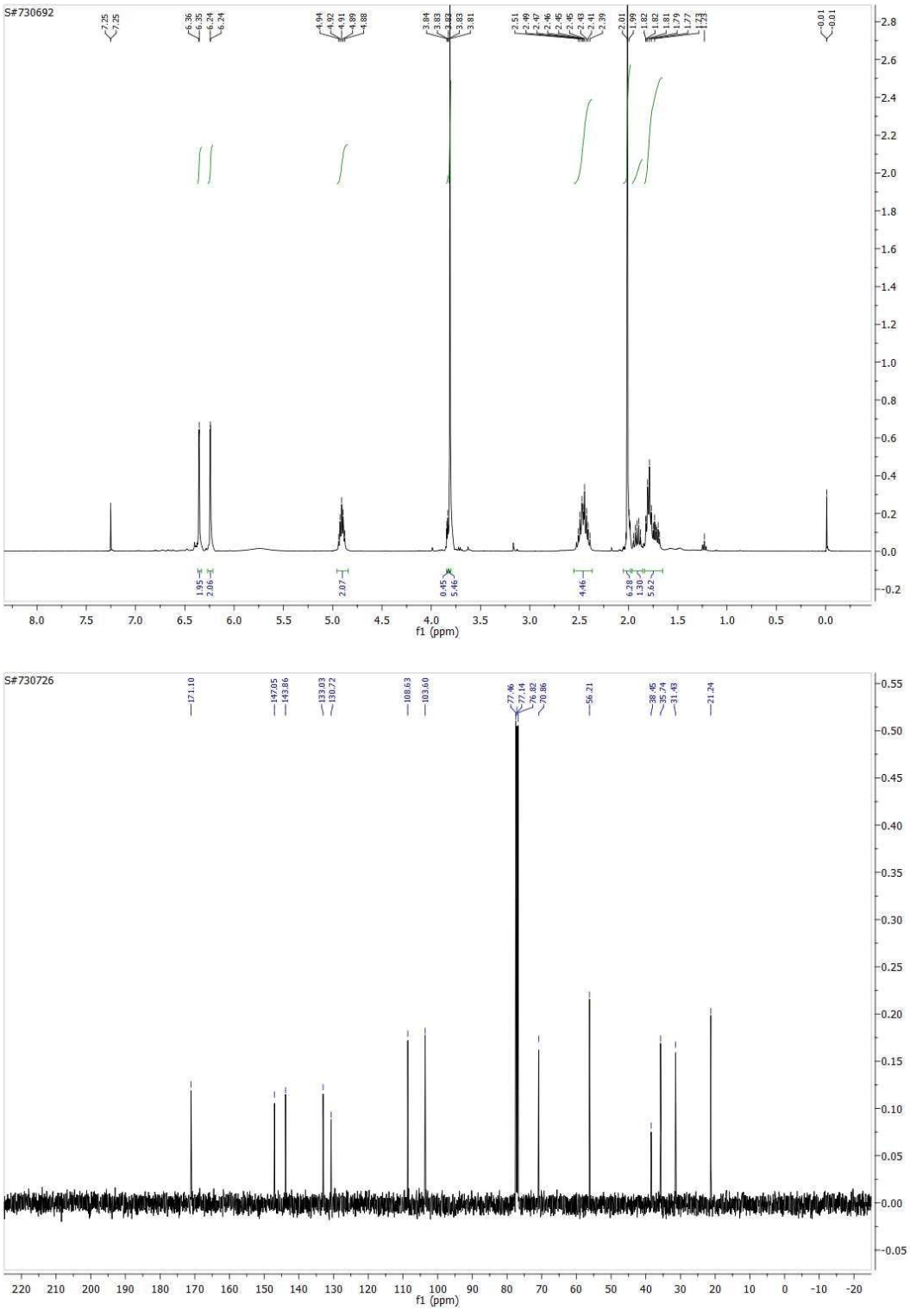


Figure S9. ^{1}H and ^{13}C NMR charts of **compound 9**

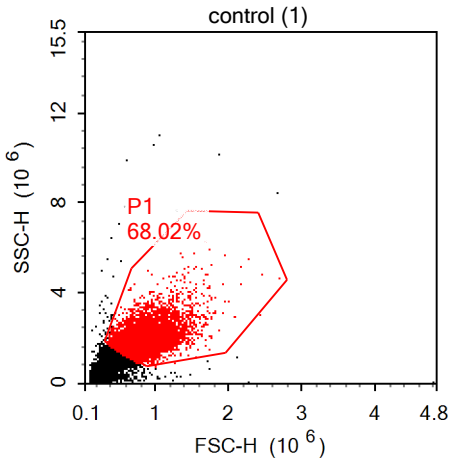
Report of Specimen1

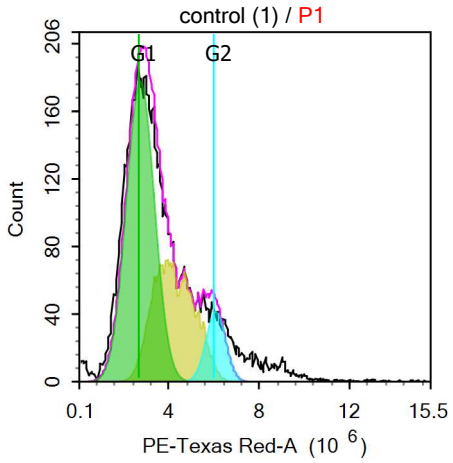
Specimen Name: Specimen1

Run Time: 11/8/2016 2:22 PM

Cytometer: NovoCyte 451141011592

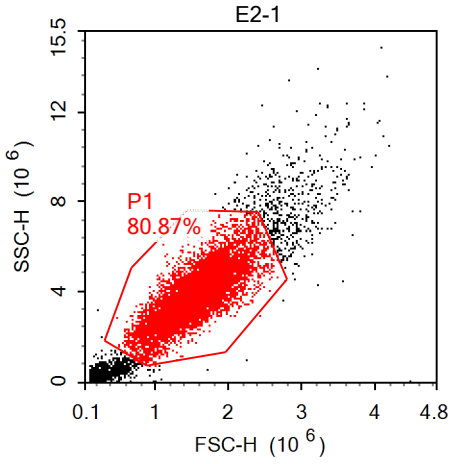
Software: NovoExpress 1.1.0

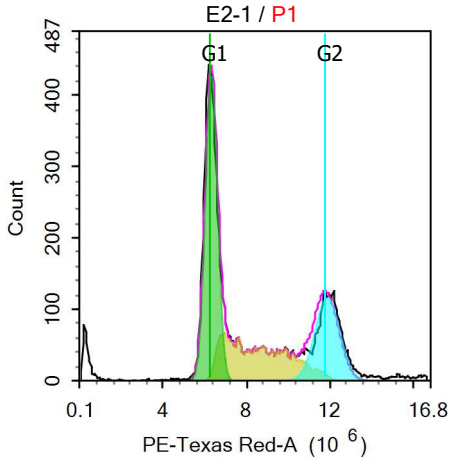




Gate	Count	% All	Mean X	Mean Y
All	12,000	100.00 %	661,934	1,522,012
P1	8,162	68.02 %	814,598	1,906,709

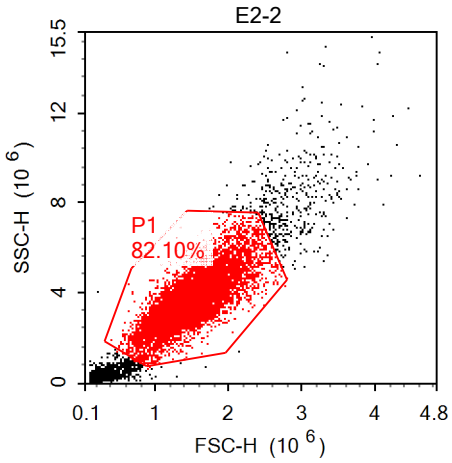
RMS	Freq G1	Freq S	Freq G2	G2/G1	CV G1
11.50	52.54	31.35	8.67	2.21	22.48 %

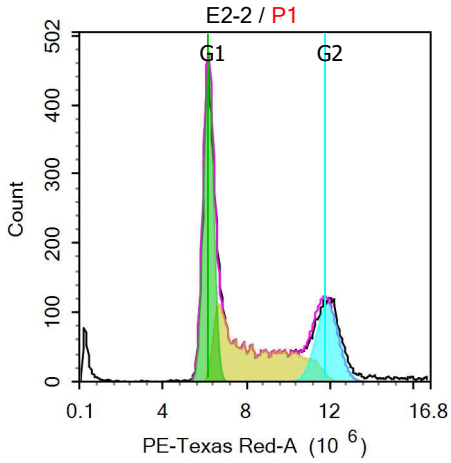




Gate	Count	% All	Mean X	Mean Y
All	12,000	100.00 %	1,356,756	3,379,520
P1	9,704	80.87 %	1,478,921	3,699,377

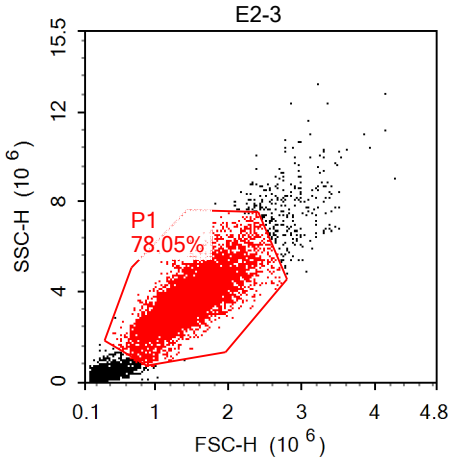
RMS	Freq G1	Freq S	Freq G2	G2/G1	CV G1
15.72	41.83	29.44	23.25	1.88	4.56 %

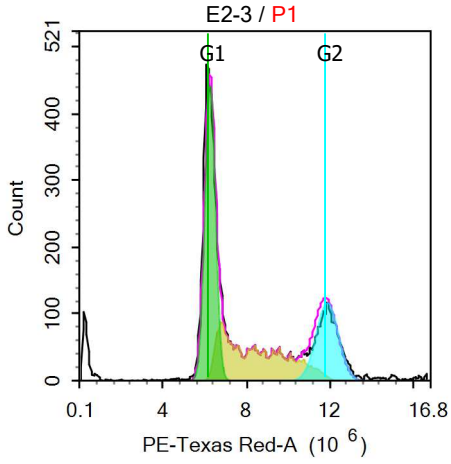




Gate	Count	% All	Mean X	Mean Y
All	12,000	100.00 %	1,362,533	3,343,269
P1	9,852	82.10 %	1,484,045	3,647,778

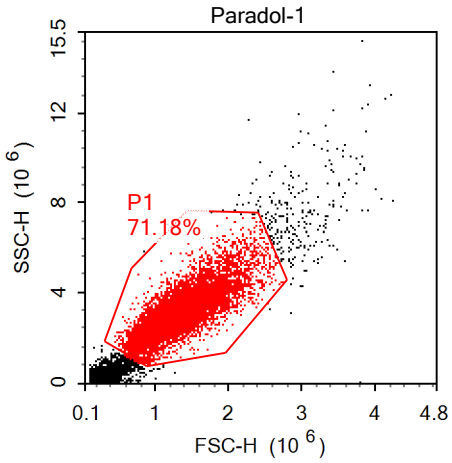
RMS	Freq G1	Freq S	Freq G2	G2/G1	CV G1
11.04	36.81	36.63	19.89	1.92	3.92 %

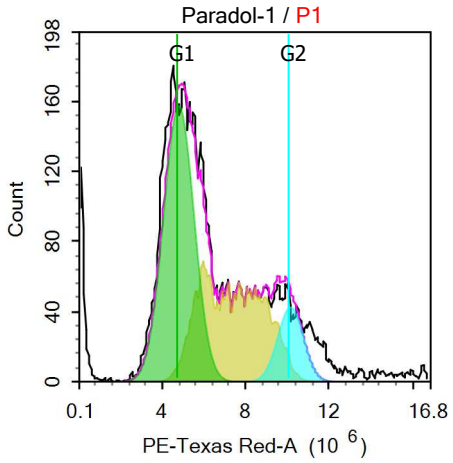




Gate	Count	% All	Mean X	Mean Y
All	12,000	100.00 %	1,244,211	3,028,538
P1	9,366	78.05 %	1,441,499	3,563,016

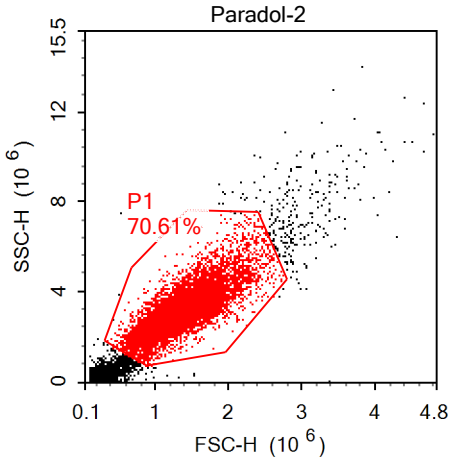
RMS	Freq G1	Freq S	Freq G2	G2/G1	CV G1
16.50	39.07	32.04	21.73	1.90	4.02 %

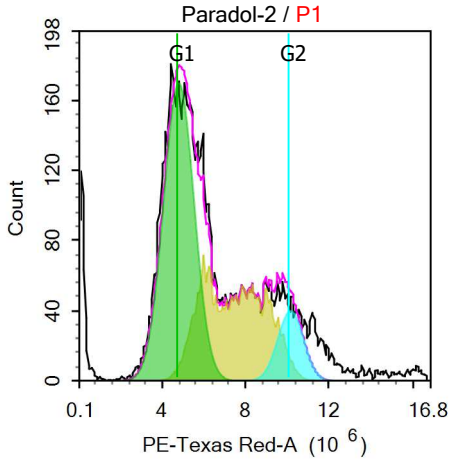




Gate	Count	% All	Mean X	Mean Y
All	12,000	100.00 %	1,099,213	2,490,806
P1	8,542	71.18 %	1,363,014	3,175,923

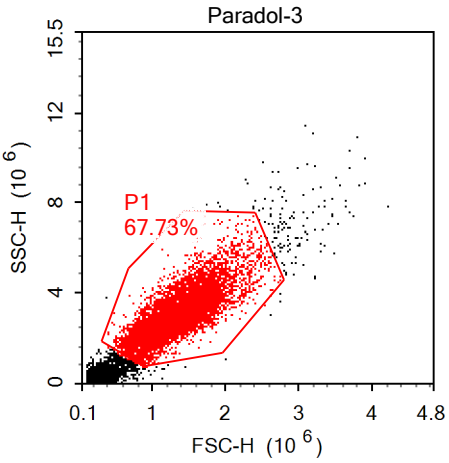
RMS	Freq G1	Freq S	Freq G2	G2/G1	CV G1
10.77	41.79	34.58	9.56	2.11	15.06 %

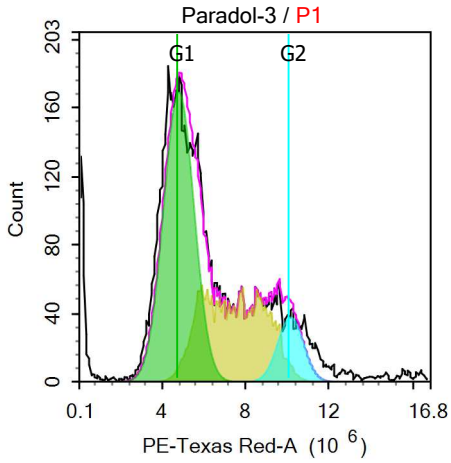




Gate	Count	% All	Mean X	Mean Y
All	12,000	100.00 %	1,094,594	2,489,568
P1	8,473	70.61 %	1,359,290	3,180,320

RMS	Freq G1	Freq S	Freq G2	G2/G1	CV G1
10.63	44.84	33.32	8.93	2.11	15.06 %





Gate	Count	% All	Mean X	Mean Y
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P1	8,127	67.73 %	1,324,895	3,076,992

RMS	Freq G1	Freq S	Freq G2	G2/G1	CV G1
11.48	46.88	32.19	8.85	2.11	15.06 %