

Supplemental Materials

Cytotoxic triterpenes from *Salacia crassifolia* and metabolite profiling of Celastraceae species

Laila S. Espindola ^{1,2,*}, Renata G. Dusi ^{1,2}, Daniel P. Demarque ¹, Raimundo Braz-Filho ³, Pengcheng Yan ^{2,4}, Heidi R. Bokesch ^{2,5}, Kirk R. Gustafson ² and John A. Beutler ²

¹ Laboratório de Farmacognosia, Universidade de Brasília, Campus Universitário Darcy Ribeiro, Brasília 70910-900, Brazil; renatadusi@hotmail.com (R.G.D.); dpdemarque@gmail.com (D.P.D.)

² Molecular Targets Program, National Cancer Institute, Frederick, MD 21702, USA;
yanpc@wzmc.edu.cn (P.Y.); bokeschh@mail.nih.gov (H.R.B.); gustafki@mail.nih.gov (K.R.G.);
beutler@mail.nih.gov (J.A.B.)

³ FAPERJ/Departamento de Química, Universidade Federal Rural do Rio de Janeiro, Seropédica, RJ and
Laboratório de Ciências Químicas, Universidade Estadual do Norte Fluminense, Campos dos
Goytacazes, Rio de Janeiro, Brazil; braz@uenf.br

⁴ School of Pharmaceutical Sciences, Wenzhou Medical University, Wenzhou 325035, China

⁵ Basic Science Program, Leidos Biomedical Research, Inc., Frederick National Laboratory for Cancer
Research sponsored by the National Cancer Institute, Frederick, MD 21702, USA

* Correspondence: darvenne@unb.br; Tel.: +55-61-3107-2016

List of Supporting Information

(S1) Cytotoxicity of *S. crassifolia* root wood hexane extract in colon COLO205 and KM12; renal A498 and U031; osteosarcoma MG63 and MG63.3 cancer cell lines.

(S2) NCI-60 single dose bar graph of *S. crassifolia* root wood extract.

(S3) NCI-60 single dose mean bar graph of *S. crassifolia* root wood extract.

(S4) NCI-60 dose response curves for *S. crassifolia* root wood extract.

(S5) NCI-60 5-dose mean bar graph of *S. crassifolia* root wood extract.

(S6) NCI-60 cumulative dose response curves for *S. crassifolia* root wood extract.

(S7) Cytotoxicity of DIOL fractions A-E of *S. crassifolia* root wood hexane extract in renal A498 and U031 cancer cell lines.

(S8) Cytotoxicity of DIOL fractions A-E of *S. crassifolia* root wood hexane extract in osteosarcoma MG63 and MG63.3 cell lines.

(S9) Cytotoxicity of DIOL fractions A-E of *S. elliptica* root wood ethyl acetate extract in renal A498 and U031 cancer cell lines.

(S10) Cytotoxicity of DIOL fractions A-E of *S. elliptica* root wood ethyl acetate extract in osteosarcoma MG63 and MG63.3 cell lines.

(S11) HRESIMS spectrum of 11β -hydroxypristimerin (**1**).

(S12) Infrared spectrum of 11β -hydroxypristimerin (**1**).

(S13) UV spectrum of 11β -hydroxypristimerin (**1**).

(S14) ^1H NMR spectrum (600 MHz) of 11β -hydroxypristimerin (**1**) in CDCl_3 .

(S15) ^{13}C NMR spectrum (150 MHz) of 11β - hydroxypristimerin (**1**) in CDCl_3 .

(S16) COSY spectrum of 11β -hydroxypristimerin (**1**) in CDCl_3 .

(S17) HSQC spectrum of 11β -hydroxypristimerin (**1**) in CDCl_3 .

(S18) HMBC spectrum of 11β -hydroxypristimerin (**1**) in CDCl_3 .

(S19) NMR Spectroscopic Data (^1H 600 MHz, ^{13}C 150 MHz) for 11β -hydroxypristimerin (**1**) in CDCl_3 .

(S20) Chromatogram, MS1 and MS2 spectra of the LC-MS/MS analysis of pristimerin (**2**).

(S21) ^1H NMR spectrum (600 MHz) of pristimerin (**2**) in CDCl_3 .

(S22) ^{13}C NMR spectrum (150 MHz) of pristimerin (**2**) in CDCl_3 .

(S23) COSY spectrum of pristimerin (**2**) in CDCl_3 .

(S24) HSQC spectrum of pristimerin (**2**) in CDCl_3 .

(S25) NMR spectroscopic data (^1H 600 MHz, ^{13}C 150 MHz) for pristimerin (**2**) in CDCl_3

(S26) Chromatogram, MS1 and MS2 spectra of the LC-MS/MS analysis of 6-oxopristimerol (**3**).

(S27) ^1H NMR spectrum (600 MHz) of 6-oxopristimerol (**3**) in CDCl_3 .

(S28) ^{13}C NMR spectrum (150 MHz) of 6-oxopristimerol (**3**) in CDCl_3 .

(S29) COSY spectrum of 6-oxopristimerol (**3**) in CDCl_3 .

(S30) HSQC spectrum of 6-oxopristimerol (**3**) in CDCl_3 .

(S31) HMBC spectrum of 6-oxopristimerol (**3**) in CDCl_3 .

(S32) NMR spectroscopic data (^1H 600 MHz, ^{13}C 150 MHz) for 6-oxopristimerol (**3**) in CDCl_3

(S33) MS2 Mass spectrum of vitideasin (**4**).

(S34) ^1H NMR spectrum (600 MHz) of vitideasin (**4**) in CDCl_3 .

(S35) ^{13}C NMR spectrum (150 MHz) of vitideasin (**4**) in CDCl_3 .

(S36) COSY spectrum of vitideasin (**4**) in CDCl_3 .

(S37) HSQC spectrum of vitideasin (**4**) in CDCl_3 .

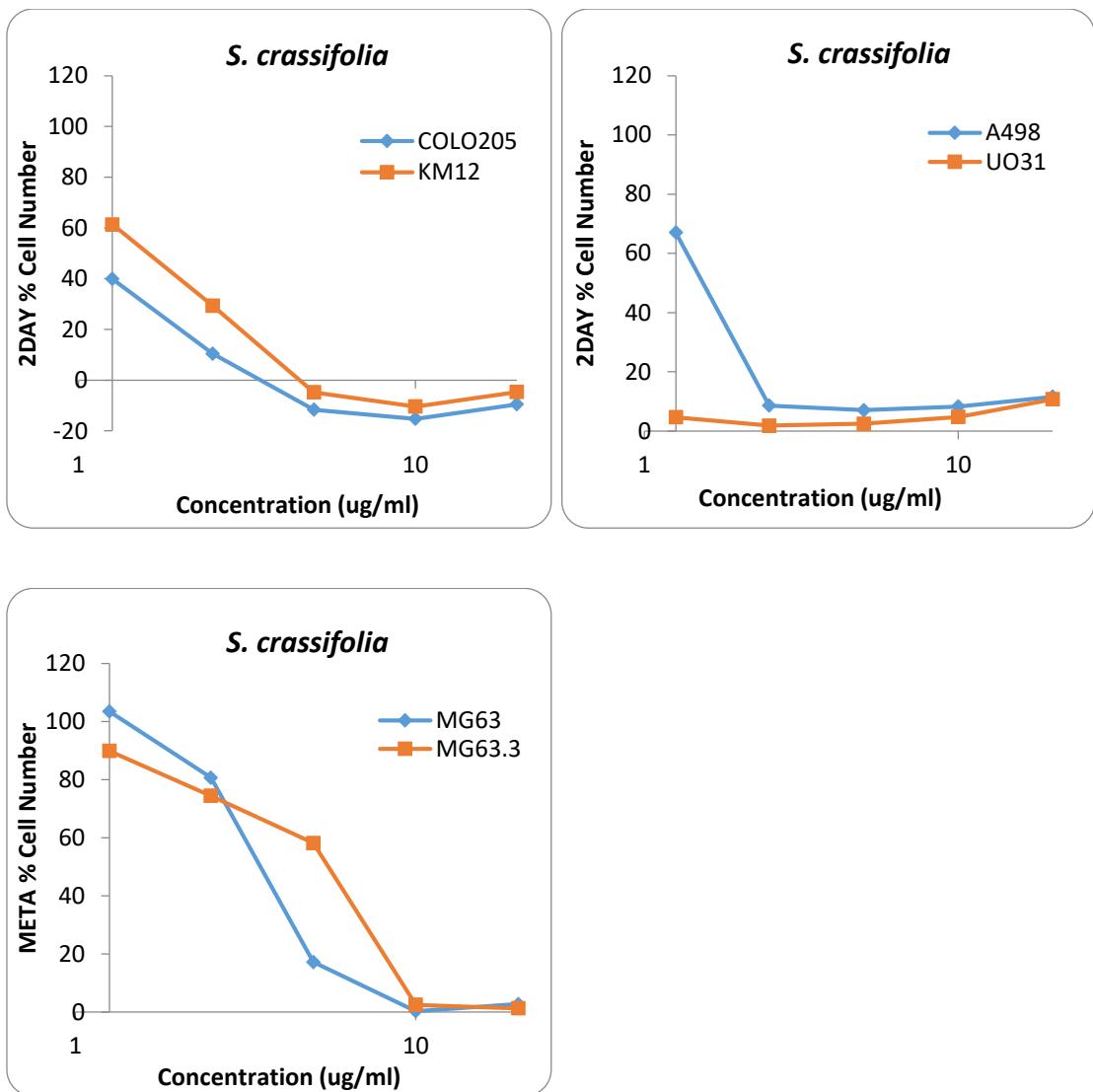
(S38) HMBC spectrum of vitideasin (**4**) in CDCl_3 .

(S39) NMR spectroscopic data (^1H 600 MHz, ^{13}C 150 MHz) for vitideasin (**4**) in CDCl_3 .

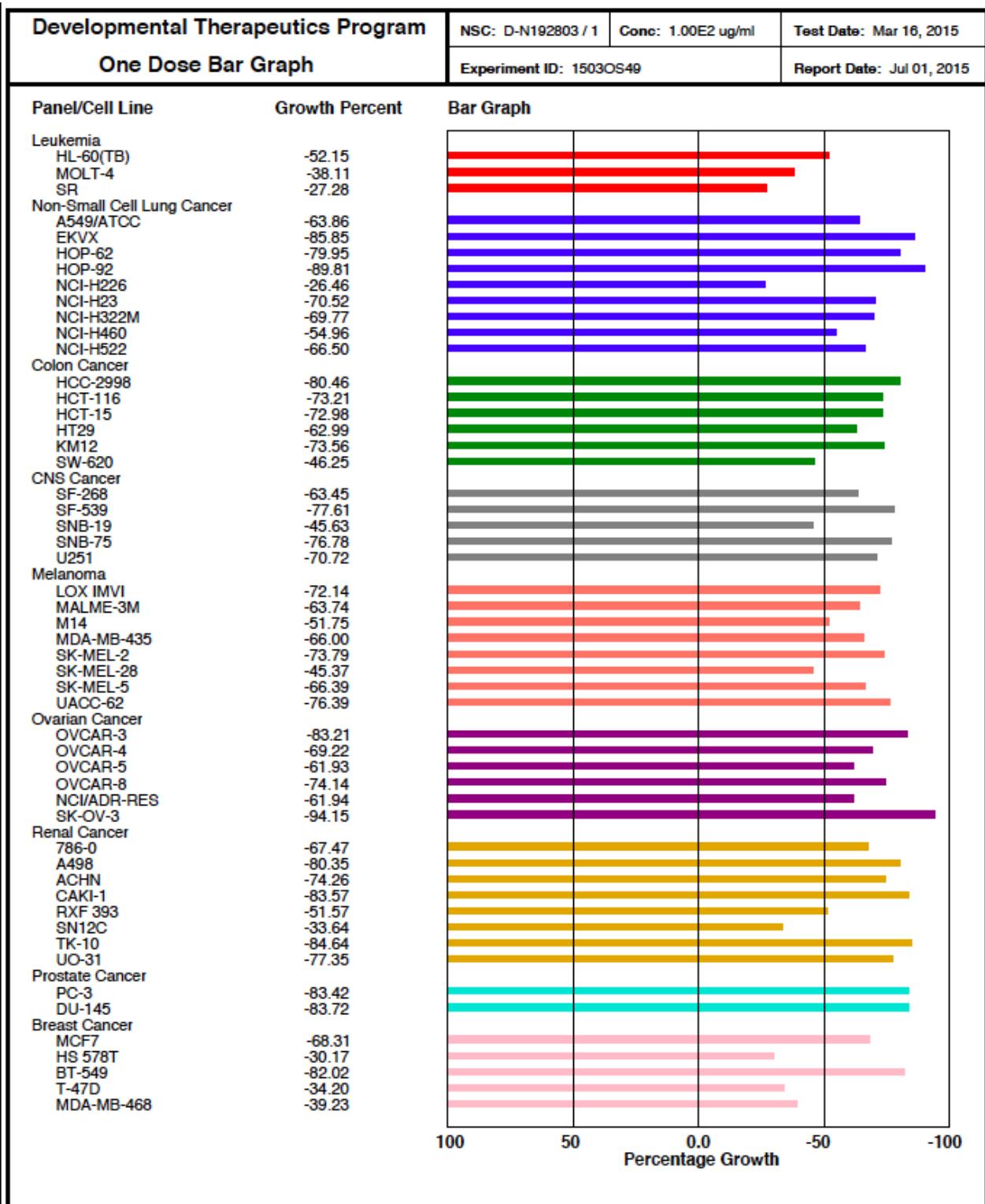
(S40) COMPARE between *S. crassifolia* and *S. elliptica* extracts.

(S41) COMPARE between *S. elliptica* extracts, pristimerin (**2**) and 11 β -hydroxypristimerin (**1**).

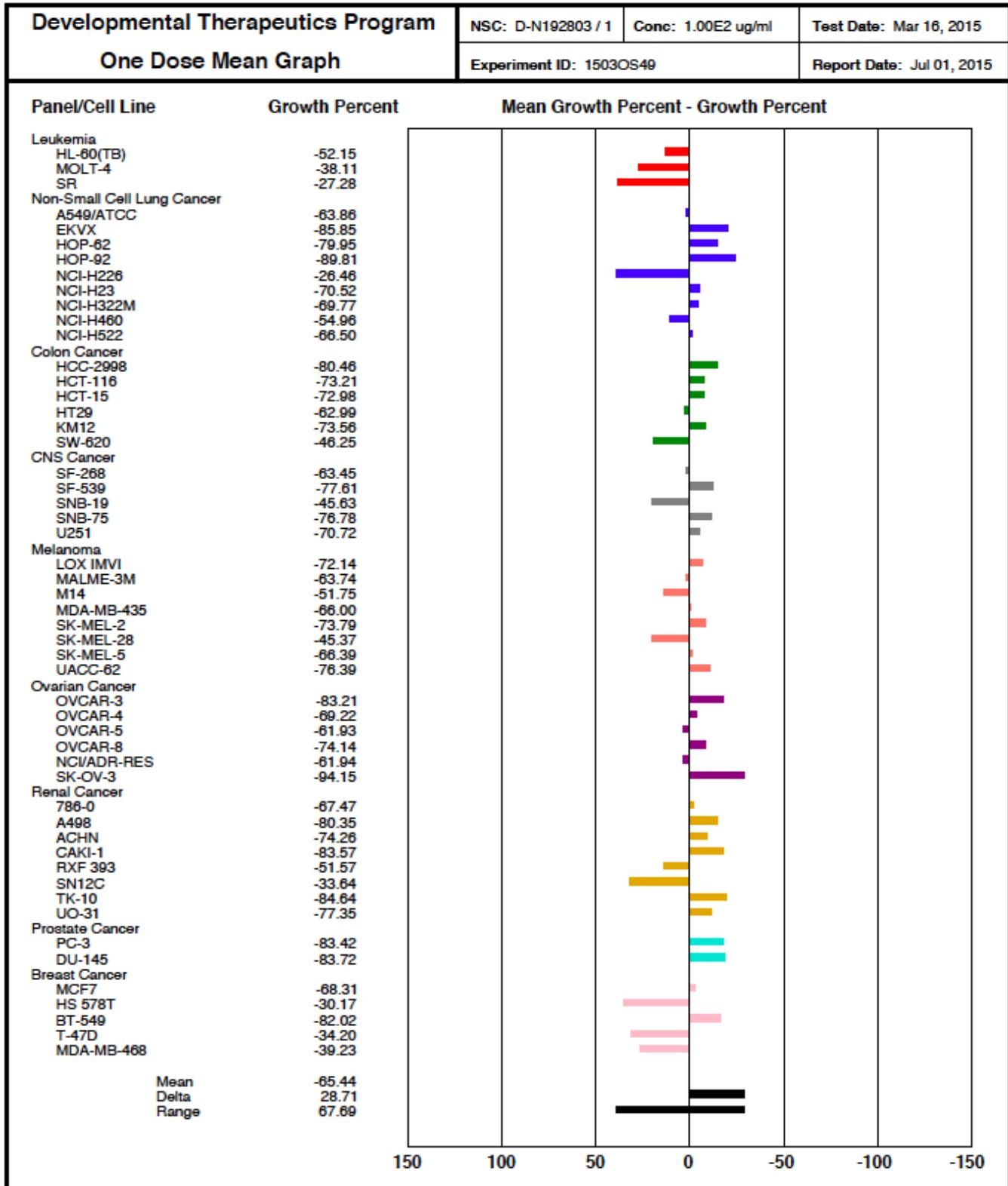
- (S42) NCI-60 single dose bar graph of *S. elliptica* root wood extract.
- (S43) NCI-60 single dose mean bar graph of *S. elliptica* root wood extract.
- (S44) NCI-60 dose response curves for *S. elliptica* root wood extract.
- (S45) NCI-60 5-dose mean bar graph of *S. elliptica* root wood extract.
- (S46) NCI-60 cumulative dose response curves for *S. elliptica* root wood extract.
- (S47) NCI-60 dose response curves for 11 β -hydroxypristimerin (1).
- (S48) NCI-60 5-dose mean bar graph of 11 β -hydroxypristimerin (1).
- (S49) NCI-60 cumulative dose response curves for 11 β -hydroxypristimerin (1).
- (S50) NCI-60 dose response curves for pristimerin (2).
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- (S52) NCI-60 cumulative dose response curves for pristimerin (2).
- (S53) NCI-60 single dose bar graph of 6-oxopristimerol (3).
- (S54) NCI-60 single dose mean bar graph of 6-oxopristimerol (3).



(S1) Cytotoxicity of *S. crassifolia* root wood hexane extract in colon COLO205 and KM12; renal A498 and U031; osteosarcoma MG63 and MG63.3 cancer cell lines.



(S2) NCI-60 single dose bar graph of *S. crassifolia* root wood extract.

(S3) NCI-60 single dose mean bar graph of *S. crassifolia* root wood extract.

National Cancer Institute Developmental Therapeutics Program

Dose Response Curves

NSC: N192803 / 1 SSPL: EXP. ID: 1506FS98

Report Date: July 01, 2015 Test Date: June 08, 2015

Leukemia

Percentage Growth vs \log_{10} of Sample Concentration (ug/ml)

Cell Lines: CCRF-CEM (red circle), HL-60(TB) (red square), K-562 (red triangle), MOLT-4 (blue square), RPMI-8226 (blue circle), SR (blue diamond)

Non-Small Cell Lung Cancer

Percentage Growth vs \log_{10} of Sample Concentration (ug/ml)

Cell Lines: A549(ATCC) (red circle), EKVX (red diamond), HOP-62 (red triangle), HOP-92 (red square), NCI-H226 (blue circle), NCI-H23 (blue diamond), NCI-H322M (blue triangle), NCI-H460 (blue square), NCI-H522 (green circle)

Colon Cancer

Percentage Growth vs \log_{10} of Sample Concentration (ug/ml)

Cell Lines: COLO 205 (red circle), HCC-2998 (red diamond), HCT-116 (red triangle), HCT-15 (red square), HT29 (blue circle), KM12 (blue diamond), SW-620 (blue triangle)

CNS Cancer

Percentage Growth vs \log_{10} of Sample Concentration (ug/ml)

Cell Lines: SF-268 (red circle), SF-295 (red diamond), SF-539 (red triangle), SNC-19 (red square), SNC-75 (blue circle), U251 (blue diamond)

Melanoma

Percentage Growth vs \log_{10} of Sample Concentration (ug/ml)

Cell Lines: LOX IMVI (red circle), MALME-3M (red diamond), M14 (red triangle), MDA-MB-435 (red square), SK-MEL-2 (blue circle), SK-MEL-28 (blue diamond), SK-MEL-5 (blue triangle), UACC-257 (blue square), UACC-62 (green circle)

Ovarian Cancer

Percentage Growth vs \log_{10} of Sample Concentration (ug/ml)

Cell Lines: IGROV1 (red circle), OVCAR-3 (red diamond), OVCAR-4 (red triangle), OVCAR-5 (red square), OVCAR-8 (blue circle), OVCAR-8 (blue diamond), SK-OV-3 (blue triangle)

Renal Cancer

Percentage Growth vs \log_{10} of Sample Concentration (ug/ml)

Cell Lines: 786-0 (red circle), A498 (red diamond), ACHN (red triangle), CAKI-1 (red square), RFX-393 (blue circle), UO-31 (blue diamond), TK-10 (blue triangle)

Prostate Cancer

Percentage Growth vs \log_{10} of Sample Concentration (ug/ml)

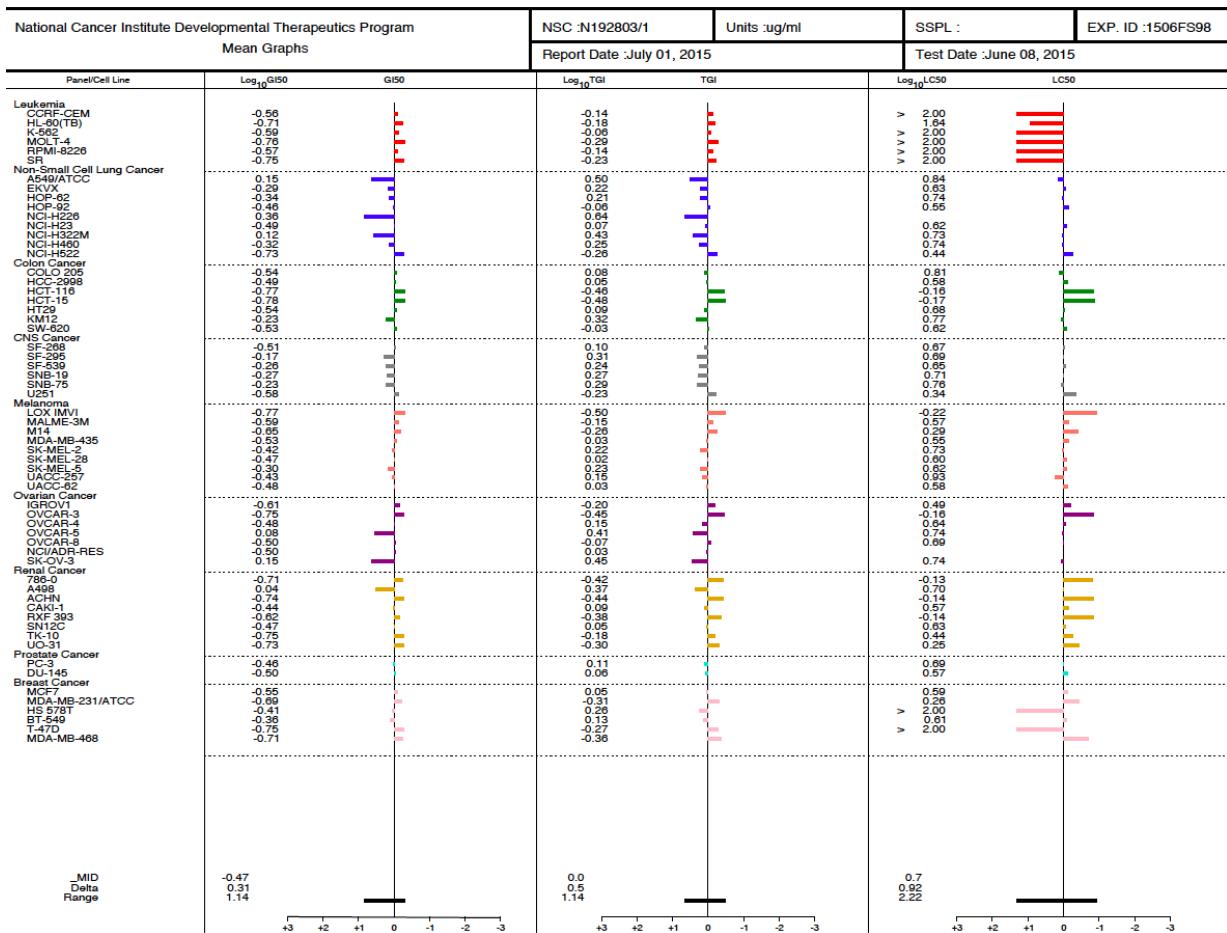
Cell Lines: PC-3 (red circle), DU-145 (red diamond)

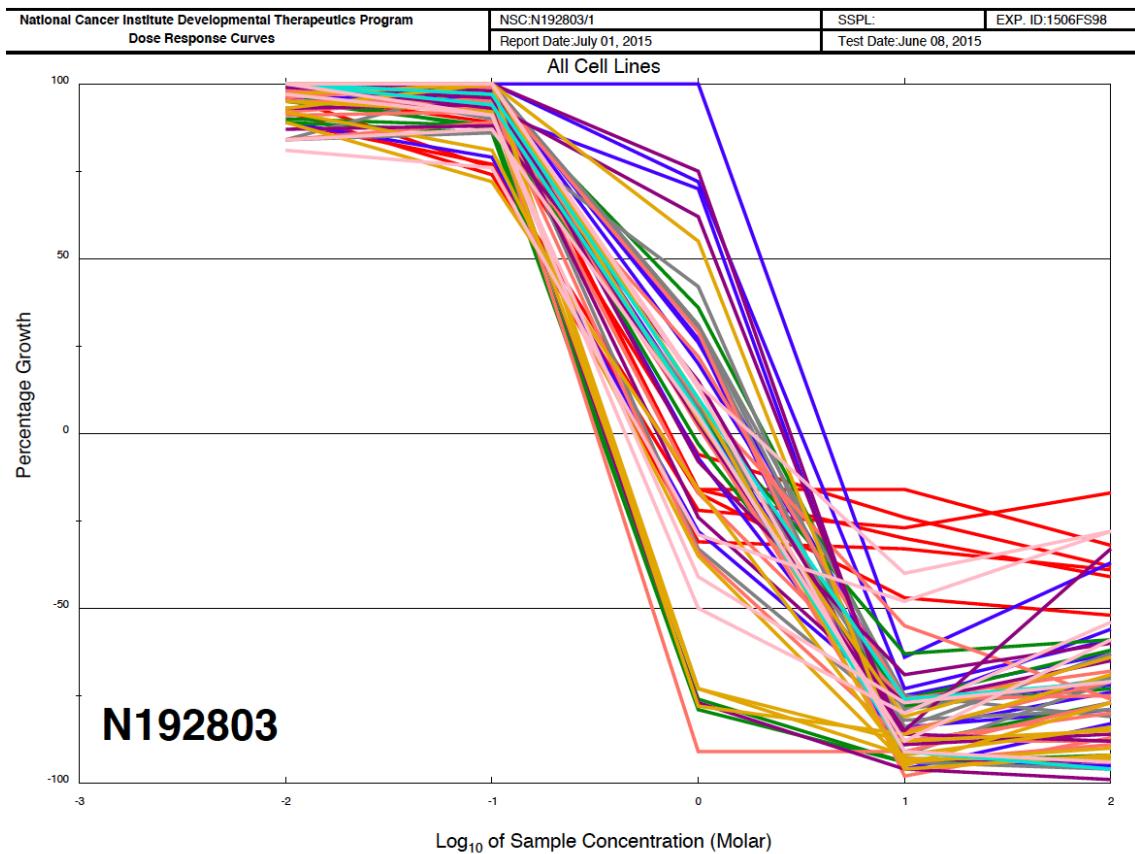
Breast Cancer

Percentage Growth vs \log_{10} of Sample Concentration (ug/ml)

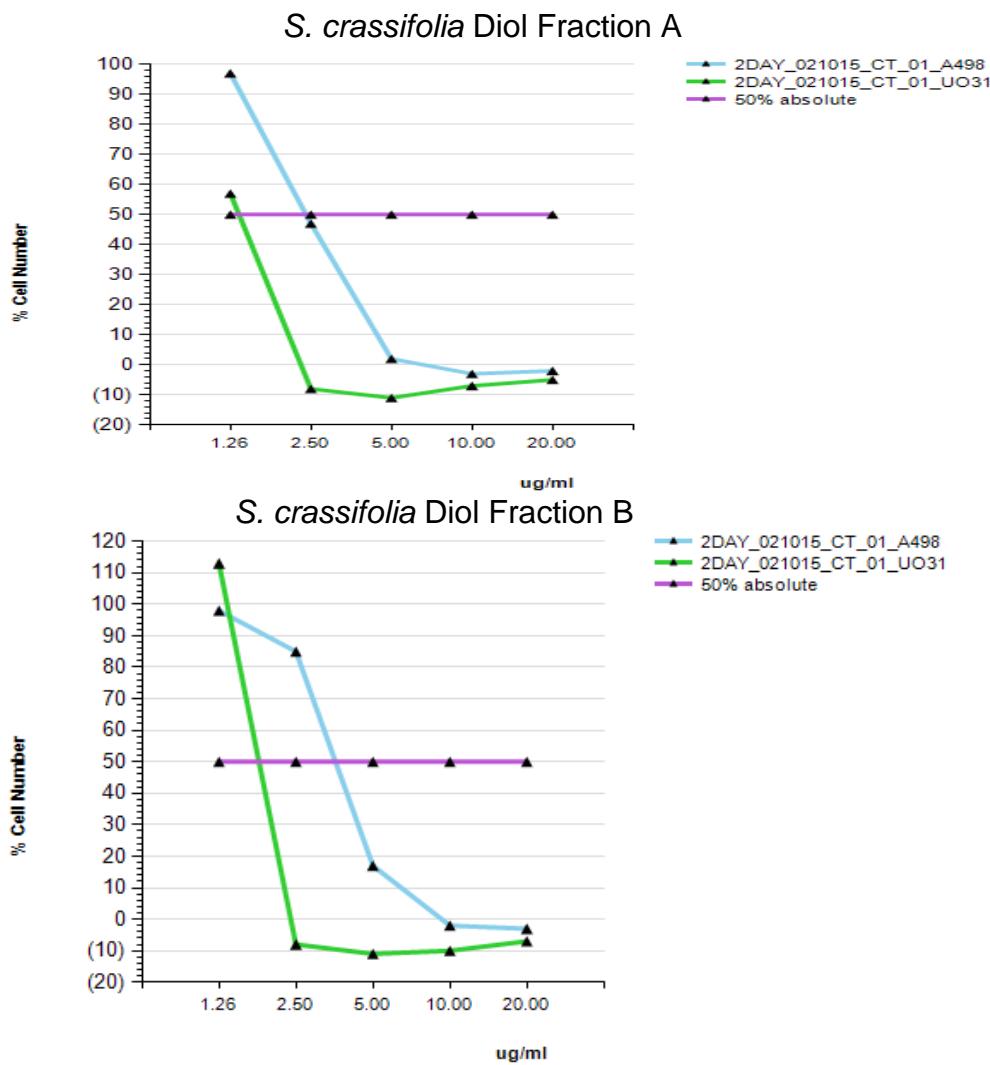
Cell Lines: BT-549 (red circle), MCF7 (red diamond), MDA-MB-231 (red triangle), T-47D (blue circle), MDA-MB-468 (blue diamond), HS 578T (blue triangle)

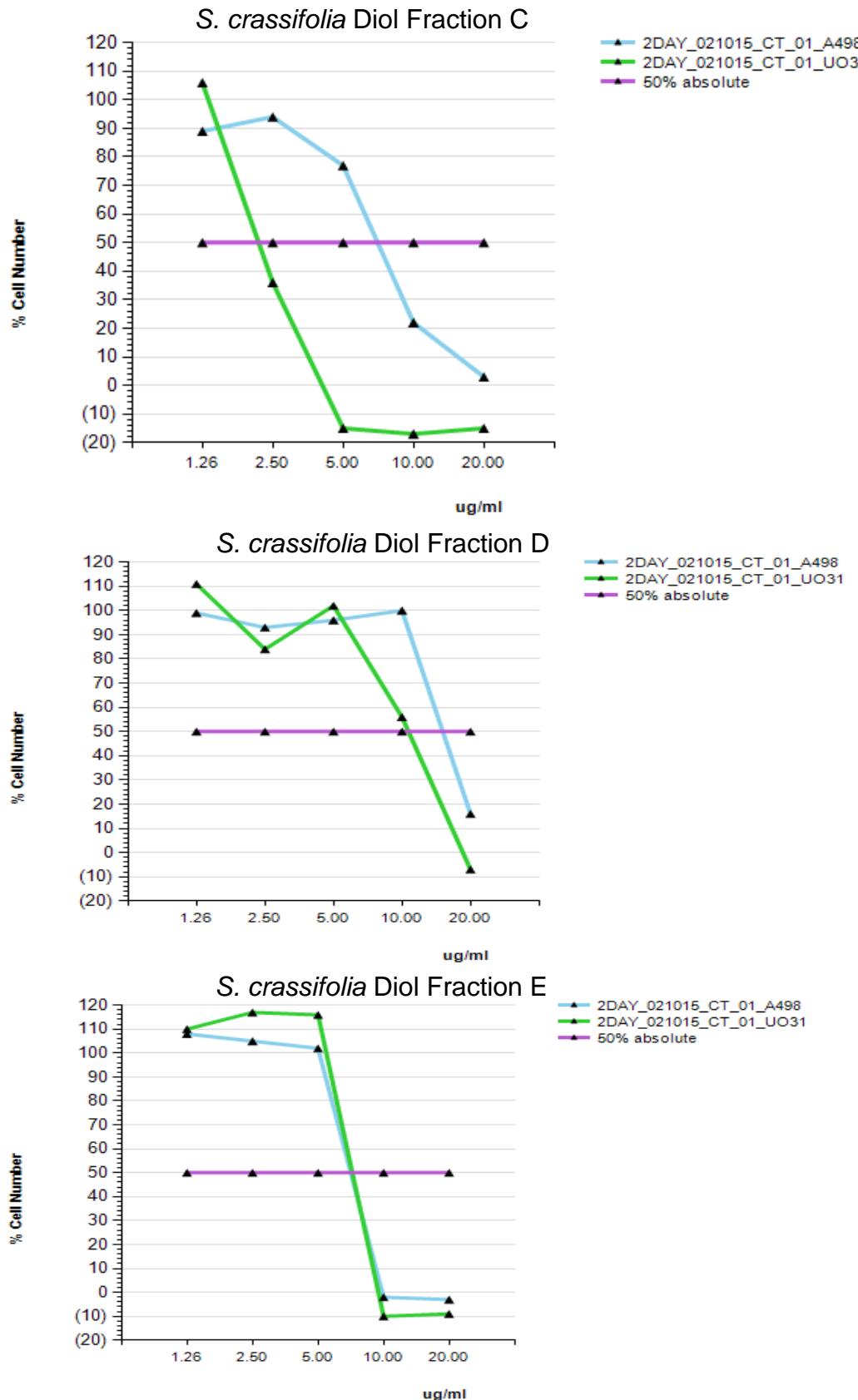
(S4) NCI-60 dose response curves for *S. crassifolia* root wood extract.

(S5) NCI-60 5-dose mean bar graph of *S. crassifolia* root wood extract.

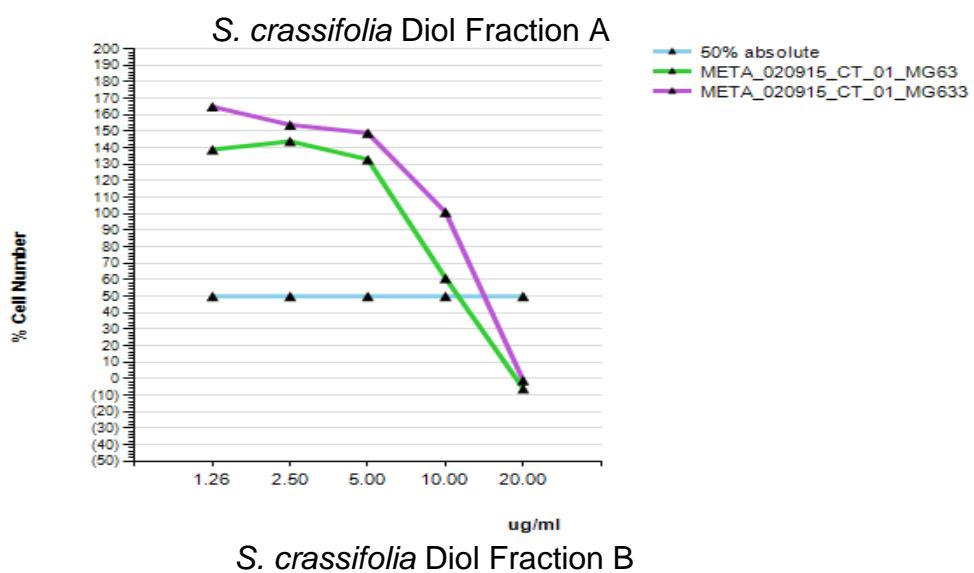


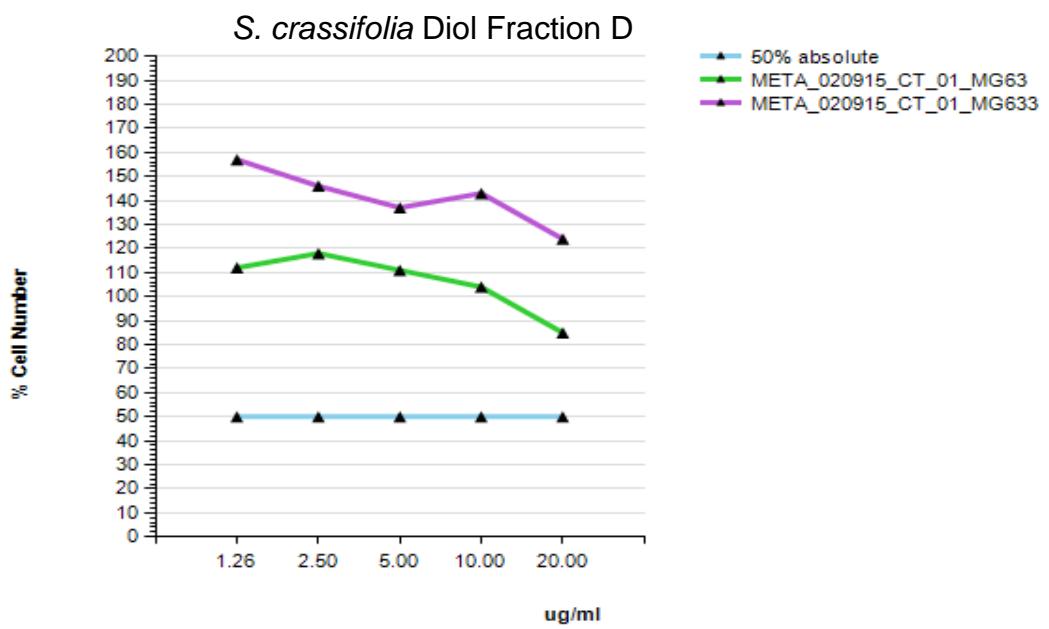
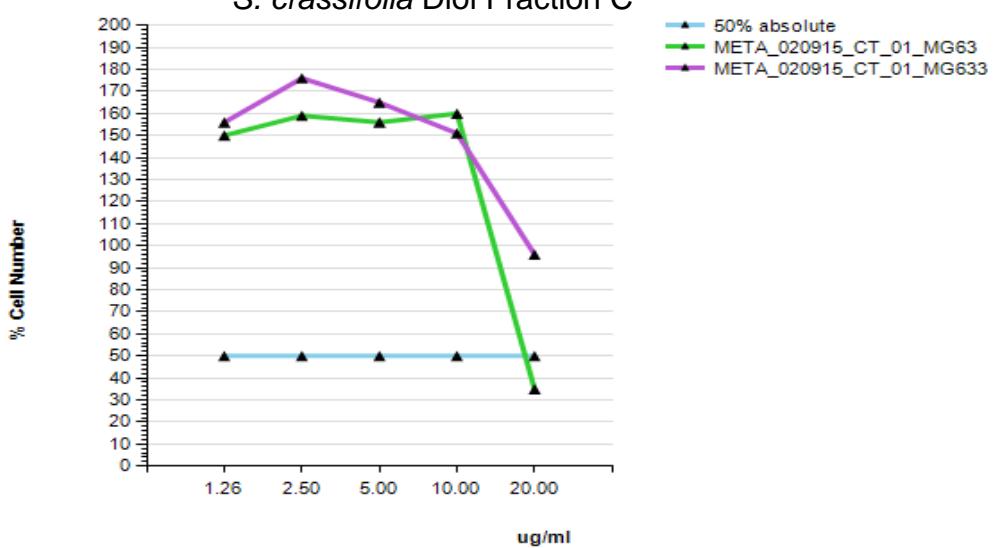
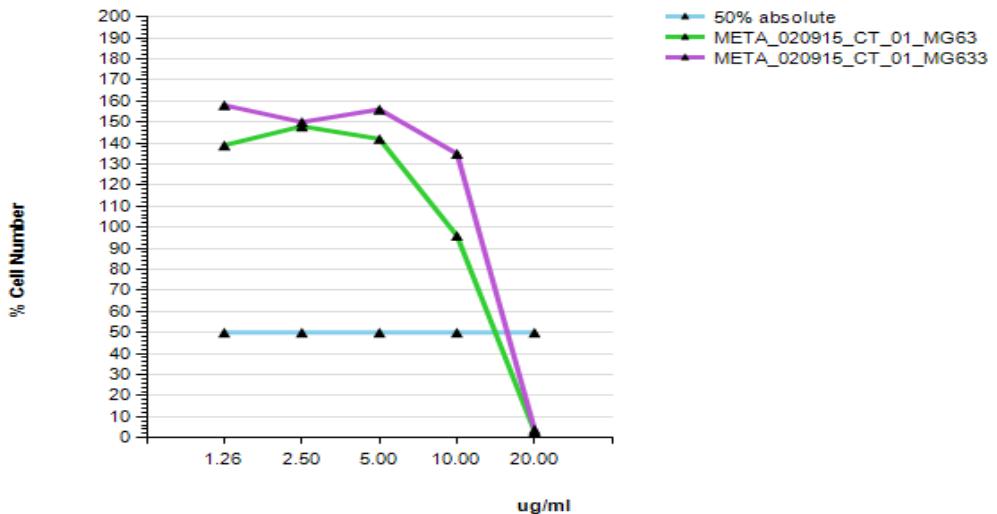
(S6) NCI-60 cumulative dose response curves for *S. crassifolia* root wood extract.

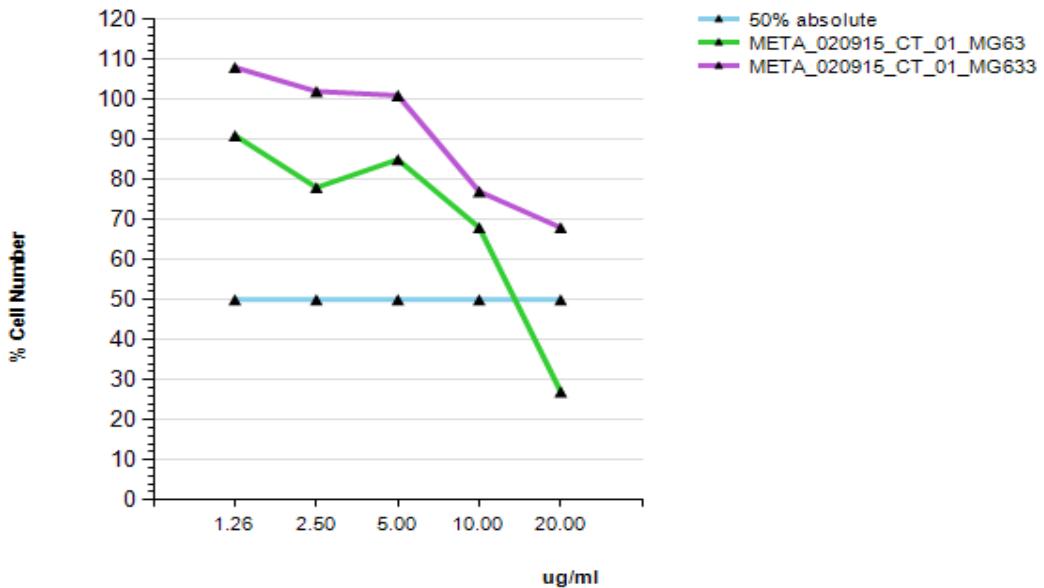




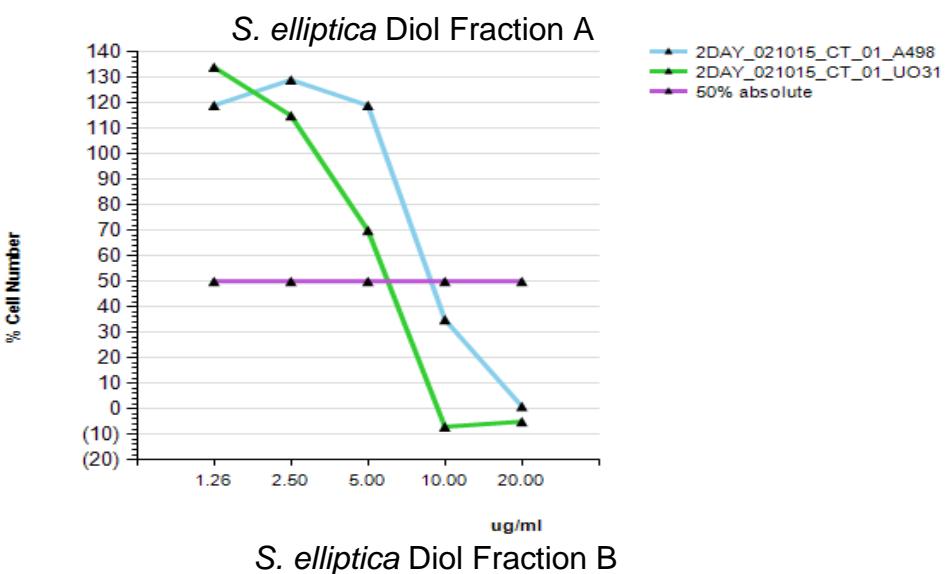
(S7) Cytotoxicity of DIOL fractions A-E of *S. crassifolia* root wood hexane extract in renal A498 and U031 cancer cell lines.

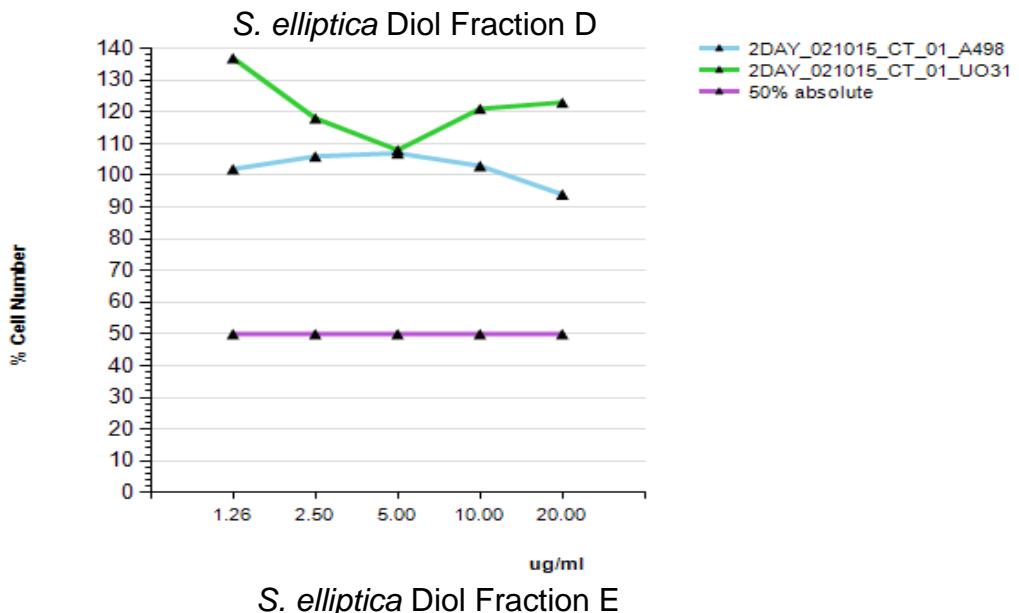
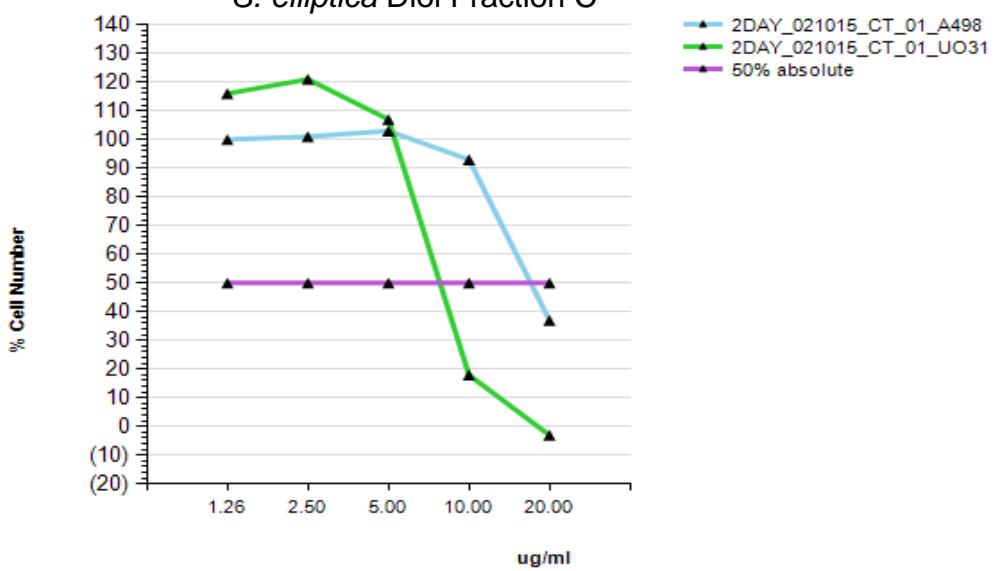
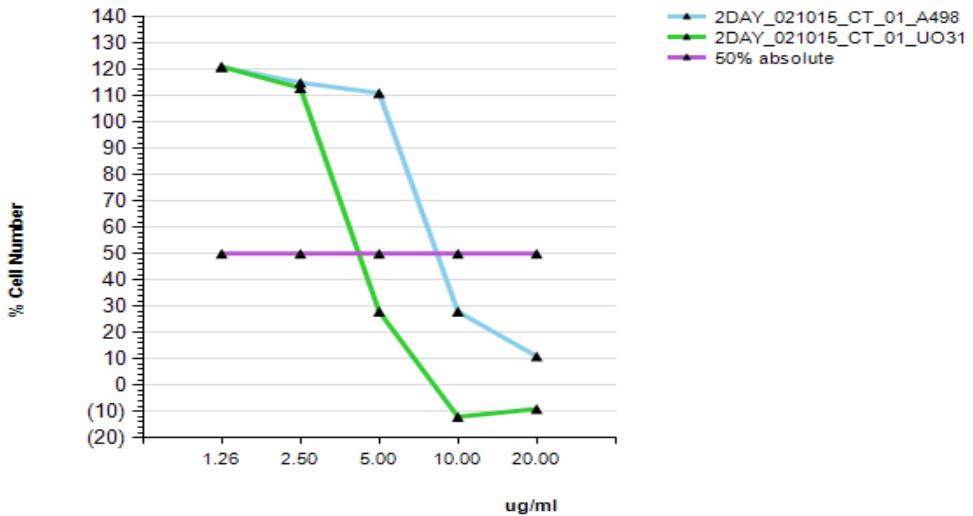


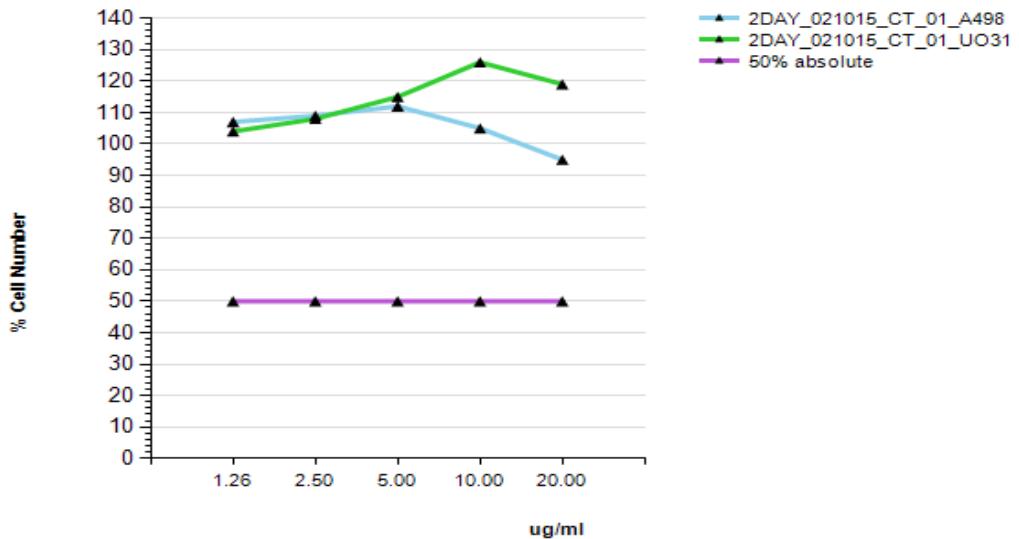
*S. crassifolia* Diol Fraction E



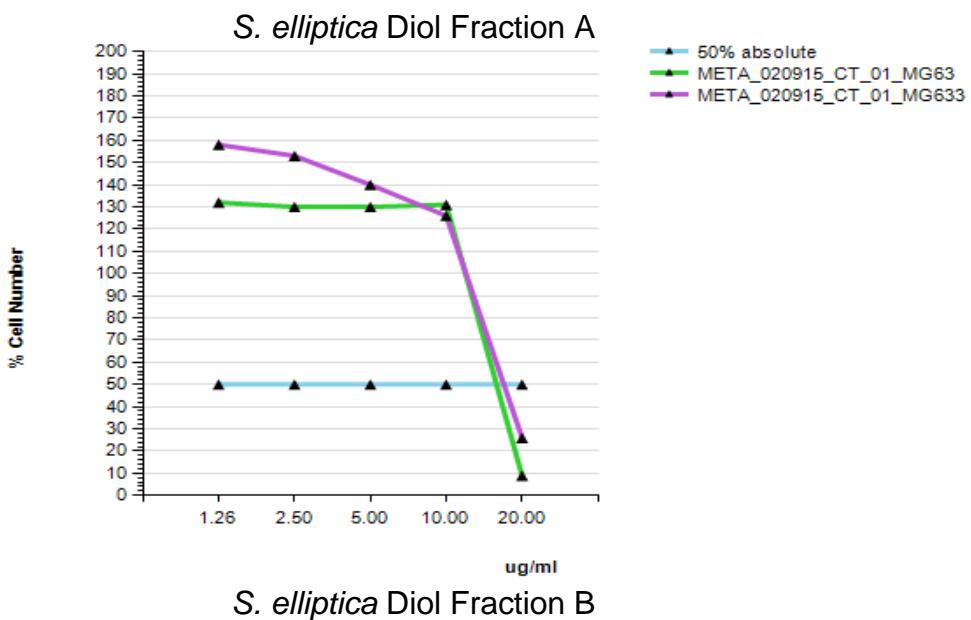
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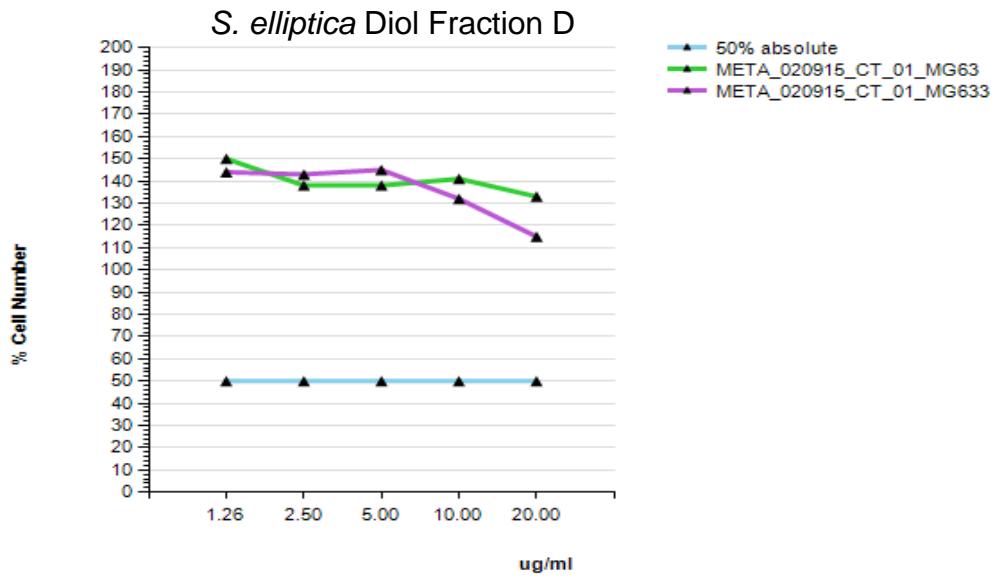
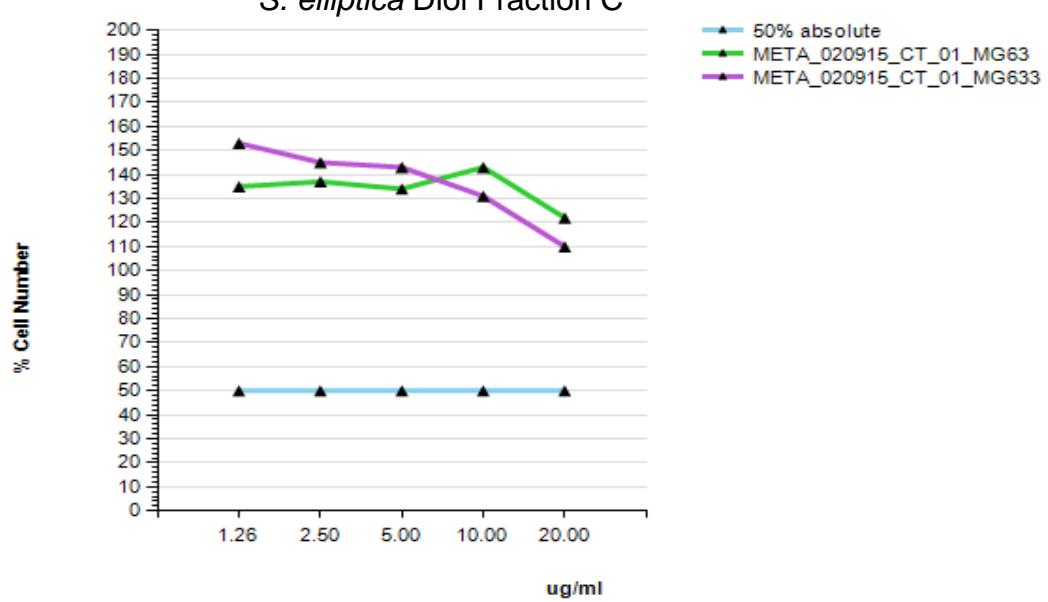
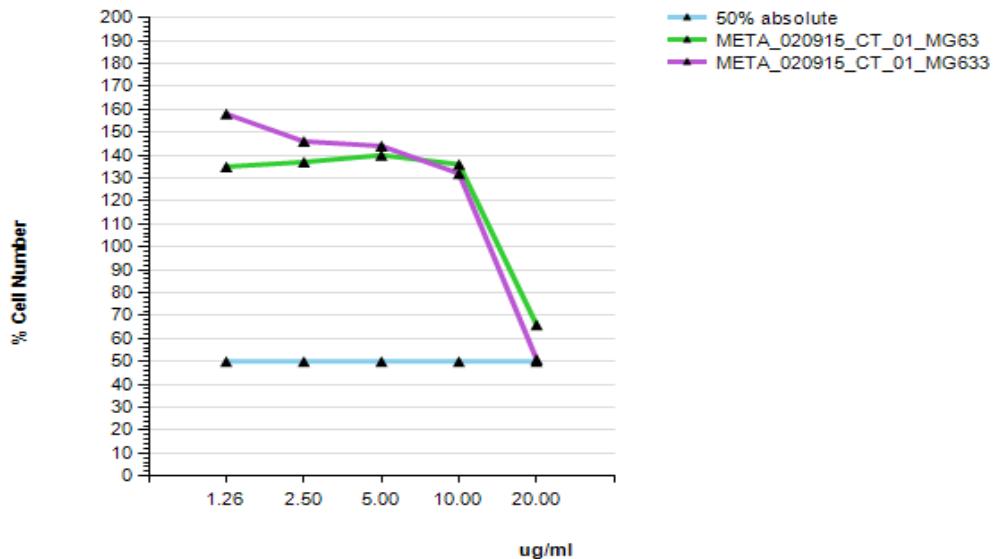


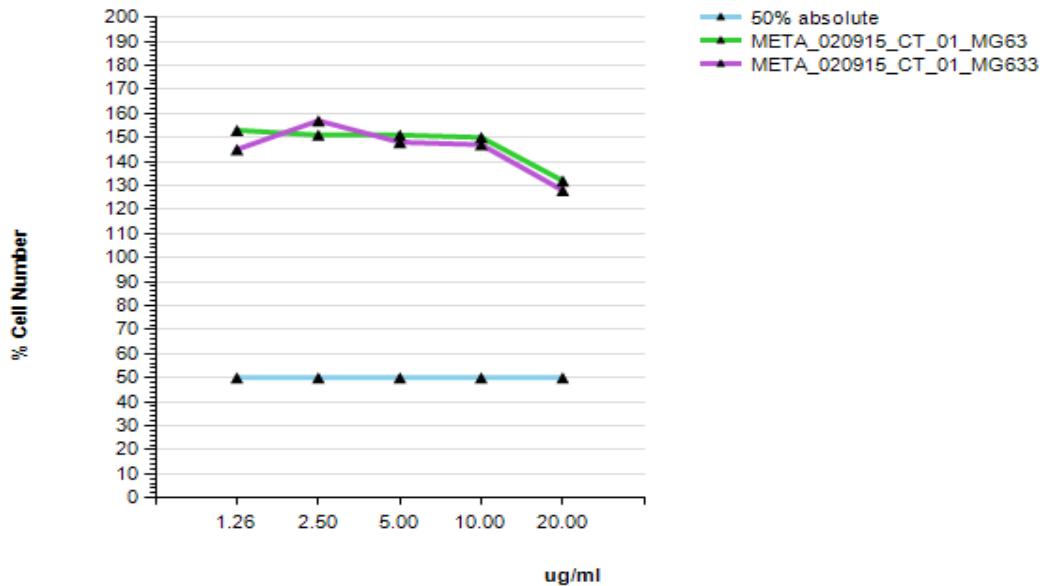




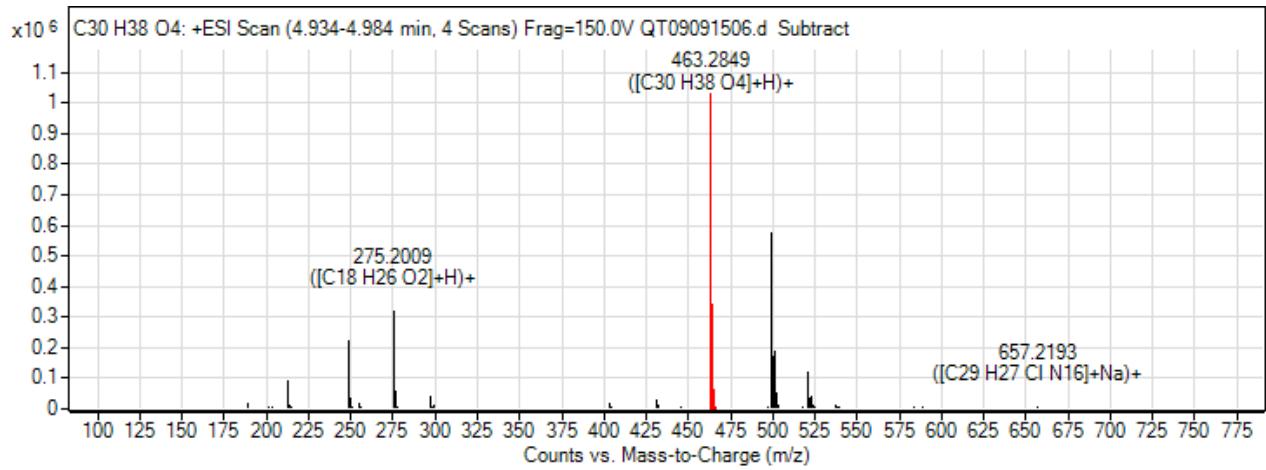
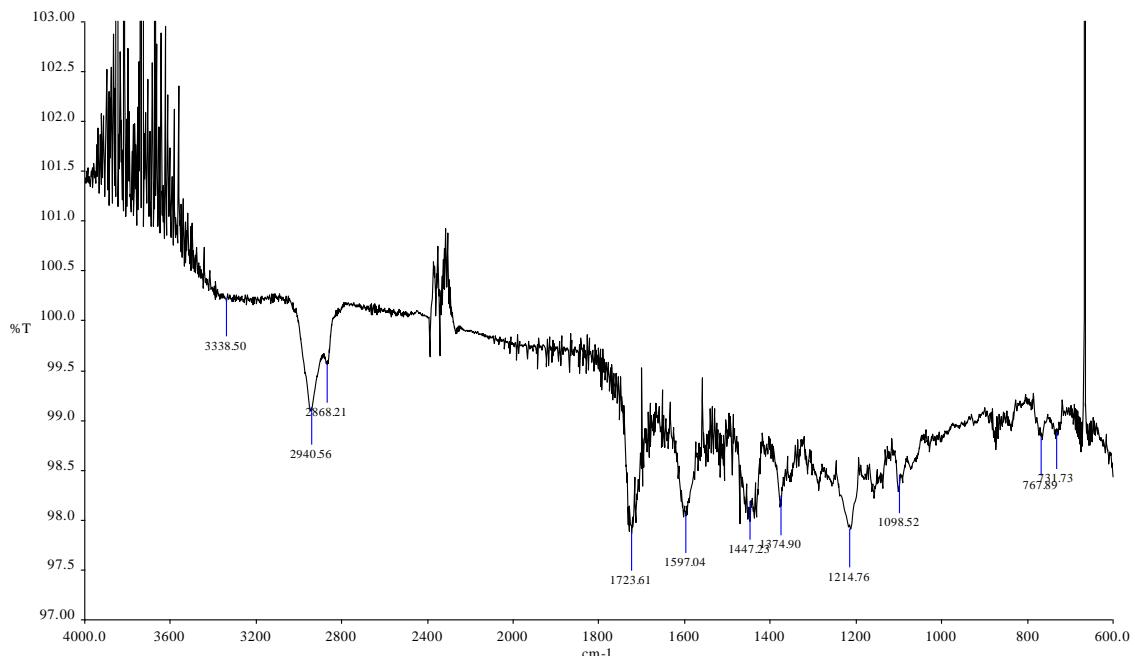
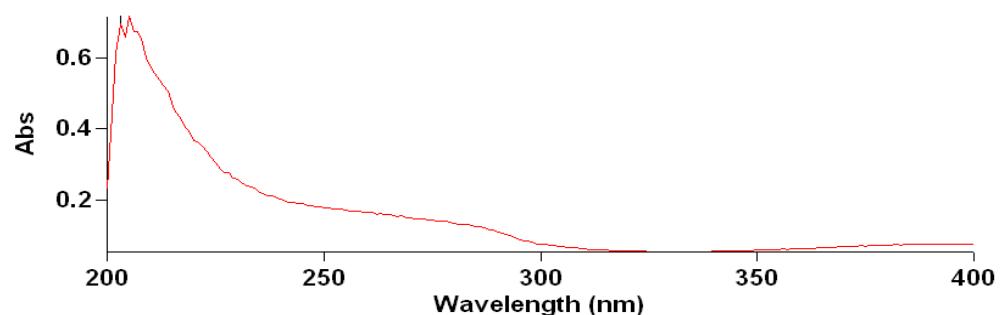
(S9) Cytotoxicity of DIOL fractions A-E of *S. elliptica* root wood ethyl acetate extract in renal A498 and U031 cancer cell lines.

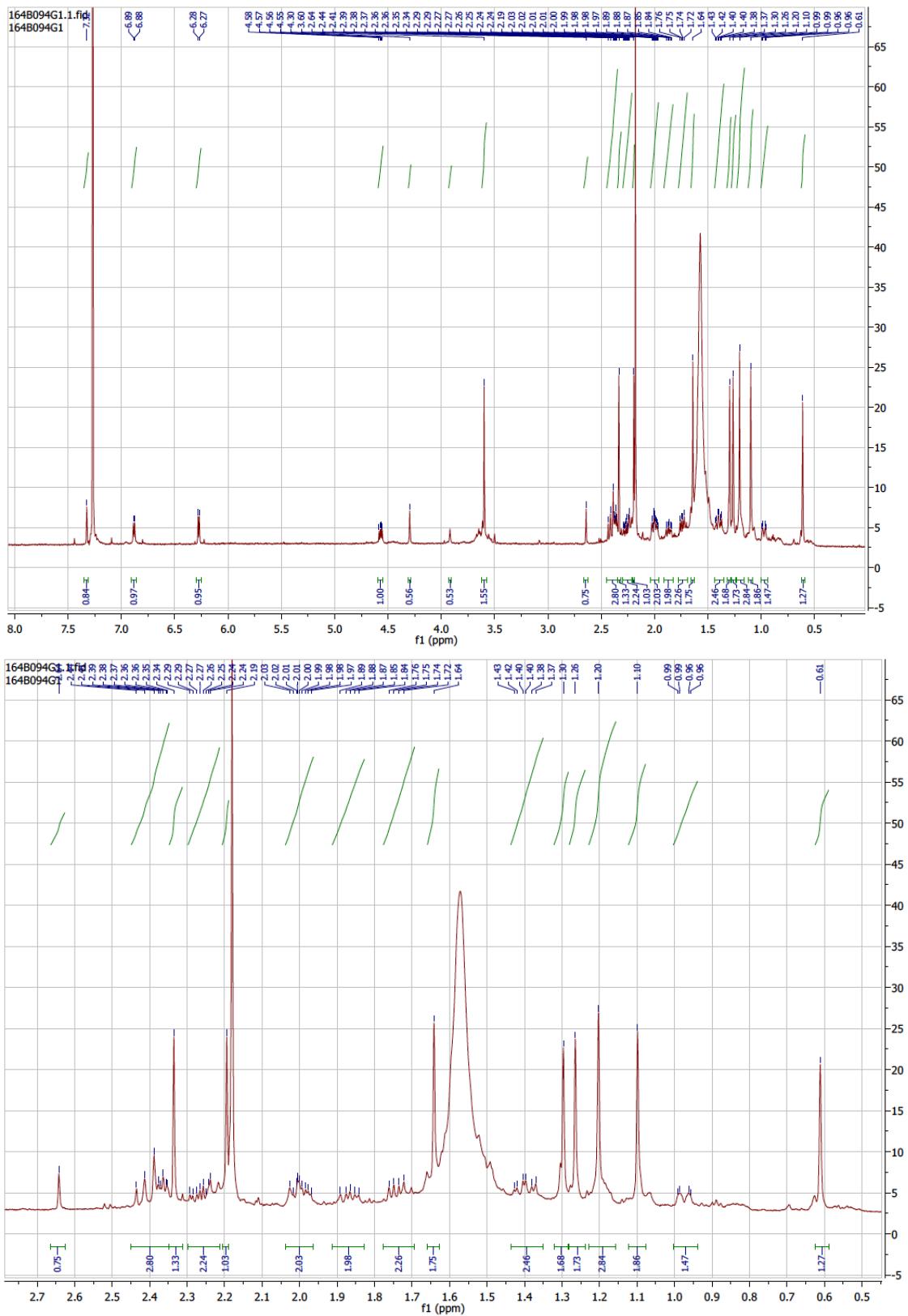




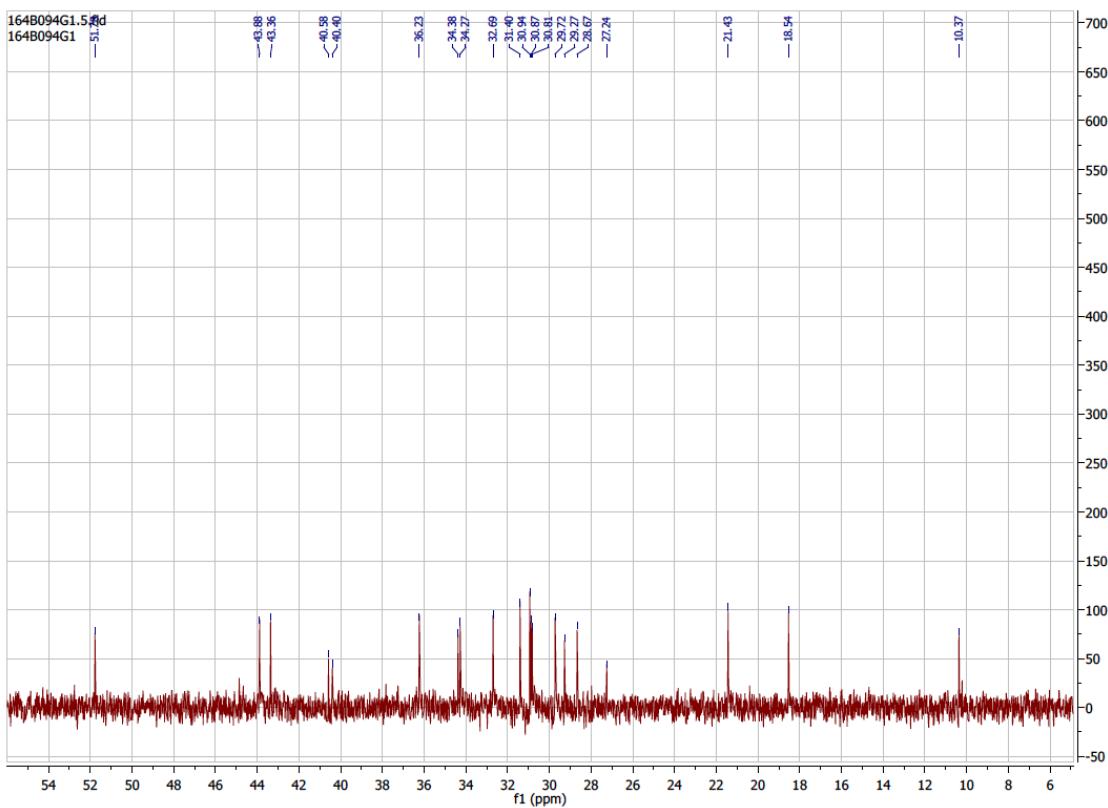
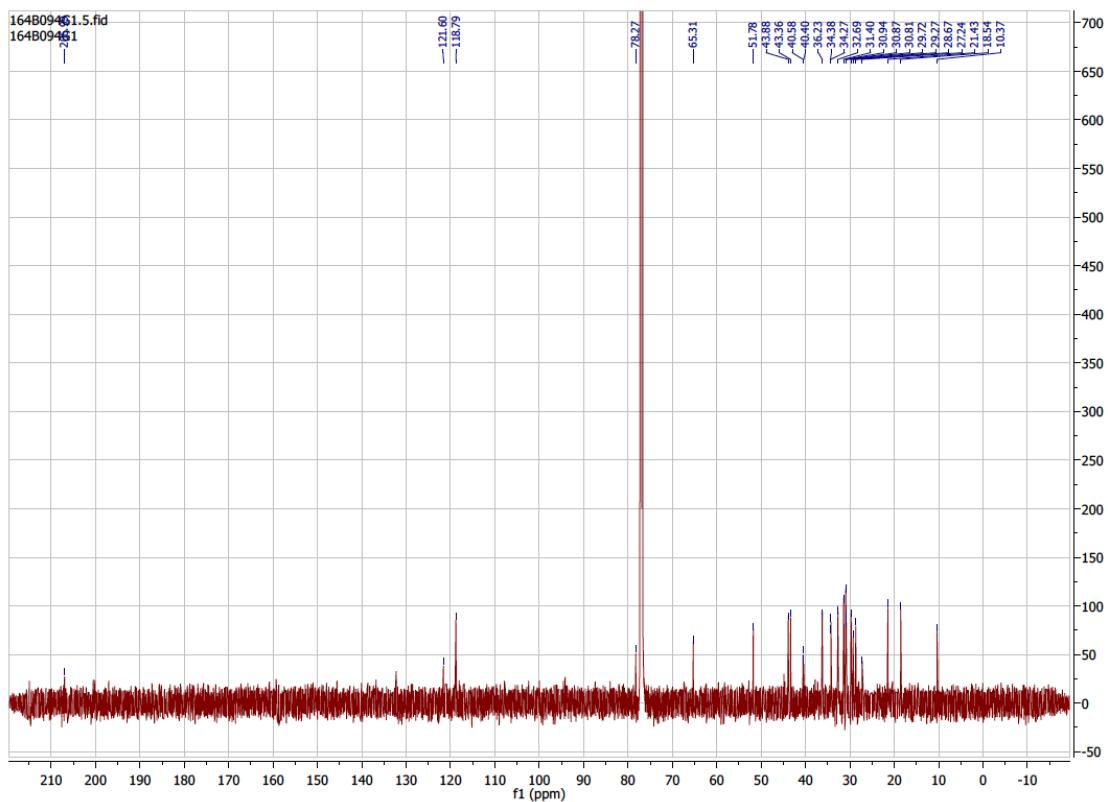


(S10) Cytotoxicity of DIOL fractions A-E of *S. elliptica* root wood ethyl acetate extract in osteosarcoma MG63 and MG63.3 cell lines.

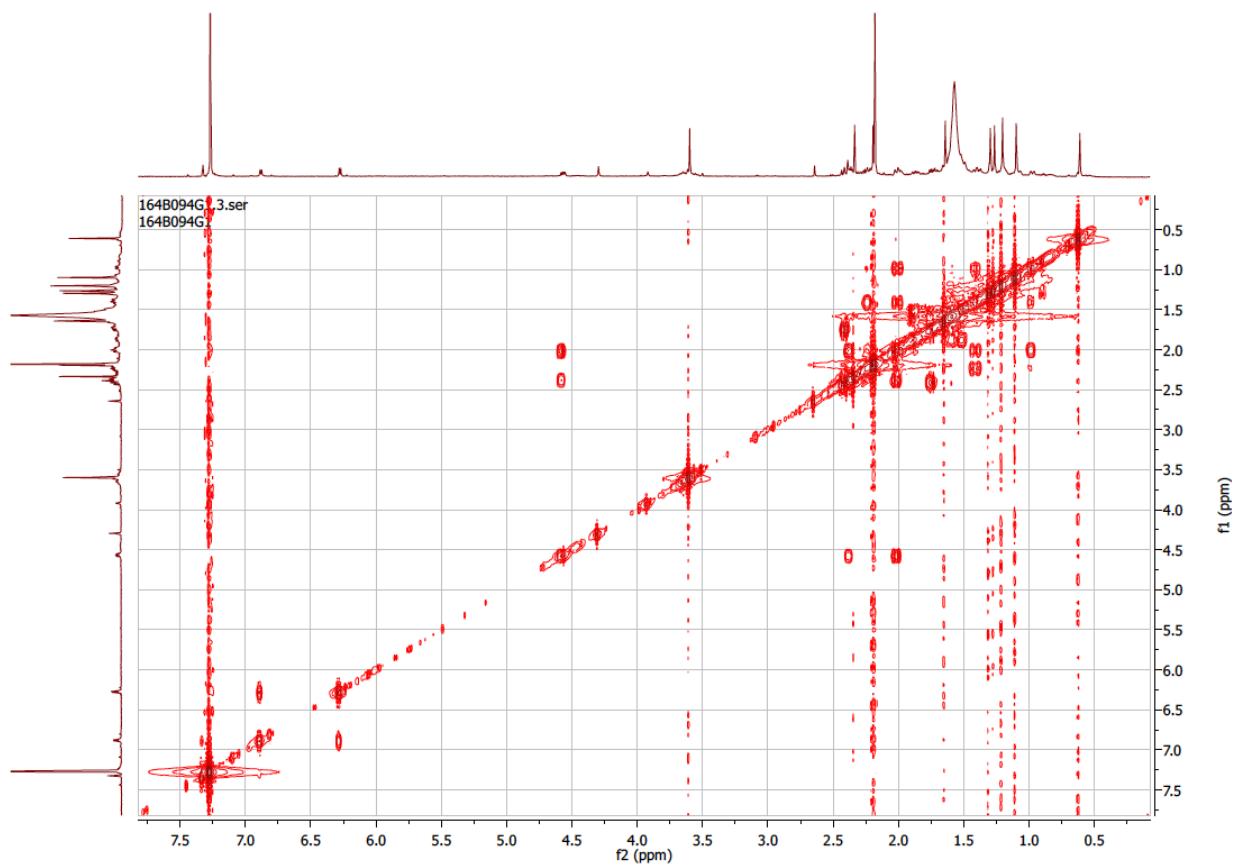
(S11) HRESIMS spectrum of 11β -hydroxypristimerin (1).(S12) Infrared spectrum of 11β -hydroxypristimerin (1).(S13) UV spectrum of 11β -hydroxypristimerin (1).

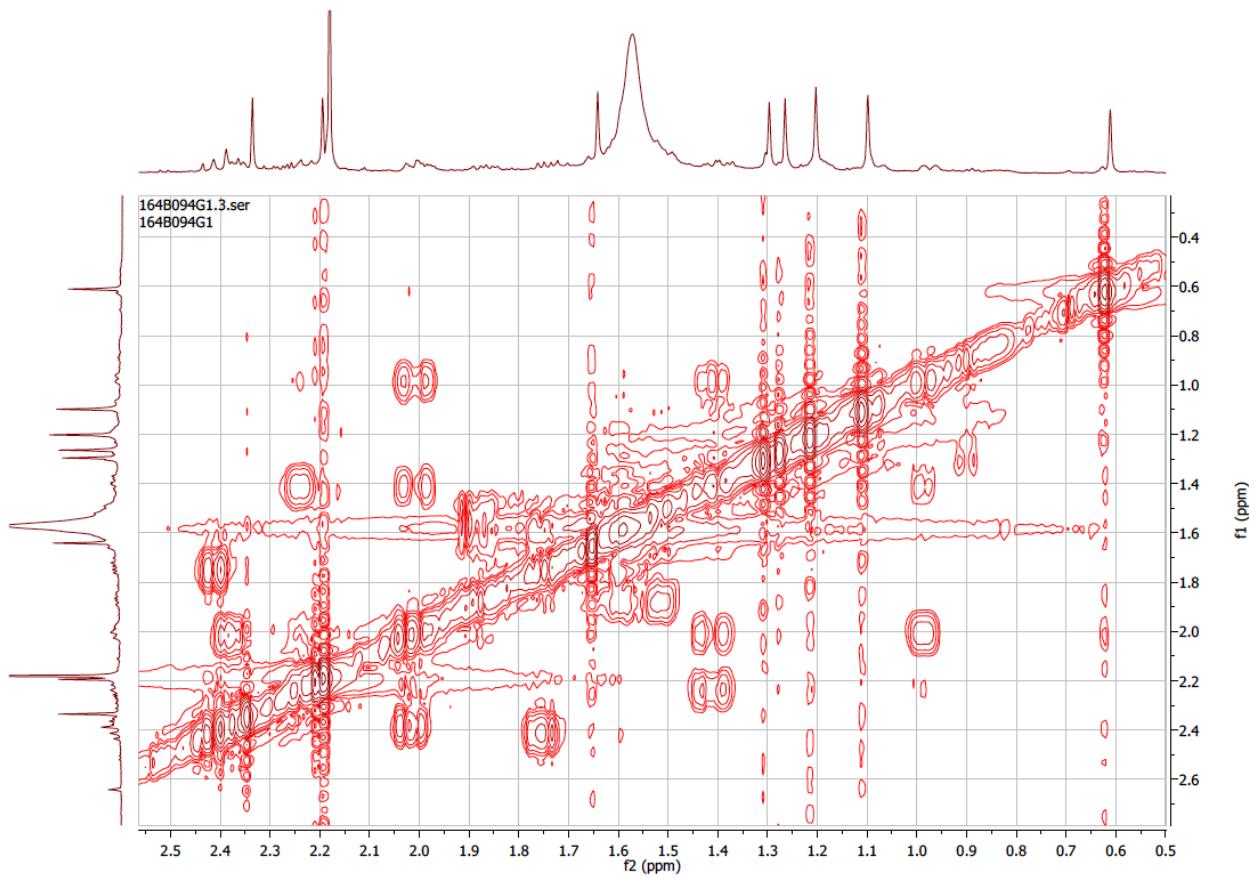


(S14) ^1H NMR spectrum (600 MHz) of 11 β -hydroxypristimerin (**1**) in CDCl_3 .

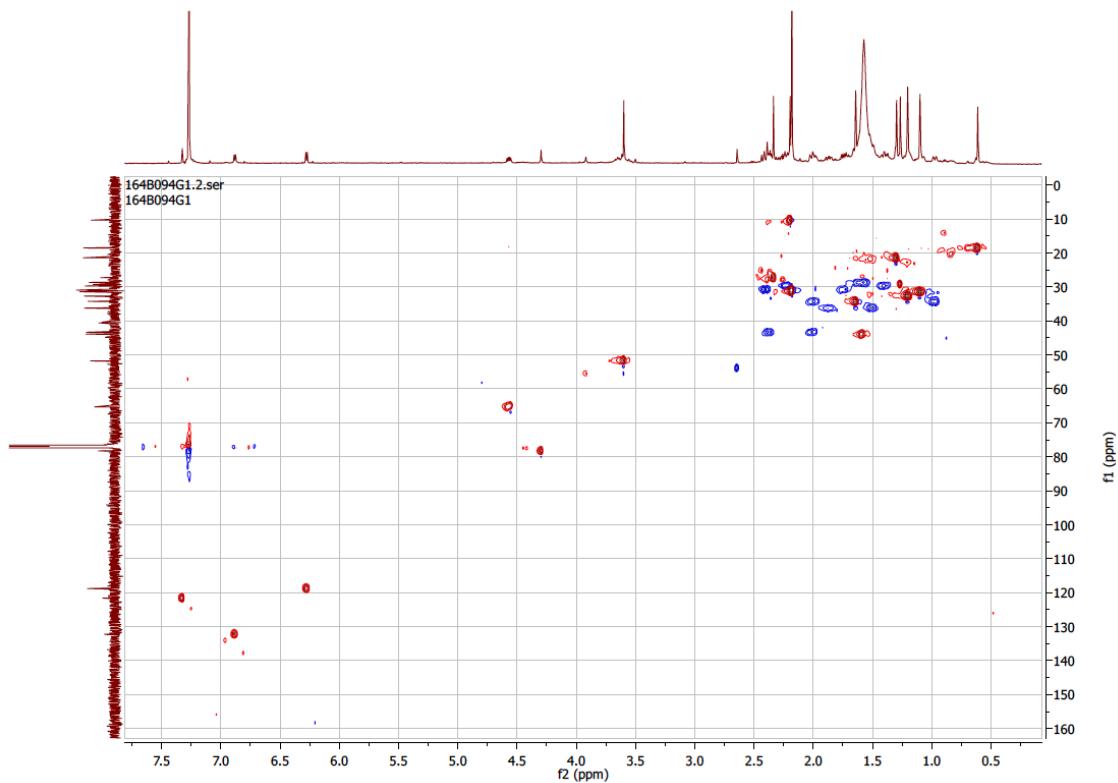


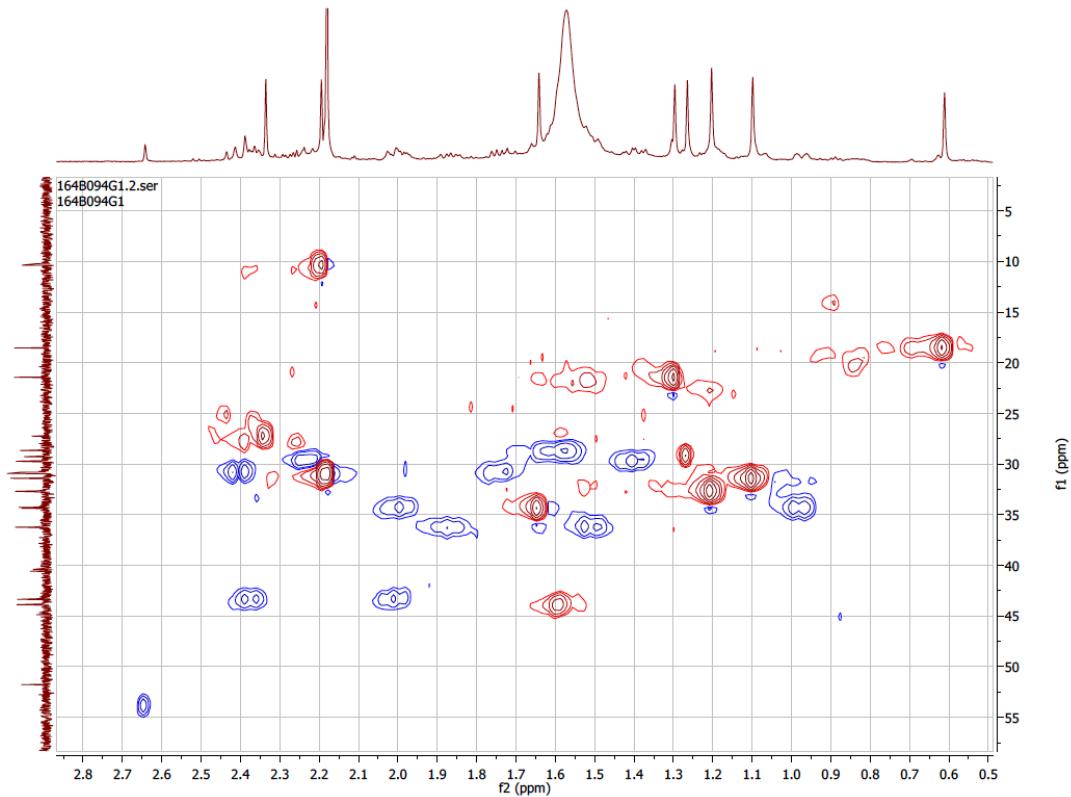
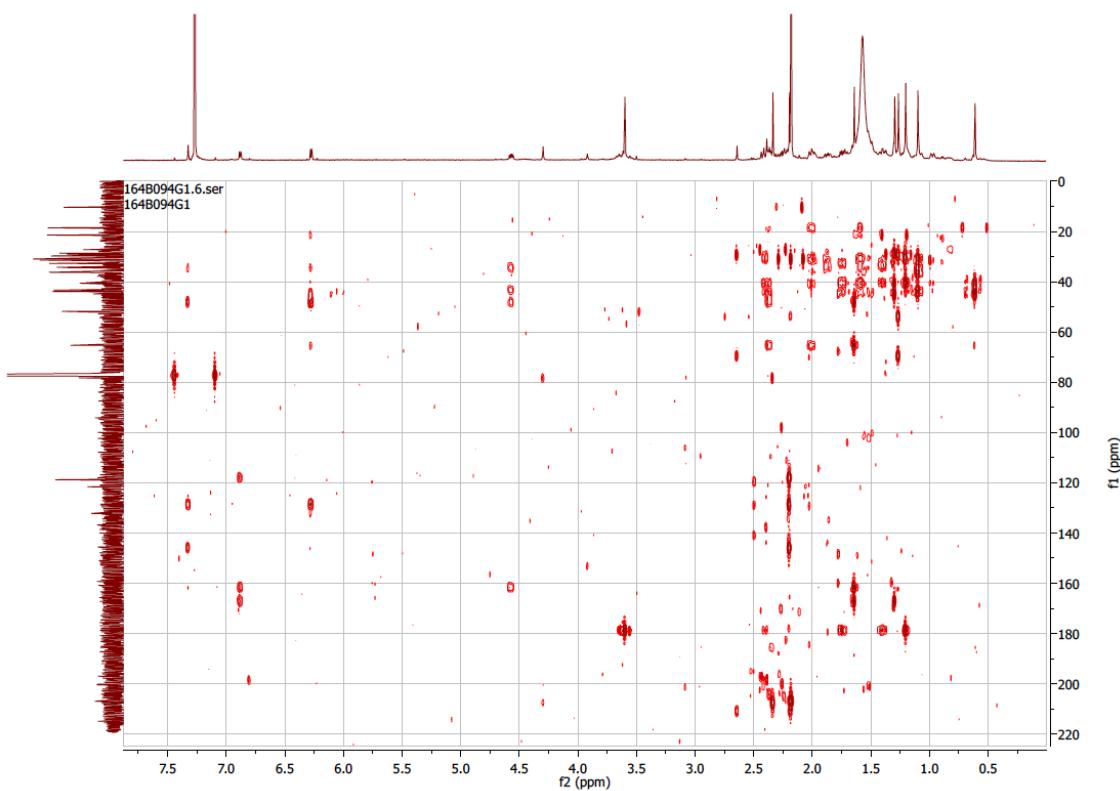
(S15) ^{13}C NMR spectrum (150 MHz) of 11 β -hydroxypristimerin (**1**) in CDCl_3 .

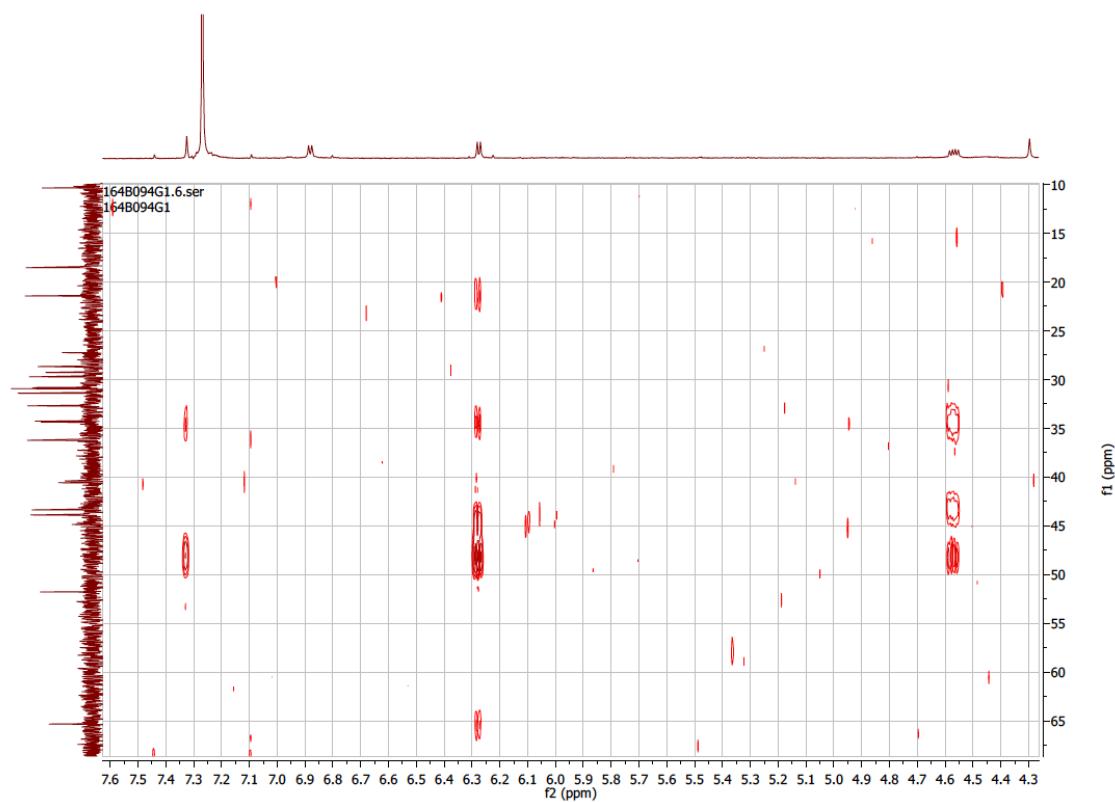




(S16) COSY spectrum of 11 β -hydroxypristimerin (**1**) in CDCl₃.



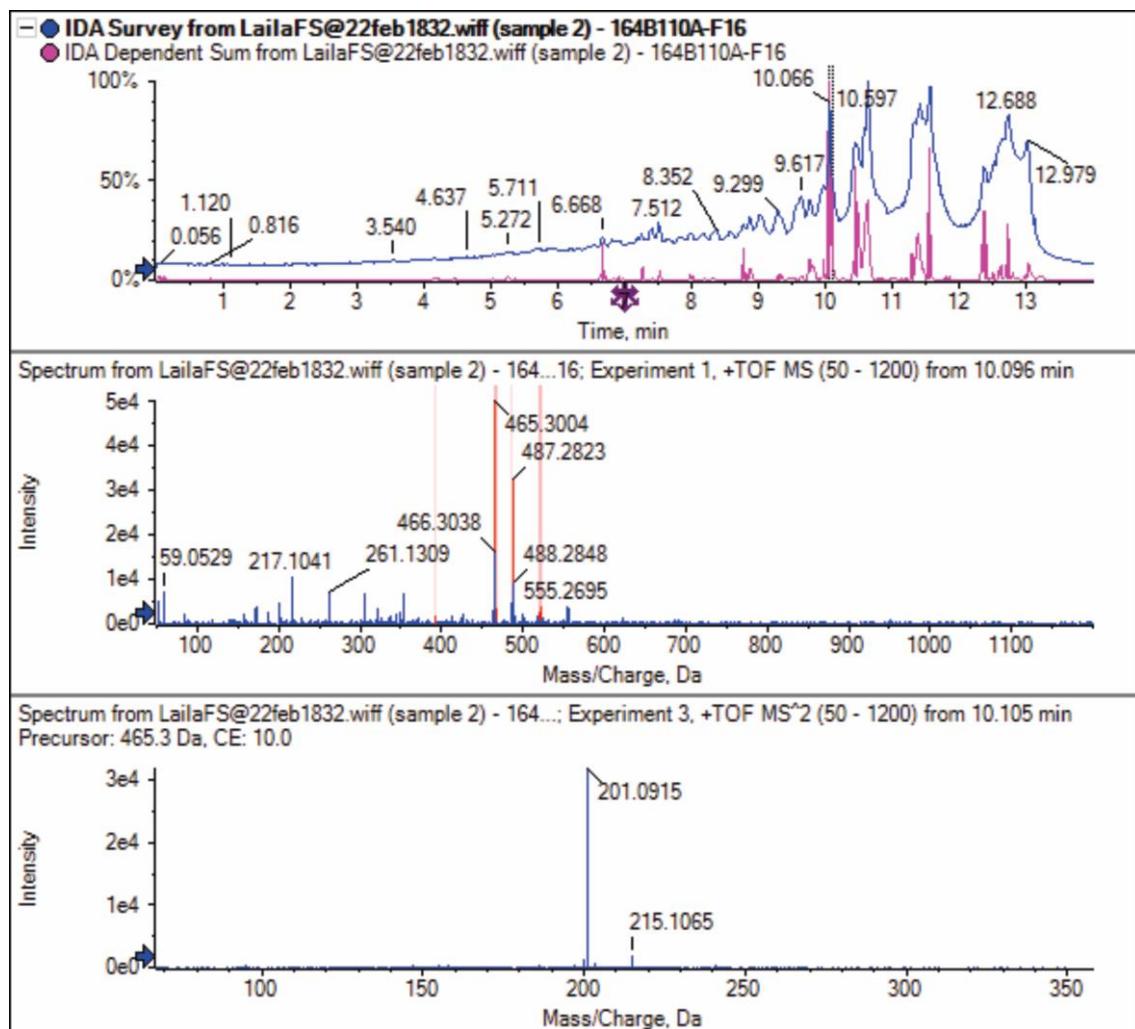
(S17) HSQC spectrum of 11 β -hydroxypristimerin (**1**) in CDCl₃.

(S18) HMBC spectrum of 11β -hydroxypristimerin (**1**) in CDCl_3 .

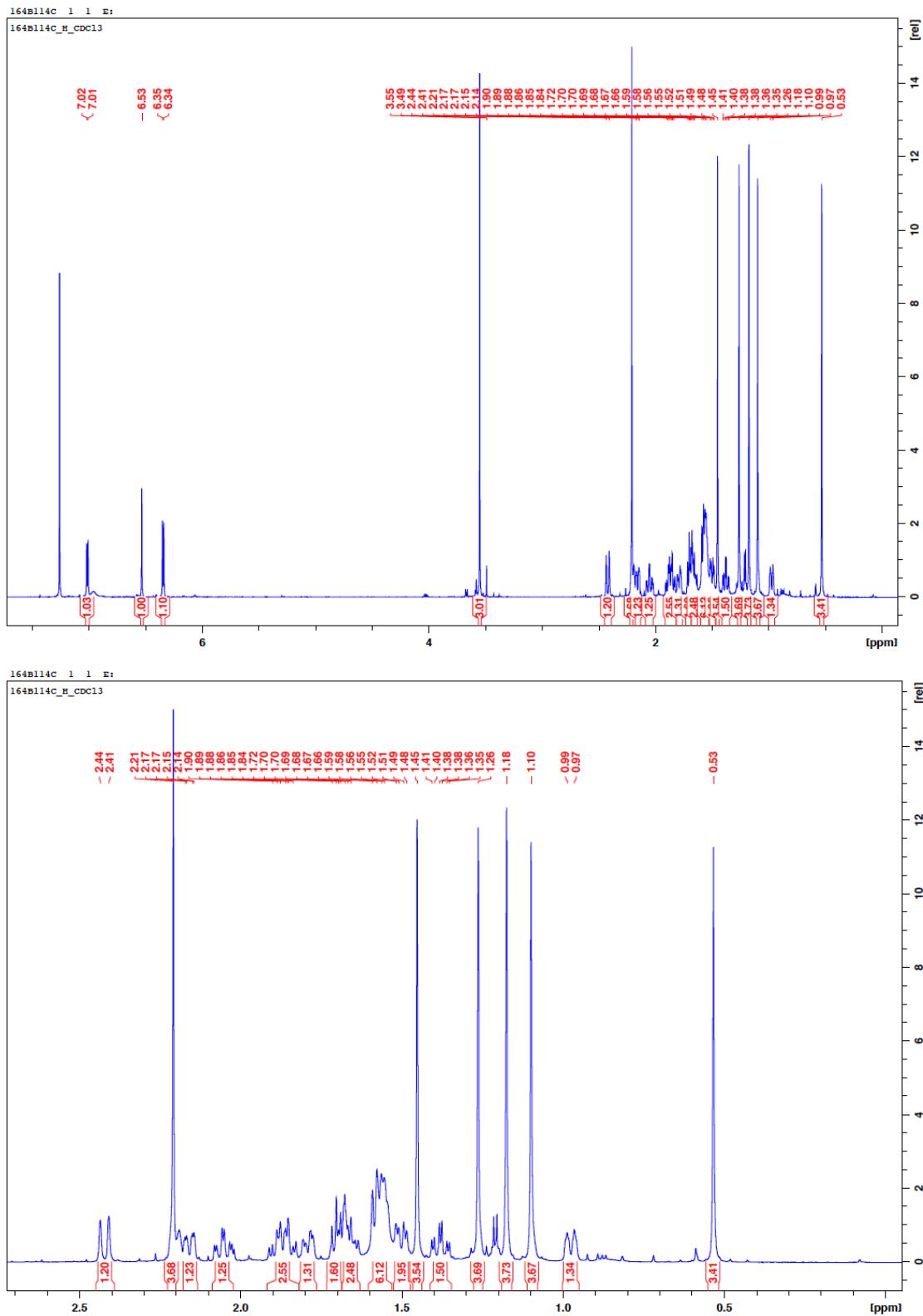
11β-Hydroxypristimerin (Compound 1)		
	C	H
C		
2	178.8	-
3	145.9	-
4	118.0	-
5	128.6	-
8	167.2	-
9	48.1	-
10	161.6	-
13	40.6	-
14	44.9	-
17	30.87	-
20	40.4	-
29	178.7	-
CH		

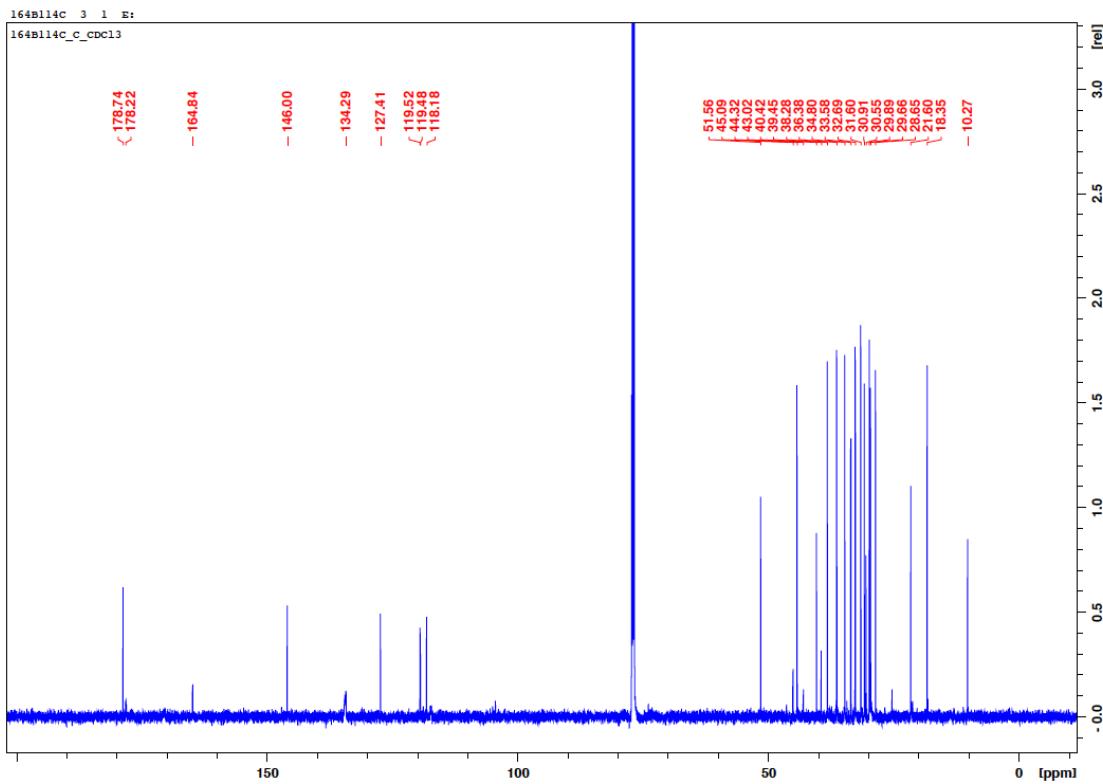
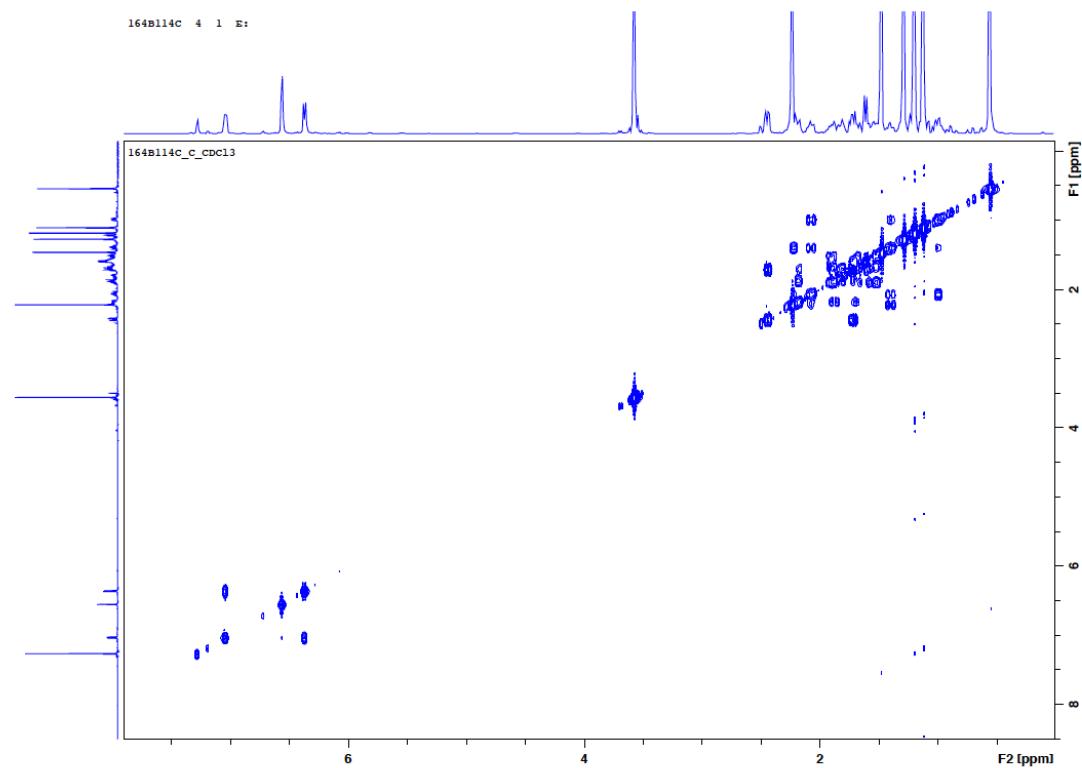
1	121.6	7.32 (s)
6	132.2	6.88 (d, 7.2)
7	118.8	6.28 (d, 7.2)
11	65.3	4.57 (dd, 12.2, 6.4)
18	43.9	1.59 (m)
CH₂		
12	43.4	2.38 (m); 2.01 (m)
15	28.7	1.62 (m); 1.58 (m)
16	36.2	1.87 (m); 1.51 (m)
19	30.81	2.40 (m); 1.74 (m)
21	29.7	2.24 (m); 1.40 (m)
22	34.3	2.00 (m); 0.98 (m)
23	10.4	2.19 (s)
CH₃		
25	34.4	1.64 (s)
26	21.4	1.30 (s)
27	18.5	0.61 (s)
28	31.4	1.10 (s)
30	32.7	1.20 (s)
MeO	51.8	3.60 (s)

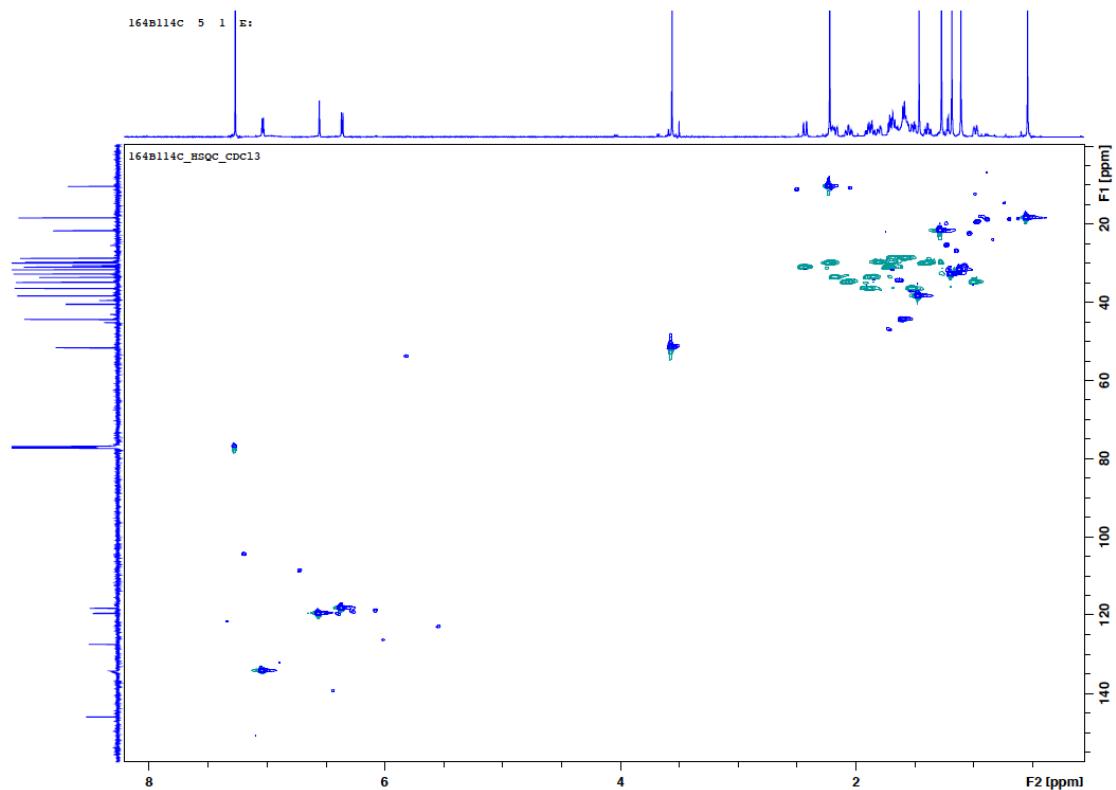
(S19) NMR Spectroscopic Data (¹H 600 MHz, ¹³C 150 MHz) for 11 β -hydroxypristimerin (**1**) in CDCl₃.



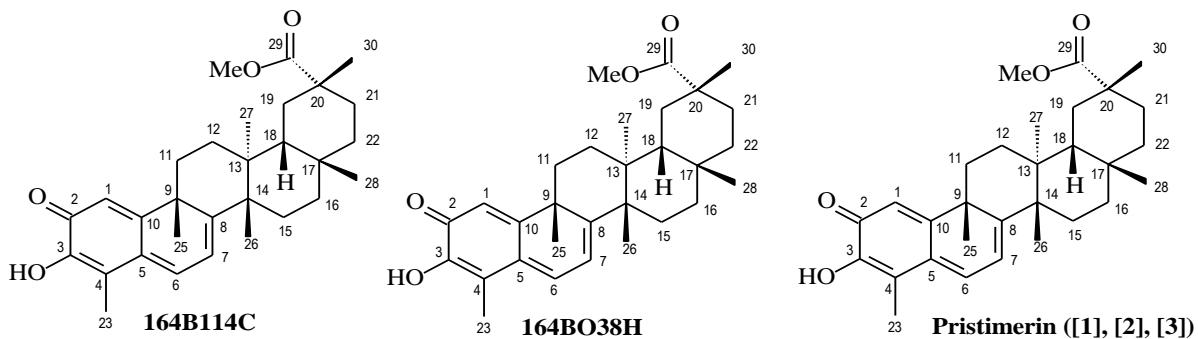
(S20) Chromatogram, MS1 and MS2 spectra of the LC-MS/MS analysis of pristimerin (**2**).

(S21) ¹H NMR spectrum (600 MHz) of pristimerin (**2**) in CDCl₃.

(S22) ¹³C NMR spectrum (150 MHz) of pristimerin (**2**) in CDCl₃.(S23) COSY spectrum of pristimerin (**2**) in CDCl₃.

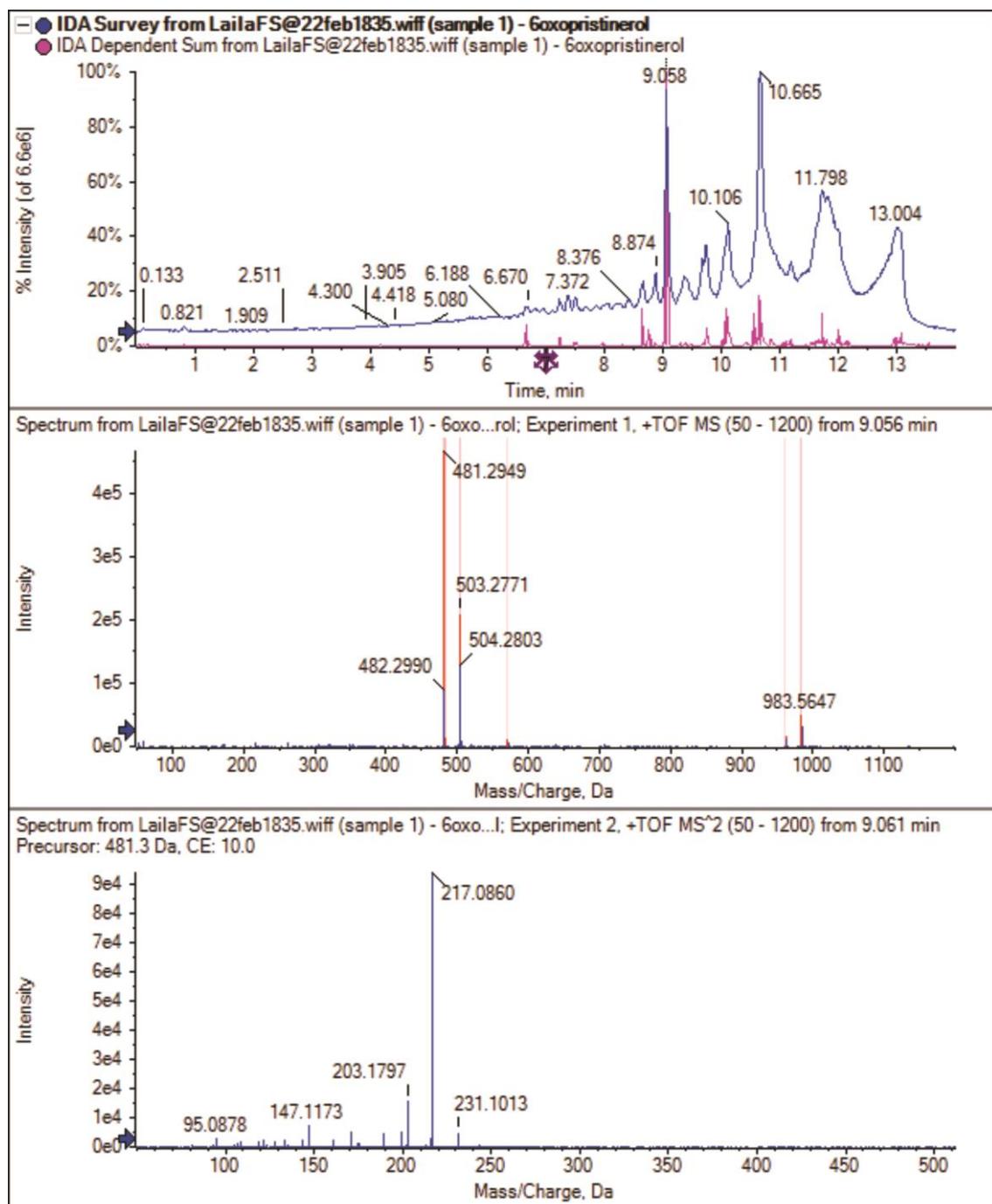


(S24) HSQC spectrum of pristimerin (**2**) in CDCl_3 .

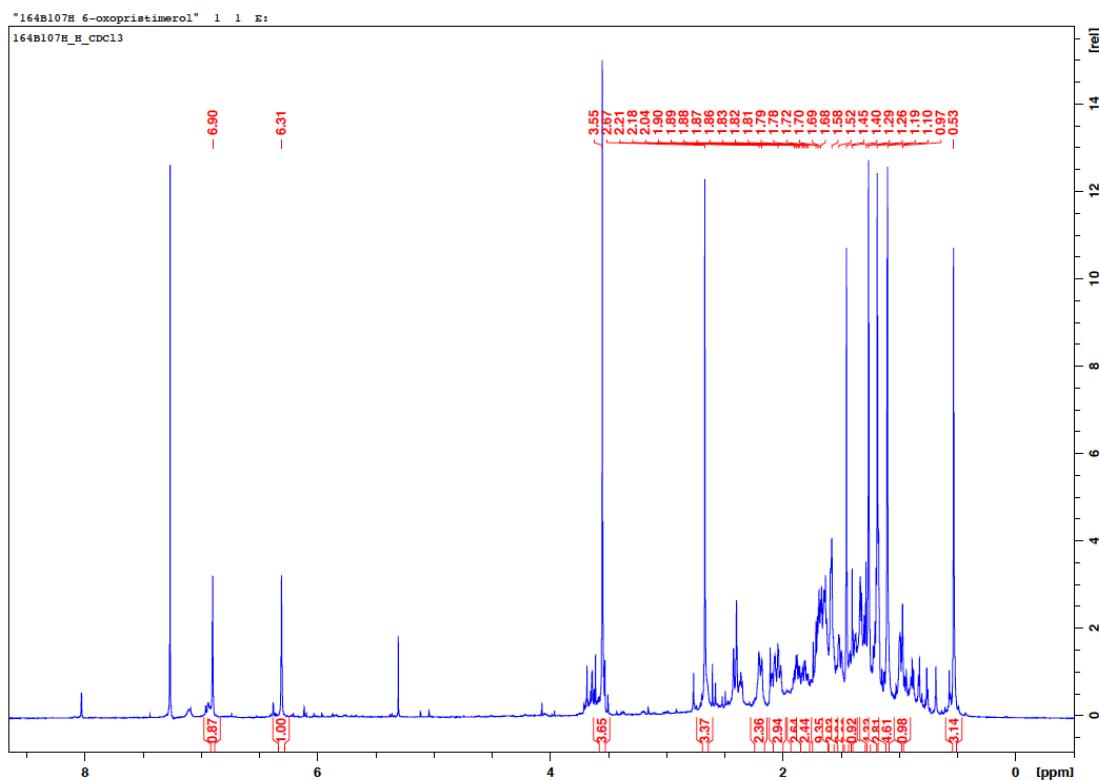


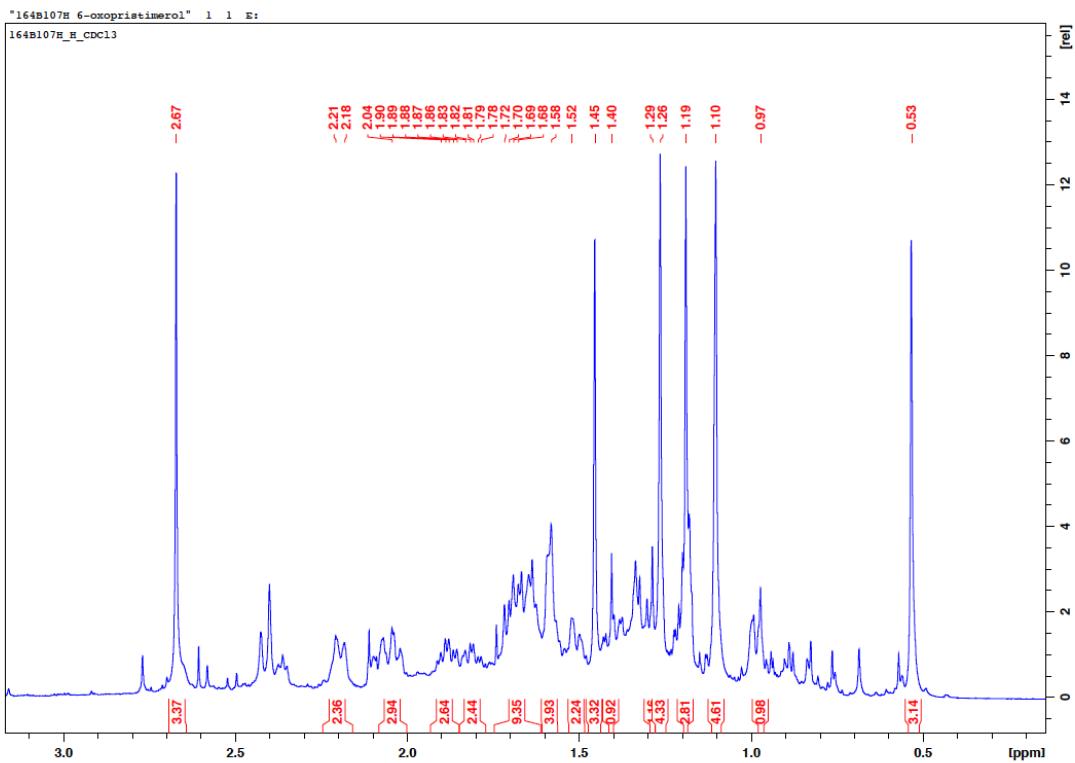
23	10.23	2.22 (s)	10.2	2.21 (s)	10.2	2.21 (s)	10.70	2.29 (s)	13.6
25	38.29	1.46 (s)	38.3	1.45 (s)	38.3	1.45 (s)	38.29	1.48 (s)	37.6
26	21.60	1.27 (s)	21.6	1.26 (s)	21.4	1.26 (s)	21.07	1.29 (s)	20.6
27	18.35	0.54 (s)	18.3	0.53 (s)	18.3	0.53 (s)	18.53	0.52 (s)	18.3
28	31.61	1.11 (s)	31.6	1.10 (s)	31.6	1.10 (s)	31.60	1.11 (s)	31.5
30	32.69	1.19 (s)	32.7	1.18 (s)	32.7	1.18 (s)	32.59	1.18 (s)	32.9
MeO	51.57	3.56 (s)	51.6	3.55 (s)			51.67	3.56 (s)	51.1

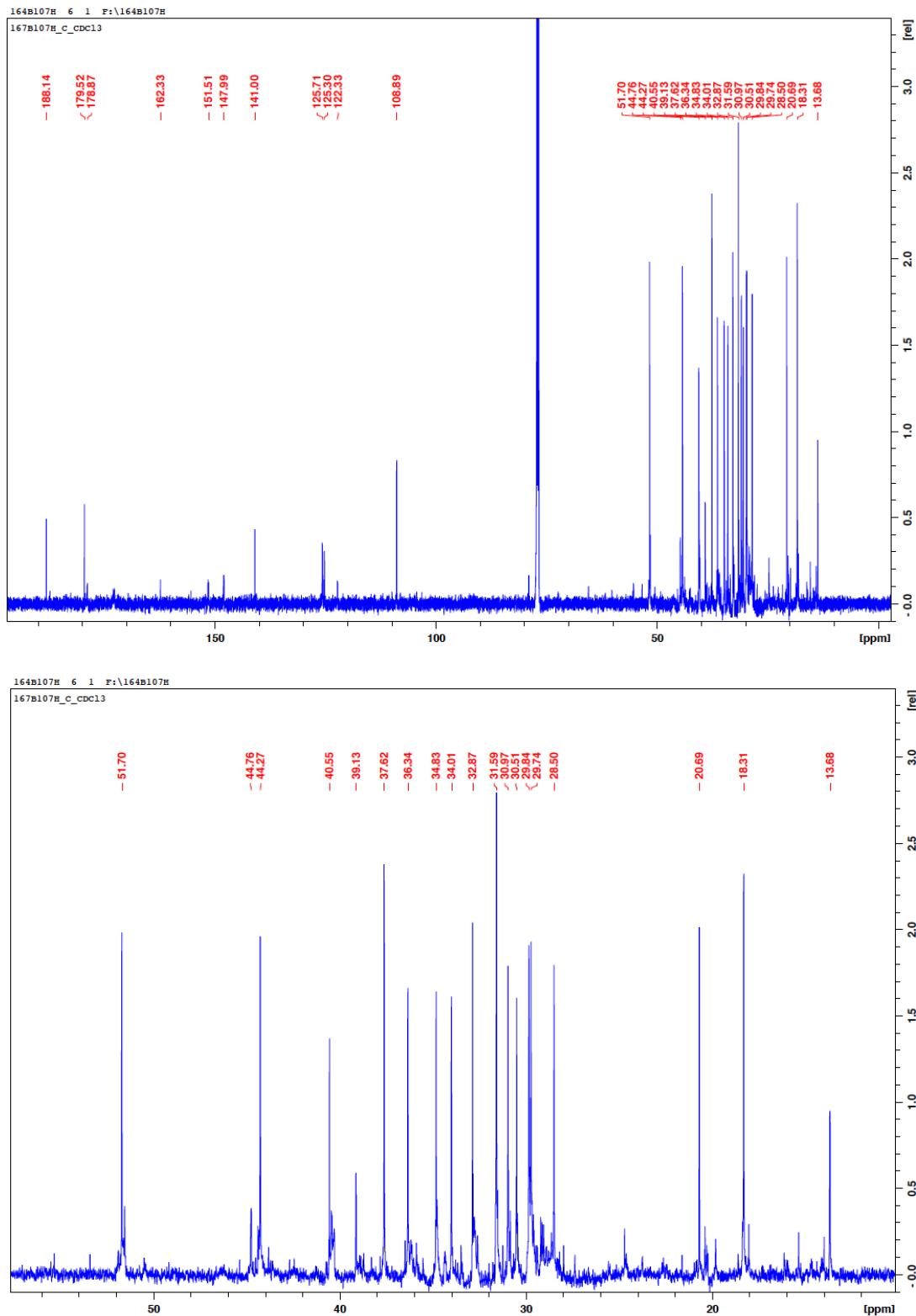
(S25) NMR Spectroscopic Data (^1H 600 MHz, ^{13}C 150 MHz) for pristimerin (2) in CDCl_3 .

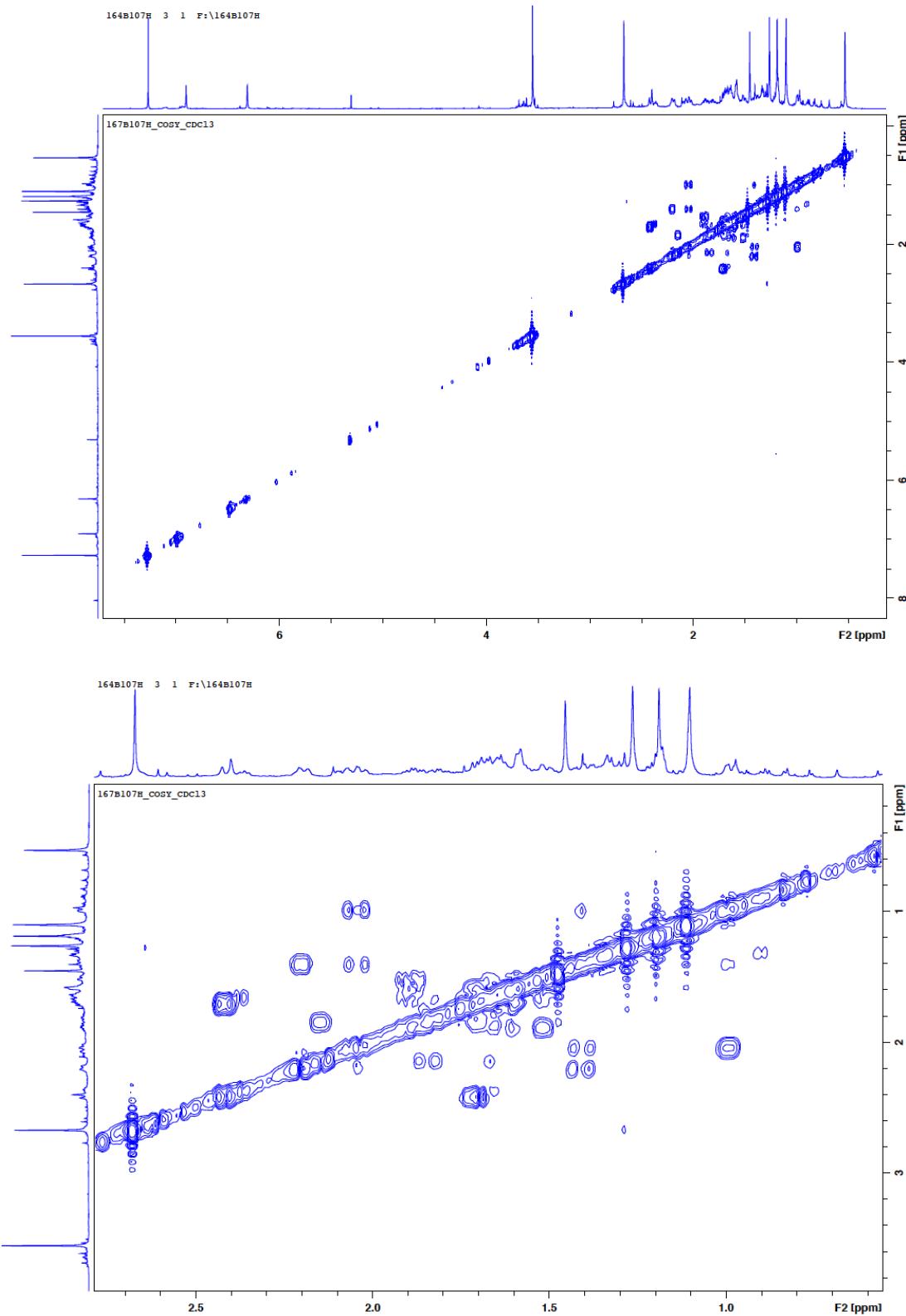


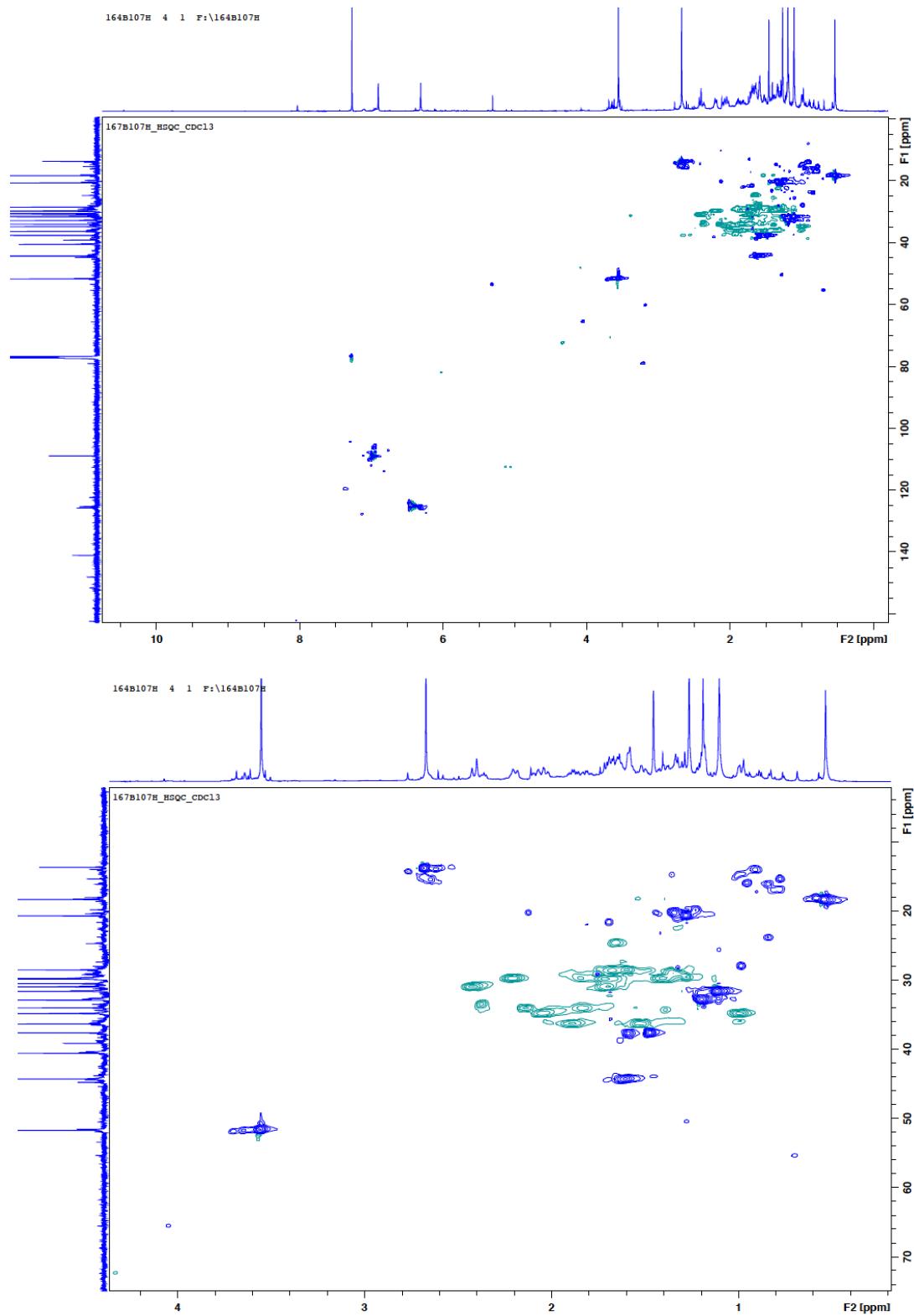
(S26) Chromatogram, MS1 and MS2 spectra of the LC-MS/MS analysis of 6-oxopristimerol (**3**).



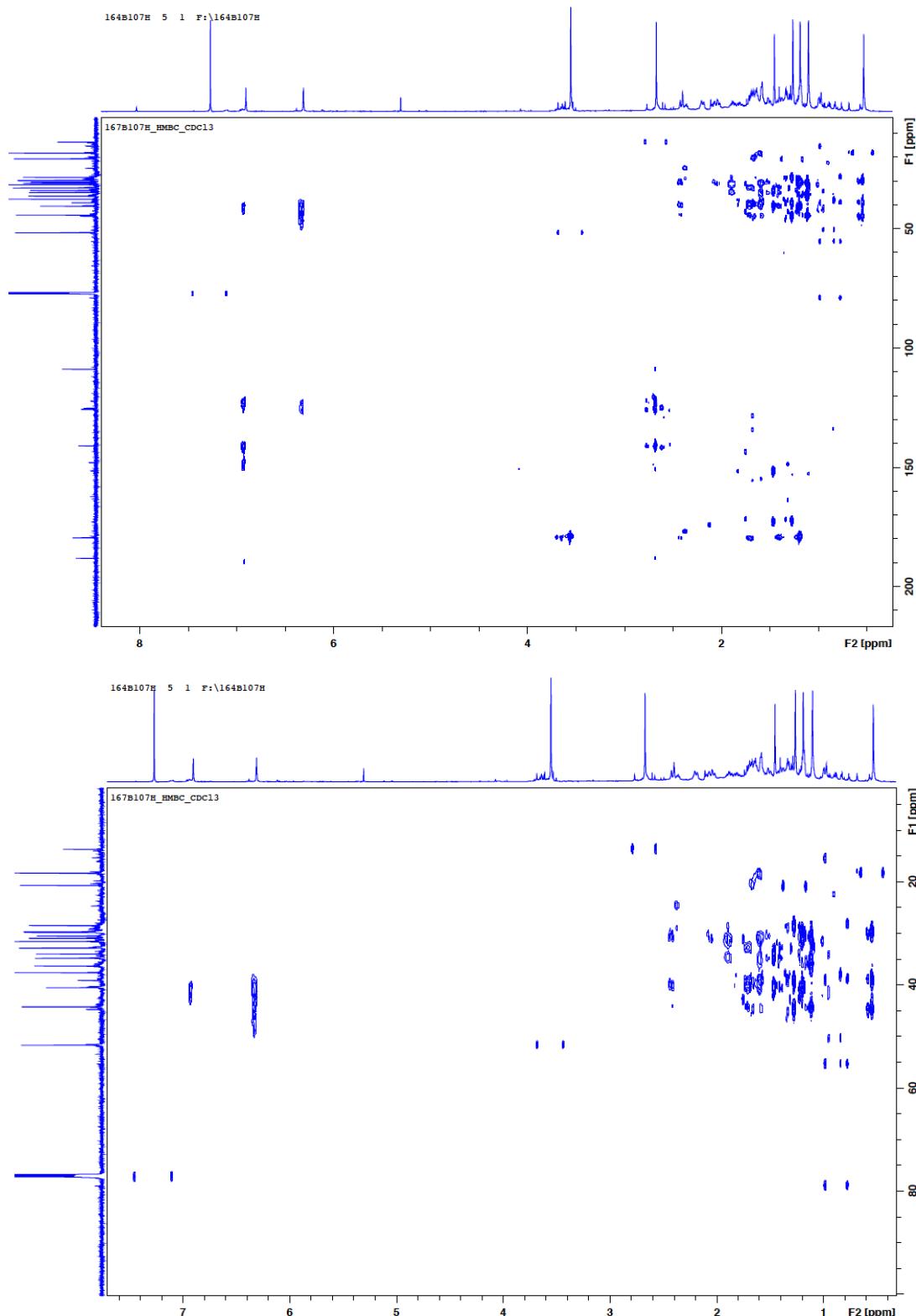
(S27) ^1H NMR spectrum (600 MHz) of 6-oxopristimerol (**3**) in CDCl_3 .

(S28) ^{13}C NMR spectrum (150 MHz) of 6-oxopristimerol (**3**) in CDCl_3 .

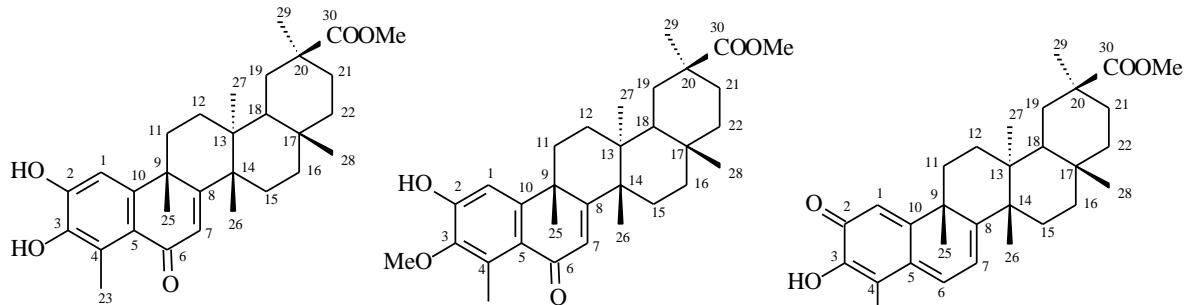
(S29) COSY spectrum of 6-oxopristimerol (**3**) in CDCl₃.



(S30) HSQC spectrum of 6-oxopristimerol (**3**) in CDCl_3 .



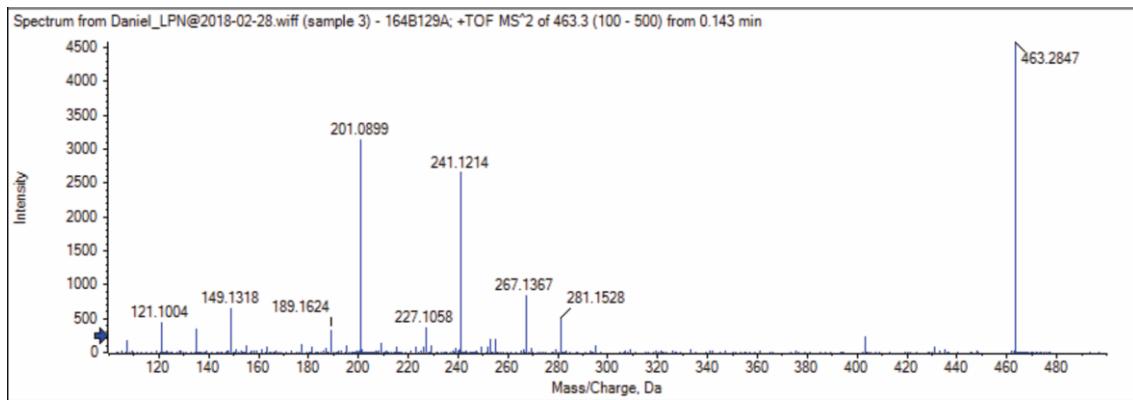
(S31) HMBC spectrum of 6-oxopristimerol (**3**) in CDCl_3 .

**6-Oxopristimerol***J. Nat. Prod.* **1994**, *57*(12), 1675**3-O-methyl-6-Oxopristimerol***Chemistry & biodiversity* **2011**, *8*, 2291**Pristimerin**

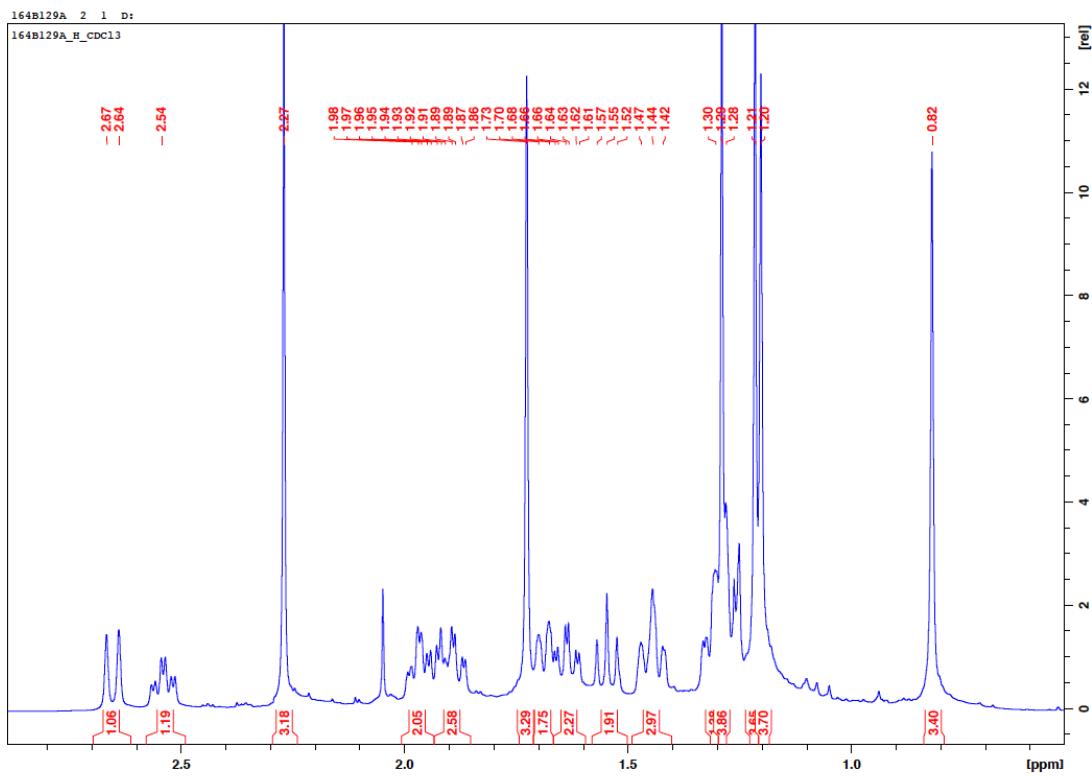
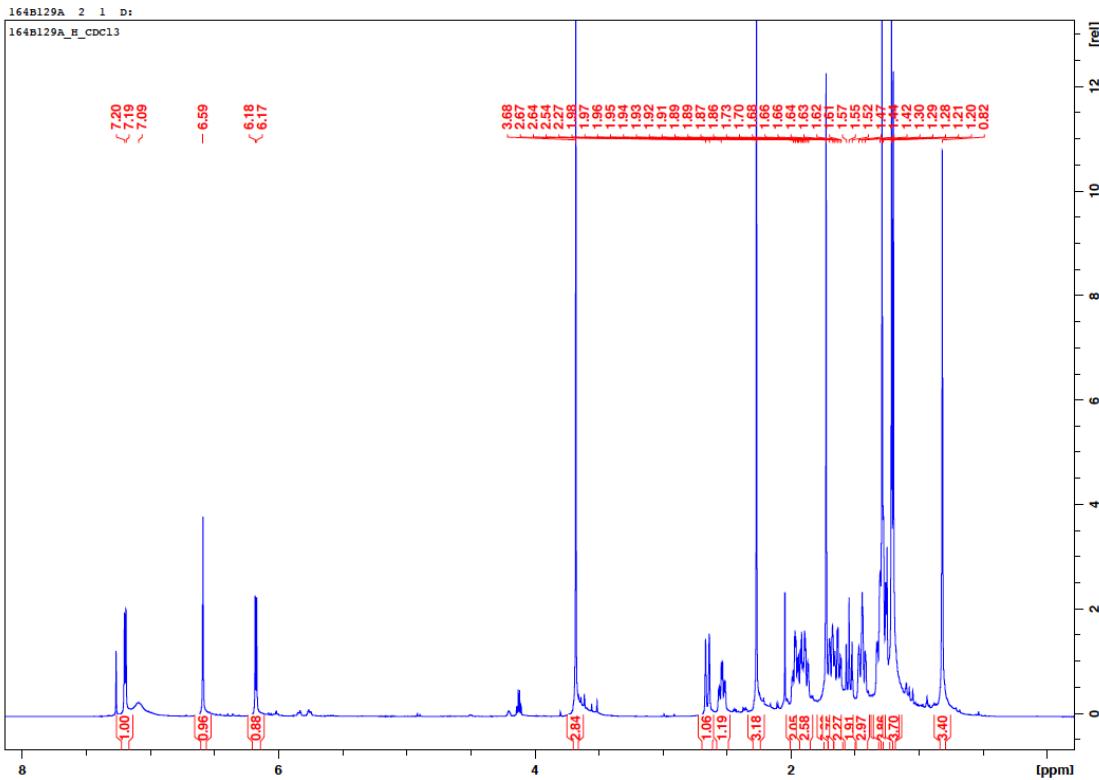
	HSQC		HMBC		6-Oxopristimerol, em C ₅ D ₅ N		3-O-methyl-6-Oxopristimerol, CDCl ₃	
	C	H	² J _{CH}	³ J _{CH}	C	H	C	H
C								
2	147.99	-	H-1		144.04	-	144.2	-
3	141.00	-		H-1; 3H-23	126.80	-	132.9	-
4	125.30	-	3H-23		122.67	-	132.0	-
5	122.33	-		H-1; H-7; 3H-23	151.38	-	154.9	-
6	188.44	-			187.32	-	187.2	-
8	172.99	-		3H-25; 3H-26	150.67	-	151.9	-
9	40.55	-	3H-25		40.58	-	40.4	-
10	151.51	-	H-1	3H-25	170.77	-	171.2	-
13	39.12	-	3H-27	3H-26	39.30	-	38.9	-
14	44.75	-	3H-26	3H-27	44.61	-	44.7	-
17	30.96	-	3H-28		30.64	-	30.8	-
20	40.55	-	3H-30		40.14	-	40.3	-
29	179.52	-		3H-30; MeO-29	178.66	-	178.8	-
CH								
1	108.89	6.98 (s)			109.99	7.25 (s)	109.1	6.95 (s)
6	-	-	-	-	-	-	-	-
7	125.12	6.46 (s)			126.88	6.46 (s)	126.1	6.14 (s)
18	44.27	1.60		3H-27; 3H-28	44.38	1.58	44.3	
CH₂								
11	34.00	2.14, 1.83		3H-25	34.59		34.0	2.21, 1.94
12	29.73	1.84, 1.27		3H-27	30.21		29.8	1.72, 1.66
15	28.50	1.70, 1.59		3H-26	28.86		28.5	1.80, 1.40
16	36.34	1.88, 1.52		3H-28	36.62		36.4	1.80, 1.50
19	30.51	2.14, 1.69		3H-30	31.08		30.5	2.91 (d, 15.9), 1.66

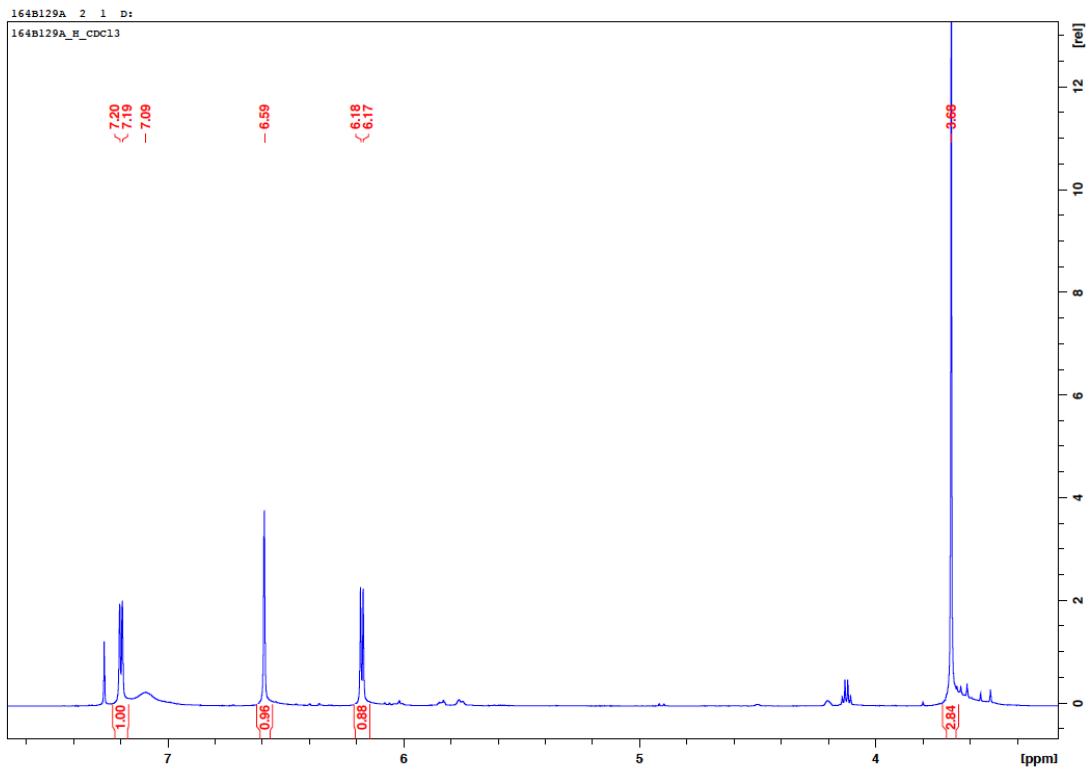
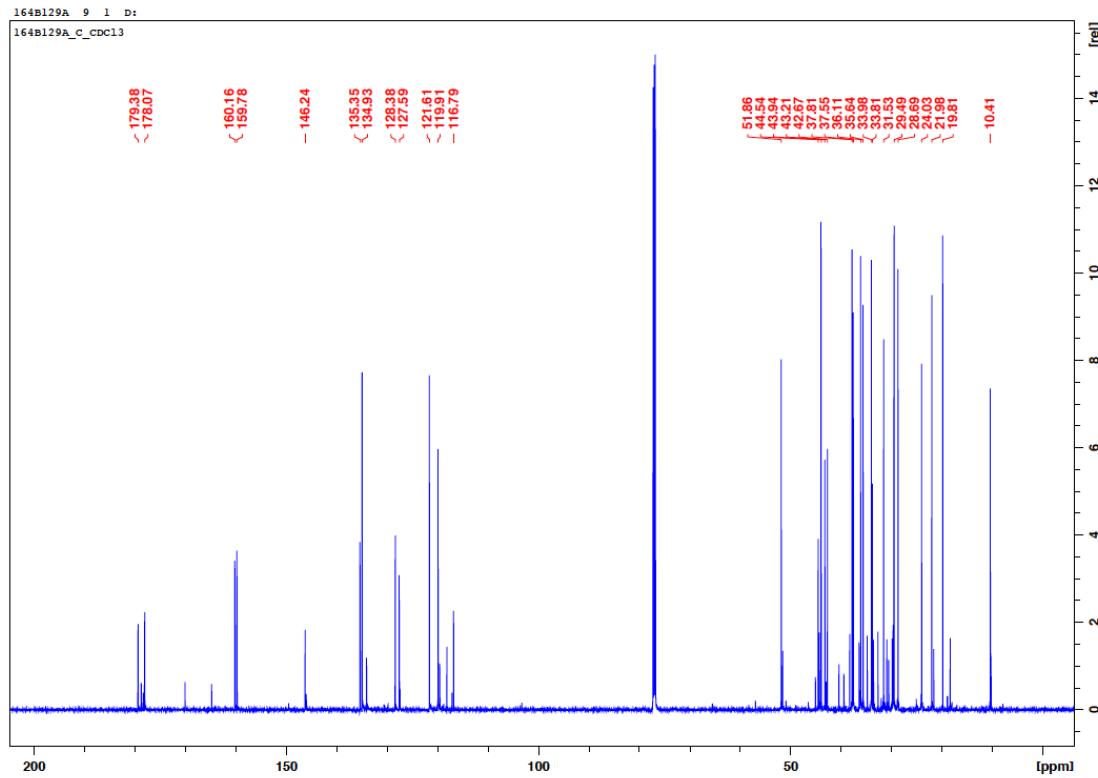
21	29.89	2.20, 1.40		3H-30	30.11		29.7	2.19, 1.37
22	34.82	2.04, 0.98		3H-28	35.13		34.8	2.04, 0.97
CH₃								
23	13.68	2.67 (s)			14.82	3.28 (s)	14.7	2.66 (s)
25	37.63	1.46 (s)			37.76	1.53 (s)	37.6	1.55 (s)
26	20.69	1.27 (s)			20.87	1.16 (s)	20.8	1.29 (s)
27	18.31	0.53 (s)			18.51	0.63 (s)	18.3	0.57 (s)
28	31.58	1.10 (s)			31.55	0.99 (s)	31.6	1.09 (s)
30	32.87	1.18 (s)			32.59	1.15 (s)	32.7	1.17 (s)
MeO- 29	51.70	3.55 (s)			51.47	3.58 (s)	51.5	3.57 (s)
MeO-3	-	-	-	-	-	-	61.1	3.79 (s)

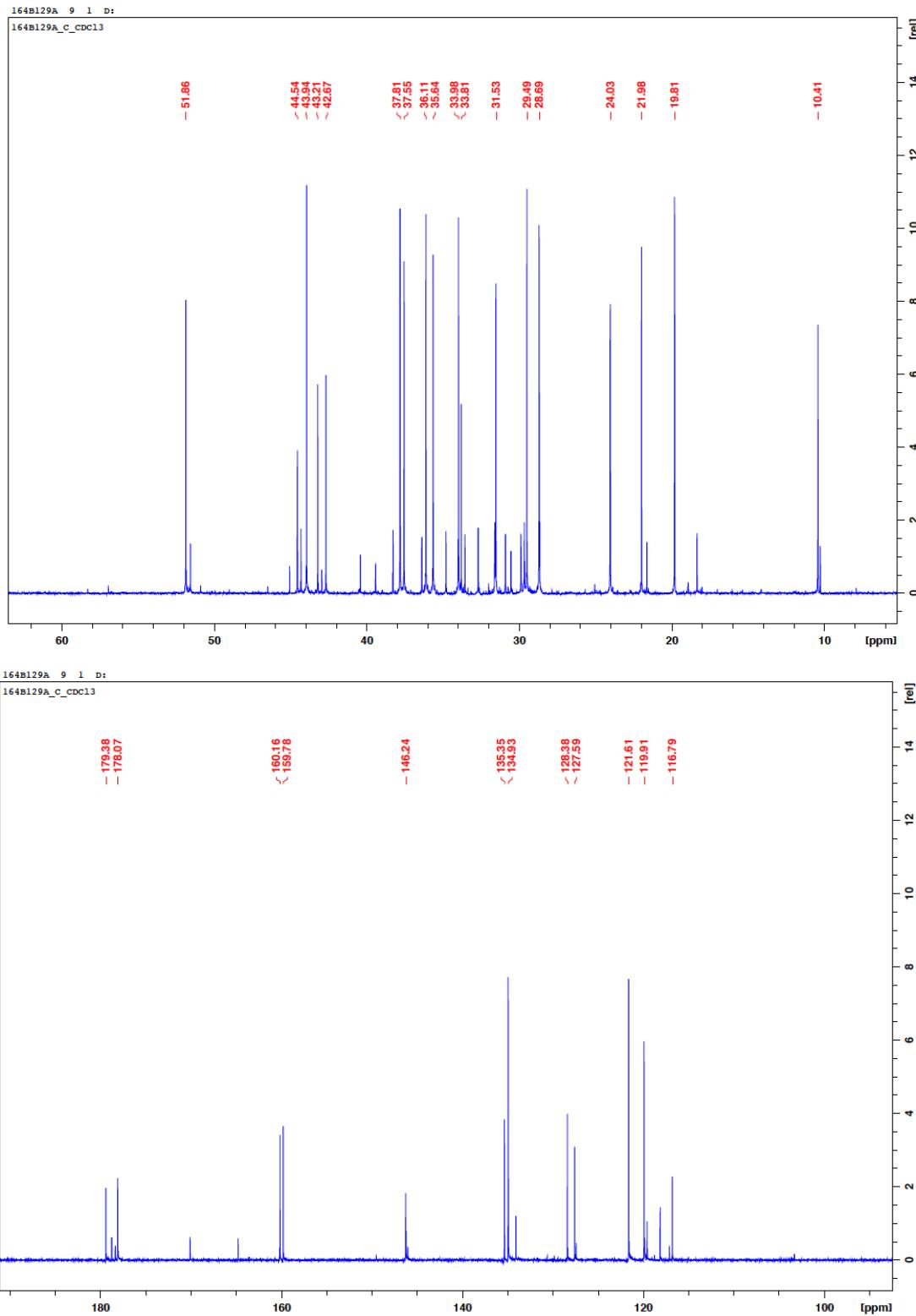
(S32) NMR Spectroscopic Data (¹H 600 MHz, ¹³C 150 MHz) for 6-oxopristimerol (3) in CDCl₃.

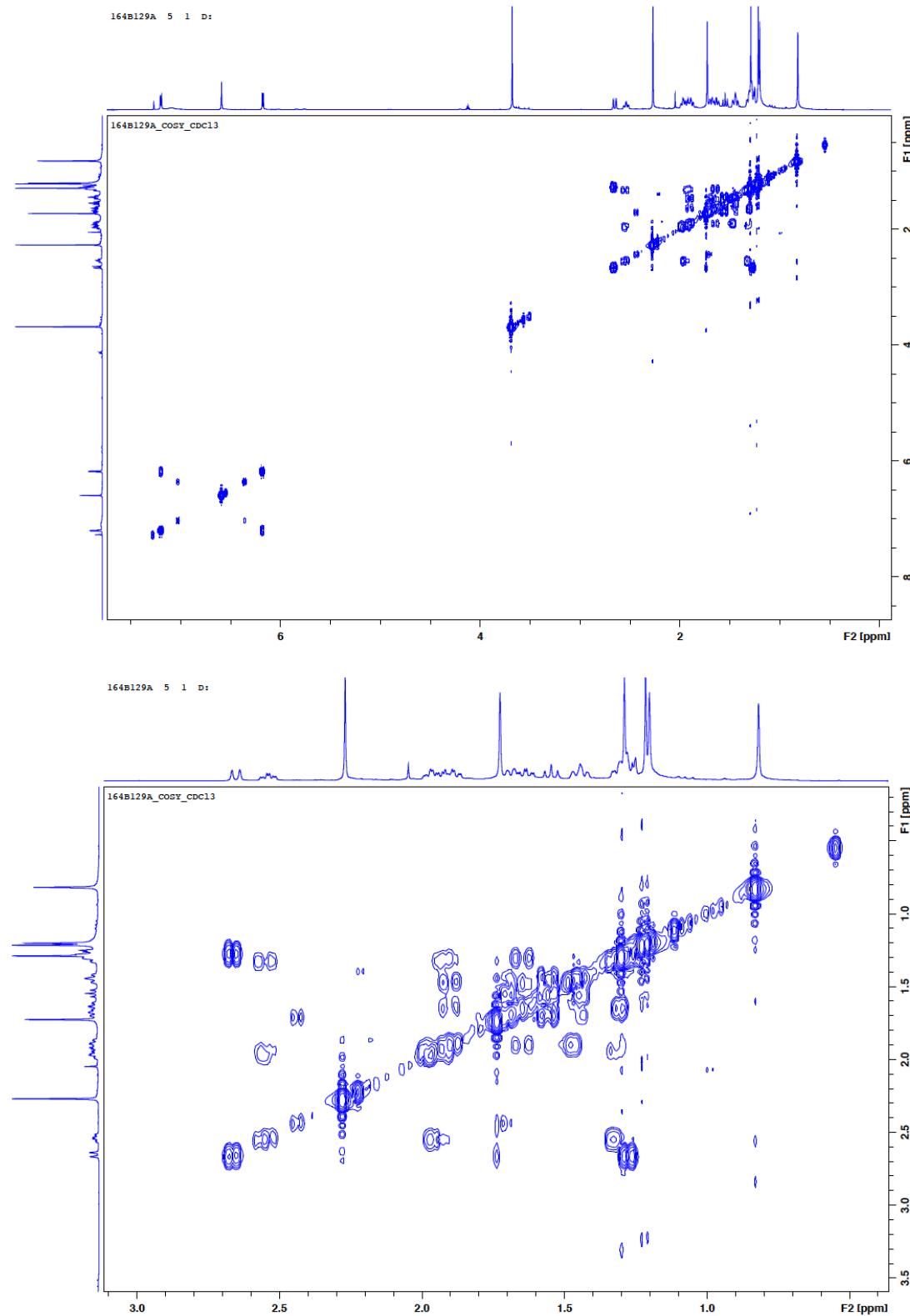


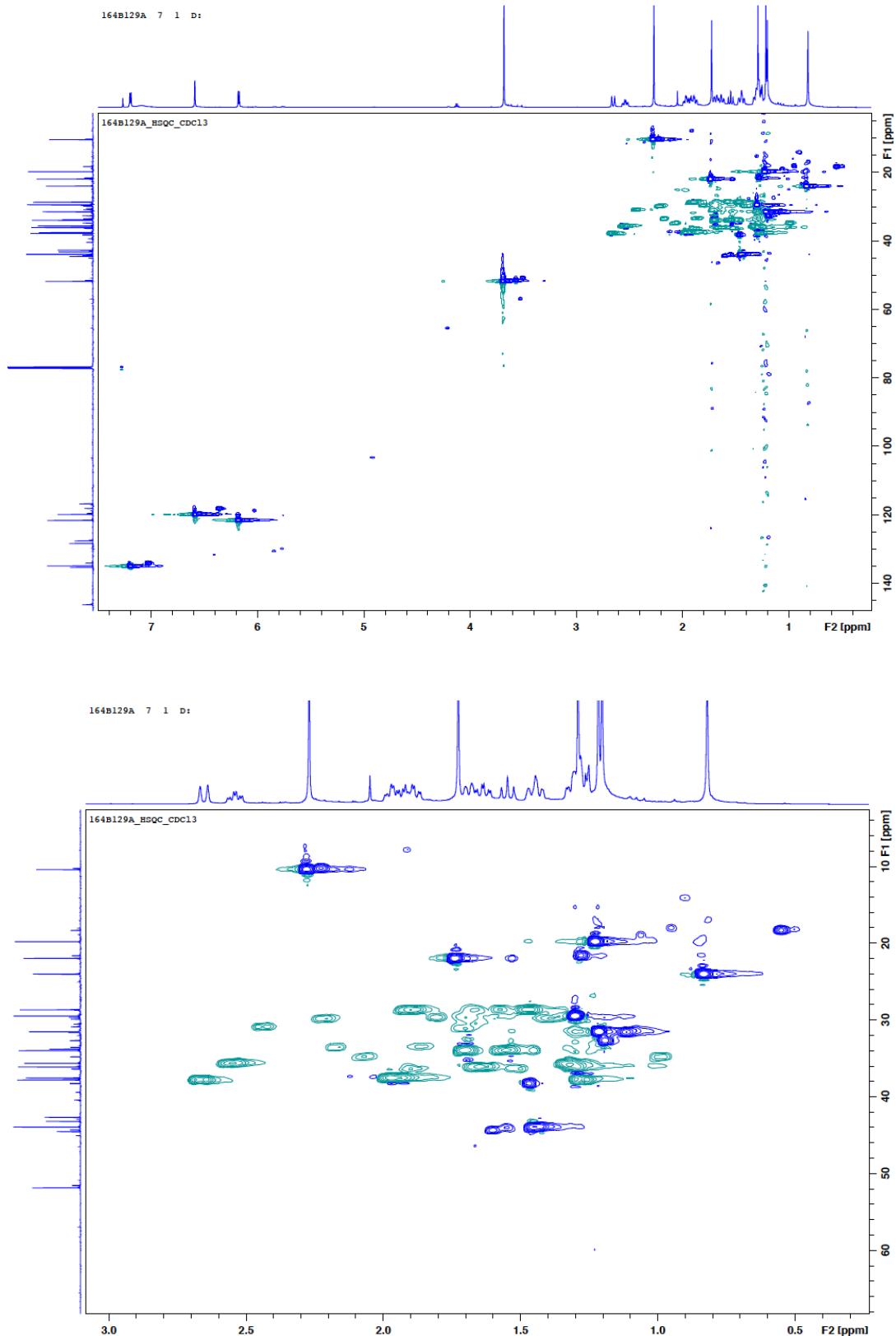
(S33) MS2 Mass spec of vitideasin (4).

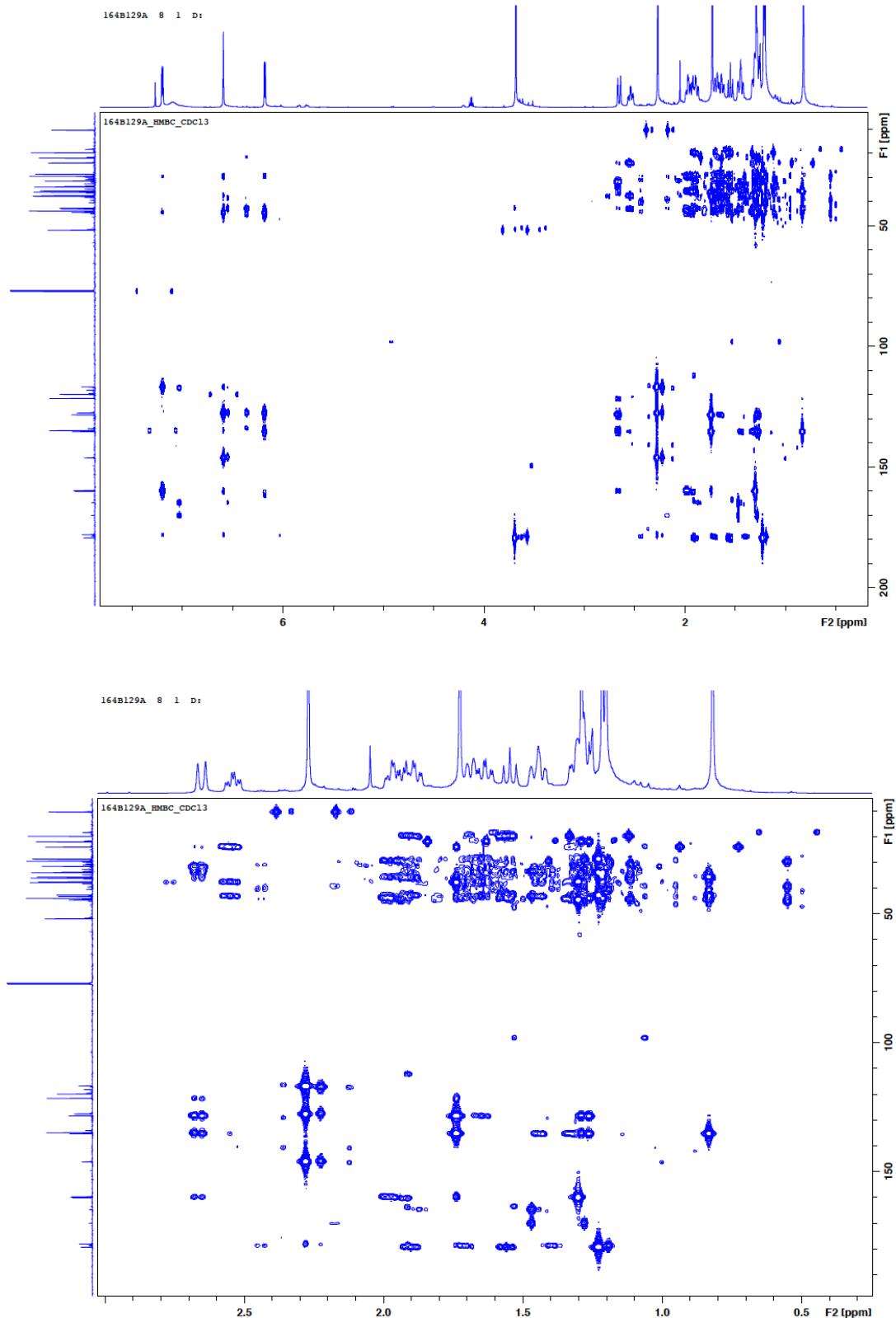


(S34) ¹H NMR spectrum (600 MHz) of vitideasin (**4**) in CDCl₃.

(S35) ¹³C NMR spectrum (150 MHz) of vitideasin (**4**) in CDCl₃.

(S36) COSY spectrum of vitideasin (**4**) in CDCl_3 .

(S37) HSQC spectrum of vitideasin (**4**) in CDCl₃.

(S38) HMBC spectrum of vitideasin (**4**) in CDCl_3 .

Vitideasin (Compound 4)		
	C	H
C		
2	178.0	-
3	146.2	-
4	116.7	-
5	127.5	-
8	159.7	-
9	44.5	-
10	160.13	-
13	43.1	-
14	135.3	-
15	128.3	-
17	33.7	-
20	42.6	-
29	179.3	-
CH		
1	119.9	6.59 (s)
6	134.9	7.19 (d, 7.0 Hz)
7	121.6	6.17 (d, 7.0 Hz)
11	37.5	1.93 - 2.00 (m)
18	43.9	1.40 - 1.48 (m)
CH₂		
12	35.6	2.54 (ddd); 1.3 (overlapped)
16	37.8	2.65 (d); 1.28 (overlapped)
19	33.9	1.54 (t); 1.68-1.71 (m)
21	28.6	1.46 - 1.48 (m); 1.85 - 1.93 (m)
22	36.1	1.64 (m)
CH₃		
23	10.3	2.2 (s)
25	29.4	1.3 (m)
26	21.9	1.73 (s)
27	24.0	0.82 (s)
28	31.5	1.20 (s)
30	19.8	1.21 (s)
MeO	51.8	3.68 (s)
OH		7.09 (bs)

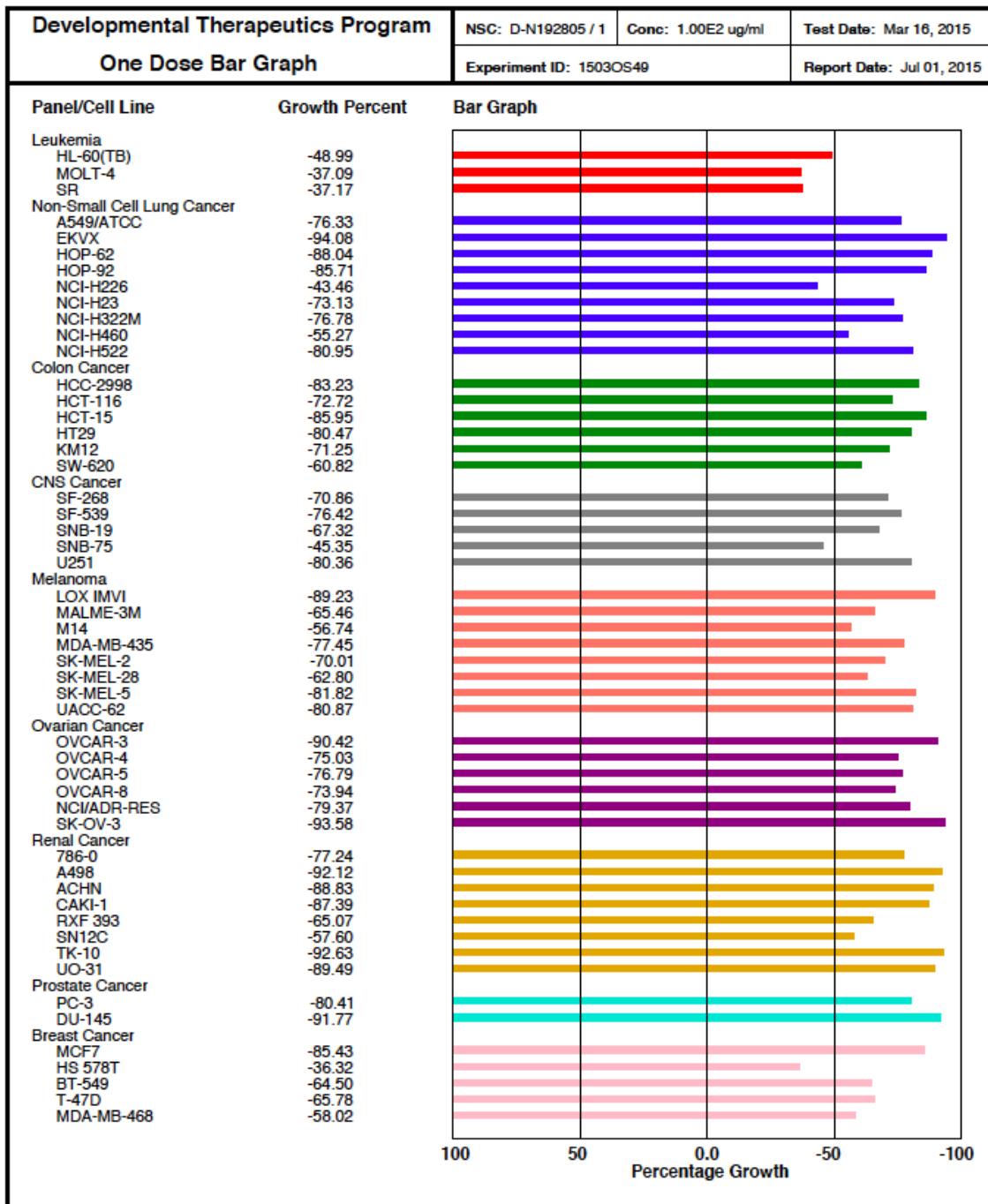
(S39) NMR Spectroscopic Data (^1H 600 MHz, ^{13}C 150 MHz) for vitideasin (**4**) in CDCl_3 .

	<i>S. crassifolia</i> NSC:N192803 Endpt:GI50 Expld:AVGDATA hiConc:2.0		<i>S. elliptica</i> NSC:N192805 Endpt:GI50 Expld:AVGDATA hiConc:2.0
	<i>S. crassifolia</i> NSC:N192803 Endpt:GI50 Expld:AVGDATA hiConc:2.0	1.0	0.749
	<i>S. elliptica</i> NSC:N192805 Endpt:GI50 Expld:AVGDATA hiConc:2.0	0.749	1.0
	<i>S. crassifolia</i> NSC:N192803 Endpt:TGI Expld:AVGDATA hiConc:2.0		<i>S. elliptica</i> NSC:N192805 Endpt:TGI Expld:AVGDATA hiConc:2.0
	<i>S. crassifolia</i> NSC:N192803 Endpt:TGI Expld:AVGDATA hiConc:2.0	1.0	0.807
	<i>S. elliptica</i> NSC:N192805 Endpt:TGI Expld:AVGDATA hiConc:2.0	0.807	1.0
	<i>S. crassifolia</i> NSC:N192803 Endpt:LC50 Expld:AVGDATA hiConc:2.0		<i>S. elliptica</i> NSC:N192805 Endpt:LC50 Expld:AVGDATA hiConc:2.0
	<i>S. crassifolia</i> NSC:N192803 Endpt:LC50 Expld:AVGDATA hiConc:2.0	1.0	0.765
	<i>S. elliptica</i> NSC:N192805 Endpt:LC50 Expld:AVGDATA hiConc:2.0	0.765	1.0

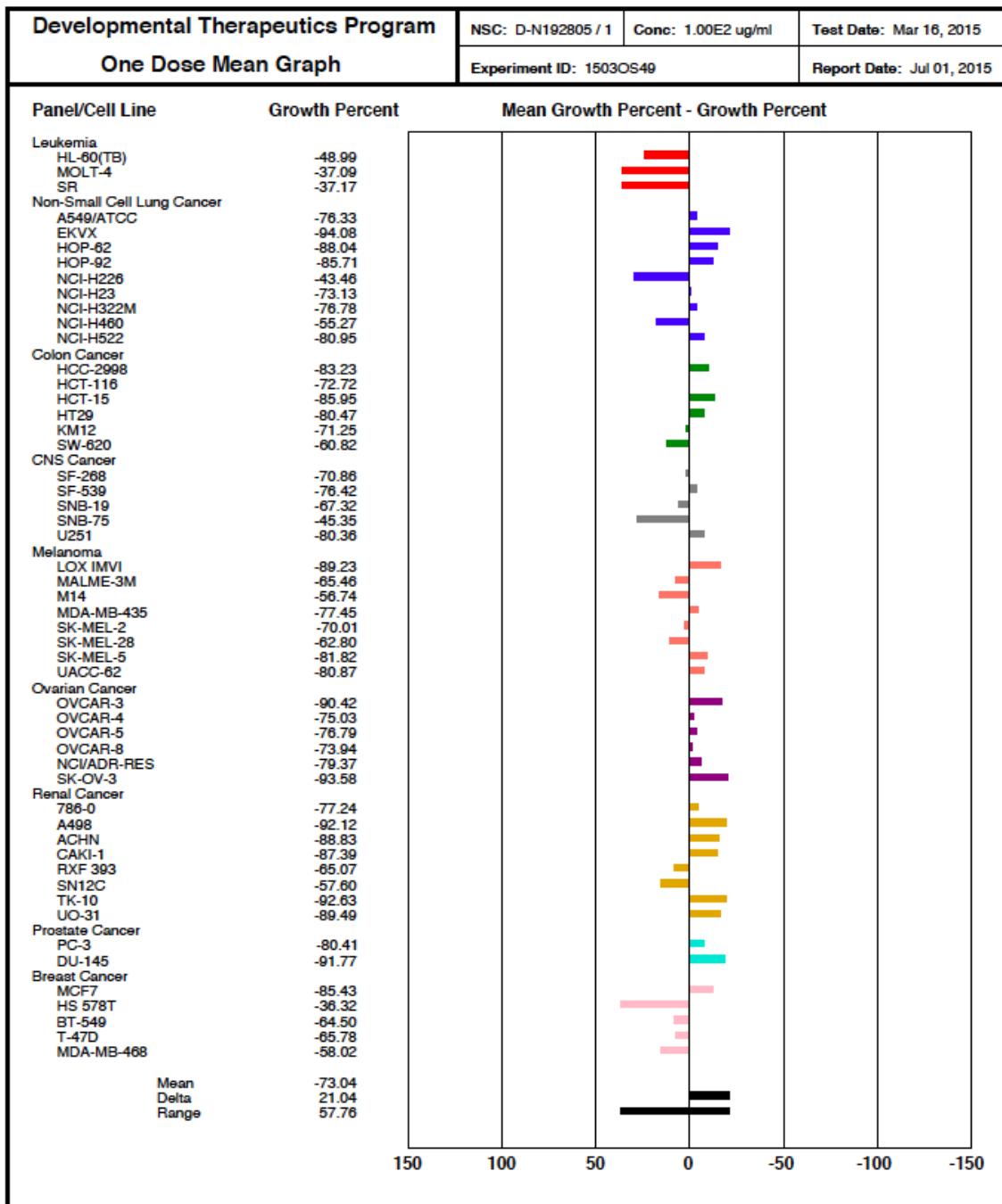
(S40) COMPARE between *S. crassifolia* and *S. elliptica* extracts.

		11B-HYDROXY-		
	PRISTIMERIN	PRISTAMERIN	<i>S. elliptica</i>	
PRISTIMERIN NSC:5791208 Endpt:GI50 Expld:AVGDATA hiConc:-4.0	NSC:5791208 Endpt:GI50 Expld:AVGDATA hiConc:-4.0	NSC:5797253 Endpt:GI50 Expld:AVGDATA hiConc:-4.1	NSC:N192805 Endpt:GI50 Expld:AVGDATA hiConc:-4.1	
PRISTIMERIN NSC:5791208 Endpt:GI50 Expld:AVGDATA hiConc:-4.0	1.0	0.518	0.692	
11B-HYDROXY- PRISTAMERIN NSC:5797253 Endpt:GI50 Expld:AVGDATA hiConc:-4.1	0.518	1.0	0.642	
<i>S. elliptica</i> NSC:N192805 Endpt:GI50 Expld:AVGDATA hiConc:2.0	0.692	0.642	1.0	
		11B-HYDROXY-		
	PRISTIMERIN	PRISTAMERIN	<i>S. elliptica</i>	
PRISTIMERIN NSC:5791208 Endpt:TGI Expld:AVGDATA hiConc:-4.0	NSC:5791208 Endpt:TGI Expld:AVGDATA hiConc:-4.0	NSC:5797253 Endpt:TGI Expld:AVGDATA hiConc:-4.1	NSC:N192805 Endpt:TGI Expld:AVGDA TA hiConc:2.0	
PRISTIMERIN NSC:5791208 Endpt:TGI Expld:AVGDATA hiConc:-4.0	1.0	0.557	0.813	
11B-HYDROXY- PRISTAMERIN NSC:5797253 Endpt:TGI Expld:AVGDATA hiConc:-4.1	0.557	1.0	0.578	
<i>S. elliptica</i> NSC:N192805 Endpt:TGI Expld:AVGDATA hiConc:2.0	0.813	0.578	1.0	
		11B-HYDROXY-		
	PRISTIMERIN	PRISTAMERIN	<i>S. elliptica</i>	
PRISTIMERIN NSC:5791208 Endpt:LC50 Expld:AVGDATA hiConc:-4.0	NSC:5791208 Endpt:TGI Expld:AVGDATA hiConc:-4.0	NSC:5797253 Endpt:TGI Expld:AVGDATA hiConc:-4.1	NSC:N192805 Endpt:TGI Expld:AVGDA TA hiConc:2.0	
PRISTIMERIN NSC:5791208 Endpt:LC50 Expld:AVGDATA hiConc:-4.0	1.0	0.745	0.86	
11B-HYDROXY- PRISTAMERIN NSC:5797253 Endpt:LC50 Expld:AVGDATA hiConc:-4.1	0.745	1.0	0.749	
<i>S. elliptica</i> NSC:N192805 Endpt:LC50 Expld:AVGDATA hiConc:2.0	0.86	0.749	1.0	

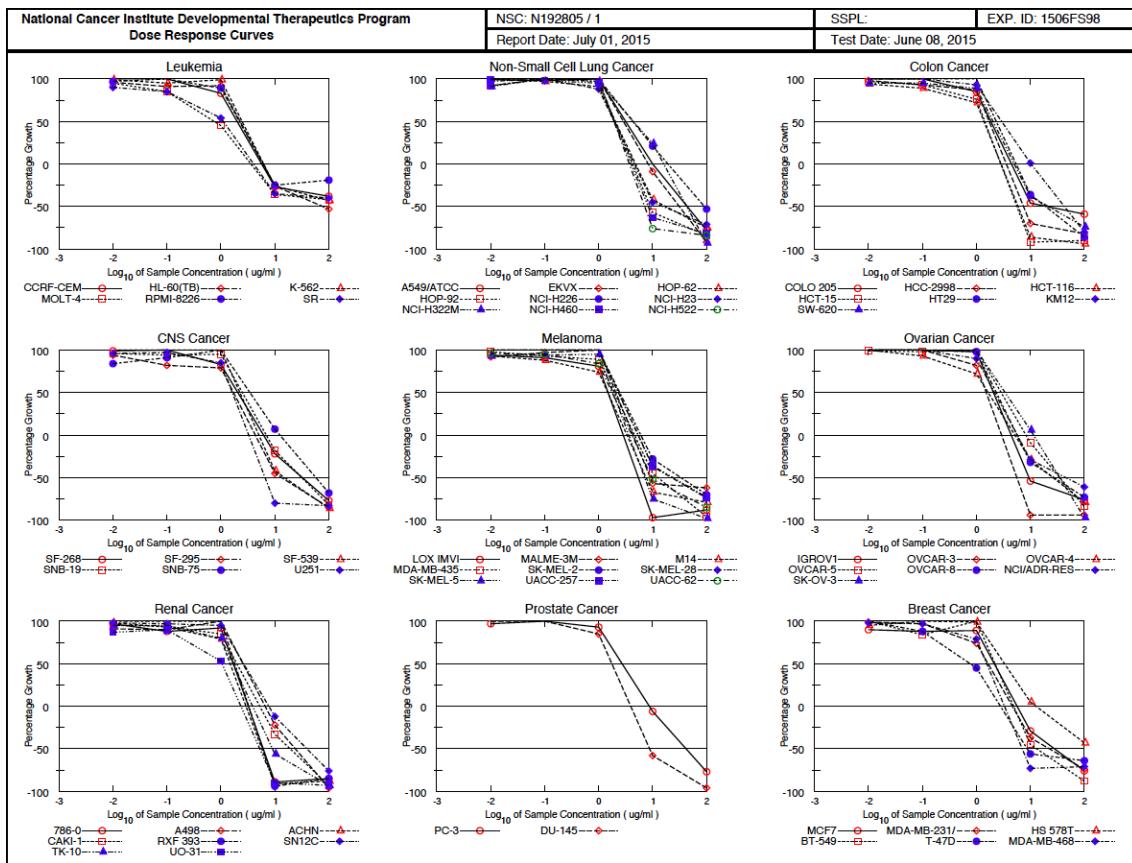
(S41) COMPARE between *S. elliptica* extracts, pristimerin (2) and 11 β -hydroxypristimerin (1).

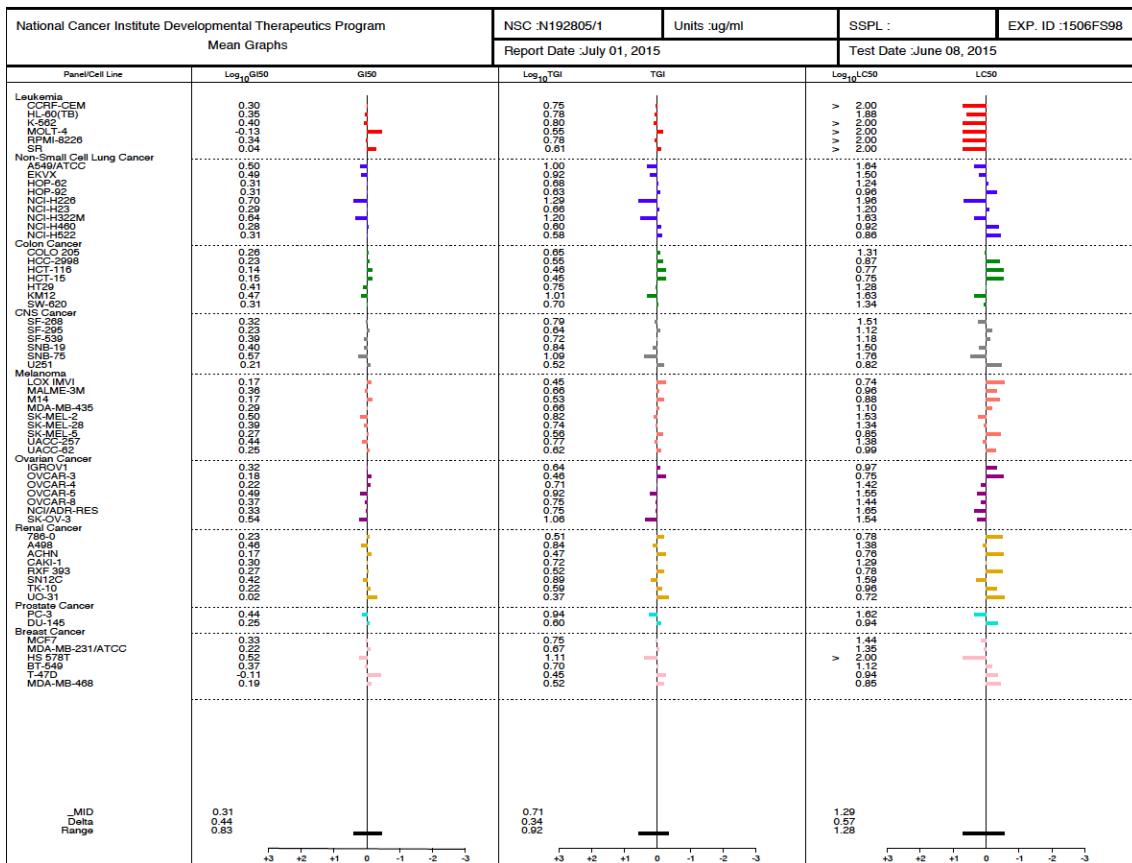


(S42) NCI-60 single dose bar graph of *S. elliptica* root wood extract.

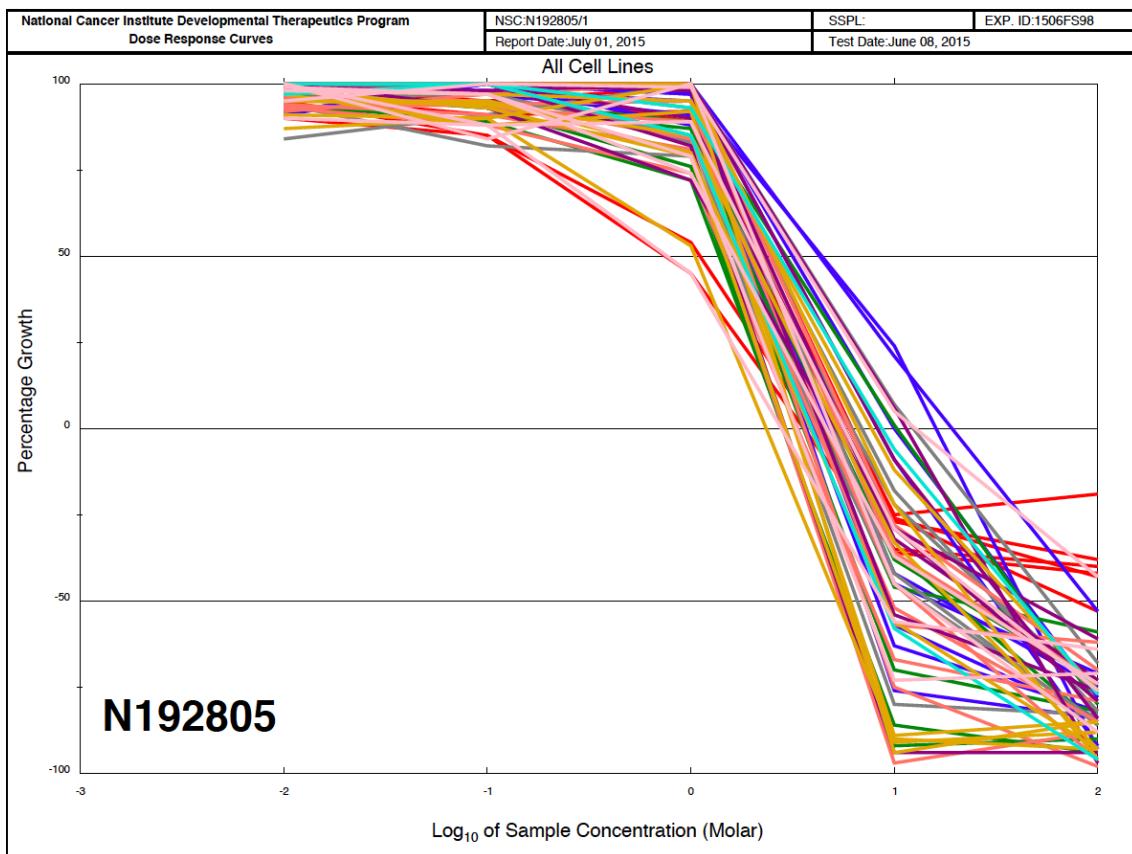


(S43) NCI-60 single dose mean bar graph of *S. elliptica* root wood extract.

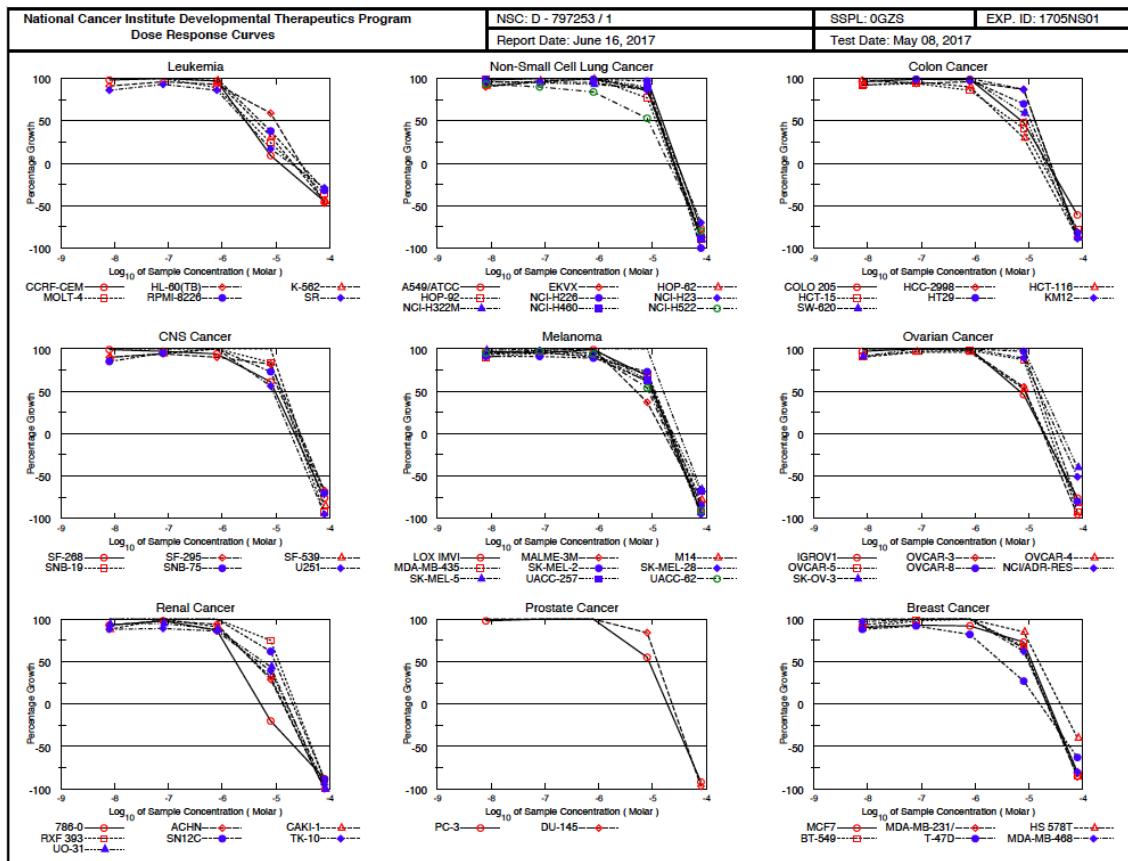
(S44) NCI-60 dose response curves for *S. elliptica* root wood extract.



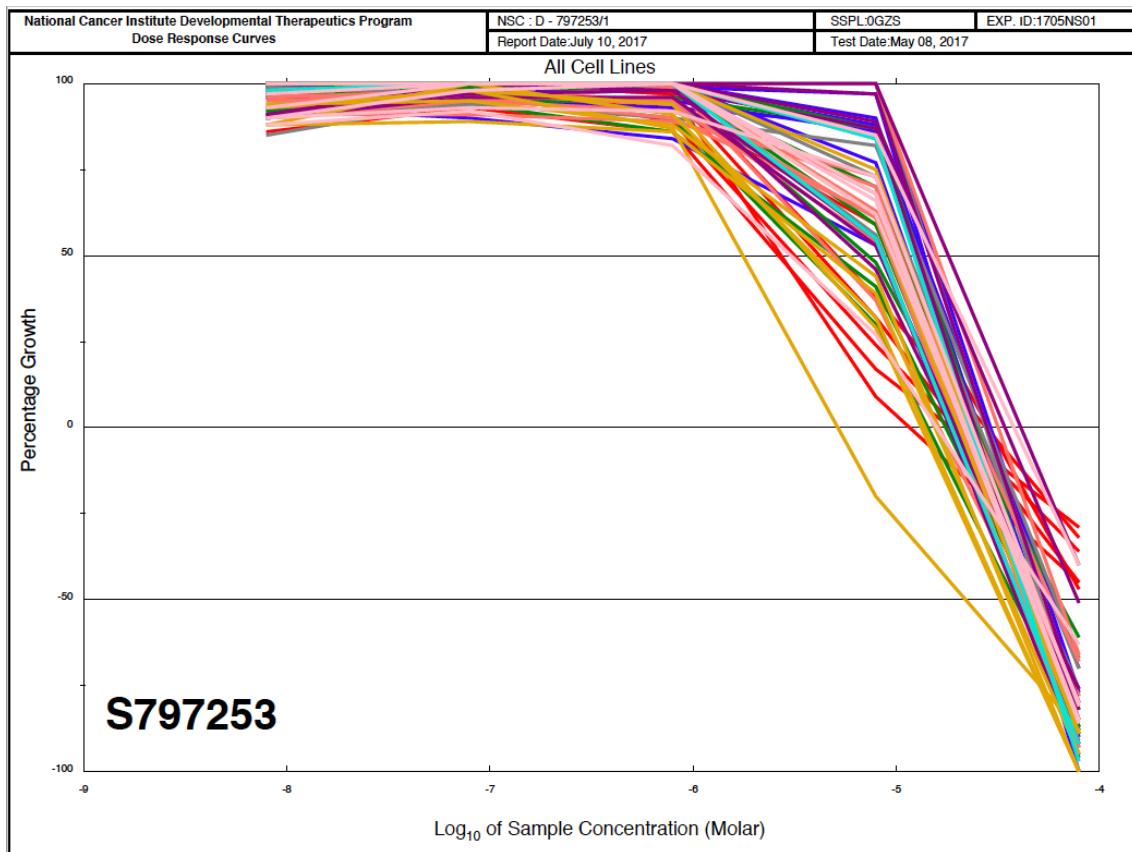
(S45) NCI-60 5-dose mean bar graph of *S. elliptica* root wood extract.

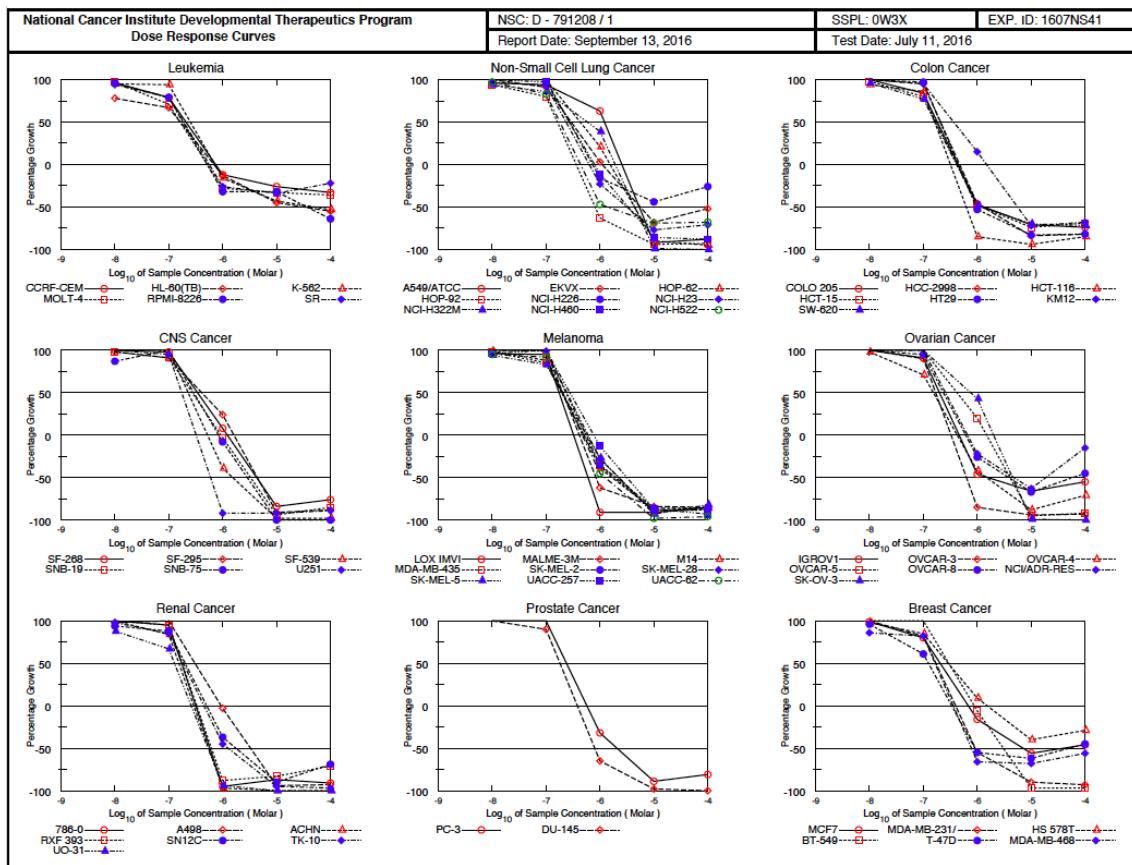


(S46) NCI-60 cumulative dose response curves for *S. elliptica* root wood extract.

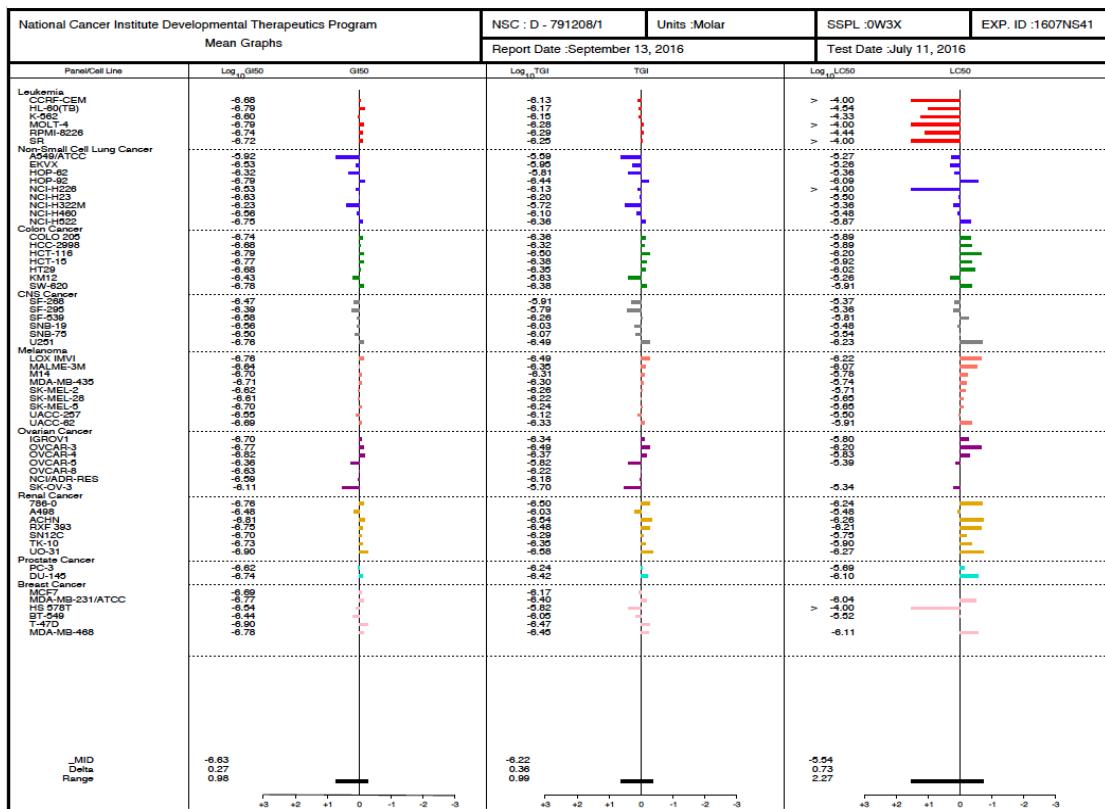
(S47) NCI-60 dose response curves for 11 β -hydroxypristimerin (**1**).

National Cancer Institute Developmental Therapeutics Program Mean Graphs		NSC : D - 797253/1	Units : Molar	SSPL : OGZS	EXP. ID : 1705NS01	
		Report Date : June 16, 2017		Test Date : May 08, 2017		
Panel/Cell Line	Log ₁₀ G50	G50	Log ₁₀ TGI	TGI	Log ₁₀ LC50	LC50
Leukemia						
CCRF-CEM	-5.56					
HL-60(TB)	-5.01					
K562	-5.07					
MOLT-4	-5.50					
RPMI-8226	-5.50					
SR	-5.57					
Non-Small Cell Lung Cancer						
A549/ATCC	-4.89					
EKVL	-4.89					
HOP-02	-4.94					
NCI-H226	-4.86					
NCI-H322M	-4.87					
NCI-H460	-4.88					
NCI-H522	-5.06					
Colon Cancer						
COLO 205	-5.13					
HCC-2998	-4.89					
HCT-116	-5.44					
HT29	-4.97					
SW-620	-5.03					
CNS Cancer						
SF-288	-4.88					
SF-295	-4.86					
SFB-19	-4.91					
SNB-75	-4.93					
U251	-4.96					
Melanoma						
LOX IMVI	-4.62					
MALME-3M	-4.60					
SK-MEL-2	-4.63					
SK-MEL-28	-4.60					
UACC-257	-4.67					
UACC-62	-4.60					
Ovarian Cancer						
IGROV1	-4.10					
OVCAR-3	-4.31					
OVCAR-4	-4.25					
OVCAR-5	-4.33					
SK-OV-3	-4.35					
Renal Cancer						
768-0	-5.13					
ACHN	-4.89					
CAKI-1	-4.84					
DU-4475	-4.72					
Prostate Cancer						
PC-3	-4.85					
DU-145	-5.00					
Breast Cancer						
MCF7	-4.10					
MDA-MB-231	-4.31					
HS 578T	-4.25					
BT-549	-4.36					
T-47D	-4.34					
MDA-MB-468	-4.31					
MID Delta		-5.06	0.69			
				-4.66	0.62	
						-4.3
						0.36

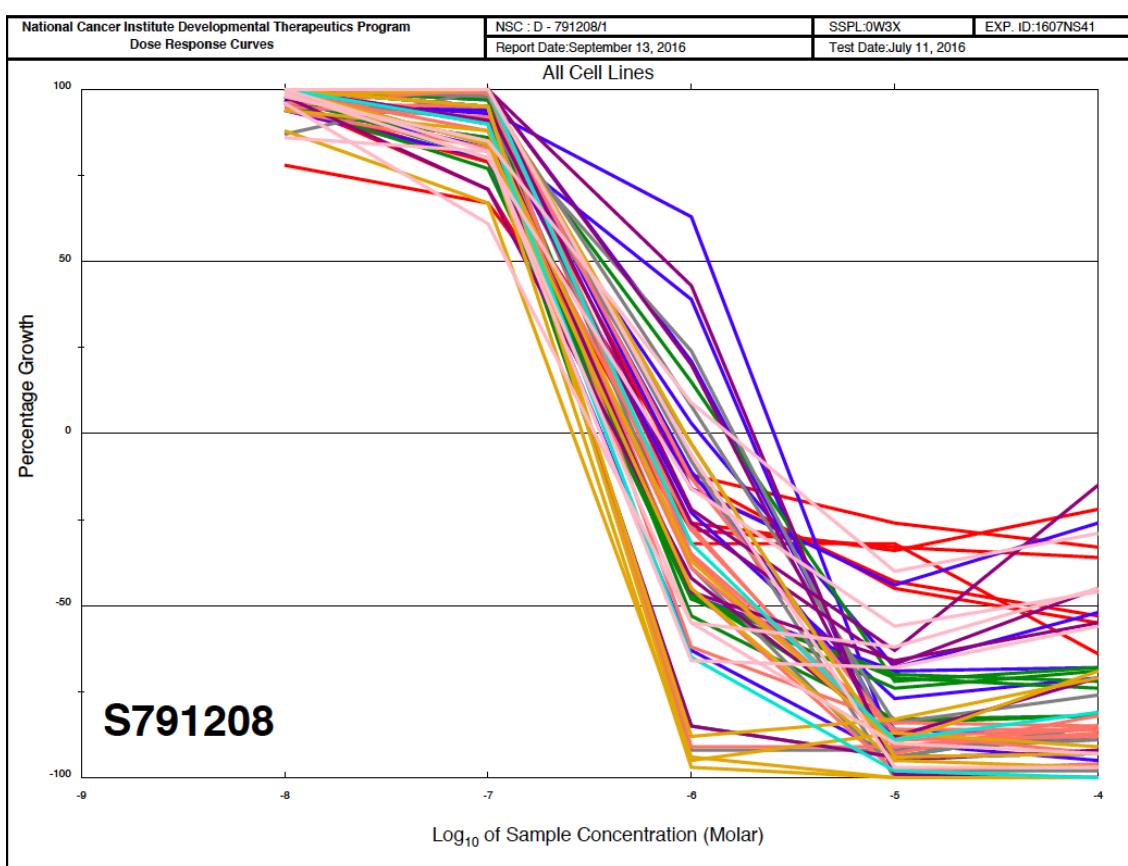
(S48) NCI-60 5-dose mean bar graph of 11β -hydroxypristimerin (**1**).(S49) NCI-60 cumulative dose response curves for 11β -hydroxypristimerin (**1**).



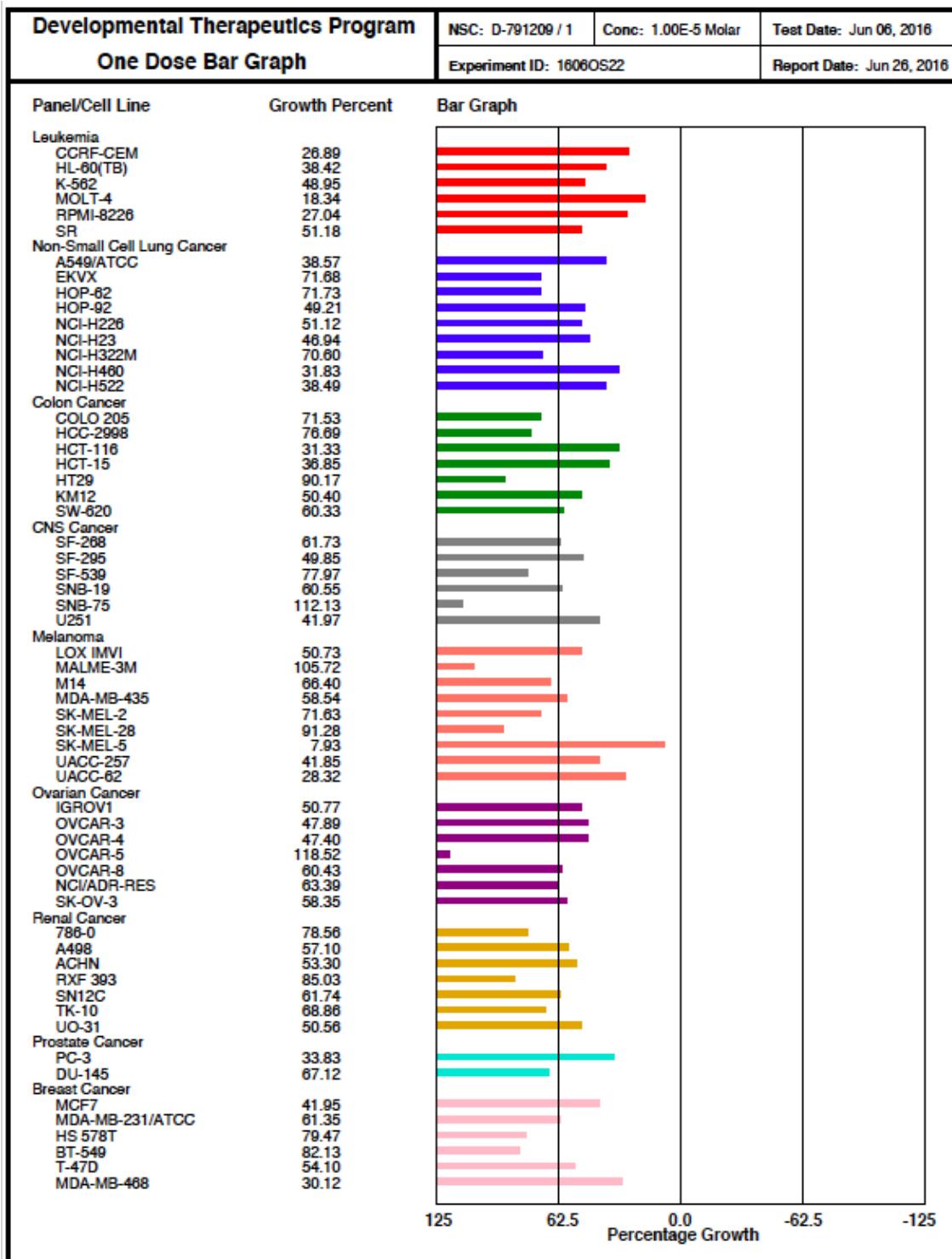
(S50) NCI-60 dose response curves for pristimerin (2).



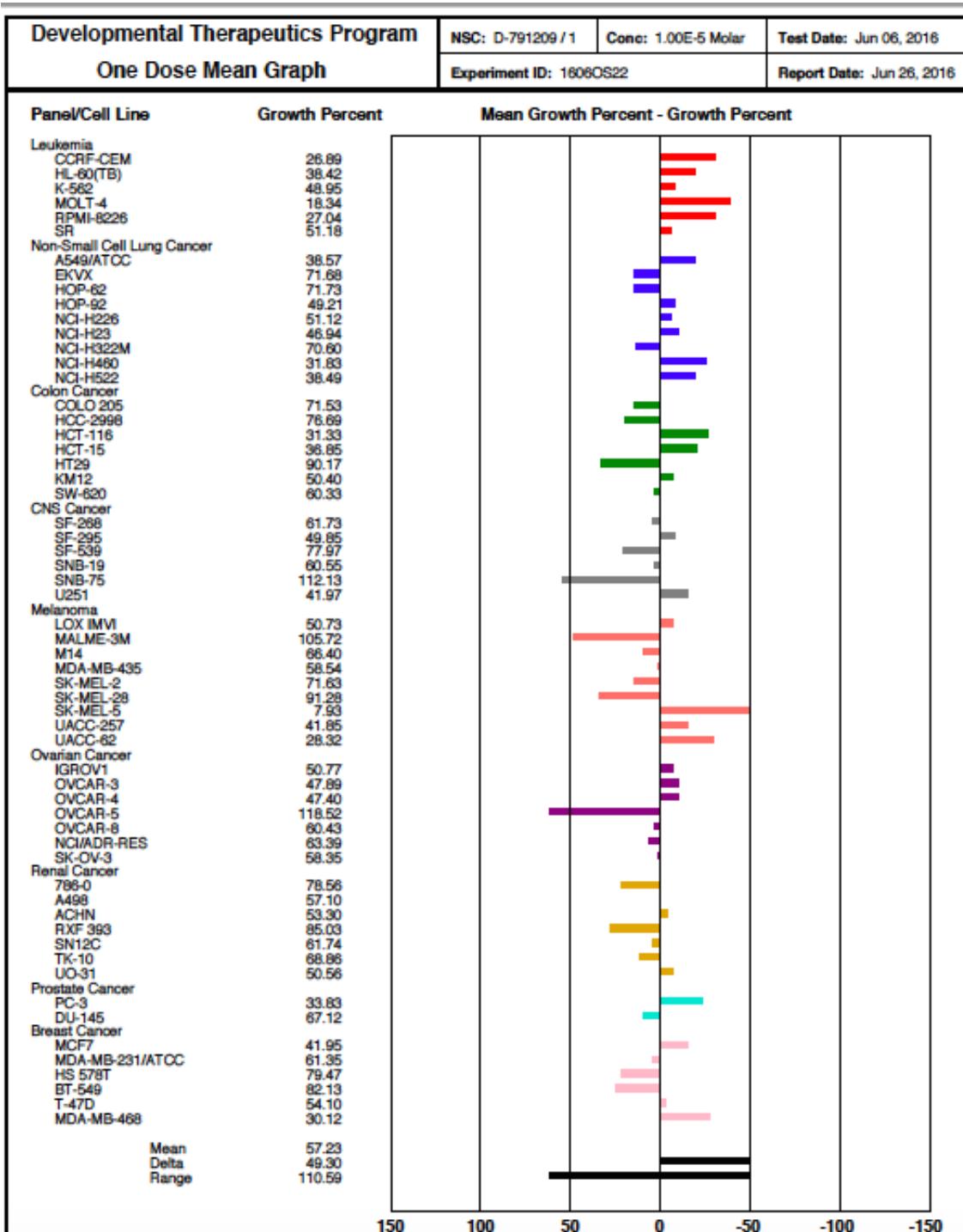
(S51) NCI-60 5-dose mean bar graph of pristimerin (2).



(S52) NCI-60 cumulative dose response curves for pristimerin (2).



(S53) NCI-60 single dose bar graph of 6-oxopristimerol (3).



(S54) NCI-60 singe dose mean bar graphs of 6-oxopristimerol (3).