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Supporting Information

for

Deletion of the side chain assembly reveals diverse post-PKS modifications in the biosynthesis of ansatrienins

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position	$\delta_{\rm H}$ (mult, J in Hz)	$\delta_{\rm C}$ mult.	HMBC	¹ H- ¹ H COSY
1		172.6s		
2α	2.93 (dd, 17.5, 7.9)	00.01	C-4, C-3, C-1	H-2 <i>β</i> , H-3
2β	2.62 (dd, 17.5, 4.9)	38.80	C-4, C-3, C-1	H-2 <i>a</i> , H-3
3	4.03 (m)	77.0d	MeO-3, C-5, C-1	H-2 <i>α</i> , H-2 <i>β</i> , H-4
4	3.63 (dd, 6.1, 4.2)	66.2d	C-3, C-6, C-20, C-1	H-3, H-5
5	4.63 (dd, 8.5, 6.3)	78.5d	C-4, C-3, C-6, C-19, C-7	H-4, H-6
6	6.07 (dd, 15.8, 6.2)	126.1d	C-4, C-5, C-8	H-7, H-5
7	6.69 (dd, 15.8, 10.5)	140.3d	C-5, C-6, C-8, C-9	H-8, H-6
8	6.29 (dd, 15.1,10.7)	132.1d	C-10, C-6, C-7	H-9, H-7
9	5.64 (ddd, 15.4, 10.7, 4.9)	135.1d	C-10, C-11, C-19	H-10 <i>α</i> , H-10 <i>β</i> , H-8
10α	2.52 (m)	20.24	C-12, C-11, C-8, C-9	H-10 <i>β</i> , H-11, H-9
10 <i>β</i>	2.39 (m)	30.21	C-12, C-11, C-8, C-9	H-10 <i>α</i> , H-11, H-9
11	3.60 (m)	72.2d	C-24, C-13, C-9	H-12, H-10 <i>α</i> , H-10 <i>β</i>
12	2.00 (m)	44.3d	C-24, C-10, C-13, C-11	H-11, H-13, H-24
13	4.38 (d, 9.4)	70.7d	C-24, C-25, C-12, C-15, C-14	H-12
14		138.0s		
15	5.44 (dd, 10.2, 4.1)	130.6d	C-25, C-13	H-16α, H-16β
16 <i>α</i>	3.02(m)	20.61	C-17, C-15, C-14	H-16 <i>β</i> , H-17 <i>α</i> , H-17 <i>β</i> , H-15
16 <i>β</i>	1.81 (m)	29.01	C-17, C-15, C-14	H-16α, H-17α, H-17β, H-15
17α	2.87 (m)	24.04	C-16, C-23, C-18, C-19	H-16α, H-16β, H-17β
17 <i>β</i>	2.22 (m)	34.01	C-16, C-23, C-18, C-19	H-16α, H-16β, H-17α
18		132.6s		
19		140.0s		
20		125.5s		
21	7.22 (d, 2.8)	107.2d	C-23, C-20, C-19, C-22	H-23
22		151.3s		
23	6.45 (d,2.8)	115.5d	C-17, C-21, C-19, C-22	H-21
24	1.10 (d, 6.9)	10.6q	C-12, C-13, C-11	H-12
25	1.77 (s)	19.3q	C-13, C-15, C-14	
MeO-3	3.35 (s)	57.6q	C-3	

Table S1: NMR spectroscopy data (CD₃OD) for compound 1

nosition	δu (mult_/in Hz)	δomult	HMBC	
1		171 7s		
20	2.79 (dd. 17.3, 5.3)	171.70	C-1	H-2 <i>B</i> H-3
2 <i>B</i>	2 59 (d 17 5)	38.4t	C-4 C-3 C-1	$H-2\alpha$
3	4 20 (t 4 9)	75.0d	MeQ-3 C-1	$H_{-2\alpha}$ H_{-4}
4	3.97 (dd 7.5.4.9)	63.4d	C-3 C-6	H-3 H-5
5	4.94 (t. 7.0)	75.1d	C-4, C-3, C-6, C-19	H-4, H-6
6	5.95 (dd. 15.7. 6.3)	126.9d	C-4, C-5, C-8	H-7. H-5
7	6.65 (dd, 15.6, 10.3)	138.5d	C-9, C-5	H-8, H-6
8	6.23 (dd, 15.1,10.3)	131.6d	C-10, C-6, C-7	H-9, H-7
9	5.81 (dt, 15.2, 7.6)	134.8d	C-10, C-11, C-7	H-10 <i>α</i> , H-10 <i>β</i> , H-8
10 <i>α</i>	2.45 (m)	07.04	C-12, C-11, C-8, C-9	H-10 <i>β</i> , H-11, H-9
10 <i>β</i>	2.38 (m)	37.80	C-12, C-11, C-8, C-9	H-10 <i>α</i> , H-11, H-9
11	3.68 (m)	72.8d	C-24, C-13, C-9	H-12, H-10 <i>α</i> , H-10 <i>β</i>
12	1.93 (m)	42.9d	C-24, C-10, C-13, C-11	H-11, H-13, H-24
13	4.44 (d, 3.1)	70.2d		H-12
14		138.9s		
15	5.23 (t, 5.6)	129.1d	C-17, C-13	H-16α, H-16β
16 <i>α</i>	2.06(m)	28 5t		H-16 <i>β</i> , H-17 <i>α</i> , H-17 <i>β</i> , H-15
16 <i>β</i>	2.47 (m)	20.51	C-17	H-16α, H-17α, H-17β, H-15
17α	2.82 (dt, 12.6, 5.5)	22 Ot	C-16, C-23, C-15, C-18, C-19	H-16α, H-16 <i>β,</i> H-17 <i>β</i>
17 <i>β</i>	2.28 (dt, 12.5, 4.6)	33.01	C-16, C-23, C-15, C-18, C-19	H-16α, H-16β, H-17α
18		131.9s		
19		138.4s		
20		127.5s		
21	7.56 (d, 2.4)	105.3d	C-23, C-20, C-19, C-22	H-23
22		151.6s		
23	6.42 (d,2.7)	113.5d	C-17, C-21, C-19, C-22	H-21
24	1.00 (d, 6.9)	11.3q	C-11, C-12, C-13	H-12
25	1.76 (S)	20.1q	C-13, C-14, C-15	
IVIEU-3	3.35 (S)	57.0q	U-3	

Table S2: NMR spectroscopy data [(CD₃)₂CO] for compound 2

position	$\delta_{\rm H}$ (mult, J in Hz)	$\delta_{\rm C}$ mult.	HMBC	¹ H- ¹ H COSY
1		172.5s		
2α	2.78 (m)		C-4, C-3, C-1	H-2 <i>β</i> , H-3
2β	2.73 (dd, 11.4, 5.6)	45.50	C-4, C-3, C-1	H-2 <i>α</i> , H-3
3	4.00 (dt, 9.7, 5.6)	82.1d	C-2, MeO-3, C-5	H-2 α , H-2 β , H-4
4	5.57 (dd, 15.6, 8.8)	130.6d	C-2, C-6	H-3, H-5
5	6.04 (dd, 15.6, 9.8)	135.5d	C-3, C-6, C-7	H-4, H-6
6	5.86 (dd, 14.8, 9.8)	128.3d	C-8, C-9, C-7	H-7, H-5
7	5.98 (dd, 14.8, 10.3)	137.0d	C-6, C-9	H-8, H-6
8	5.90 (dd, 14.6, 10.5)	131.7d	C-10, C-6	H-9, H-7
9	5.52 (ddd, 14.7, 9.1, 6.7)	136.0d	C-10, C-11, C-7	H-10 <i>α</i> , H-10 <i>β</i> , H-8
10 <i>α</i>	2.27 (dd, 13.3, 6.6)	27.6+	C-12, C-11, C-8, C-9	H-10 <i>β</i> , H-9
10 <i>β</i>	1.85 (dt, 13.3, 9.5)	57.00	C-12, C-8, C-9	H-10 <i>α</i> , H-11, H-9
11	3.28 (t, 10.2)	84.2d	C-24, C-12, C-9	H-12, H-10 <i>β</i>
12	1.67 (m)	43.5d	C-24, C-10, C-13, C-11	H-11, H-13, H-24
13	3.82 (d, 10.0)	84.0d	C-24, C-25, C-12, C-15, C-14	H-12
14		85.2s		
15	3.38 (t, 2.9)	48.9d	C-16, C-17, C-23	H-16α, H-16β
16 <i>α</i>	1.72 (dt, 14.2, 3.9)	22 8t	C-17, C-15, C-14	H-16β, H-17α, H-17β, H-15
16 <i>β</i>	2.50 (ddd, 14.2, 6.4, 3.6)	22.00	C-18	H-16α, H-15
17α	2.44 (ddd, 18.4, 13.8, 4.7)	10 Gt	C-16, C-18, C-23	H-16α, H-17β
17 <i>β</i>	2.77 (m)	19.00	C-15, C-18, C-23	H-16α, H-17α
18		134.5s		
19		179.0s		
20		140.5s		
21	7.15 (s)	114.0d	C-20, C-23, C-19	
22		186.3s		
23		147.9s		
24	1.03 (d, 6.4)	13.0q	C-11, C-12, C-13	H-12
25 Ma O D	1.14 (S)	20.5q	C-13, C-14, C-15	
IVIEO-3	3.3∠ (S)	p1.dc	6-3	

Table S3: NMR spectroscopy data (CD₃OD) for compound 3

position	$\delta_{\rm H}$ (mult, J in Hz)	$\delta_{\rm C}$ mult.	HMBC	¹ H- ¹ H COSY
1		172.0s		
2α	2.88 (dd, 12.7, 4.4)		C-4, C-3, C-1	H-2 <i>β</i> , H-3
2β	2.71 (dd, 12.5, 10.2)	44.11	C-4, C-3, C-1	H-2 <i>a</i> , H-3
3	4.15 (dt, 9.5, 4.4)	81.3d	C-2, MeO-3, C-5, C-1	H-2 α , H-2 β , H-4
4	5.58 (dd, 15.3, 8.0)	131.1d	C-2, C-3, C-6	H-3, H-5
5	6.27 (m)	136.1d	C-3, C-6, C-7	H-4, H-6
6	6.11 (m)	130.2d	C-8	H-7, H-5
7	6.10 (m)	135.8d	C-5, C-6	H-8, H-6
8	6.07 (m)	133.7d	C-10, C-6, C-7	H-9, H-7
9	5.74 (ddd, 14.7, 8.9, 6.1)	132.1d	C-10, C-11, C-7	H-10 <i>α</i> , H-10 <i>β</i> , H-8
10 <i>α</i>	2.41 (m)	27.5+	C-12, C-11, C-8, C-9	H-10 <i>β</i> , H-11, H-9
10 <i>β</i>	2.31 (m)	57.51	C-12, C-11, C-8, C-9	H-10α, H-11, H-9
11	3.65 (dt, 6.7, 3.2)	72.8d	C-24, C-9	H-12, H-10 <i>α</i> , H-10 <i>β</i>
12	1.81 (m)	41.8d	C-24, C-10, C-13, C-11	H-11, H-13, H-24
13	4.69 (d, 4.8)	70.5d	C-24, C-25, C-12	H-12
14		140.2s		
15	5.19 (t, 8.0)	125.9d	C-25, C-17, C-13	H-16α, H-16β
16 <i>α</i>	2.39(m)	27.6+	C-17, C-18, C-15, C-14	H-16 <i>β</i> , H-17 <i>α</i> , H-17 <i>β</i> , H-15
16 <i>β</i>	2.18 (m)	27.01		H-16α, H-17α, H-17β, H-15
17α	2.97 (m)	22.04	C-16, C-18, C-15, C-23, C-19	H-16α, H-16β, H-17β
17 <i>β</i>	2.84 (m)	33.01	C-16, C-18, C-15, C-23, C-19	H-16α, H-16β, H-17α
18		123.7s		
19		146.3s		
20		128.5s		
21	8.14 (s)	114.4d	C-20, C-23, C-19	
22		147.0s		
23		133.5s		
24	0.87 (d, 6.9)	10.5q	C-12, C-13, C-11	H-12
25	1.74 (s)	20.6q	C-13, C-15, C-14	
26	9.02 (s)	154.5d	C-23, C-22	
MeO-3	3.36 (s)	56.8q	C-3	

Table S4: NMR spectroscopy data (CD₃OD) for compound 4

position	$\delta_{\rm H}$ (mult, J in Hz)	$\delta_{\rm C}$ mult.	HMBC	¹ H- ¹ H COSY
1		172.0s		
2α	2.76 (m)	45.01	C-4, C-3, C-1	H-2 <i>β</i> , H-3
2 β	2.66 (dd, 12.7, 9.6)	45.9t	C-4, C-3, C-1	$H-2\alpha$, $H-3$
3	4.56 (m)	71.6d		H-2 α , H-2 β , H-4
4	5.64 (dd, 15.3, 7.3)	133.0d	C-2, C-3, C-5, C-6	H-3, H-5
5	6.21 (dd, 15.2, 10.0)	133.6d	C-3, C-6, C-7	H-4, H-6
6	6.10 (m)	130.4d	C-8	H-7, H-5
7	6.13 (dd, 14.7, 9.8)	135.5d	C-5, C-9	H-8, H-6
8	6.06 (m)	133.8d	C-6, C-7, C-10	H-9, H-7
9	5.73 (m)	131.8d	C-7, C-10, C-11	H-10 <i>α</i> , H-10 <i>β</i> , H-8
10α	2.45 (m)	27.64	C-12, C-11, C-8, C-9	H-10 <i>β</i> , H-11, H-9
10β	2.32 (m)	37.01	C-8, C-9	H-10α, H-11, H-9
11	3.65 (m)	72.9d		H-12, H-10 <i>α</i> , H-10 <i>β</i>
12	1.81 (m)	42.0d	C-24, C-10, C-13, C-11	H-11, H-13, H-24
13	4.67 (d, 4.9)	70.6d	C-24, C-25, C-12, C-14, C-15	H-12
14		139.6s		
15	5.20 (d, 8.0)	126.5d	C-25, C-17, C-13	H-16α, H-16β
16α	2.31 (m)	07.01	C-17, C-15, C-14	H-16β, H-17α, H-17β, H-15
16 β	2.03 (m)	27.9t		H-16 <i>α</i> , H-17 <i>α</i> , H-17 <i>β</i> , H-15
17α	2.81 (m)	00.01	C-16, C-18, C-15, C-23, C-19	H-16 <i>α</i> , H-16 <i>β</i> , H-17 <i>β</i>
17 β	2.76 (m)	29.9t	C-16, C-18, C-15, C-23, C-19	H-16 α , H-16 β , H-17 α
18		130.1s		
19		144.3s		
20		126.4s		
21	7.10 (s)	110.4d	C-20, C-23, C-19, C-22	
22		131.1s		
23		119.1s		
24	0.89 (d, 6.8)	10.5q	C-12, C-13, C-11	H-12
25	1.75 (s)	20.5q	C-13, C-15, C-14	
26	3.35 (m)	30 7t	C-23, C-27	
	3.33 (m)	50.71	C-23, C-27	
27		168.3s		

Table S5: NMR spectroscopy data (CD₃OD) for compound $\mathbf{5}$

position	$\delta_{\rm H}$ (mult, J in Hz)	$\delta_{\rm C}$ mult.	НМВС	¹ H- ¹ H COSY
1	· · · ·	171.2s		
2α	2.68 (dd, 12.0, 4.3)	40.04	C-4, C-3, C-1	H-2 <i>β</i> , H-3
2β	2.51 (m)	46.91	C-4, C-3, C-1	H-2α, H-3
3	4.51 (m)	72.0d		H-2 α , H-2 β , H-4
4	5.69 (dd, 14.4, 7.7)	134.3d	C-6	H-3, H-5
5	6.11 (m)	132.7d	C-3	H-4, H-6
6	6.16 (m)	130.9d	C-8	H-7, H-5
7	6.06 (m)	135.0d	C-5	H-8, H-6
8	6.09 (m)	133.8d	C-6	H-9, H-7
9	5.70 (m)	131.7d	C-7	H-10 <i>α</i> , H-10 <i>β</i> , H-8
10α	2.41 (m)	27.74	C-12, C-11, C-8, C-9	H-10 <i>β</i> , H-11, H-9
10β	2.31 (m)	37.71	C-12, C-11, C-8, C-9	H-10α, H-11, H-9
11	3.66 (m)	73.0d		H-12, H-10 <i>α</i> , H-10 <i>β</i>
12	1.85 (m)	42.5d	C-24, C-10, C-11	H-11, H-13, H-24
13	4.63 (d, 6.1)	70.7d	C-24, C-25, C-12, C-14, C-15	H-12
14		139.1s		
15	5.25 (dd, 8.2, 4.9)	127.1d		H-16α, H-16β
16α	2.29(m)	20.04	C-17, C-15, C-14	H-16β, H-17α, H-17β, H-15
16 β	2.01 (m)	30.60		H-16α, H-17α, H-17β, H-15
17α	2.48 (m)	07.54	C-16, C-18, C-23	H-16 α , H-16 β , H-17 β
17 β	2.44 (m)	37.50	C-16, C-18, C-23	H-16 α , H-16 β , H-17 α
18	. ,	145.1s		
19	6.42 (t, 1.7)	113.1d	C-20, C-23, C-17, C-21	H-21, H-23
20		140.1s		
21	7.02 (t, 2.0)	107.1d	C-20, C-19, C-22	H-19, H-23
22		158.6s		
23	6.38 (t, 1.7)	112.8d	C-19, C-22, C-17, C-21	H-19, H-21
24	0.95 (d, 6.9)	10.5q	C-12, C-13, C-11	H-12
25	1.76 (s)	20.3q	C-13, C-15, C-14	

 Table S6: NMR spectroscopy data (CD₃OD) for compound 6

position	δ _H (mult, <i>J</i> in Hz)	δ _c mult.	HMBC	¹ H- ¹ H COSY
1		171.1s		
2α	2.72 (dd, 12.1, 4.4)	47.04	C-4, C-3, C-1	H-2 <i>β</i> , H-3
2β	2.46 (m)	47.0t	C-4, C-3, C-1	$H-2\alpha$, $H-3$
3	4.52 (m)	72.1d	C-5	H-2 α , H-2 β , H-4
4	5.65 (dd, 14.9, 7.8)	134.7d	C-6	H-3, H-5
5	6.16 (m)	132.8d	C-4, C-3, C-7	H-4, H-6
6	6.18 (m)	131.3d	C-9	H-7, H-5
7	6.17 (m)	134.6d	C-5	H-8, H-6
8	6.10 (m)	133.3d	C-10, C-6, C-7	H-9, H-7
9	6.02 (m)	132.2d	C-8	H-10 <i>α</i> , H-10 <i>β</i> , H-8
10α	2.68 (m)	44 04	C-8	H-10 <i>β</i> , H-11, H-9
10 β	2.33 (dd, 14.6, 10.1)	41.01	C-8, C-11, C-12	H-10α, H-11, H-9
11	3.88 (d, 5.9)	77.0d	C-24, C-12, C-13, C-9	H-12, H-10 <i>α</i> , H-10 <i>β</i>
12	1.72 (m)	39.2d	C-24, C-10, C-11	H-11, H-13, H-24
13	3.97 (d, 10.1)	74.7d	C-24, C-14, C-15, C-11	H-12, H-14
14	1.76 (m)	43.9d	C-25, C-16, C-15	H-25, H-15, H-13
15	3.74 (m)	72.4d	C-25, C-17	H-16α, H-16β
16α	1.59 (m)	22.24	C-17,	H-16β, H-17α, H-17β, H-15
16 β	1.46 (m)	33.31	C-15	H-16α, H-17α, H-17β, H-15
17α	2.82 (m)	00.44	C-16, C-18	H-16 <i>α</i> , H-16 <i>β</i> , H-17 <i>β</i>
17 β	2.45 (m)	33.4t	C-16, C-18	H-16 α , H-16 β , H-17 α
18	. ,	145.7s		
19	6.58 (s)	112.7d	C-17, C-21, C-23, C-20	H-21, H-23
20		140.0s		
21	6.86 (s)	107.0d	C-19, C-20, C-22	H-19, H-23
22		158.6s		
23	6.42 (s)	113.4d	C-17, C-21, C-19, C-22	H-19, H-21
24	1.05 (d, 7.0)	12.1q	C-12, C-13, C-11	H-12
25	0.69 (d, 6.8)	10.6q	C-13, C-15, C-14	H-14

 Table S7: NMR spectroscopy data (CD₃OD) for compound 7

Figure S1. ¹H NMR (600 MHz, CD₃QD) spectrum for compound 1





Figure S2. ¹³C NMR (151 MHz, CD₃OD) spectrum for compound 1







Figure S6. Enlarged HMBC spectrum 2 for compound 1



Figure S7. Enlarged HMBC spectrum 3 for compound 1









Figu	ure S11	1. ¹³ C	NMF	R [151	MHz	:, (CE) ₃) ₂ C	O] spe	ectrur	n for	com	ipou	nd 2				
—171.6669		-138.02/4	138.5313 138.3951 134.7762	131.9360 131.5783 129.1202 127.4683	126.8940	-113.4000 105.3250				~75.0847 ~72.7848 ~70.1530	-63.3700		49.6987	\ 42.8687 38.4115 \ 37.8278 32.9549	28.4700		—11.3081
170	160	150	140	130	120	110	100	90 f1 (ppm)	80	70	6	60	50	40	30	20	10









Figure S16. Enlarged NOESY spectrum for compound 2















Figu	ire S	23. ¹	H NM	R (600) MHz	, CE	D ₃ OD)) spe	dtrum	for	com	ιροι	Ind	4					
~9.0176 8.1440 6.2651	-6.2495 -6.2394 -6.2238	-6.1125 -6.1043 -6.0965	-6.0757 -6.0504 -5.7211 -5.7112	-5.5790 -5.5657 -5.5535	-5.1934 -5.1934 -4.6902	-4.0822 -4.1621 -4.1535	-4.1481 -4.1397 -3.6539	-3.648/ -3.6429 -3.6379	-3.032 -3.6266 -3.3569	-2.9370 -2.8798 -2.8725	-2.8586 -2.8586 -2.8517	-2.8391 -2.8165 - 7056	-2.6887 -2.6887 -2.6847	2.6678 2.4269	2.4140	2.2932 2.2086 2.2935 2.2880	L2.1554	L1.7959 L1.7857 L1.7747	L1.7351 0.8732 0.8617
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1.0	0.5	0.9				3.4	÷÷;	1.0			· · ·	5 7 7 7 7 7 7	0 0			5.7.3	3.5	· · ·	3.4
9.0	8.5	8.0	1.5	7.0	6.5	6.0	5.5	5.0 f1 (p) 4.9 pm)	o 4	ŧ.U	3.5	ć	3.0	2.5	2.0		1.5	1.0

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-171.9972 -154.4946 -154.4946 -146.3289 -146.3289 -146.3289 -146.3289 -136.0493 -135.7549 -133.7350 -133.7350 -132.1238 -128.4964 -128.4964 -128.4964 -128.4964	-114.4434 	72.8120 70.5344 56.7686	₹44.0908 37.4527 33.0237 27.5989 20.5776	— 10.4 <i>1</i> 40







Figure S31. ¹³C NMR (151 MHz, CD₃OD) spectrum for compound 5_{II}

Figure S36. ¹ H NMR (400 MHz, (CD_3OD) spectrum for co	ompound 6
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7.0128 7.0079 7.0029 6.4179	-0.3037 -6.3794 -6.1347 -6.1238	6.0996 6.0908 6.0781	L6.0642 L6.0558 L6.0406	-6.0319 L6.0211 L5.7037	-5.6678 -5.6484	-5.4942 -5.2544 -1.5.2423	-5.2340 -5.2218	L4.6277 L4.6124	L4.4877 L4.4778	/3.6489 /3.6398	-2.083/ -2.6729 -2.6537	-2.6430	r2.6289 r2.5092 r2.4835	r2.4792 ∎r2.4593	2.4462	-2.4226 	L2.3883	-2.3252 	L2.2913 L2.2913 L2.2739	L2.0139 L1.8319	1.7576	0.9311
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0.97⊸	1.05 1.05	4.21	2.10⊣ 0.73 ₋	1.05⊣		1.10⊣	1.1			1.10				1.21 v	1.57	1.15 2.36	1.43	1.09 3.32			3.49⊣	<u>.</u>
7.0	6.5	6.0	5.	5	5.0		4.5	f1	4.0 (ppm	ı)	3.5	, –	3.0	1 -	2.5	. –	2.0)	1.5	. –	1.0	

Figure S37. ¹³C NMR (101 MHz, CD₃OD) spectrum for compound <u>6</u>

Figure S42. ¹H NMR (600 MHz, CD₃OD) spectrum for compound **7**

∽6.8565 √6.5811	/6.4152 /6.2112 /6.1867	6.1436 6.1213 6.1138 6.0965	L6.0796 L6.0234 L6.0165 L6.0081 L5.9998	-5.6517 -5.6388 -5.6269 -5.6139 -4.5019	3.9704 3.9536 3.8839 3.8741 3.7414	3.7379 3.7241 3.7241 3.7208 2.8024 2.7814 -2.7814	-2.7206 -2.7135 -2.7006 -2.6931 -2.6775	2.6662 2.6534 2.4601 2.4408 2.4226 2.3311	1.7352	1.7090 1.1.5942 1.1.5808 1.1.5808 1.1.4479 1.4479 1.0485	L1.0369 L0.6858 L0.6745
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1.00 -≖	1.08⊣ 1.19⊣	4.69⊣ 1.10⊣	1.10-壬		1.08⊣	1.10 1.09 1.14 1.14 1.14		2.22∄ 1.20∄ 1.14 Љ 1.33 ⊈	3.04 √ 1.59 √	1.64 ∖ 3.74 ⊣	3.36⊣
	6.5	6.0	5.5	5.0	4.5	4.0 3.5 f1 (ppm)	5 3.0	2.5	2.0 1	.5 1.0	0.

Figure S48. High-resolution ESIMS spectrum for compound 1

1_N18_160718170135 #8-16 RT: 0.22-0.44 AV: 9 SB: 2 1.49 , 1.49 NL: 2.31E6

Figure S49. High-resolution ESIMS spectrum for compound 2

Figure S50. High-resolution ESIMS spectrum for compound 3

Figure S51. High-resolution ESIMS spectrum for compound 4

Figure S52. High-resolution ESIMS spectrum for compound 5

5_N33_160718171445 #6-12 RT: 0.17-0.34 AV: 7 SB: 2 1.50 , 1.50 NL: 7.77E5

Figure S53. High-resolution ESIMS spectrum for compound 6

6_N5_160718171847 #6-13 RT:0.17-0.37 AV: 8 SB: 2 1.50 , 1.50 NL: 6.74E5

Figure S54. High-resolution ESIMS spectrum for compound 7

7_N24_16071817164#67-13 RT:0.20-0.37 AV: 7 SB: 2 1.49, 1.49 NL: 1.46E6 T: FTMS + p ESI Full ms [200.00-800.00]

490

Figure S55. Cell viability was quantified by SRB assay at 72 h after treatment with 40 μ M of indicated compounds.

Figure S56. A. HPLC preparation of compounds 1–11. B. Ultroviolet absorption curve of compounds 1–11.

Α.

280.0

320.0

360.0 nm

360.00

nm

200.00

240.00

280.00