

Supplementary Materials

Table S1. NMR data of sugar parts of compound 1–3.

No.	1				2				3			
	δ_C	δ_H	HMBC (C to H)	NOE ^a (H to H)	δ_C	δ_H	HMBC (C to H)	NOE ^a (H to H)	δ_C	δ_H	HMBC (C to H)	NOE ^a (H to H)
G _a 1	107.07	4.88 (d, $J = 10.5$)	3, G _a 2	3, G _a 2, G _a 3	107.05	4.90 (d, $J = 8.0$)	3, G _a 2	3, G _a 2, G _a 3	106.9	4.85 (d, $J = 7.69$)	3, G _a 2	3, G _a 2, G _a 3, G _a 5
G _a 2	74.12	4.23	G _a 1, G _a 3		74.13	4.14	G _a 3		73.82	4.06	G _a 3	
G _a 3	78.44	4.15	G _a 2		78.26	4.01	G _a 2, G _a 4		74.99	4.52	G _a 2, G _a 4	
G _a 4	72.12	4.03	G _a 5		71.87	3.96	G _a 3		75.13	4.57	G _c 1, G _a 6	
G _a 5	78.33	3.97	G _a 4, G _a 6		77.85	3.92	G _a 4, G _a 6		74.76	3.91	G _a 6	
G _a 6	62.62	4.35, 4.50	G _a 5		62.46	4.47, 4.29	G _a 5		61.65	4.35, 4.42	G _a 5	
G _b 1	106.03	4.86 (d, $J = 7.5$)	24, G _b 2	G _b 3, G _b 2, G _b 5	105.36	4.88 (d, $J = 10.5$)	24, G _b 2	24, G _b 3, G _b 5	105.66	4.98 (d, $J = 8.2$)	24, G _b 2	24, G _b 2
G _b 2	73.9	3.93	G _b 1, G _b 3		74.61	4	G _b 3		73.24	4	G _b 3	
G _b 3	77.85	4.25	G _b 2		76.59	3.92	G _b 1, G _b 2		78.34	4.4	G _b 2, G _b 3	
G _b 4	71.58	4.12	G _b 3, G _b 5		80.93	4.29	G _d 1, G _b 3, G _b 6		71.81	4.16	G _b 3	
G _b 5	75.25	3.9	G _b 4		75.23	3.96	G _b 6		77.56	4.06	G _b 6	
G _b 6	67.63	4.20, 4.51	G _b 5, G _c 1		62.76	4.51, 4.36	G _b 5		61.82	4.35, 4.42	G _b 5	
G _c 1	99.44	5.44 (d, $J = 3.0$)	G _b 6, G _c 2	G _b 6, G _c 2								
G _c 2	74.84	4.69	G _c 1, G _c 4									
G _c 3	77.57	4.17	G _c 4									
G _c 4	72.18	4.13	G _c 3, G _c 5									
G _c 5	75.25	4.19	G _c 6									
G _c 6	62.81	4.45	G _c 5									
G _d 1					102.8	5.88 (d, $J = 2.8$)	G _d 2	G _b 4, G _d 2, G _d 4				
G _d 2					75.03	4.2	G _d 1, G _d 3					
G _d 3					78.36	4.53	G _d 2, G _d 4					
G _d 4					71.58	4.47	G _d 3, G _d 5					
G _d 5					77.58	4.03	G _d 6					
G _d 6					61.59	4.41, 4.37	G _d 5					

Table S1. *Cont.*

No.	1				2				3			
	δ_C	δ_H	HMBC (C to H)	NOE ^a (H to H)	δ_C	δ_H	HMBC (C to H)	NOE ^a (H to H)	δ_C	δ_H	HMBC (C to H)	NOE ^a (H to H)
G _c 1									90.48	5.90 (d, $J = 3.5$)	G _c 2	G _a 4, G _c 2, G _c 3
G _c 2									81.35	4.22	G _f 1, G _c 1, G _c 3	
G _c 3									78.27	4.2	G _c 2	
G _c 4									71.51	4.19	G _c 3, G _c 6	
G _c 5									74.82	4.05	G _c 6	
G _c 6									62.46 ^b	4.31, 4.50	G _c 5	
G _f 1									87.71	5.79 (d, $J = 3.5$)	G _f 2	G _c 2, G _f 2, G _f 3
G _f 2									74.27	4.15	G _f 1, G _f 3, G _f 4	
G _f 3									76.38	4.31	G _f 2, G _f 4	
G _f 4									71.67	4.18	G _f 3, G _f 5	
G _f 5									75.2	4.03	G _f 4, G _f 6	
G _f 6									62.48 ^b	4.31, 4.50	G _f 5	

^a Data from ROESY spectrum or NOE difference spectrum. ^b Interchangeable data.

Characterization Data of compound 4 and 5.

Compound 4: ESI-MS, m/z 1286 $[M-1]^-$; ^{13}C -NMR (Pyridine- D_5): δ 16.48, 18.50, 19.10, 23.19, 23.30, 24.02, 25.12, 25.40, 25.85, 26.81, 27.06, 28.15, 29.00, 33.40, 34.26, 35.79, 36.47, 39.50, 41.65, 42.87, 43.58, 46.93, 49.23, 50.26, 59.47, 60.52, 60.76, 68.54, 69.34, 71.27, 71.53, 71.82, 72.77, 72.94, 73.16, 73.36, 74.52, 74.61, 74.79, 76.22, 76.90, 77.03, 77.13, 77.39, 77.65, 77.75, 78.10, 78.23, 78.39, 87.34, 88.31, 99.70, 99.96, 100.28, 102.72, 104.22, 119.24, 144.01.

Compound 5: ESI-MS, m/z 1286 $[M-1]^-$; ^{13}C -NMR (Pyridine- D_5): δ 16.79, 18.56, 19.06, 24.33, 24.48, 25.98, 26.51, 26.59, 27.42, 27.47, 28.03, 29.30, 29.57, 33.02, 34.31, 36.17, 36.60, 39.89, 40.86, 42.11, 43.28, 47.15, 49.46, 50.75, 61.56, 61.63, 62.53, 62.82, 67.81, 71.60, 71.71, 72.02, 72.08, 72.25, 72.39, 73.19, 73.46, 73.90, 74.31, 74.37, 74.61, 74.72, 74.87, 75.00, 75.24, 77.58, 77.85, 78.37, 78.43, 81.29, 82.10, 87.61, 92.11, 99.25, 102.78, 102.95, 106.07, 107.05, 118.24, 144.01.