## Design, synthesis and gelation studies of 4,6-O-butylidene- $\alpha$ , $\beta$ unsaturated- $\beta$ -C-glycosidic ketones: application to plant tissue culture

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## **Supporting information**

<i>Figure S1</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>3</b> in CDCI <sub>3</sub> at 300 K	3
<i>Figure S2</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4a</b> in CDCI <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	4
<i>Figure S3</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4b</b> in CDCl <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	5
<i>Figure S4</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4c</b> in CDCI <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	6
<i>Figure S5</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4d</b> in CDCI <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	7
<i>Figure S6</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4e</b> in CDCI <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	8
<i>Figure</i> S7. <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4f</b> in CDCl <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	9
<i>Figure S8</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4g</b> in CDCI <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	10
<i>Figure S9</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4h</b> in CDCI <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	11
<i>Figure S10</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4i</b> in CDCI <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	12
<i>Figure S11</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4j</b> in CDCl <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	13
<i>Figure S12</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4k</b> in CDCl <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	14
<i>Figure S13</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4I</b> in CDCI <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	15
<i>Figure S14</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4m</b> in CDCI <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	16
<i>Figure S15</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4n</b> in CDCl <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	17
<i>Figure S16</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4o</b> in CDCl <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	18
<i>Figure S17</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4p</b> in CDCl <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	19
<i>Figure S18</i> . <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4q</b> in CDCl <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K	20
Figure S19. ESI-MS of compound, 4e	21
Figure S20. ESI-MS of compound, 4h	22
Figure S21. ESI-MS of compound, 4i	23
Figure S22. ESI-MS of compound, 40	24
<i>Figure S23</i> . <sup>1</sup> H NMR spectrum of <b>4e</b> in CDCI <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K (D <sub>2</sub> O exchange)	25
<i>Figure S24.</i> <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4g</b> in CDCI <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K (D <sub>2</sub> O exchange)	26
<i>Figure S25.</i> <sup>1</sup> H and <sup>13</sup> C NMR spectrum of <b>4o</b> in CDCl <sub>3</sub> /DMSO-d <sub>6</sub> at 300 K (D <sub>2</sub> O exchange)	27







*Figure S2*. <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4a** in CDCl<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz)







*Figure S4*. <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4c** in CDCl<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz)



*Figure S5.* <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4d** in CDCl<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz)

*Figure S6.* <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4e** in CDCl<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz)





*Figure S7.* <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4f** in CDCI<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz)



*Figure S8.* <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4g** in CDCl<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz)



*Figure S9.* <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4h** in CDCl<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz)



*Figure S10*. <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4i** in CDCl<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz)



*Figure S11*. <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4j** in CDCl<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz)



*Figure S12.* <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4k** in  $CDCI_3/DMSO-d_6$  at 300 K (300 MHz)









*Figure S14.* <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4m** in CDCl<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz)



*Figure S14.* <sup>1</sup>H and <sup>13</sup>C NMR spectrum of 4n in CDCI<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz)





0 ppm











Figure S19. ESI-MS of compound, 4e.





Figure S21. ESI-MS of compound 4i.





Figure S22. ESI-MS of compound 40.



*Figure* S23. <sup>1</sup>H NMR spectrum of 4e in CDCl<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz) (D<sub>2</sub>O exchange)

*Figure S24.* <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4g** in CDCI<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz) (D<sub>2</sub>O exchange)



*Figure S25.* <sup>1</sup>H and <sup>13</sup>C NMR spectrum of **4o** in CDCl<sub>3</sub>/DMSO-d<sub>6</sub> at 300 K (300 MHz) (D<sub>2</sub>O exchange)

