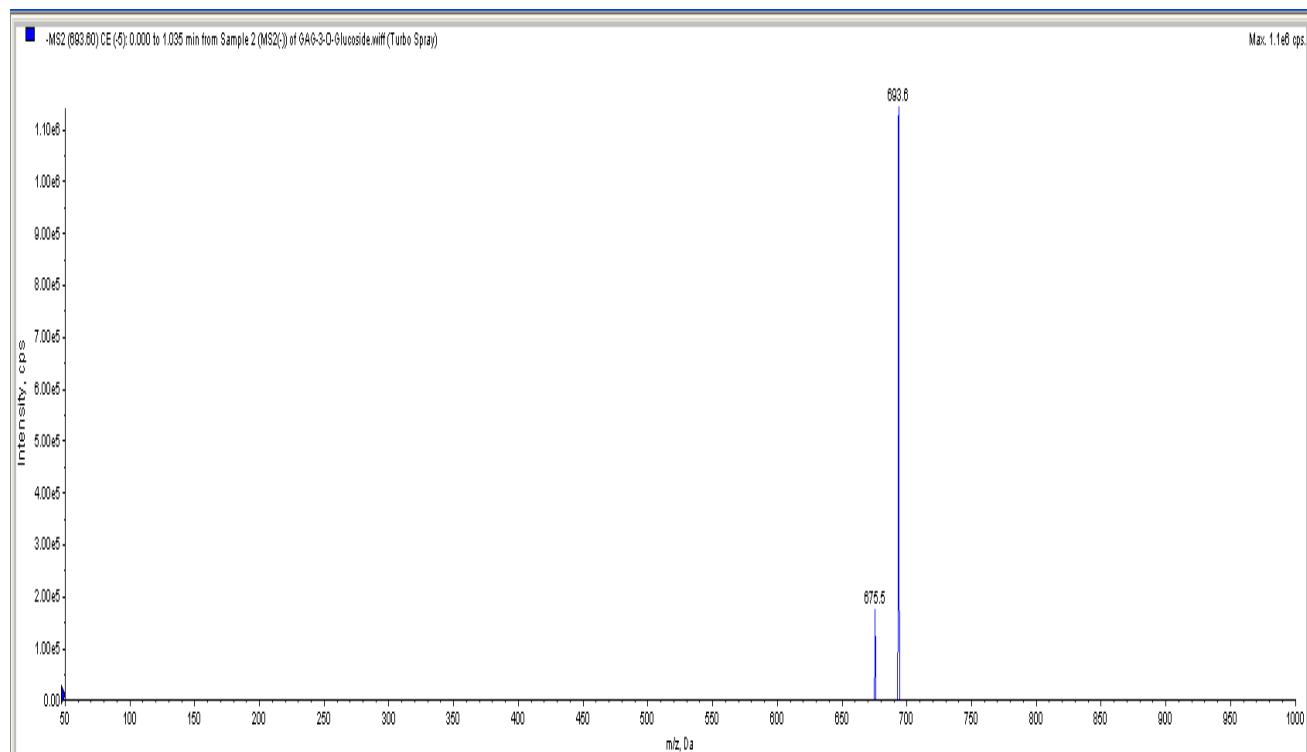
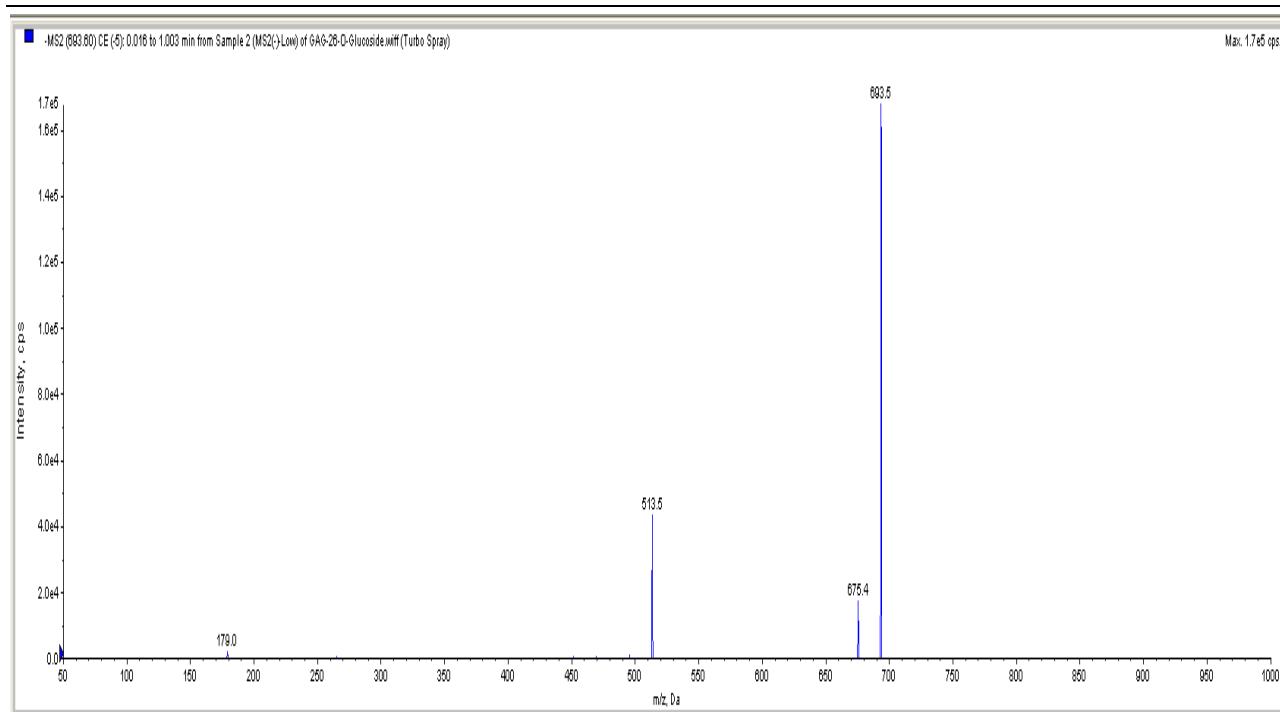


# Glycosylation of Ganoderic Acid G by *Bacillus* Glycosyltransferases

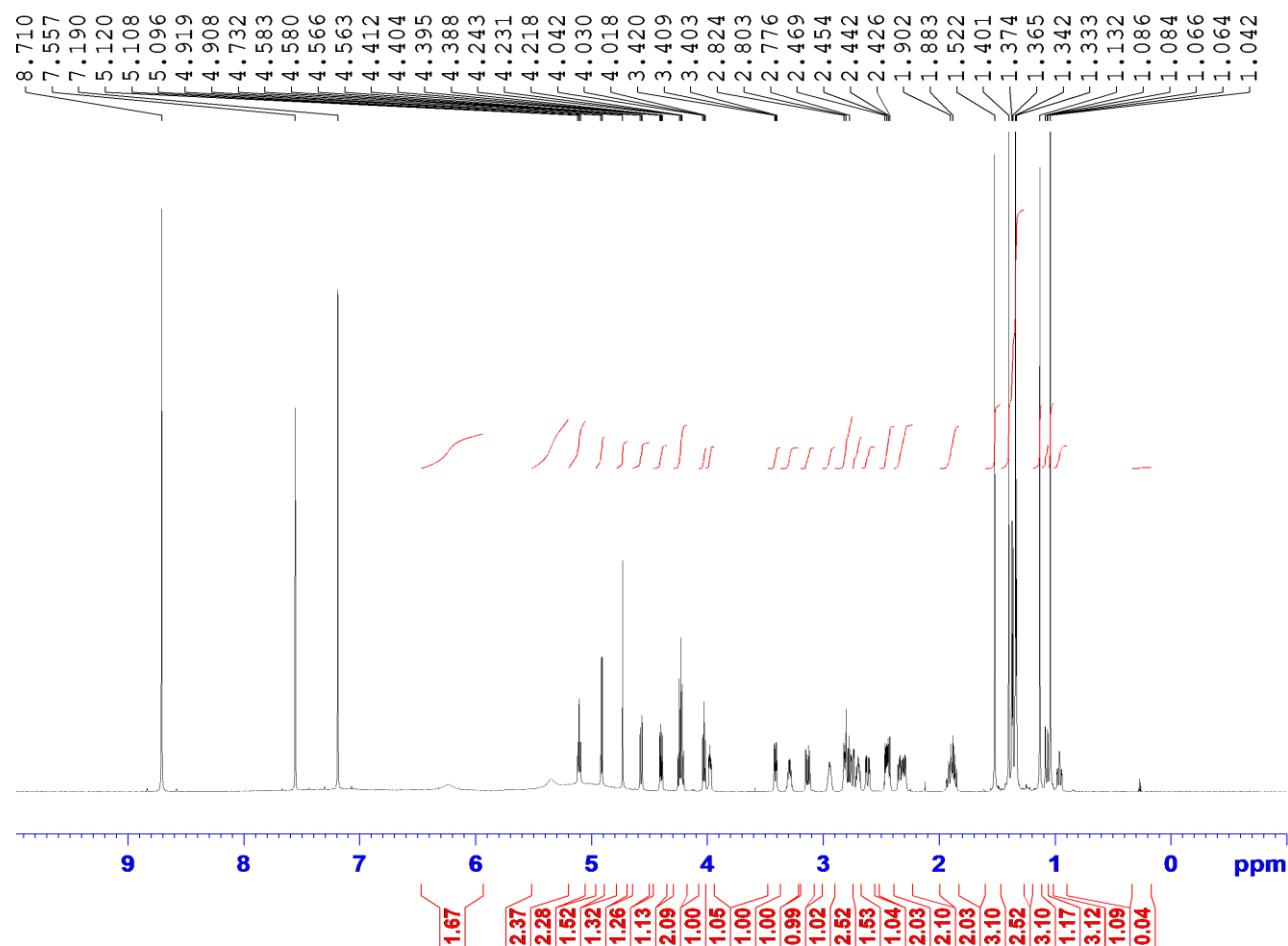
Jiumn-Yih Wu,<sup>1,\*</sup> Hsiou-Yu Ding,<sup>2,\*</sup> Tzi-Yuan Wang,<sup>3,\*</sup> Yun-Rong Zhang,<sup>4</sup> and Te-Sheng Chang<sup>4,\*</sup>



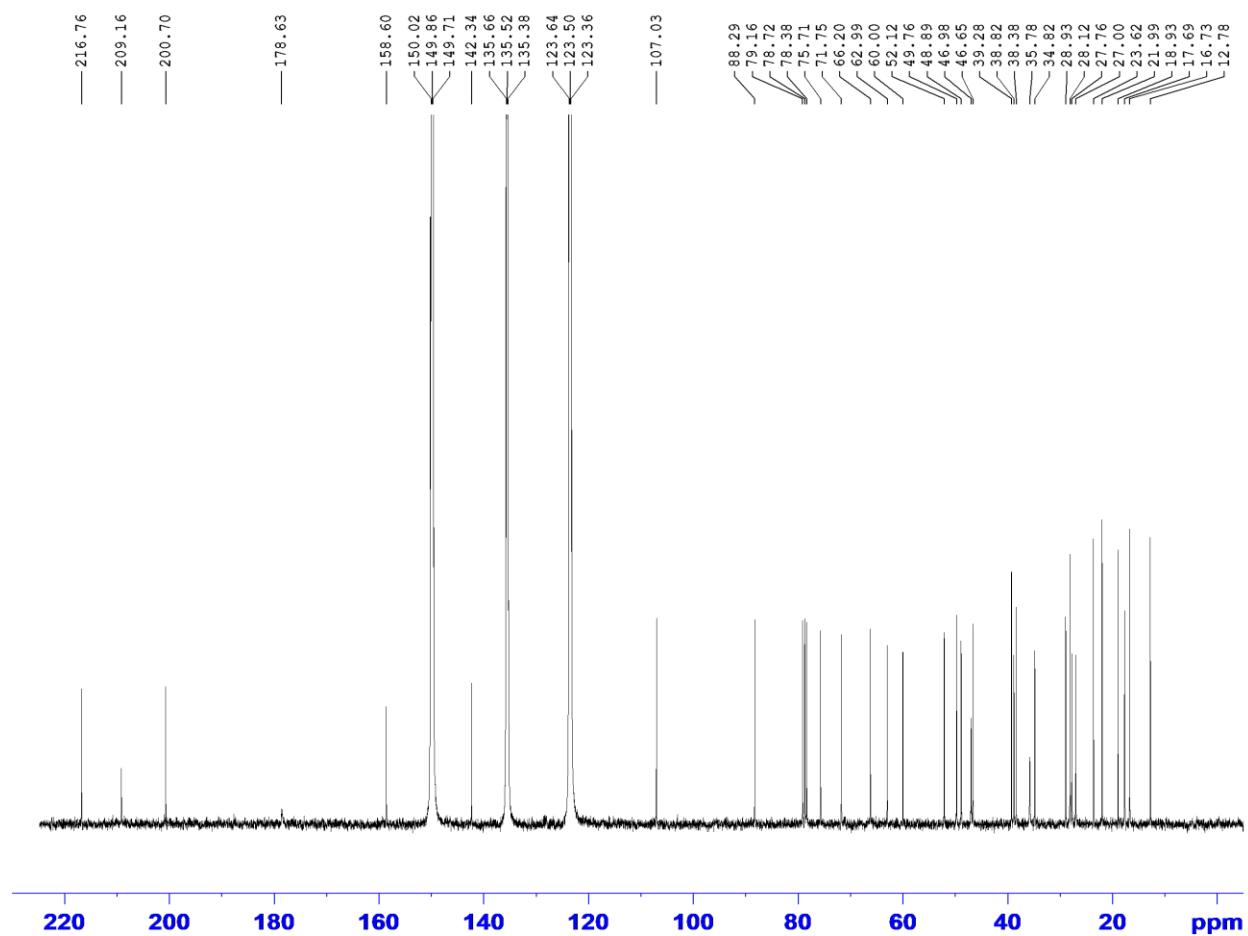
**Figure S1.** Mass-mass analysis of GAG-3-O- $\beta$ -glucoside (**1**) at the negative mode. A significant signal at m/z 693.5 showed the corresponding m/z signal of molecular weight 676 of GAG-glucoside (514+180-18) at the negative mode [GAG-G - H]<sup>-</sup>.



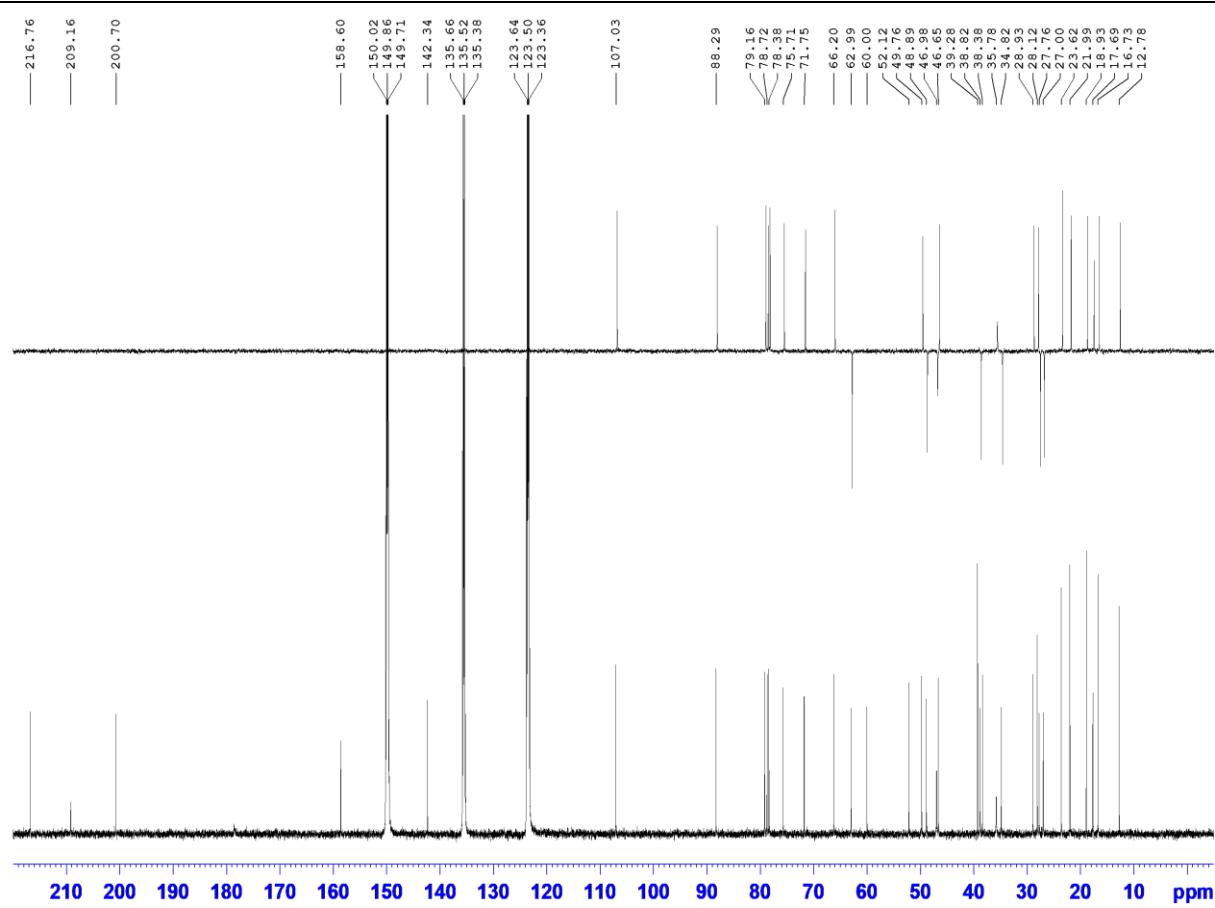
**Figure S2.** Mass-mass analysis of the  $m/z$  693.5 peak of GAG-26-O- $\beta$ -glucoside (**2**) at the negative mode. Two significant peaks at  $m/z$  675.4 and 513.5 showed the corresponding  $m/z$  signals of molecular weights 676 and 514 of GAG glucoside (514+180-18) and GAA (514) at the negative mode [GAG-G – H]<sup>-</sup> and [GAG – H]<sup>-</sup>.



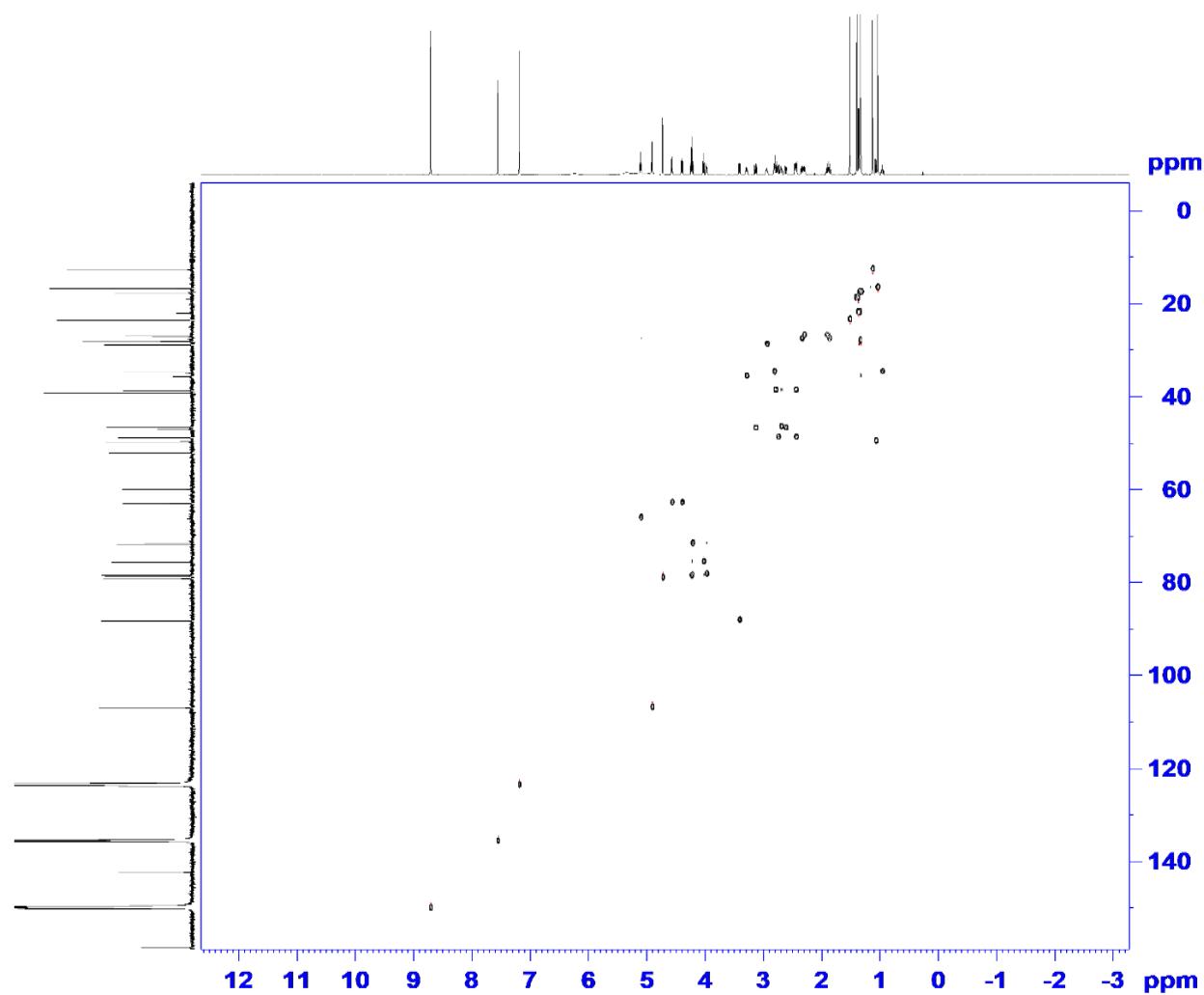
**Figure S3.** The  $^1\text{H}$ -NMR (700 MHz) spectrum of GAG-3-O- $\beta$ -glucoside (**1**) in pyridine-d5.



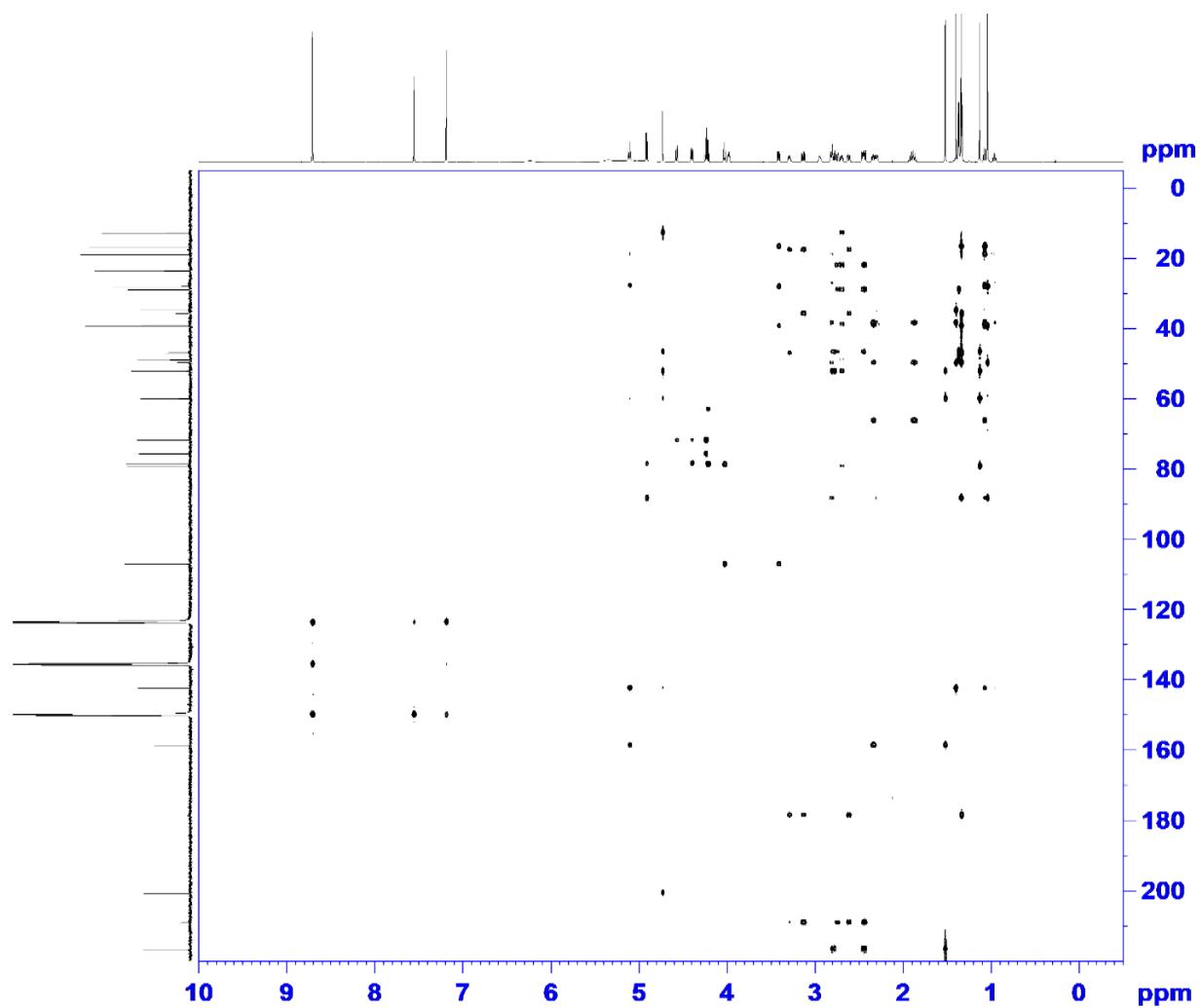
**Figure S4.** The <sup>13</sup>C-NMR (176 MHz) spectrum of GAG-3-O- $\beta$ -glucoside (**1**) in pyridine-d5.



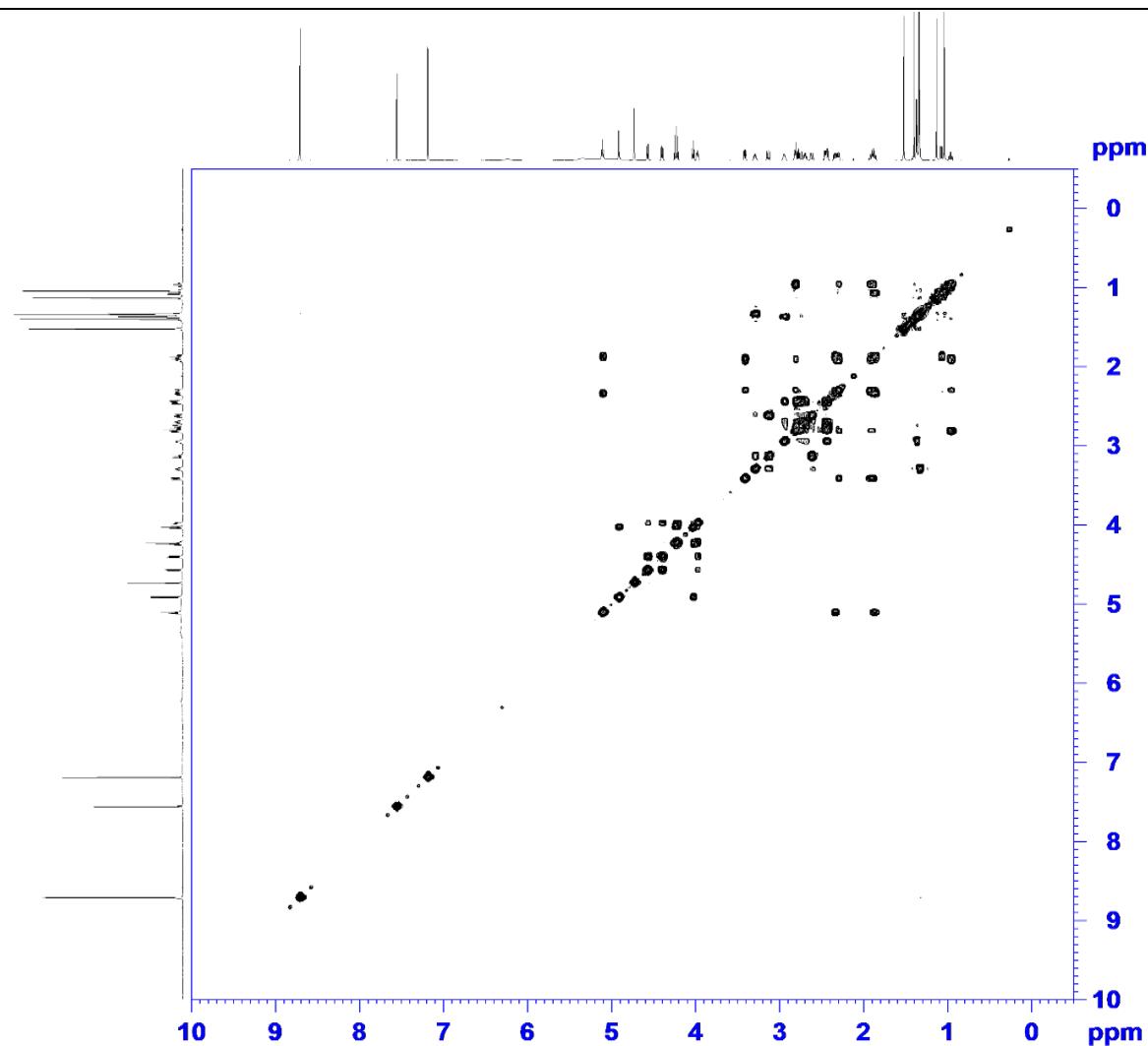
**Figure S5.** The DEPT-135 (176 MHz) spectrum of GAG-3-O- $\beta$ -glucoside (**1**) in pyridine-d5



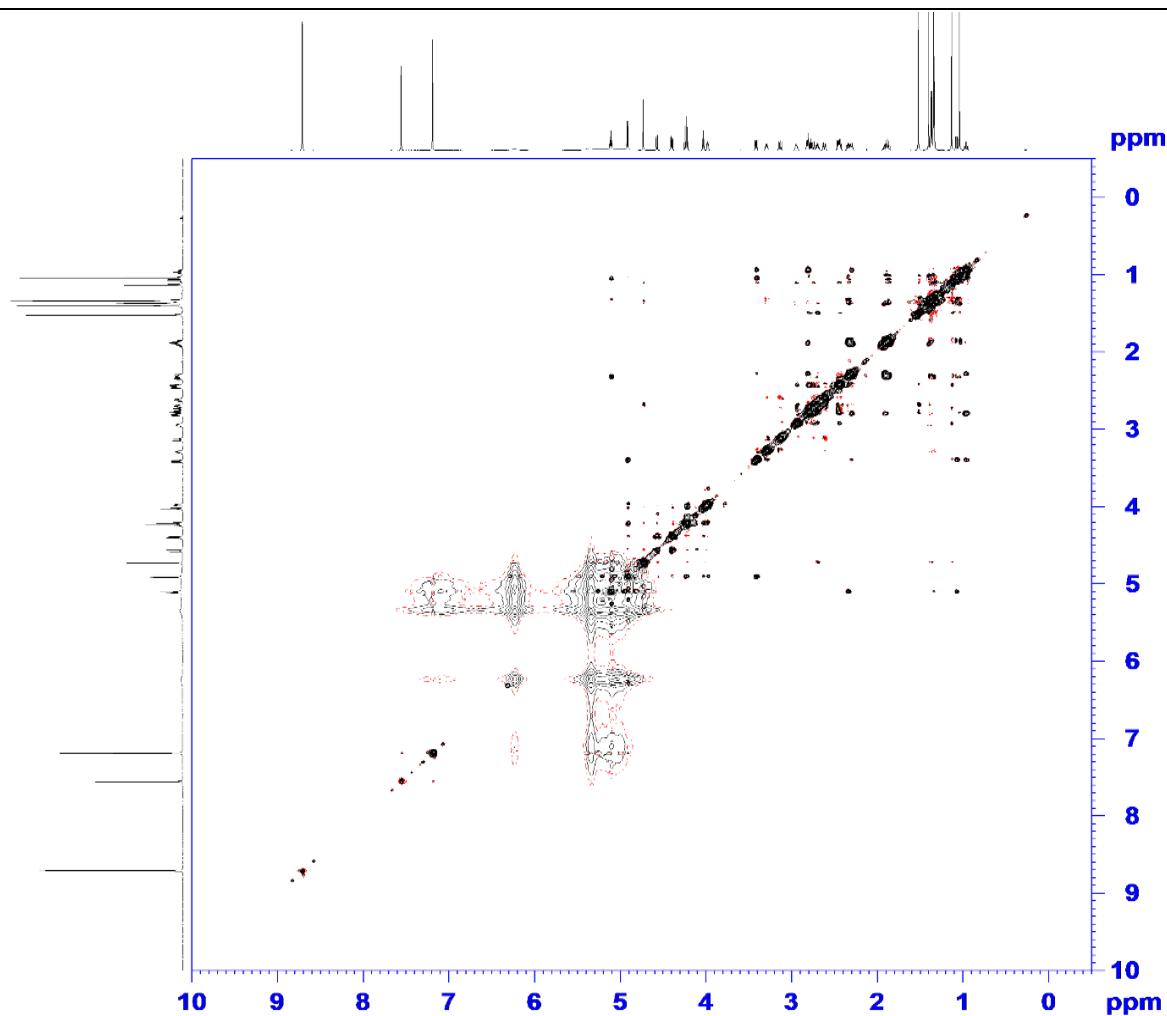
**Figure S6.** The HSQC (700 MHz) spectrum of GAG-3-O- $\beta$ -glucoside (**1**) in pyridine-d5.



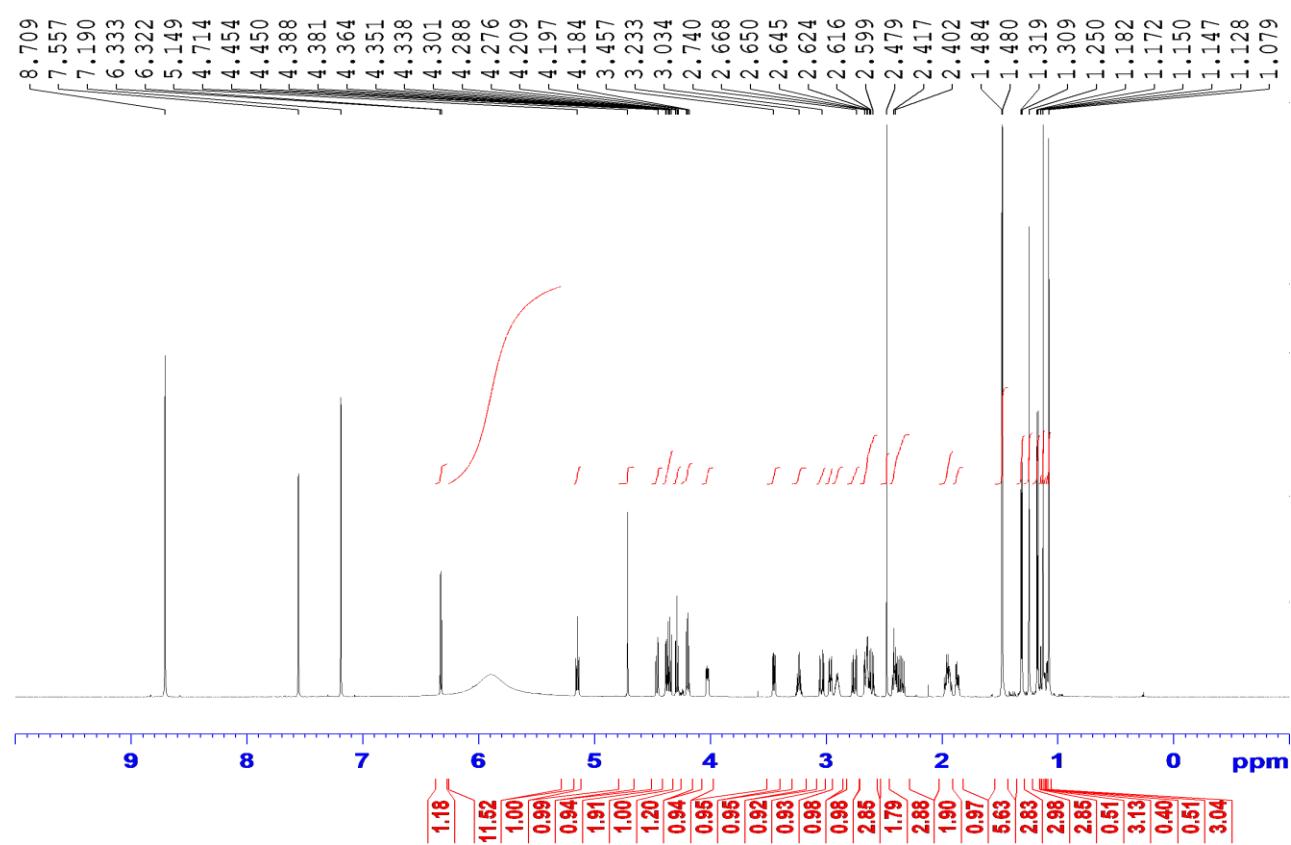
**Figure S7.** The HMBC (700 MHz) spectrum of GAG-3-O- $\beta$ -glucoside (**1**) in pyridine-d5.



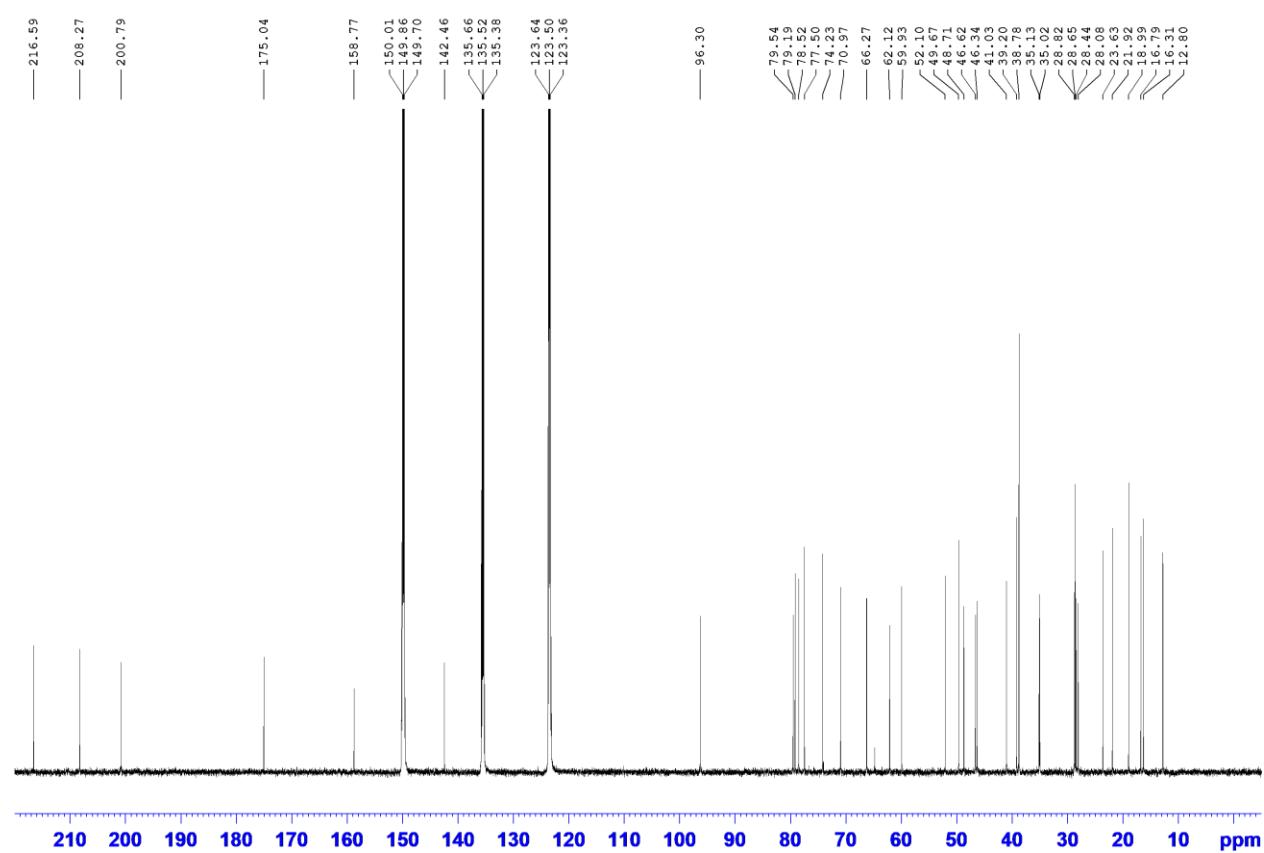
**Figure S8.** The COSY (700 MHz) spectrum of GAG-3-O- $\beta$ -glucoside (**1**) in pyridine-d5.



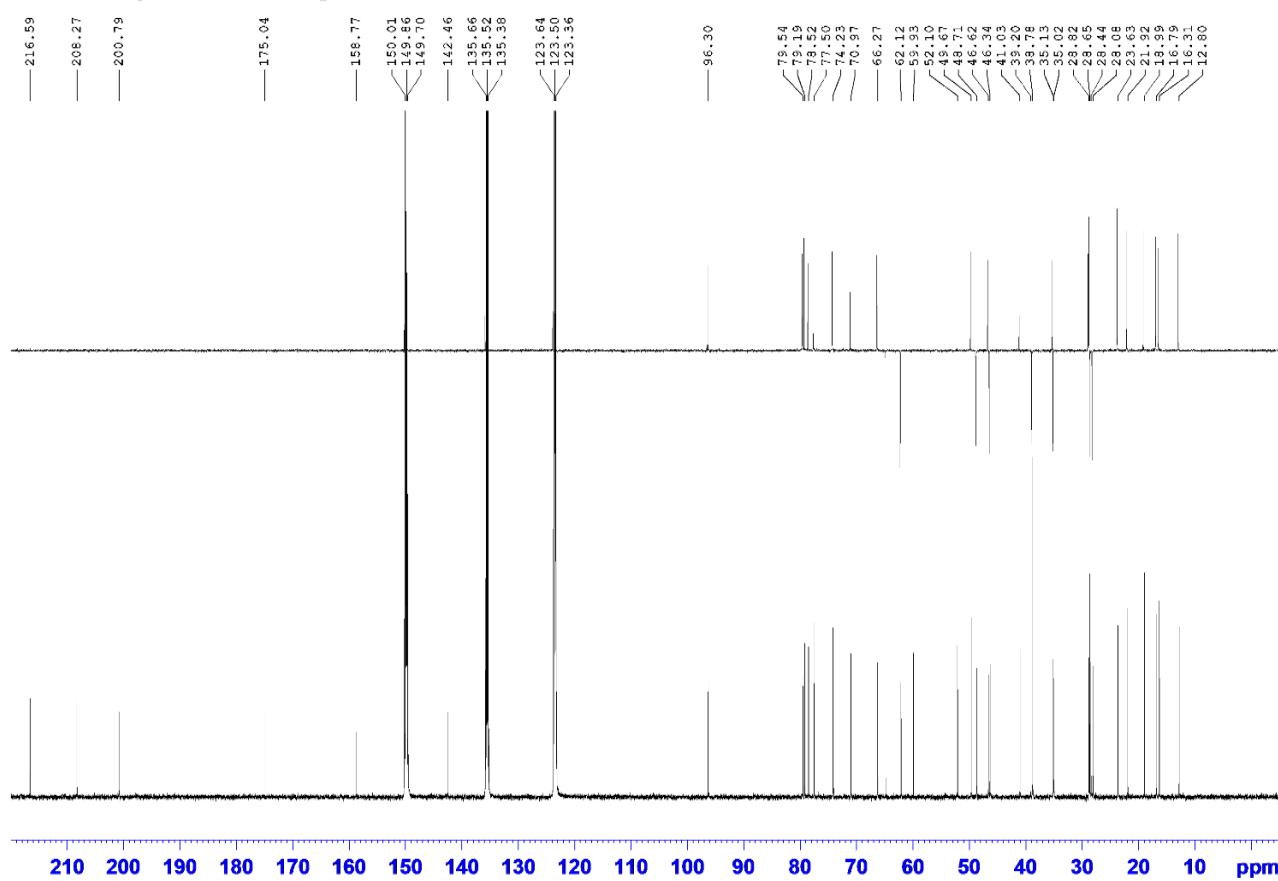
**Figure S9.** The NOESY (700 MHz) spectrum of GAG-3-O- $\beta$ -glucoside (**1**) in pyridine-d5.



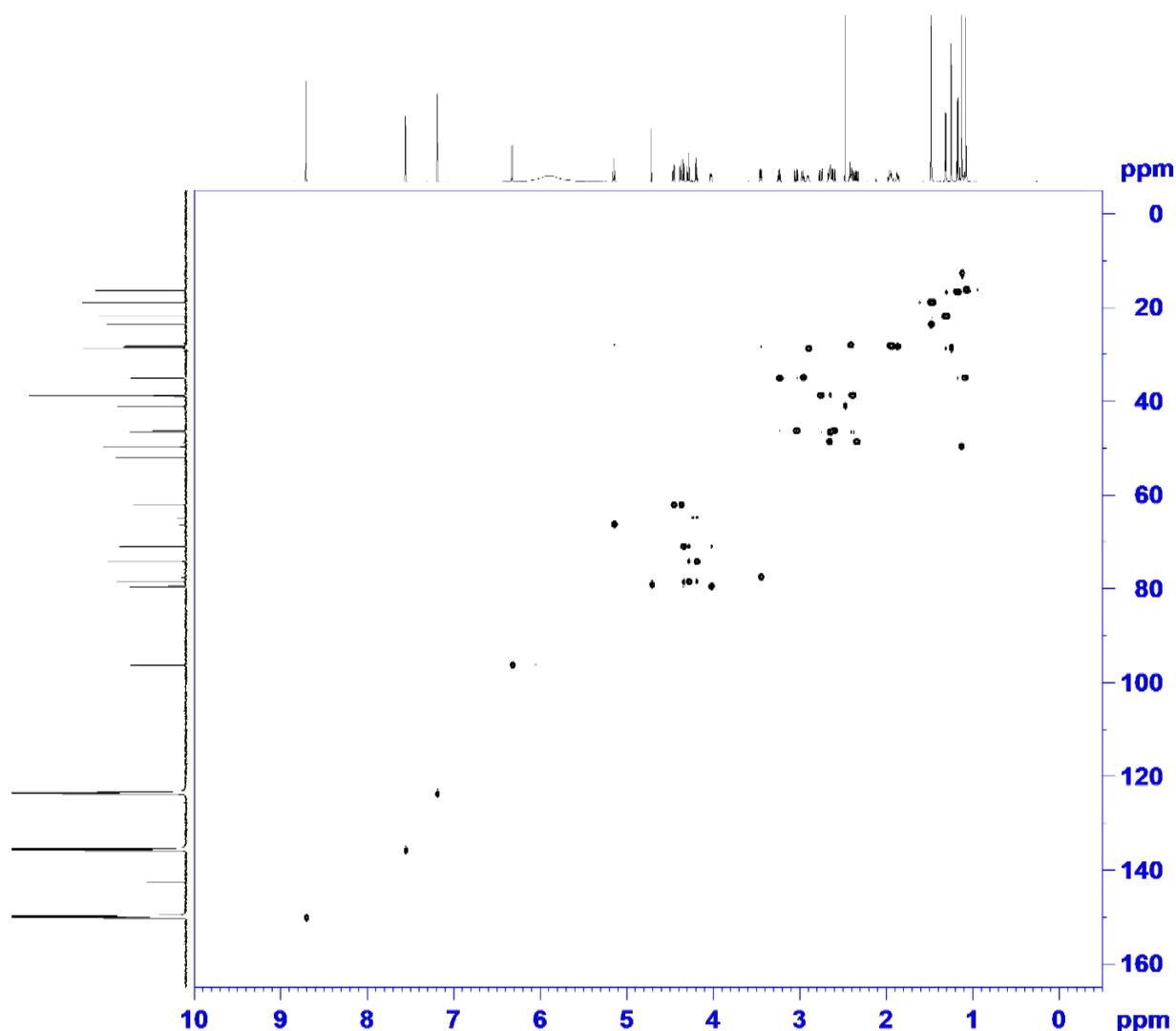
**Figure S10.** The <sup>1</sup>H-NMR (700 MHz) spectrum of GAG-26-O-β-glucoside (**2**) in pyridine-d<sub>5</sub>.



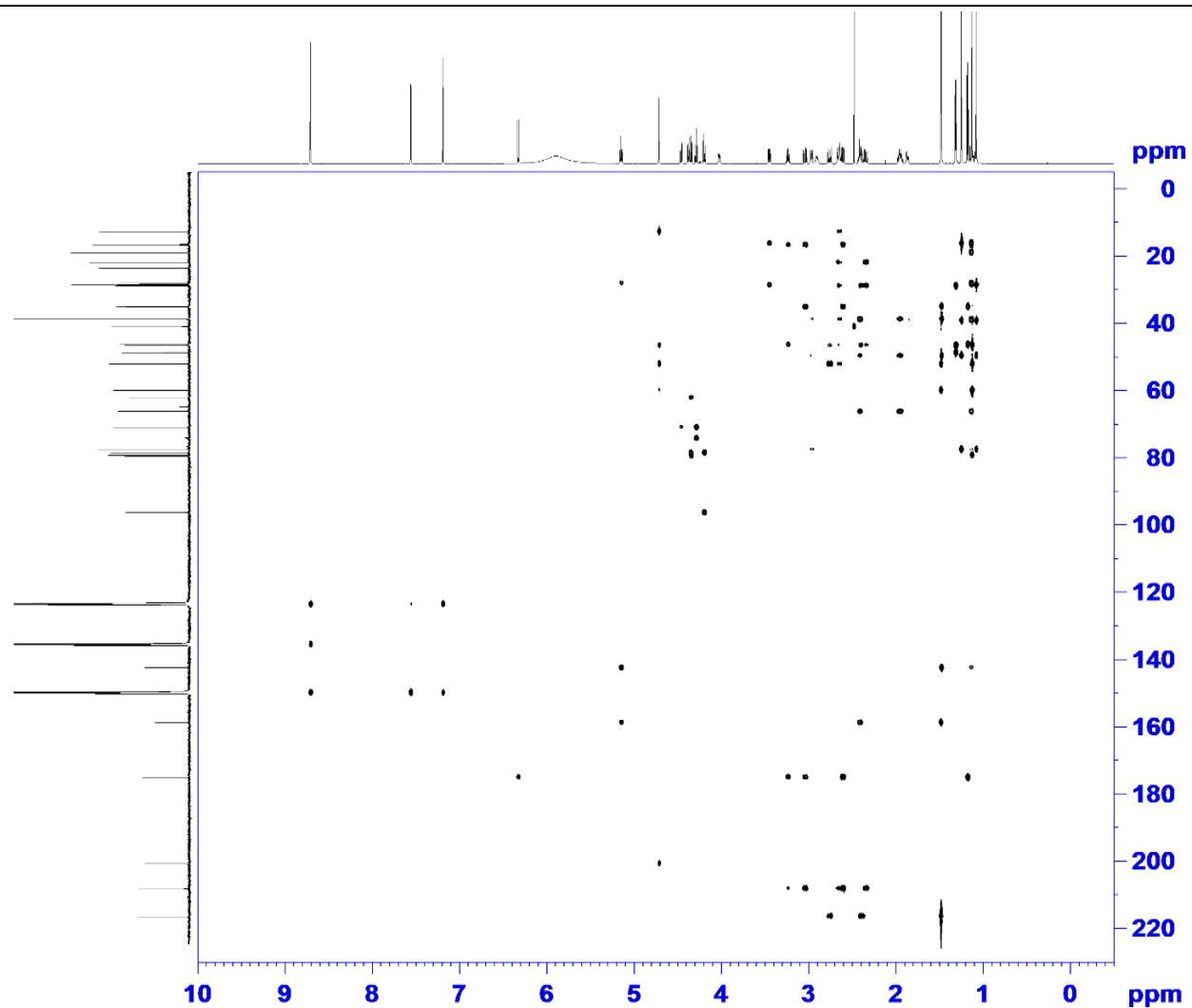
**Figure S11.** The  $^{13}\text{C}$ -NMR (176 MHz) spectrum of GAG-26-O- $\beta$ -glucoside (2) in pyridine-d5.



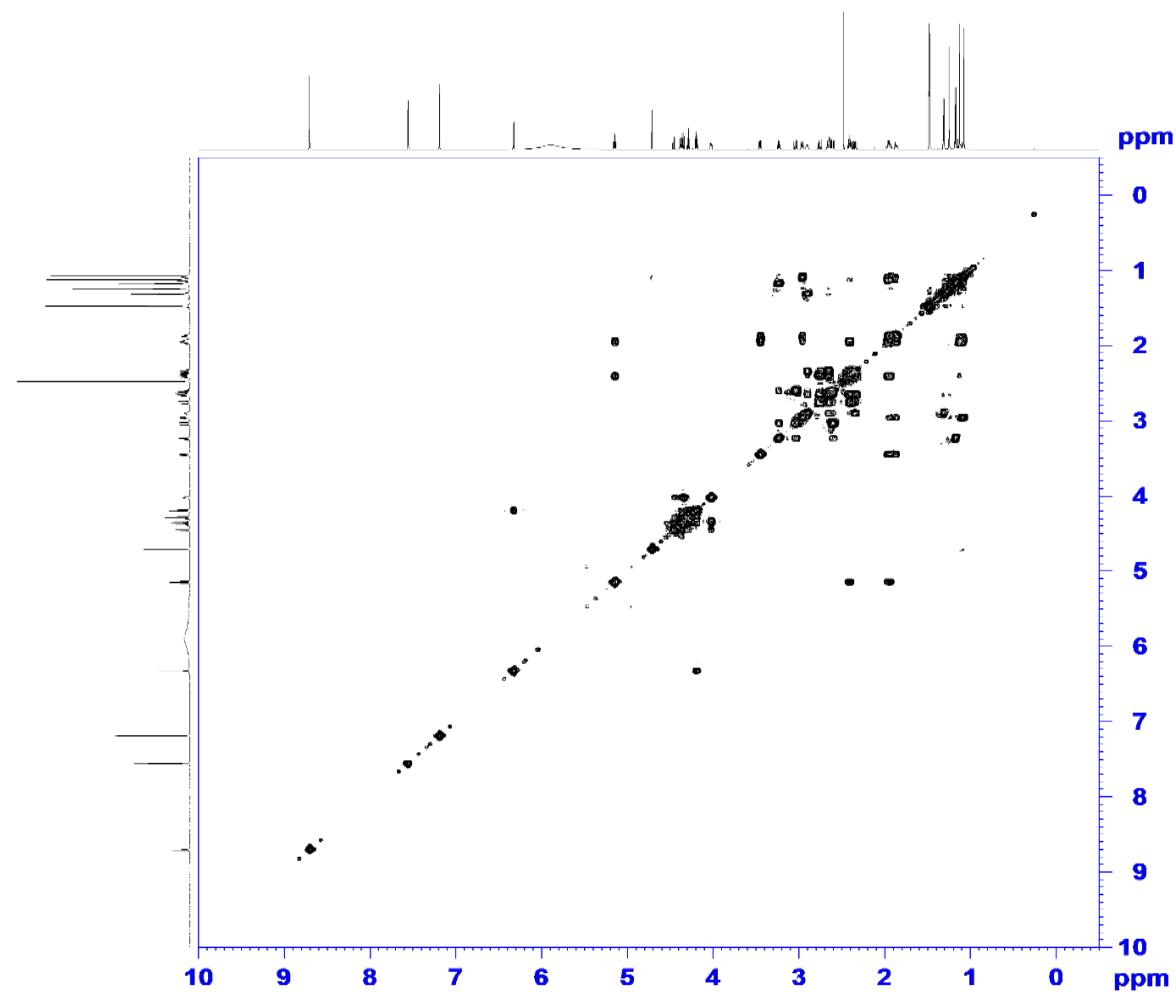
**Figure S12.** The DEPT-135 (176 MHz) spectrum of GAG-26-O- $\beta$ -glucoside (**2**) in pyridine-d5.



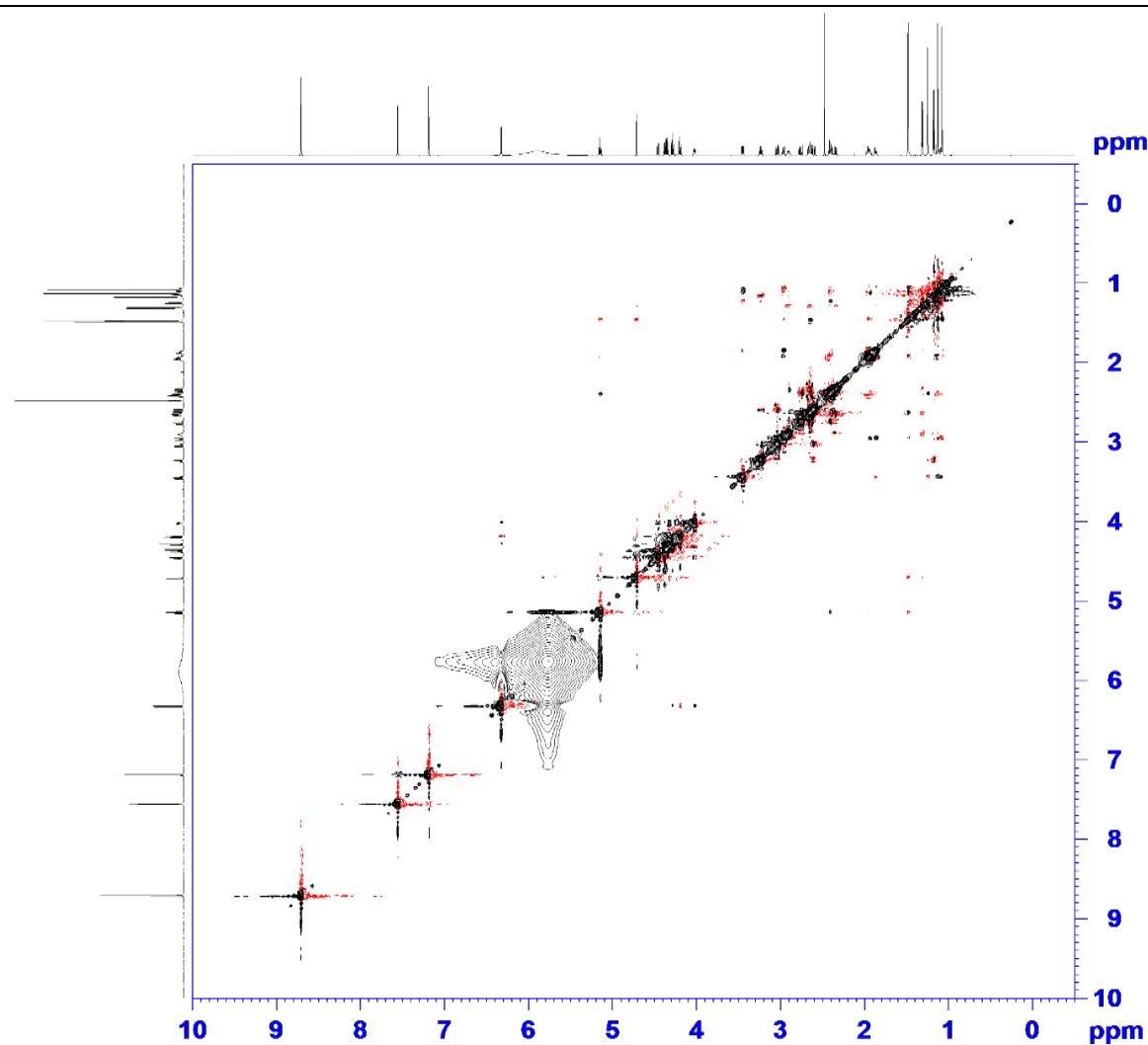
**Figure S13.** The HSQC (700 MHz) spectrum of GAG-26-O- $\beta$ -glucoside (**2**) in pyridine-d5.



**Figure S14.** The HMBC (700 MHz) spectrum of GAG-26-O- $\beta$ -glucoside (2) in pyridine-d5



**Figure S15.** The COSY (700 MHz) spectrum of GAG-26-O- $\beta$ -glucoside (2) in pyridine-d5.



**Figure S16.** The NOESY (700 MHz) spectrum of GAG-26-O- $\beta$ -glucoside (2) in pyridine-d5