

Supporting information

NMR data

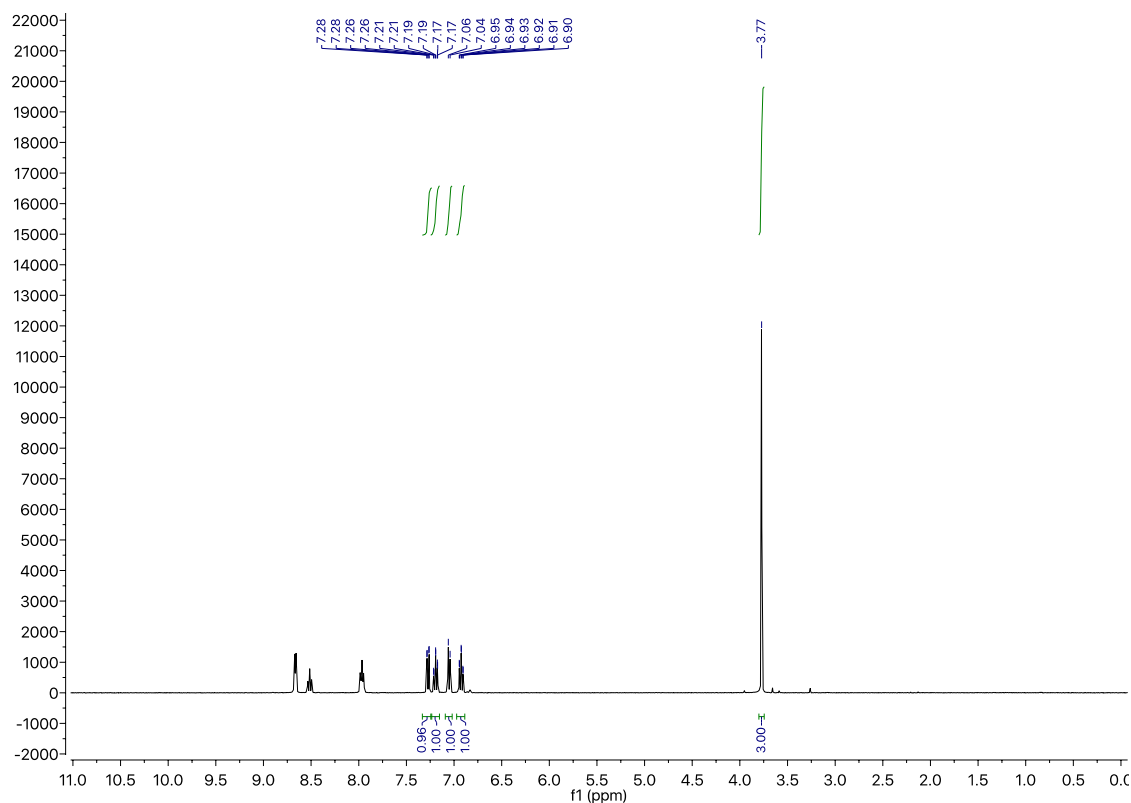


Figure 1 ¹H NMR of guaiacol-*O*-sulfate (1a).

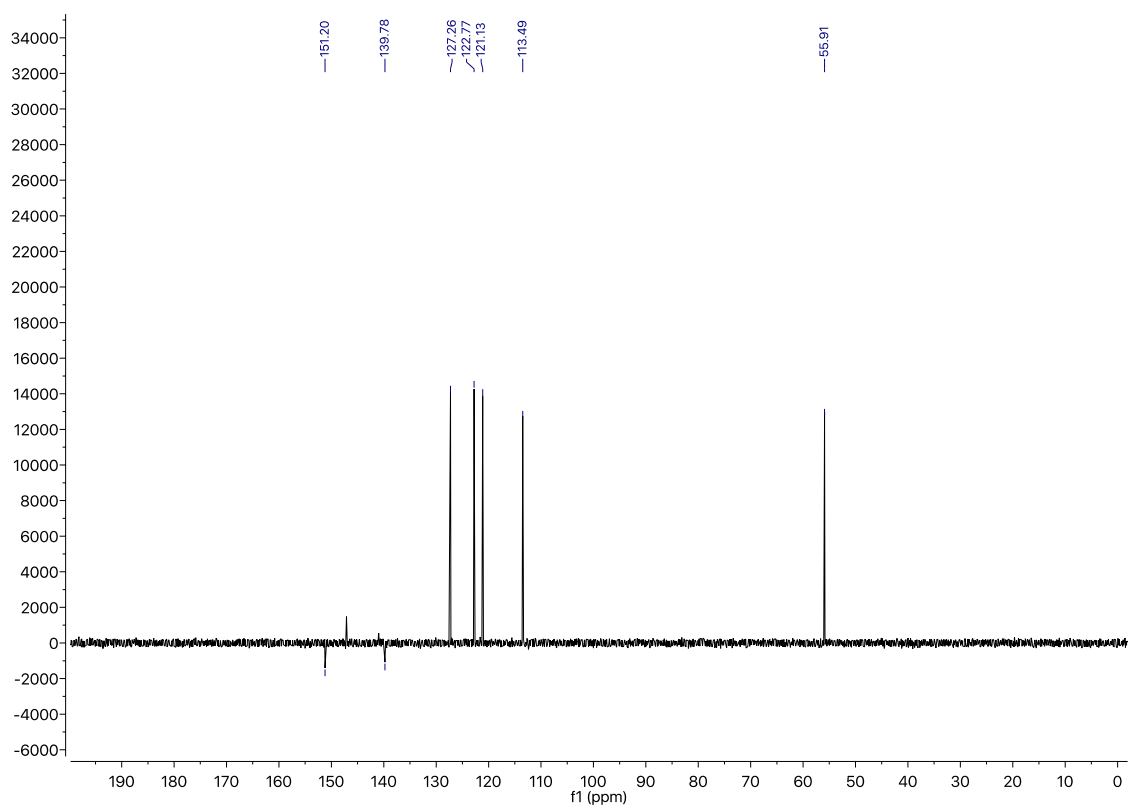


Figure 2 ¹³C NMR of guaiacol-*O*-sulfate (1a).

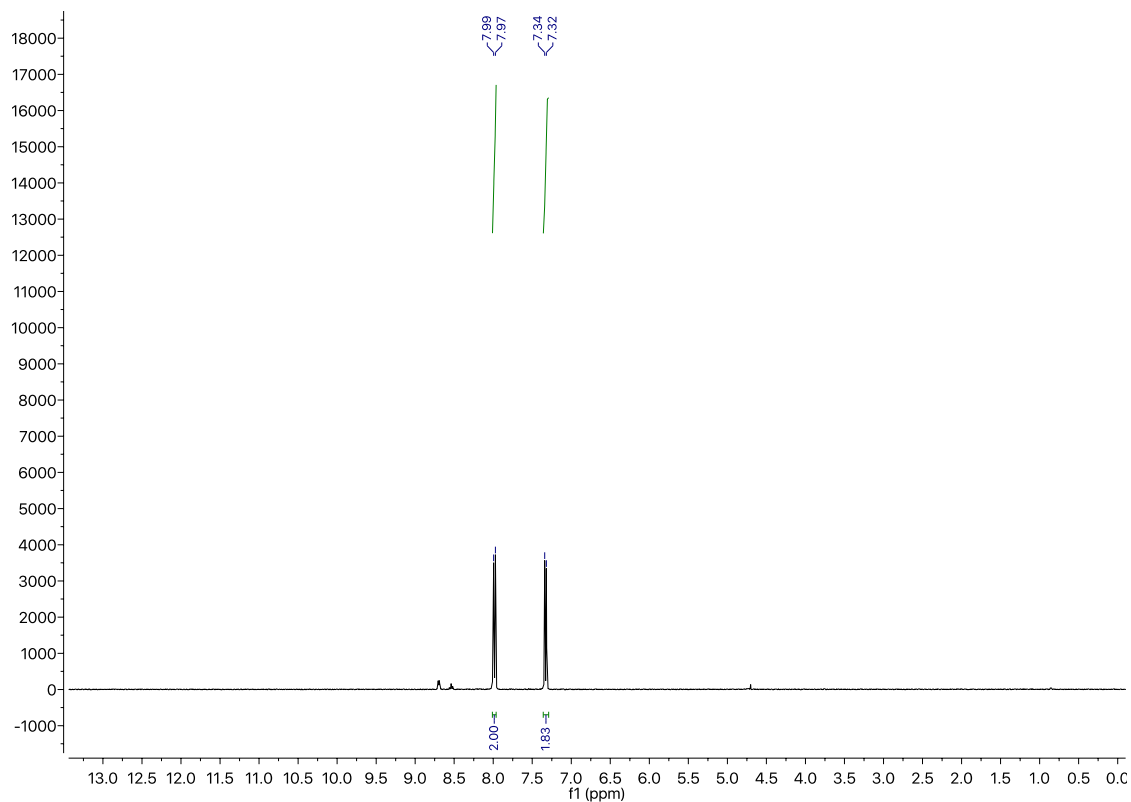


Figure 3 ¹H NMR of benzoic acid 4-O-sulfate (1b).

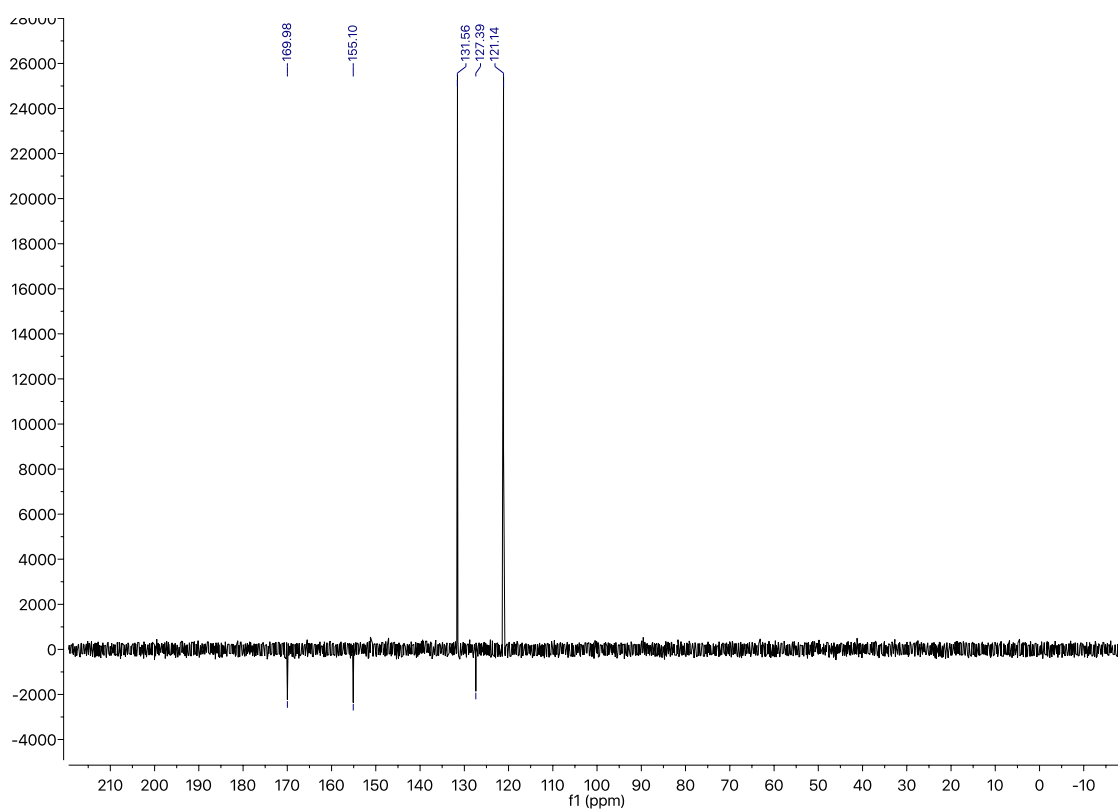


Figure 4 ¹³C NMR of benzoic acid 4-O-sulfate (1b).

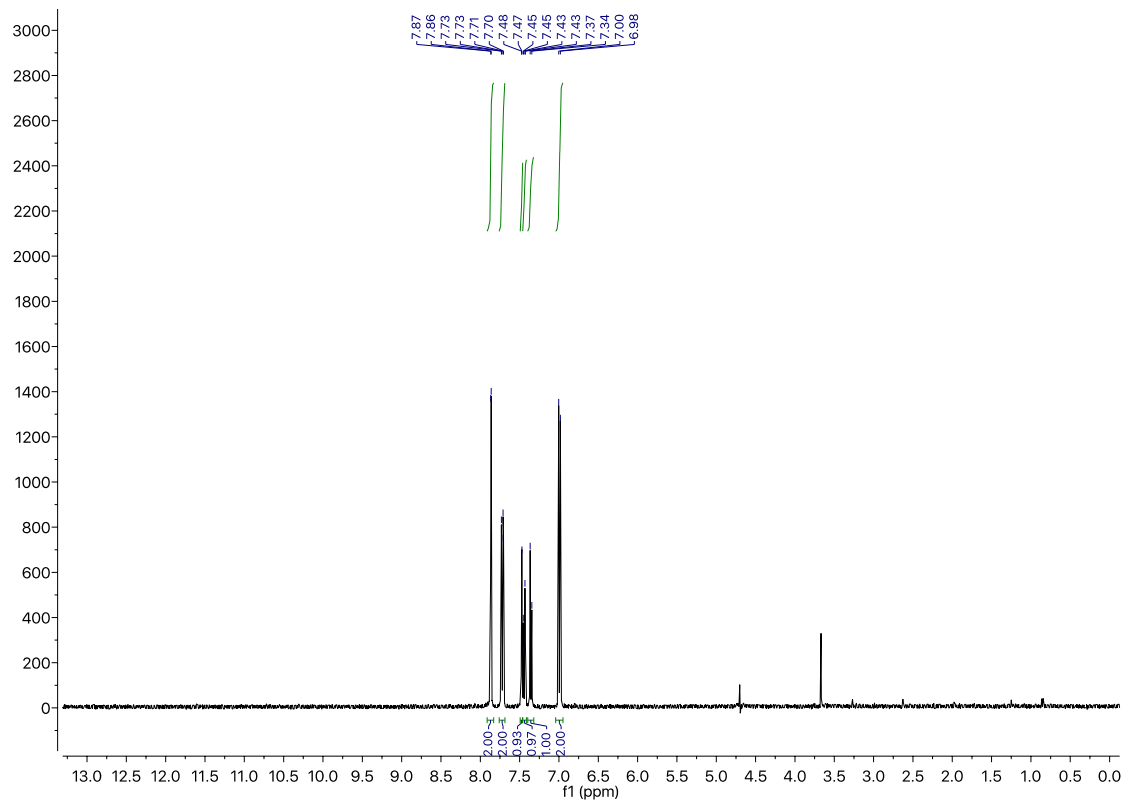


Figure 5 ^1H NMR of protocathechuic acid 4-*O*-sulfate (**1c**) and protocathechuic acid 3-*O*-sulfate (**1d**).

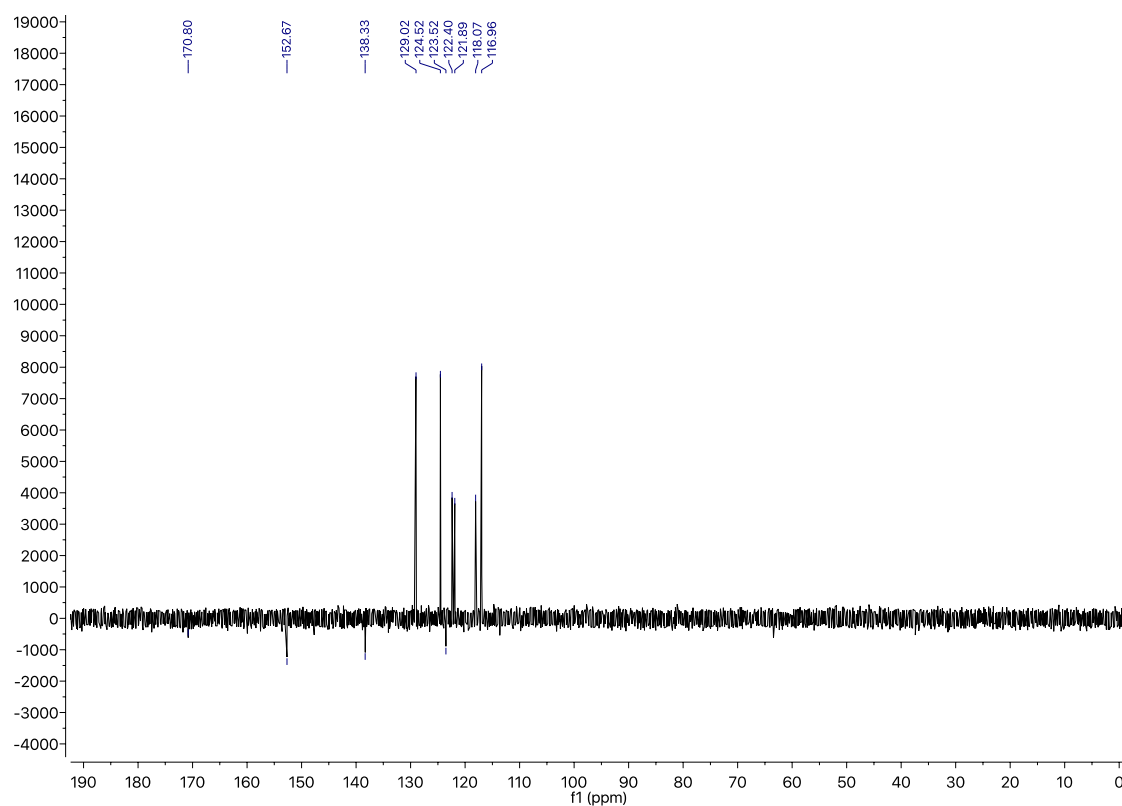


Figure 6 ^{13}C NMR of protocathechuic acid 4-*O*-sulfate (**1c**) and protocathechuic acid 3-*O*-sulfate (**1d**).

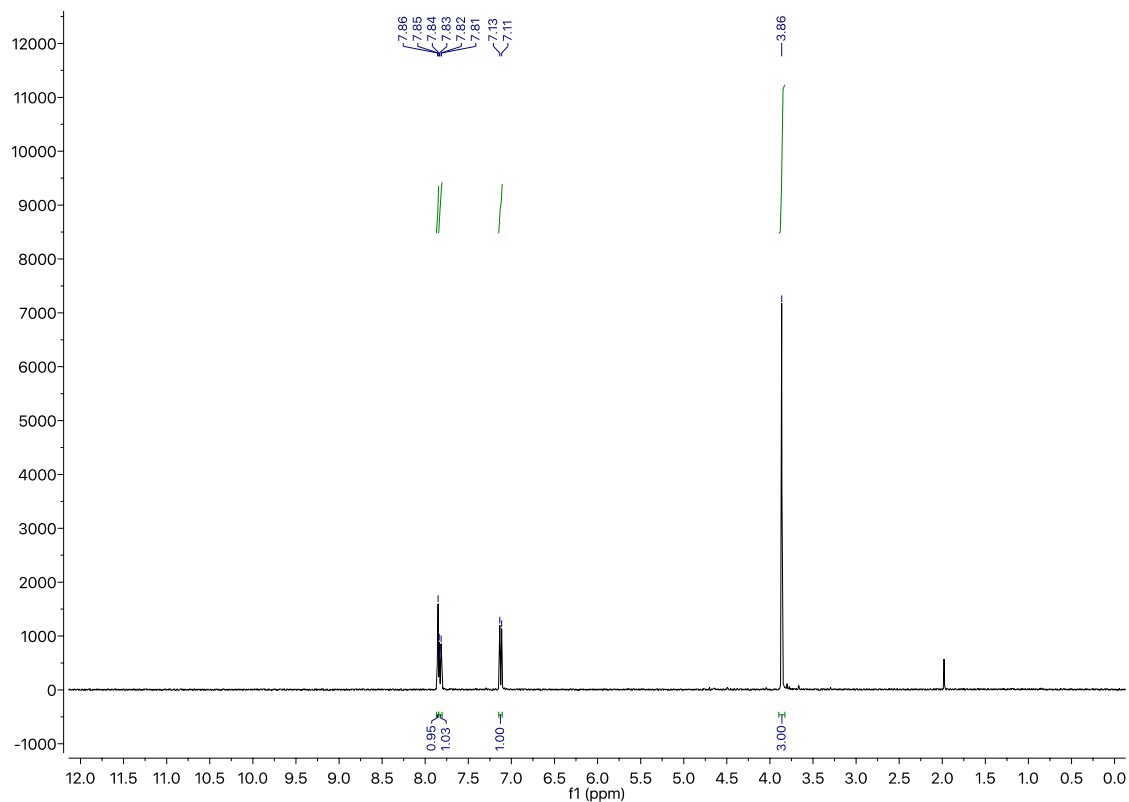


Figure 7 ^1H NMR of isovanillic acid 3-*O*-sulfate (**1e**).

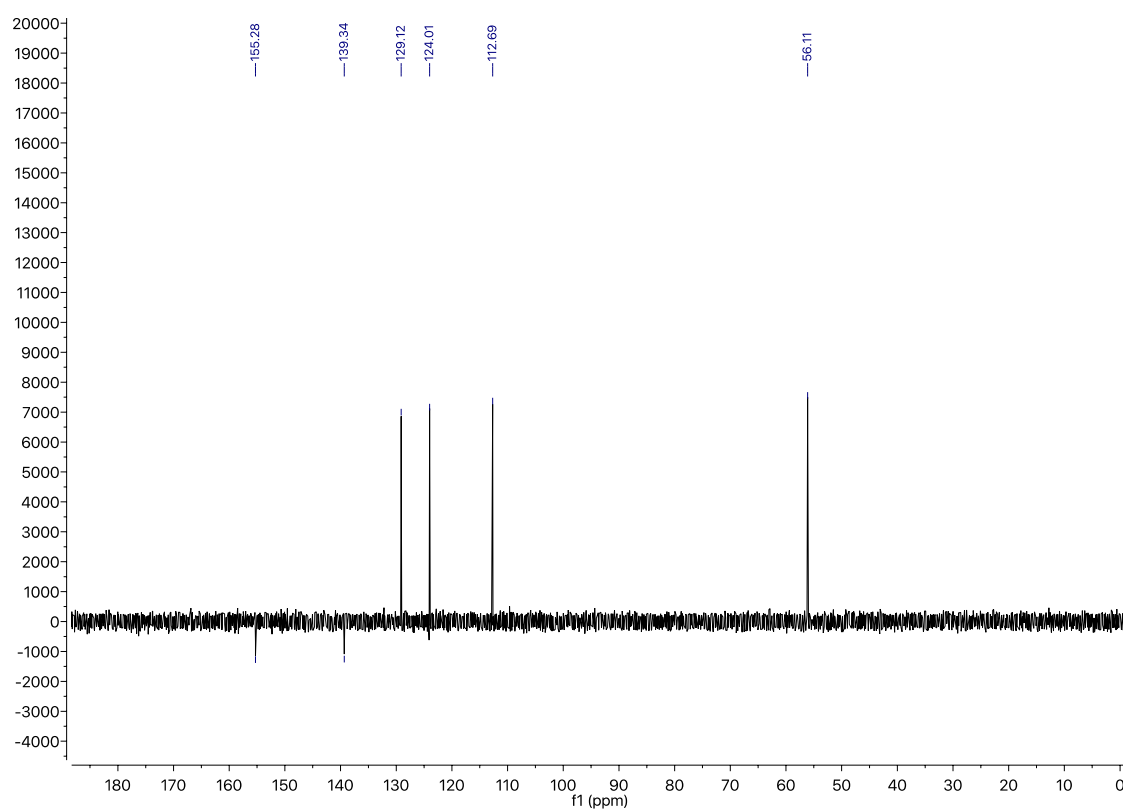
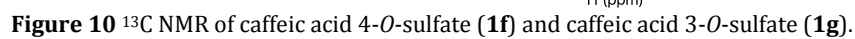
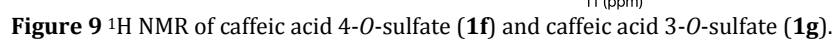


Figure 8 ^{13}C NMR of isovanillic acid 3-*O*-sulfate (**1e**).



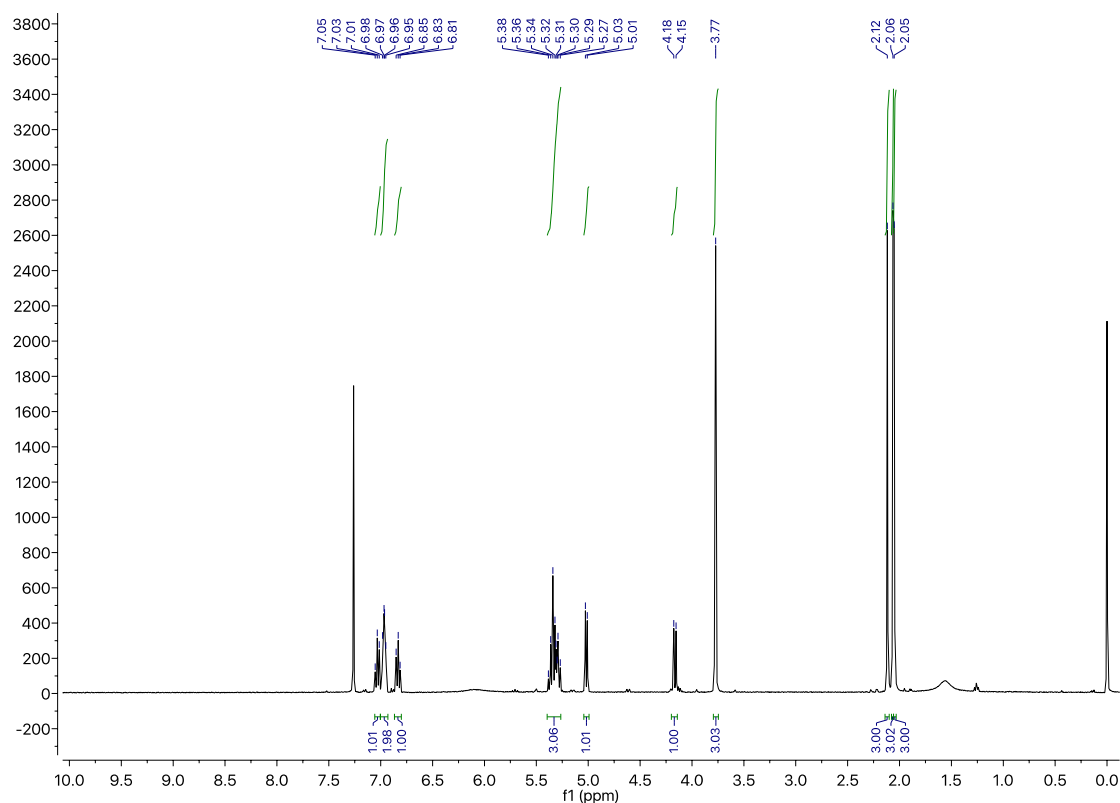


Figure 11 ^1H NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(2-hydroxyphenyl)- β -D-glucuronate (**6a**).

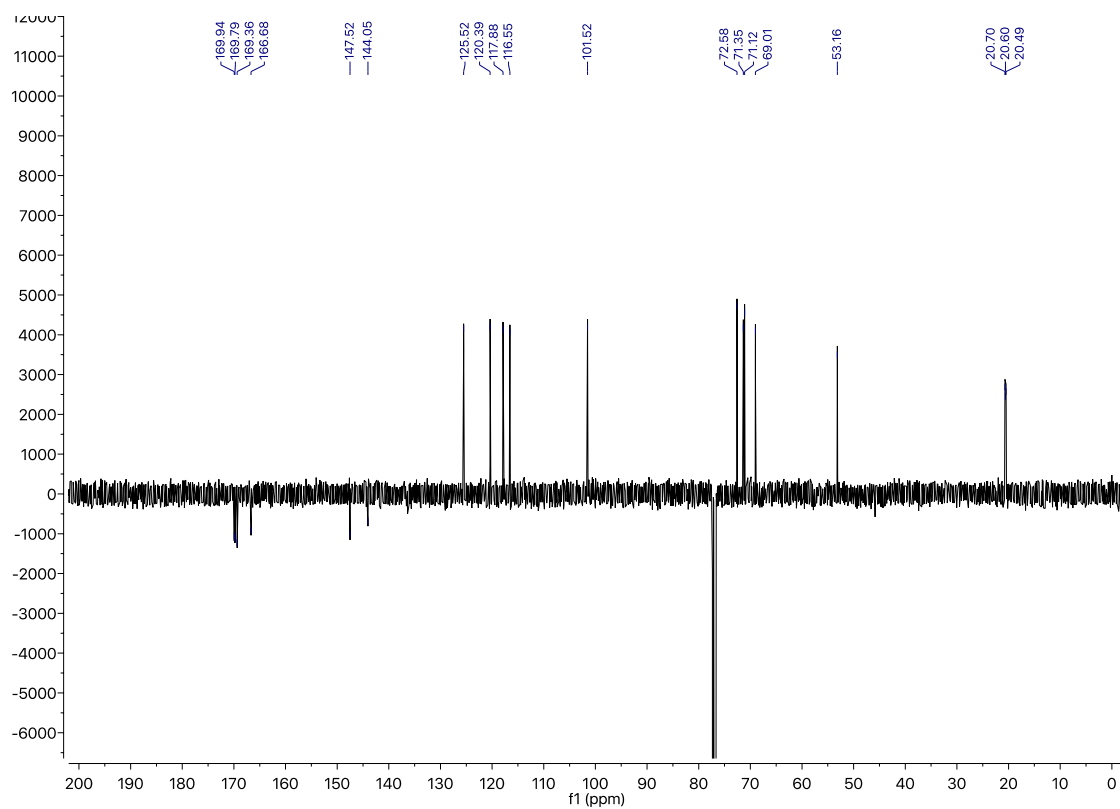


Figure 12 ^{13}C NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(2-hydroxyphenyl)- β -D-glucuronate (**6a**).

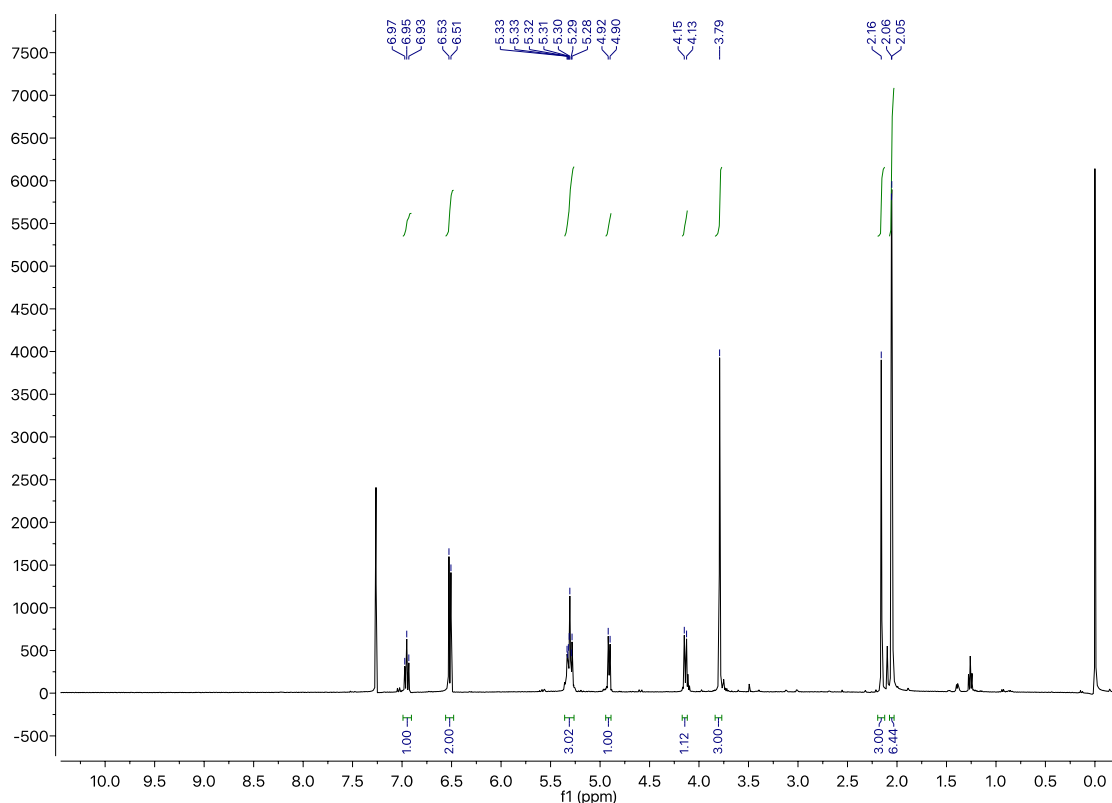


Figure 13 ^1H NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(1,3-dihydroxyphenyl)- β -D-glucuronate (**6b**).

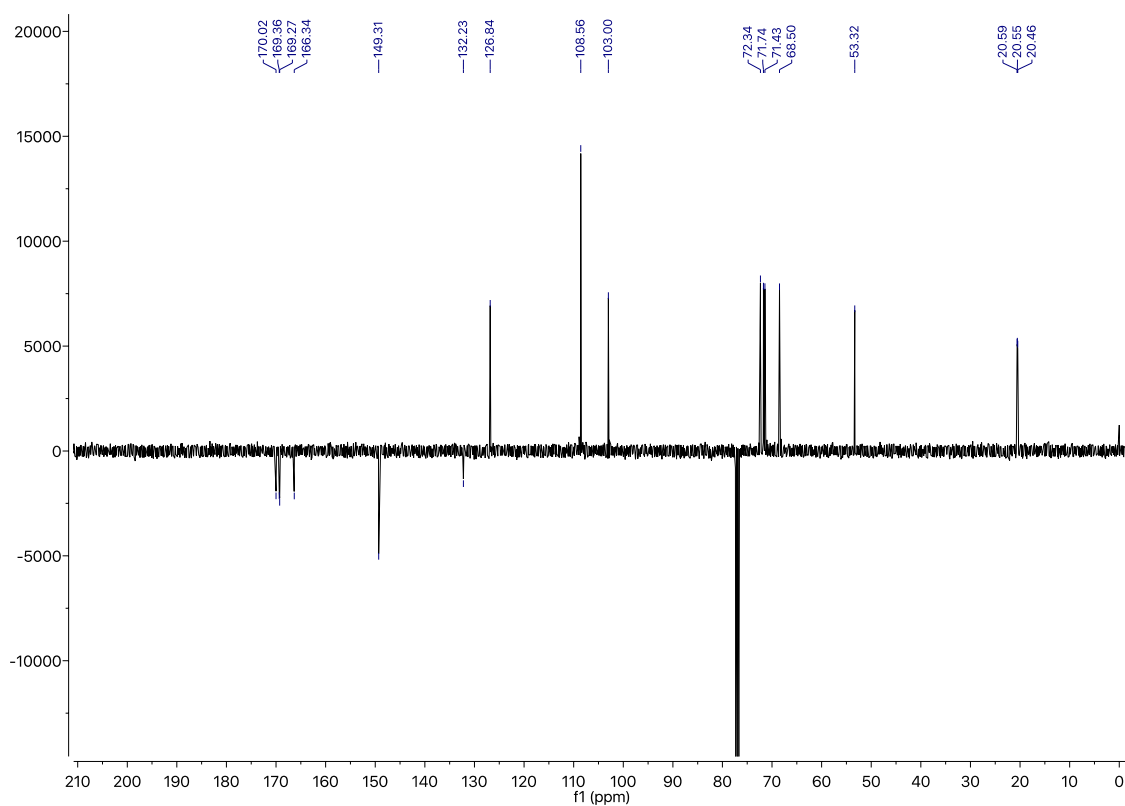


Figure 14 ^{13}C NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(1,3-dihydroxyphenyl)- β -D-glucuronate (**6b**).

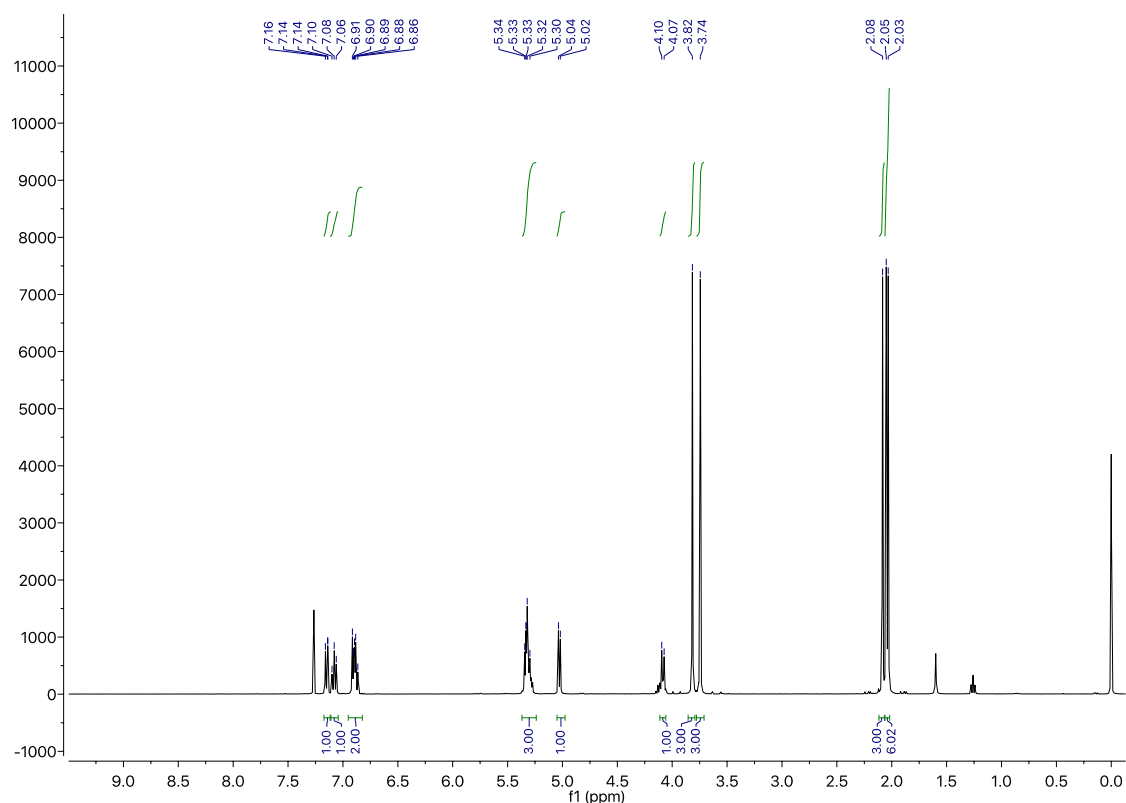


Figure 15 ^1H NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(4-methoxyphenyl)- β -D-glucuronate (**6c**).

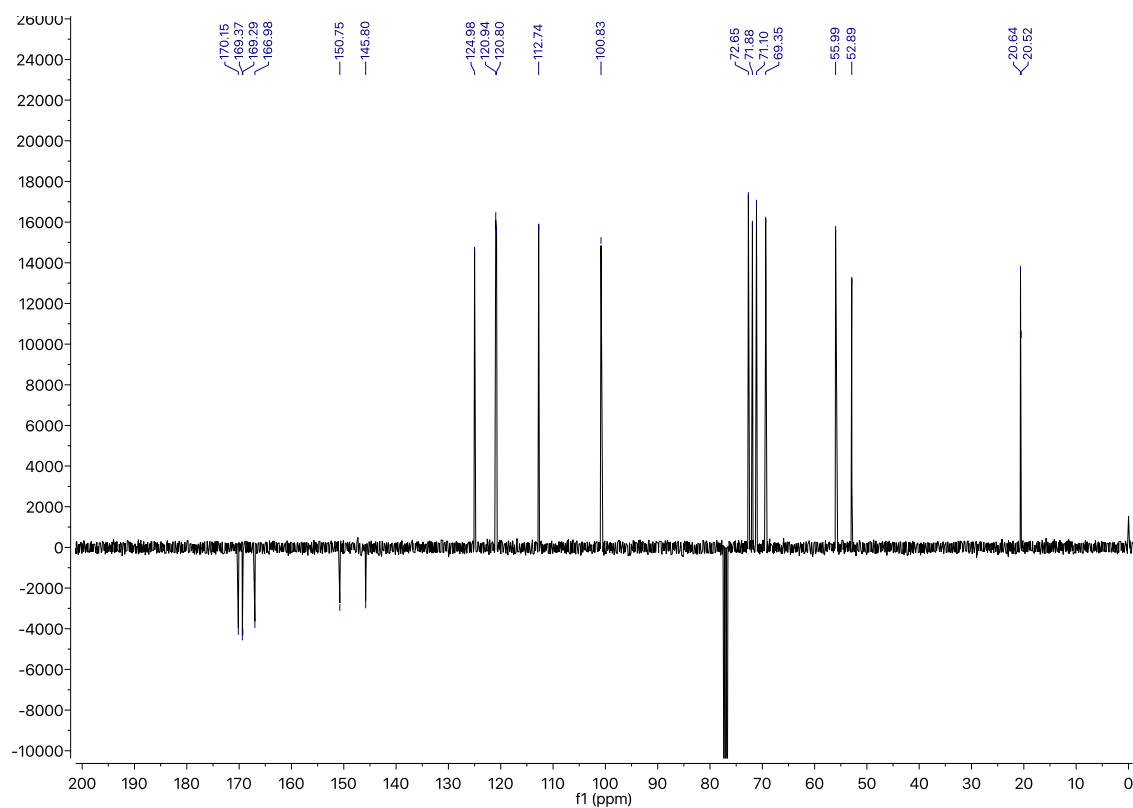


Figure 16 ^{13}C NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(4-methoxyphenyl)- β -D-glucuronate (**6c**).

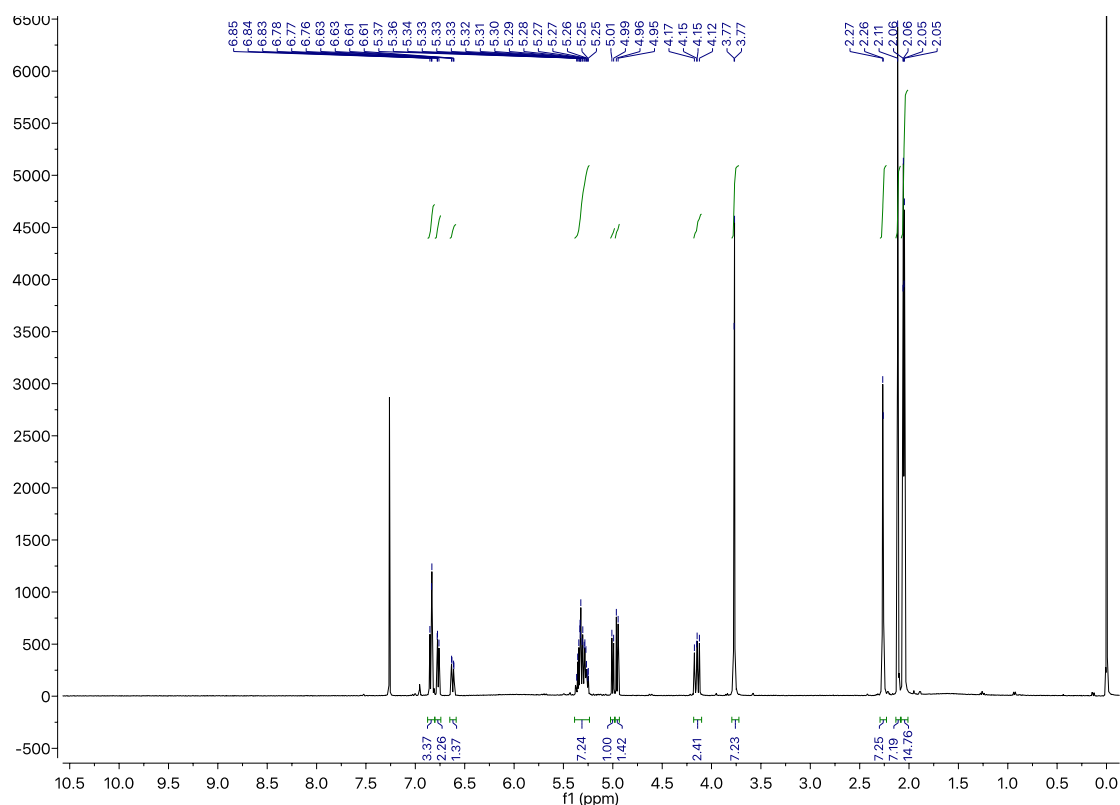


Figure 17 ^1H NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(1-hydroxy-4-methylphenyl)- β -D-glucuronate (**6d**) and methyl 2,3,4-tri-*O*-acetyl-1-*O*-(2-hydroxy-4-methylphenyl)- β -D-glucuronate (**6e**).

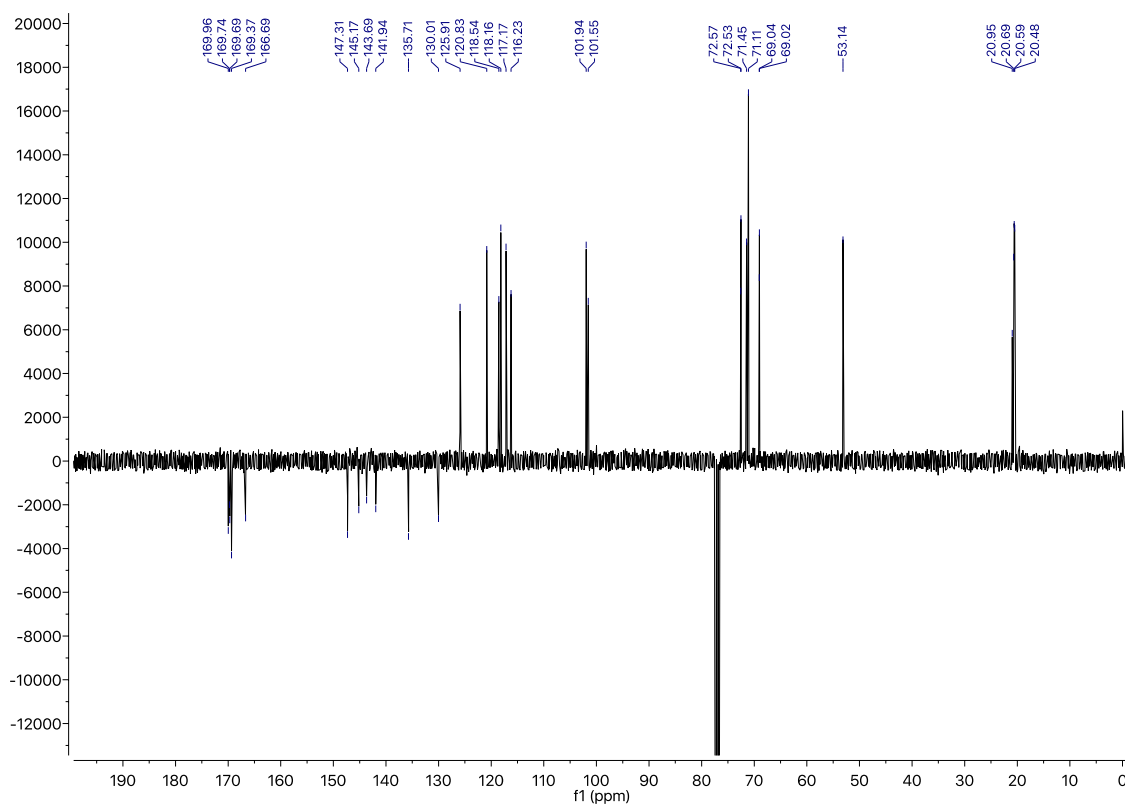


Figure 18 ^{13}C NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(1-hydroxy-4-methylphenyl)- β -D-glucuronate (**6d**) and methyl 2,3,4-tri-*O*-acetyl-1-*O*-(2-hydroxy-4-methylphenyl)- β -D-glucuronate (**6e**).

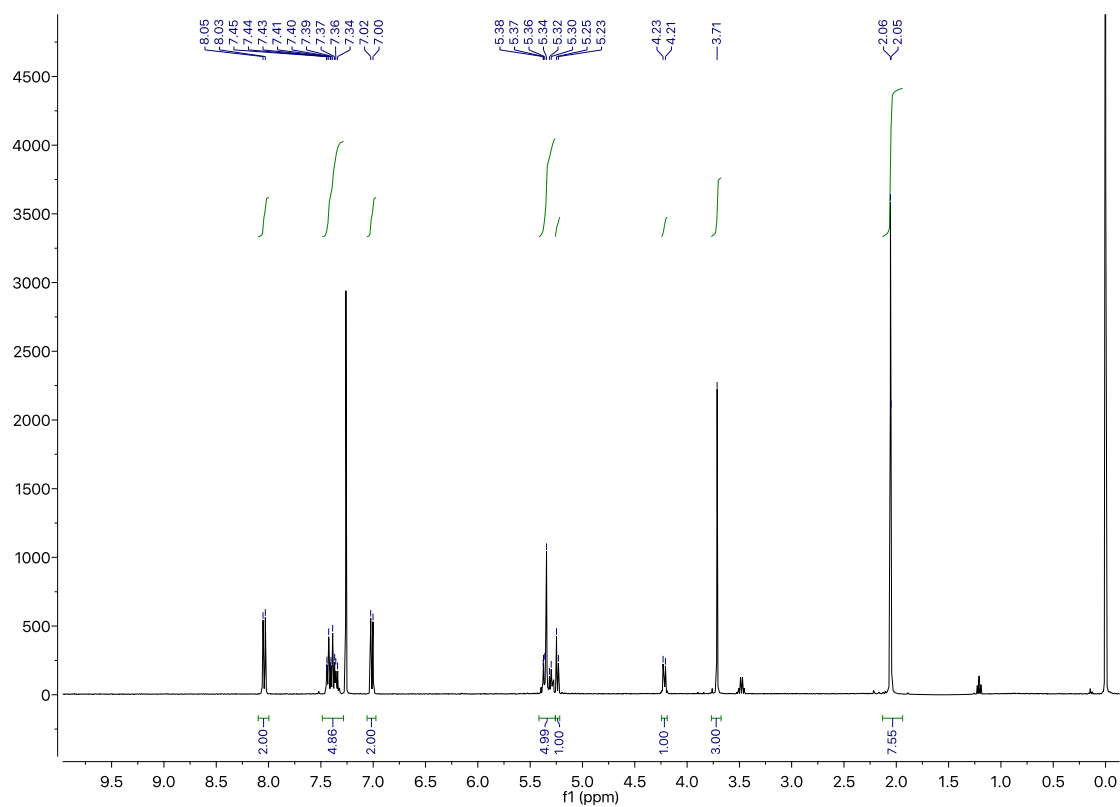


Figure 19 ^1H NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(4-benzylcarbonylphenyl)- β -D-glucuronate (**6f**).

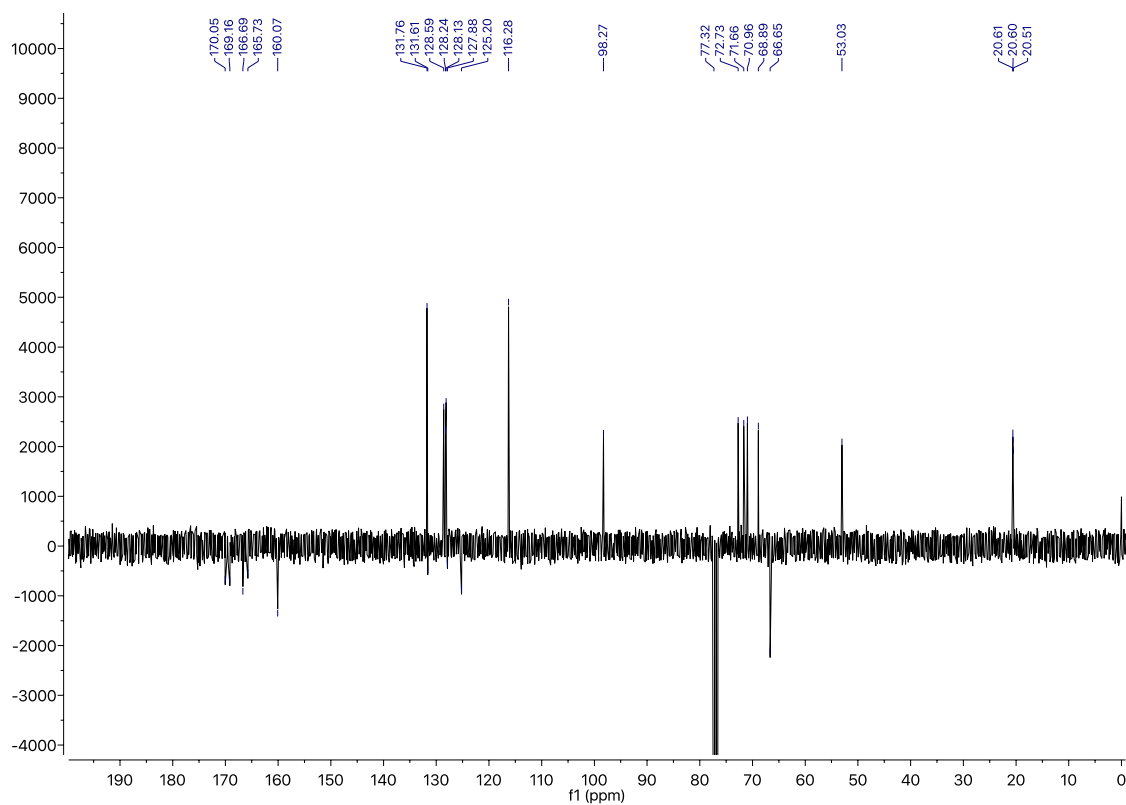


Figure 20 ^{13}C NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(4-benzylcarbonylphenyl)- β -D-glucuronate (**6f**).

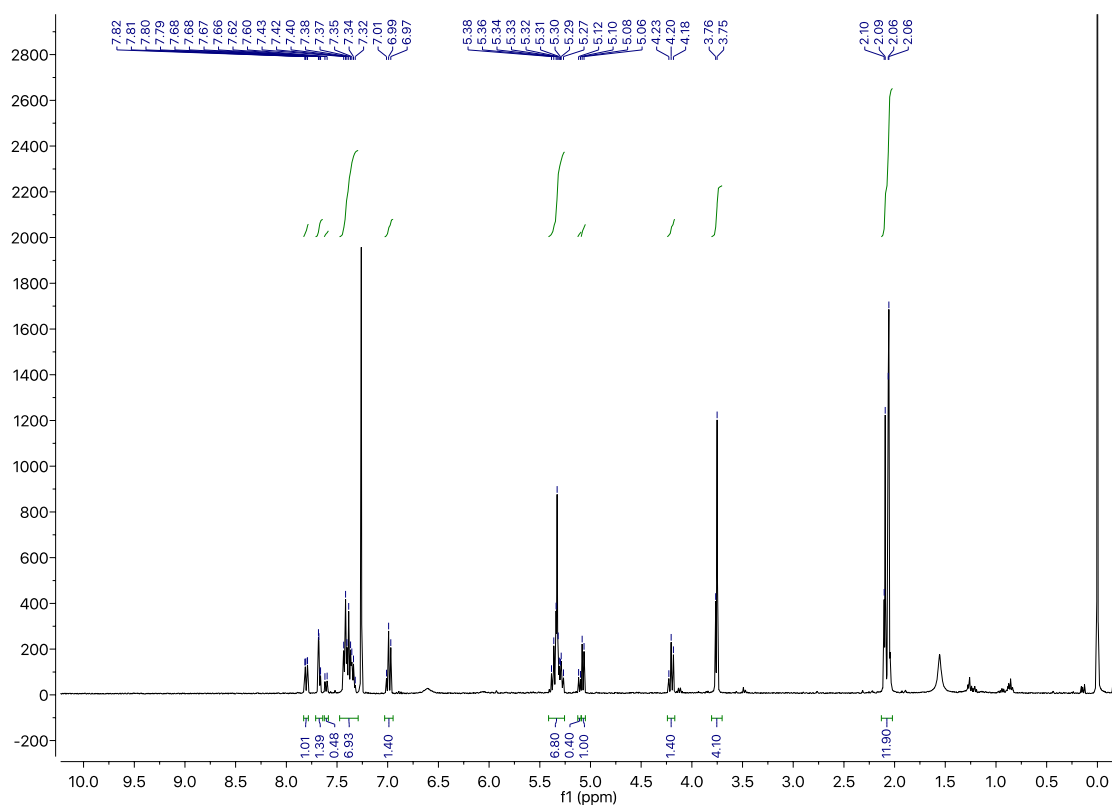


Figure 21 ^1H NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(2-hydroxy-4-benzylcarbonylphenyl)- β -D-glucuronate (**6g**) and methyl 2,3,4-tri-*O*-acetyl-1-*O*-(2-hydroxy-5-benzylcarbonylphenyl)- β -D-glucuronate (**6h**).

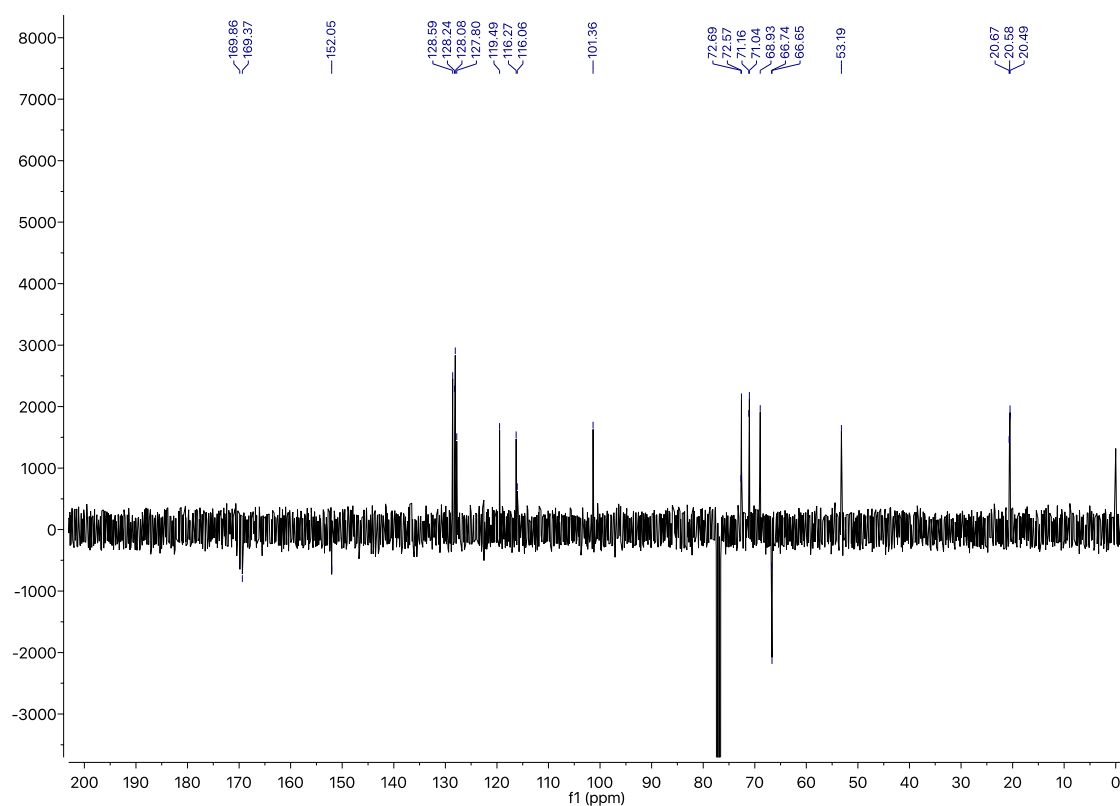


Figure 22 ^{13}C NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(2-hydroxy-4-benzylcarbonylphenyl)- β -D-glucuronate (**6g**) and methyl 2,3,4-tri-*O*-acetyl-1-*O*-(2-hydroxy-5-benzylcarbonylphenyl)- β -D-glucuronate (**6h**).

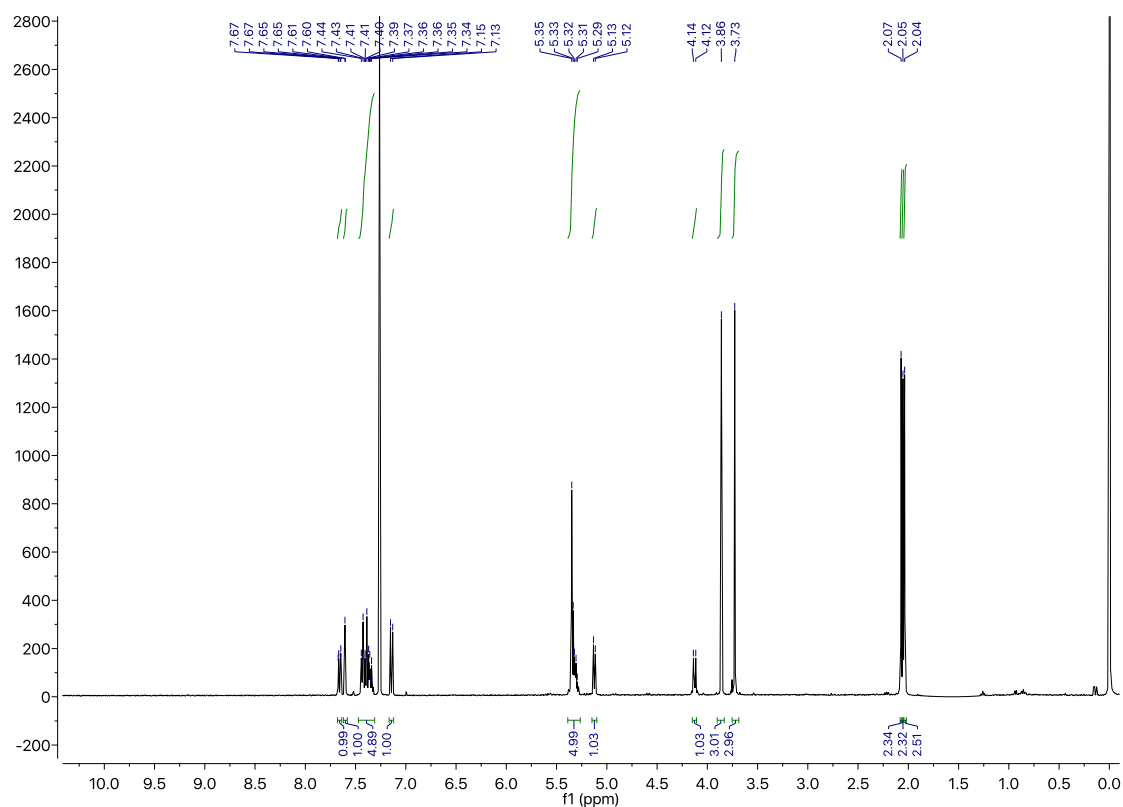


Figure 23 ¹H NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(2-methoxy-4-benzylcarbonylphenyl)-β-D-glucuronate (**6i**).

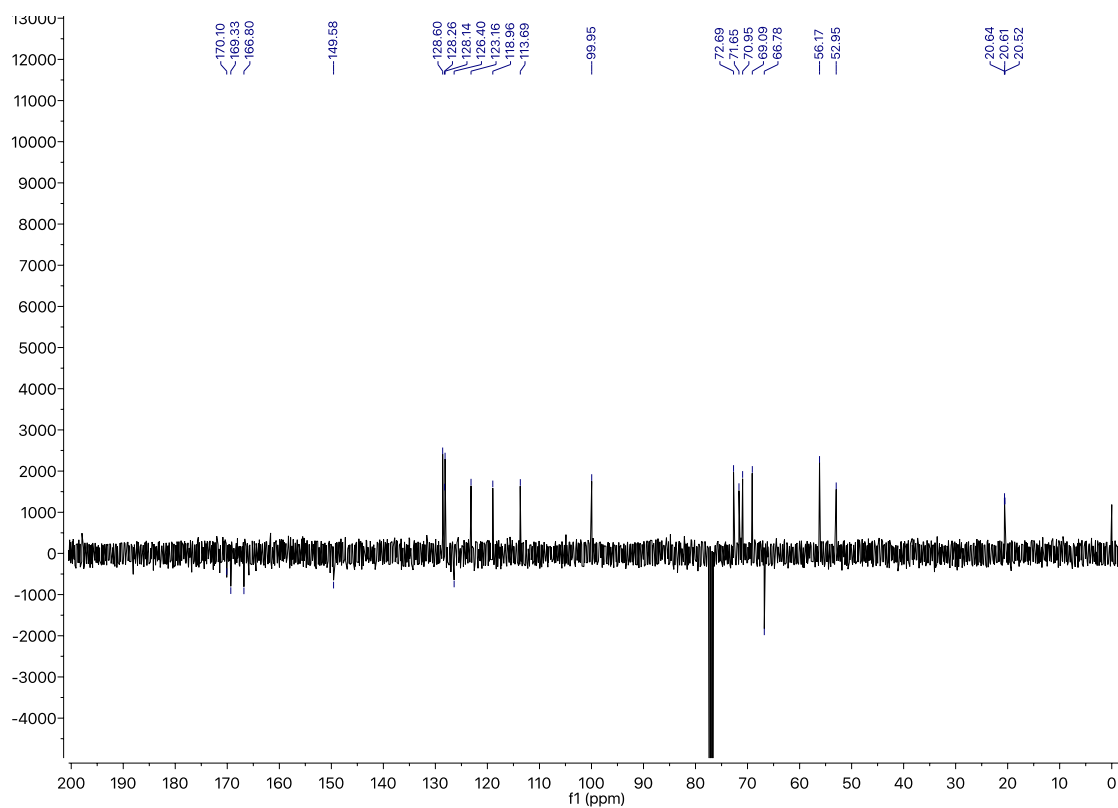


Figure 24 ¹³C NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(2-methoxy-4-benzylcarbonylphenyl)-β-D-glucuronate (**6i**).

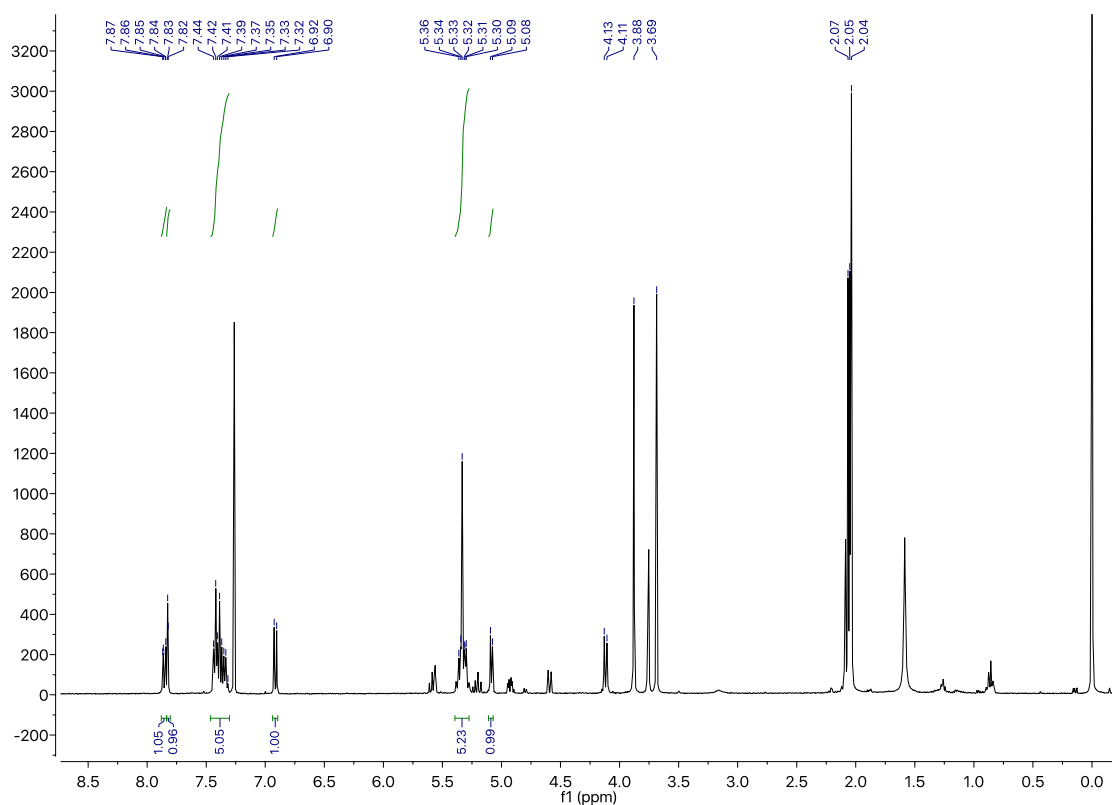


Figure 25 ^1H NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(2-methoxy-5-benzylcarbonylphenyl)- β -D-glucuronate (**6j**).

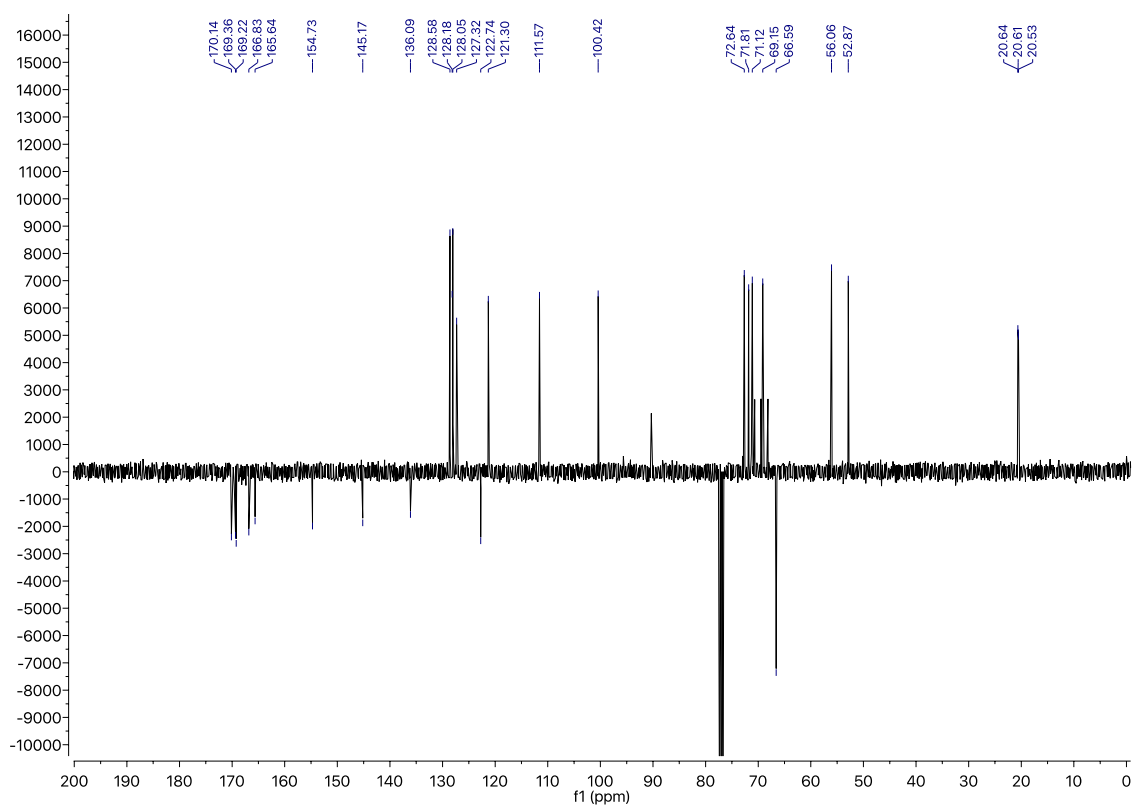


Figure 26 ^{13}C NMR of methyl 2,3,4-tri-*O*-acetyl-1-*O*-(2-methoxy-5-benzylcarbonylphenyl)- β -D-glucuronate (**6j**).

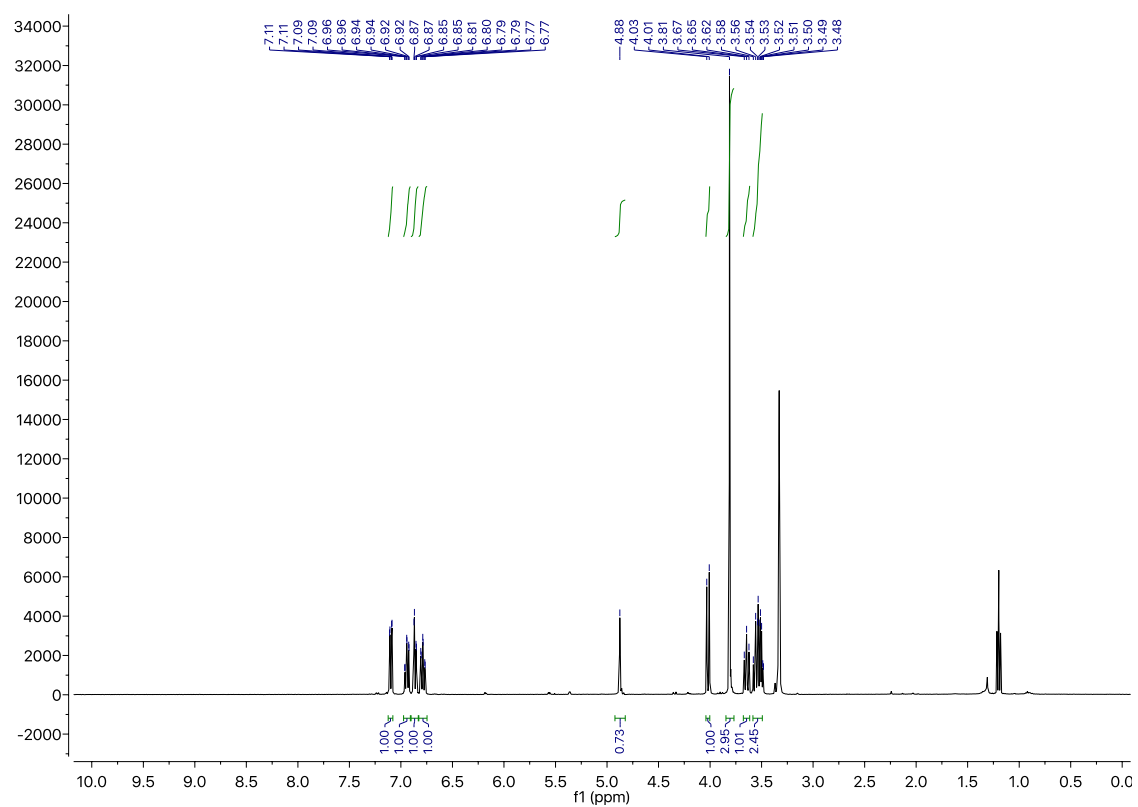


Figure 27 ^1H NMR of methyl 1-*O*-(2-hydroxyphenyl)- β -D-glucuronate (**7a**).

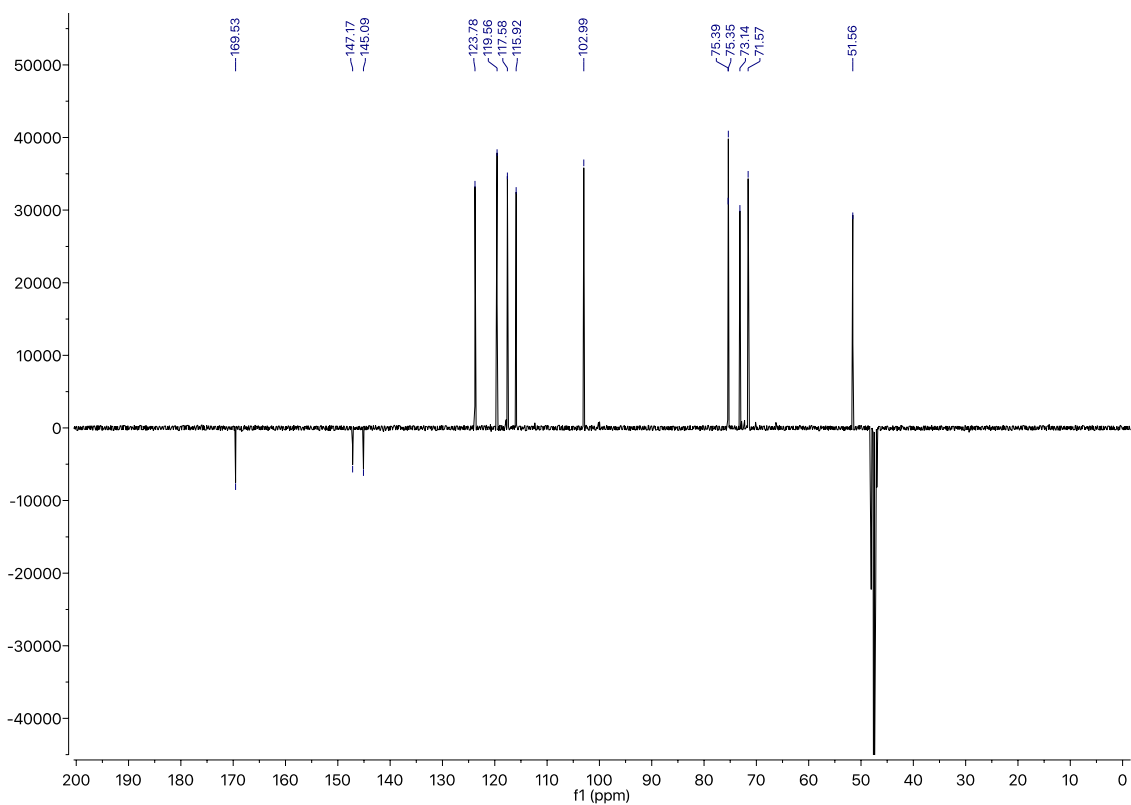


Figure 28 ^{13}C NMR of methyl 1-*O*-(2-hydroxyphenyl)- β -D-glucuronate (**7a**).

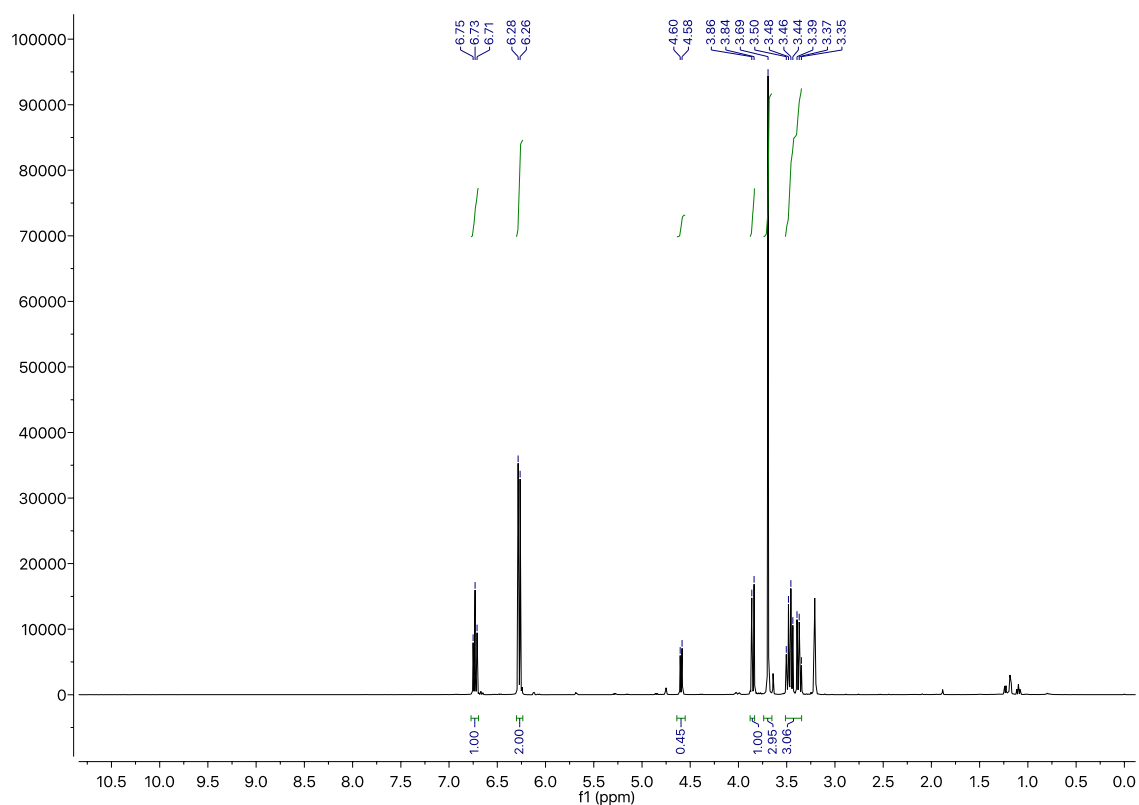


Figure 29 ^1H NMR of methyl 1-*O*-(1,3-dihydroxyphenyl)- β -D-glucuronate (**7b**).

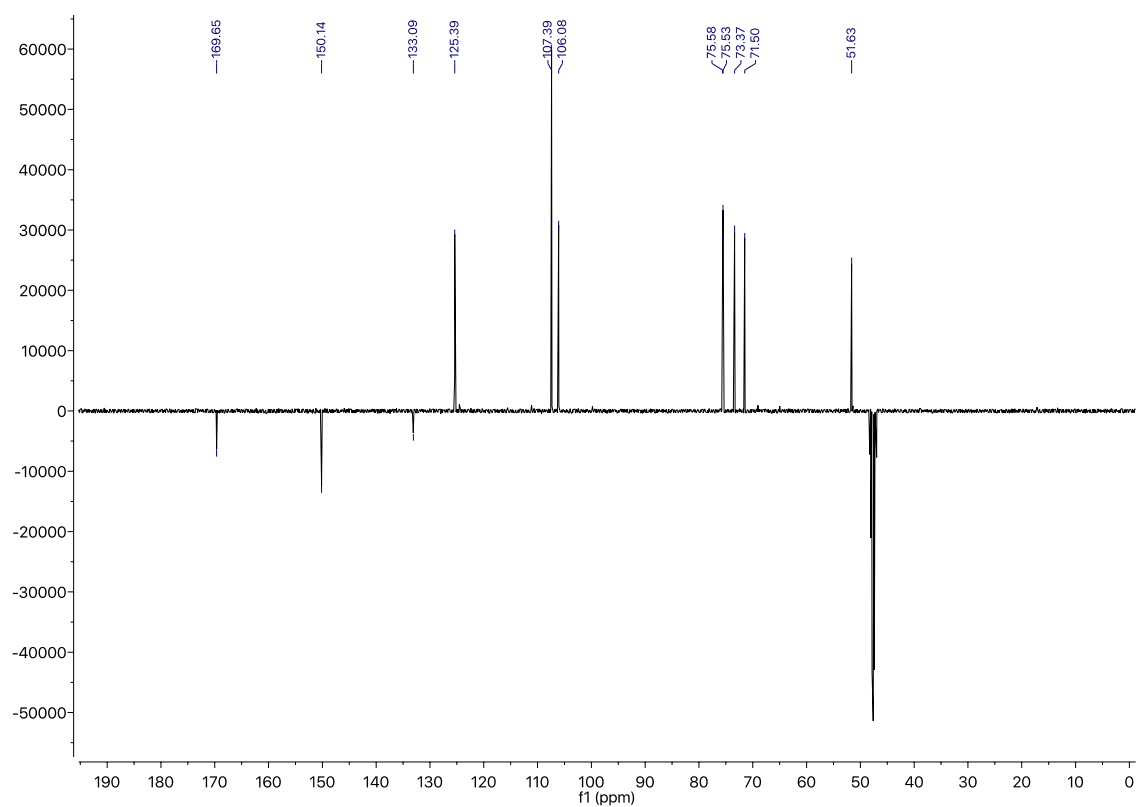


Figure 30 ^{13}C NMR of methyl 1-*O*-(1,3-dihydroxyphenyl)- β -D-glucuronate (**7b**).

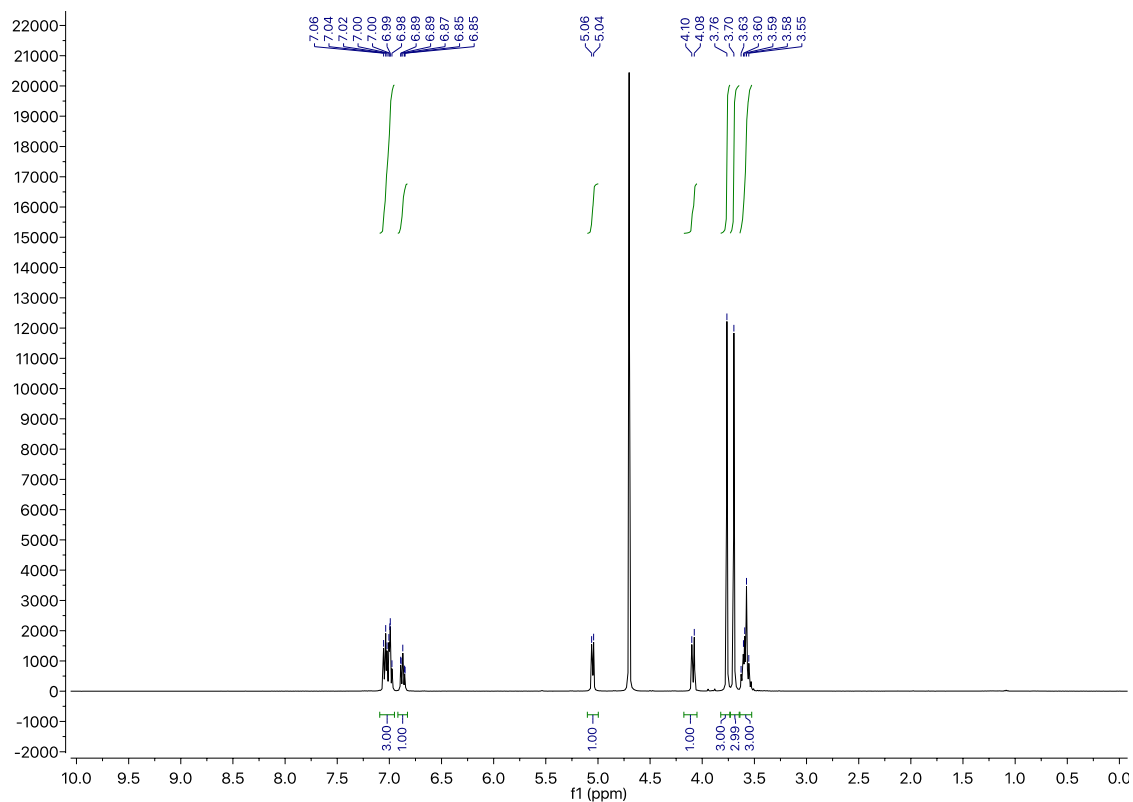


Figure 31 ^1H NMR of methyl 1-*O*-(2-methoxyphenyl)- β -D-glucuronate (**7c**).

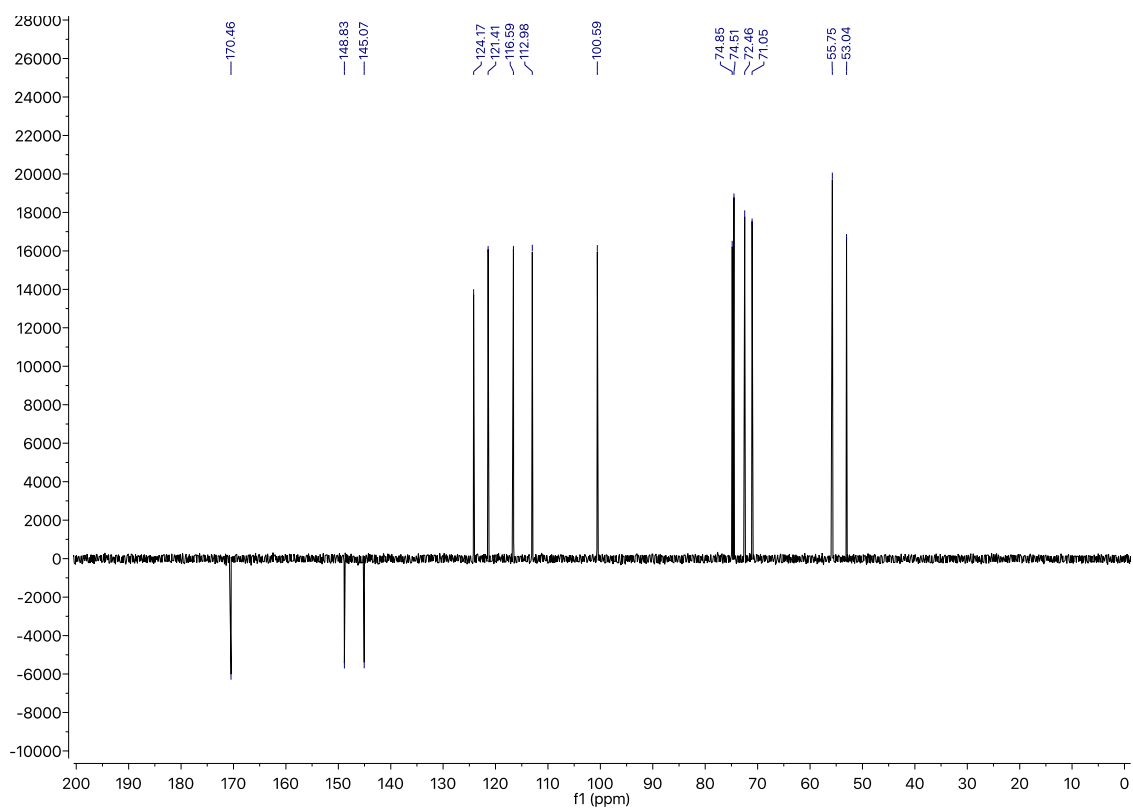


Figure 32 ^{13}C NMR of methyl 1-*O*-(2-methoxyphenyl)- β -D-glucuronate (**7c**).

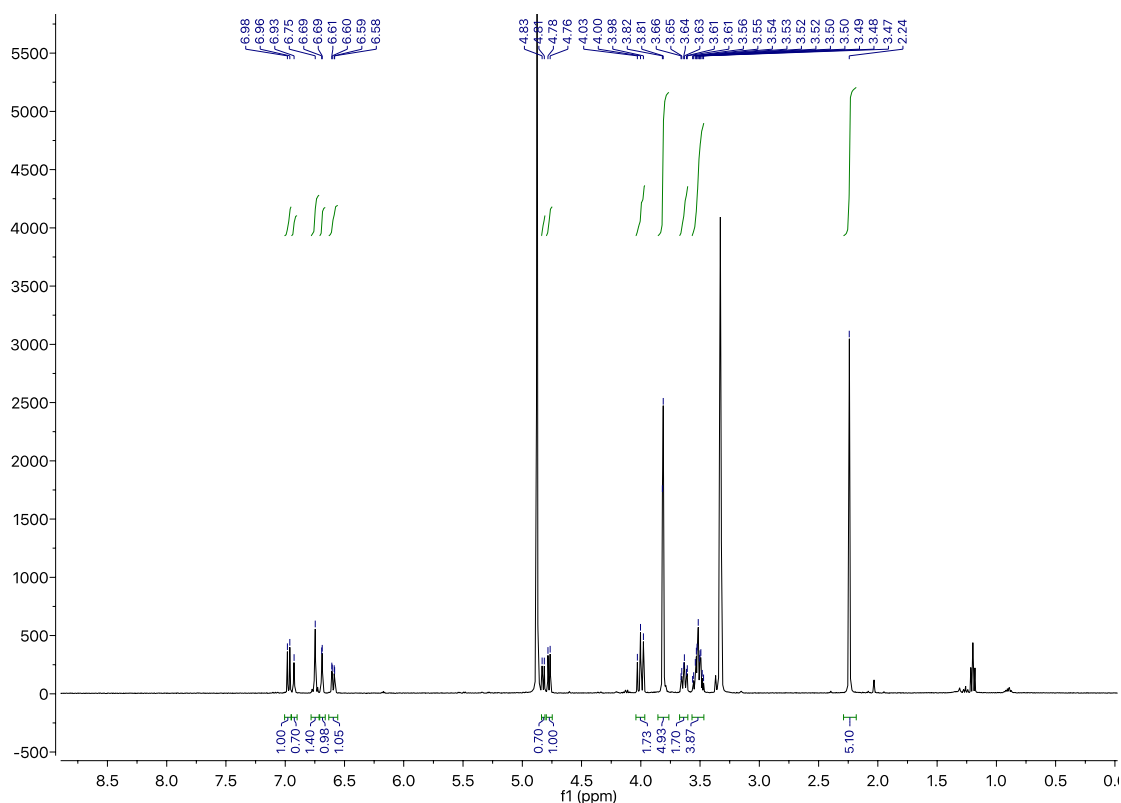


Figure 33 ^1H NMR of methyl 1-O-(1-hydroxy-4-methylphenyl)- β -D-glucuronate (**7d**) and methyl 1-O-(2-hydroxy-4-methylphenyl)- β -D-glucuronate (**7e**).

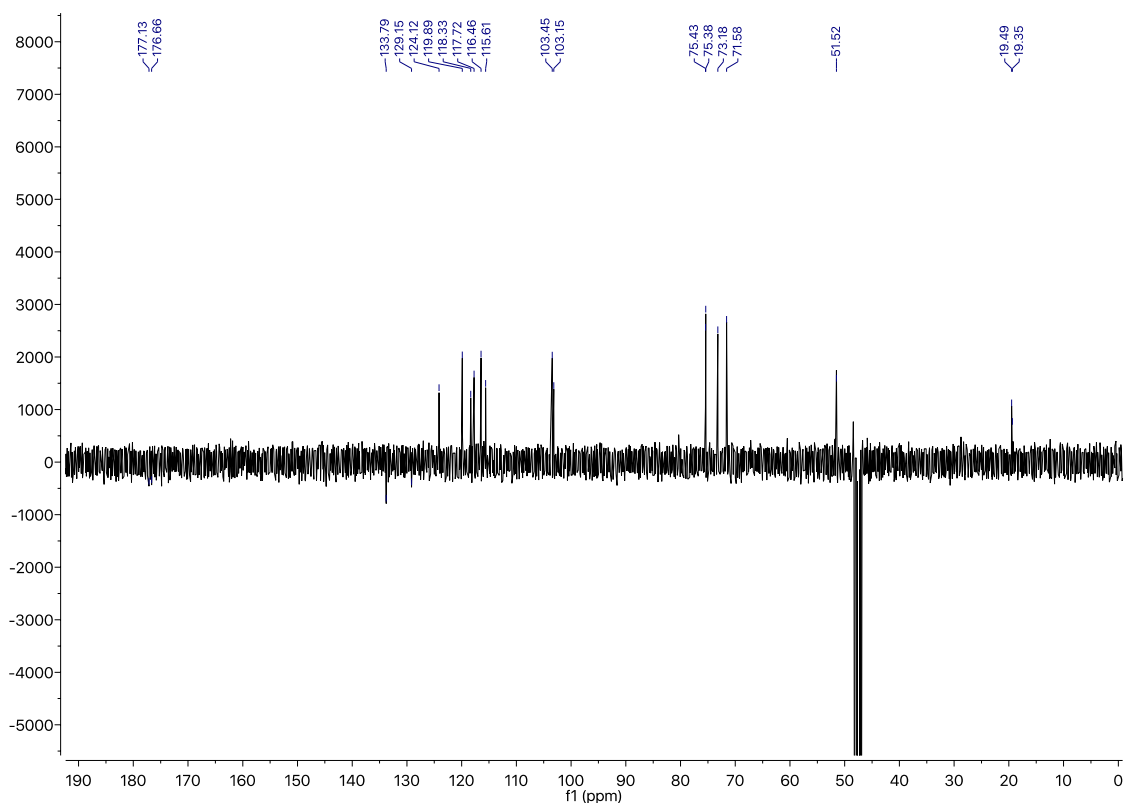


Figure 34 ^{13}C NMR of methyl 1-O-(1-hydroxy-4-methylphenyl)- β -D-glucuronate (**7d**) and methyl 1-O-(2-hydroxy-4-methylphenyl)- β -D-glucuronate (**7e**).

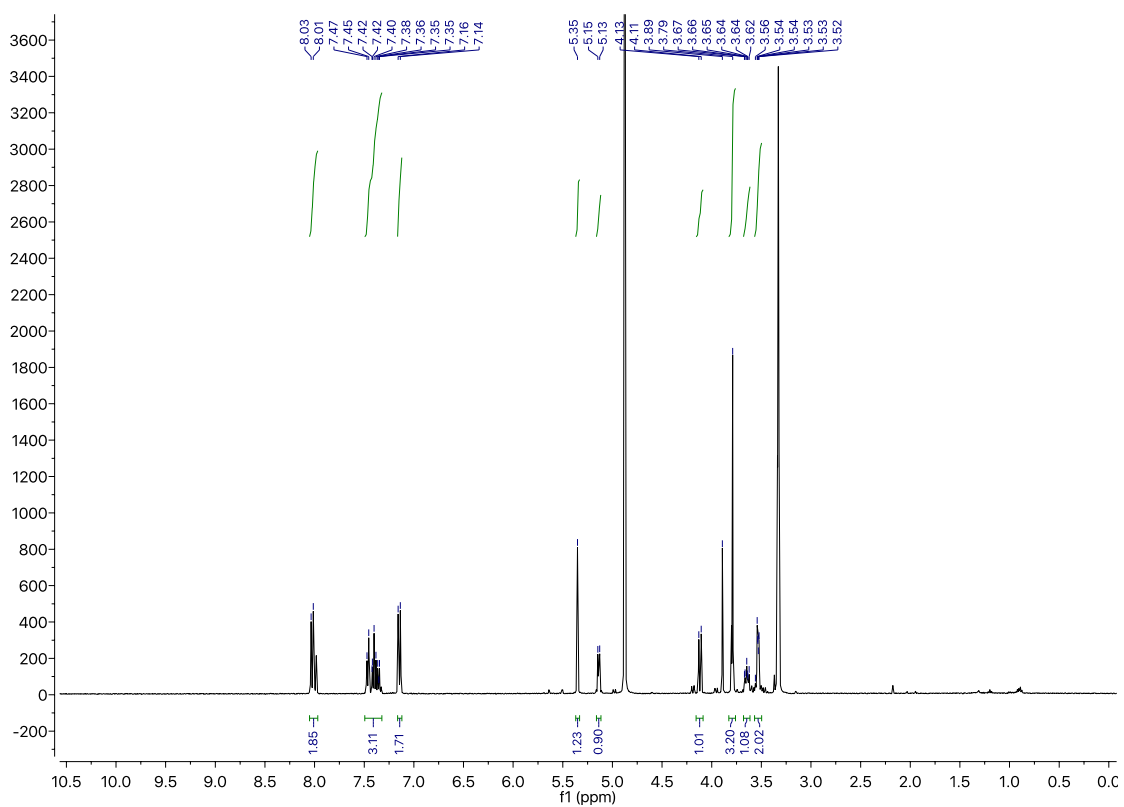


Figure 35 ^1H NMR of methyl 1-*O*-(4-benzoxycarbonylphenyl)- β -D-glucuronate (**7f**).

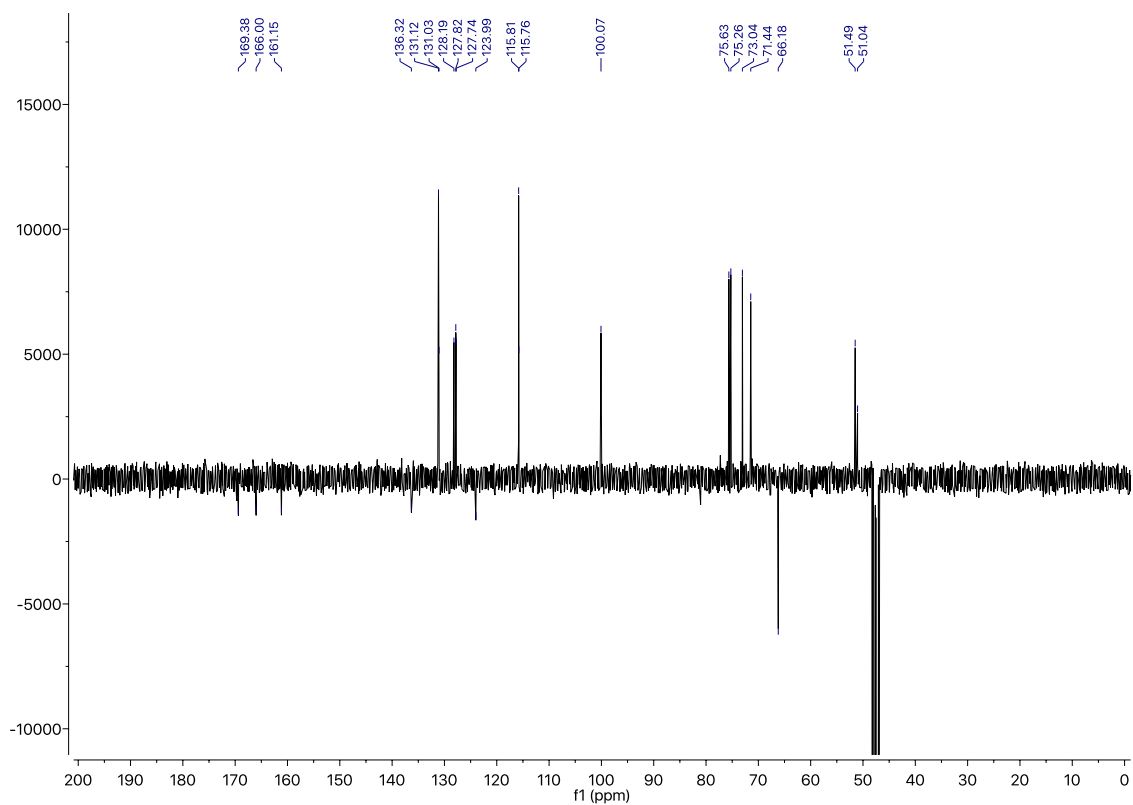


Figure 36 ^{13}C NMR of methyl 1-*O*-(4-benzoxycarbonylphenyl)- β -D-glucuronate (**7f**).

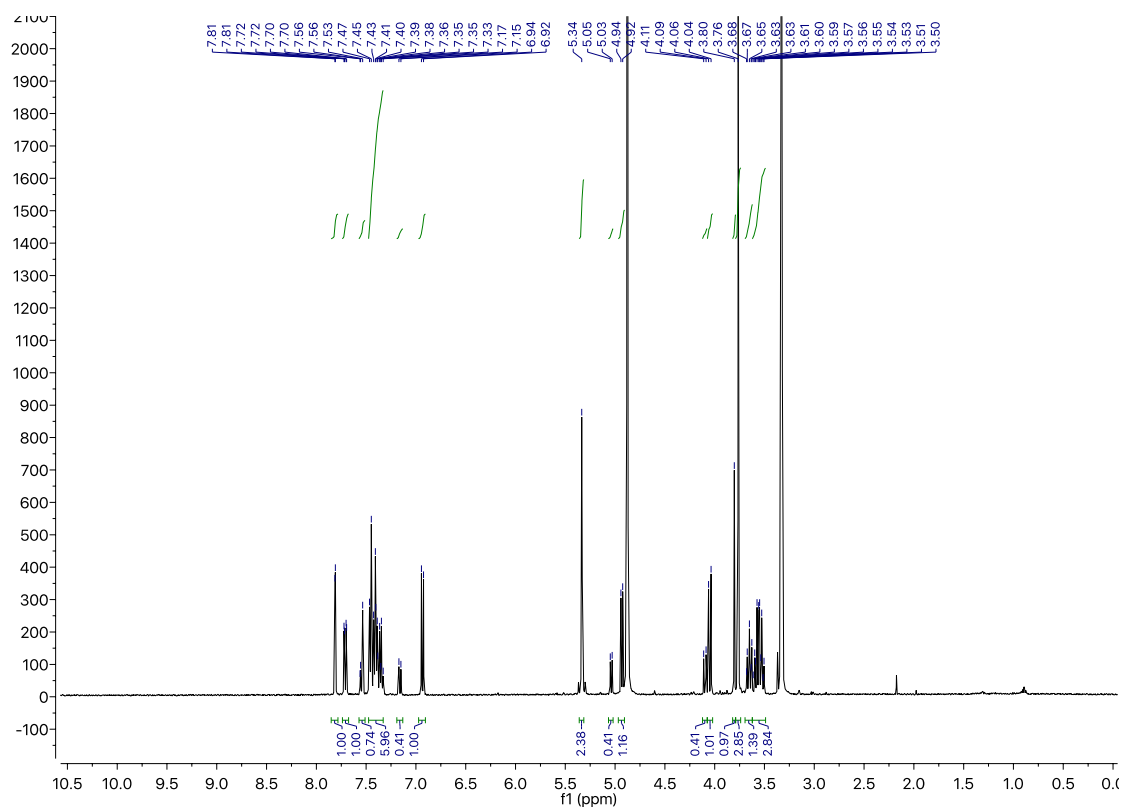


Figure 37 ^1H NMR of methyl 1-*O*-(2-hydroxy-4-benzoxycarbonylphenyl)- β -D-glucuronate (**7g**) and methyl 1-*O*-(2-hydroxy-5-benzoxycarbonylphenyl)- β -D-glucuronate (**7h**).

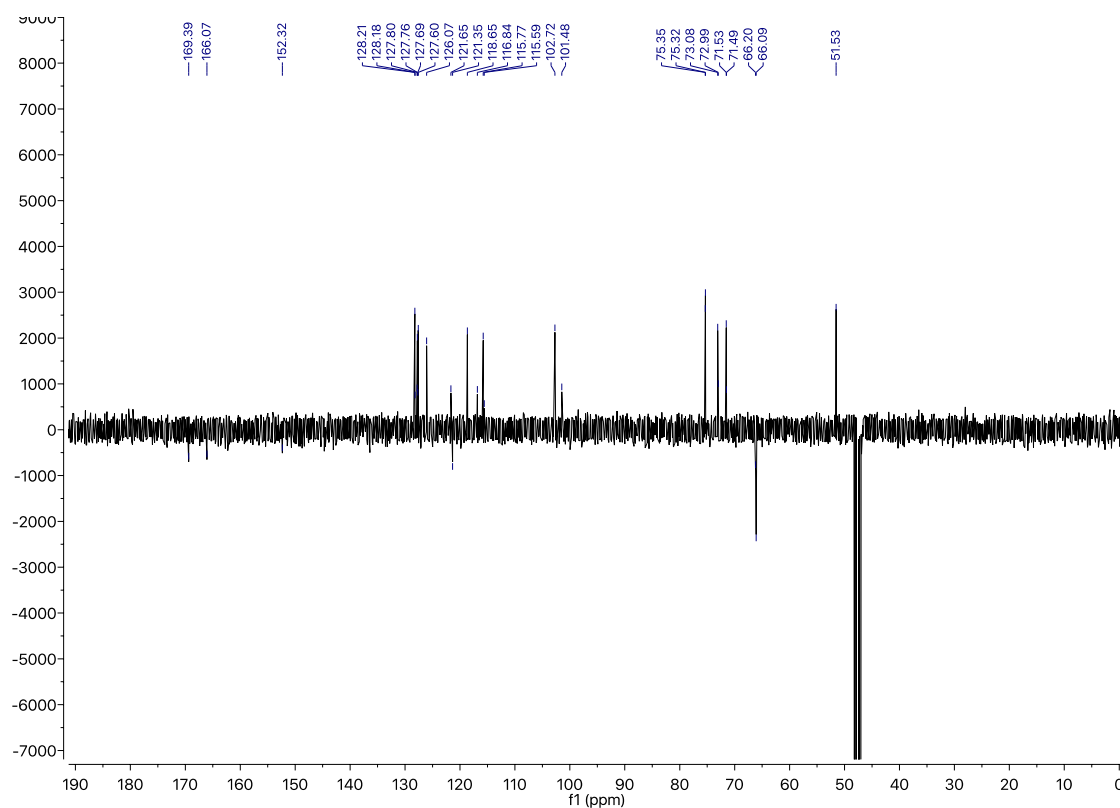


Figure 38 ^{13}C NMR of methyl 1-*O*-(2-hydroxy-4-benzoxycarbonylphenyl)- β -D-glucuronate (**7g**) and methyl 1-*O*-(2-hydroxy-5-benzoxycarbonylphenyl)- β -D-glucuronate (**7h**).

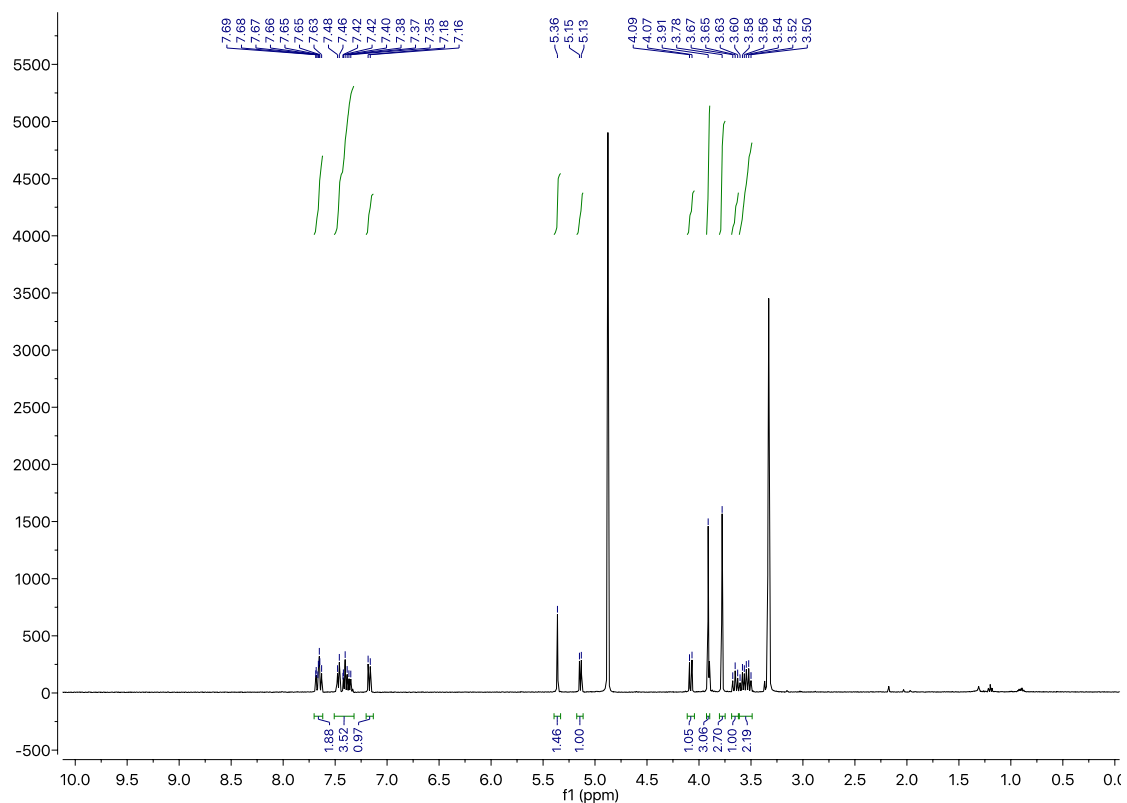


Figure 39 ^1H NMR of methyl 1-*O*-(2-methoxy-4-benzoxycarbonylphenyl)- β -D-glucuronate (**7i**).

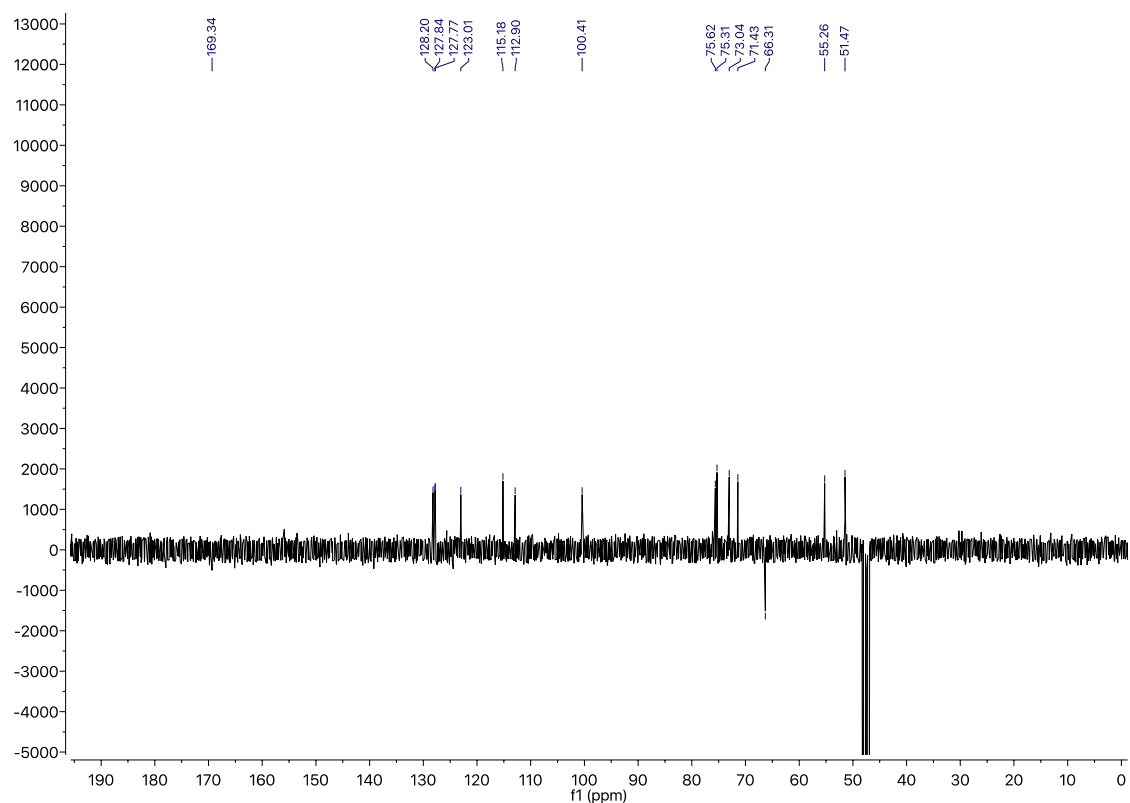


Figure 40 ^{13}C NMR of methyl 1-*O*-(2-methoxy-4-benzoxycarbonylphenyl)- β -D-glucuronate (**7i**).

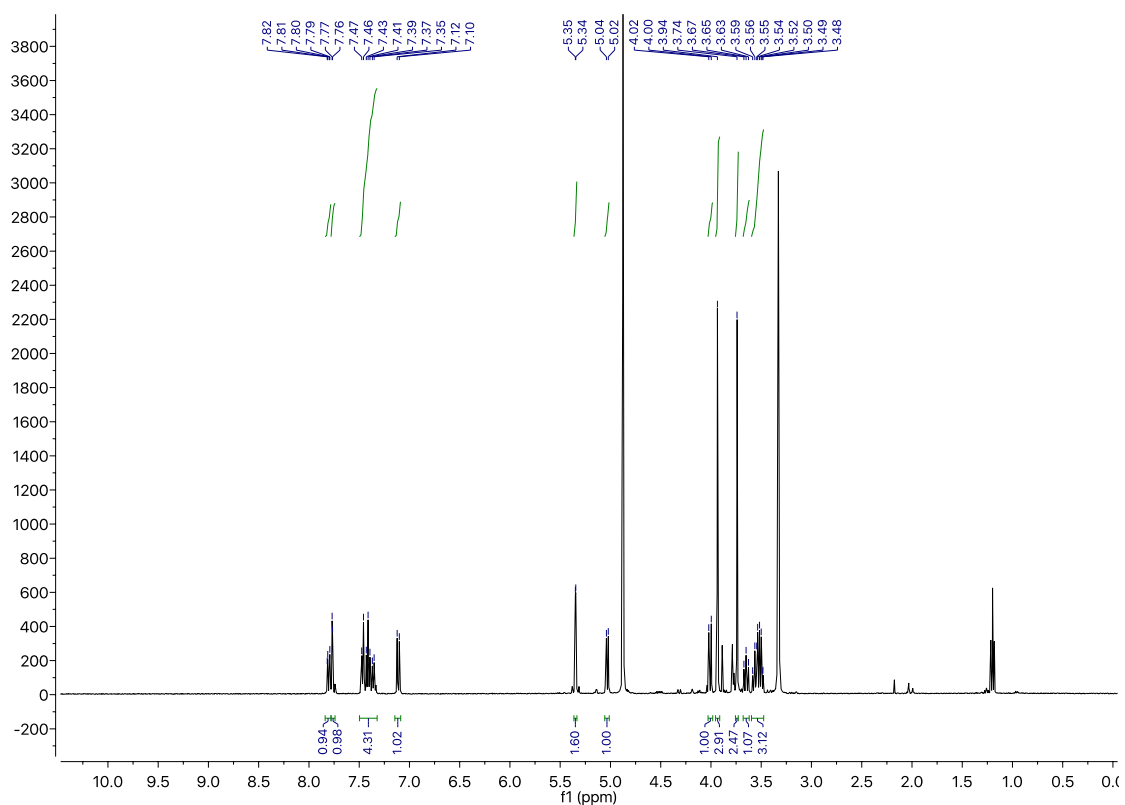


Figure 41 ^1H NMR of methyl 1-*O*-(2-methoxy-5-benzoxycarbonylphenyl)- β -D-glucuronate (**7j**).

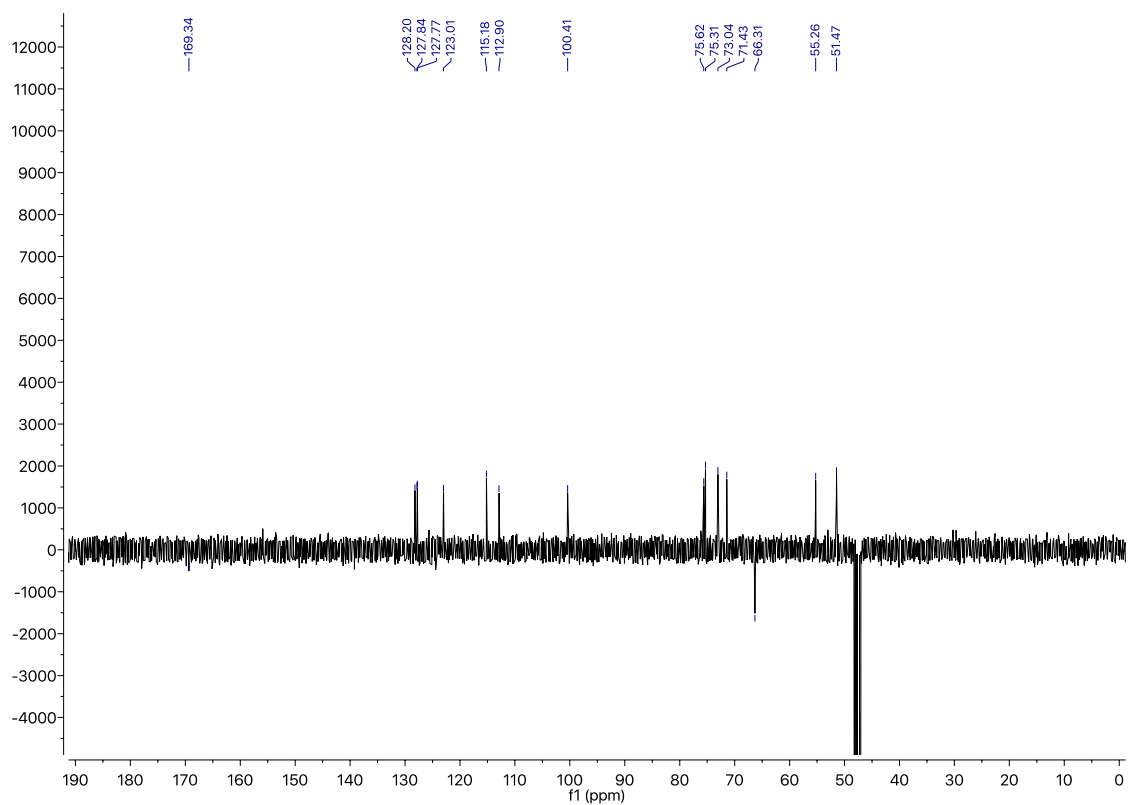


Figure 42 ^{13}C NMR of methyl 1-*O*-(2-methoxy-5-benzoxycarbonylphenyl)- β -D-glucuronate (**7j**).

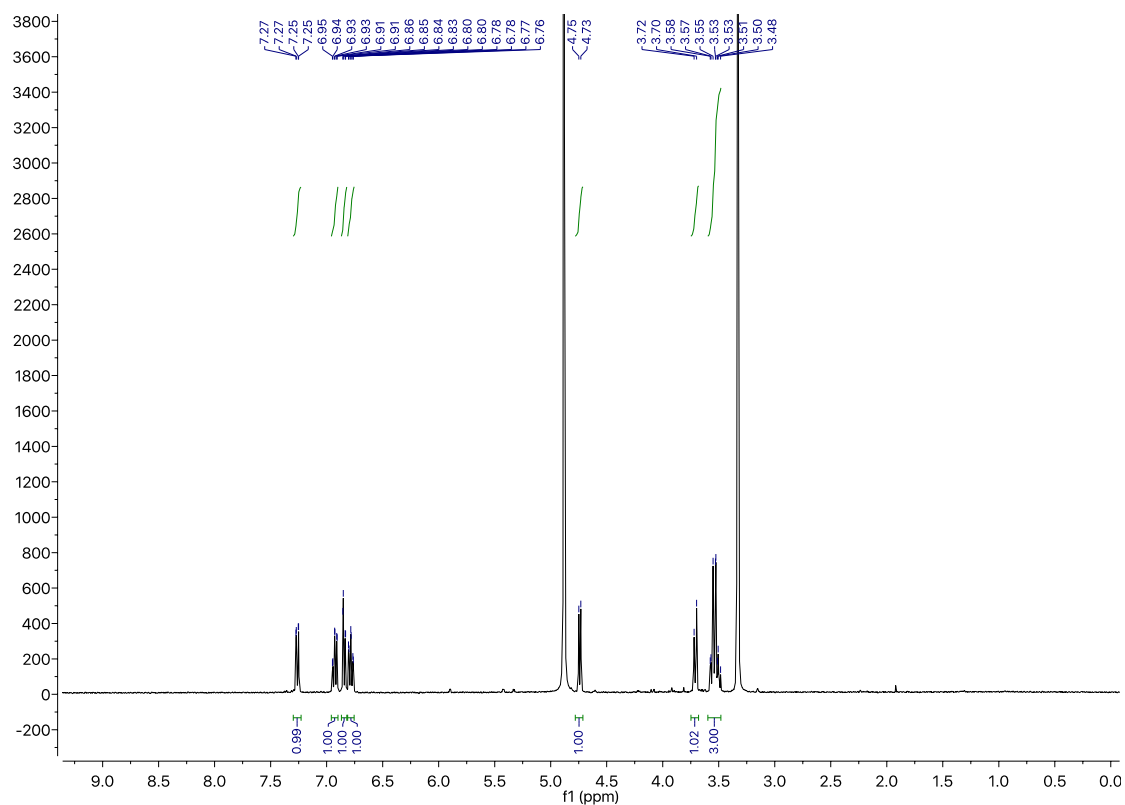


Figure 43 ¹H NMR of 1-O-(2-hydroxyphenyl)-β-D-glucuronic acid (2a).

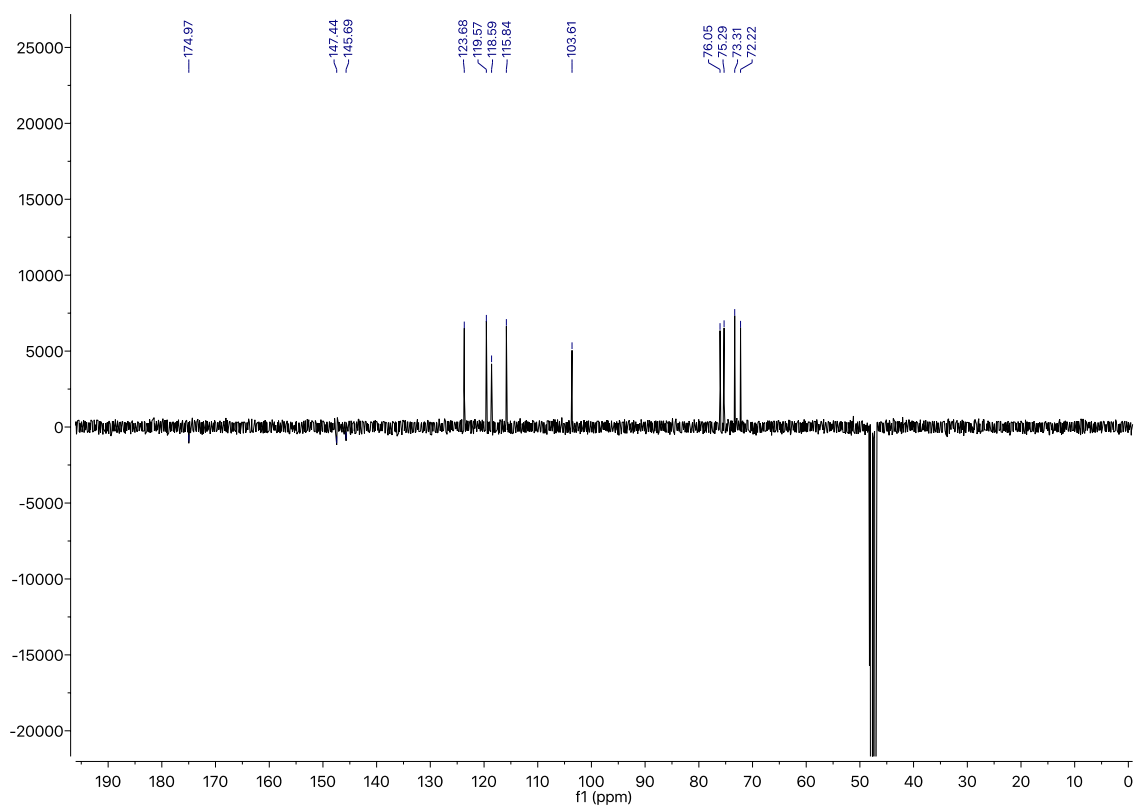


Figure 44 ¹³C NMR of 1-O-(2-hydroxyphenyl)-β-D-glucuronic acid (2a).

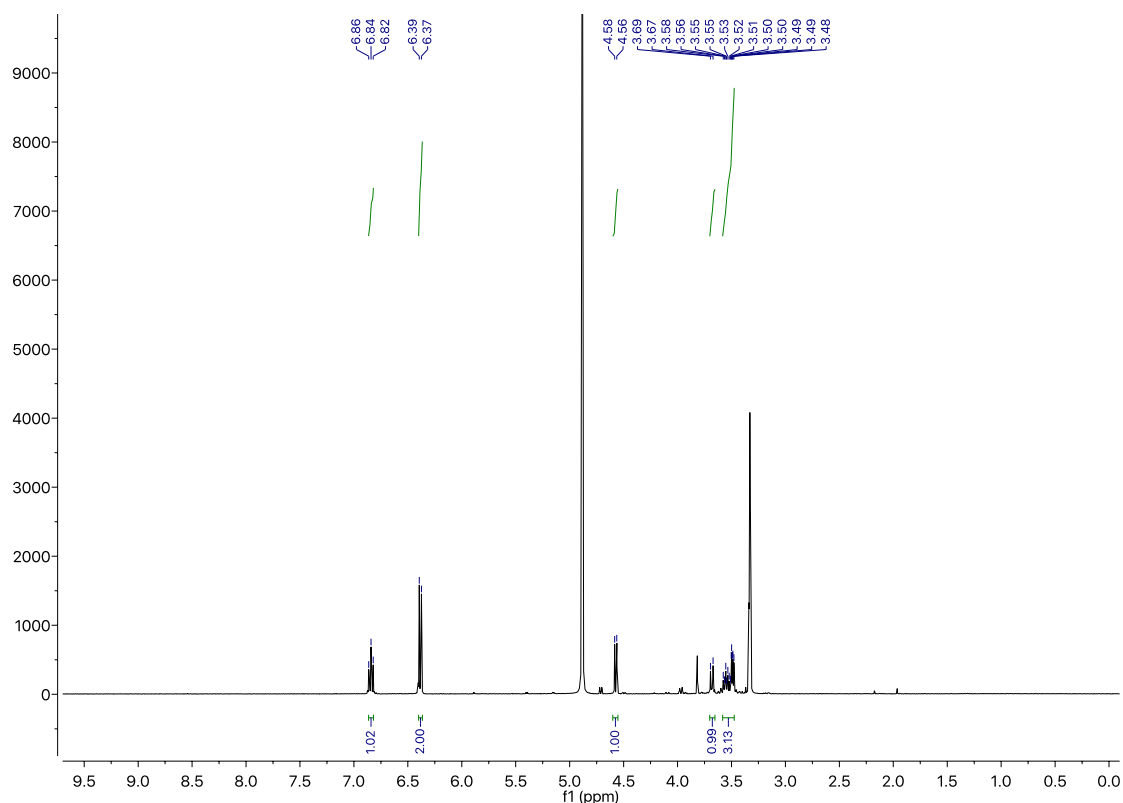


Figure 45 ^1H NMR of 1-*O*-(1,3-dihydroxyphenyl)- β -D-glucuronic acid (**2b**).

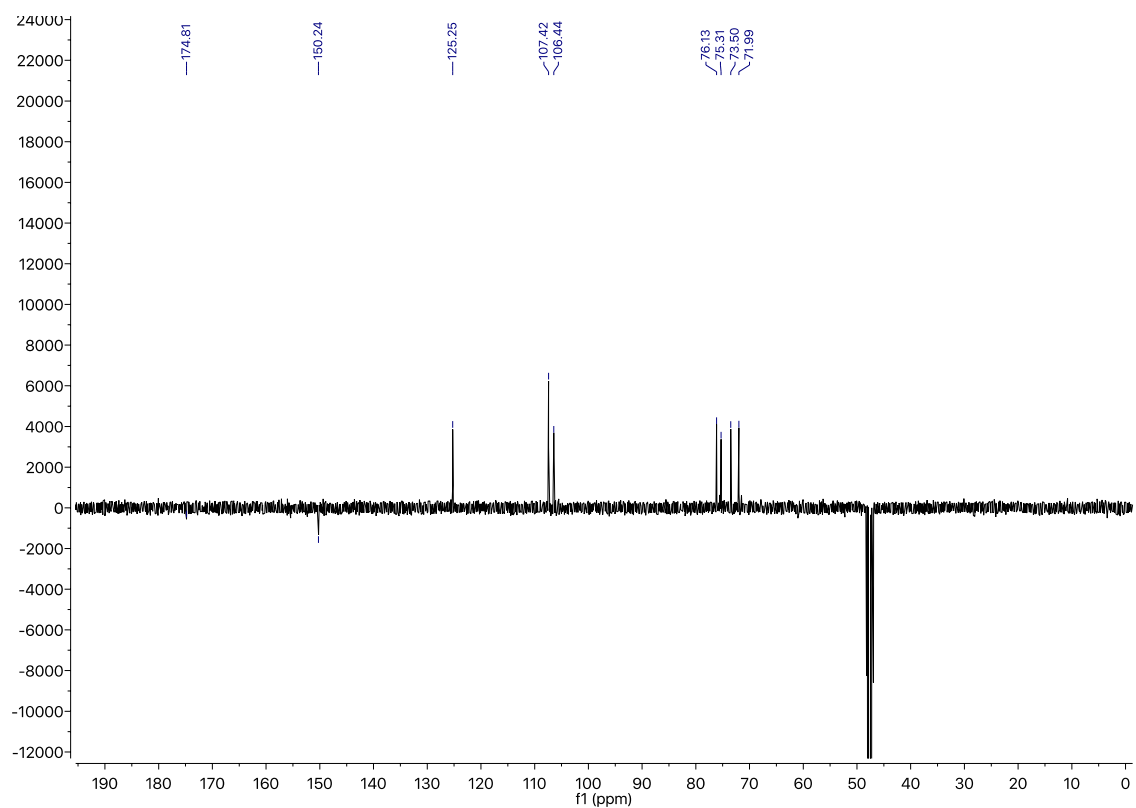


Figure 46 ^{13}C NMR of 1-*O*-(1,3-dihydroxyphenyl)- β -D-glucuronic acid (**2b**).

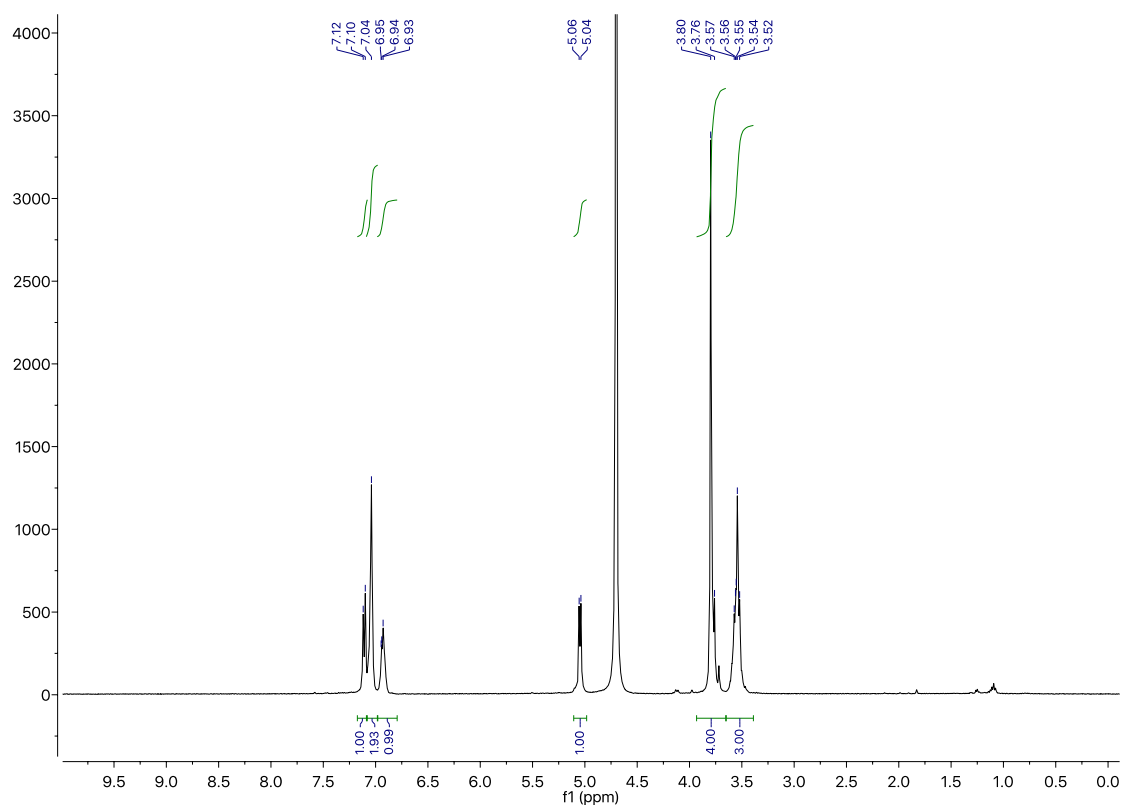


Figure 47 ^1H NMR of 1-*O*-(2-methoxyphenyl)- β -D-glucuronic acid (**2c**).

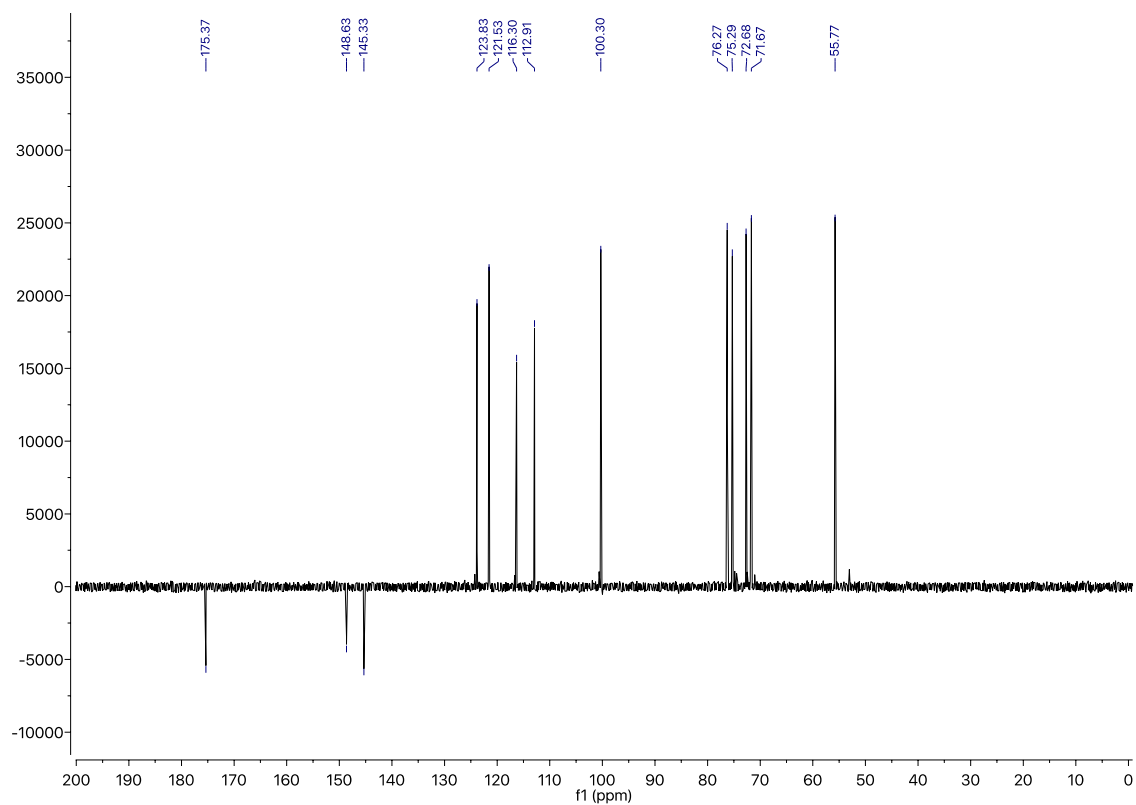


Figure 48 ^{13}C NMR of 1-*O*-(2-methoxyphenyl)- β -D-glucuronic acid (**2c**).

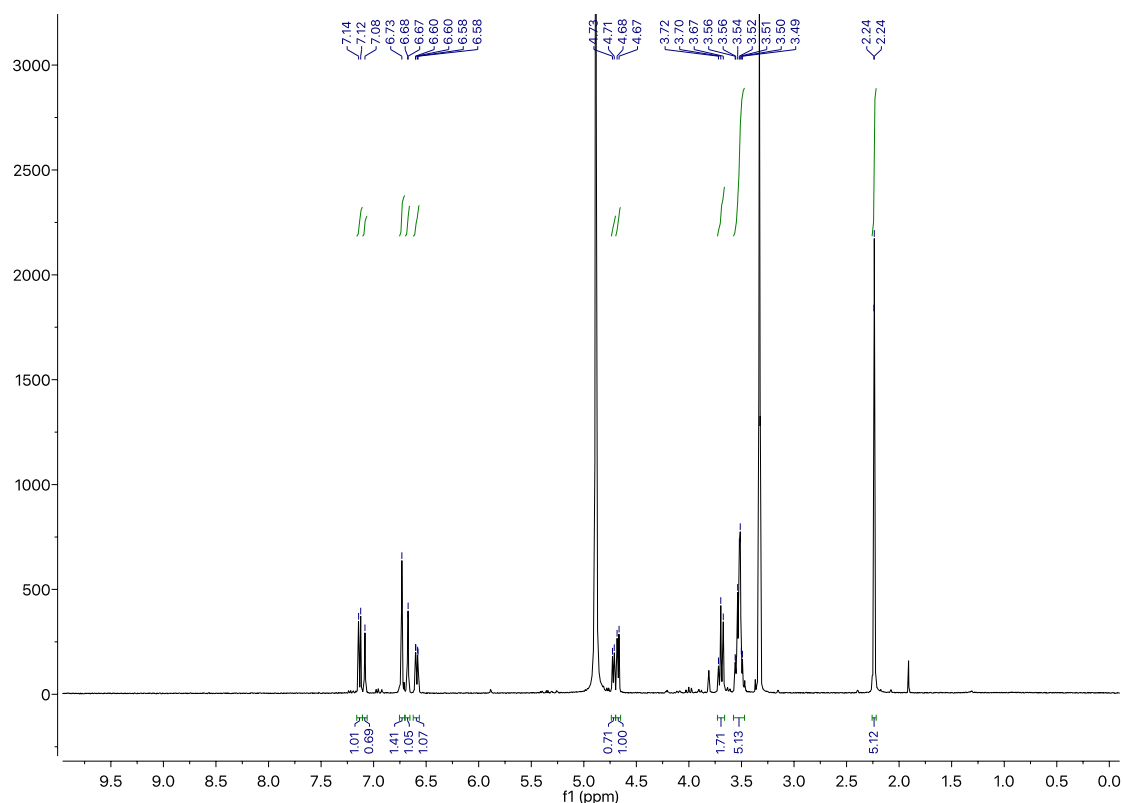


Figure 49 ^1H NMR of 1-*O*-(1-hydroxy-4-methylphenyl)- β -D-glucuronic acid (**2d**) and 1-*O*-(2-hydroxy-4-methylphenyl)- β -D-glucuronic acid (**2e**).

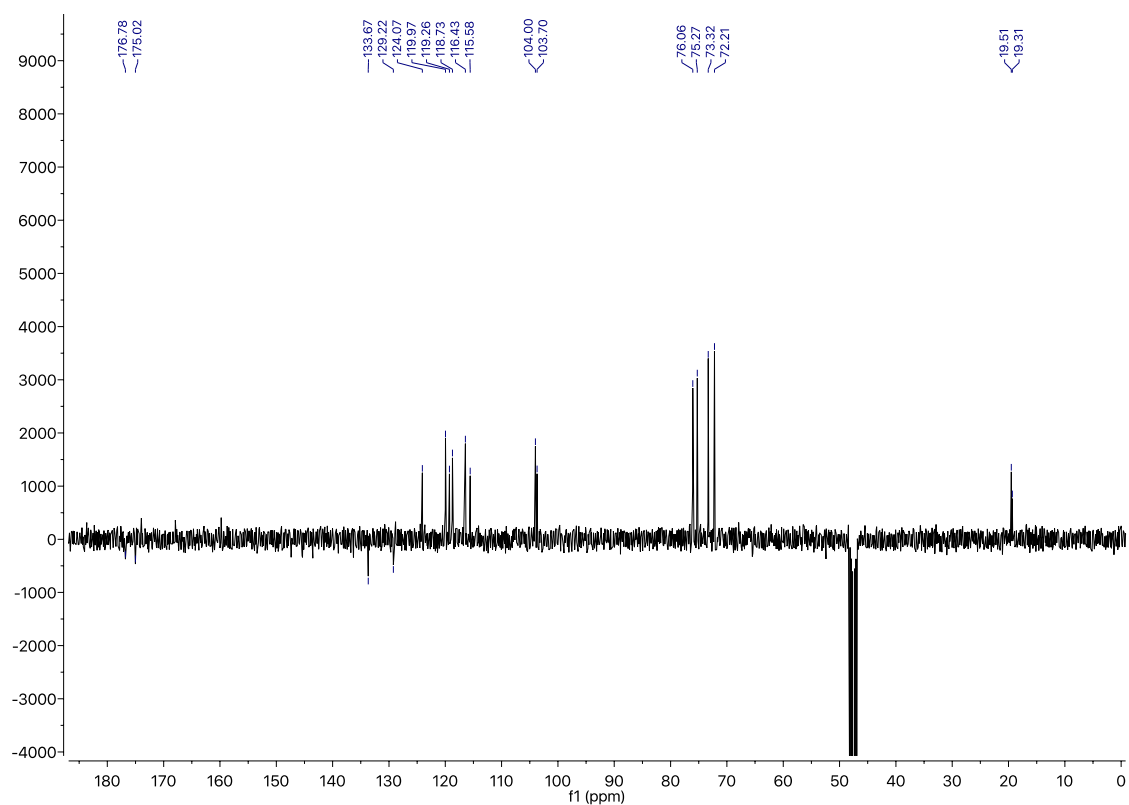


Figure 50 ^{13}C NMR of 1-*O*-(1-hydroxy-4-methylphenyl)- β -D-glucuronic acid (**2d**) and 1-*O*-(2-hydroxy-4-methylphenyl)- β -D-glucuronic acid (**2e**).