

Supplementary data

Biotransformations of flavones and an isoflavone (daidzein) in cultures of entomopathogenic filamentous fungi

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Figure S1. ^1H NMR spectrum of flavone (1) (Acetone- d_6 , 600 MHz)

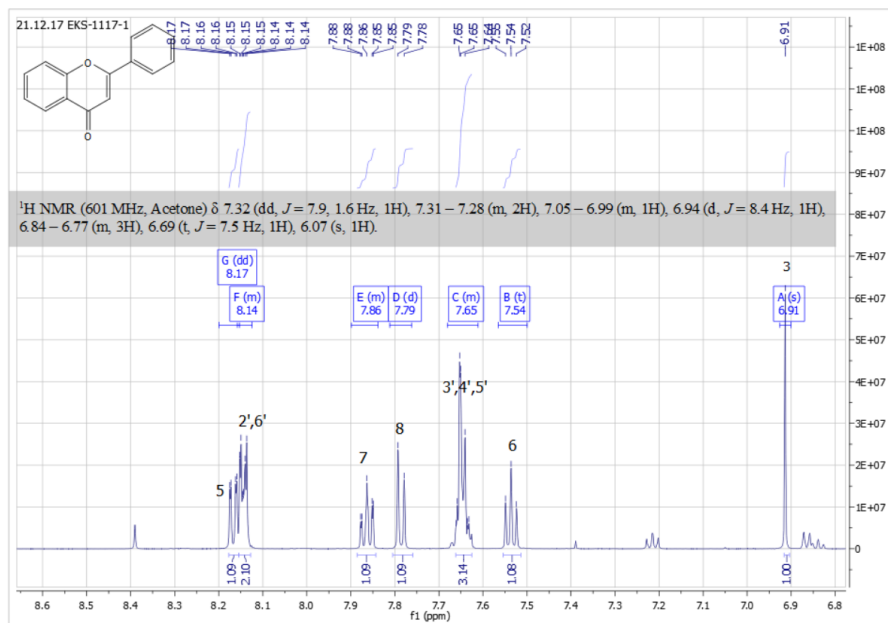


Figure S2. ^{13}C NMR spectrum of flavone (1) (Acetone- d_6 , 151 MHz)

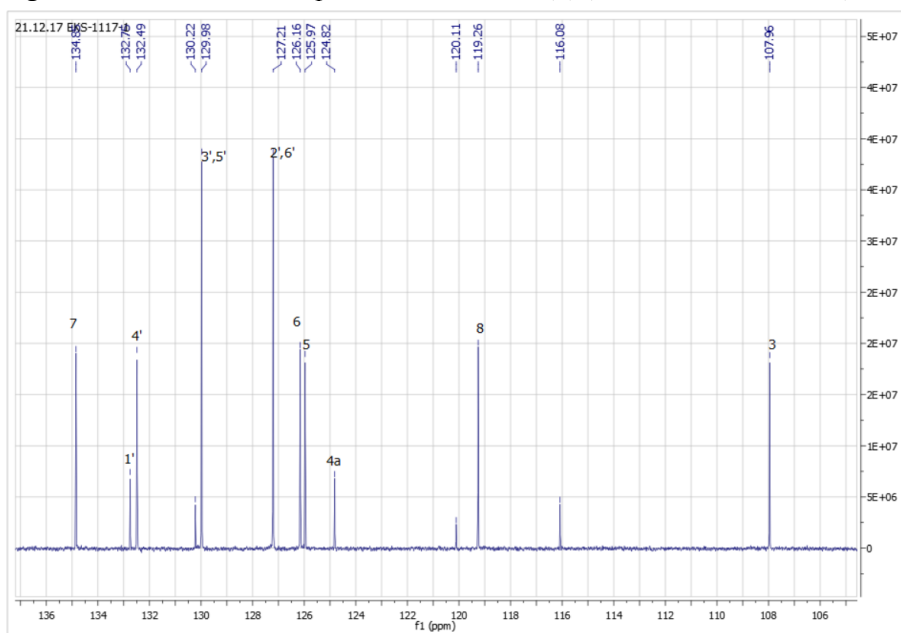


Figure S3. ^{13}C NMR spectrum of flavone (1) (Acetone- d_6 , 151 MHz)

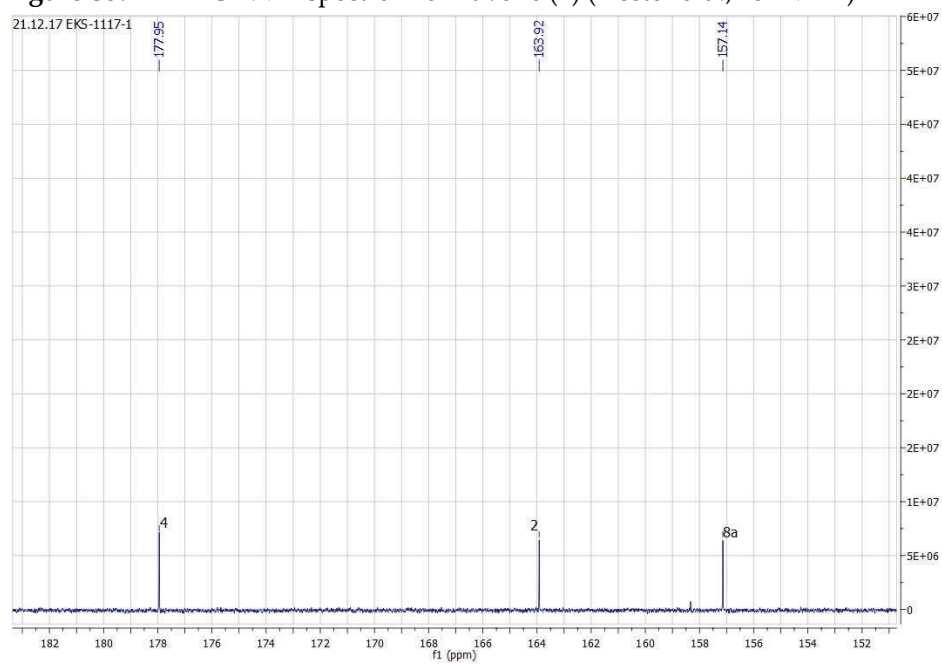


Figure S4. HSQC NMR spectrum of flavone (1) (Acetone- d_6 , 151 MHz)

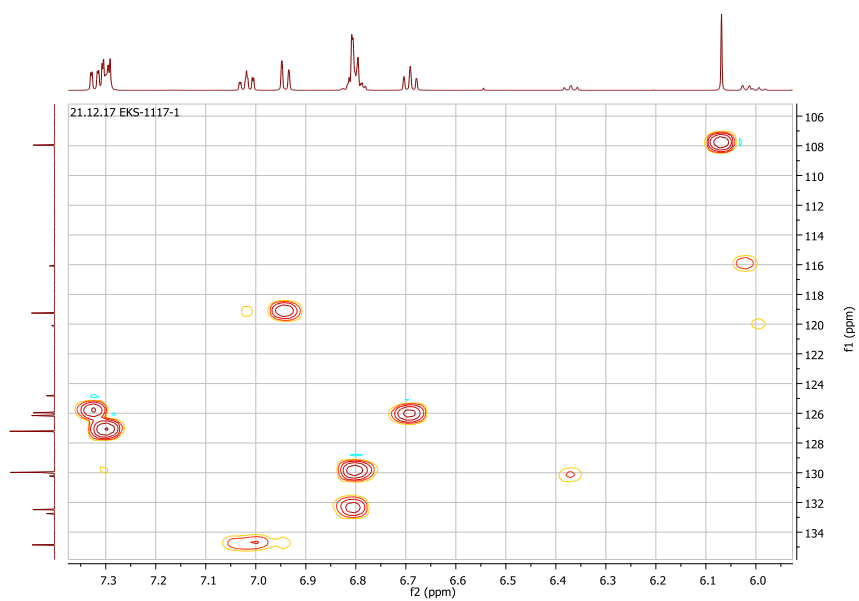


Figure S5. HMBC NMR spectrum of flavone (1) (Acetone- d_6 , 151 MHz)

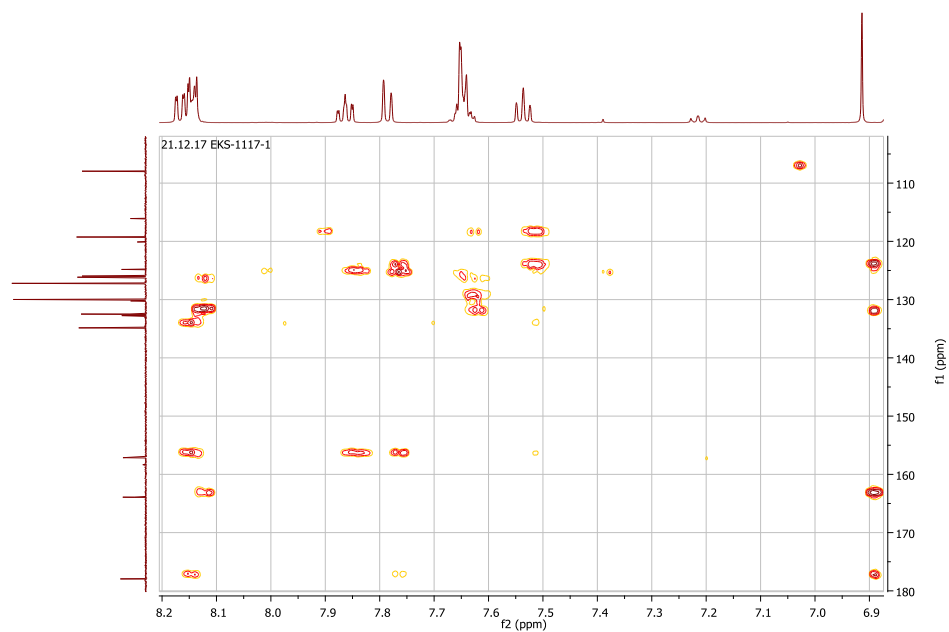


Figure S6. ^1H NMR spectrum of flavone 2'- O - β -D-(4''- O -methyl)-glucopyranoside (1a) (Acetone- d_6 , 600 MHz)

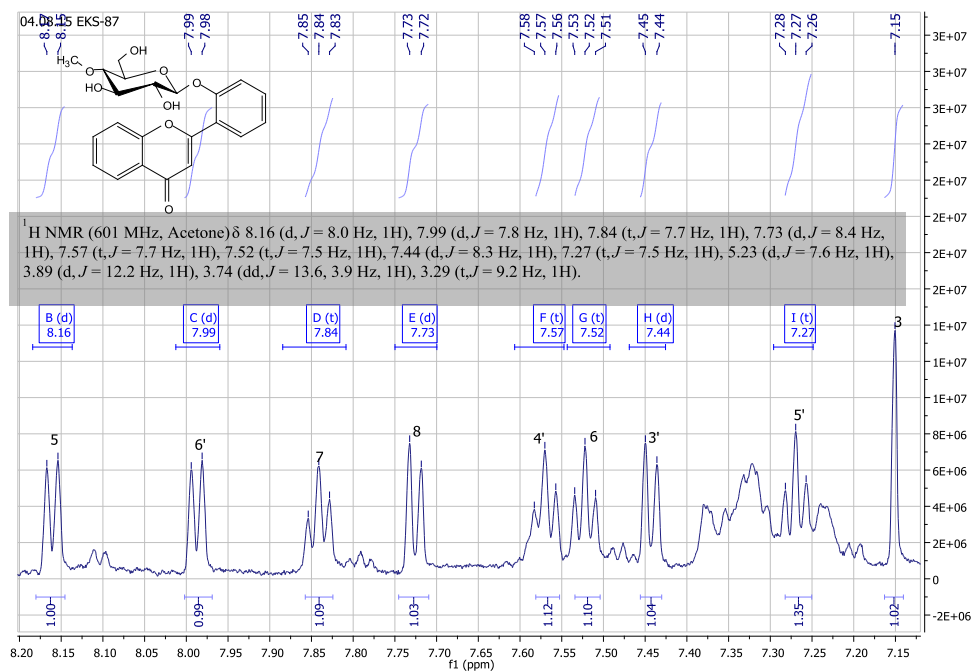


Figure S7. ^1H NMR spectrum of flavone 2'-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (1a) (Acetone- d_6 , 600 MHz)

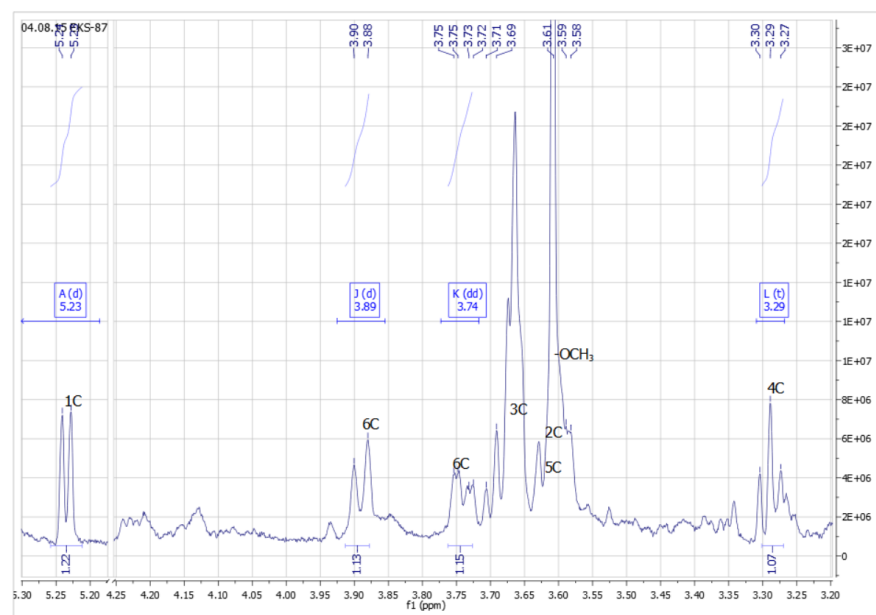


Figure S8. ^{13}C NMR spectrum of flavone 2'-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (1a) (Acetone- d_6 , 151 MHz)

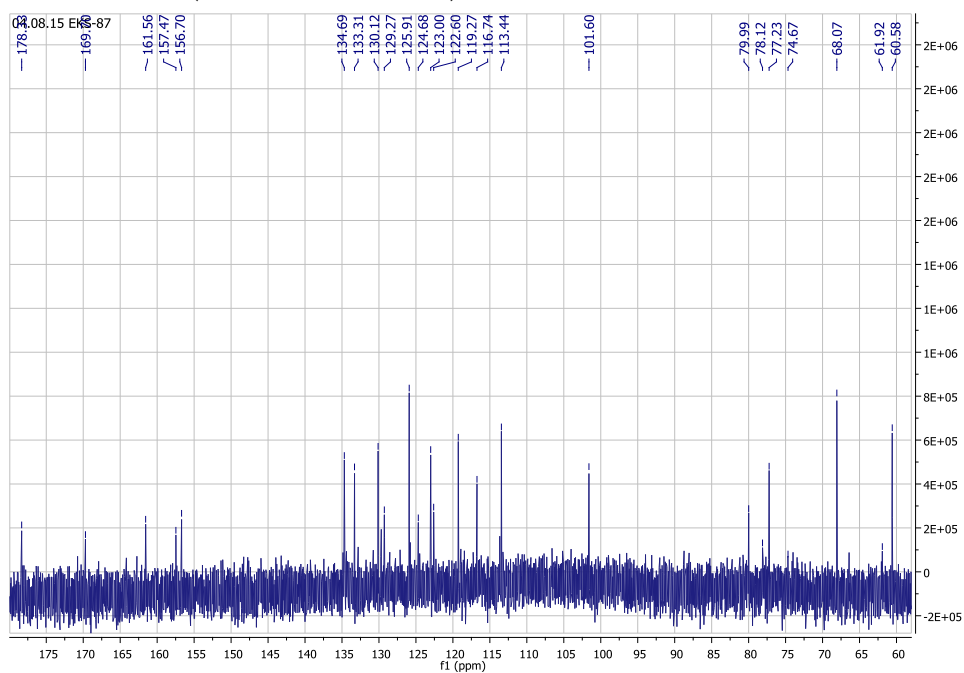


Figure S9. HSQC NMR spectrum of flavone 2'-O- β -D-(4''-O-methyl)-glucopyranoside (1a) (Acetone-d₆, 151 MHz)

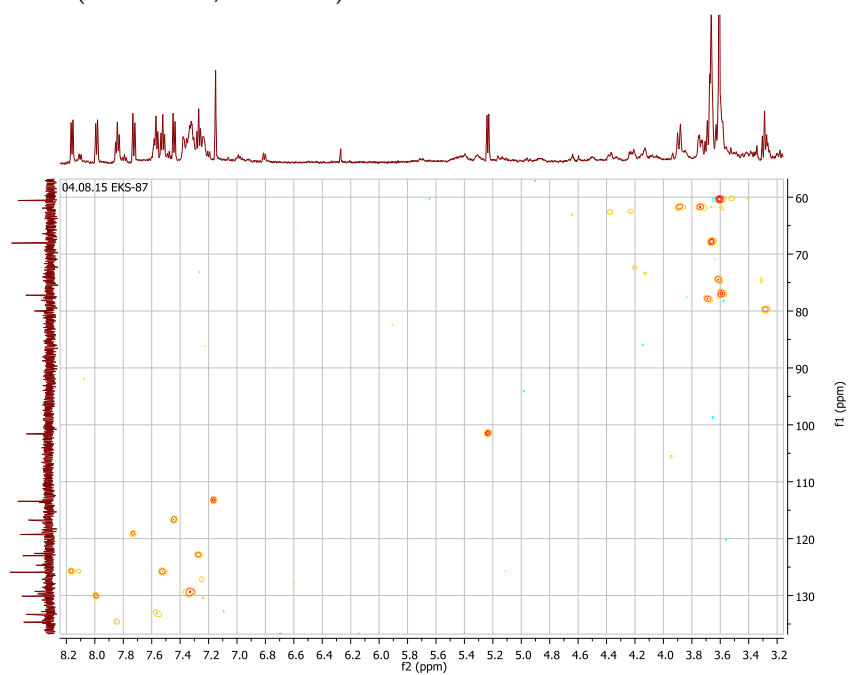


Figure S10. HMBC NMR spectrum of flavone 2'-O- β -D-(4''-O-methyl)-glucopyranoside (1a) (Acetone-d₆, 151 MHz)

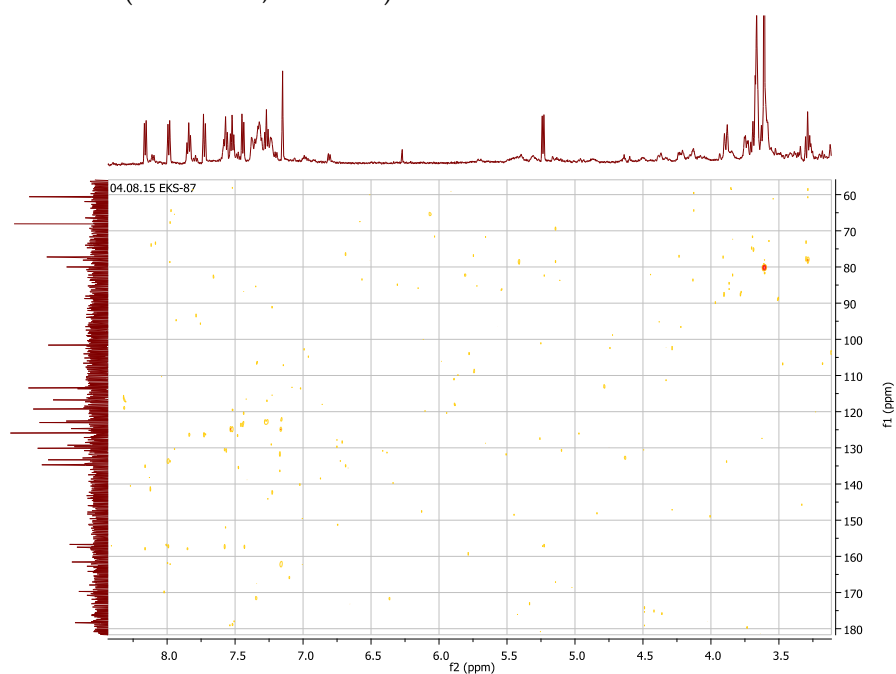


Figure S11. ^1H NMR spectrum of flavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (1b) (Acetone- d_6 , 600 MHz)

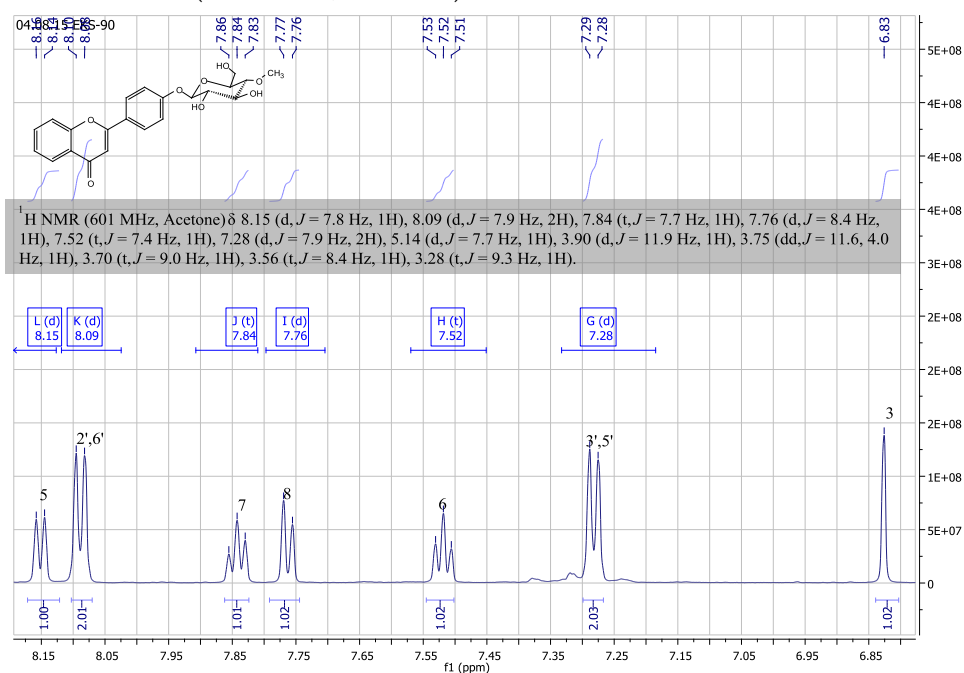


Figure S12. ^1H NMR spectrum of flavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (1b) (Acetone- d_6 , 600 MHz)

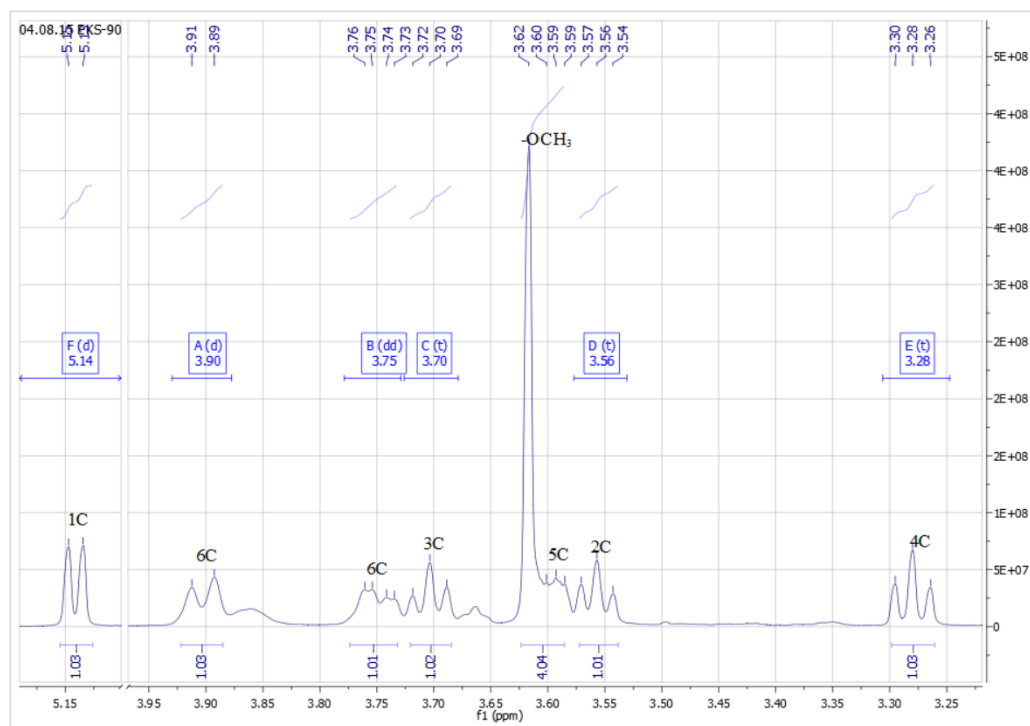


Figure S13. ^{13}C NMR spectrum of flavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (1b) (Acetone- d_6 , 151 MHz)

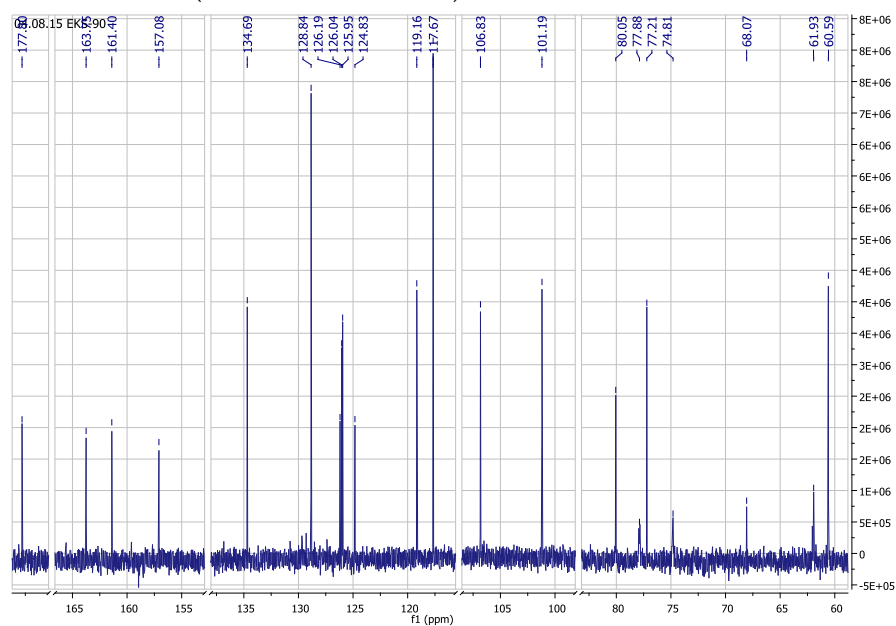


Figure S14. HSQC NMR spectrum of flavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (1b) (Acetone- d_6 , 151 MHz)

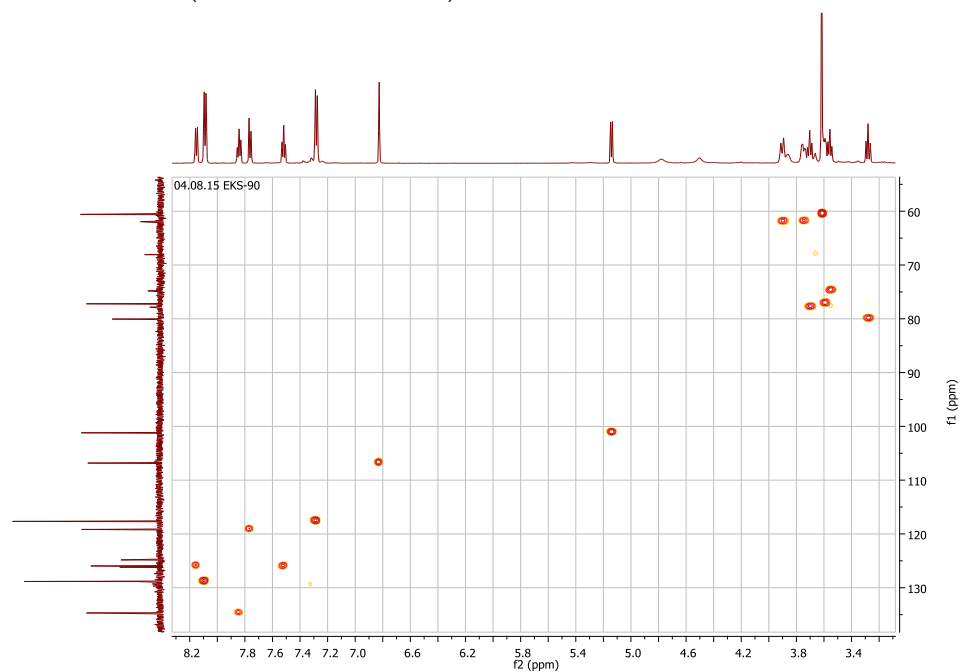


Figure S15. HMBC NMR spectrum of flavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (1b) (Acetone-d₆, 151 MHz)

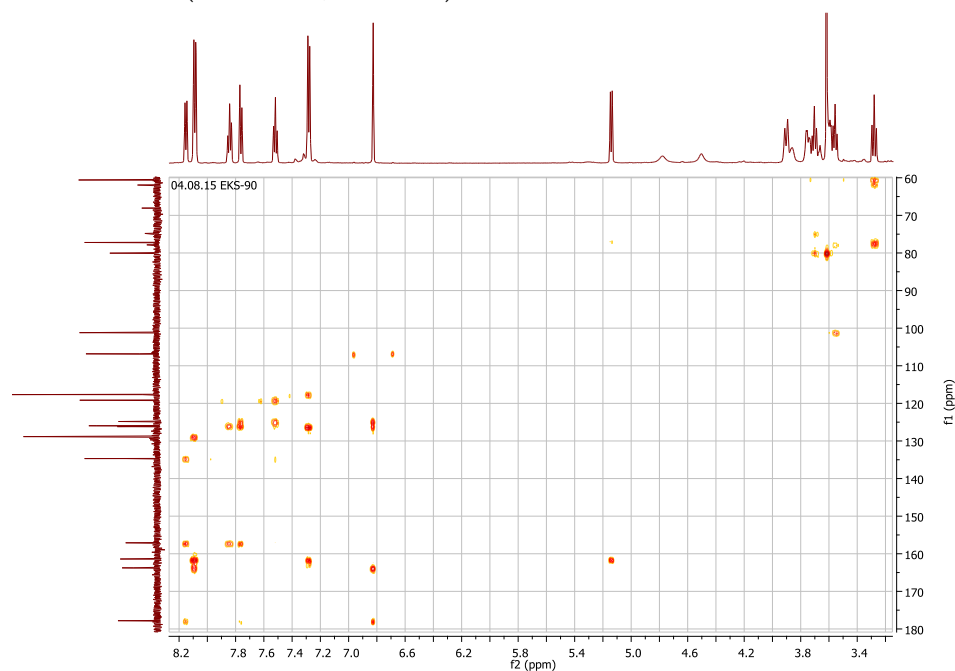


Figure S16. ¹H NMR spectrum of 3'-hydroxyflavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (1c) (Acetone-d₆, 600 MHz)

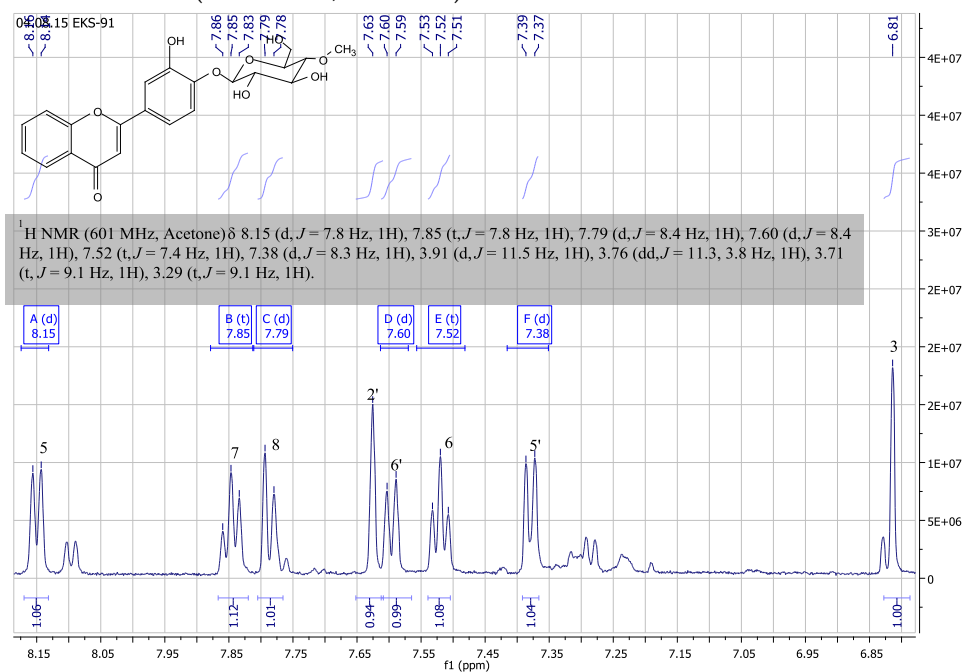


Figure S17. ^1H NMR spectrum of 3'-hydroxyflavone 4'- O - β -D-(4''- O -methyl)-glucopyranoside (1c) (Acetone- d_6 , 600 MHz)

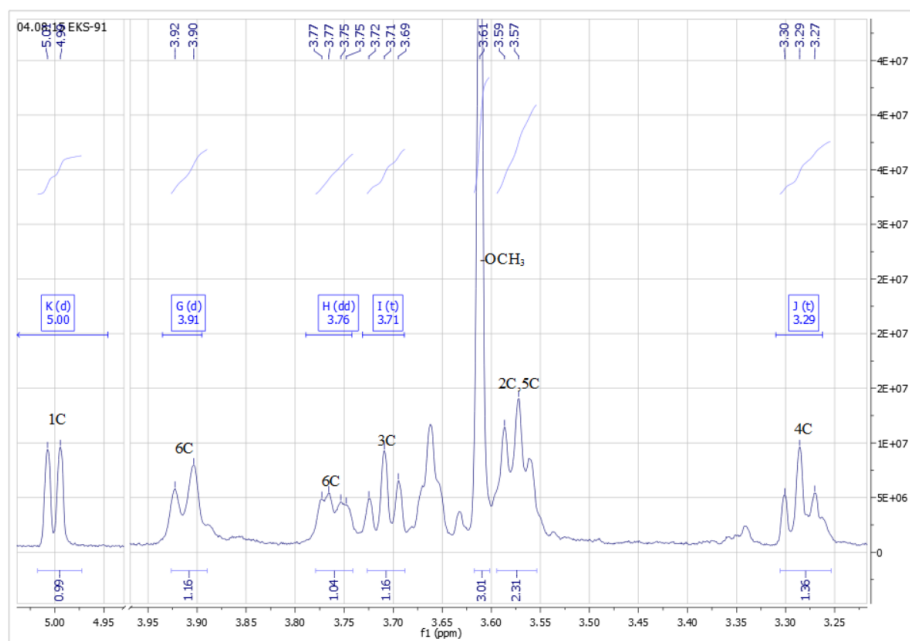


Figure S18. ^{13}C NMR spectrum of 3'-hydroxyflavone 4'- O - β -D-(4''- O -methyl)-glucopyranoside (1c) (Acetone- d_6 , 151 MHz)

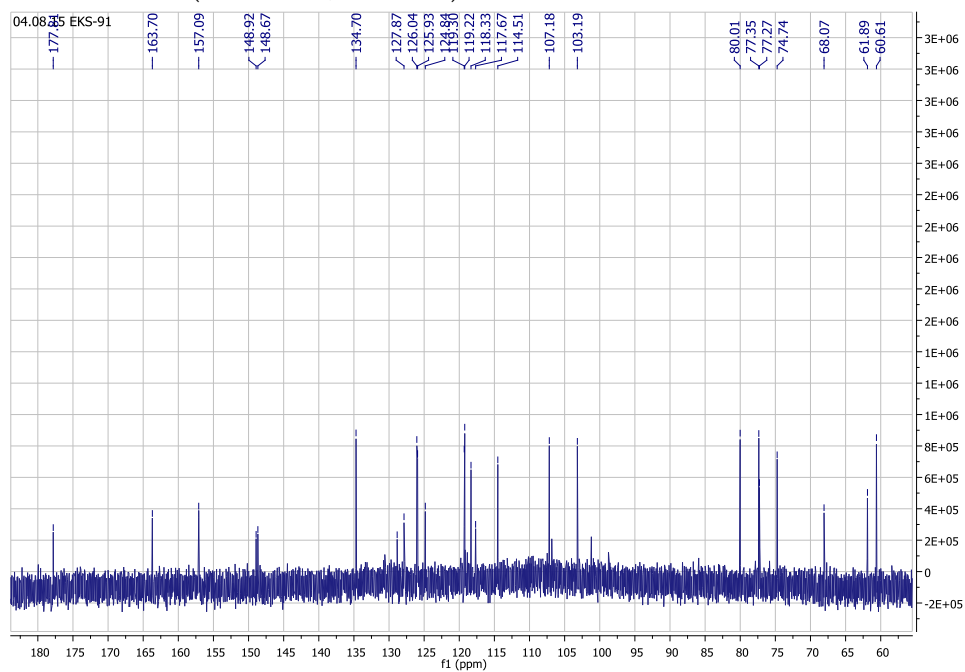


Figure S19. HSQC NMR spectrum of 3'-hydroxyflavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (1c) (Acetone- d_6 , 151 MHz)

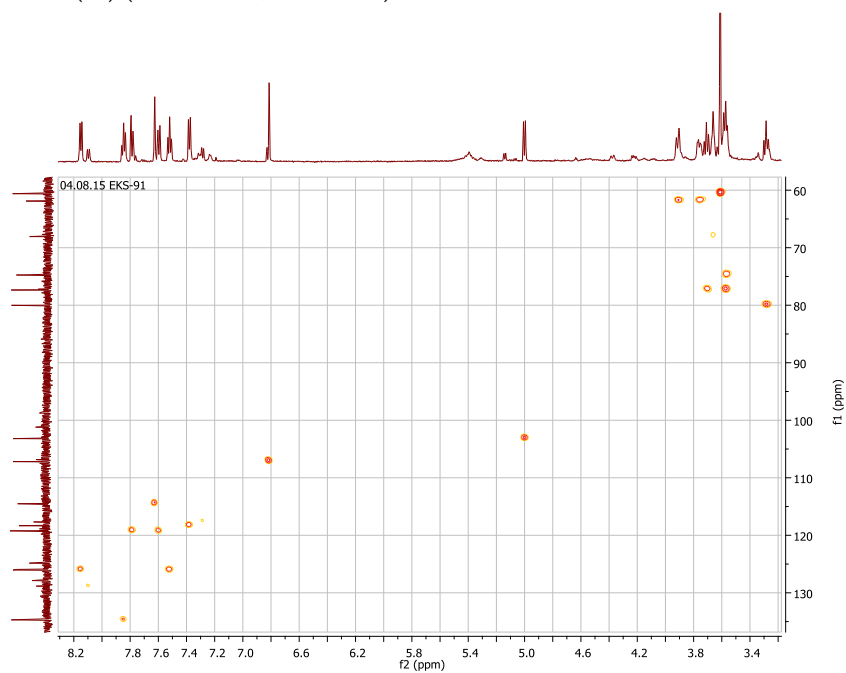


Figure S20. HMBC NMR spectrum of 3'-hydroxyflavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (1c) (Acetone- d_6 , 151 MHz)

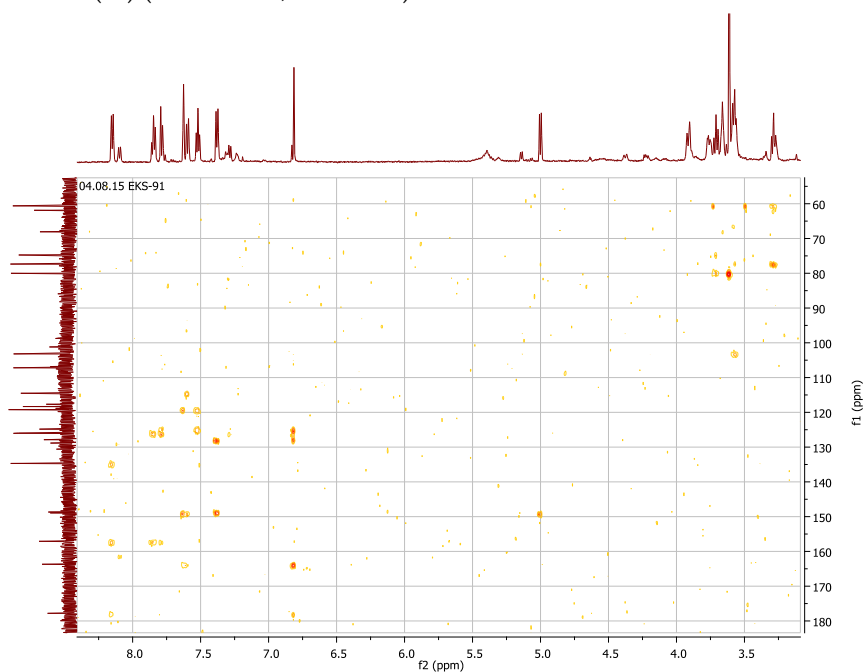


Figure S21. ^1H NMR spectrum of 5-hydroxyflavone (2) (Acetone- d_6 , 600 MHz)

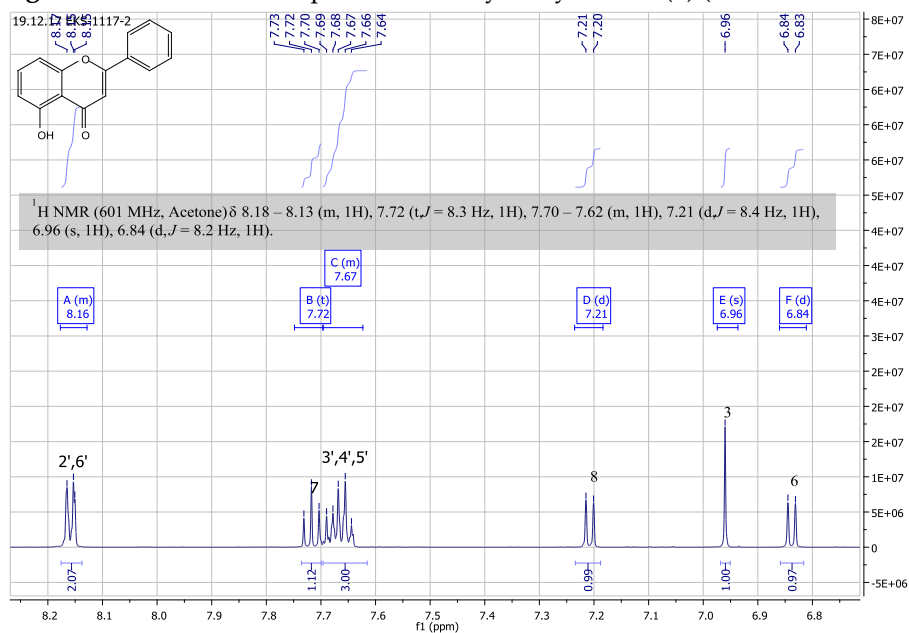


Figure S22. ^{13}C NMR spectrum of 5-hydroxyflavone (2) (Acetone- d_6 , 151 MHz)

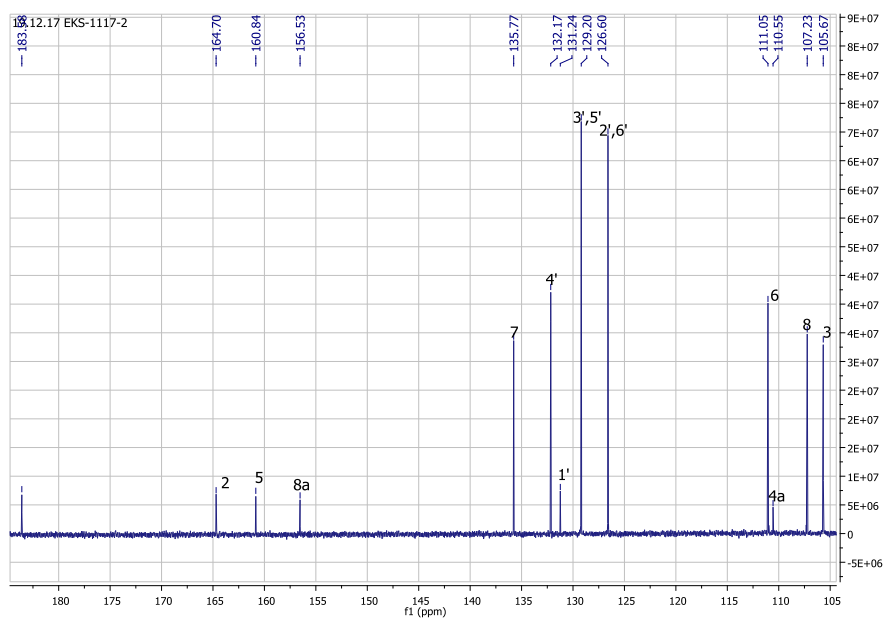


Figure S23. HSQC NMR spectrum of 5-hydroxyflavone (2) (Acetone- d_6 , 151 MHz)

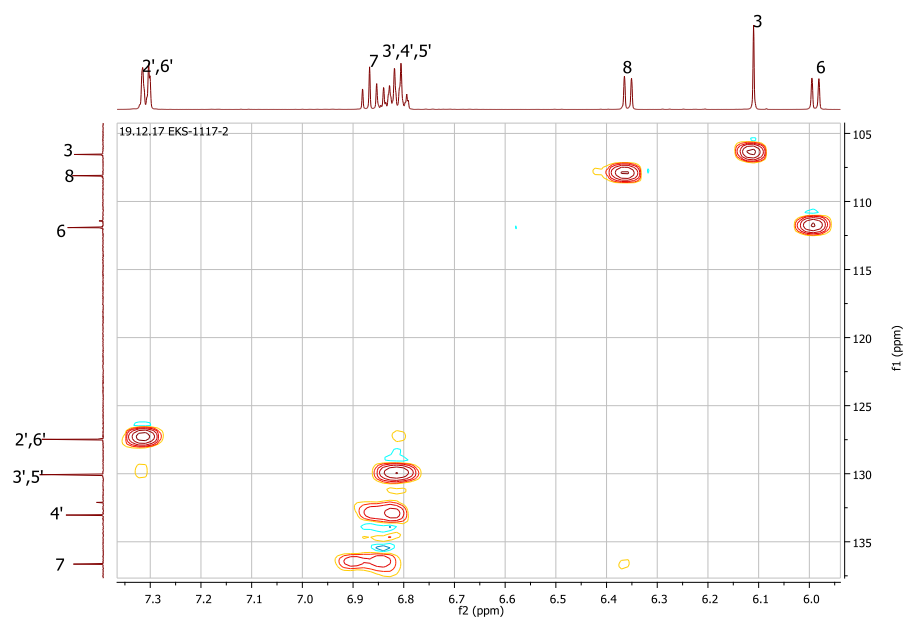


Figure S24. HMBC NMR spectrum of 5-hydroxyflavone (2) (Acetone- d_6 , 151 MHz)

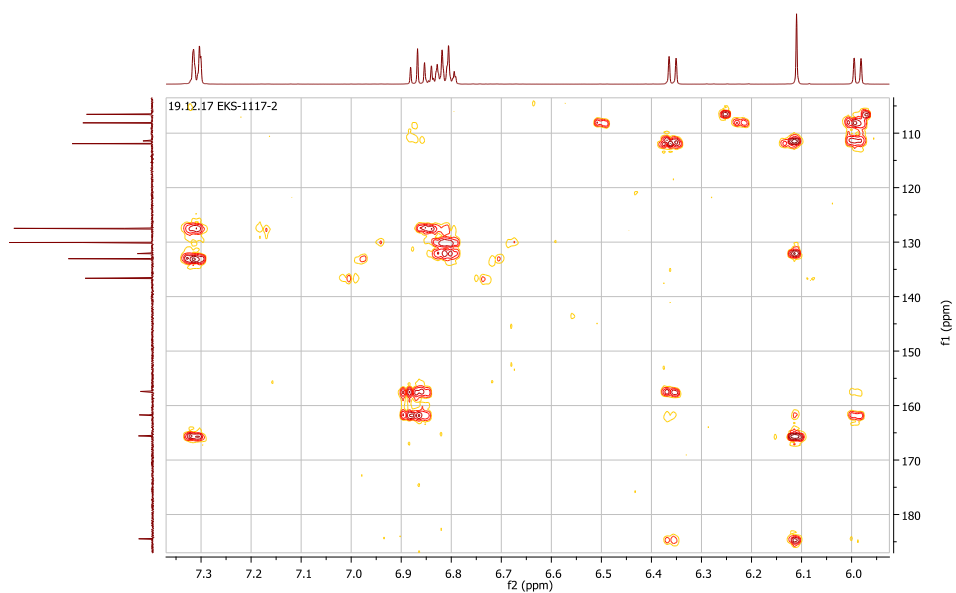


Figure S25. ^1H NMR spectrum of 5-hydroxyflavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (2a) (Acetone- d_6 , 600 MHz)

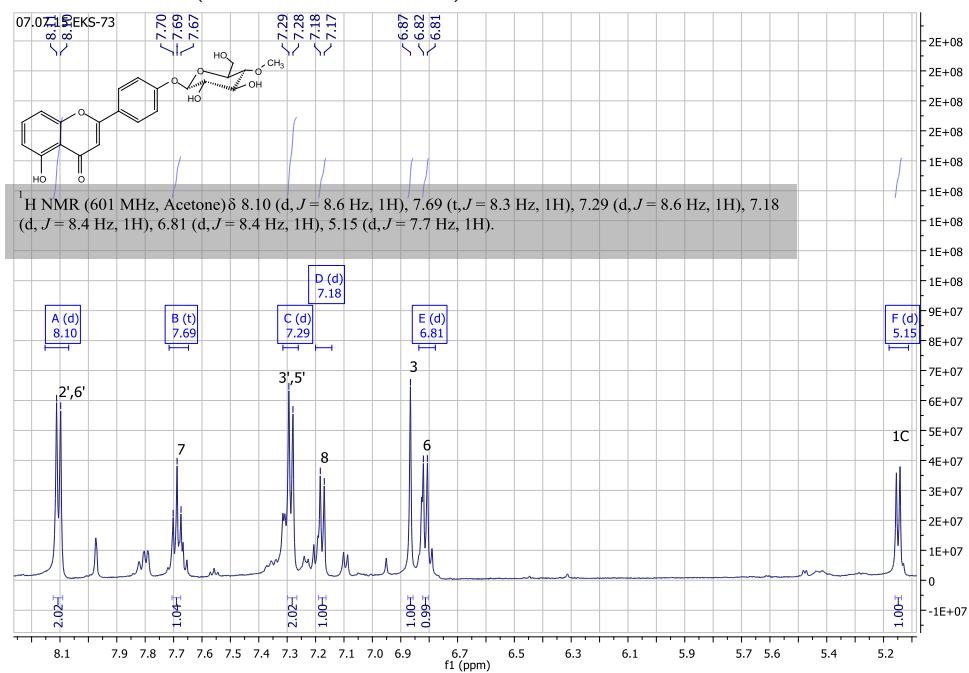


Figure S26. ^1H NMR spectrum of 5-hydroxyflavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (2a) (Acetone- d_6 , 600 MHz)

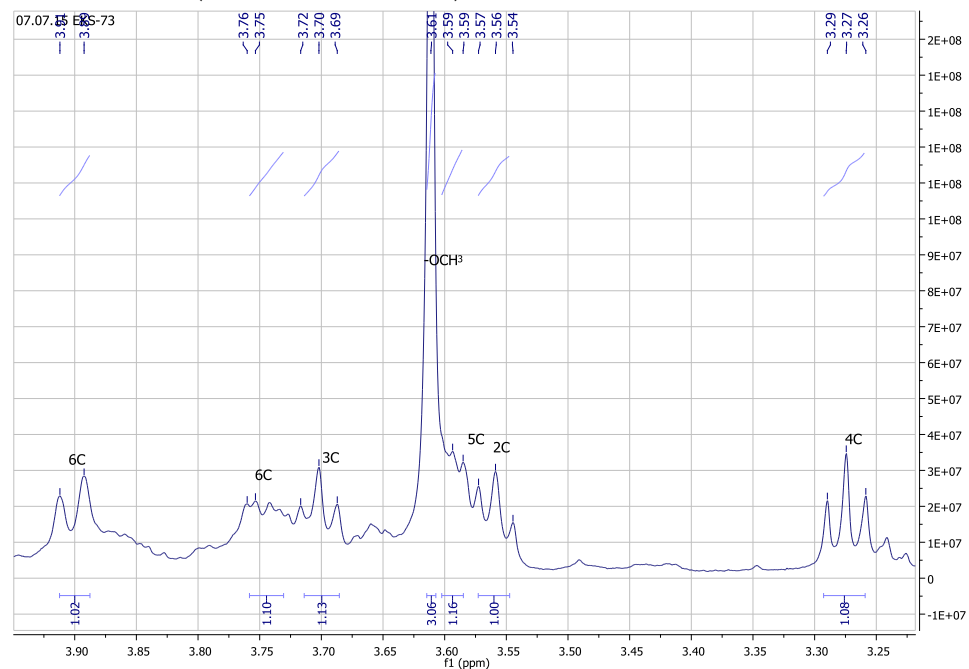


Figure S27. ^{13}C NMR spectrum of 5-hydroxyflavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (2a) (Acetone- d_6 , 151 MHz)

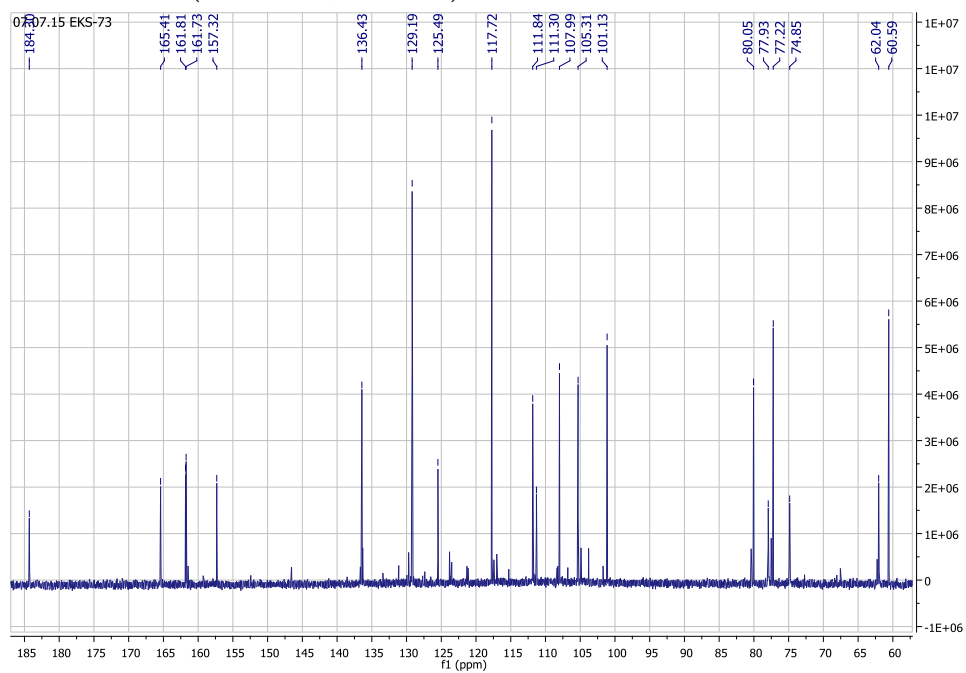


Figure S28. HSQC NMR spectrum of 5-hydroxyflavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (2a) (Acetone- d_6 , 151 MHz)

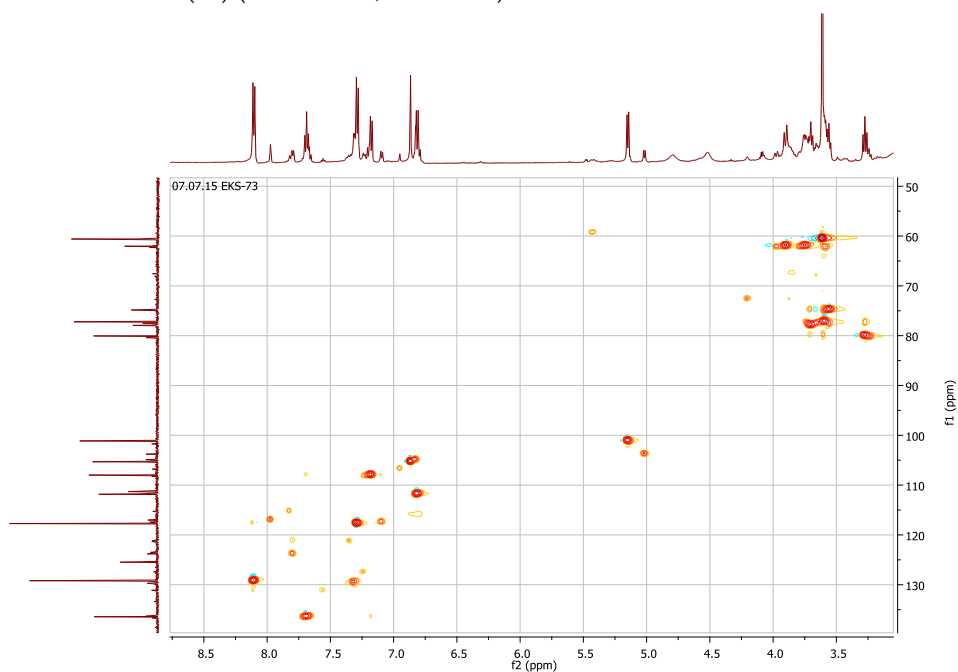


Figure S29. HMBC NMR spectrum of 5-hydroxyflavone 4'-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (2a) (Acetone- d_6 , 151 MHz)

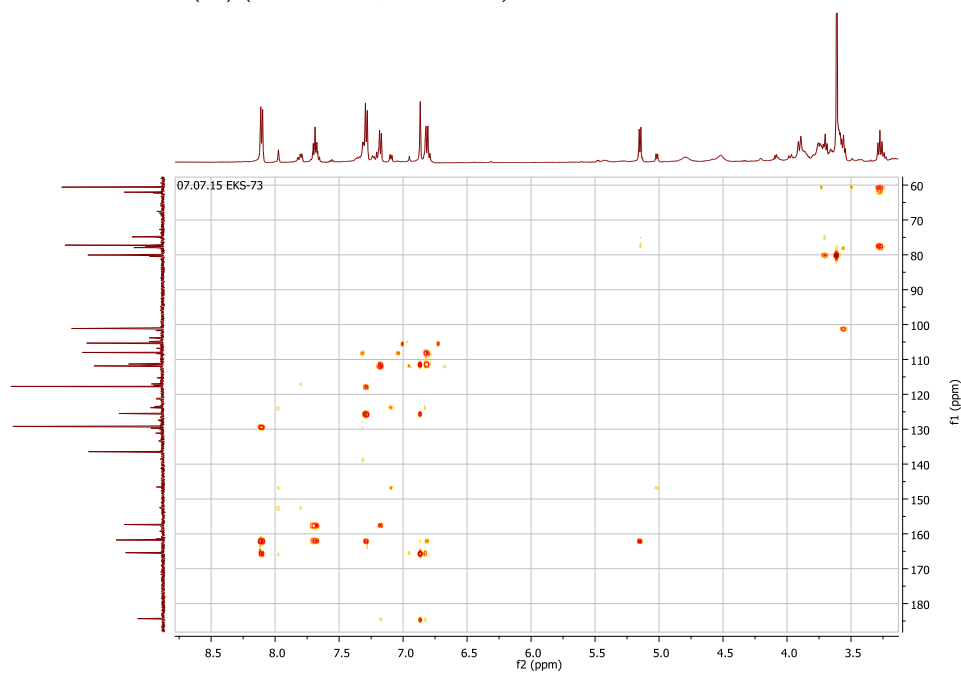


Figure S30. ^1H NMR spectrum of 6-hydroxyflavone (3) (Acetone- d_6 , 600 MHz)

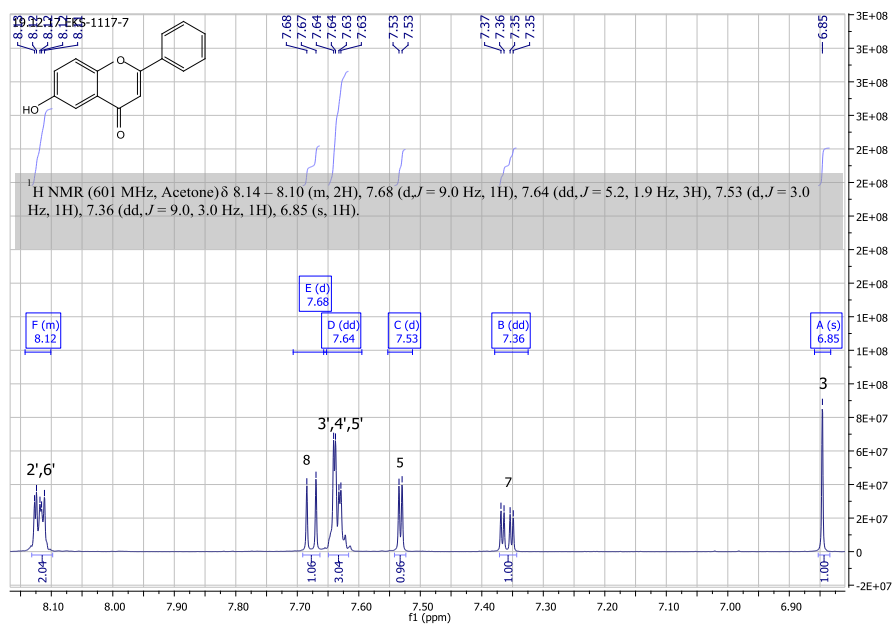


Figure S31. ^{13}C NMR spectrum of 6-hydroxyflavone (3) (Acetone- d_6 , 151 MHz)

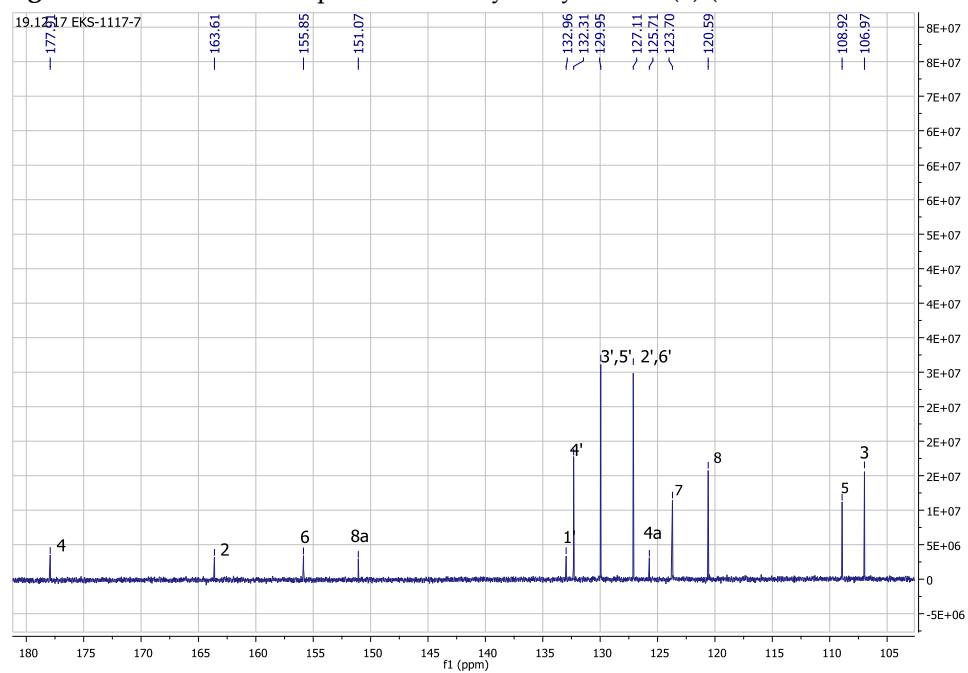


Figure S32. HSQC NMR spectrum of 6-hydroxyflavone (3) (Acetone- d_6 , 151 MHz)

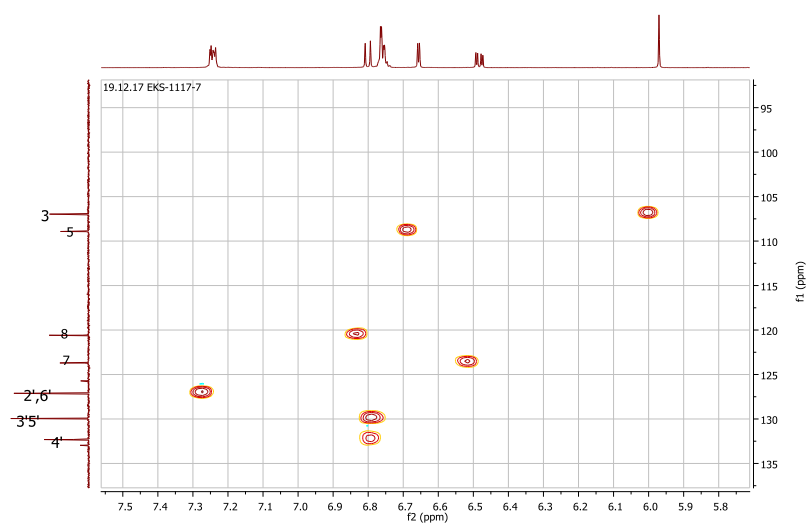


Figure S33. HMBC NMR spectrum of 6-hydroxyflavone (3) (Acetone- d_6 , 151 MHz)

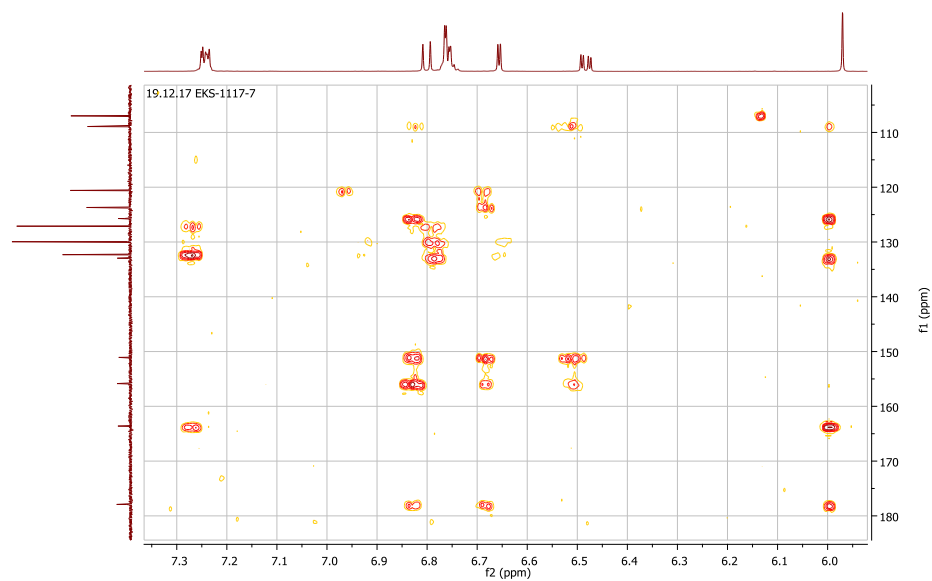


Figure S34. ^1H NMR spectrum of flavone 6- O - β -D-(4''- O -methyl)-glucopyranoside (3a) (Acetone- d_6 , 600 MHz)

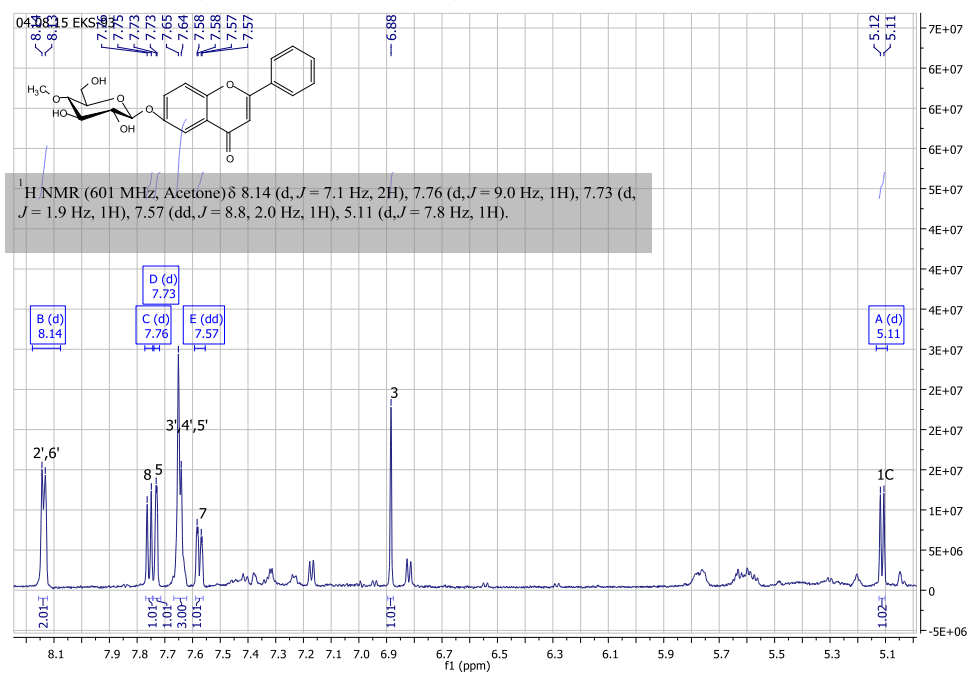


Figure S35. ^1H NMR spectrum of flavone 6-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (3a) (Acetone- d_6 , 600 MHz)

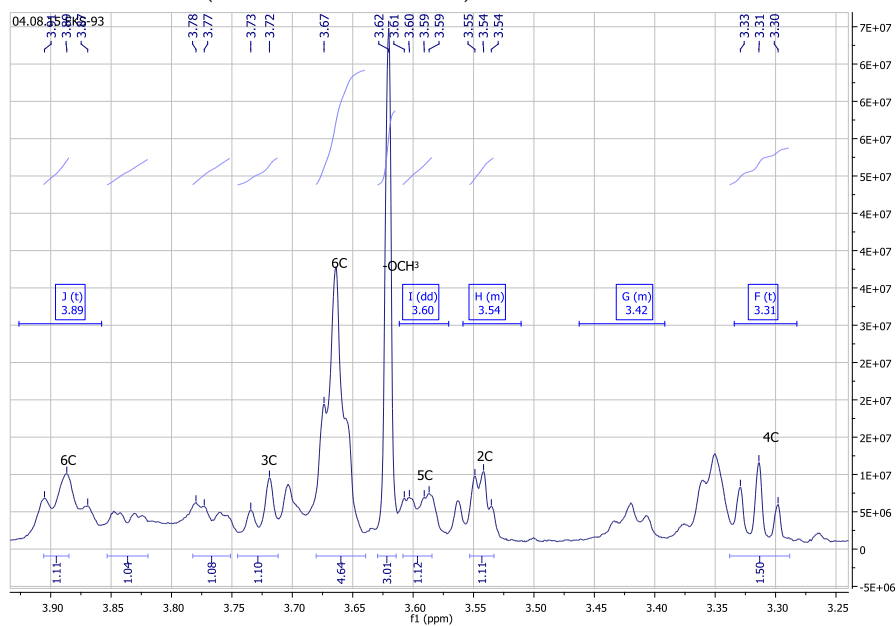


Figure S36. ^{13}C NMR spectrum of flavone 6-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (3a) (Acetone- d_6 , 151 MHz)

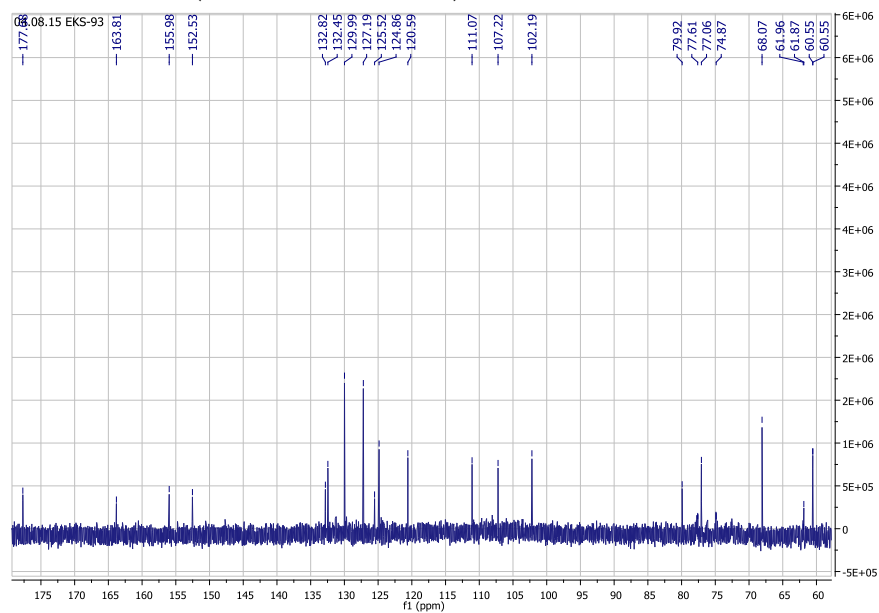


Figure S37. HSQC NMR spectrum of flavone 6-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (3a) (Acetone- d_6 , 151 MHz)

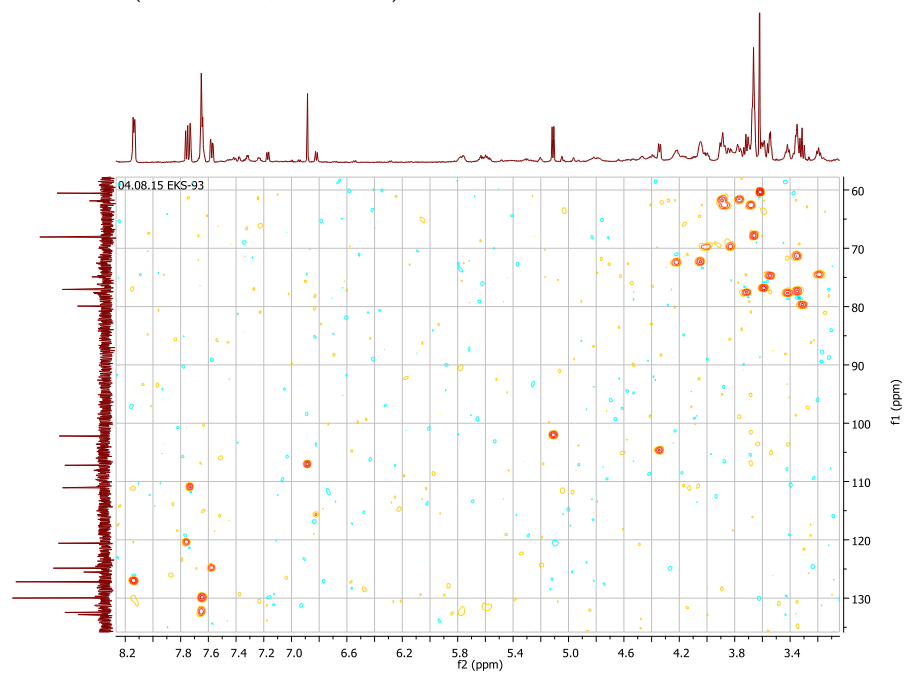


Figure S38. HMBC NMR spectrum of flavone 6-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (3a) (Acetone- d_6 , 151 MHz)

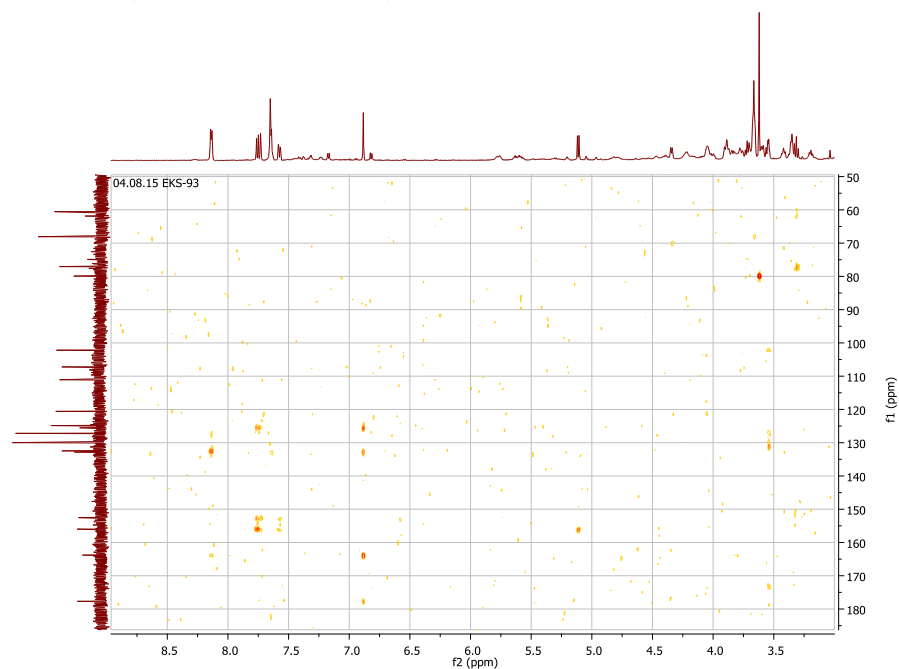


Figure S39. ^1H NMR spectrum of 7-hydroxyflavone (4) (Acetone- d_6 , 600 MHz)

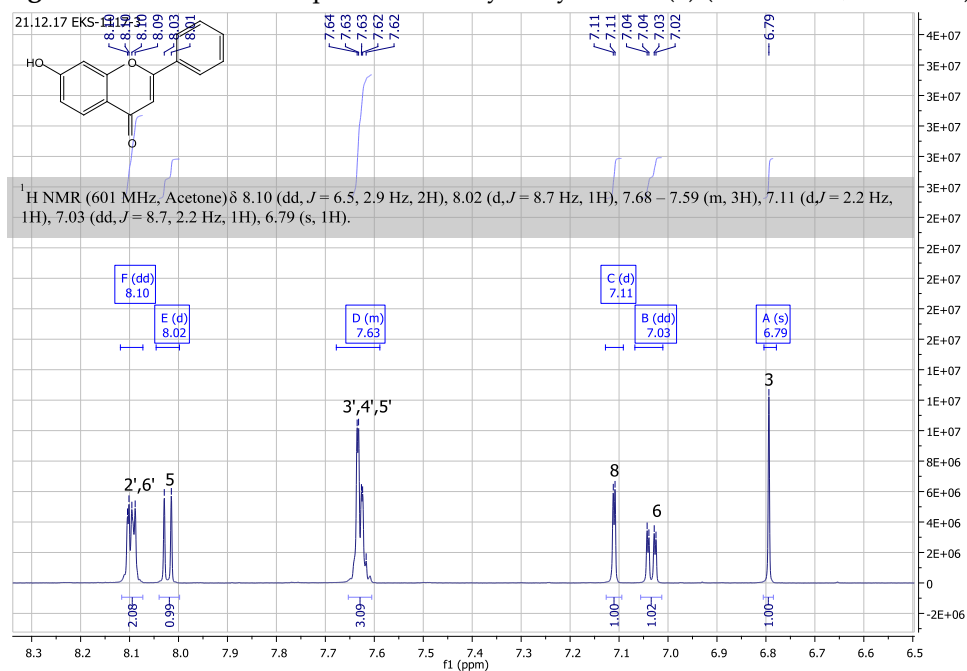


Figure S40. ^{13}C NMR spectrum of 7-hydroxyflavone (4) (Acetone- d_6 , 151 MHz)

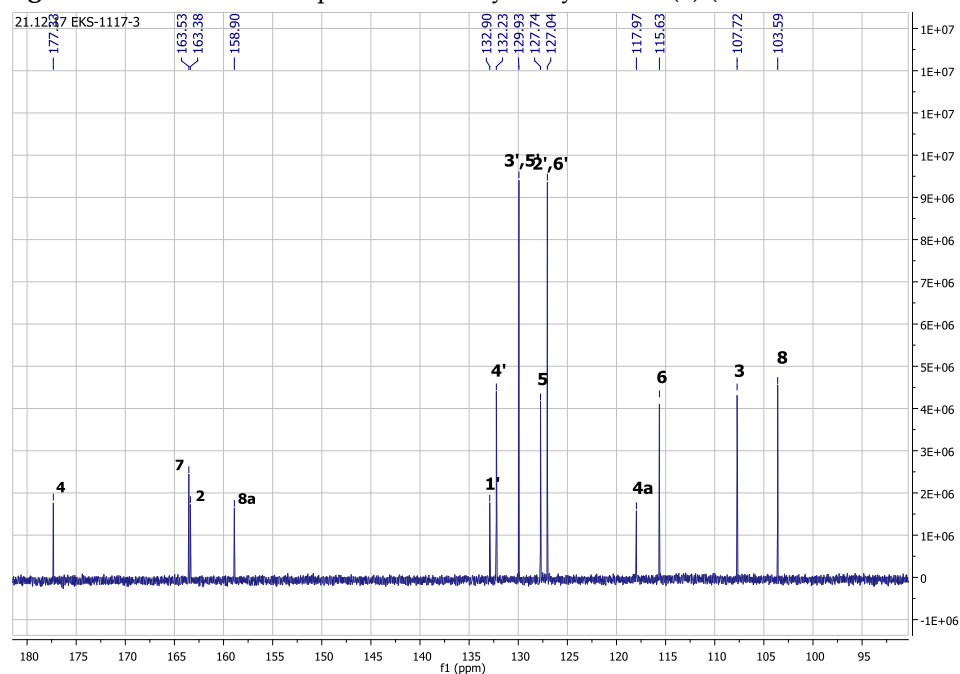


Figure S41. HSQC NMR spectrum of 7-hydroxyflavone (4) (Acetone-d₆, 151 MHz)

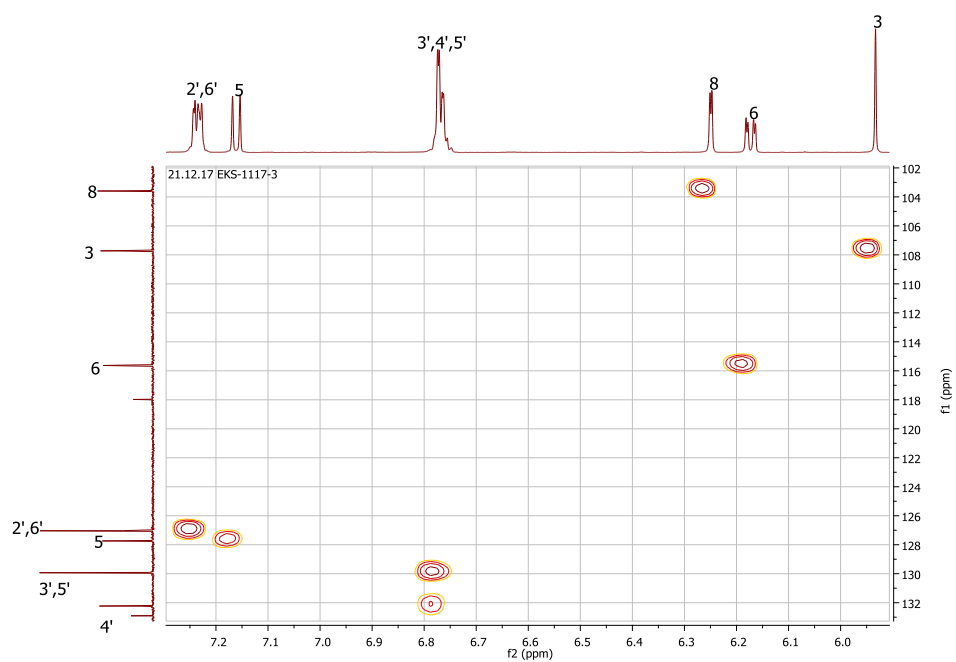


Figure S42. HMBC NMR spectrum of 7-hydroxyflavone (4) (Acetone-d₆, 151 MHz)

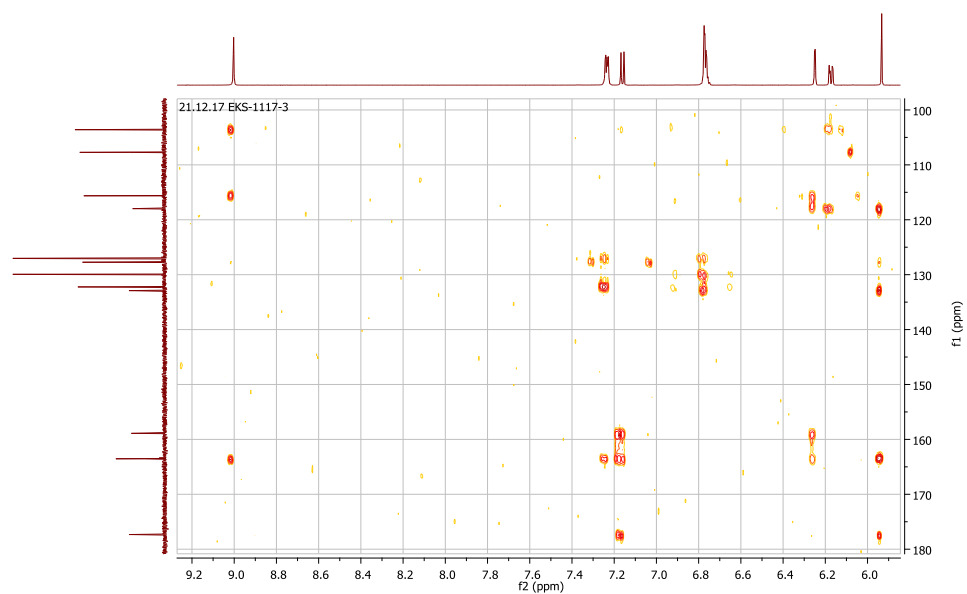


Figure S43. ^1H NMR spectrum of flavone 7-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (4a) (Acetone- d_6 , 600 MHz)

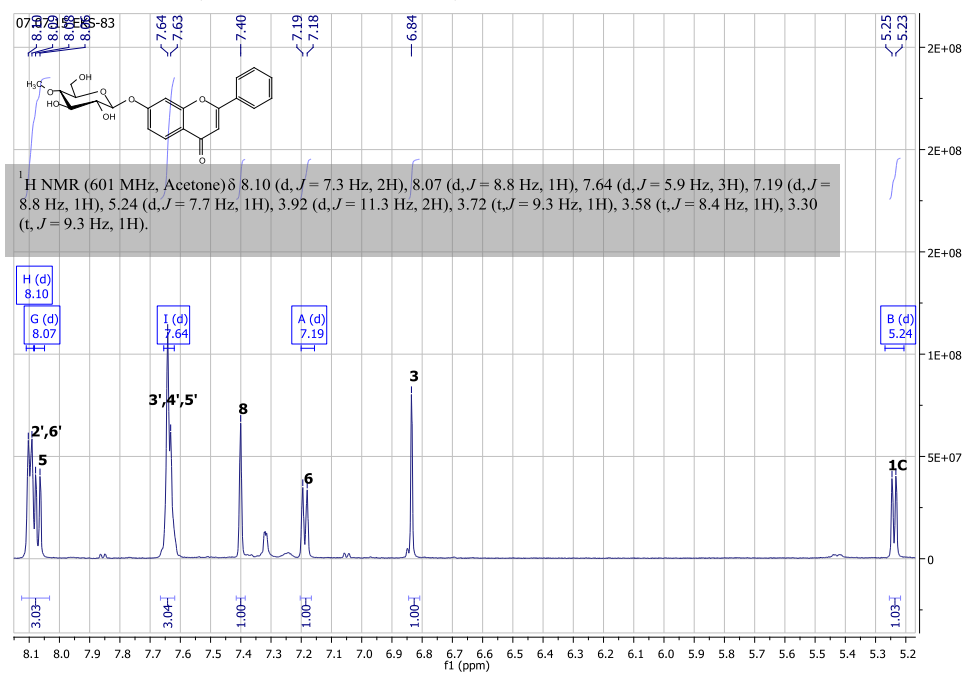


Figure S44. ^1H NMR spectrum of flavone 7-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (4a) (Acetone- d_6 , 600 MHz)

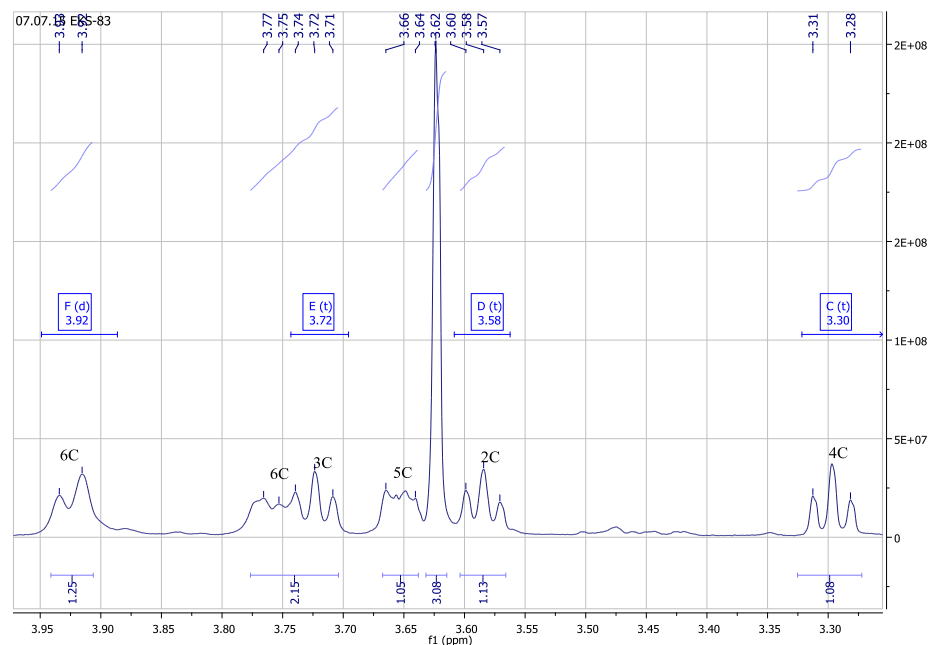


Figure S45. ^{13}C NMR spectrum of flavone 7-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (4a) (Acetone- d_6 , 151 MHz)

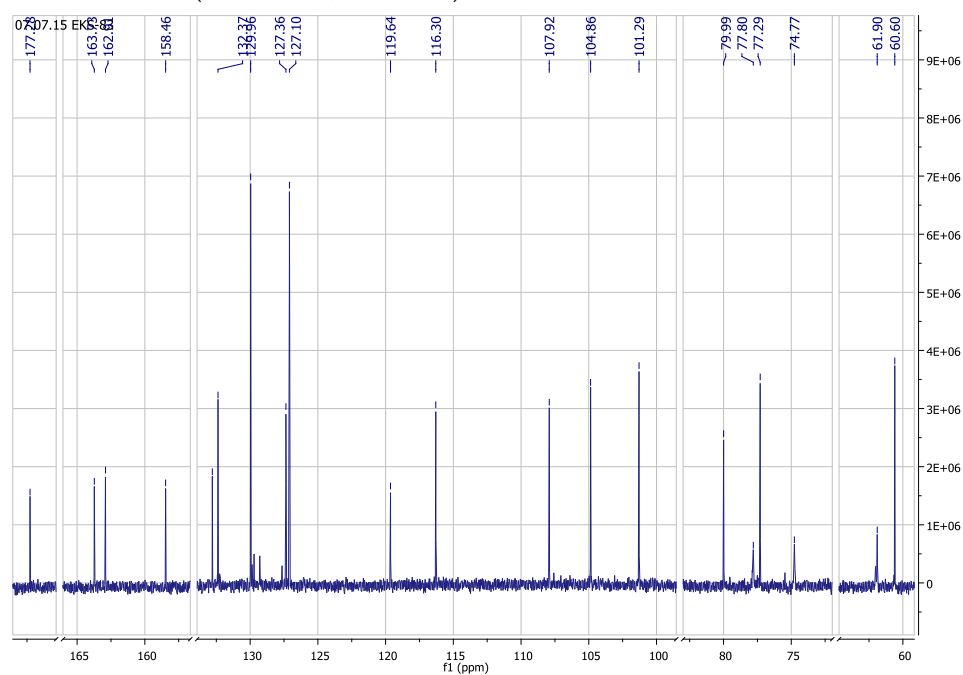


Figure S46. HSQC NMR spectrum of flavone 7-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (4a) (Acetone- d_6 , 151 MHz)

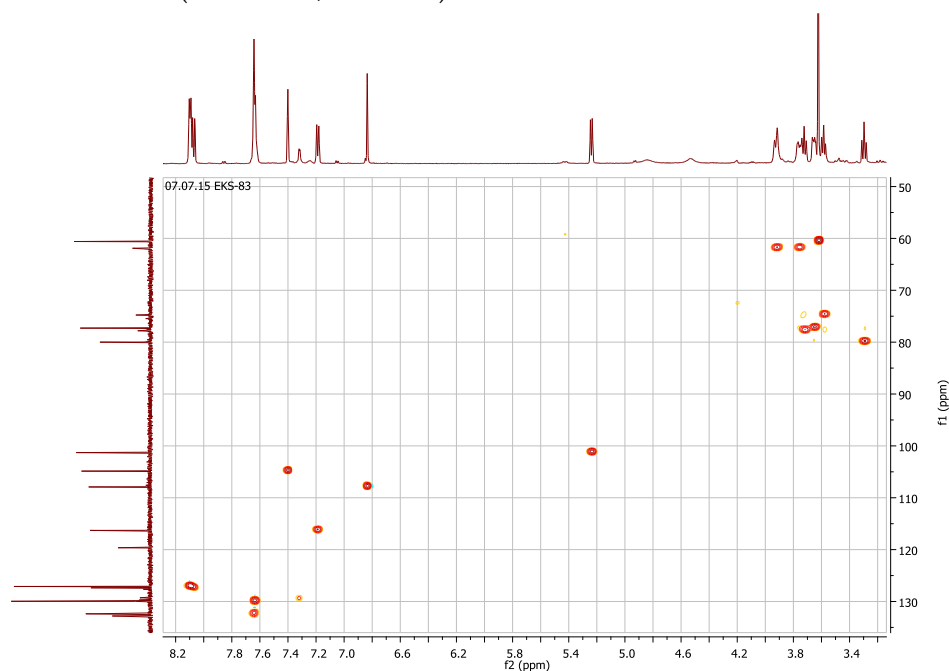


Figure S47. HMBC NMR spectrum of flavone 7-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (4a) (Acetone- d_6 , 151 MHz)

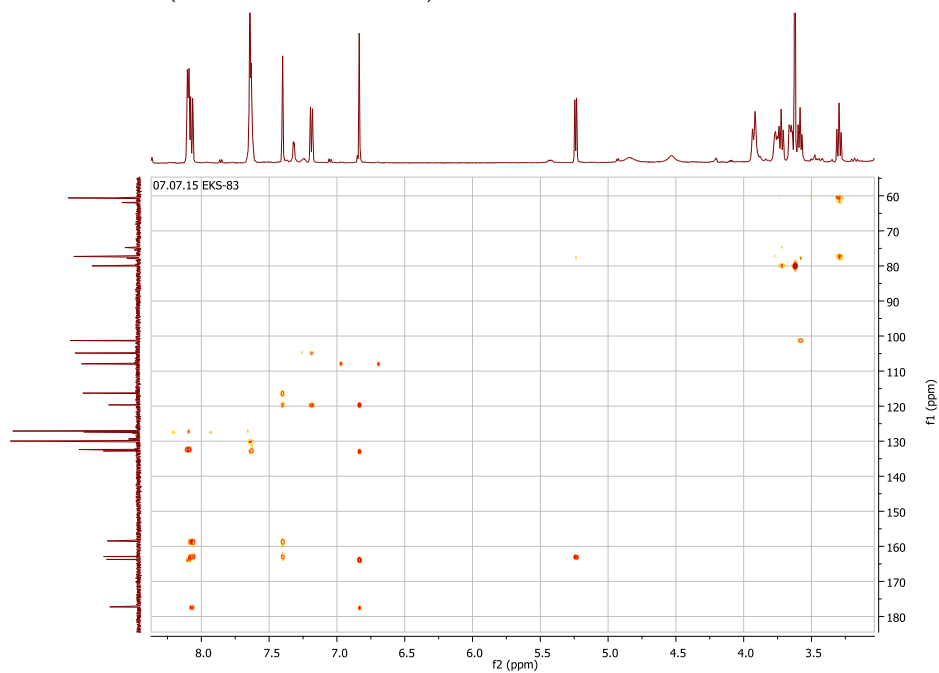


Figure S48. ^1H NMR spectrum of 4',7-dihydroxyisoflavone (5) (Acetone- d_6 , 600 MHz)

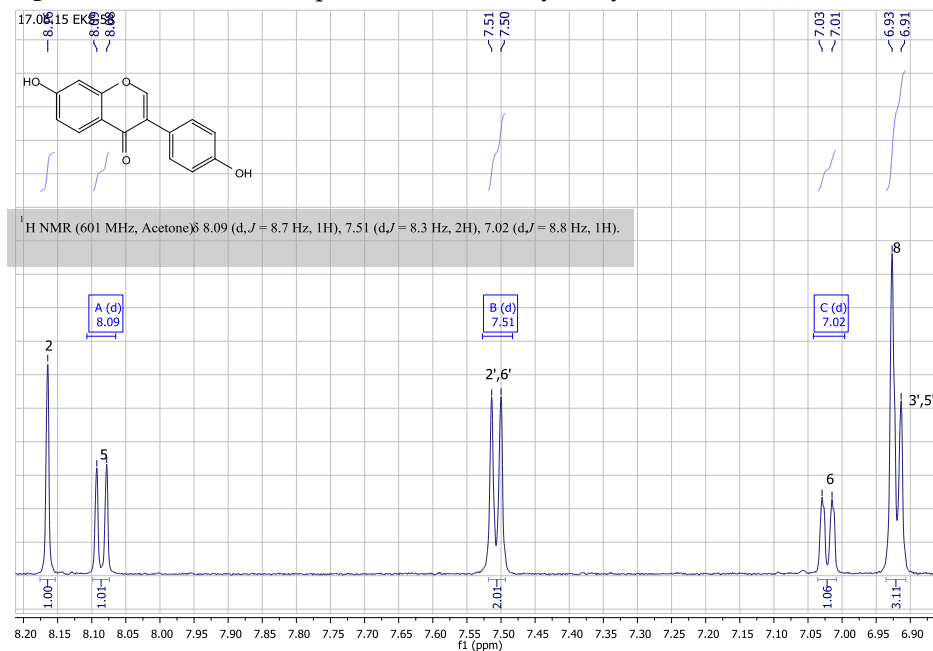


Figure S49. ^{13}C NMR spectrum of 4',7-dihydroxyisoflavone (5) (Acetone- d_6 , 151 MHz)

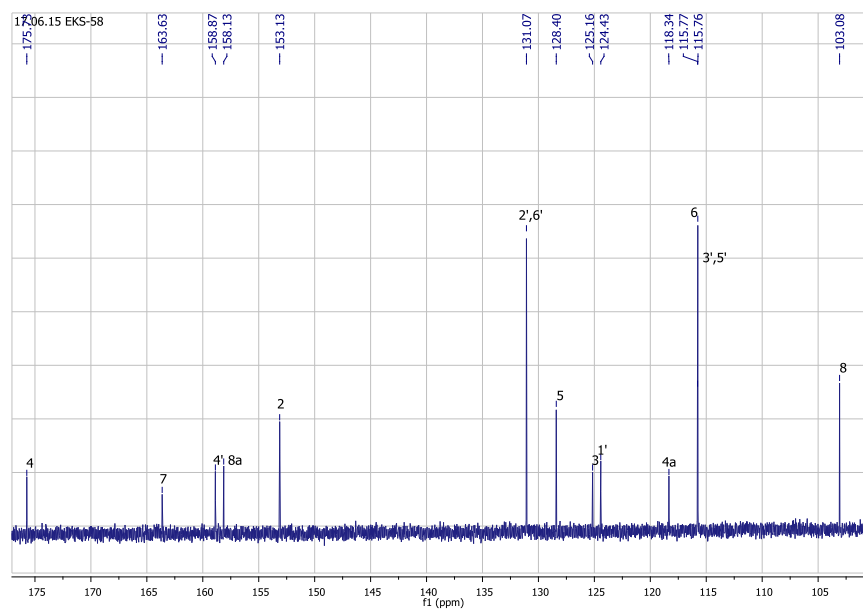


Figure S50. HSQC NMR spectrum of 4',7-dihydroxyisoflavone (5) (Acetone- d_6 , 151 MHz)

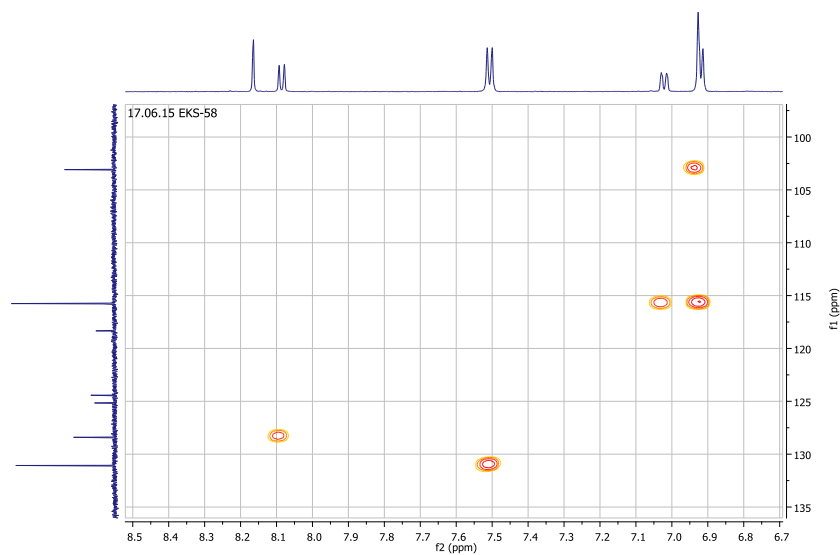


Figure S51. HMBC NMR spectrum of 4',7-dihydroxyisoflavone (5) (Acetone- d_6 , 151 MHz)

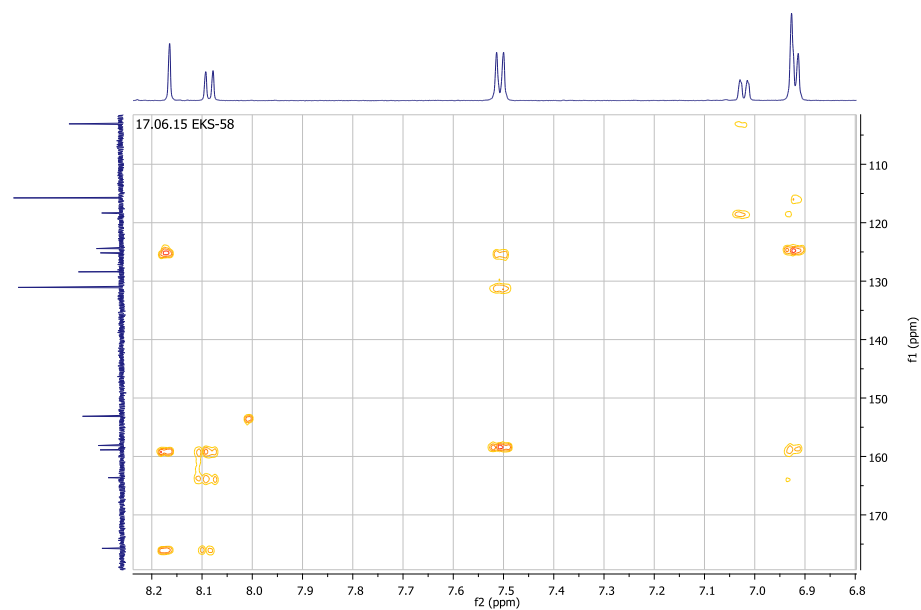


Figure S52. ^1H NMR spectrum of 4'-hydroxyisoflavone 7-O- β -D-(4''-O-methyl)-glucopyranoside (5a) (Acetone- d_6 , 600 MHz)

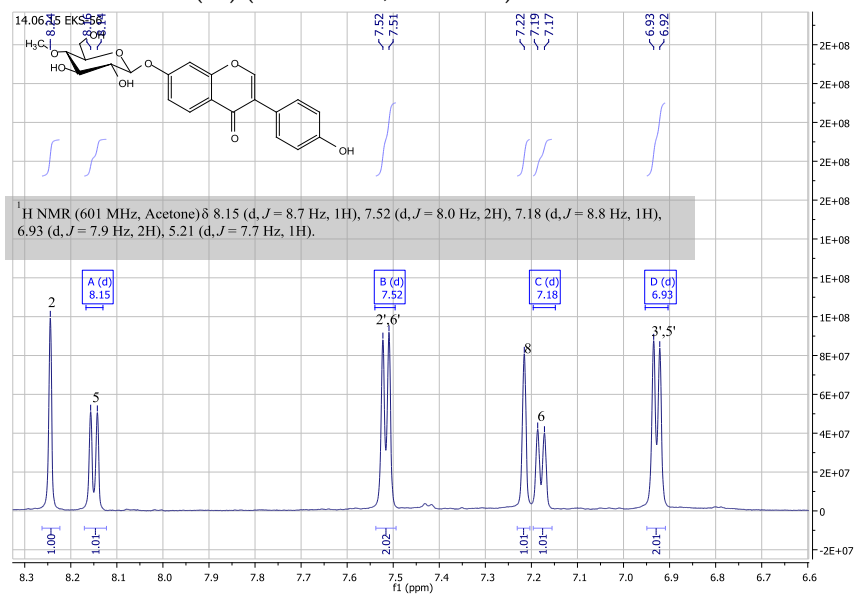


Figure S53. ^1H NMR spectrum of 4'-hydroxyisoflavone 7-O- β -D-(4''-O-methyl)-glucopyranoside (5a) (Acetone- d_6 , 600 MHz)

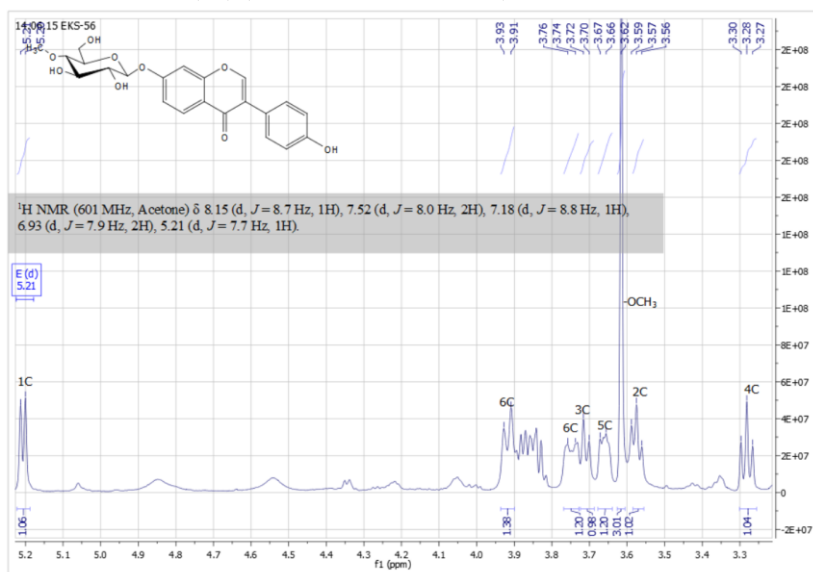


Figure S54. ^{13}C NMR spectrum of 4'-hydroxyisoflavone 7-O- β -D-(4''-O-methyl)-glucopyranoside (5a) (Acetone- d_6 , 151 MHz)

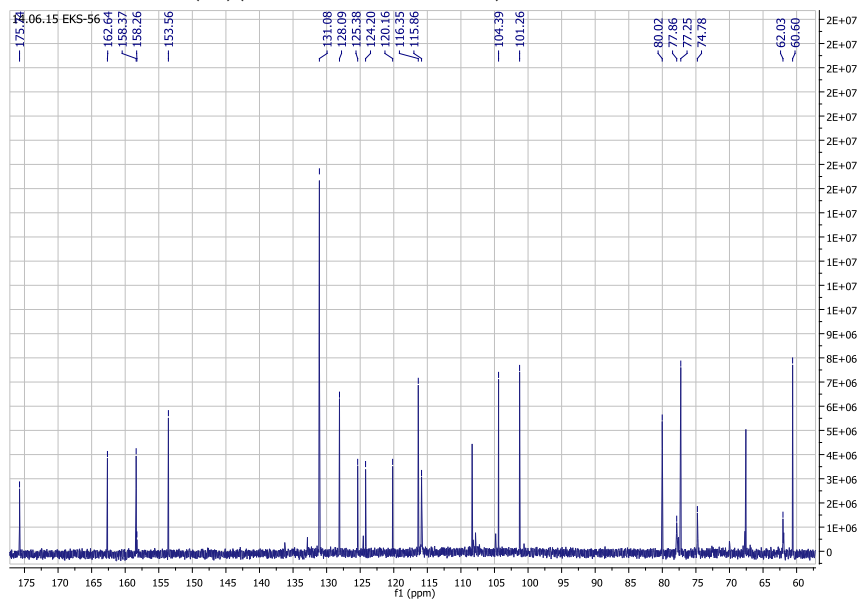


Figure S55. HSQC NMR spectrum of 4'-hydroxyisoflavone 7-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (5a) (Acetone- d_6 , 151 MHz)

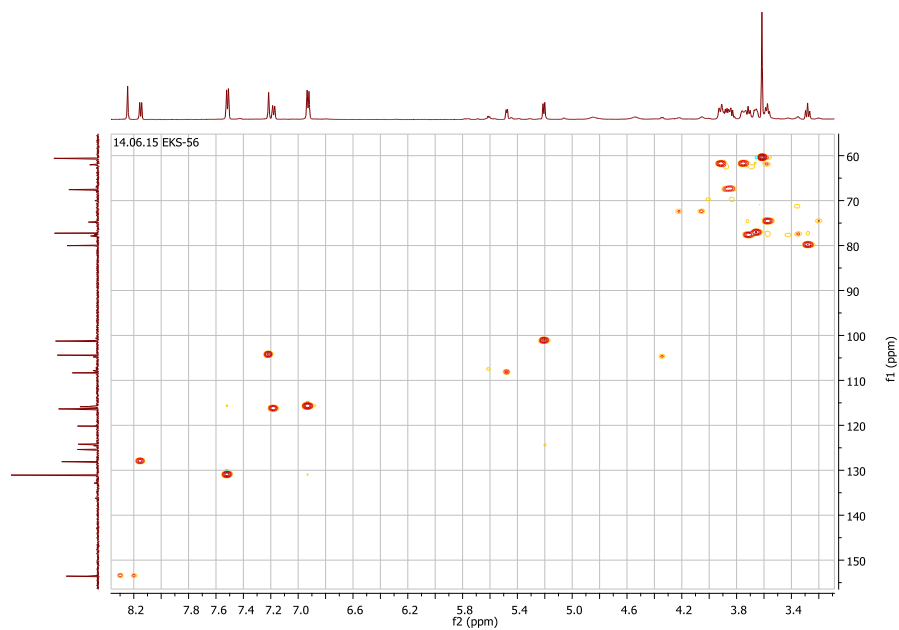


Figure S56. HMBC NMR spectrum of 4'-hydroxyisoflavone 7-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (5a) (Acetone- d_6 , 151 MHz)

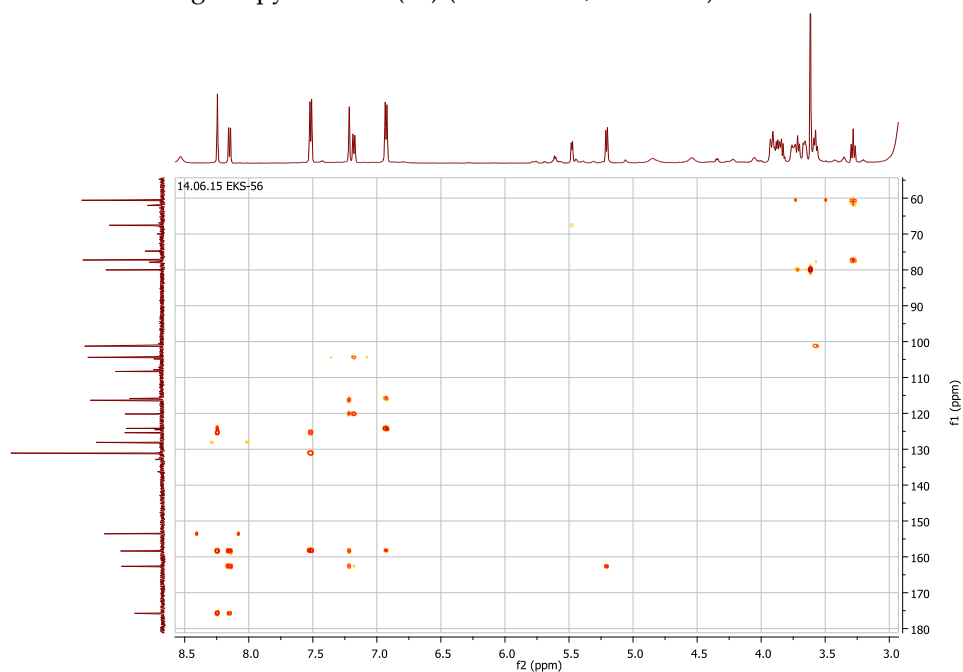


Figure S57. ^1H NMR spectrum of 7-aminoflavone (6) (Acetone- d_6 , 600 MHz)

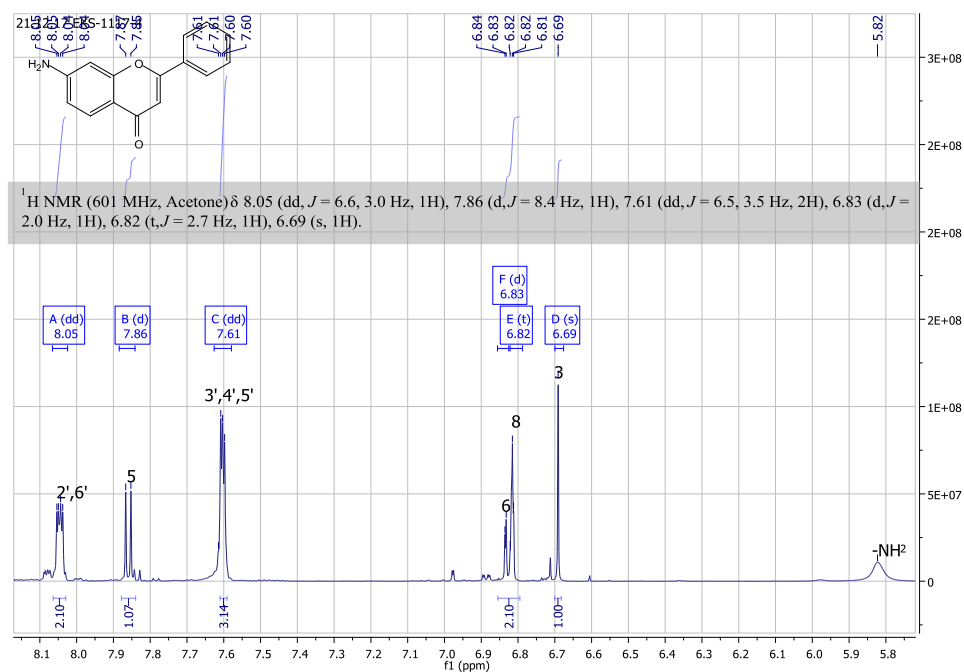


Figure S58. ^{13}C NMR spectrum of 7-aminoflavone (6) (Acetone- d_6 , 151 MHz)

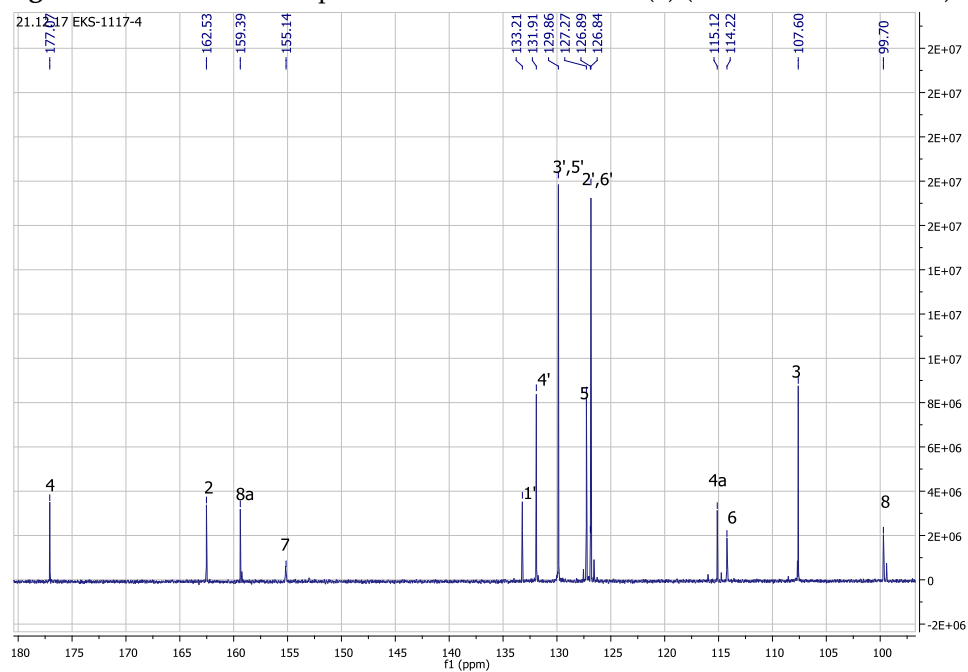


Figure S59. HSQC NMR spectrum of 7-aminoflavone (6) (Acetone-d₆, 151 MHz)

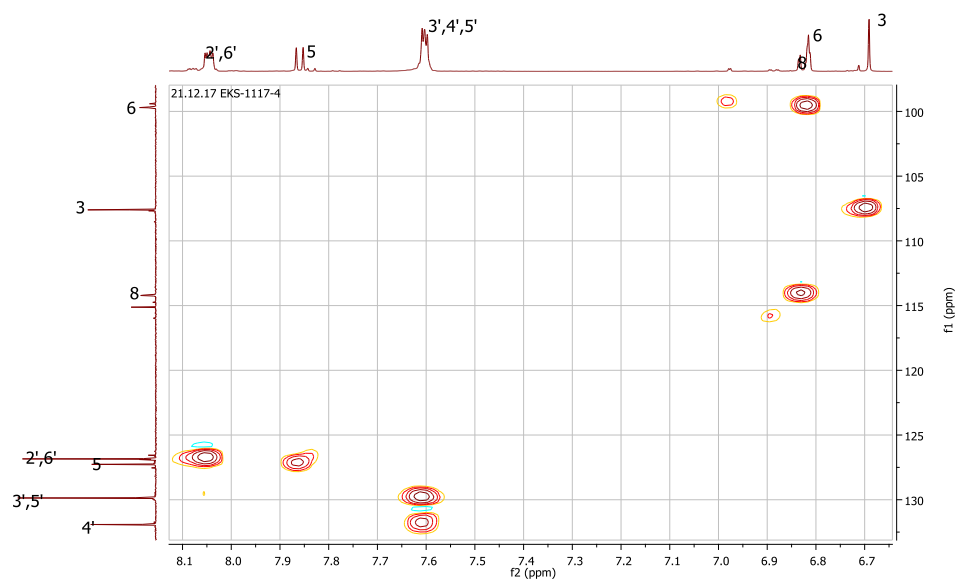


Figure S60. HMBC NMR spectrum of 7-aminoflavone (6) (Acetone-d₆, 151 MHz)

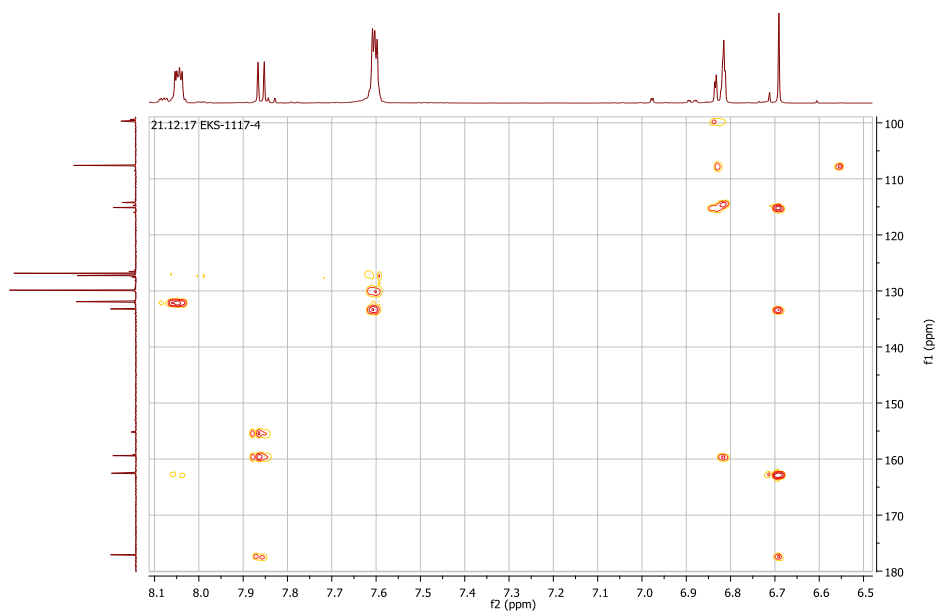


Figure S61. ^1H NMR spectrum of 7-acetamidoflavone (6a) (Acetone- d_6 , 600 MHz)

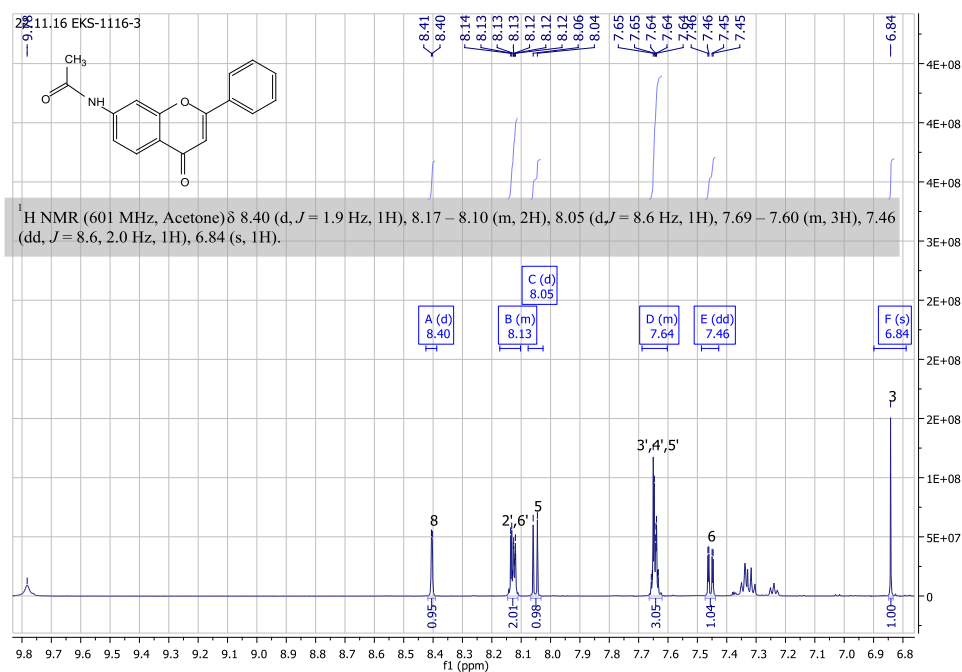


Figure S62. ^{13}C NMR spectrum of 7-acetamidoflavone (6a) (Acetone- d_6 , 151 MHz)

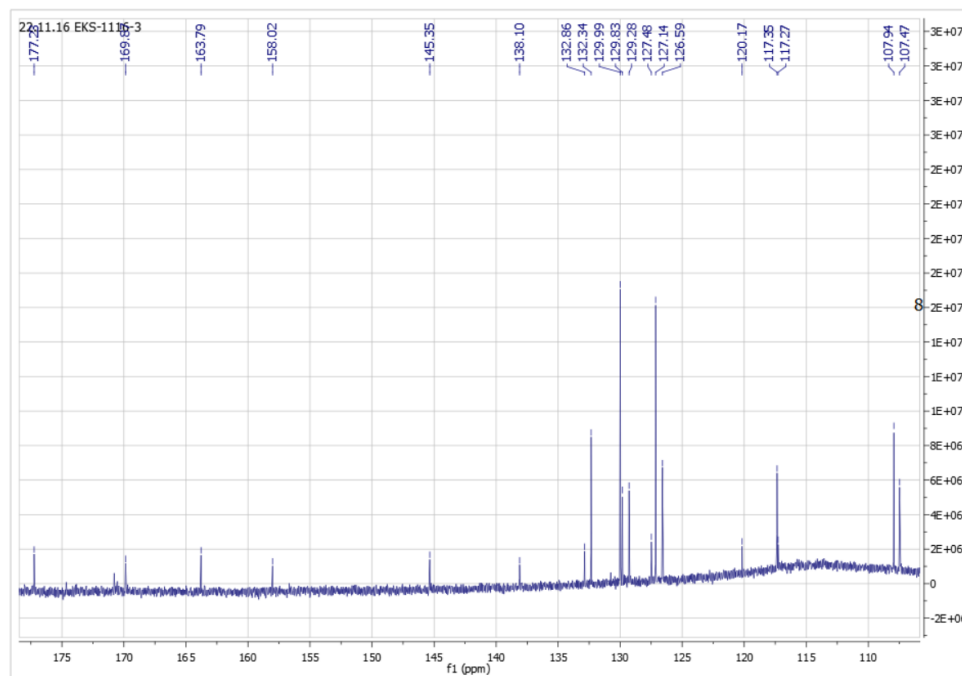


Figure S63. HSQC NMR spectrum of 7-acetamidoflavone (6a) (Acetone- d_6 , 151 MHz)

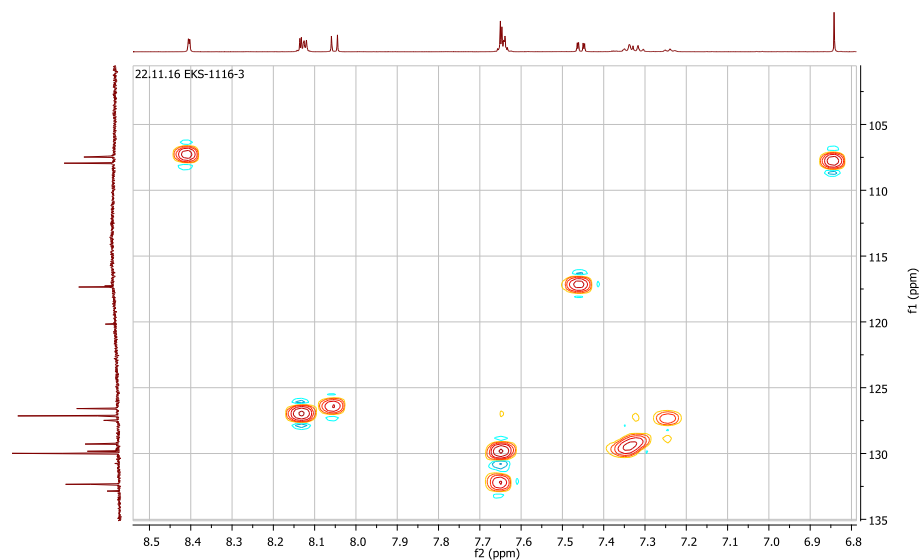


Figure S64. HMBC NMR spectrum of 7-acetamidoflavone (6a) (Acetone- d_6 , 151 MHz)

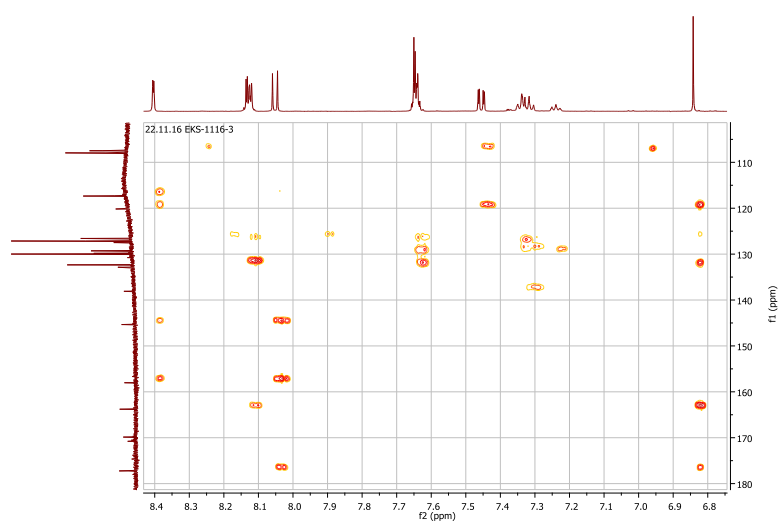


Figure S65. ^1H NMR spectrum of 4'-hydroxy-7-acetamidoflavone (6b) (Acetone- d_6 , 600 MHz)

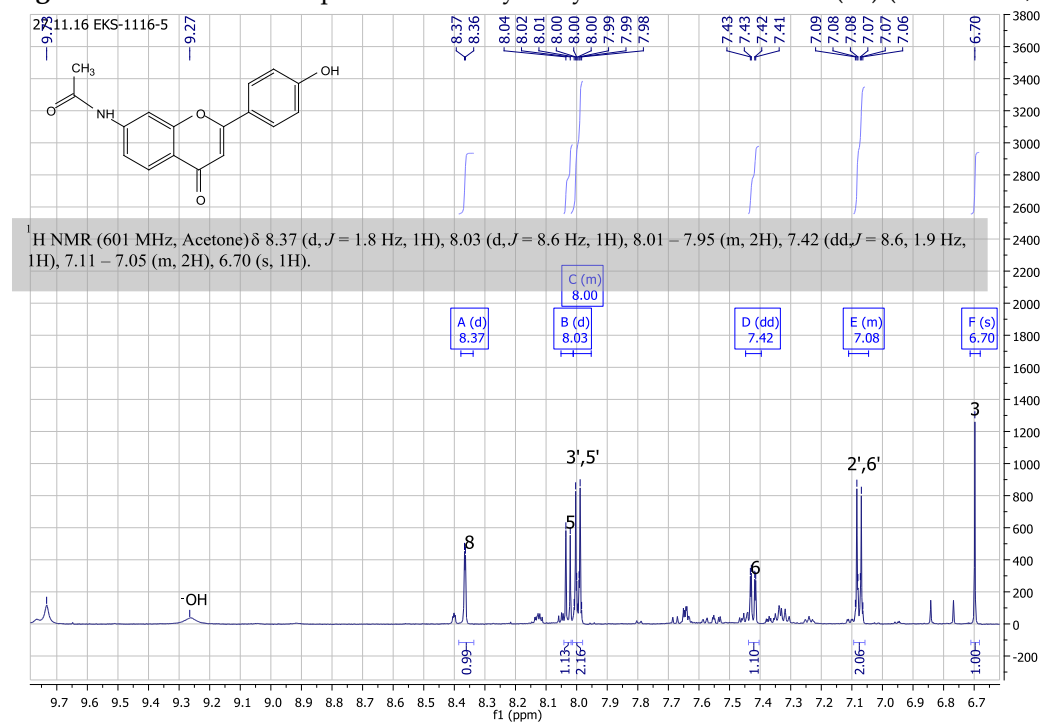


Figure S66. ^{13}C NMR spectrum of 4'-hydroxy-7-acetamidoflavone (6b) (Acetone- d_6 , 151 MHz)

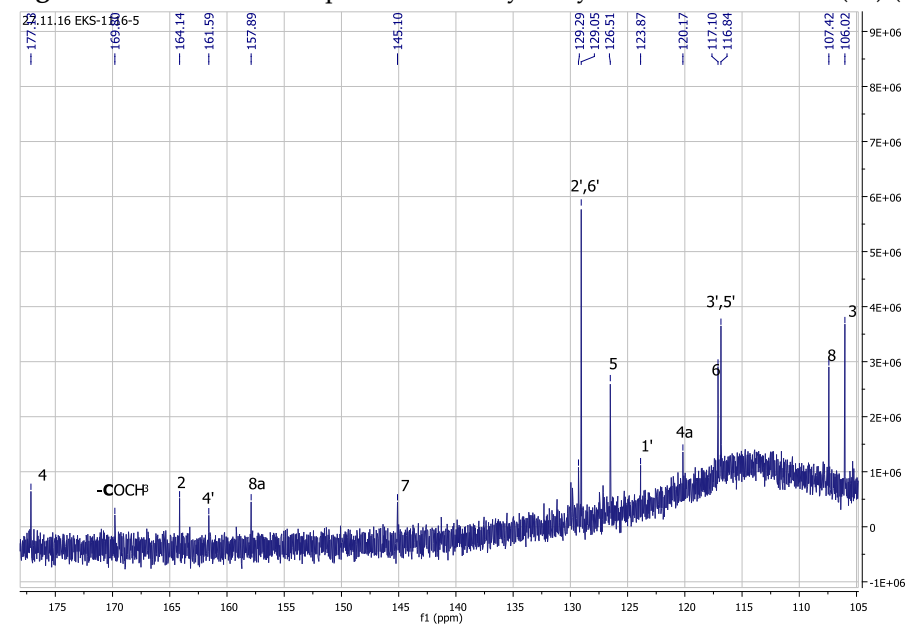


Figure S67. HSQC NMR spectrum of 4'-hydroxy-7-acetamidoflavone (6b) (Acetone-d₆, 151 MHz)

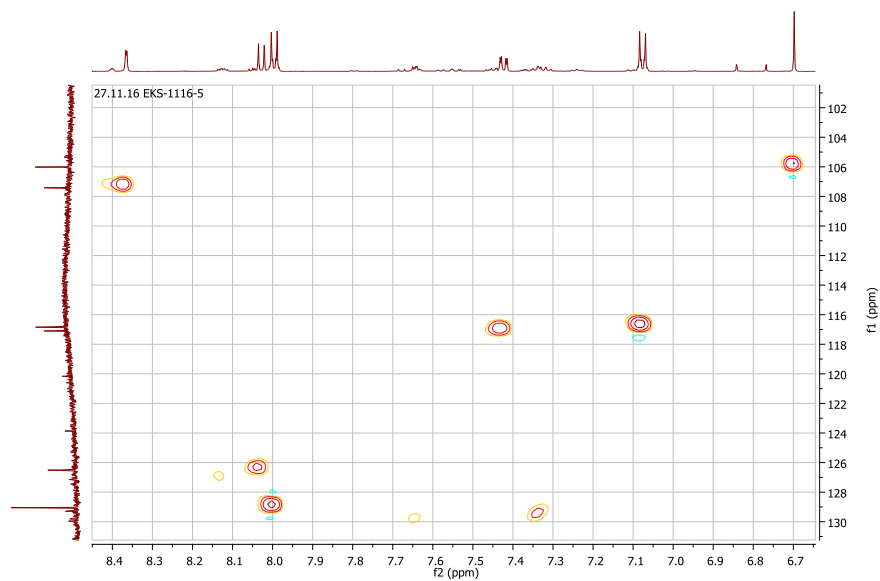


Figure S68. HMBC NMR spectrum of 4'-hydroxy-7-acetamidoflavone (6b) (Acetone-d₆, 151 MHz)

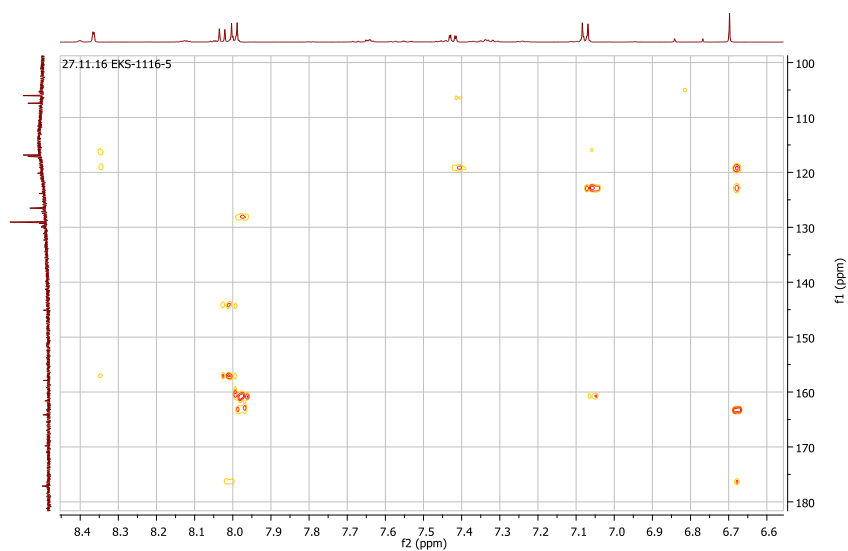


Figure S69. HPLC chromatogram of flavone (1)

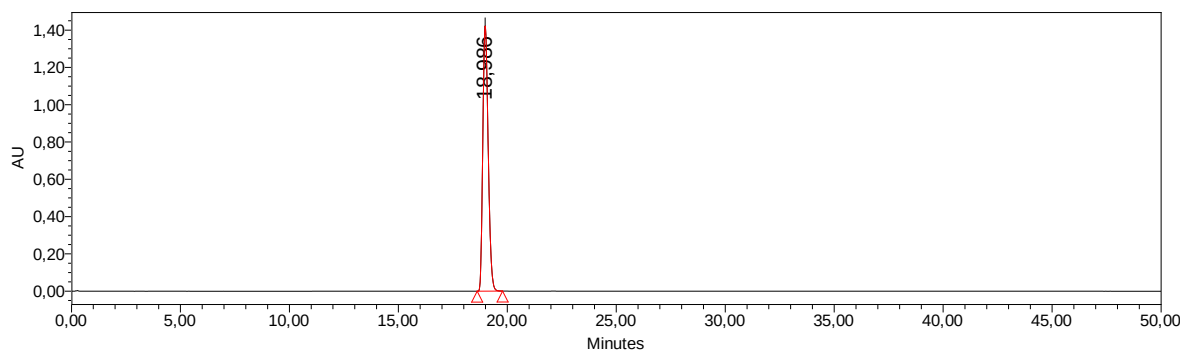


Figure S70. UV maxima of flavone (1) obtained after HPLC analysis

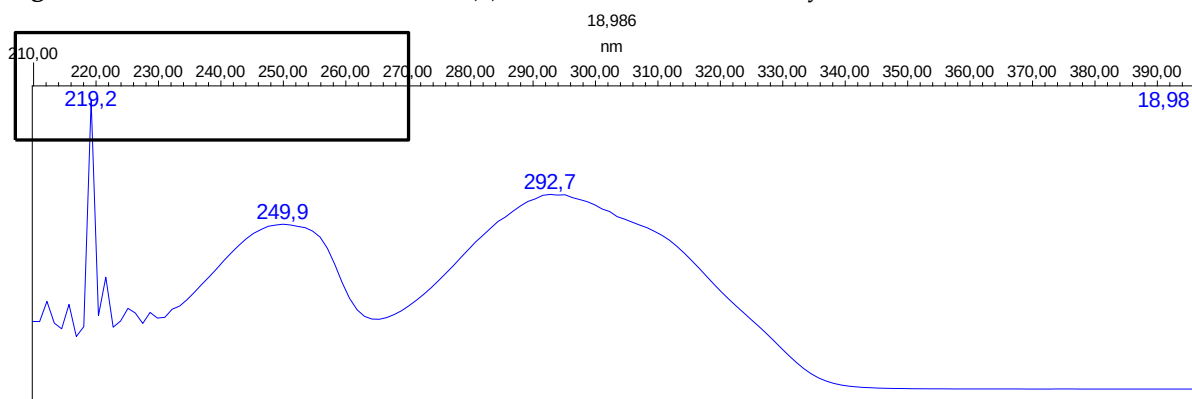


Figure S71. HPLC chromatogram of flavone 2'-O- β -D-(4''-O-methyl)-glucopyranoside (1a)

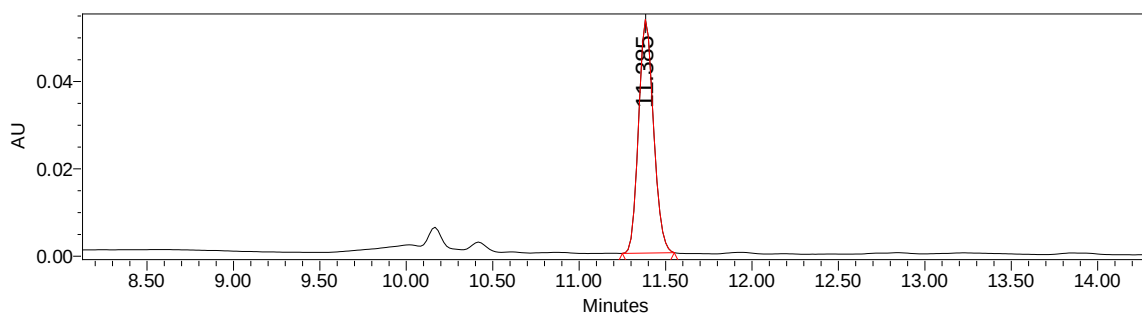


Figure S72. UV maxima of flavone 2'-O- β -D-(4''-O-methyl)-glucopyranoside (1a) obtained after HPLC analysis

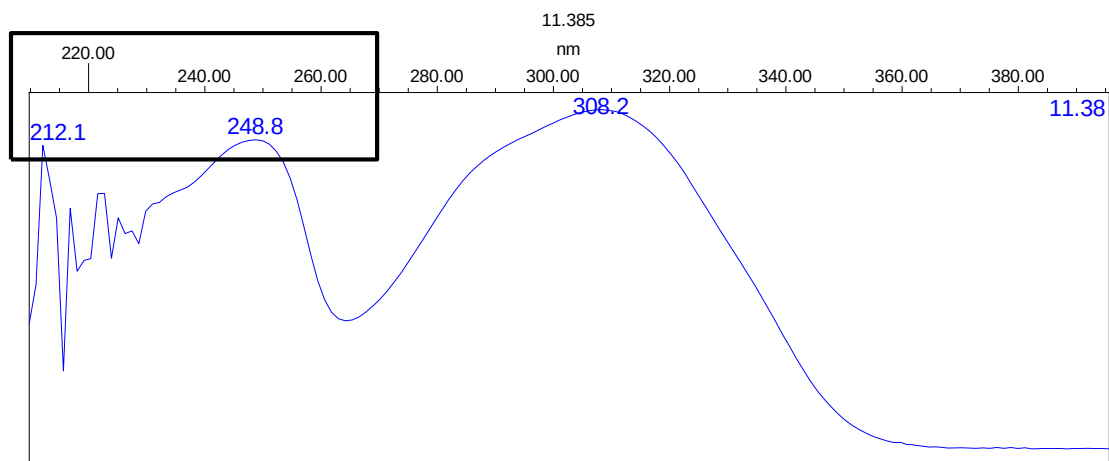


Figure S73. HPLC chromatogram of flavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (1b)

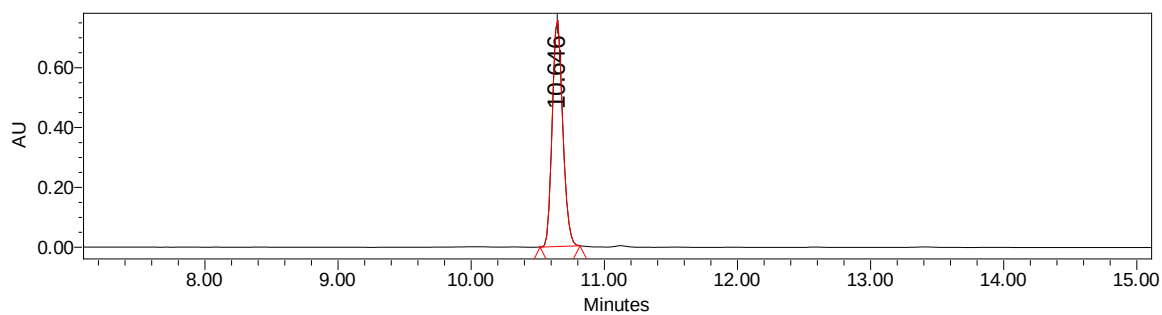


Figure S74. UV maxima of flavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (1b) obtained after HPLC analysis

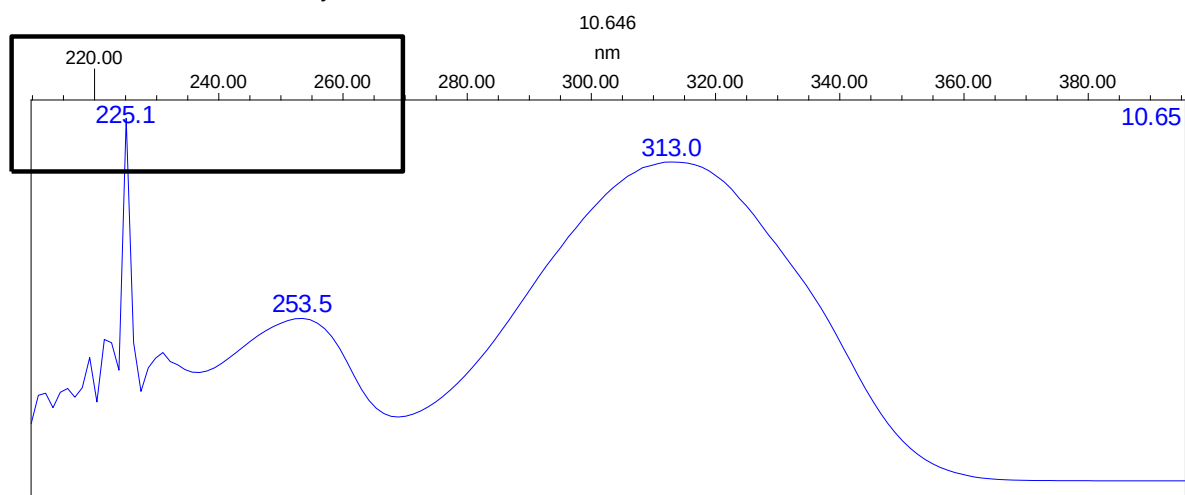


Figure S75. HPLC chromatogram of 3'-hydroxyflavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (1c)

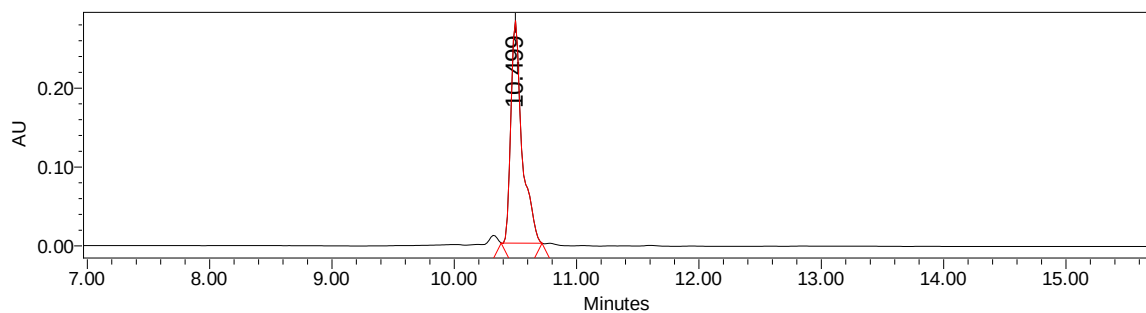


Figure S76. UV maxima of 3'-hydroxyflavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (1c) obtained after HPLC analysis

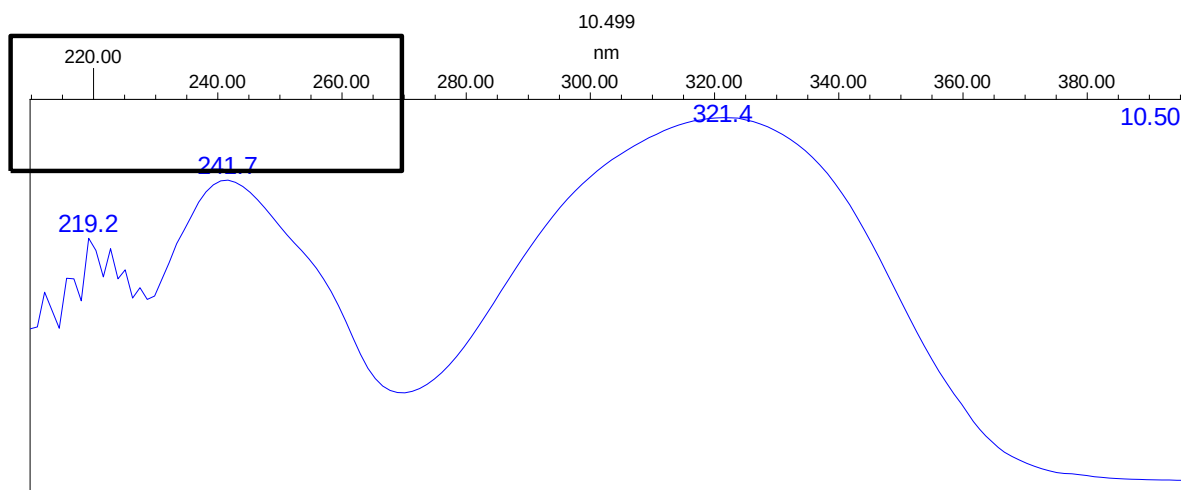


Figure S77. HPLC chromatogram of 5-hydroxyflavone (2)

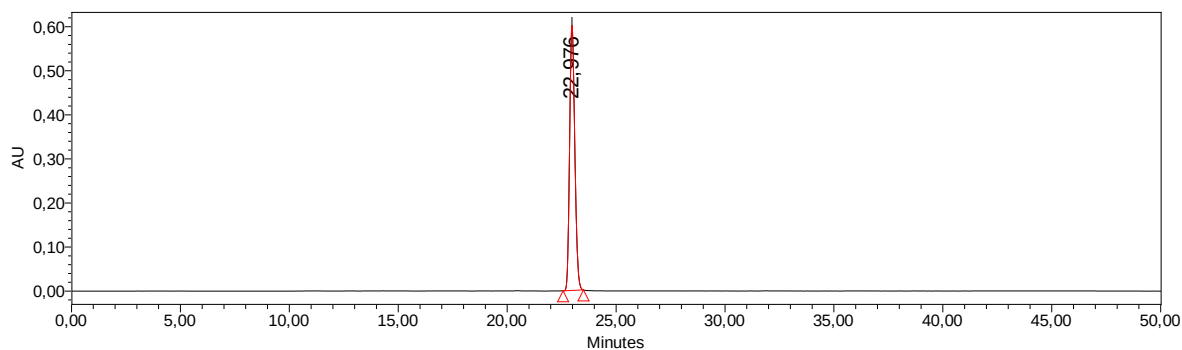


Figure S78. UV maxima of 5-hydroxyflavone (2) obtained after HPLC analysis

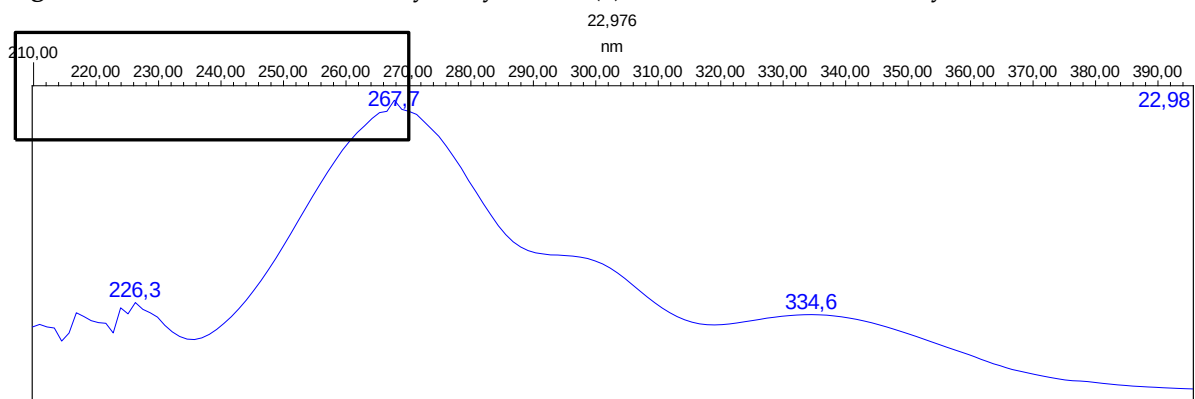


Figure S79. HPLC chromatogram of 5-hydroxyflavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (2a)

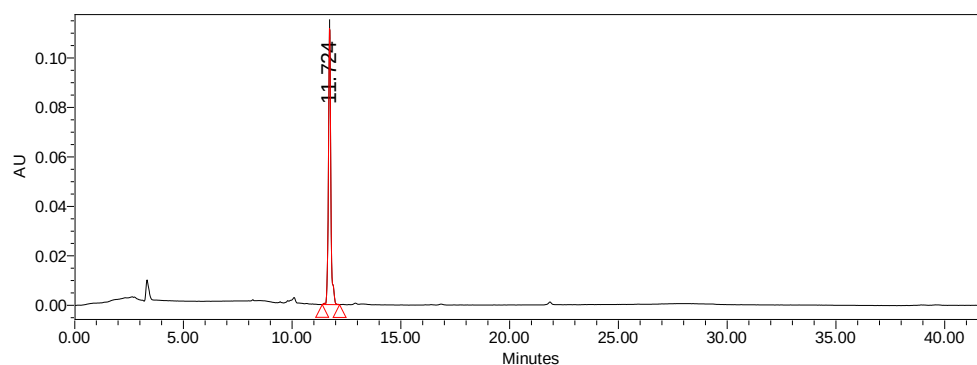


Figure S80. UV maxima of 5-hydroxyflavone 4'-O- β -D-(4''-O-methyl)-glucopyranoside (2a) obtained after HPLC analysis

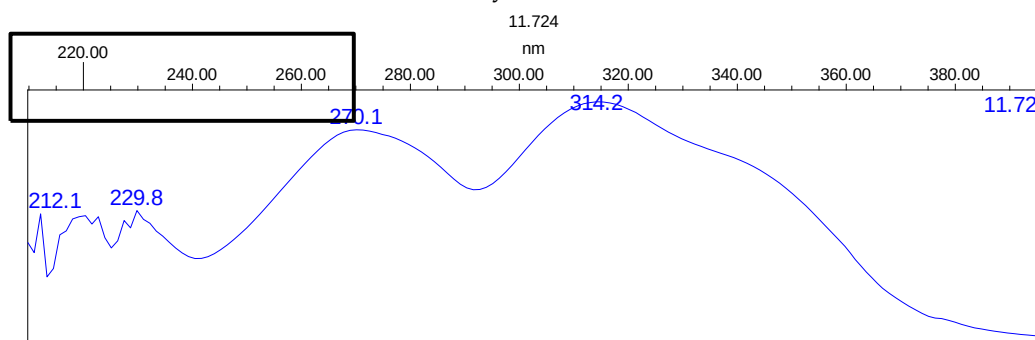


Figure S81. HPLC chromatogram of 6-hydroxyflavone (3)

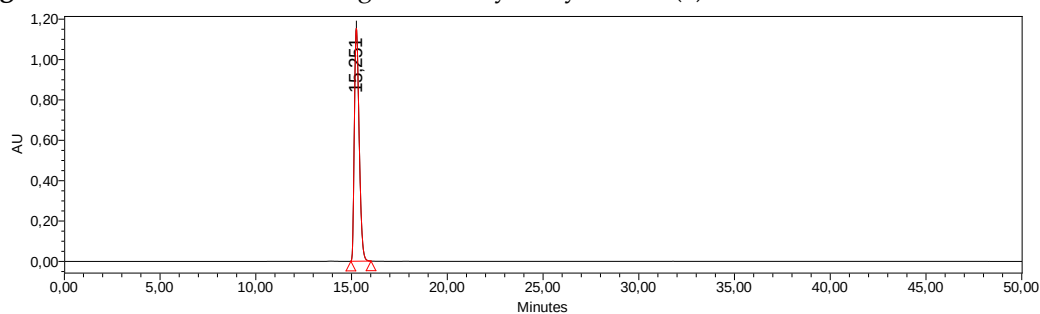


Figure S82. UV maxima of 6-hydroxyflavone (3) obtained after HPLC analysis

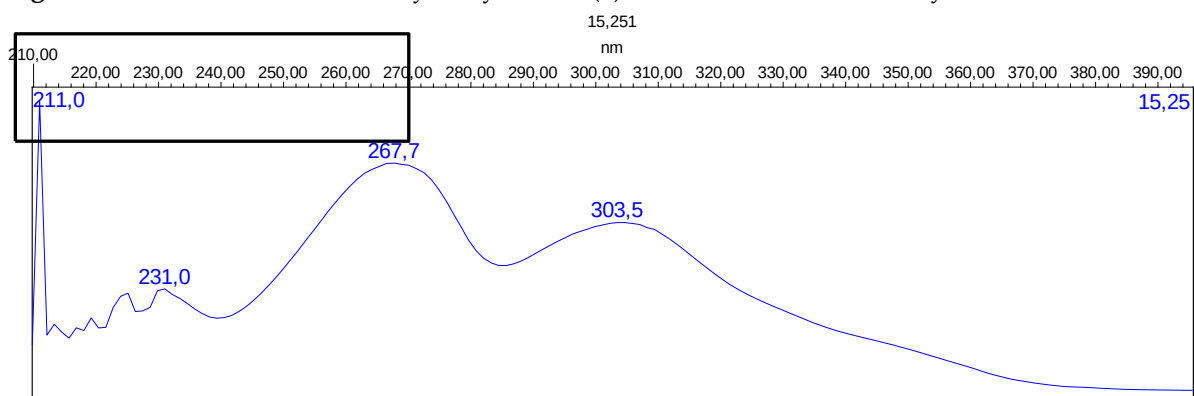


Figure S83. HPLC chromatogram of flavone 6-O- β -D-(4''-O-methyl)-glucopyranoside (3a)

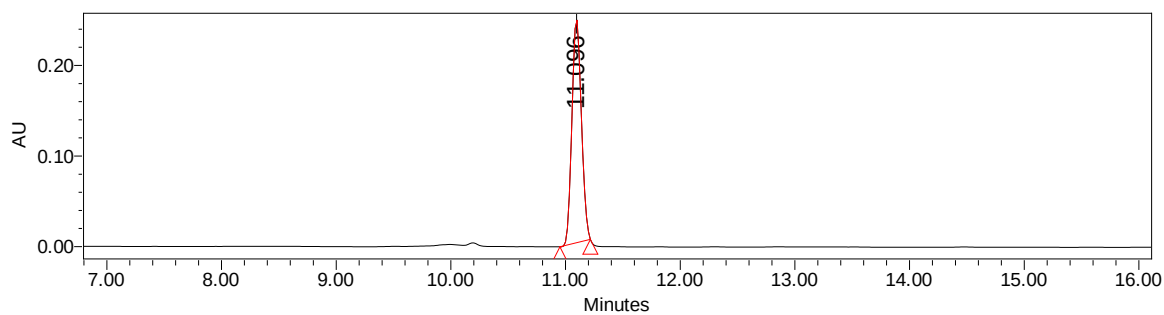


Figure S84. UV maxima of flavone 6-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (3a) obtained after HPLC analysis

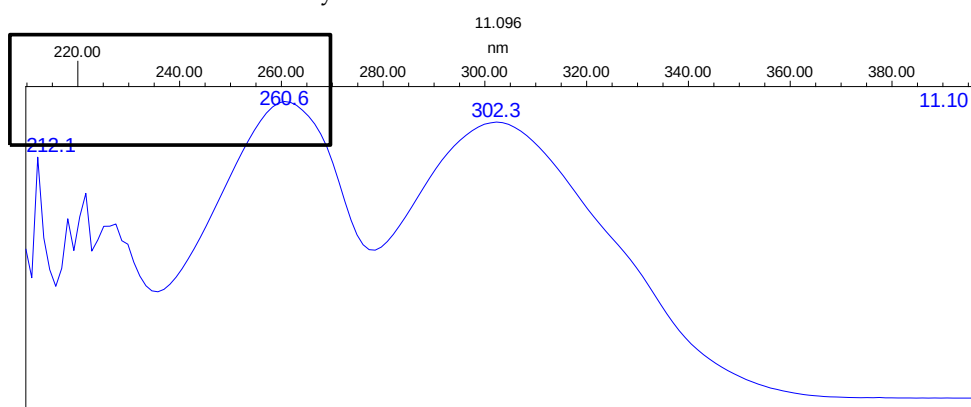


Figure S85. HPLC chromatogram of 7-hydroxyflavone (4)

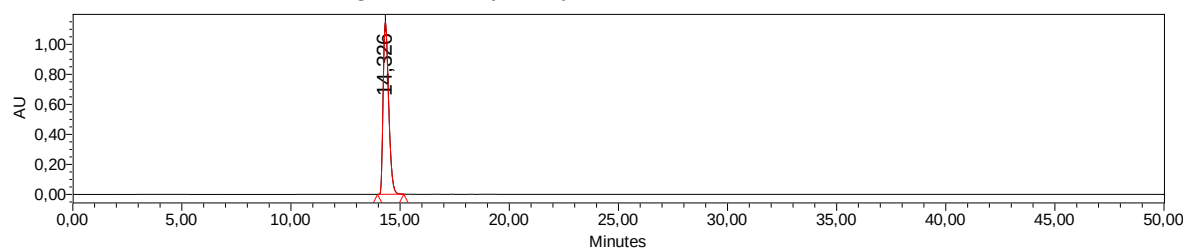


Figure S86. UV maxima of 7-hydroxyflavone (4) obtained after HPLC analysis

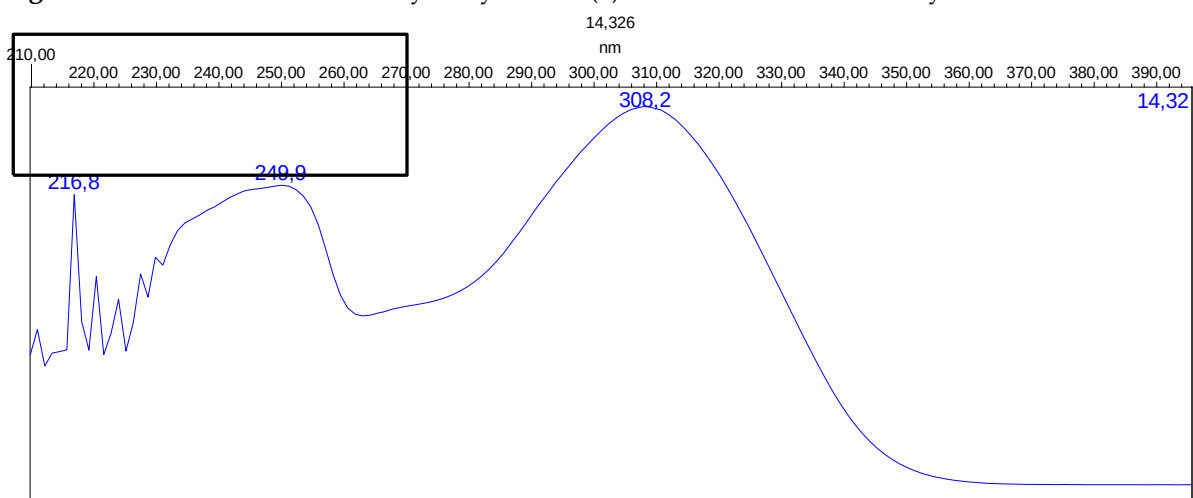


Figure S87. HPLC chromatogram of flavone 7-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (4a)

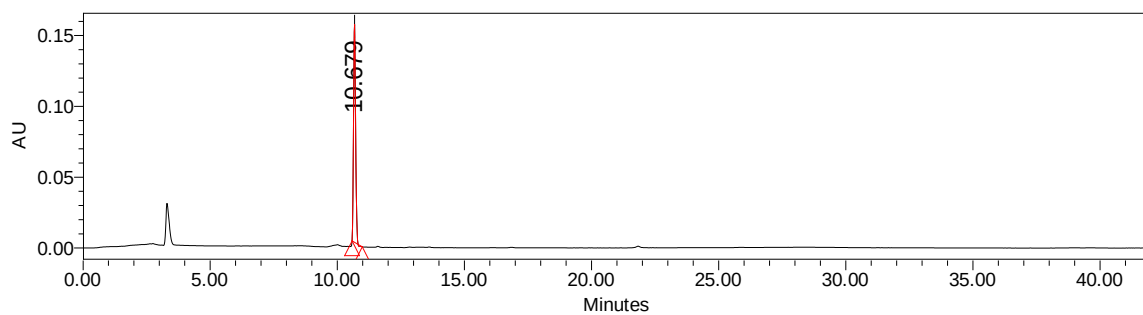


Figure S88. UV maxima of flavone 7-*O*- β -D-(4''-*O*-methyl)-glucopyranoside (4a) obtained after HPLC analysis

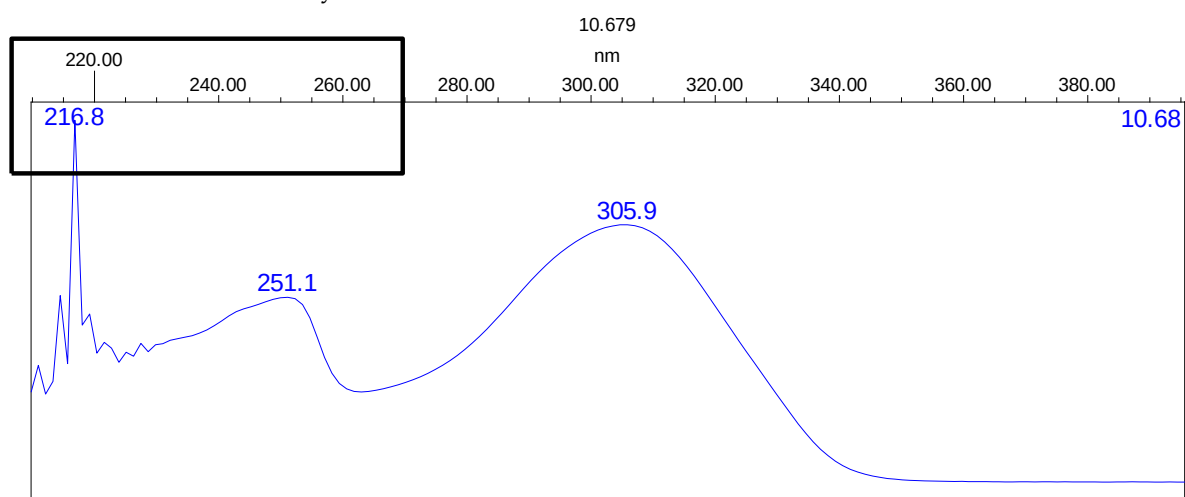


Figure S89. HPLC chromatogram of 4',7-dihydroxyisoflavone (5)

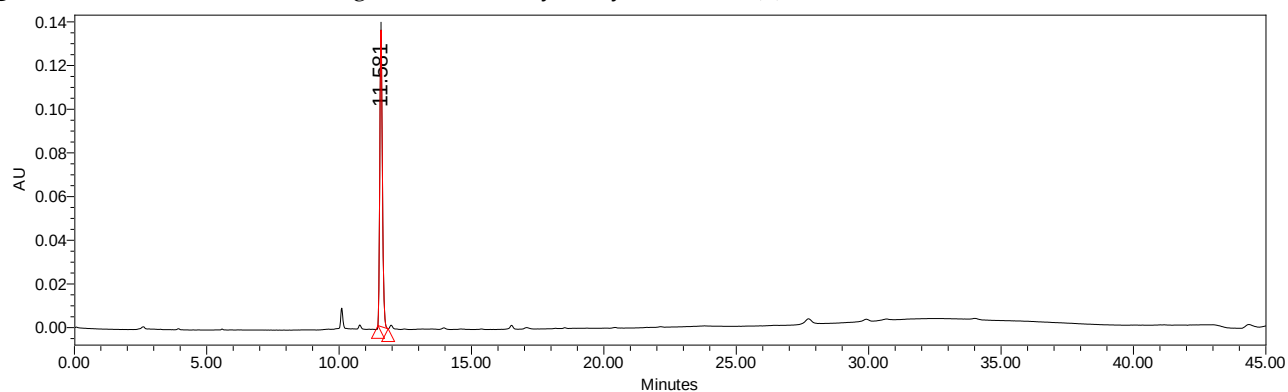


Figure S90. UV maxima of 4',7-dihydroxyisoflavone (5) obtained after HPLC analysis

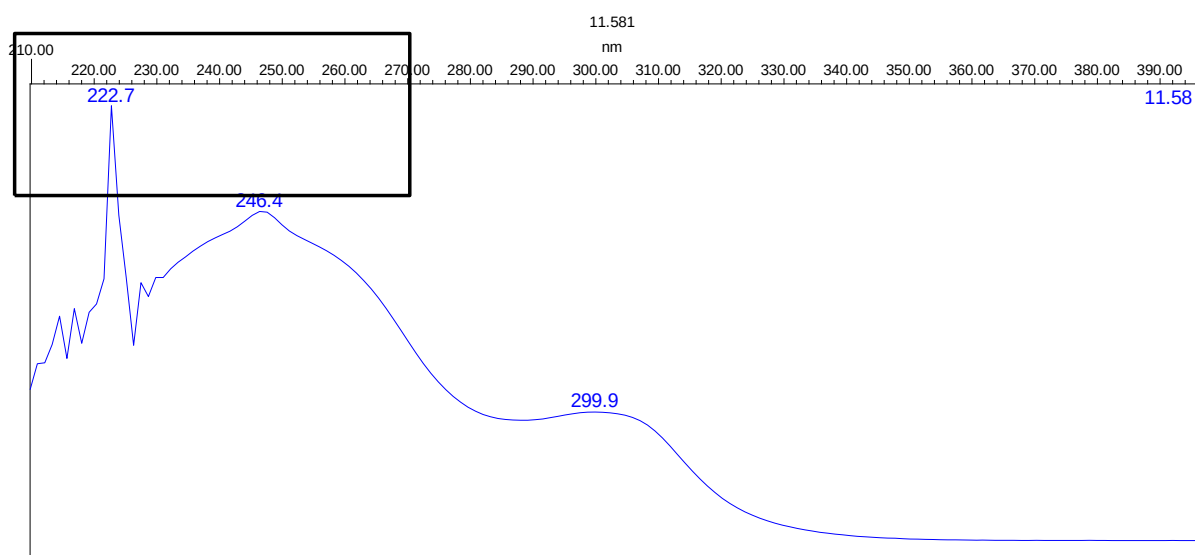


Figure S91. HPLC chromatogram of 4'-hydroxyisoflavone 7-O- β -D-(4''-O-methyl)-glucopyranoside (5a)

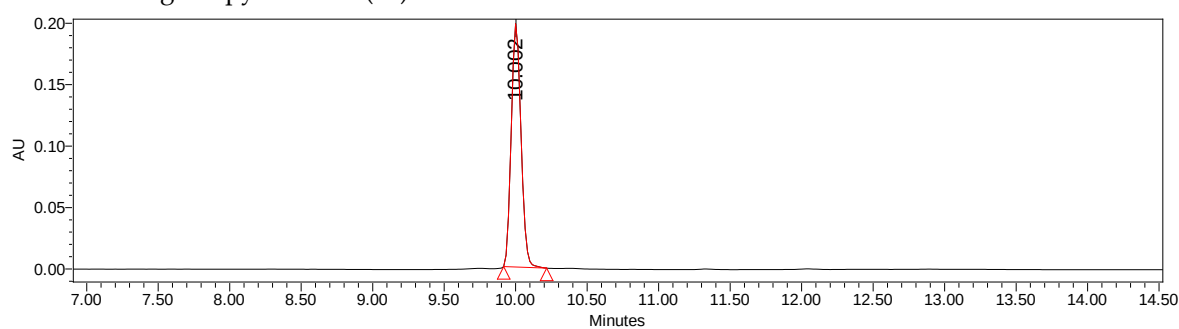


Figure S92. UV maxima of 4'-hydroxyisoflavone 7-O- β -D-(4''-O-methyl)-glucopyranoside (5a) obtained after HPLC analysis

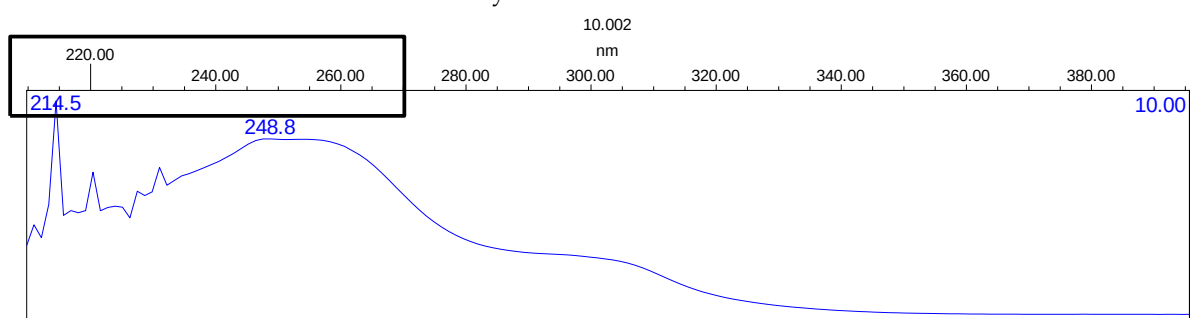


Figure S93. HPLC chromatogram of 7-aminoflavone (6)

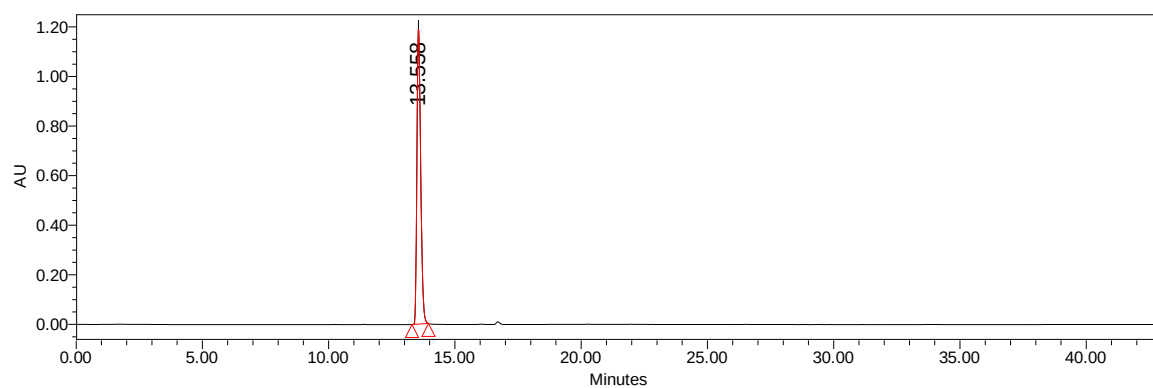


Figure S94. UV maxima of 7-aminoflavone (6) obtained after HPLC analysis

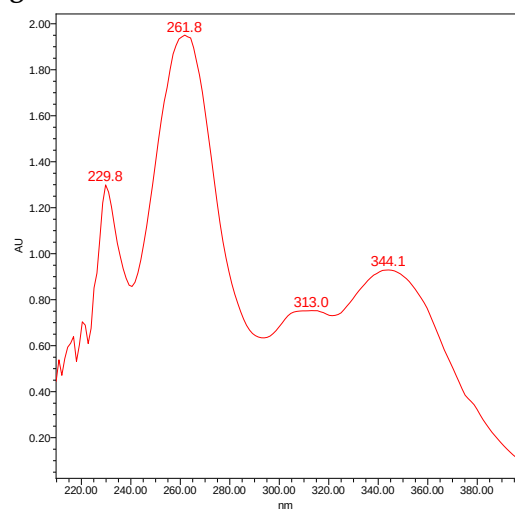


Figure S95. HPLC chromatogram of 7-acetamidoflavone (6a)

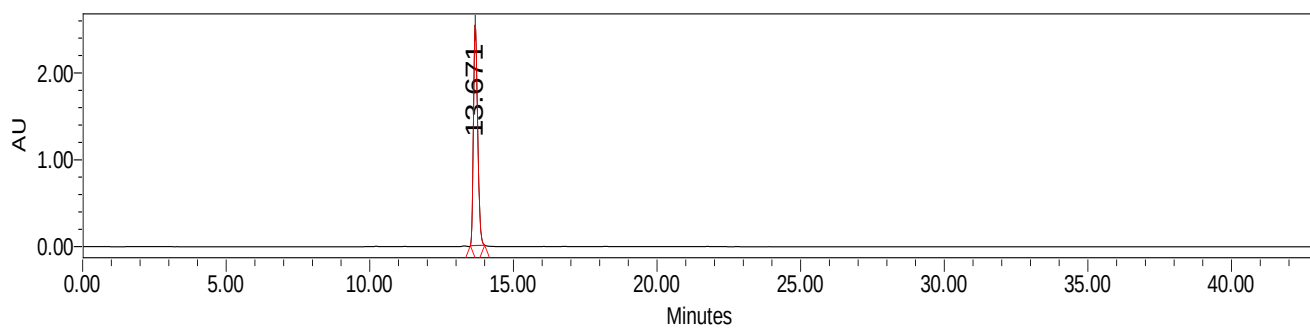


Figure S96. UV maxima of 7-acetamidoflavone (6a) obtained after HPLC analysis

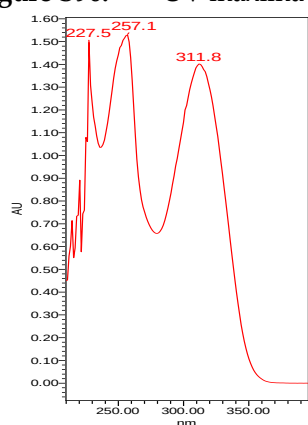


Figure S97. HPLC chromatogram of 4'-hydroxy-7-acetamidoflavone (6b)

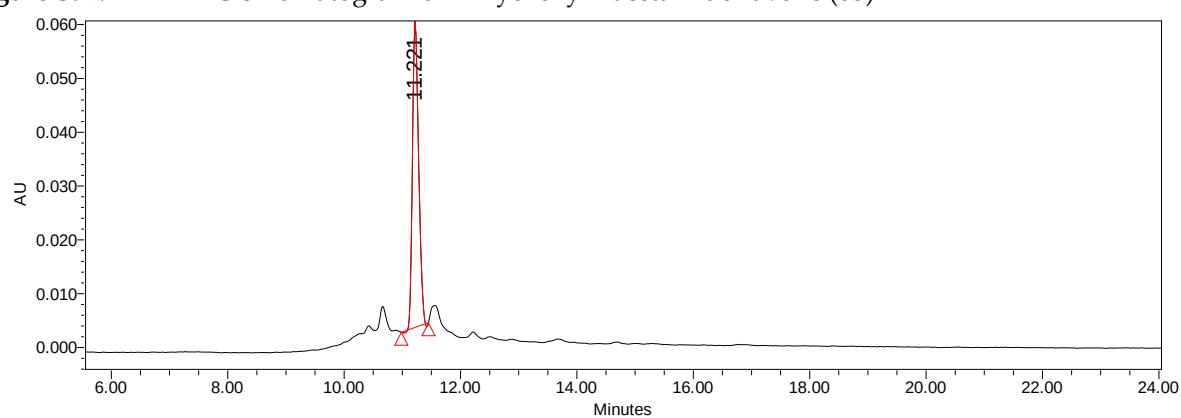


Figure S98. UV maxima of 4'-hydroxy-7-acetamidoflavone (6b) obtained after HPLC analysis

