

Supplementary Materials

Novel Dihydrocoumarins Induced by Radiolysis as Potent Tyrosinase Inhibitors

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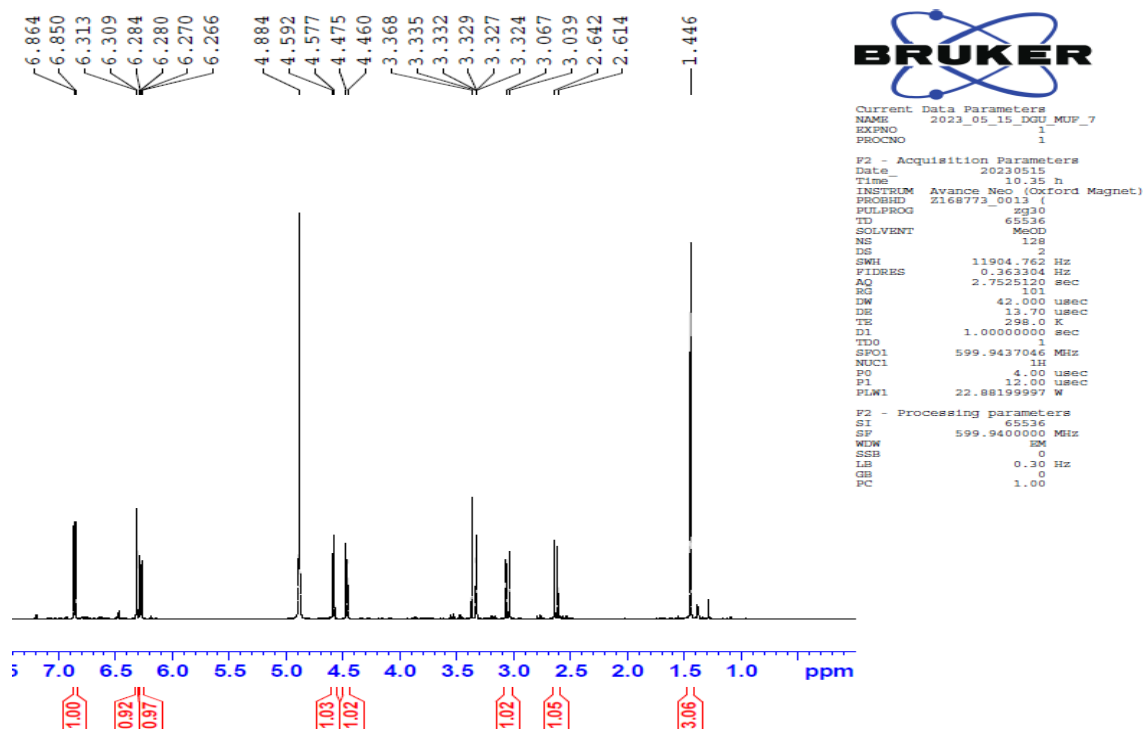


Figure S1. ^1H NMR spectrum of compound **1** in CD_3OD .

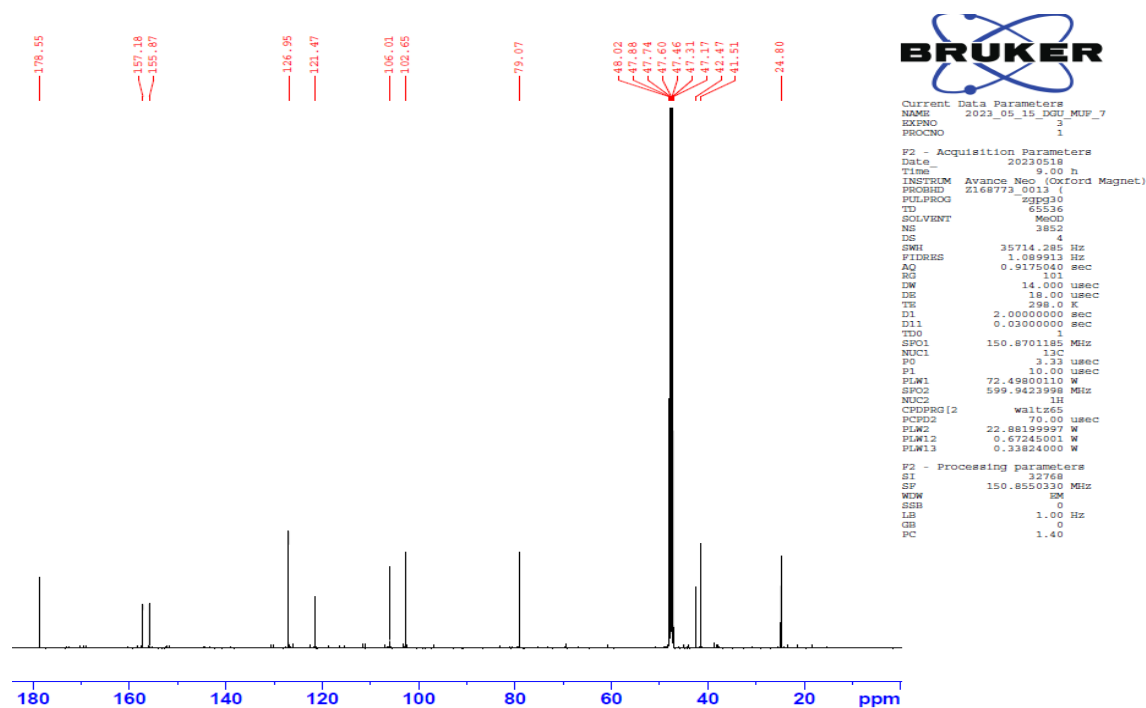


Figure S2. ^{13}C NMR spectrum of compound **1** in CD_3OD .

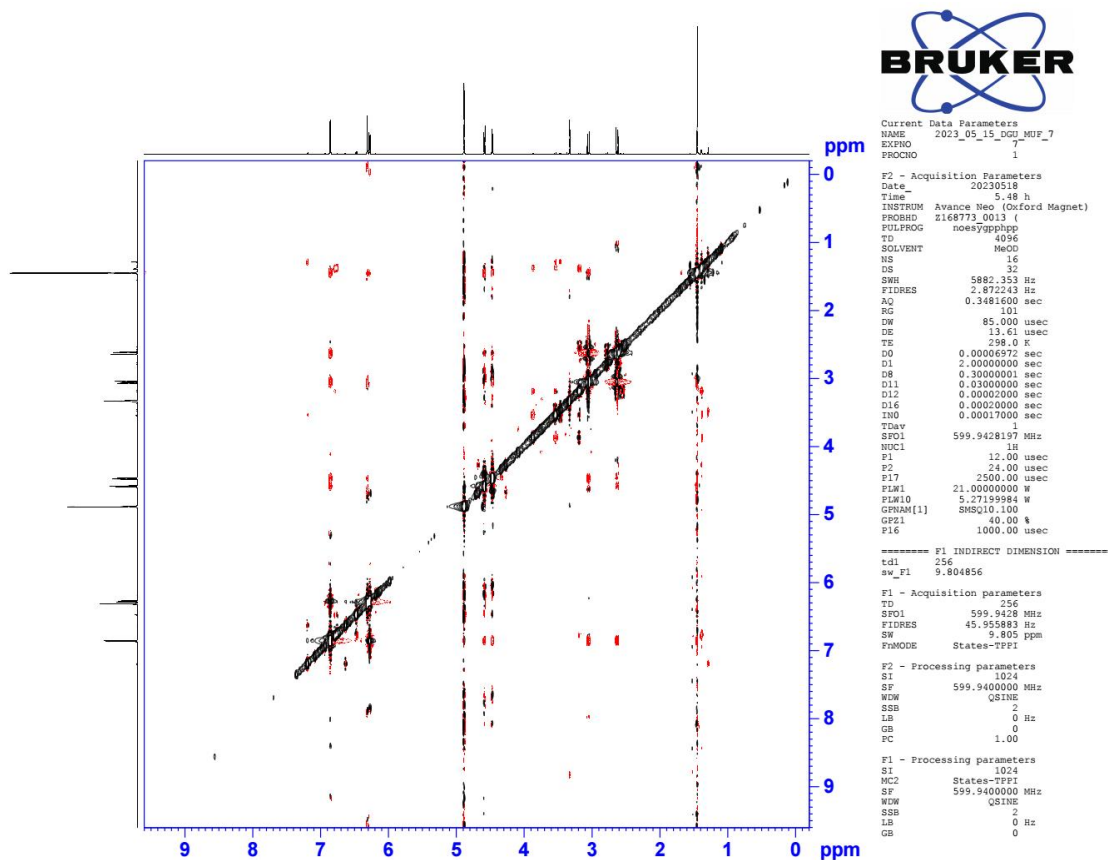


Figure S5. NOESY spectrum of compound 1 in CD₃OD.

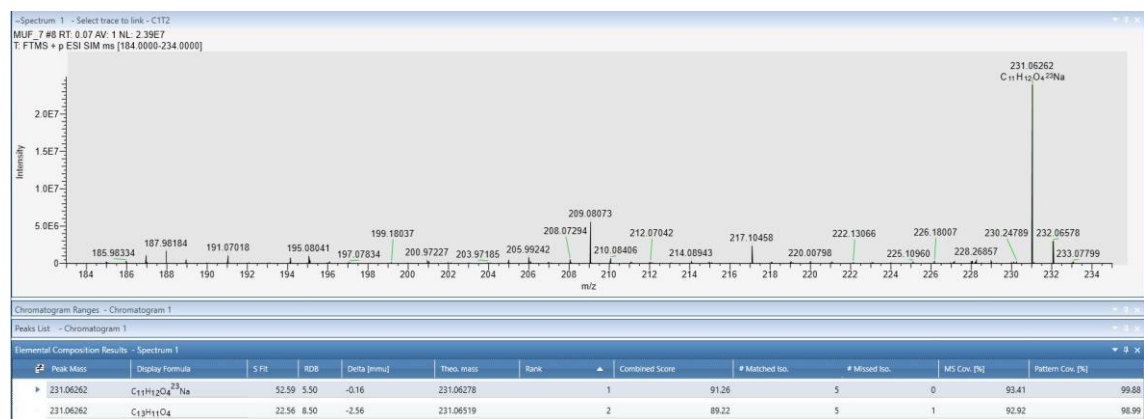


Figure S6. HRESIMS spectrum of compound 1.

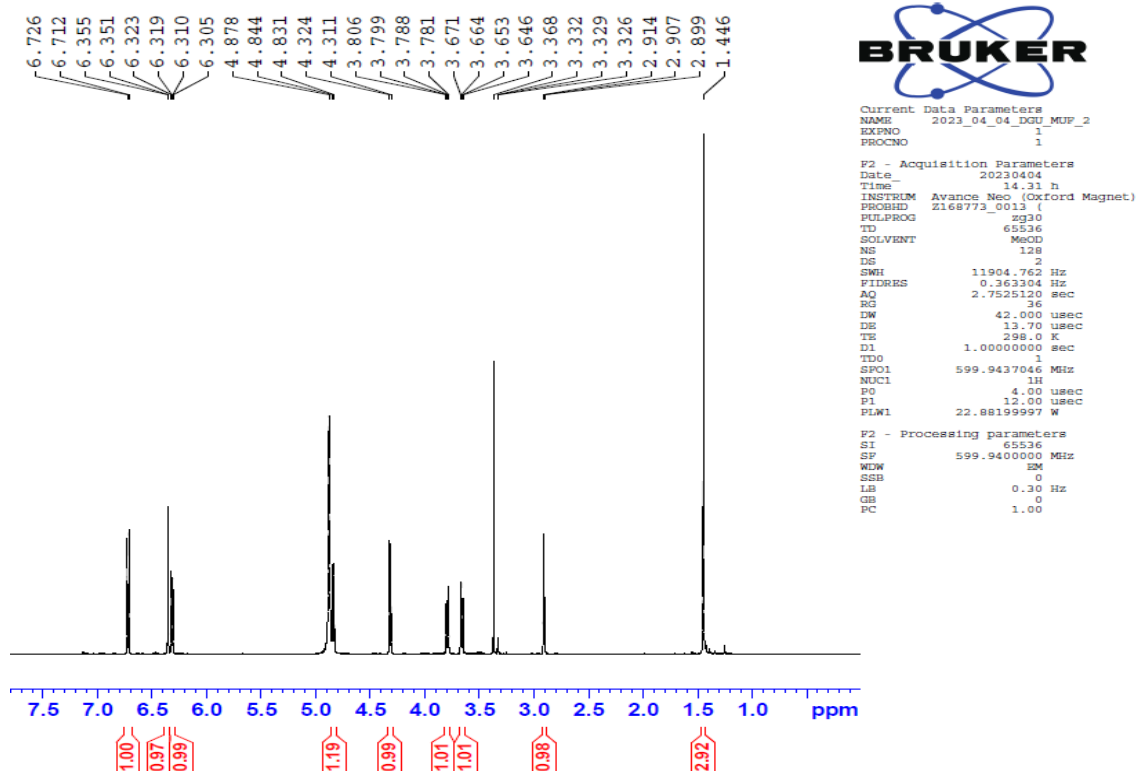


Figure S7. ^1H NMR spectrum of compound **2** in CD_3OD .

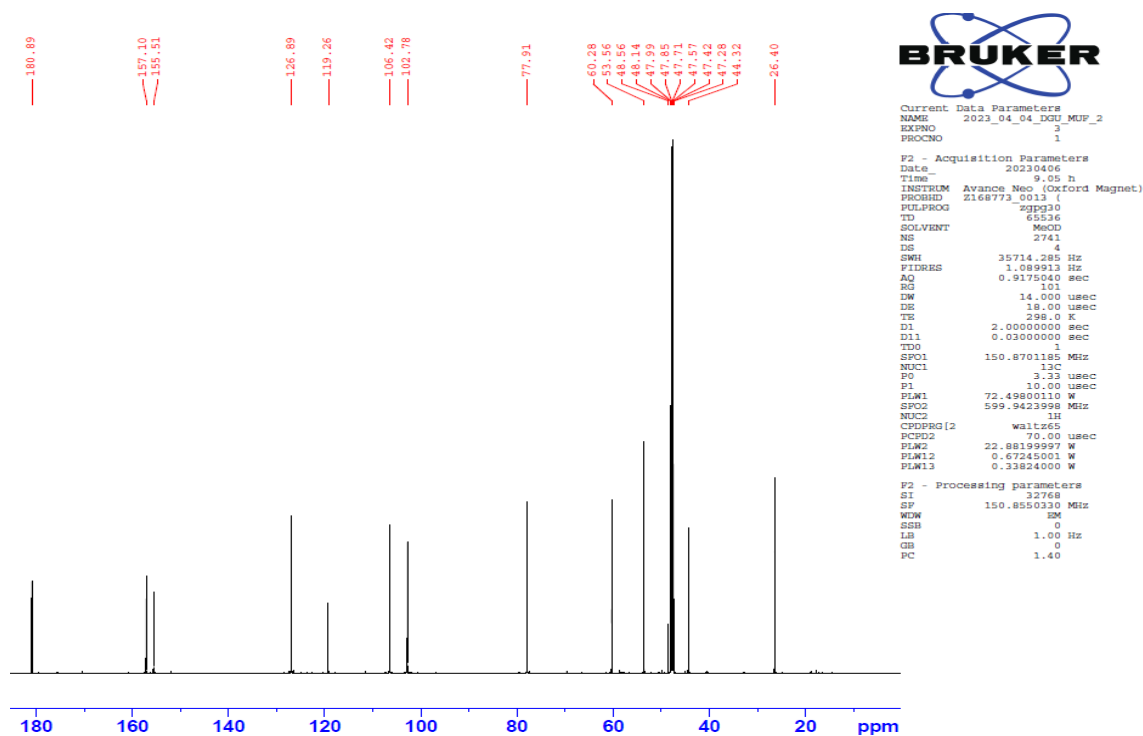


Figure S8. ^{13}C NMR spectrum of compound **2** in CD_3OD .

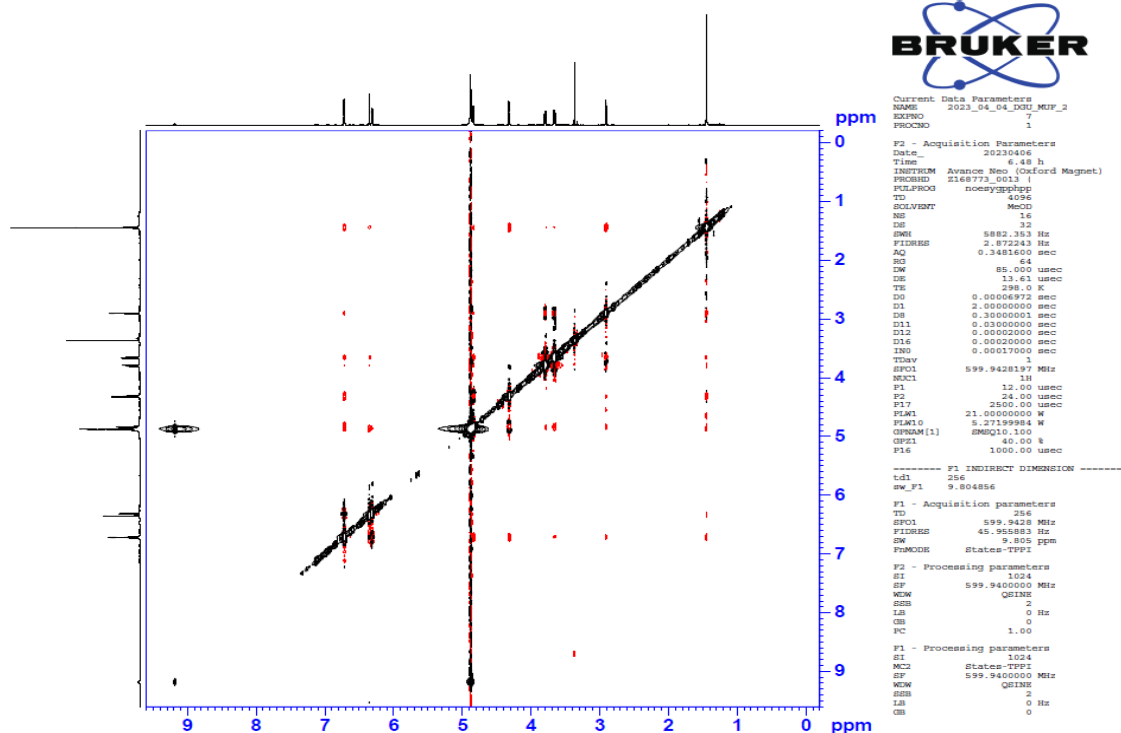


Figure S11. NOESY spectrum of compound **2** in CD₃OD.

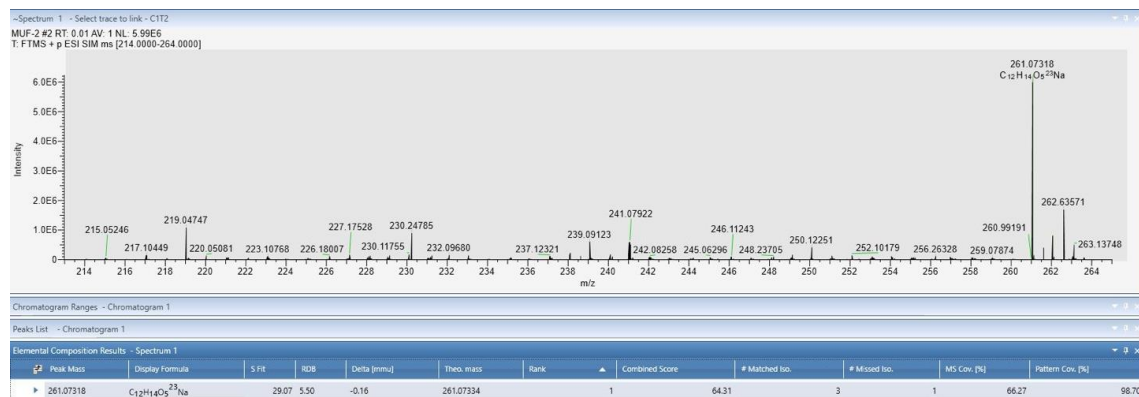


Figure S12. HRESIMS spectrum of compound **2**.

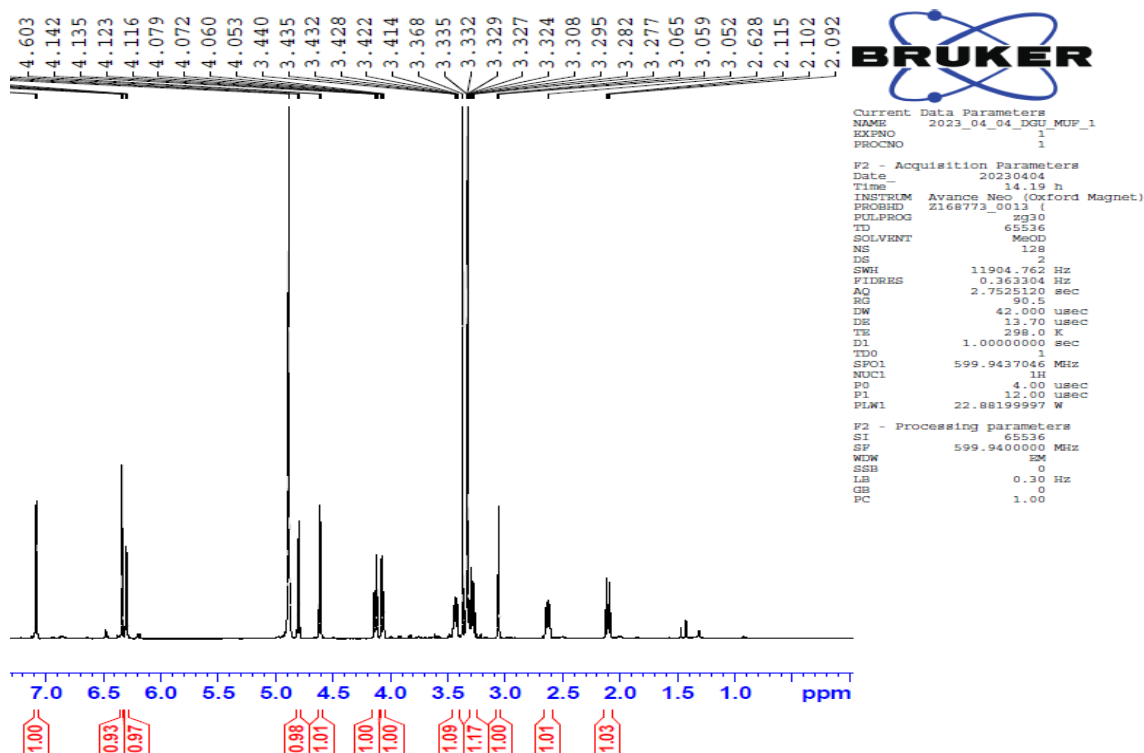


Figure S13. ^1H NMR spectrum of compound **3** in CD_3OD .

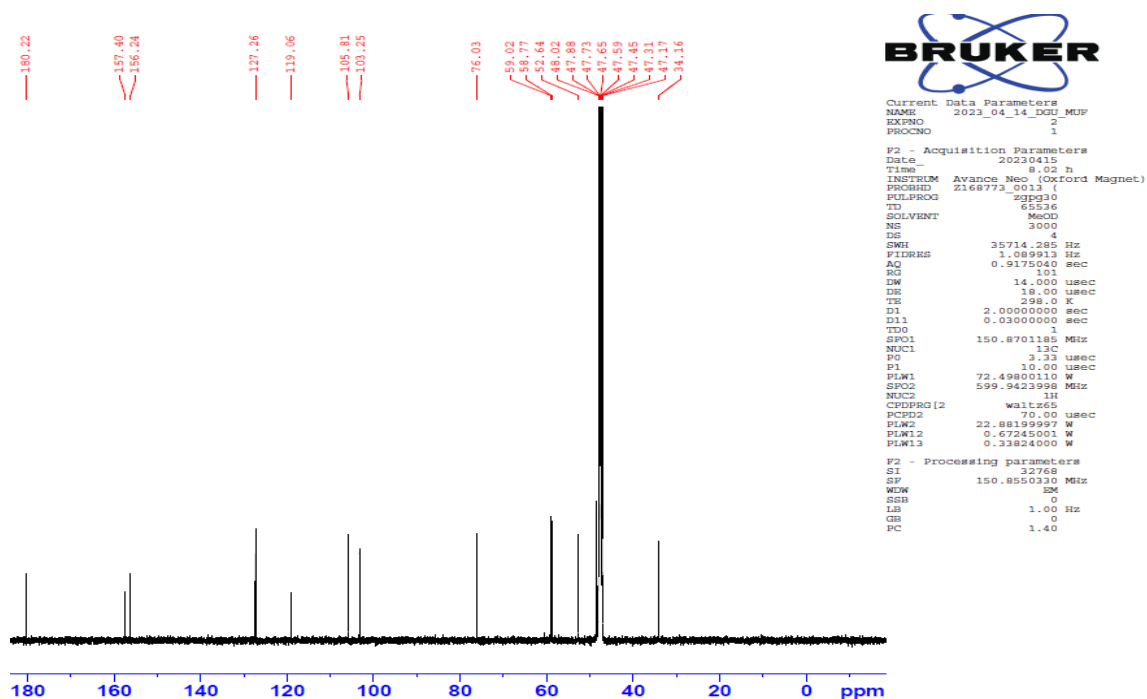


Figure S14. ^{13}C NMR spectrum of compound **3** in CD_3OD .

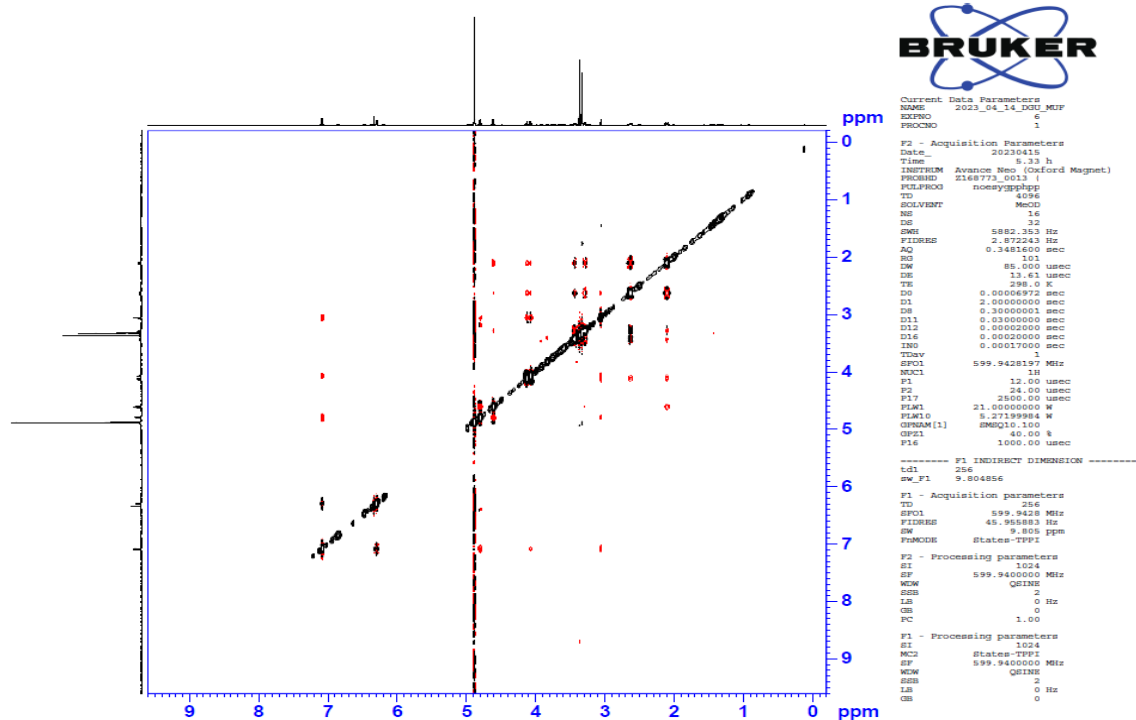


Figure S17. NOESY spectrum of compound **3** in CD₃OD.



Figure S18. HRESIMS spectrum of compound **3**.

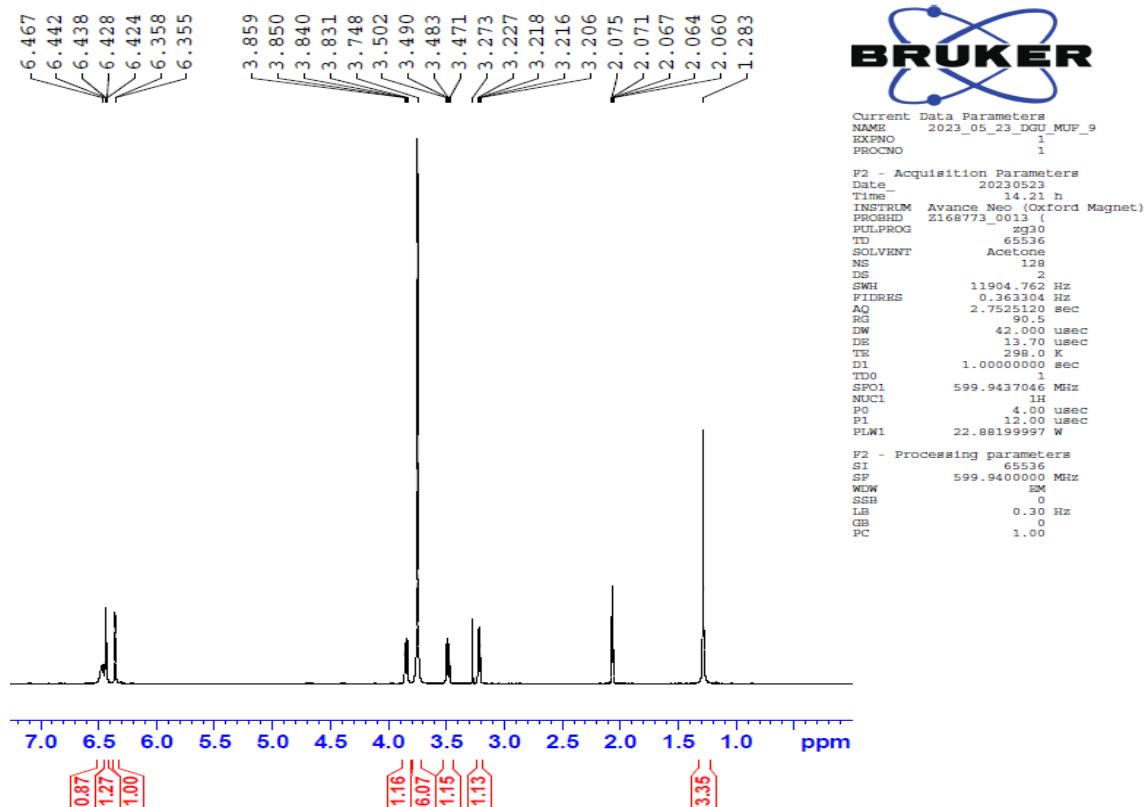


Figure S19. ^1H NMR spectrum of compound **4** in acetone- d_6 + D_2O .

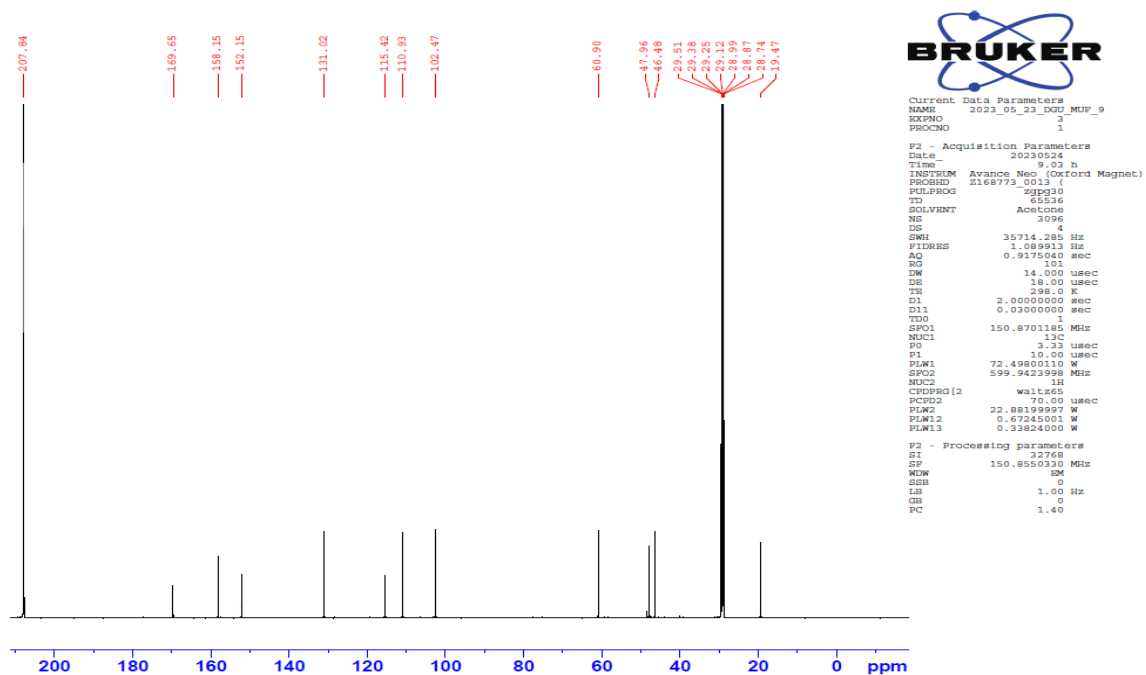


Figure S20. ^{13}C NMR spectrum of compound **4** in acetone- d_6 + D_2O .

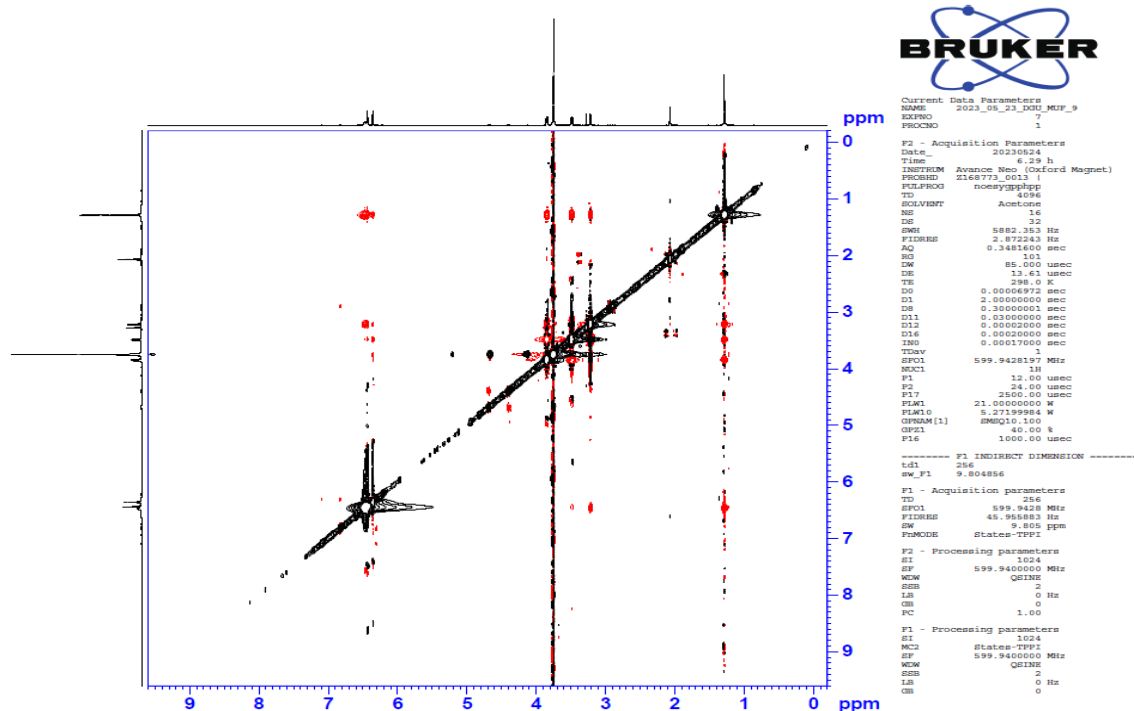
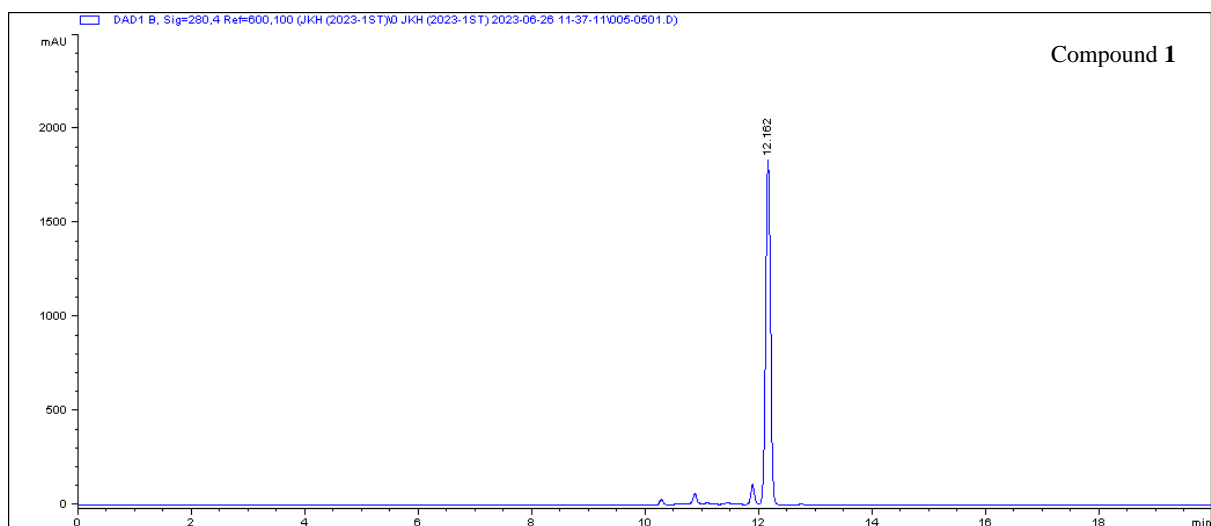
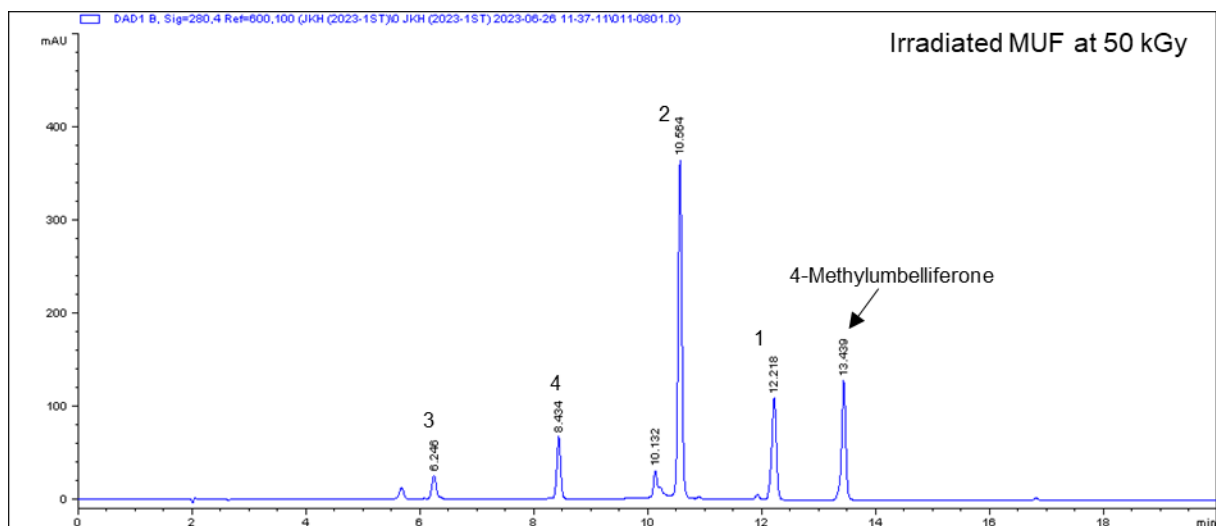
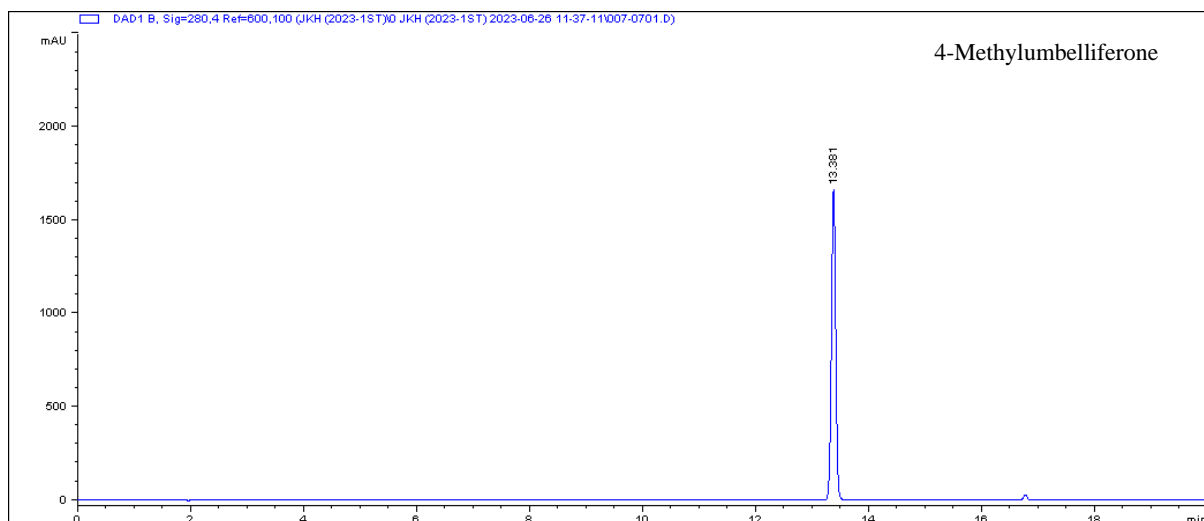
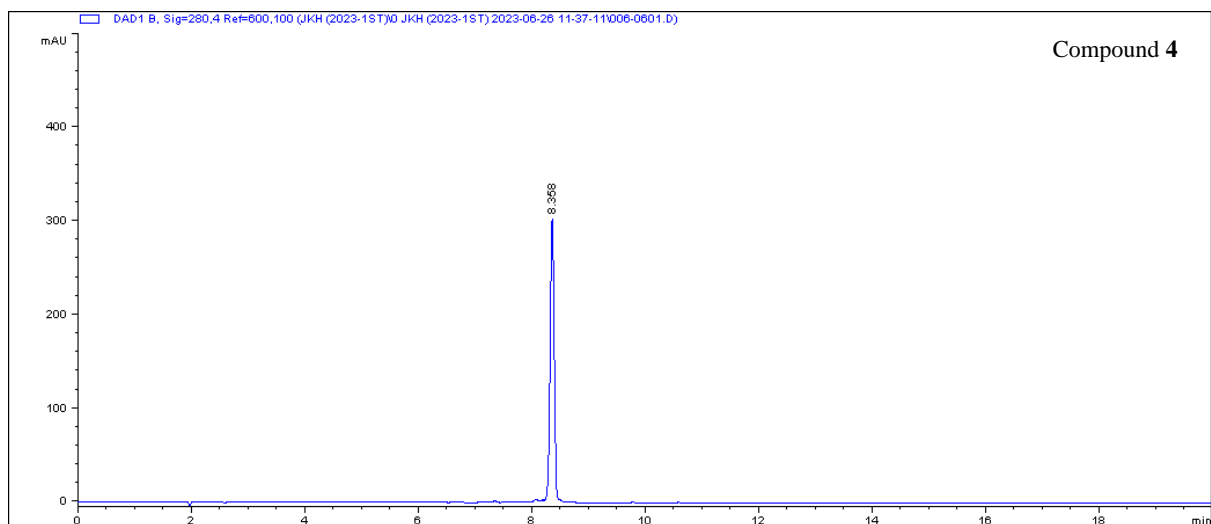
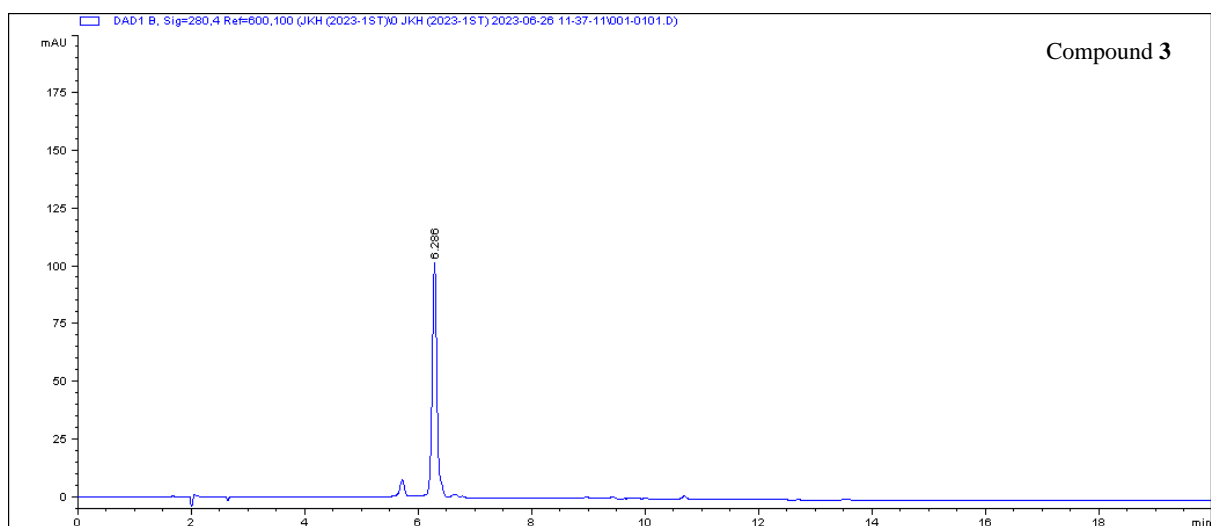
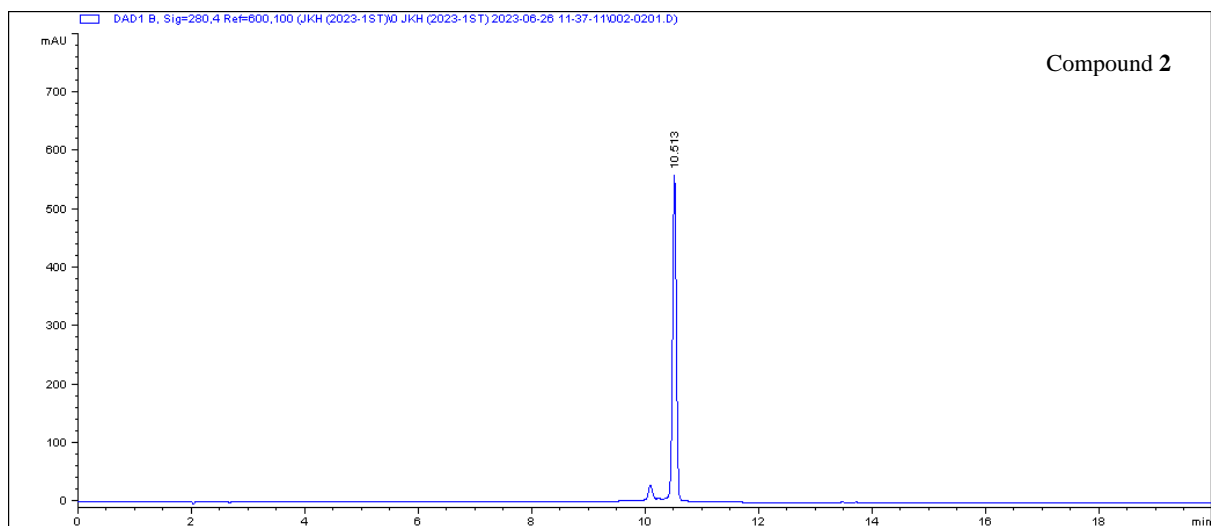


Figure S23. NOESY spectrum of compound **4** in acetone- d_6 /D $_2$ O.



Figure S24. HRESIMS spectrum of compound **4**.





HPLC analysis was conducted on a YMC-Pack ODS A-302 column (4.6 mm i.d. × 150 mm; 5 μm particle size; YMC Co., Kyoto, Japan), and the gradient solvent system (detection: UV 280 nm; temperature: 40 °C) initiated with 0.1% HCOOH, increased to CH₃CN over 20 min and the flow rate was set at 1.0 mL/min.

Figure S25. HPLC chromatograms of gamma ray treated reactant and newly generated molecules **1–4**.

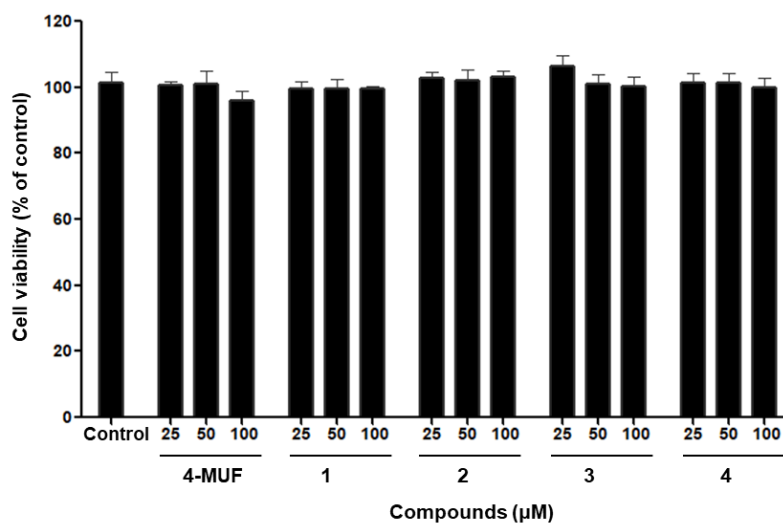


Figure S26. Effects of isolated compounds on the cell viability in B16F10 cells. Cell viability detection by MTT assay in B16F10 cells after treatment with extracts for 24 h.