

Supporting Information

Novel antidiabetic and antioxidant secondary metabolites from plant-associated endophytic fungus *Penicillium brefeldianum* F4a

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Figure S1. HRESIMS spectrum of compound **1**

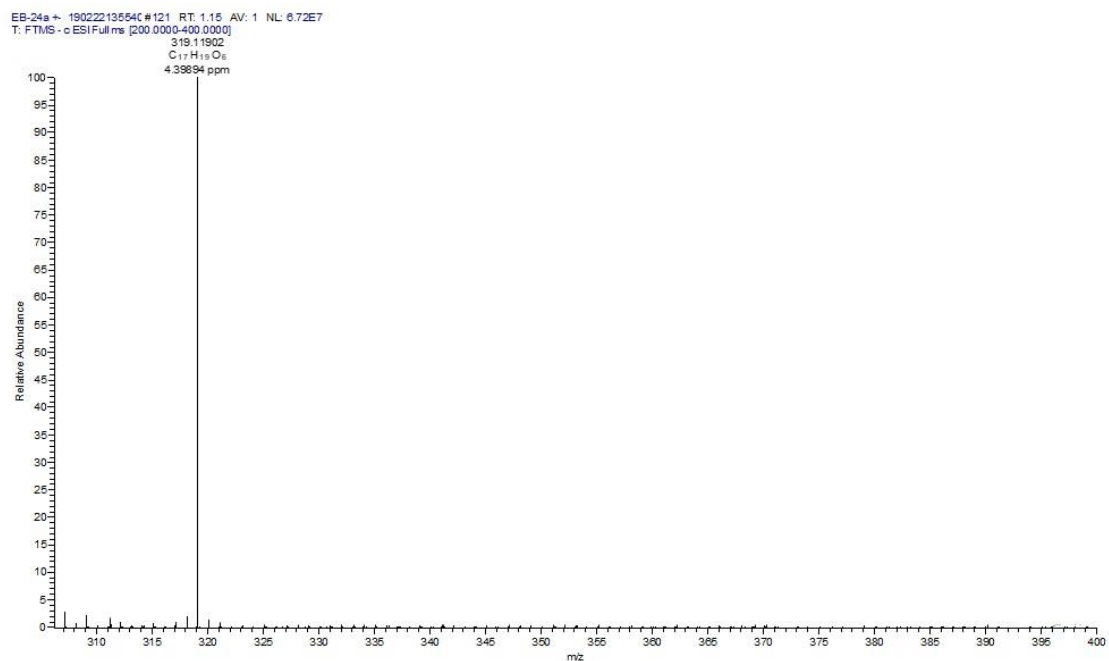


Figure S2. IR spectrum of compound **1**

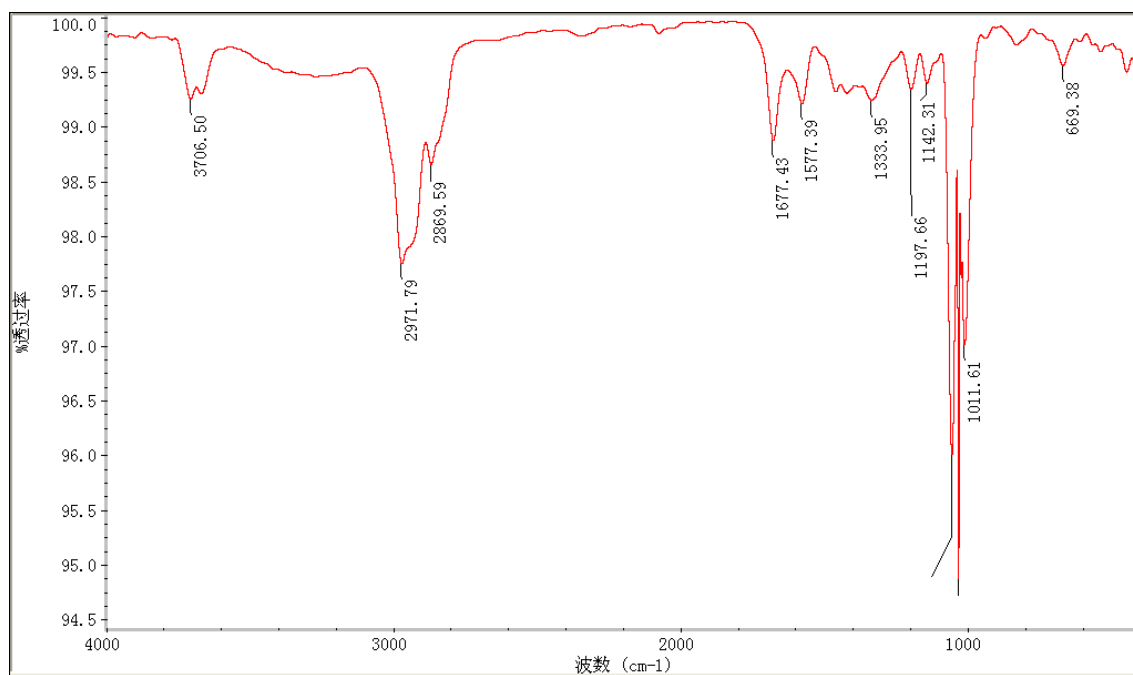


Figure S3. ^1H NMR (600 MHz, $\text{DMSO-}d_6$) spectrum of compound **1**

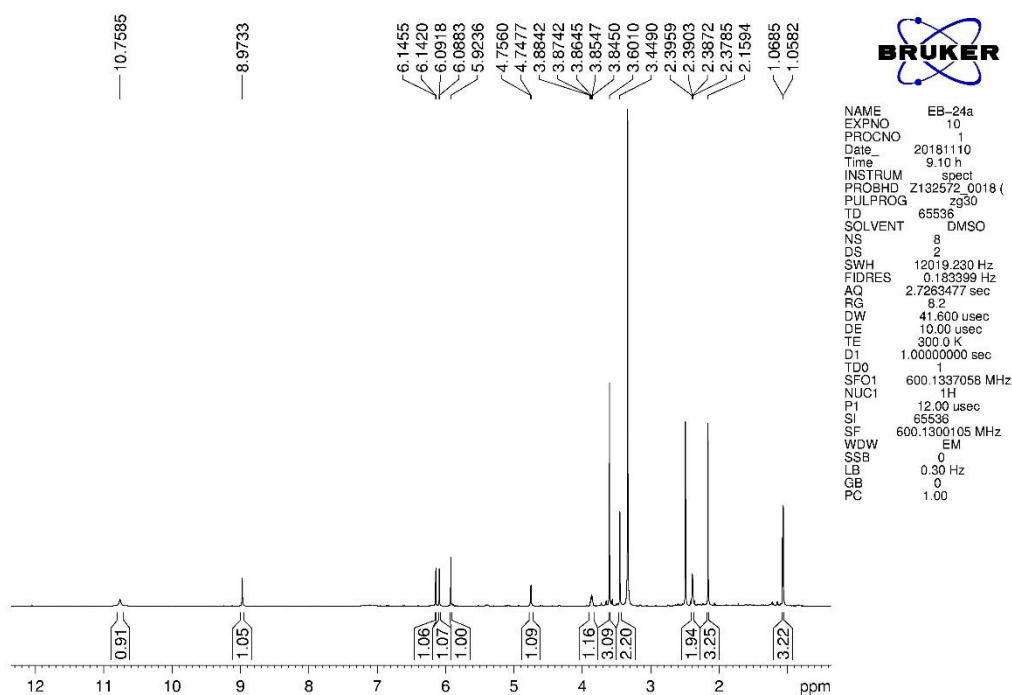


Figure S4. ^{13}C NMR (150 MHz, $\text{DMSO-}d_6$) spectrum of compound **1**

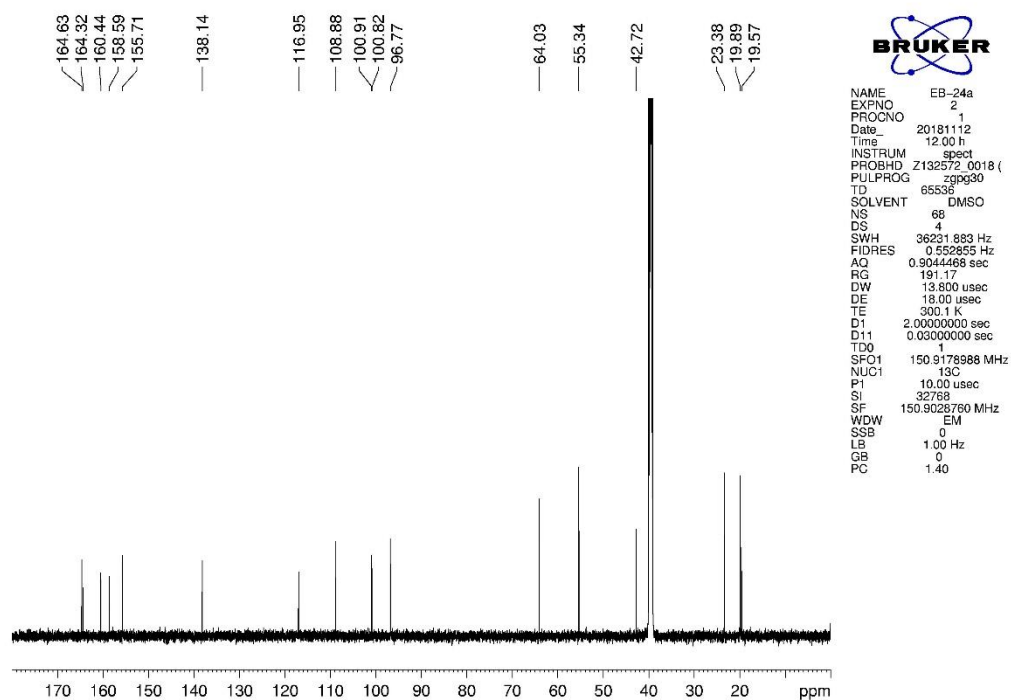


Figure S5. HSQC spectrum of compound 1

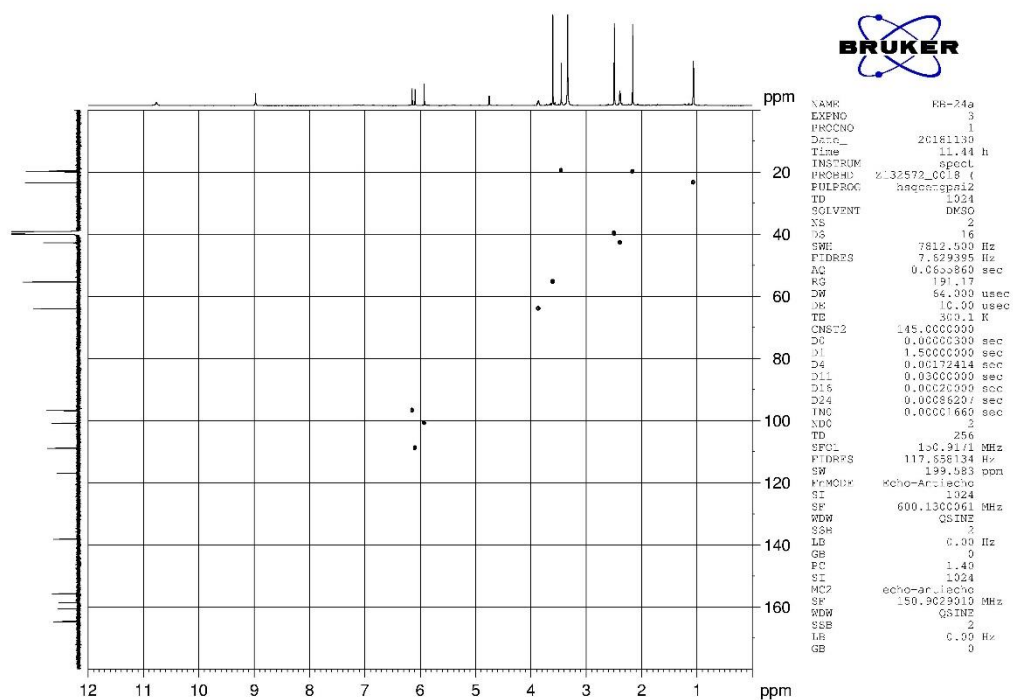


Figure S6. ^1H - ^{13}C HMBC spectrum of compound 1

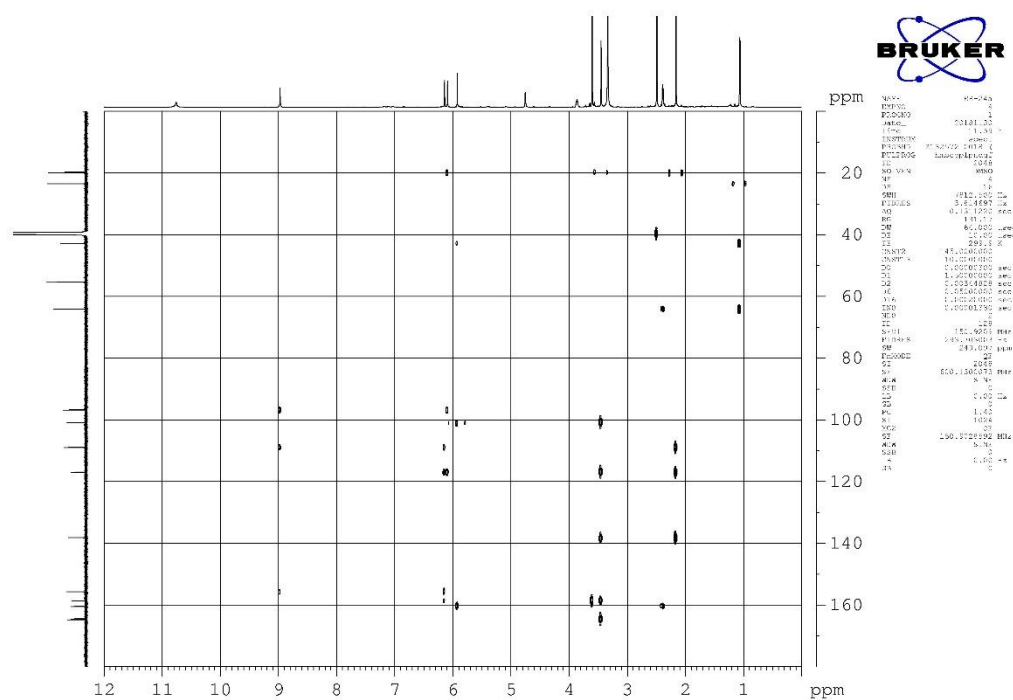


Figure S7. ^1H - ^1H COSY spectrum of compound **1**

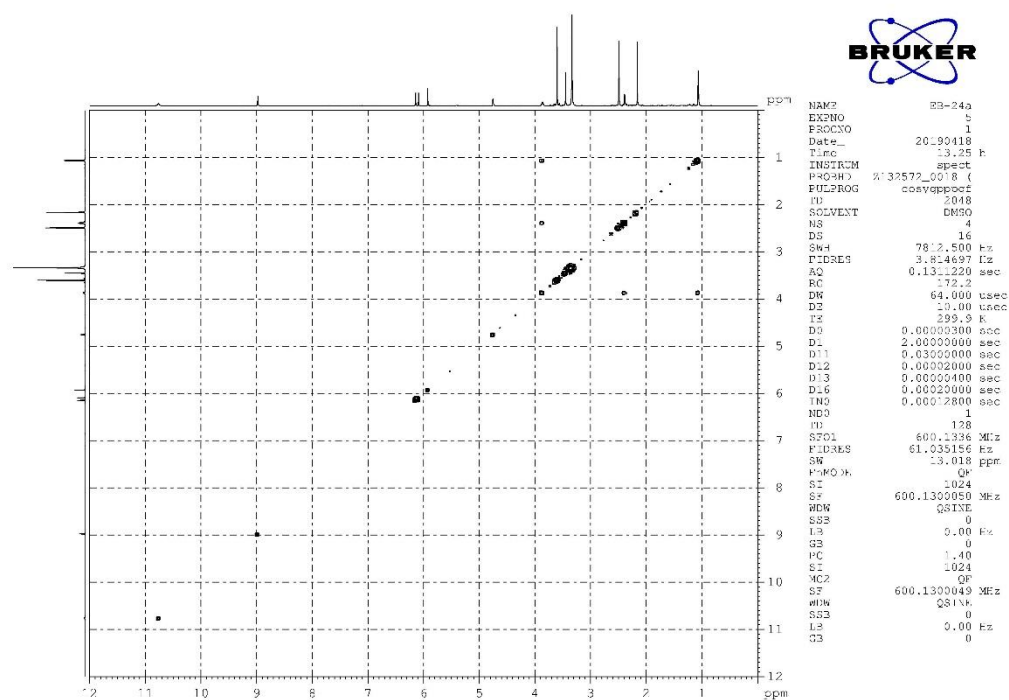


Figure S8. HRESIMS spectrum of compound **2**

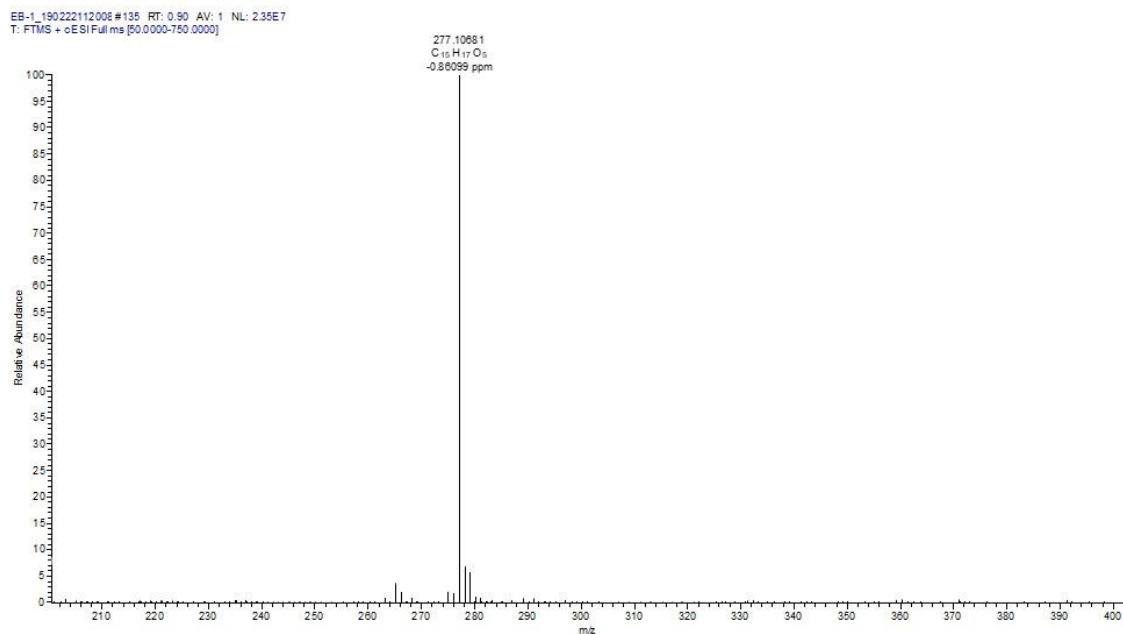


Figure S9. IR spectrum of compound 2

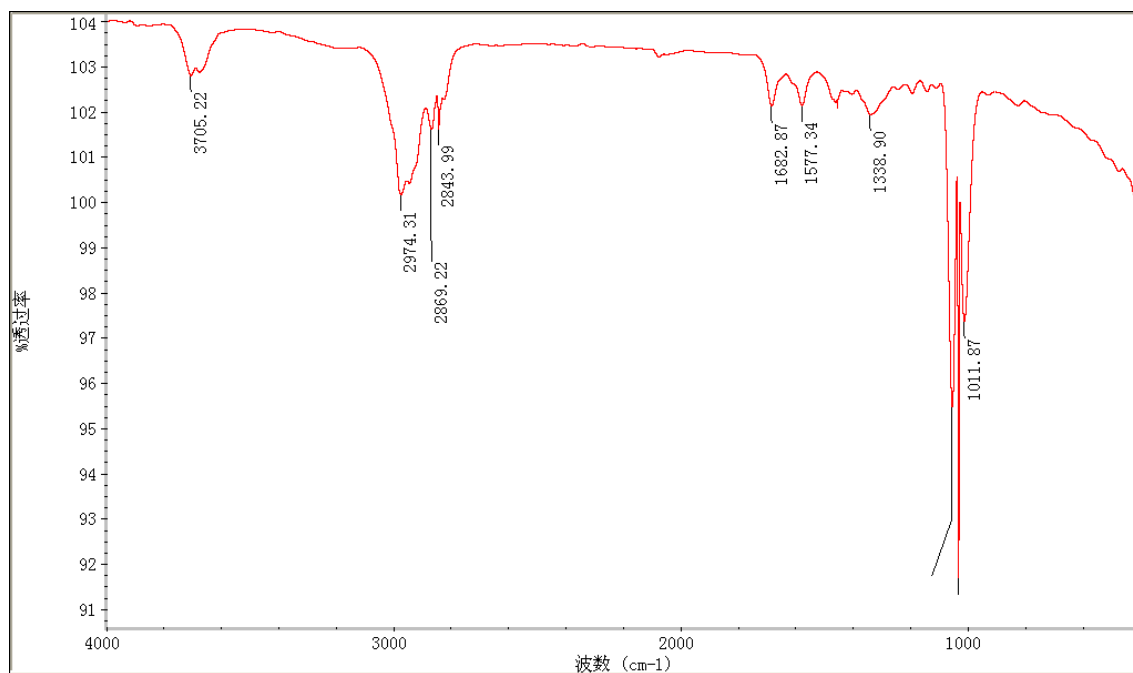


Figure S10. ¹H NMR (600 MHz, DMSO-*d*₆) spectrum of compound 2

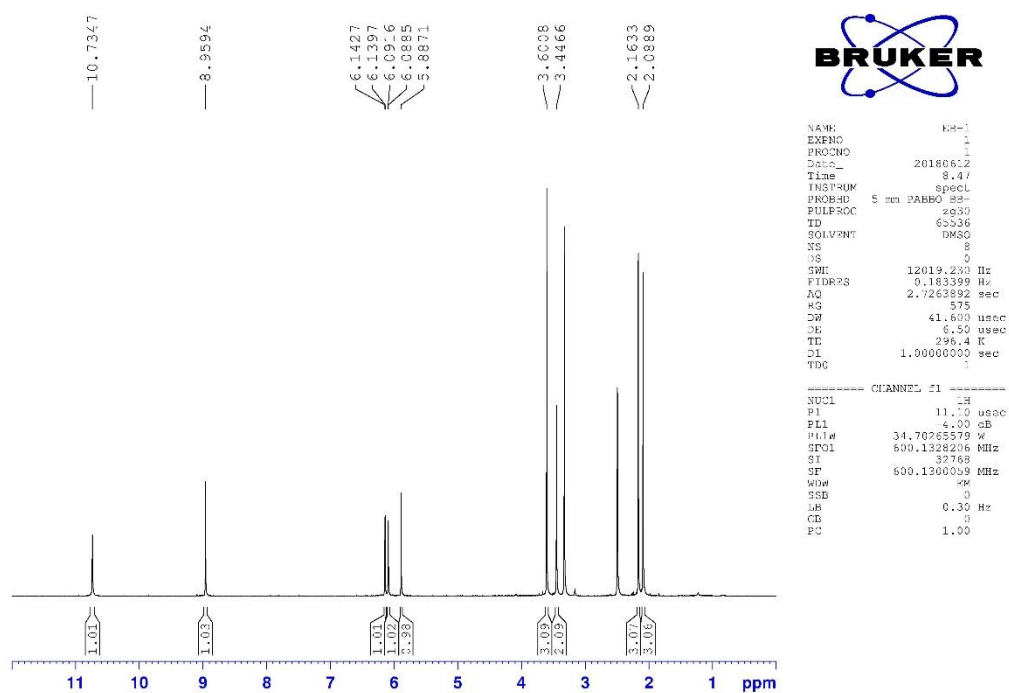


Figure S11. ^{13}C NMR (150 MHz, $\text{DMSO}-d_6$) spectrum of compound **2**

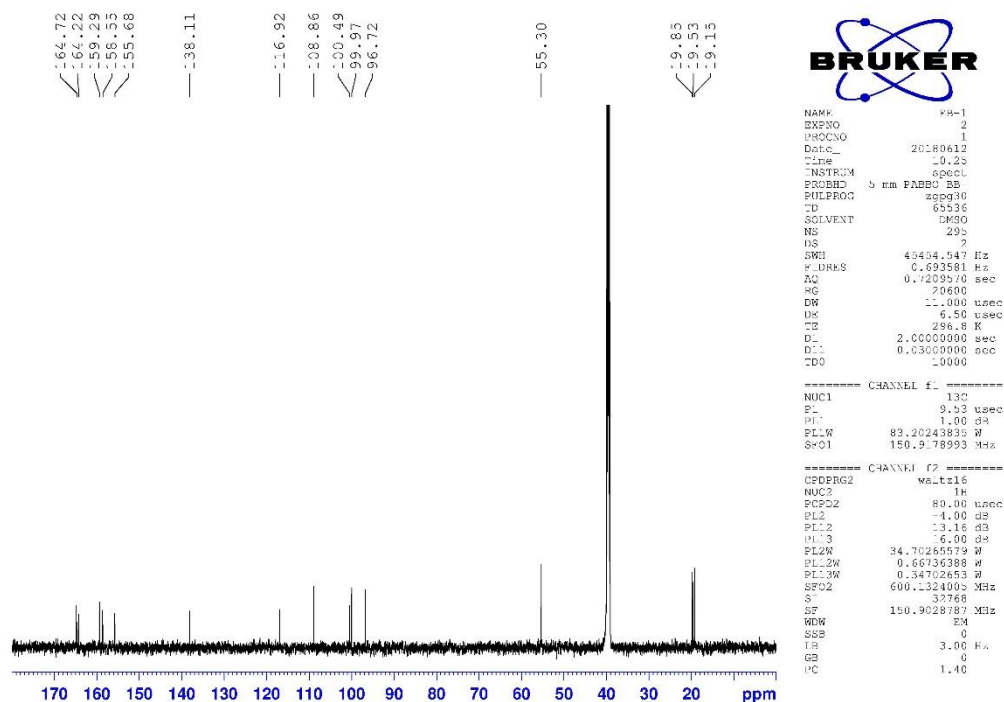


Figure S12. HSQC spectrum of compound **2**

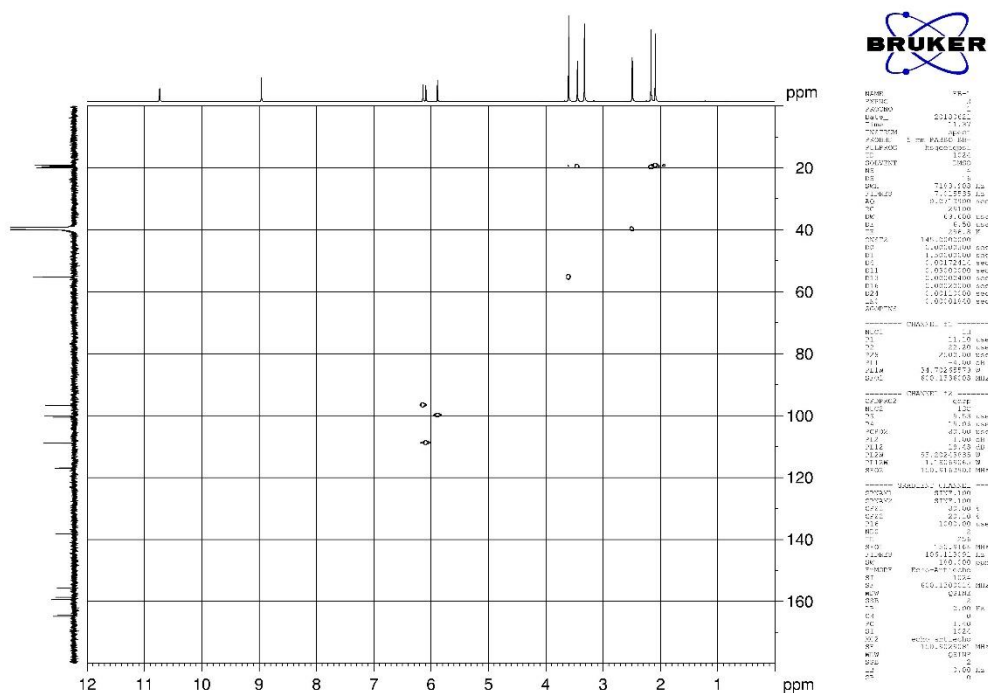


Figure S13. ^1H - ^{13}C HMBC spectrum of compound **2**

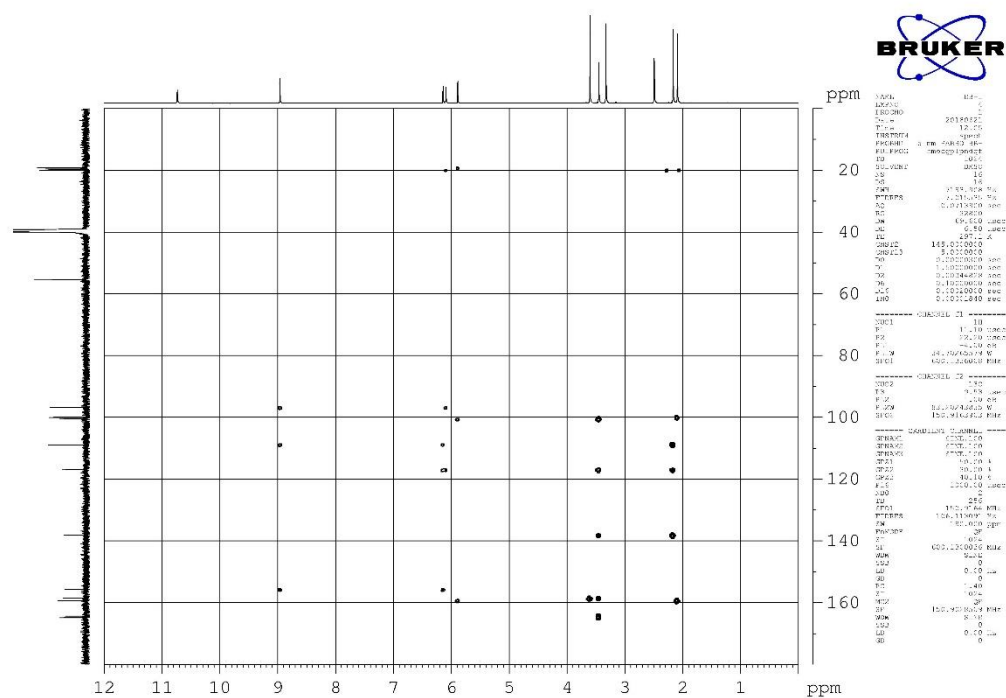


Figure S15. IR spectrum of compound **3**

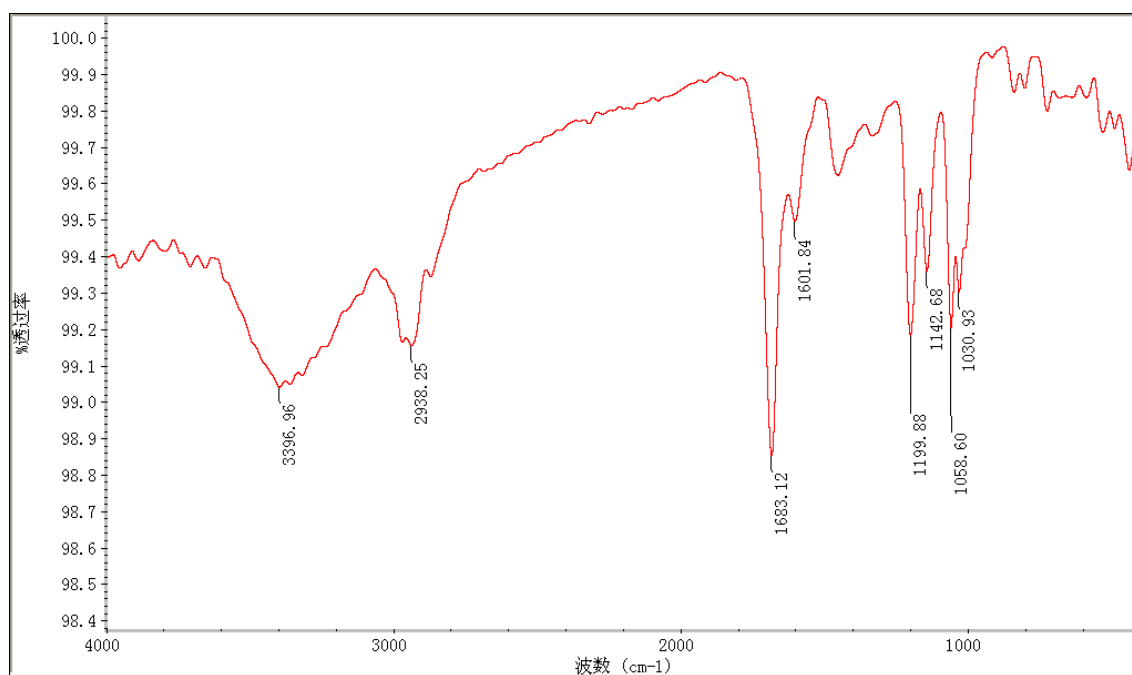


Figure S16. ¹H NMR (600 MHz, DMSO-*d*₆) spectrum of compound **3**

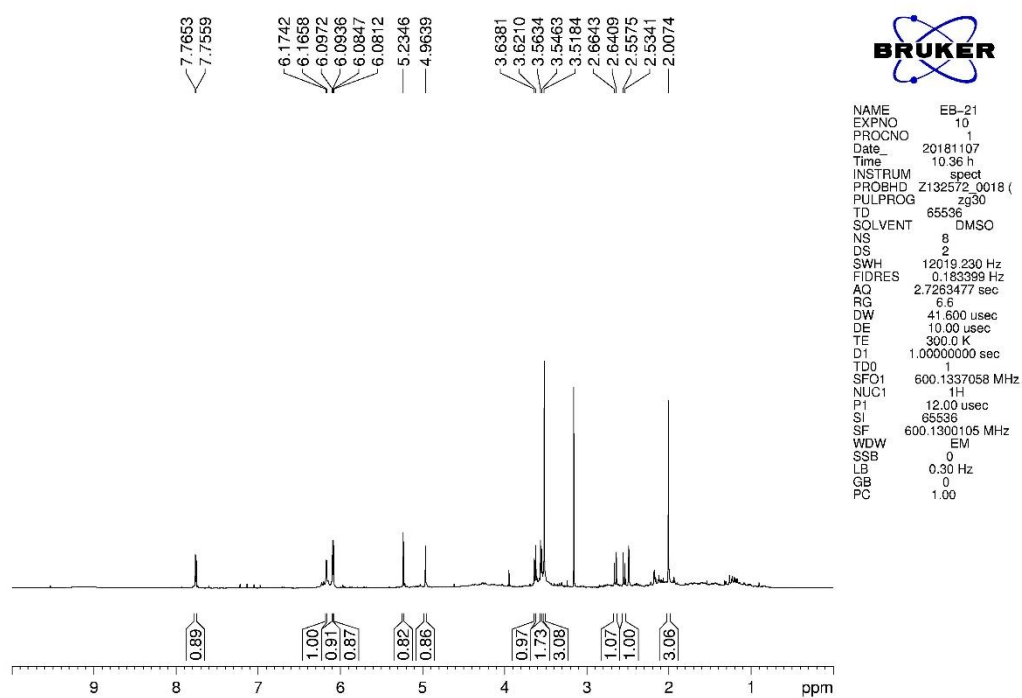


Figure S17. ^{13}C NMR (150 MHz, $\text{DMSO}-d_6$) spectrum of compound **3**

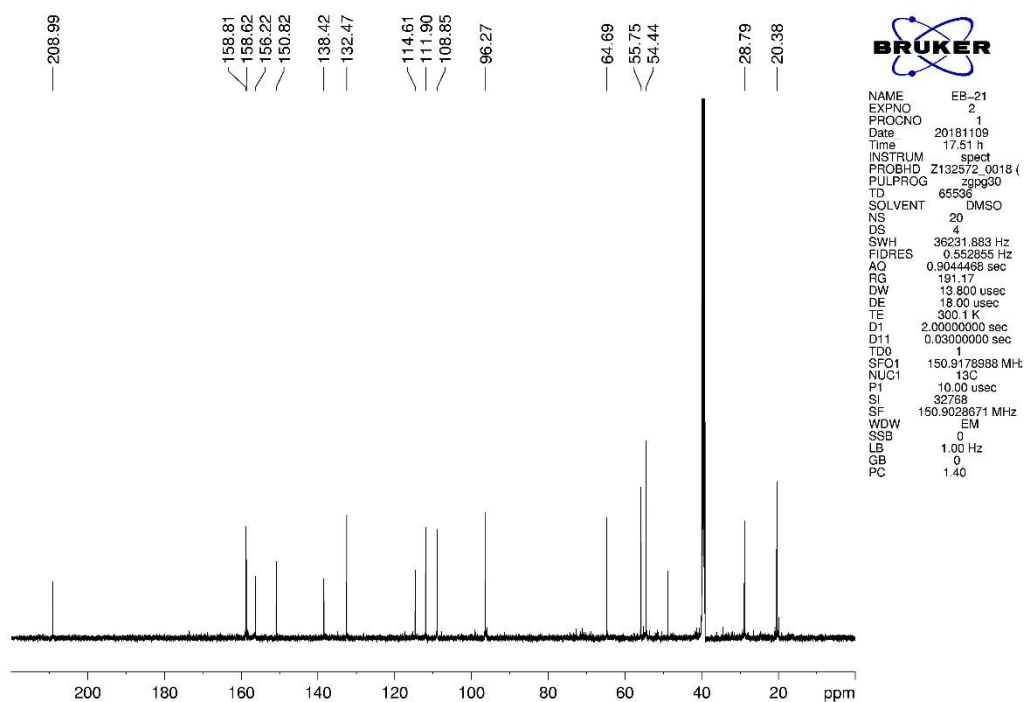


Figure S18. HSQC spectrum of compound **3**

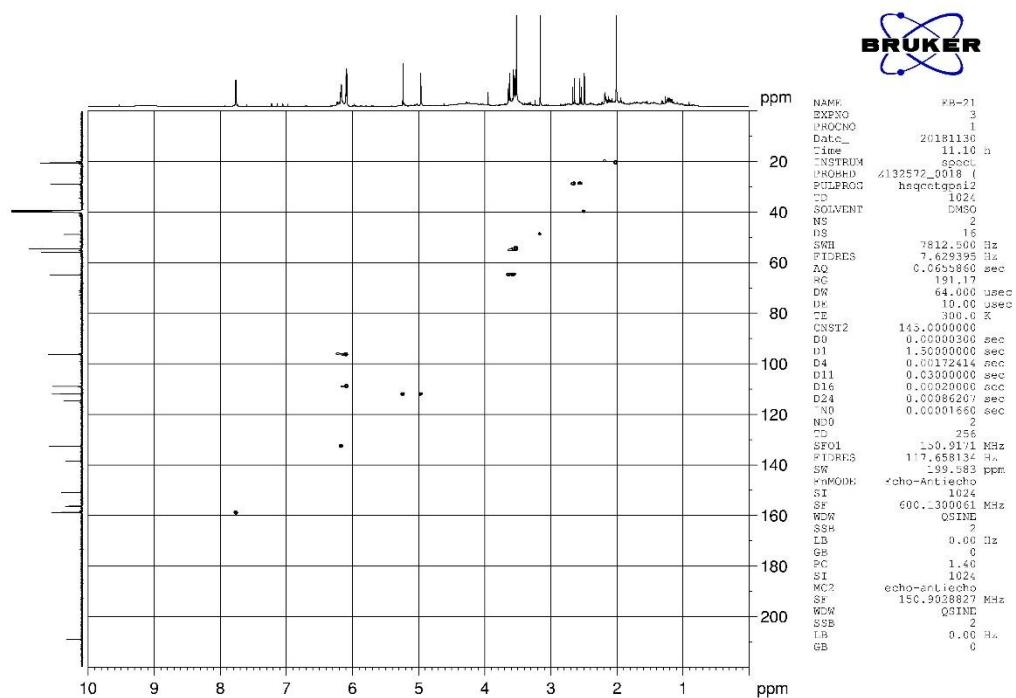


Figure S19. ^1H - ^{13}C HMBC spectrum of compound 3

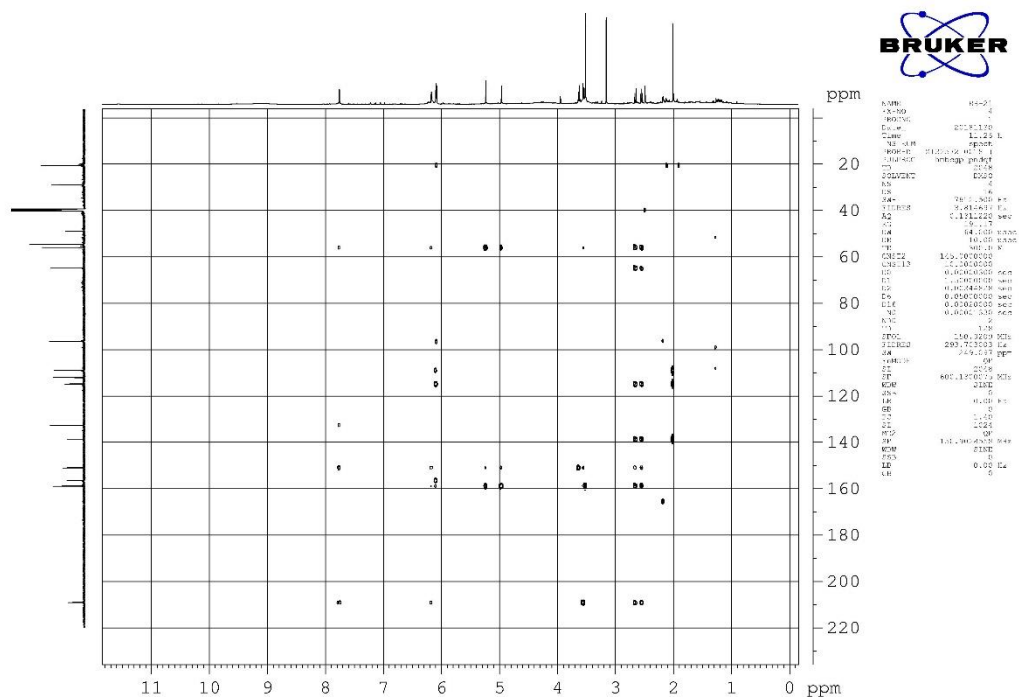


Figure S20. ^1H - ^1H COSY spectrum of compound 3

