Supplementary Materials

Figure S1. $^1$H NMR (500 MHz, CDCl$_3$) spectrum of compound 1.

Figure S2. $^{13}$C NMR (125 MHz, CDCl$_3$) spectrum of compound 1.
Figure S3. $^1$H–$^1$H COSY spectrum of compound 1.

Figure S4. HSQC spectrum of compound 1.
Figure S5. HMBC spectrum of compound 1.

Figure S6. NOESY spectrum of compound 1.
Figure S7. $^1$H NMR (500 MHz, methanol-$d_4$) spectrum of compound 2.

Figure S8. $^{13}$C NMR (125 MHz, methanol-$d_4$) spectrum of compound 2.
Figure S9. $^1$H–$^1$H COSY spectrum of compound 2.

Figure S10. HSQC spectrum of compound 2.
Figure S11. HMBC spectrum of compound 2.

Figure S12. NOESY spectrum of compound 2.
Figure S13. $^1$H NMR (500 MHz, DMSO-$d_6$) spectrum of compound 3.

Figure S14. $^{13}$C NMR (125 MHz, DMSO-$d_6$) spectrum of compound 3.
Figure S15. $^1$H–$^1$H COSY spectrum of compound 3.

Figure S16. HSQC spectrum of compound 3.
Figure S17. HMBC spectrum of compound 3.

Figure S18. $^1$H NMR (500 MHz, methanol-$d_4$) spectrum of compound 4.
**Figure S19.** $^{13}$C NMR (125 MHz, methanol-$d_4$) spectrum of compound 4.

**Figure S20.** $^1$H–$^1$H COSY spectrum of compound 4.
Figure S21. HSQC spectrum of compound 4.

Figure S22. HMBC spectrum of compound 4.
Figure S23. $^1$H NMR (500 MHz, DMSO-$d_6$) spectrum of compound 5.

Figure S24. $^{13}$C NMR (125 MHz, DMSO-$d_6$) spectrum of compound 5.
**Figure S25.** $^1$H–$^1$H COSY spectrum of compound 5.

$^1$H–$^1$H COSY spectrum of compound 5

**Figure S26.** HSQC spectrum of compound 5.

HSQC spectrum of compound 5
Figure S27. HMBC spectrum of compound 5.

Figure S28. NOESY spectrum of compound 5.
Figure S29. $^1$H NMR (500 MHz, methanol-$d_4$) spectrum of compound 6.

Figure S30. $^{13}$C NMR (125 MHz, methanol-$d_4$) spectrum of compound 6.
**Figure S31.** $^1$H–$^1$H COSY spectrum of compound 6.

**Figure S32.** HSQC spectrum of compound 6.
Figure S33. HMBC spectrum of compound 6.