Supplementary Materials

The $^1$H-NMR, IR and MS Spectra of Compounds 7aa–bk

**Figure S1.** The $^1$H-NMR (CDCl$_3$, 500 MHz) spectra of compound 7aa.

**Figure S2.** The IR spectra of compound 7aa.
Figure S3. The HR-ESI-MS of compound 7aa.

Figure S4. The $^1$H-NMR (CDCl$_3$, 500 MHz) spectra of compound 7ab.
Figure S5. The IR spectra of compound 7ab.

Figure S6. The HR-ESI-MS of compound 7ab.
Figure S7. The $^1$H-NMR (CDCl$_3$, 500 MHz) spectra of compound 7ac.

Figure S8. The IR spectra of compound 7ac.
**Figure S9.** The HR-ESI-MS of compound 7ac.

**Figure S10.** The $^1$H-NMR (CDCl$_3$, 500 MHz) spectra of compound 7ad.
Figure S11. The IR spectra of compound 7ad.

Figure S12. The HR-ESI-MS of compound 7ad.
Figure S13. The $^1$H-NMR (DMSO-$d_6$, 500 MHz) spectra of compound 7ae.

Figure S14. The IR spectra of compound 7ae.
Figure S15. The HR-ESI-MS of compound 7ae.

Figure S16. The $^1$H-NMR (CDCl₃, 400 MHz) spectra of compound 7af.
Figure S17. The IR spectra of compound 7af.

Figure S18. The HR-ESI-MS of compound 7af.
Figure S19. The $^1$H-NMR (CDCl$_3$, 400 MHz) spectra of compound 7ag.

Figure S20. The IR spectra of compound 7ag.
Figure S21. The HR-ESI-MS of compound 7ag.

Figure S22. The $^1$H-NMR (CDCl$_3$, 500 MHz) spectra of compound 7ah.
**Figure S23.** The IR spectra of compound 7ah.

**Figure S24.** The HR-ESI-MS of compound 7ah.
Figure S25. The $^1$H-NMR (CDCl$_3$, 500 MHz) spectra of compound 7ai.

Figure S26. The IR spectra of compound 7ai.
Figure S27. The HR-ESI-MS of compound 7ai.

Figure S28. The $^1$H-NMR (DMSO-$d_6$, 500 MHz) spectra of compound 7ba.
Figure S29. The IR spectra of compound 7ba.

Figure S30. The HR-ESI-MS of compound 7ba.
Figure S31. The $^1$H-NMR (DMSO-$d_6$, 500 MHz) spectra of compound 7bb.

![1H-NMR Spectra](image)

Figure S32. The IR spectra of compound 7bb.

![IR Spectra](image)
Figure S33. The HR-ESI-MS of compound \textit{7bb}.

Figure S34. The $^1$H-NMR (CDCl$_3$, 400 MHz) spectra of compound \textit{7bc}.
Figure S35. The IR spectra of compound 7bc.

Figure S36. The HR-ESI-MS of compound 7bc.
Figure S37. The $^1$H-NMR (CDCl$_3$, 500 MHz) spectra of compound 7bd.

Figure S38. The IR spectra of compound 7bd.
Figure S39. The HR-ESI-MS of compound 7bd.

Figure S40. The $^1$H-NMR (DMSO-$_d$$_6$, 500 MHz) spectra of compound 7be.
Figure S41. The IR spectra of compound 7bd.

Figure S42. The HR-ESI-MS of compound 7be.
Figure S43. The $^1$H-NMR (DMSO-$d_6$, 500 MHz) spectra of compound 7bf.

Figure S44. The IR spectra of compound 7bf.
Figure S45. The HR-ESI-MS of compound 7bf.

Figure S46. The $^1$H-NMR (DMSO-$d_6$, 500 MHz) spectra of compound 7bg.
Figure S47. The IR spectra of compound 7bg.

Figure S48. The HR-ESI-MS of compound 7bg.
Figure S49. The $^1$H-NMR (CDCl$_3$, 500 MHz) spectra of compound 7bh.

Figure S50. The IR spectra of compound 7bh.
Figure S51. The HR-ESI-MS of compound 7bh.

Figure S52. The $^1$H-NMR (CDCl$_3$, 500 MHz) spectra of compound 7bi.
Figure S53. The IR spectra of compound 7bi.

Figure S54. The HR-ESI-MS of compound 7bi.
Figure S55. The $^1$H-NMR (CDCl$_3$, 400 MHz) spectra of compound 7bj.

Figure S56. The IR spectra of compound 7bj.
Figure S57. The HR-ESI-MS of compound 7bj.

Figure S58. The $^1$H-NMR (CDCl$_3$, 400 MHz) spectra of compound 7bk.
Figure S59. The IR spectra of compound 7bk.

Figure S60. The HR-ESI-MS of compound 7bk.