

Supplementary Materials: Synthesis of Some Acylhydrazone Compounds Containing 1, 2, 4-Triazole Structure and Their Neuritogenic Activity

Content

¹H-NMR, ¹³C-NMR and GC-MS spectra of compound A0–A10. Western blot analysis of the effect of compound A5 on the Neuro-2a cells.

4-amino-5-(pyridin-4-yl)-4H-pyrazole-3-thiol (A0)

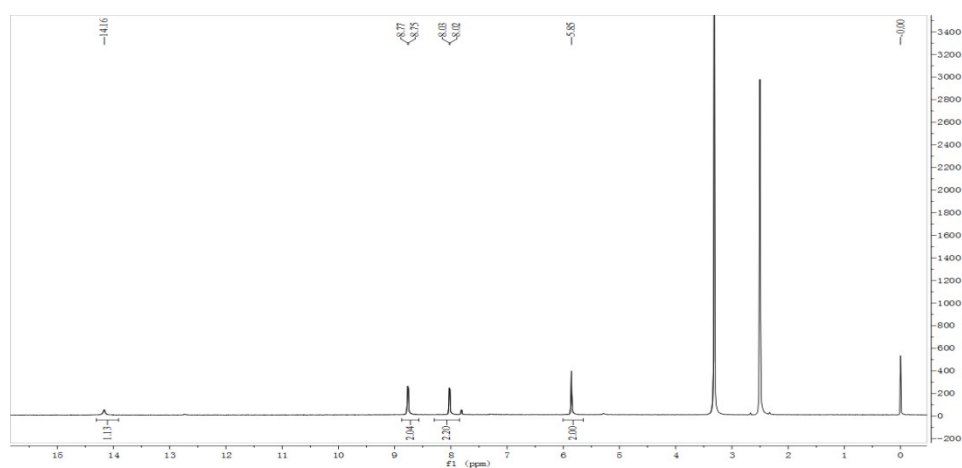


Figure S1. ¹H-NMR of compound A0.

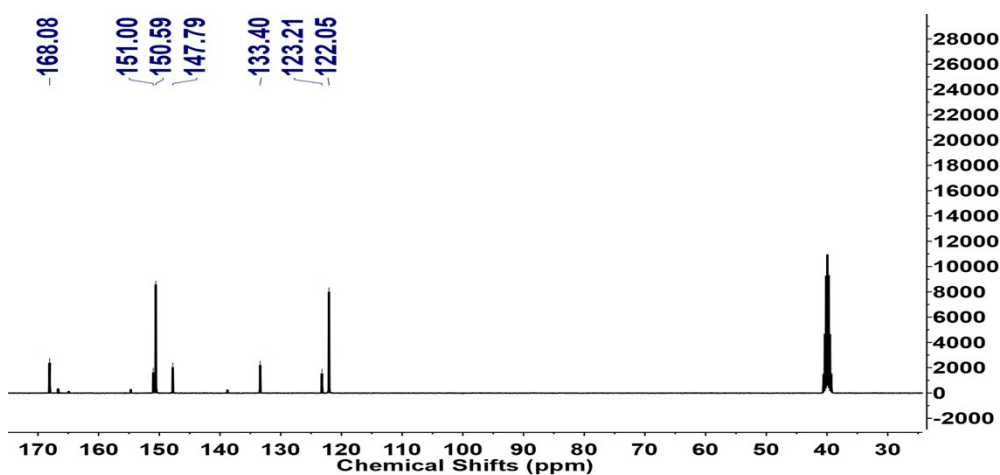


Figure S2. ¹³C-NMR of compound A0.

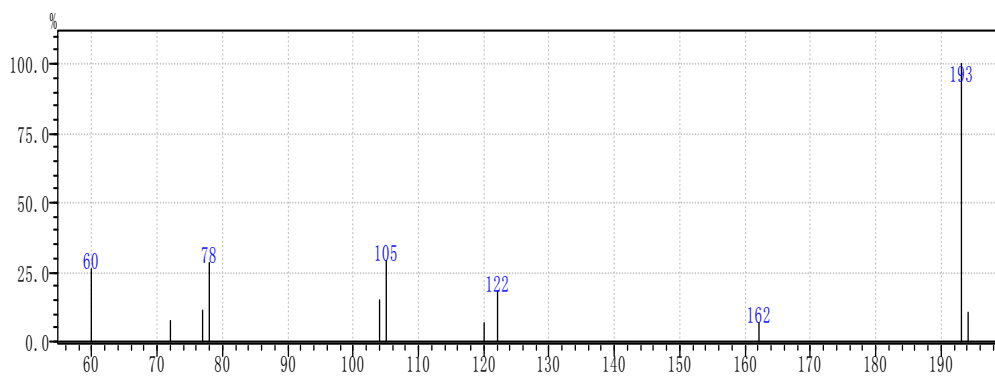


Figure S3. GC-MS of compound A0.

Ethyl 2-(4-amino-5-(pyridin-4-yl)-4H-pyrazol-3-ylthio) acetate 9 (A1)

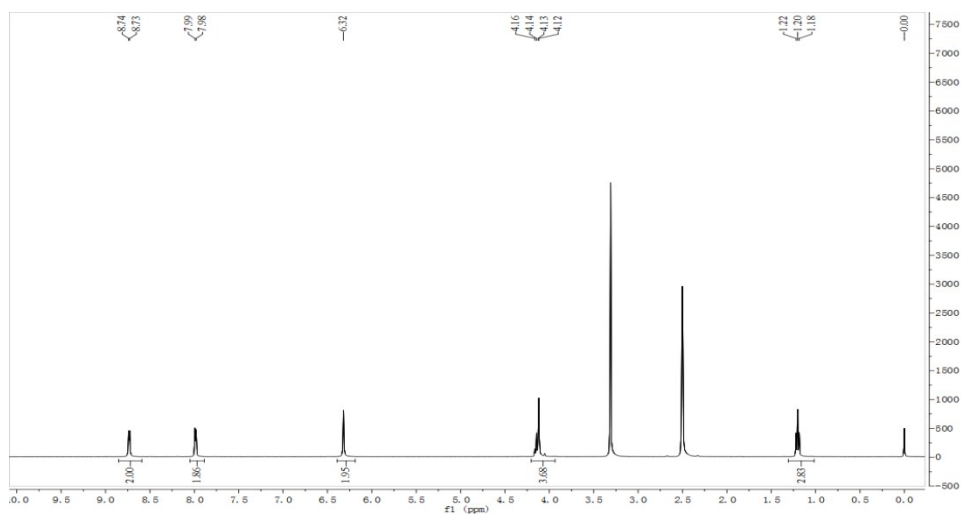


Figure S4. $^1\text{H-NMR}$ of compound A1.

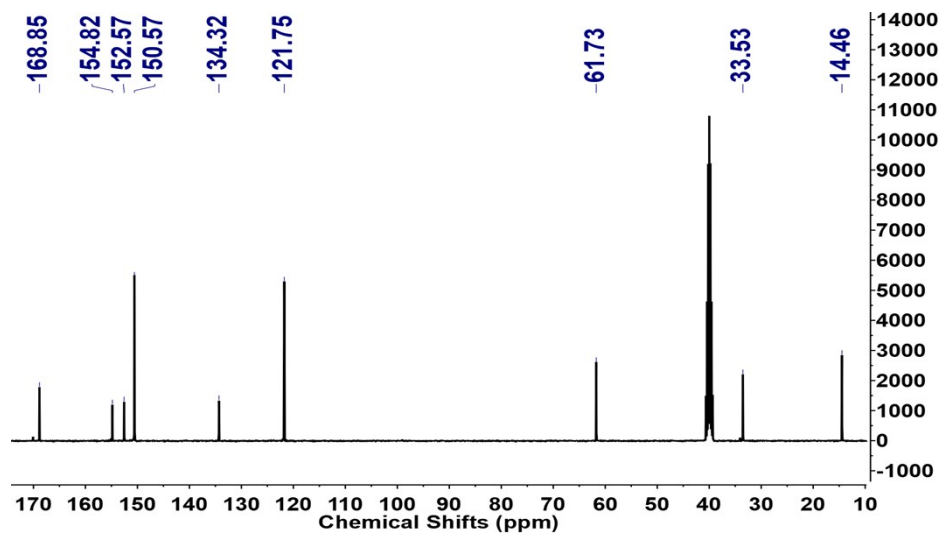


Figure S5. ^{13}C -NMR of compound A1.

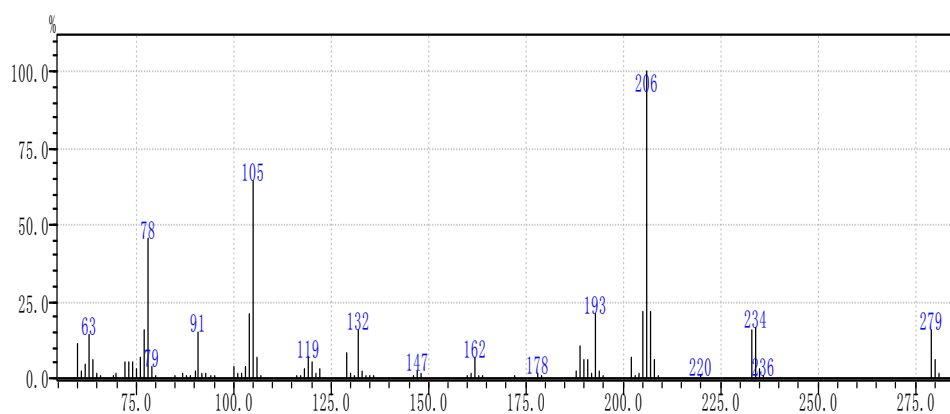


Figure S6. GC-MS of compound A1.

2-(4-amino-5-(pyridin-4-yl)-4H-pyrazol-3-ylthio)acetohydrazide (A2)

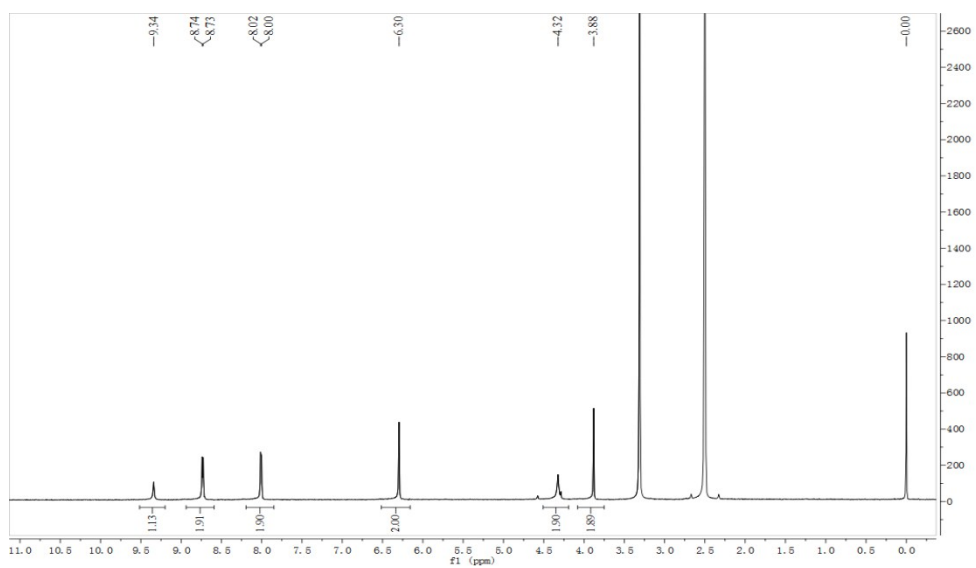


Figure S7. $^1\text{H-NMR}$ of compound A2.

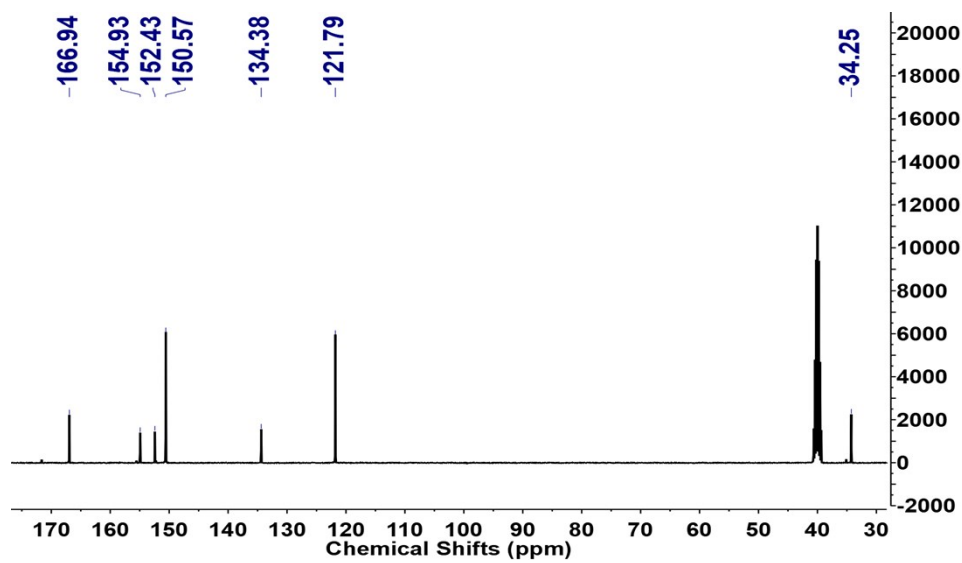


Figure S8. $^{13}\text{C-NMR}$ of compound A2

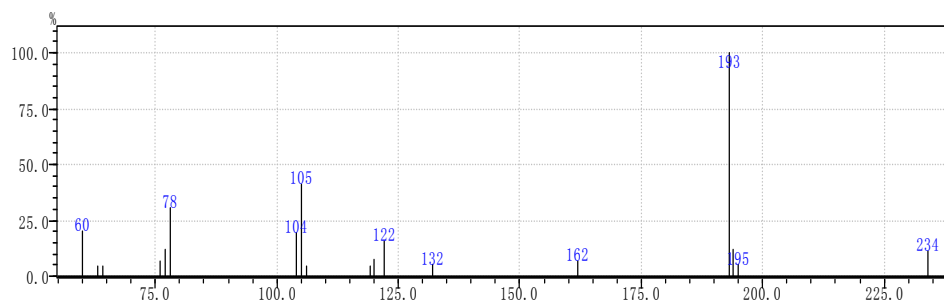


Figure S9. GC-MS of compound A2.

2-(4-amino-5-(pyridin-4-yl)-4H-1,2,4-triazol-3-ylthio)-N'-(3-phenylallylidene)acetohydrazide
(A3):

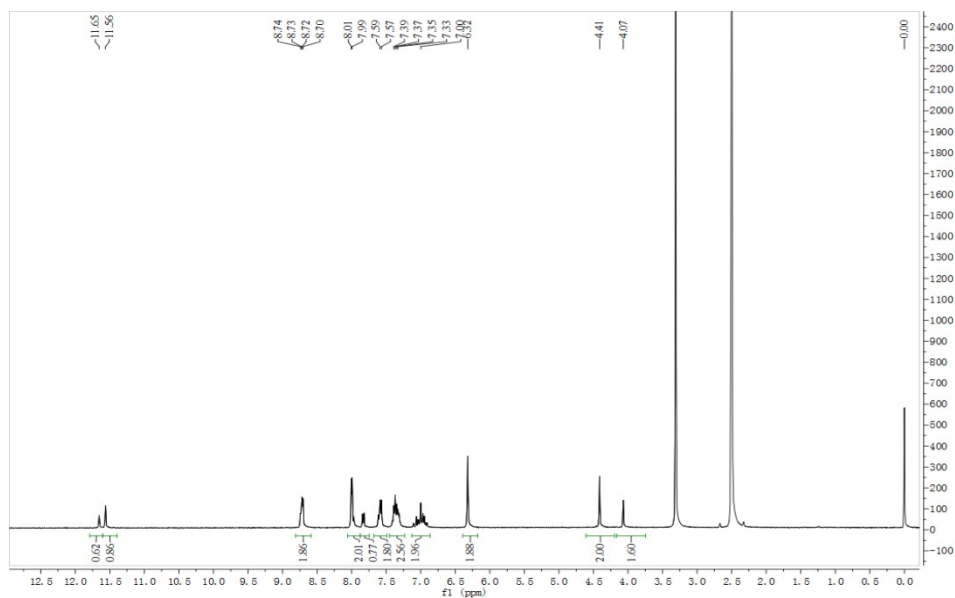


Figure S10. ¹H-NMR of compound A3.

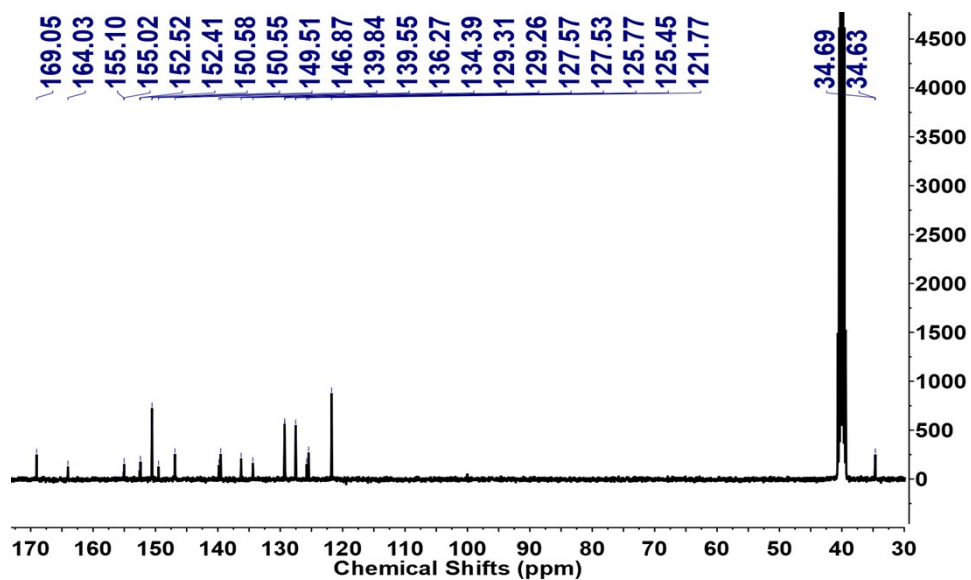


Figure S11. ¹³C-NMR of compound A3.

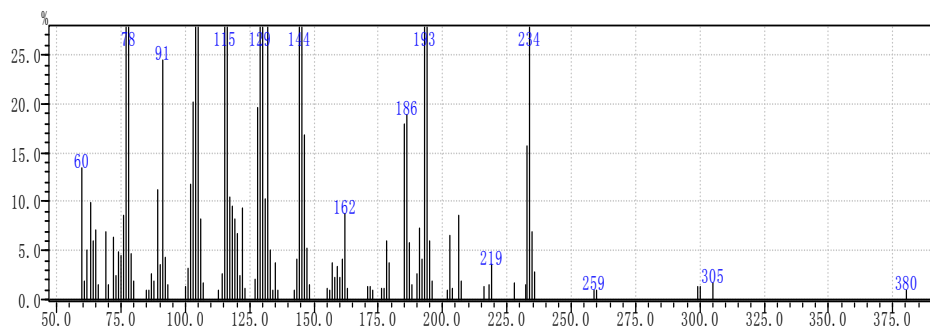


Figure S12. GC-MS of compound A3.

2-(4-amino-5-(pyridin-4-yl)-4H-1,2,4-triazol-3-ylthio)-N'-(thiophen-2-ylmethylene)acetohydrazide (A4)

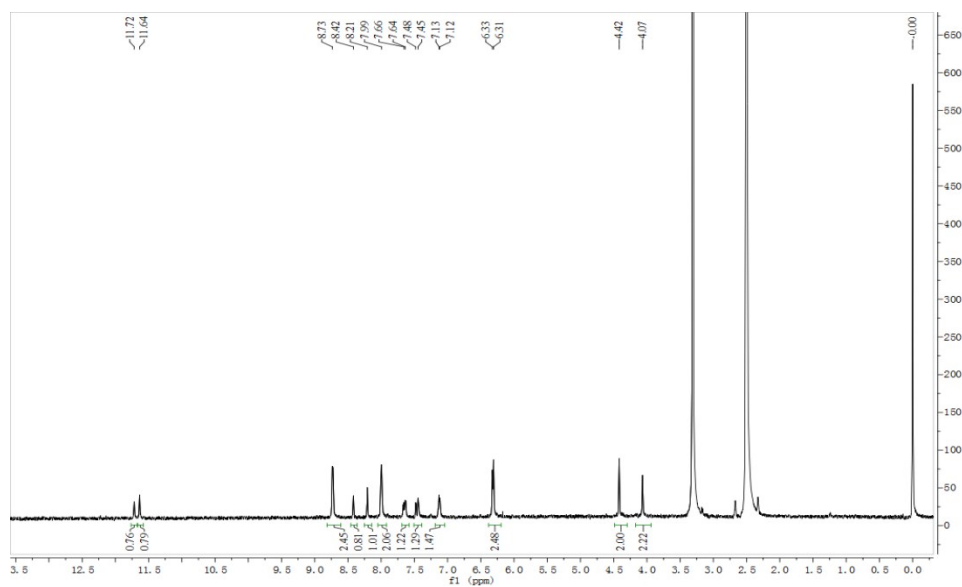


Figure S13. ¹H-NMR of compound A4.

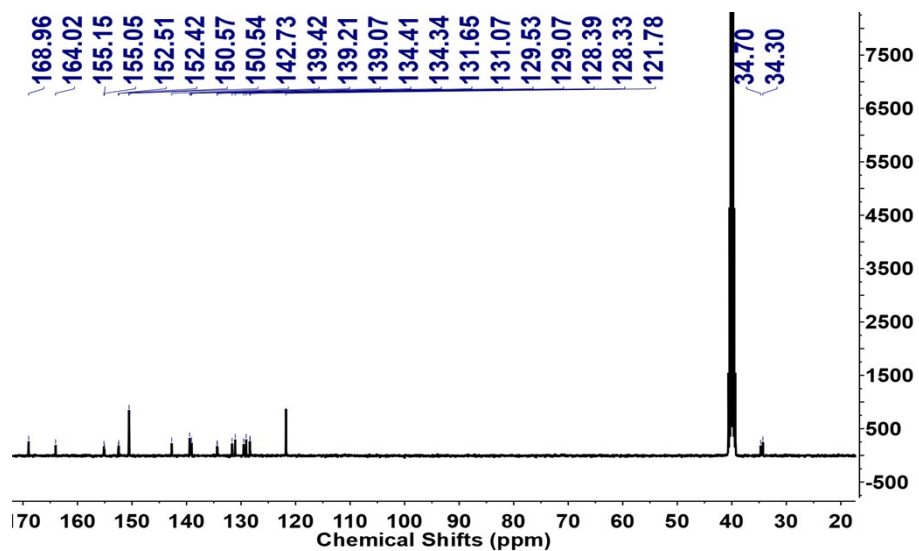


Figure S14. ^{13}C -NMR of compound A4.

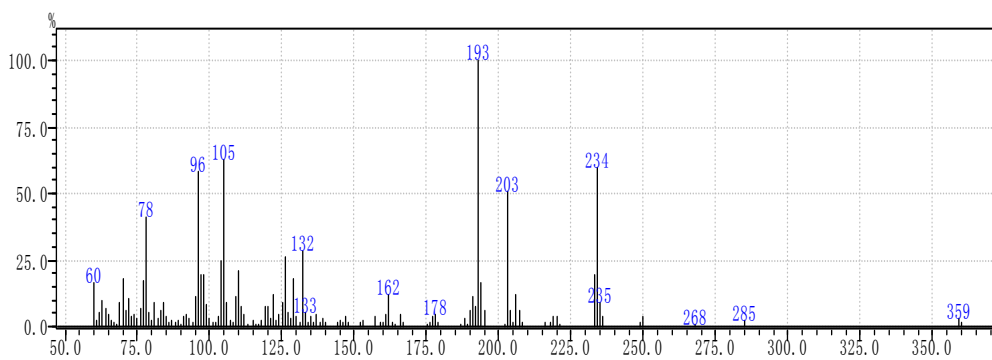


Figure S15. GC-MS of compound A4.

2-(4-amino-5-(pyridin-4-yl)-4H-1,2,4-triazol-3-ylthio)-N'-(2-hydroxybenzylidene)-acetohydrazide (A5)

Figure S18. GC-MS of compound A5.

2-(4-amino-5-(pyridin-4-yl)-4H-1,2,4-triazol-3-ylthio)-N'-(naphthalen-1-ylmethylene)acetohydrazide (A6)

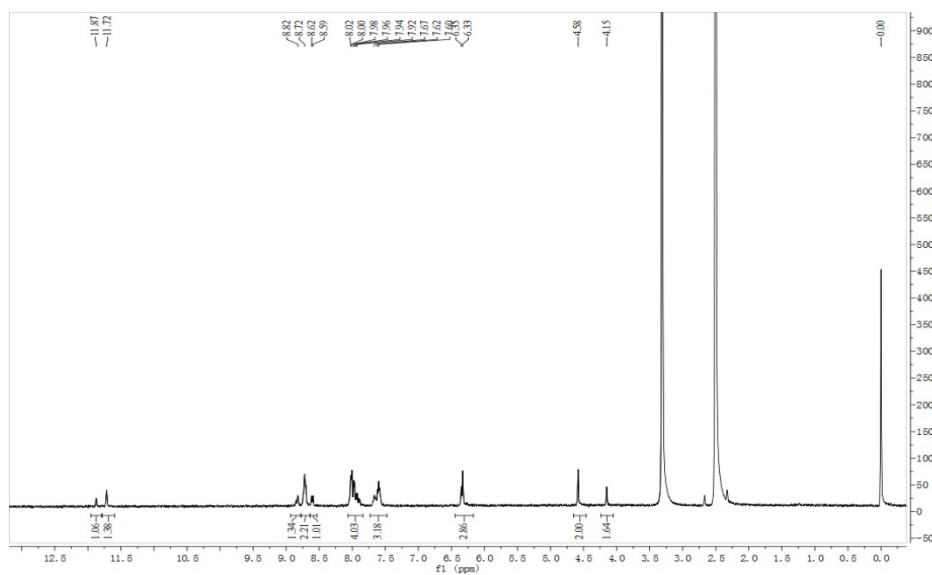


Figure S19. ¹H-NMR of compound A6.

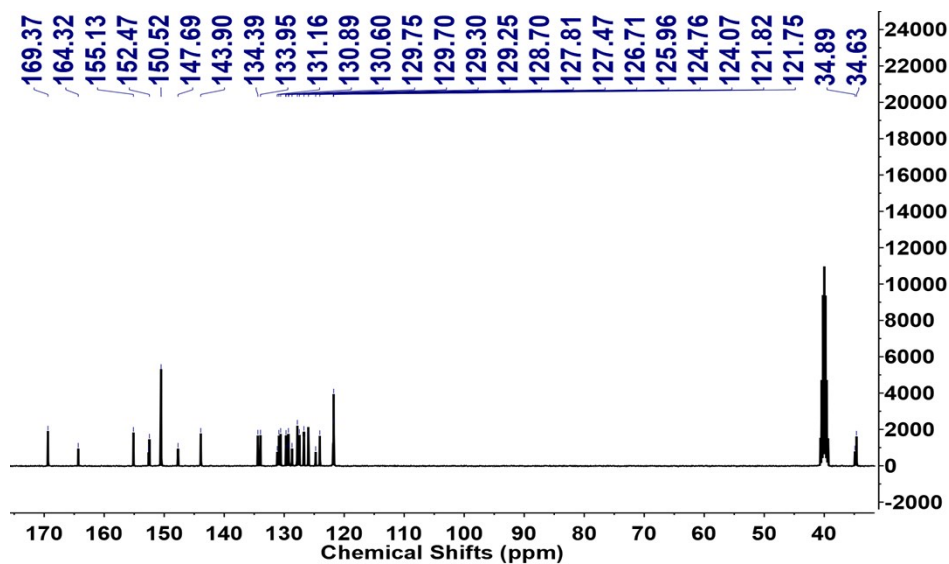


Figure S20. ¹³C-NMR of compound A6.

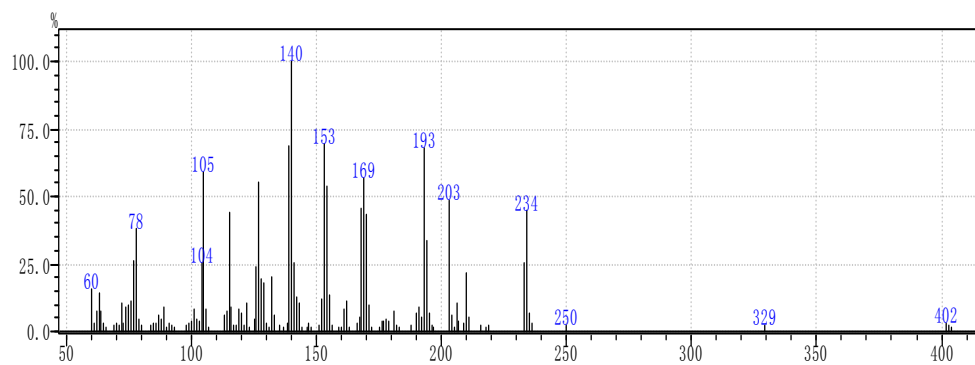


Figure S21. GC-MS of compound A6.

2-(4-amino-5-(pyridin-4-yl)-4H-pyrazol-3-ylthio)-N'-(5-bromo-2-hydroxybenzylidene)acetohydrazide (A7)

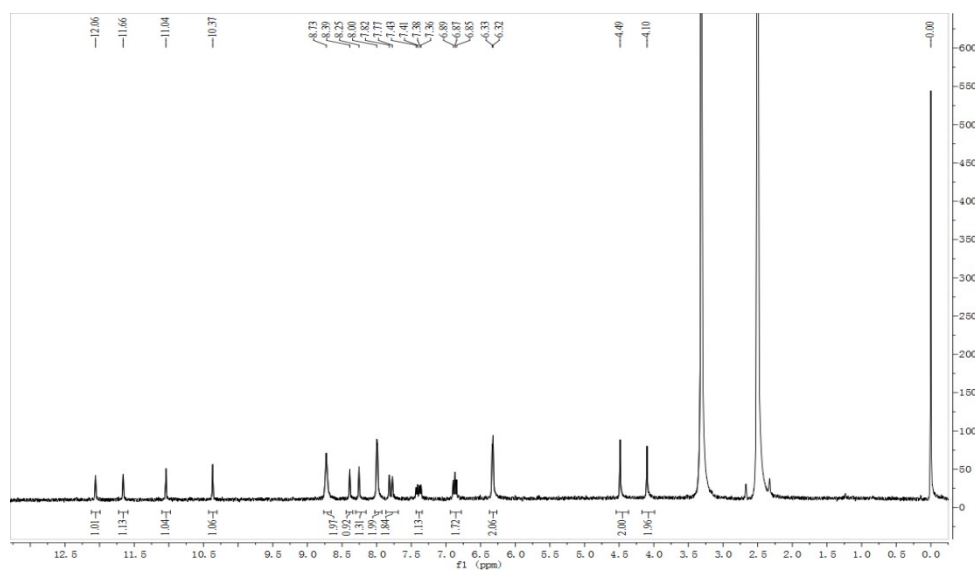


Figure S22. $^1\text{H-NMR}$ of compound A7.

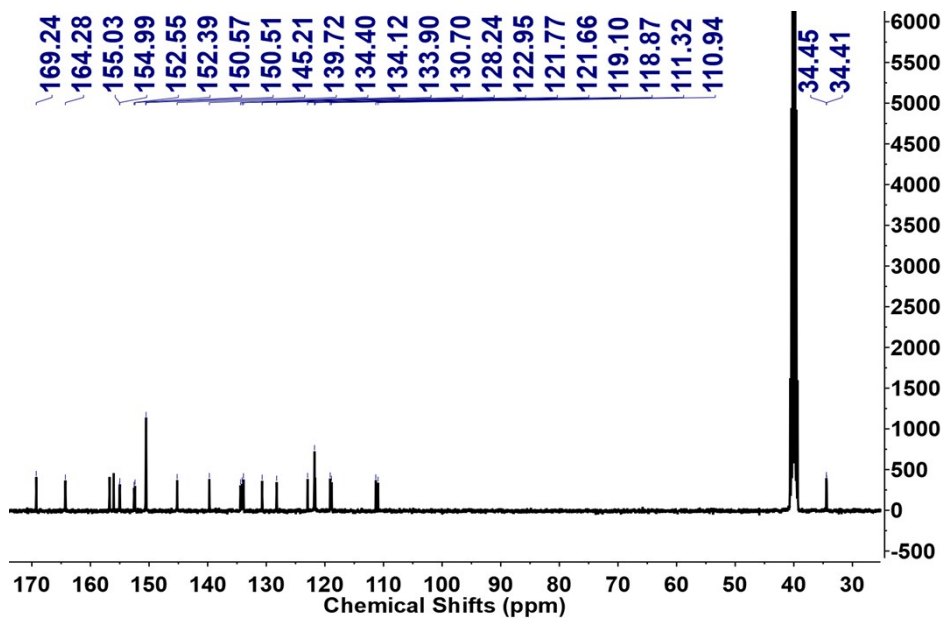


Figure S23. ^{13}C -NMR of compound A7.

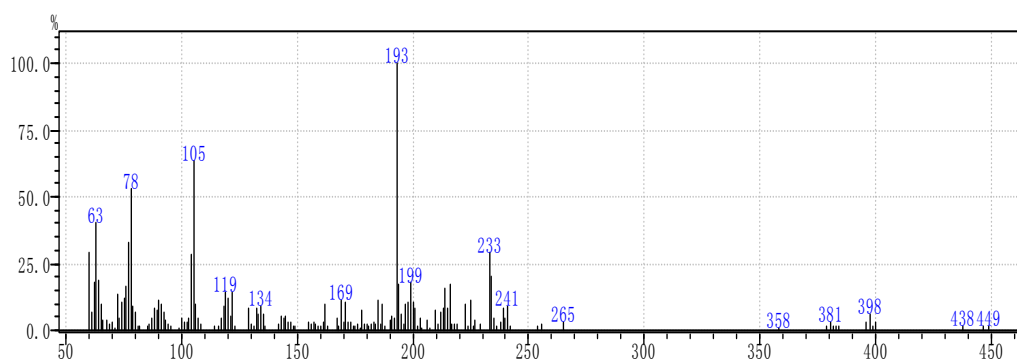


Figure S24. GC-MS of compound A7.

2-(4-amino-5-(pyridin-4-yl)-4H-pyrazol-3-ylthio)-N'-(pyridin-2-ylmethylene)acetohydrazide (A8)

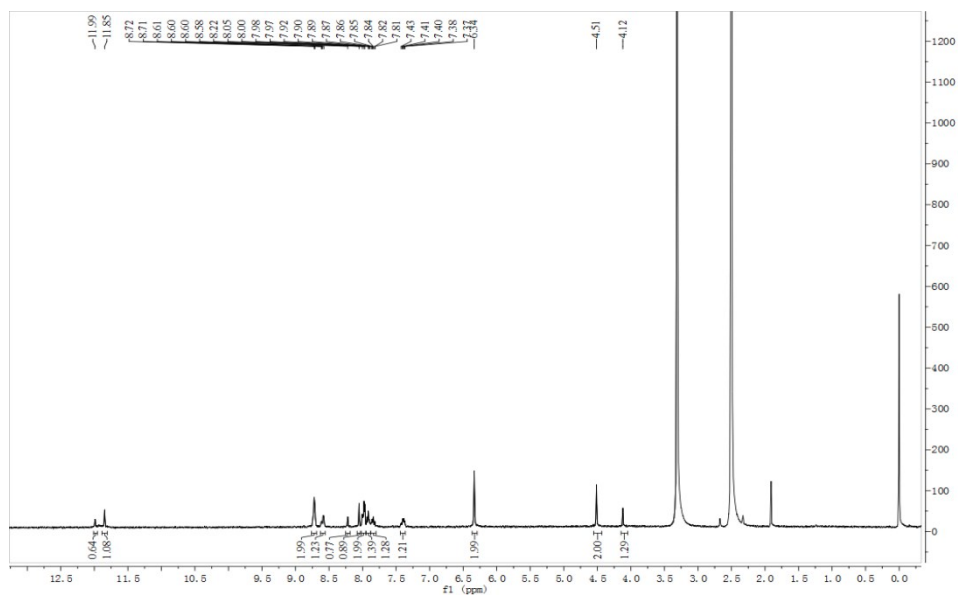


Figure S25. ¹H-NMR of compound A8.

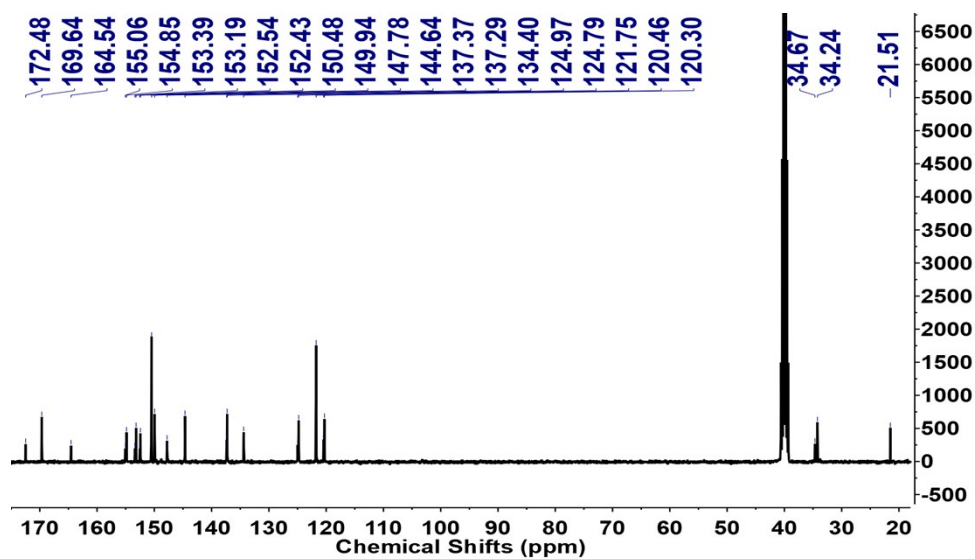


Figure S26. ¹³C-NMR of compound A8.

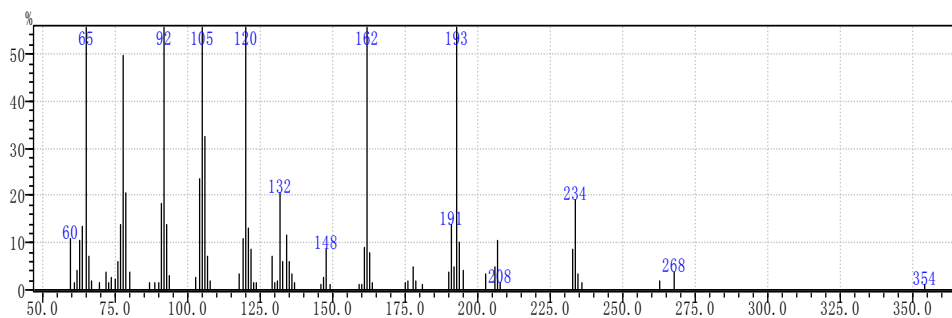


Figure S27. GC-MS of compound A8.

2-(4-amino-5-(pyridin-4-yl)-4H-pyrazol-3-ylthio)-N'-(4-hydroxybenzylidene)acetohydrazide (A9)

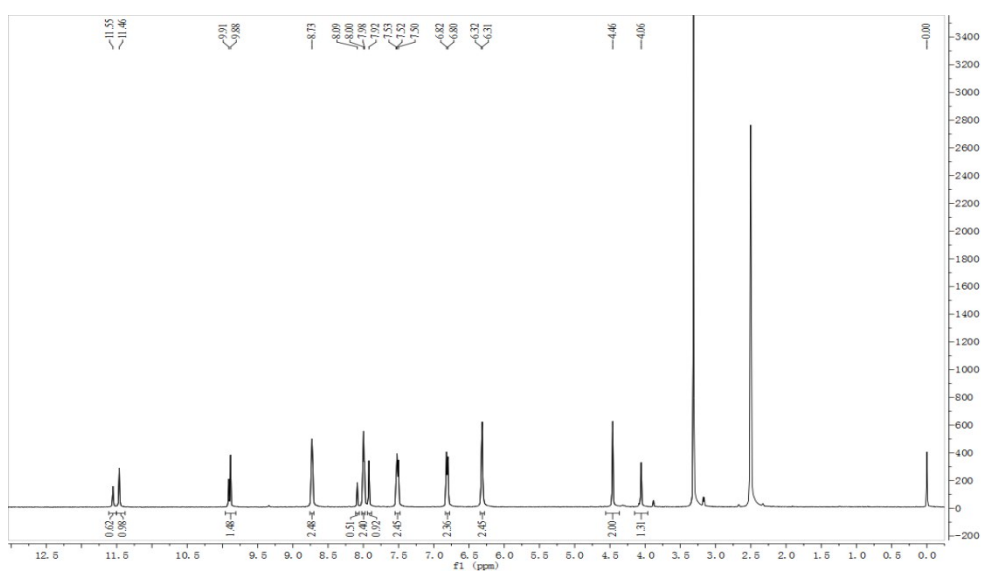


Figure S28. $^1\text{H-NMR}$ of compound A9.

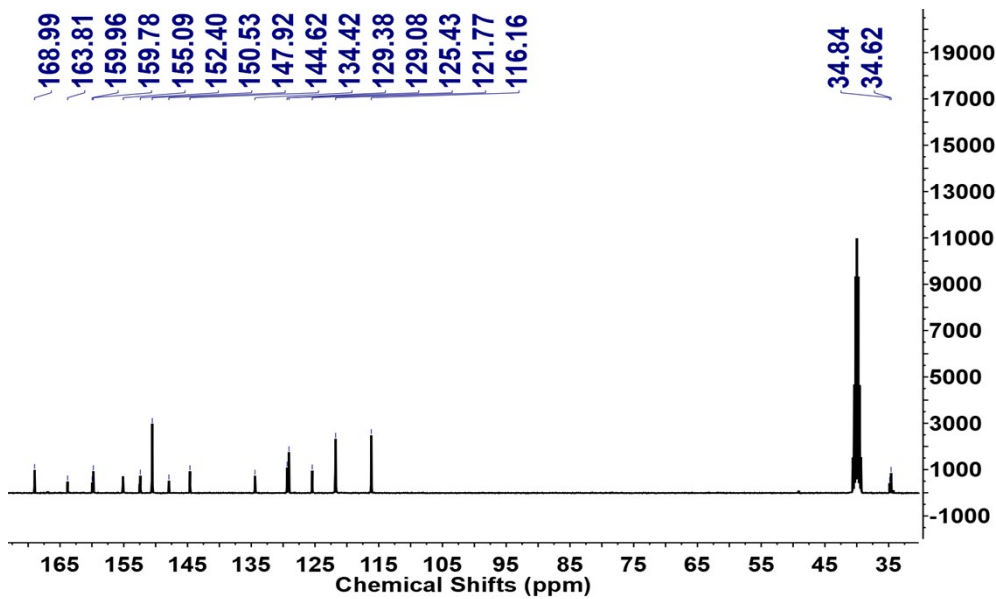


Figure S29. ^{13}C -NMR of compound A9.

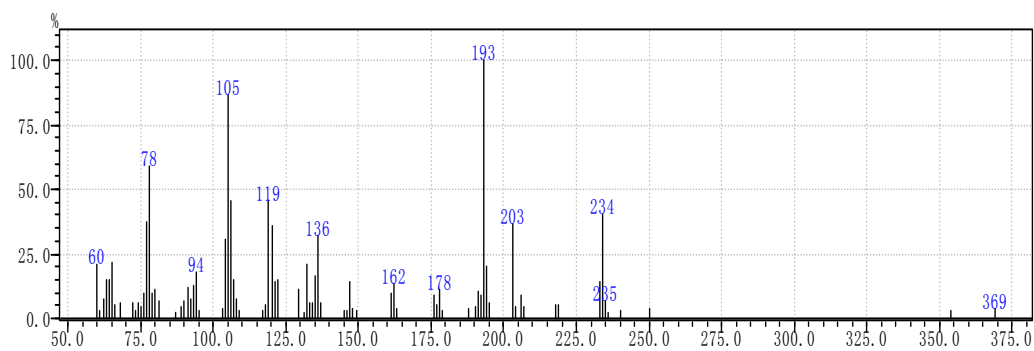


Figure S30. GC-MS of compound A9.

2-(4-amino-5-(pyridin-4-yl)-4H-pyrazol-3-ylthio)-N'-benzylideneacetohydrazide (A10)

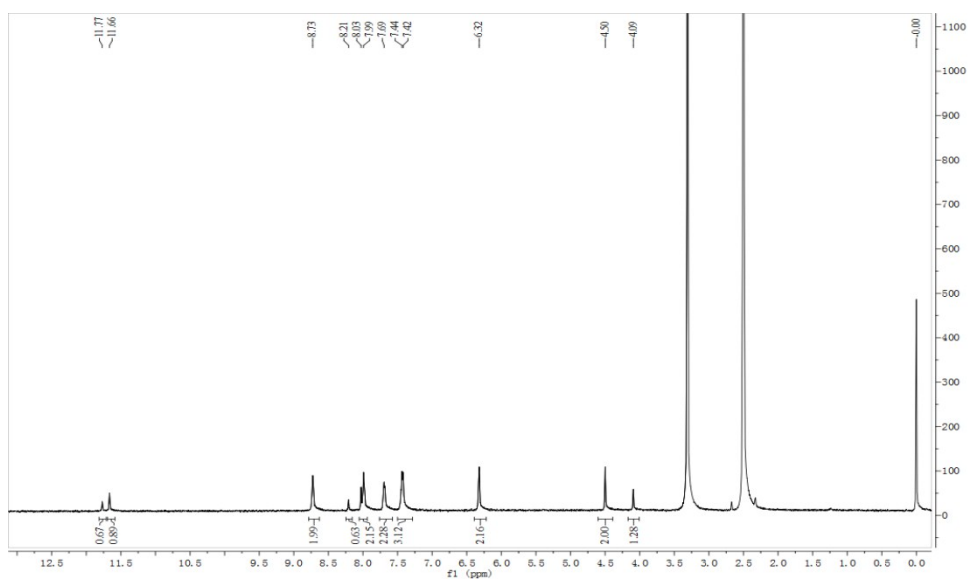


Figure S31. ¹H-NMR of compound A10.

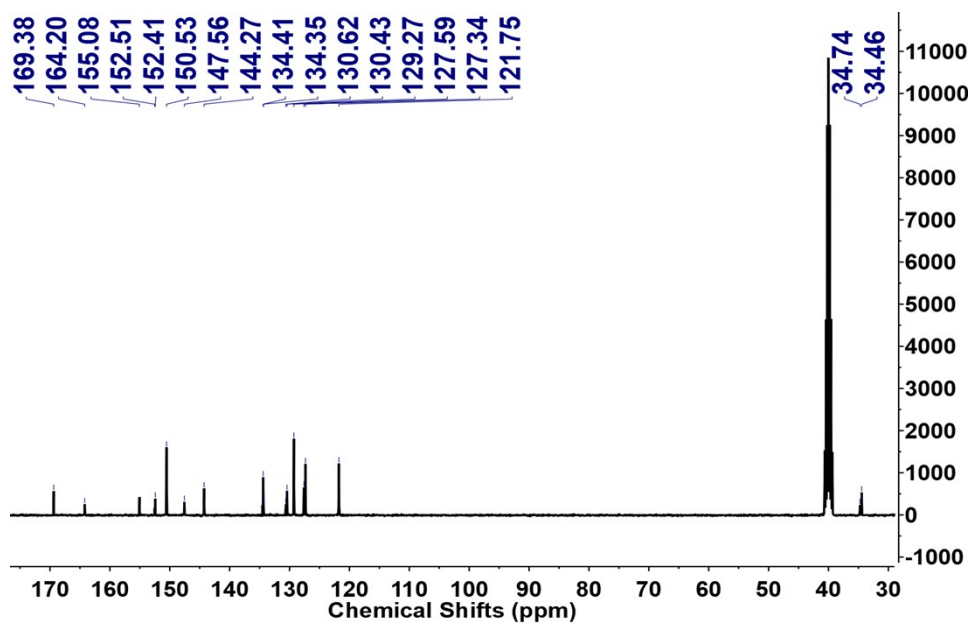


Figure S32. ¹³C-NMR of compound A10.

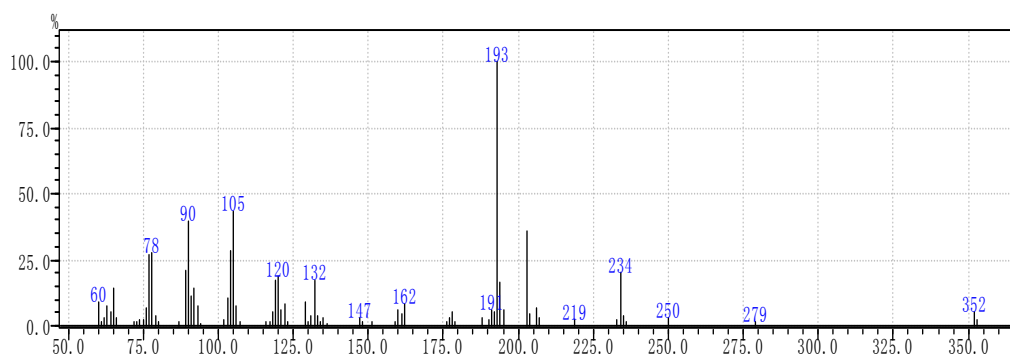


Figure S33. GC-MS of compound A10.

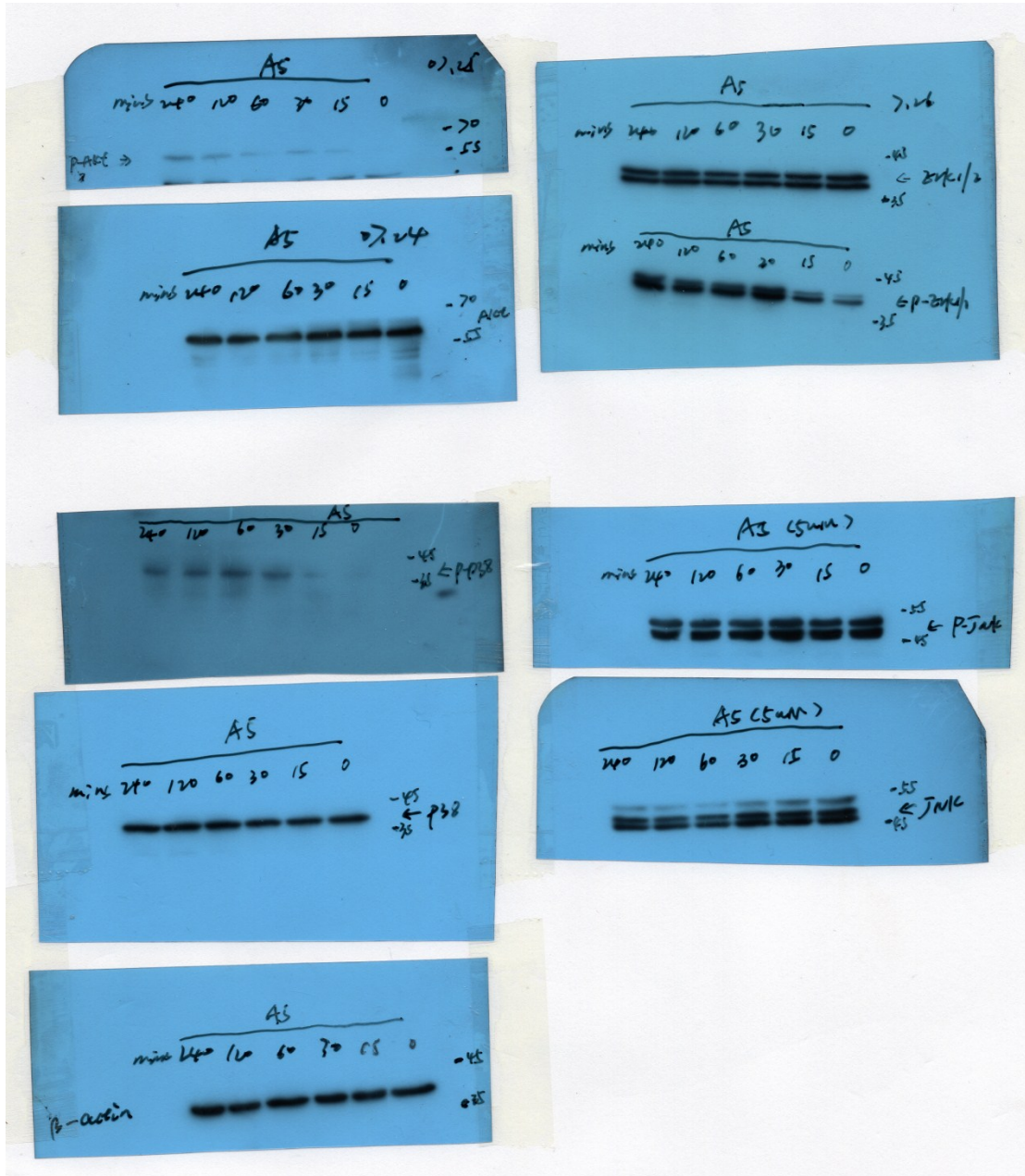


Figure S34. Western blot analysis of the cell signaling pathways in Neuro-2a cells induced by compound A5.