

Supplementary Material

Synthesis and cytotoxic activity of 3-[2-(1*H*-Indol-3-yl)-1,3-thiazol-4-yl]-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromides, analogues of the marine alkaloid nortopsentinCamilla Pecoraro,^a Daniela Carbone,^a Daniele Aiello,^a and Anna Carbone^{*a,b}^a*Dipartimento di Scienze e Tecnologie Biologiche Chimiche e Farmaceutiche (STEBICEF), Università degli Studi di Palermo, Via Archirafi 32, 90123 Palermo, Italy*^b*Dipartimento di Farmacia, Università degli Studi di Genova, Viale Benedetto XV 3, 16132 Genova, Italy*
Email: carbone@difar.unige.it

Table of Contents

Figure S1. ¹ H NMR spectra of 3-[2-(1-methyl-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1c)	S3
Figure S2. ¹ H NMR spectra of 1-methyl-3-[2-(1-methyl-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1d).....	S3
Figure S3. ¹ H NMR spectra of 3-[2-(5-methoxy-1-methyl-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1g).....	S4
Figure S4. ¹ H NMR spectra of 3-[2-(5-methoxy-1-methyl-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1h)	S4
Figure S5. ¹ H NMR spectra of 3-[2-(5-bromo-1-methyl-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1k).....	S5
Figure S6. ¹ H NMR spectra of 3-[2-(5-bromo-1-methyl-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1l).....	S5
Figure S7. ¹ H NMR spectra of 3-[2-(5-fluoro-1-methyl-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1m).....	S6
Figure S8. ¹ H NMR spectra of 3-[2-(5-fluoro-1-methyl-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1n).....	S6
Figure S9. ¹ H NMR spectra of 3-[2-(5-fluoro-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1o).....	S7
Figure S10. ¹ H NMR spectra of 3-[2-(5-fluoro-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1p).....	S7
Figure S11. ¹ H NMR spectra of 3-[2-(1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1q).....	S8
Figure S12. ¹ H NMR spectra of 3-[2-(1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1r)	S8
Figure S13. ¹ H NMR spectra of 3-[2-(5-methoxy-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1s)	S9

Figure S14. ^1H NMR spectra of 3-[2-(5-methoxy-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1t)	S9
Figure S15. ^1H NMR spectra of 3-[2-(5-bromo-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1u).....	S10
Figure S16. ^1H NMR spectra of 3-[2-(5-bromo-1 <i>H</i> -indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1 <i>H</i> -pyrrolo[3,2- <i>c</i>]pyridine hydrobromide (1v).....	S10

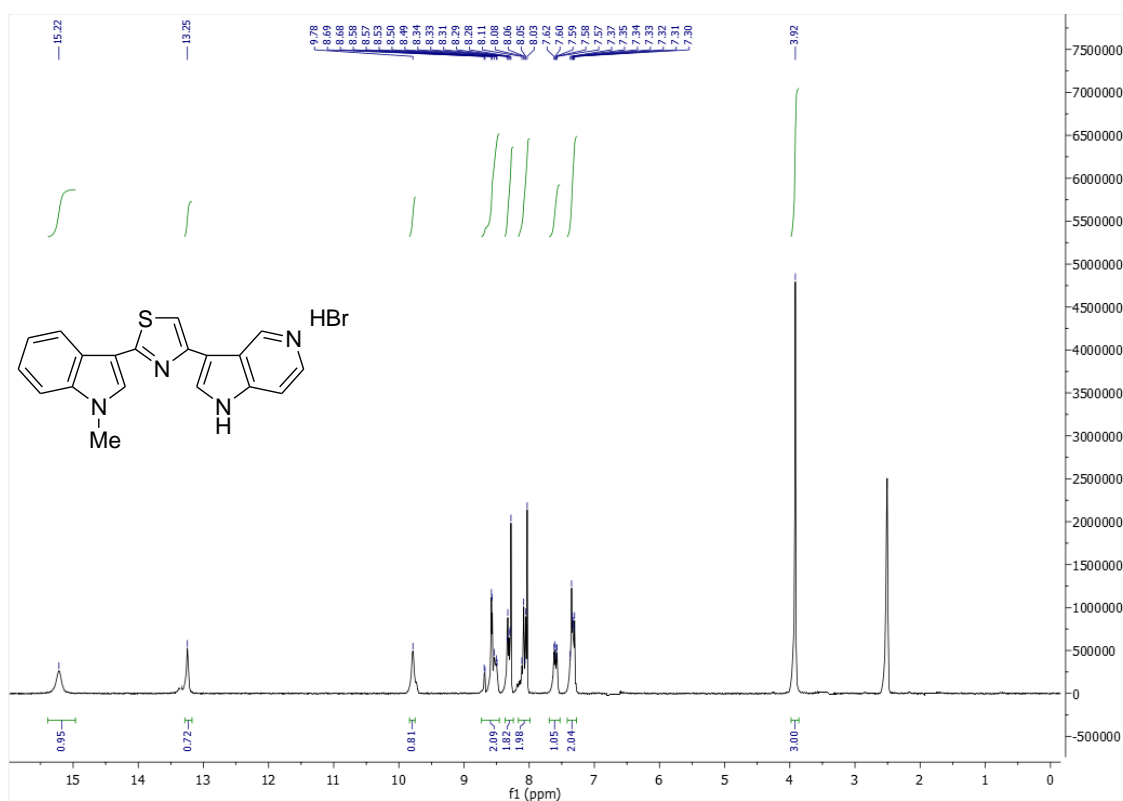
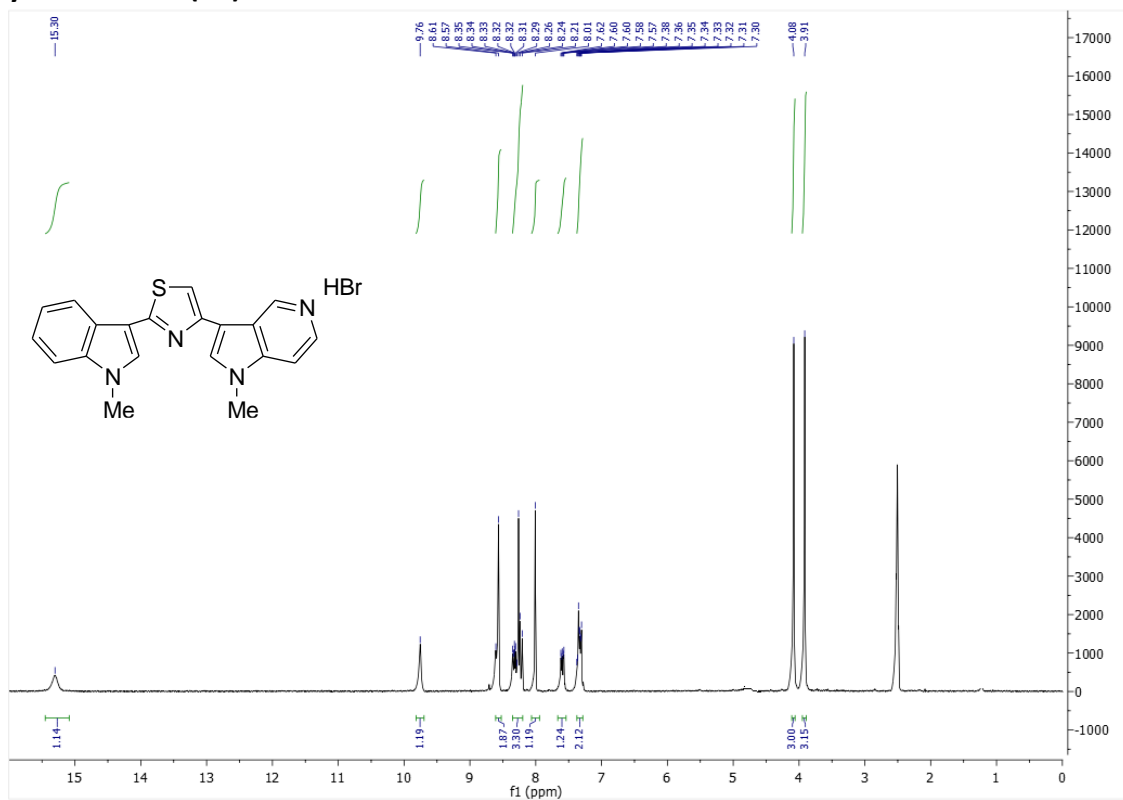
Figure S1. ^1H NMR spectra of 3-[2-(1-methyl-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1c**)**Figure S2.** ^1H NMR spectra of 1-methyl-3-[2-(1-methyl-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1d**)

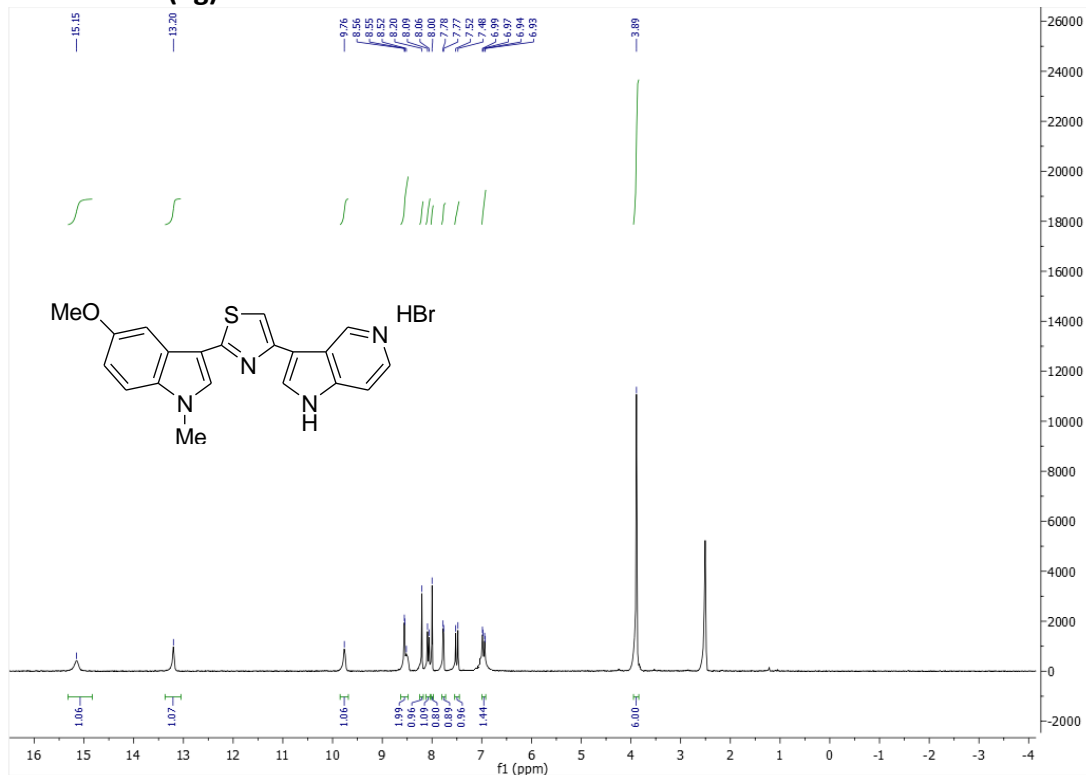
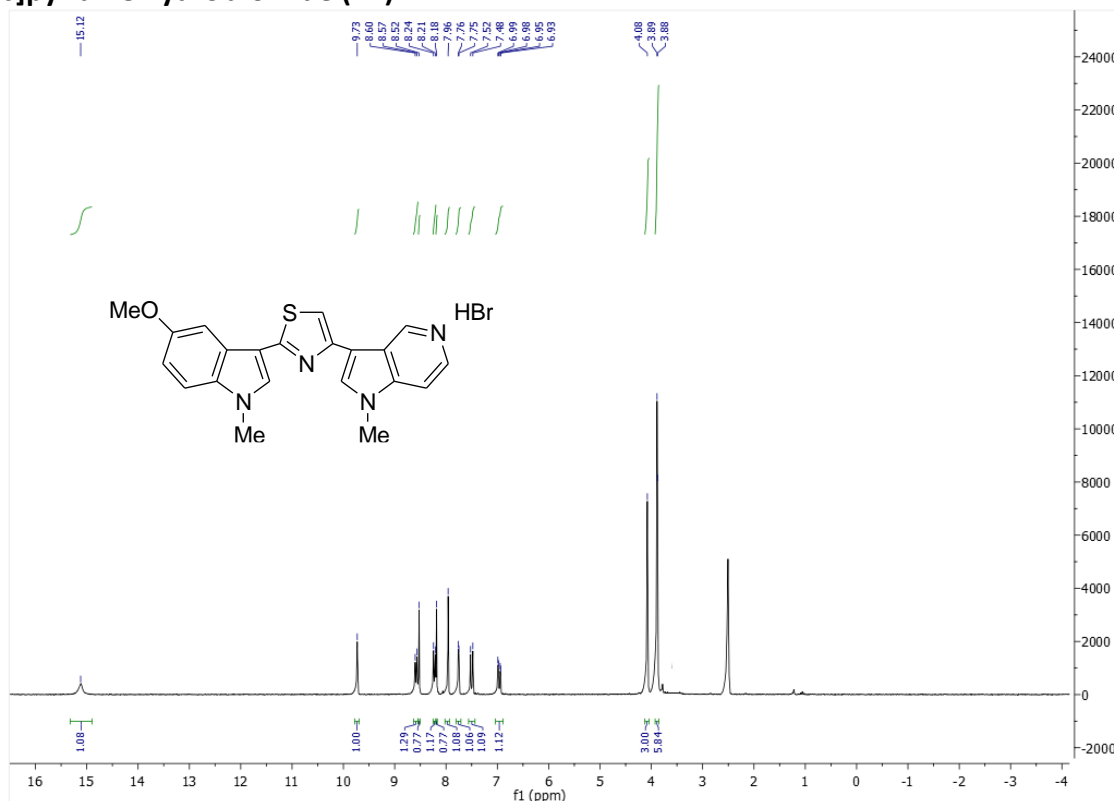
Figure S3. ^1H NMR spectra of 3-[2-(5-methoxy-1-methyl-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1g**)**Figure S4.** ^1H NMR spectra of 3-[2-(5-methoxy-1-methyl-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1h**)

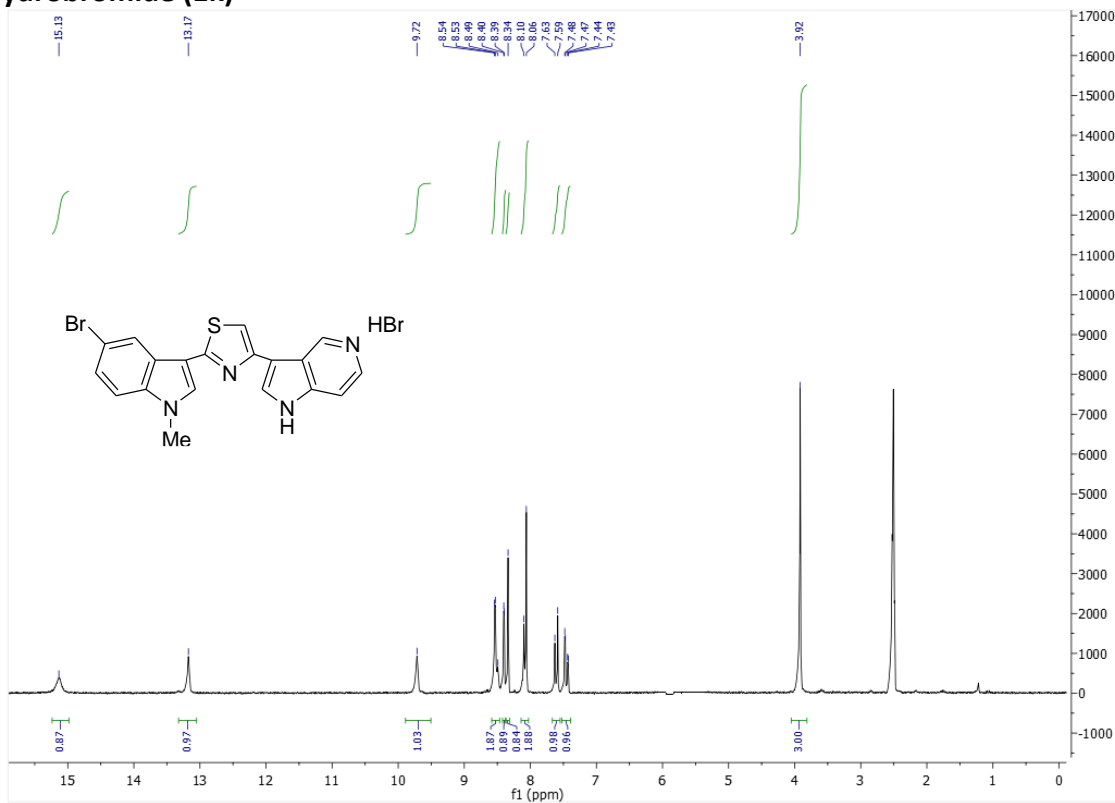
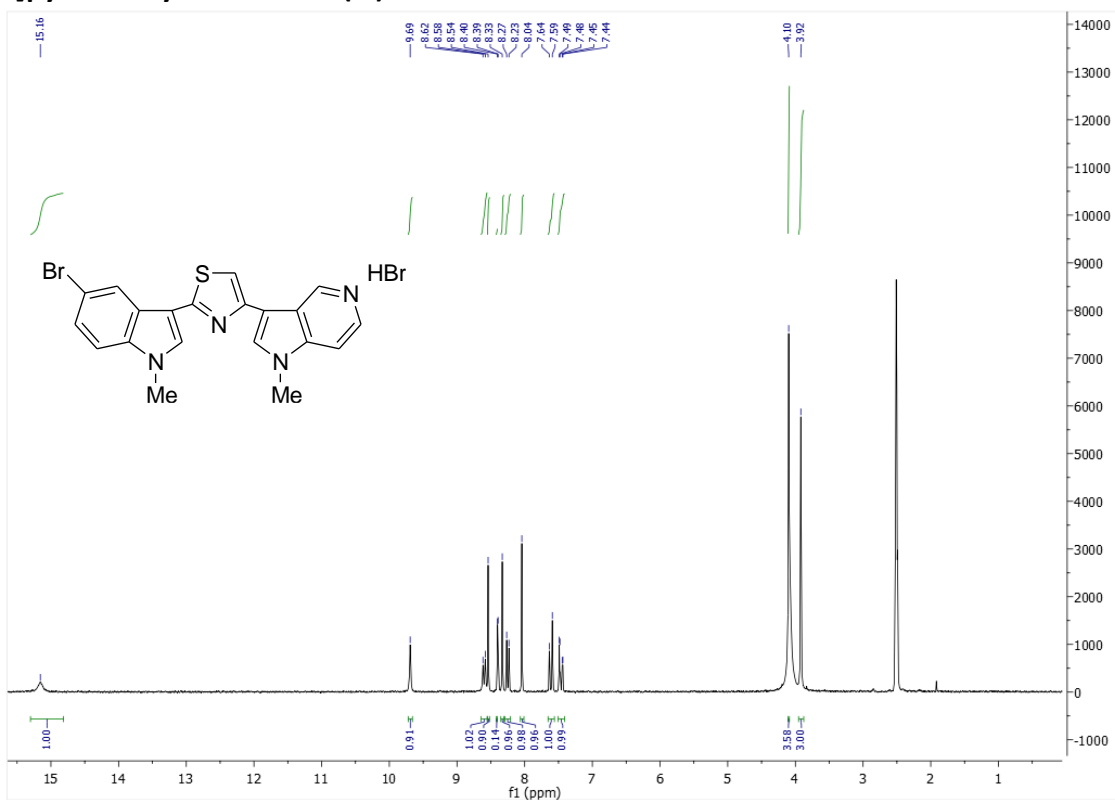
Figure S5. ^1H NMR spectra of 3-[2-(5-bromo-1-methyl-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1k**)**Figure S6.** ^1H NMR spectra of 3-[2-(5-bromo-1-methyl-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1l**)

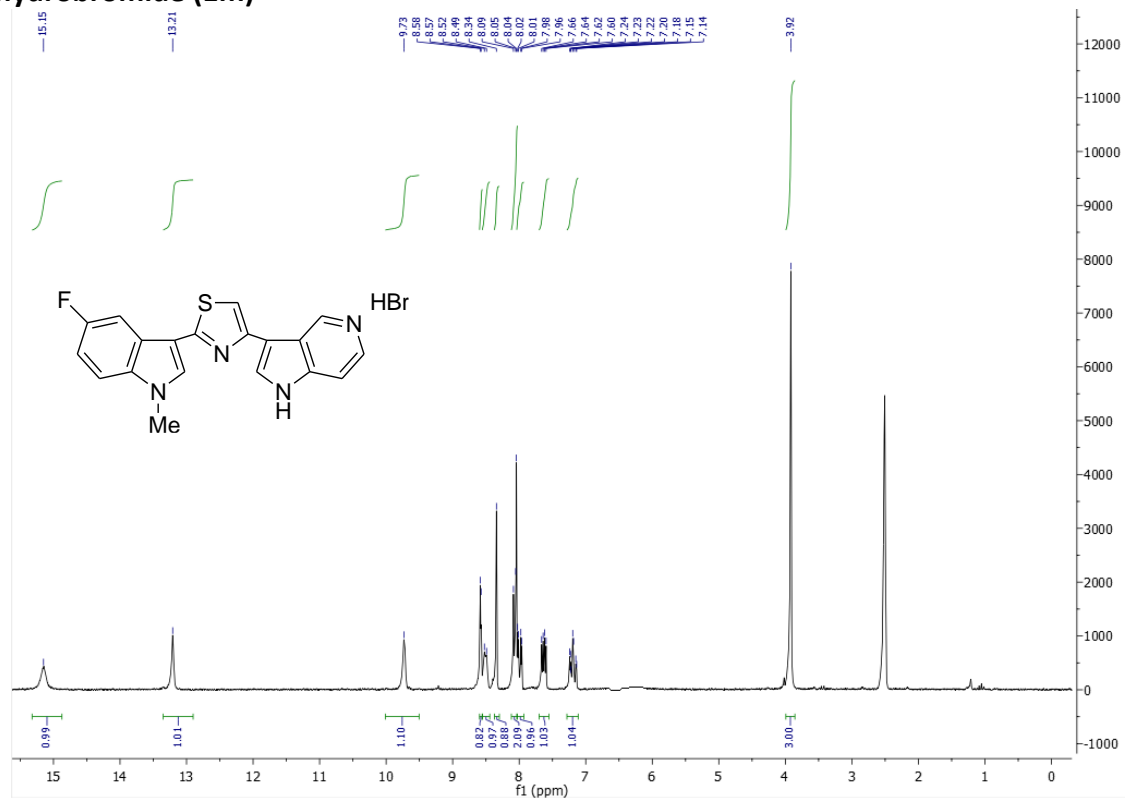
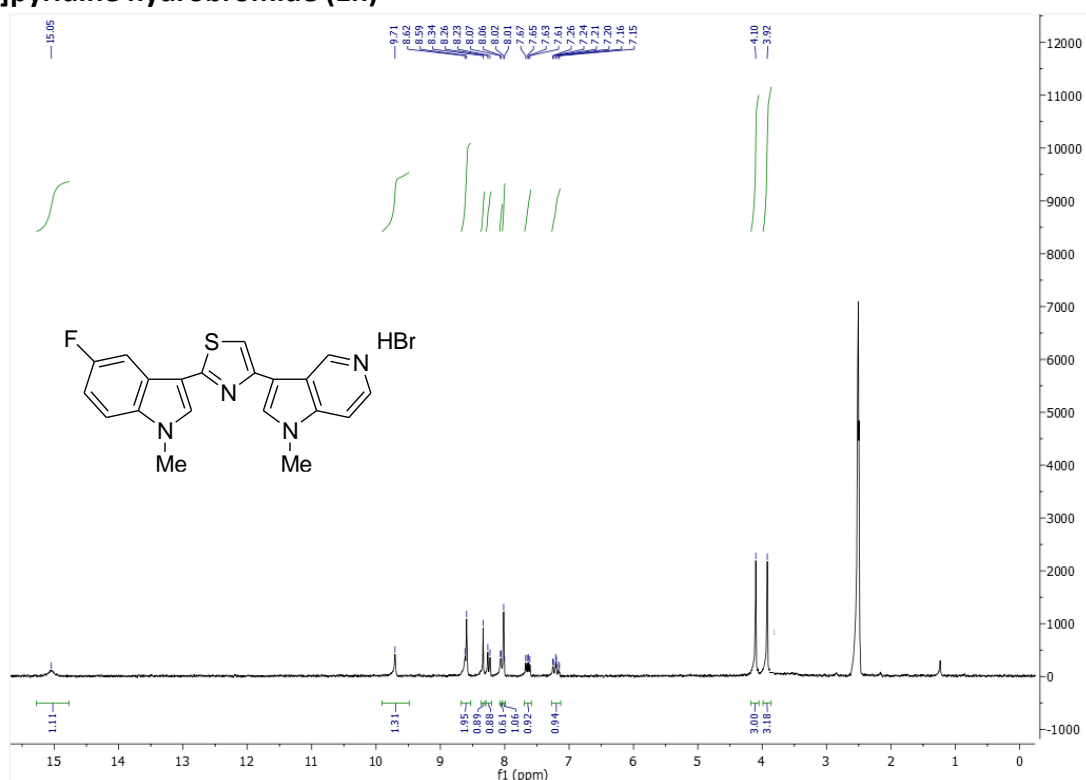
Figure S7. ^1H NMR spectra of 3-[2-(5-fluoro-1-methyl-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1m**)**Figure S8.** ^1H NMR spectra of 3-[2-(5-fluoro-1-methyl-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1n**)

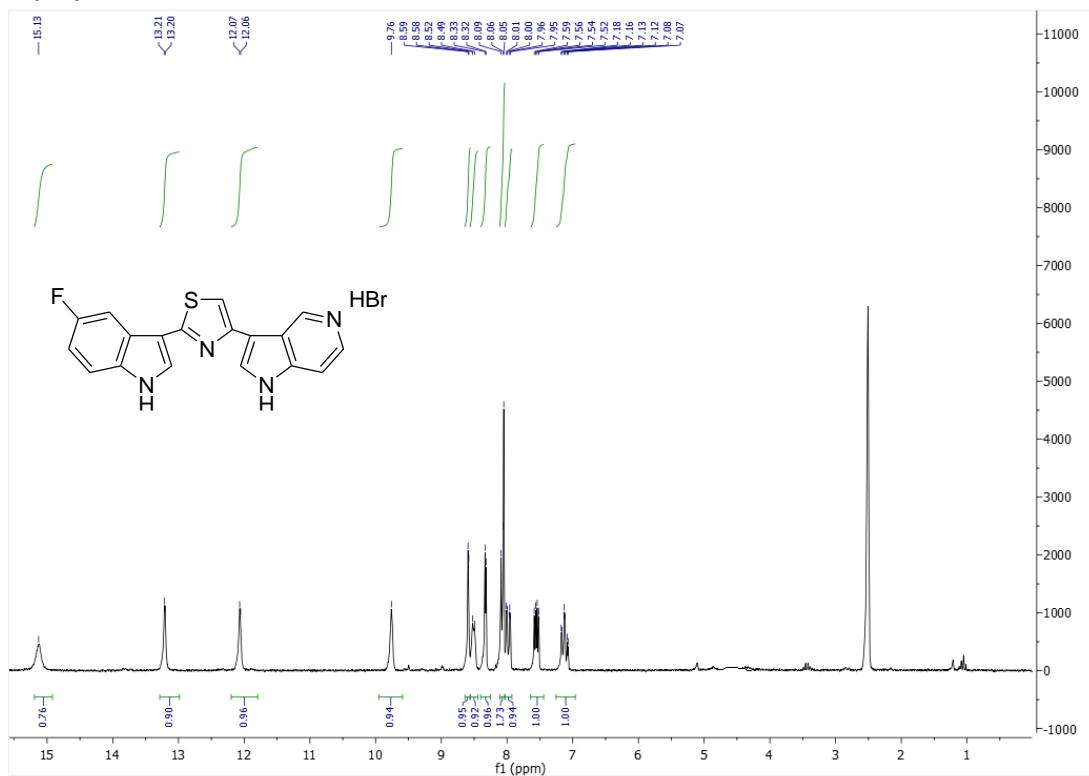
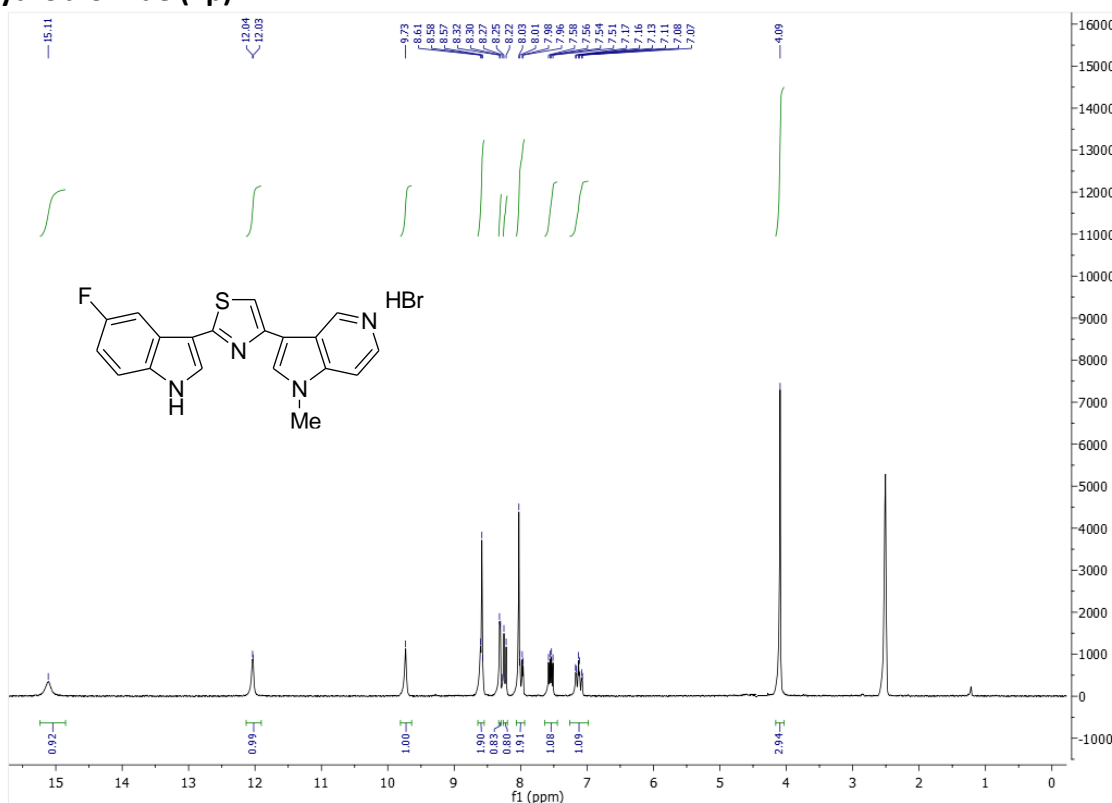
Figure S9. ^1H NMR spectra of 3-[2-(5-fluoro-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1o**)**Figure S10.** ^1H NMR spectra of 3-[2-(5-fluoro-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1p**)

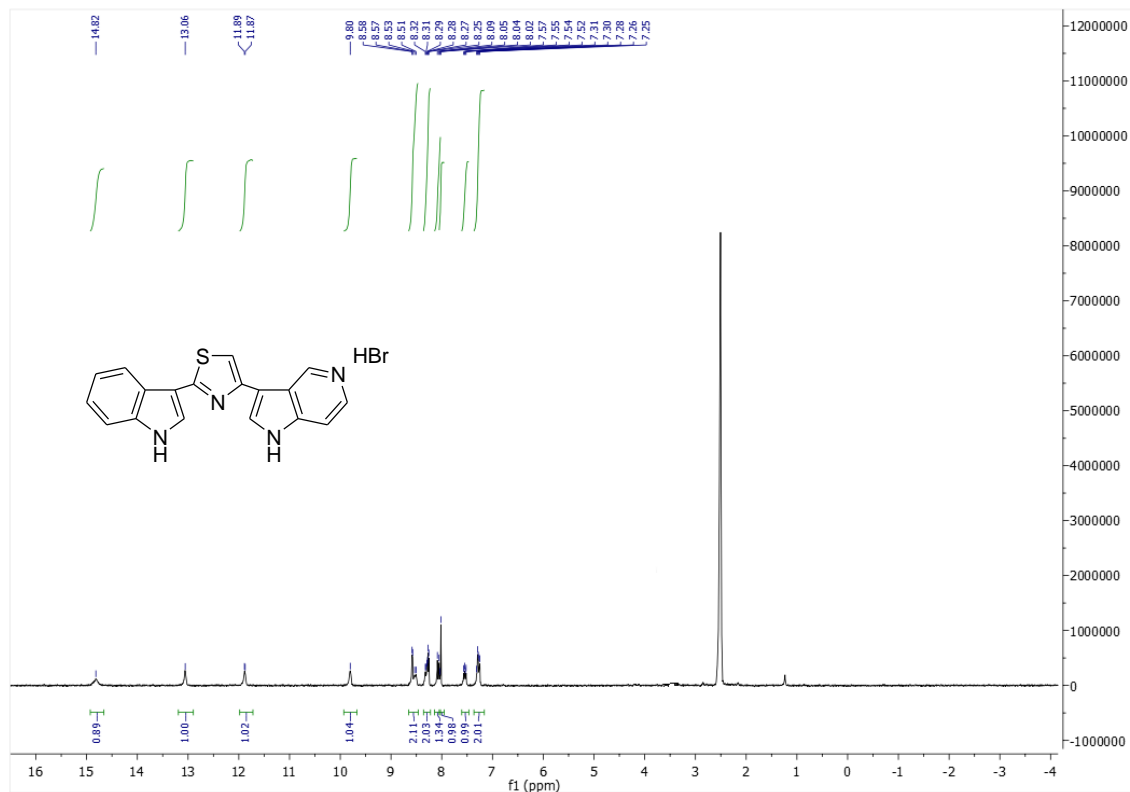
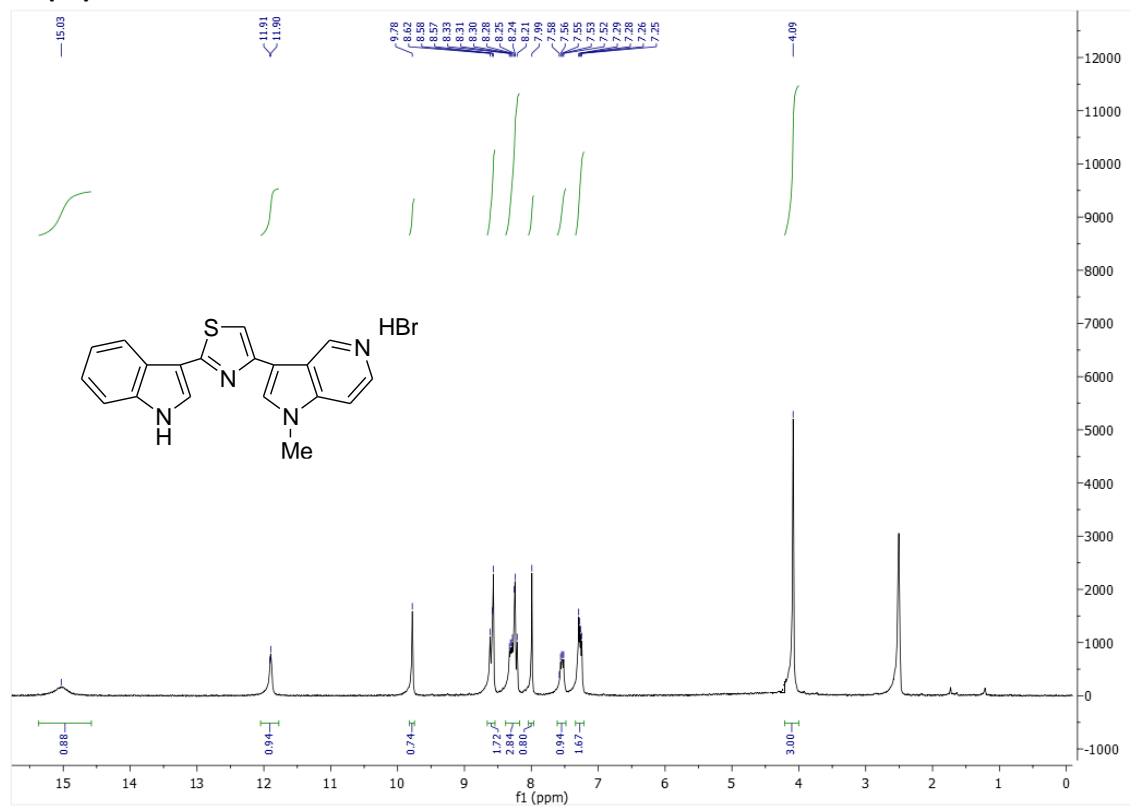
Figure S11. ^1H NMR spectra of 3-[2-(1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1q**)**Figure S12.** ^1H NMR spectra of 3-[2-(1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1r**)

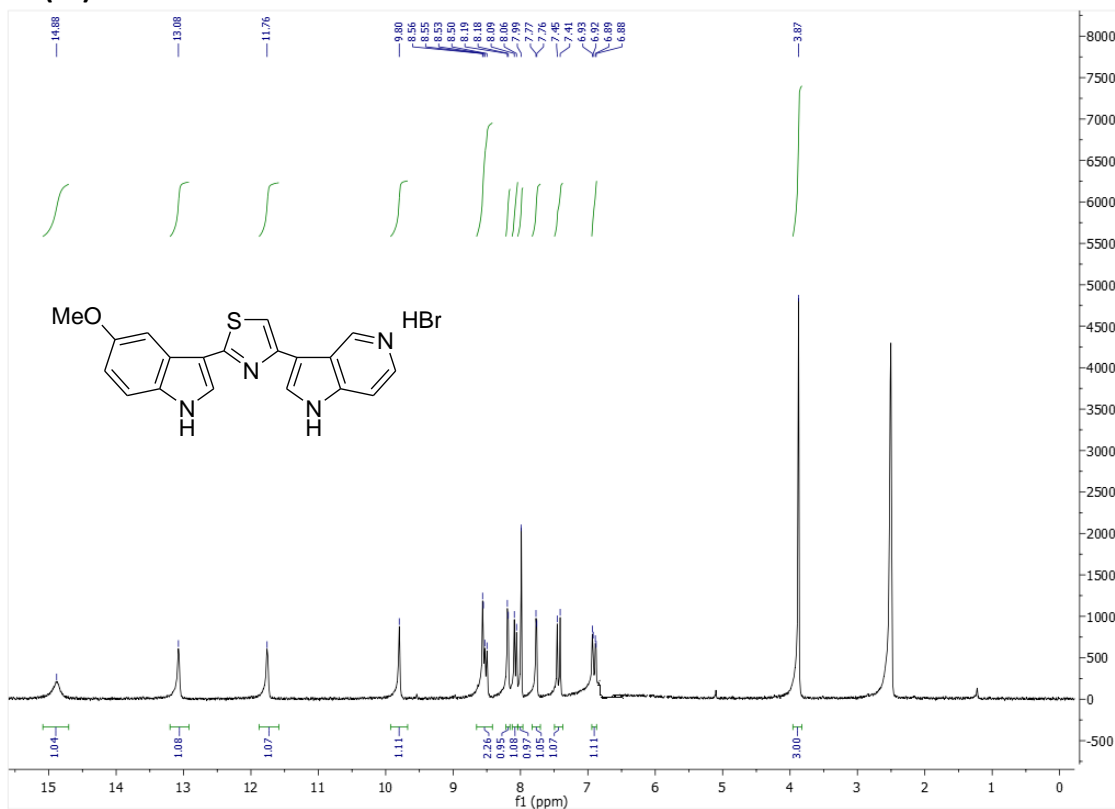
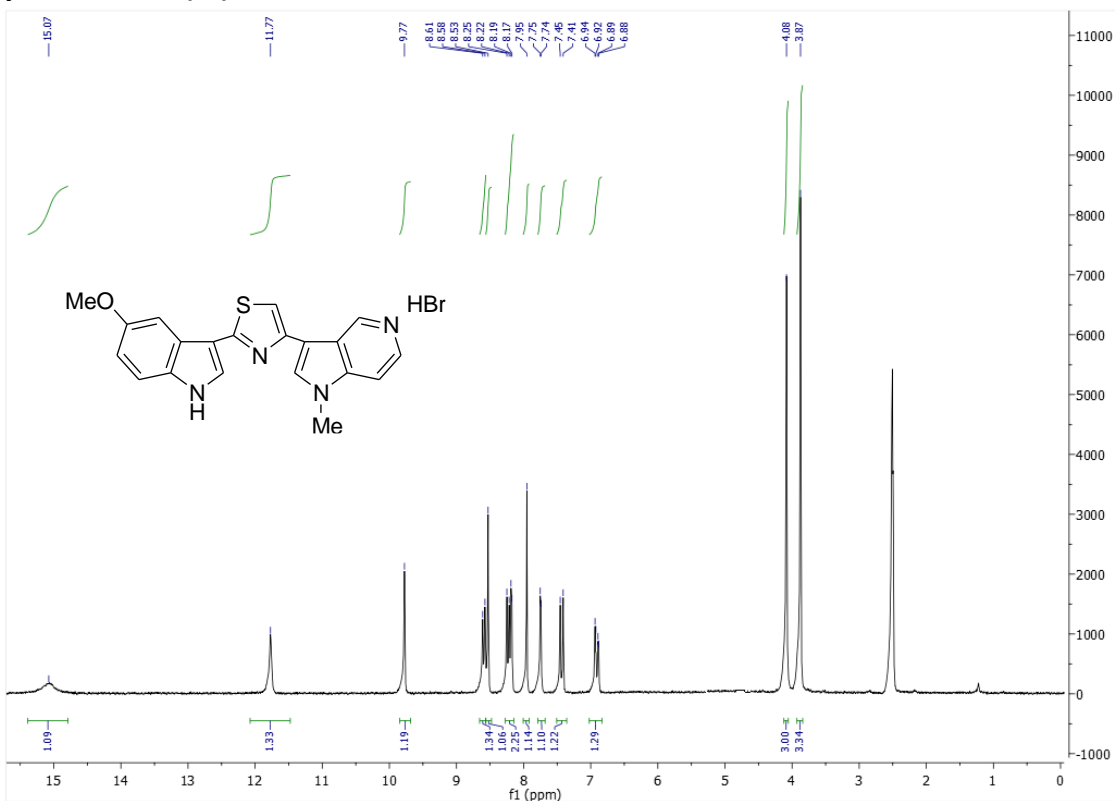
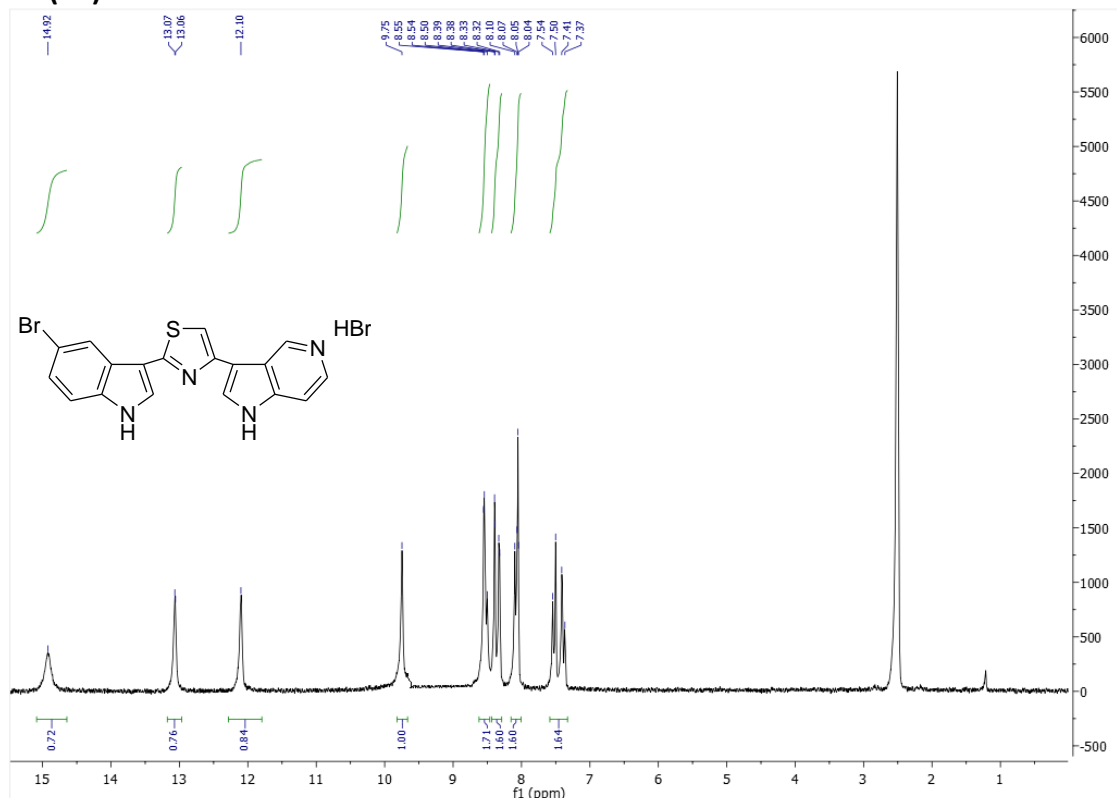
Figure S13. ^1H NMR spectra of 3-[2-(5-methoxy-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1s**)**Figure S14.** ^1H NMR spectra of 3-[2-(5-methoxy-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1t**)

Figure S15. ^1H NMR spectra of 3-[2-(5-bromo-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1u**)Figure S16. ^1H NMR spectra of 3-[2-(5-bromo-1*H*-indol-3-yl)-1,3-thiazol-4-yl]-1-methyl-1*H*-pyrrolo[3,2-*c*]pyridine hydrobromide (**1v**)