

Supplementary Material

Multicomponent synthesis of 1,4-dihydropyridine-3,5-dicarbonitriles

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¹ H and ¹³ C NMR spectra for compounds 3a-d	S2
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Figure S1. ^1H NMR spectrum of 2-amino-4-(2-chloro-6-fluorophenyl)-6-(piperidin-1-yl)-1,4-dihydropyridine-3,5-dicarbonitrile **3a** in $\text{DMSO}-d_6$.

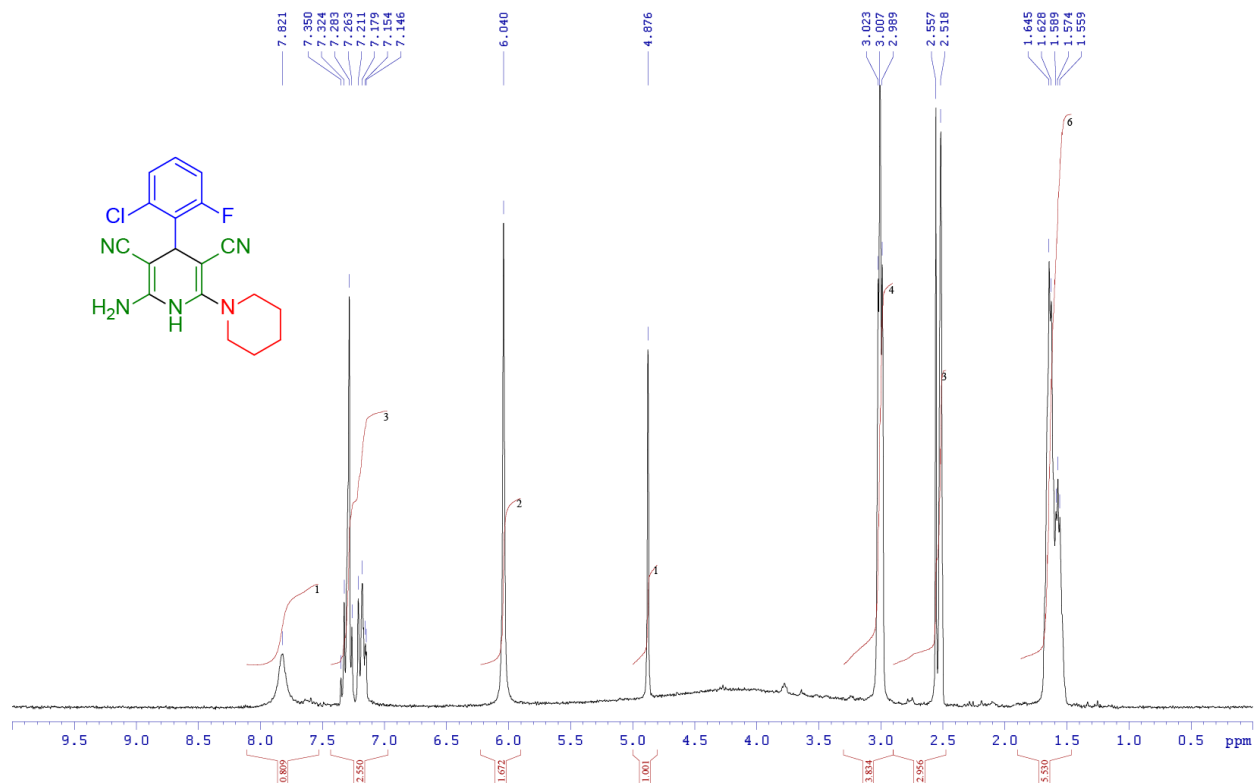


Figure S2. ^{13}C NMR spectrum of 2-amino-4-(2-chloro-6-fluorophenyl)-6-(piperidin-1-yl)-1,4-dihydropyridine-3,5-dicarbonitrile **3a** in $\text{DMSO}-d_6$.

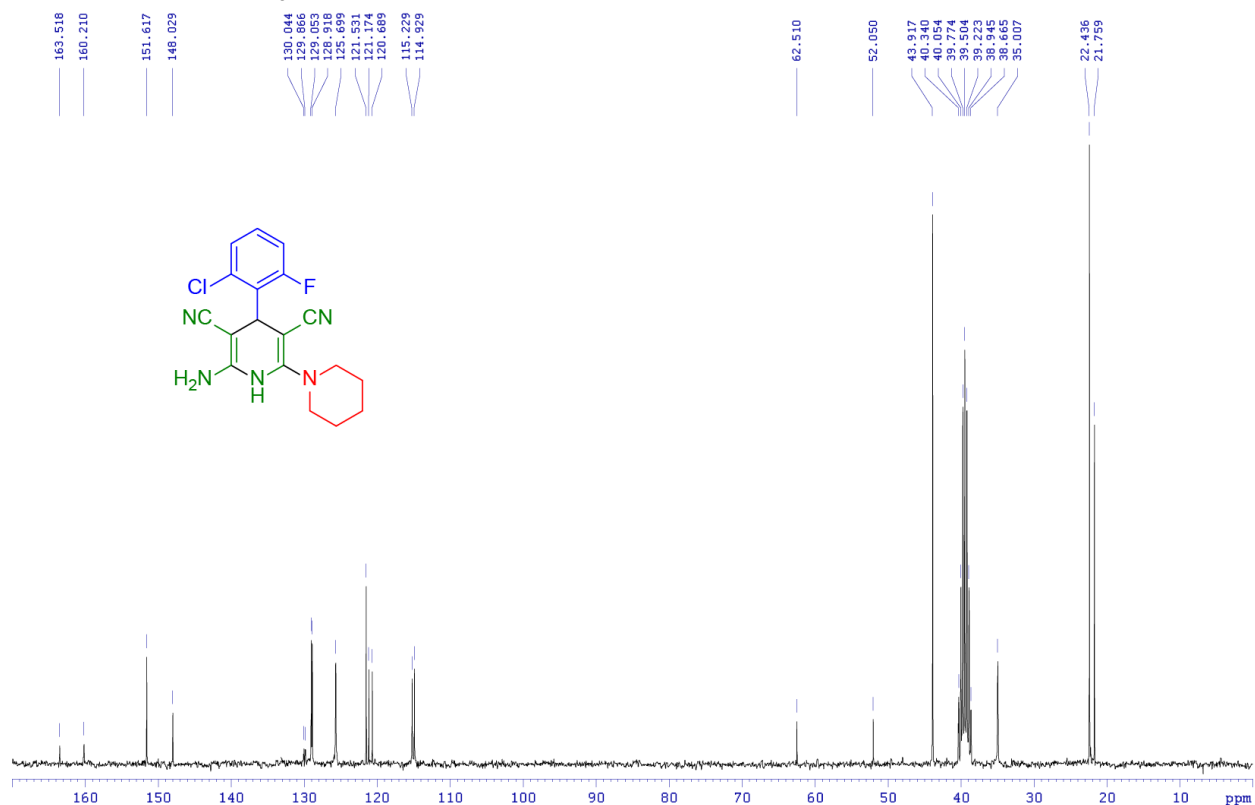


Figure S3. ^1H NMR spectrum of 2-amino-4-(2,6-dichlorophenyl)-6-(piperidin-1-yl)-1,4-dihydropyridine-3,5-dicarbonitrile **3b** in $\text{DMSO}-d_6$.

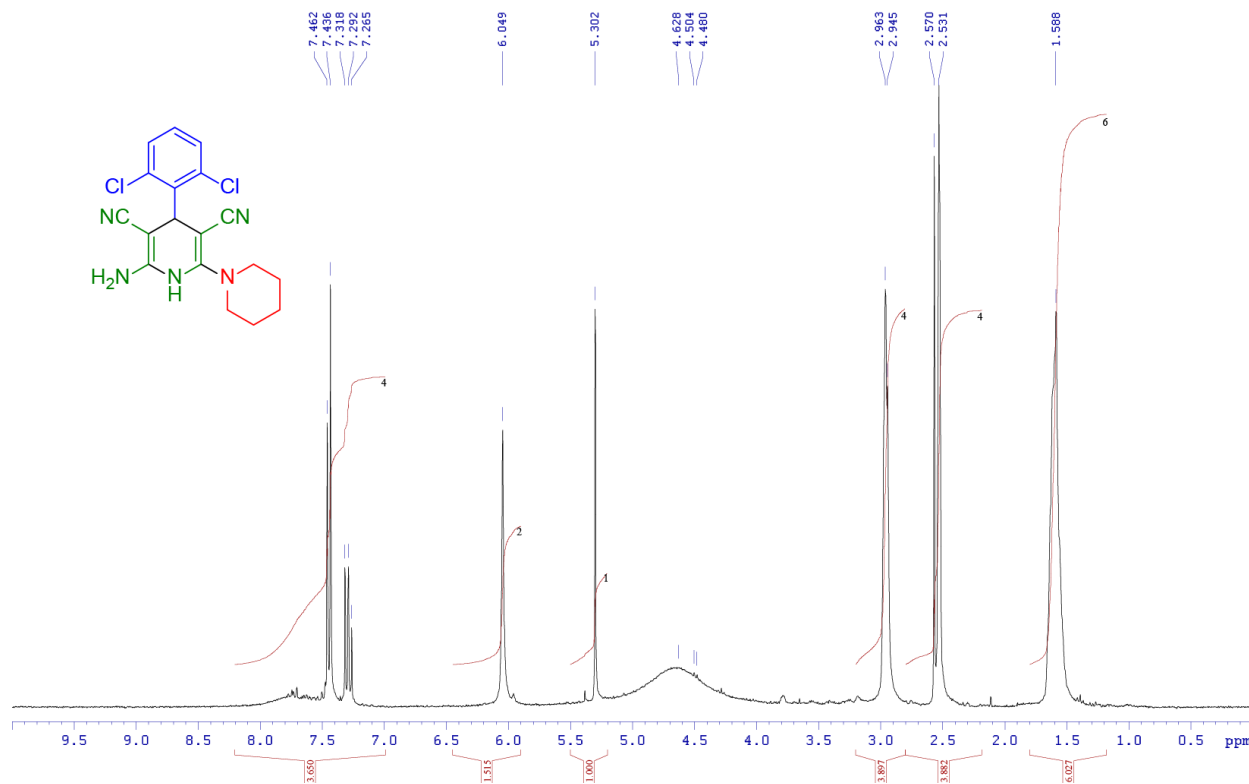


Figure S4. ^{13}C NMR spectrum of 2-amino-4-(2,6-dichlorophenyl)-6-(piperidin-1-yl)-1,4-dihydropyridine-3,5-dicarbonitrile **3b** in $\text{DMSO}-d_6$.

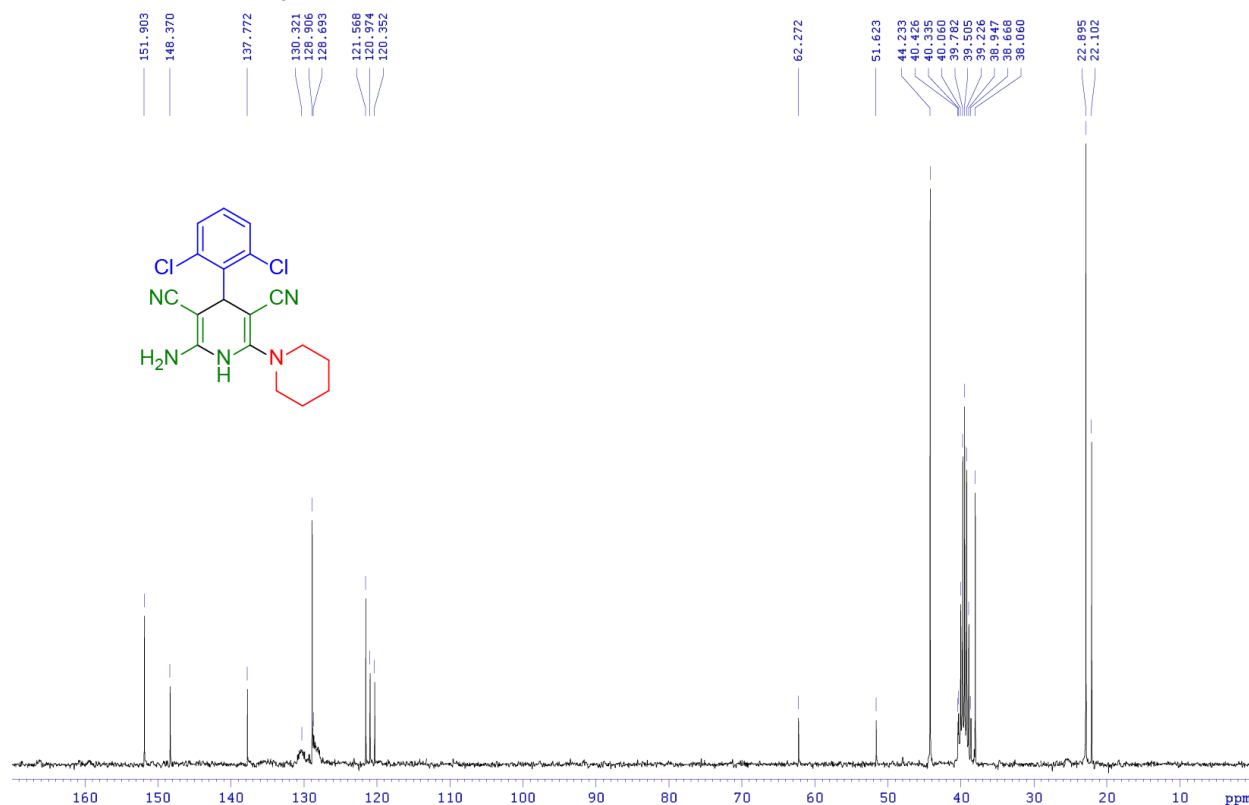


Figure S5. ^1H NMR spectrum of 2-amino-4-(2-chloro-6-fluorophenyl)-6-morpholino-1,4-dihydropyridine-3,5-dicarbonitrile **3c** in $\text{DMSO}-d_6$.

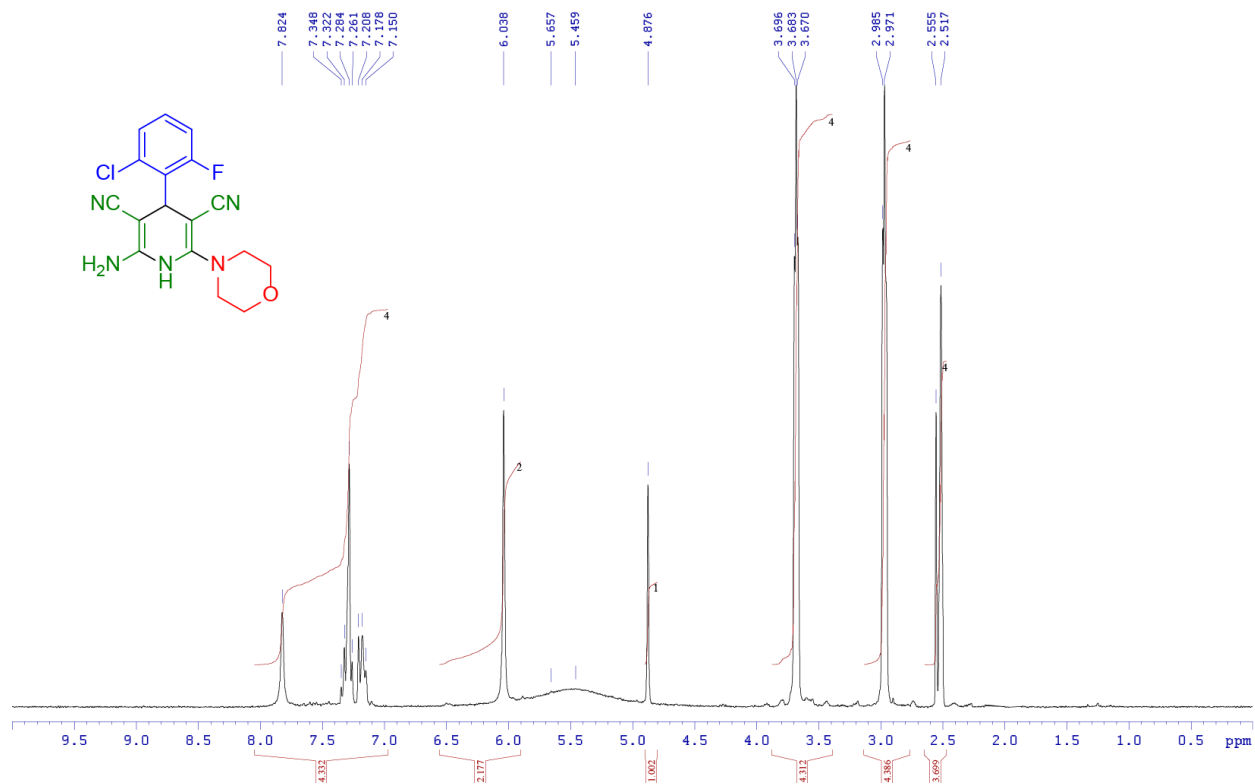


Figure S6. ^{13}C NMR spectrum of 2-amino-4-(2-chloro-6-fluorophenyl)-6-morpholino-1,4-dihydropyridine-3,5-dicarbonitrile **3c** in $\text{DMSO}-d_6$.

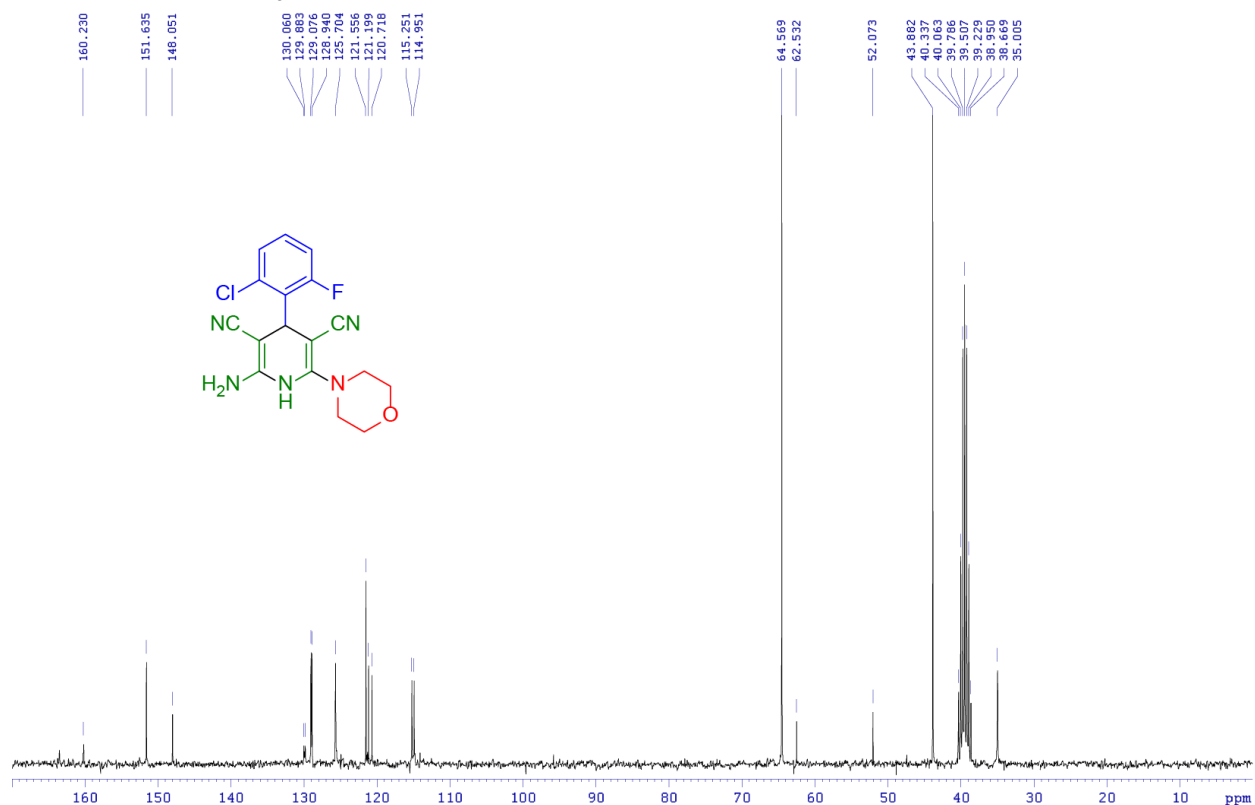


Figure S7. ^1H NMR spectrum of 2-amino-4-(2,6-dichlorophenyl)-6-morpholino-1,4-dihydropyridine-3,5-dicarbonitrile **3d** in $\text{DMSO}-d_6$.

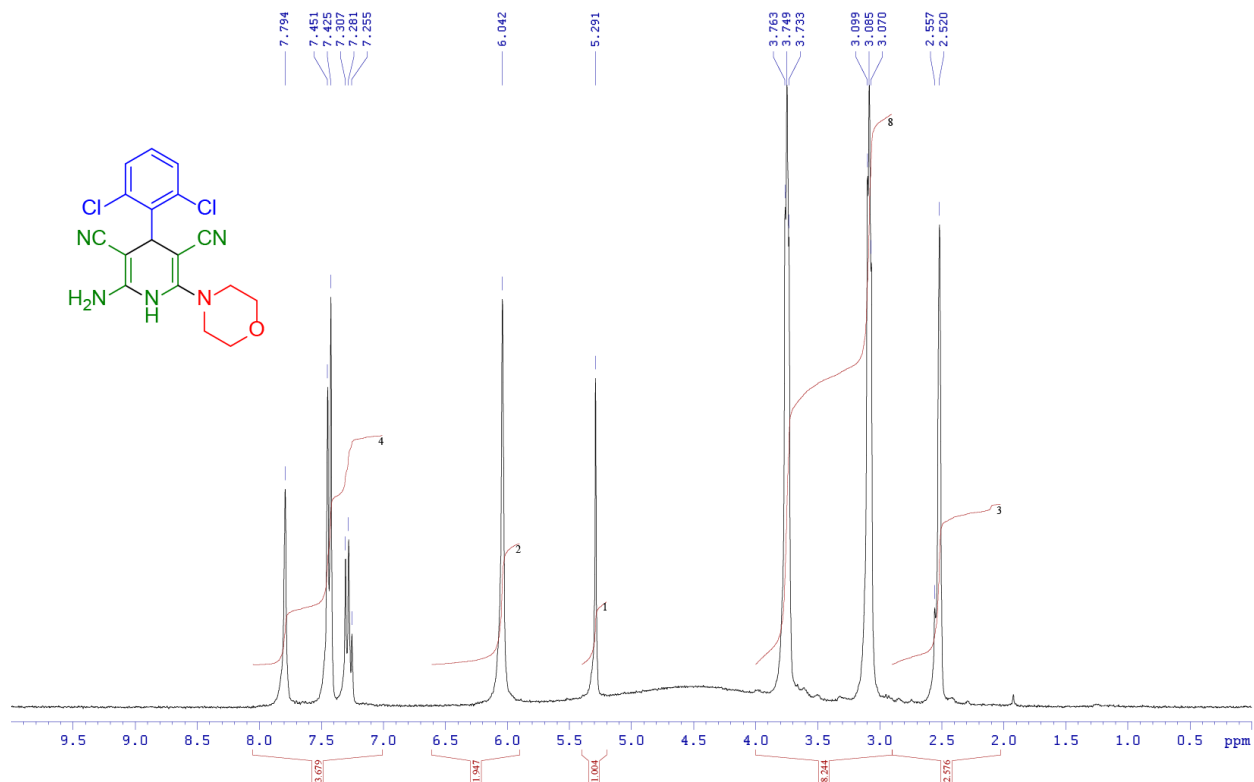


Figure S8. ^{13}C NMR spectrum of 2-amino-4-(2,6-dichlorophenyl)-6-morpholino-1,4-dihydropyridine-3,5-dicarbonitrile **3d** in $\text{DMSO}-d_6$.

