Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Design, Synthesis and anti-proliferative evaluation of 1*H*-1,2,3-triazole grafted ferrocenyl/ organic tetrahydro-*β*-carboline-chalcone hybrids in Estrogen Responsive (ER+) and Triple Negative Breast Cancer (ER-) cells

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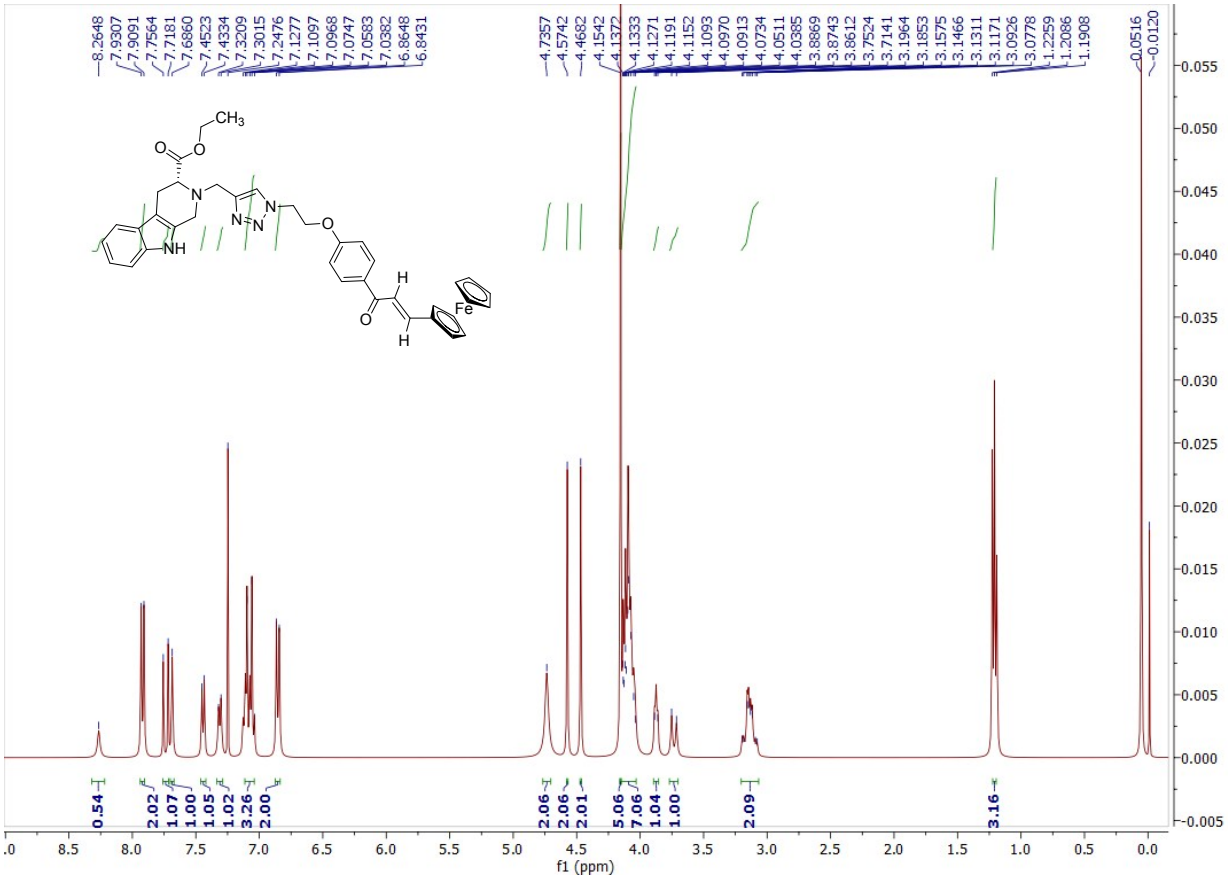
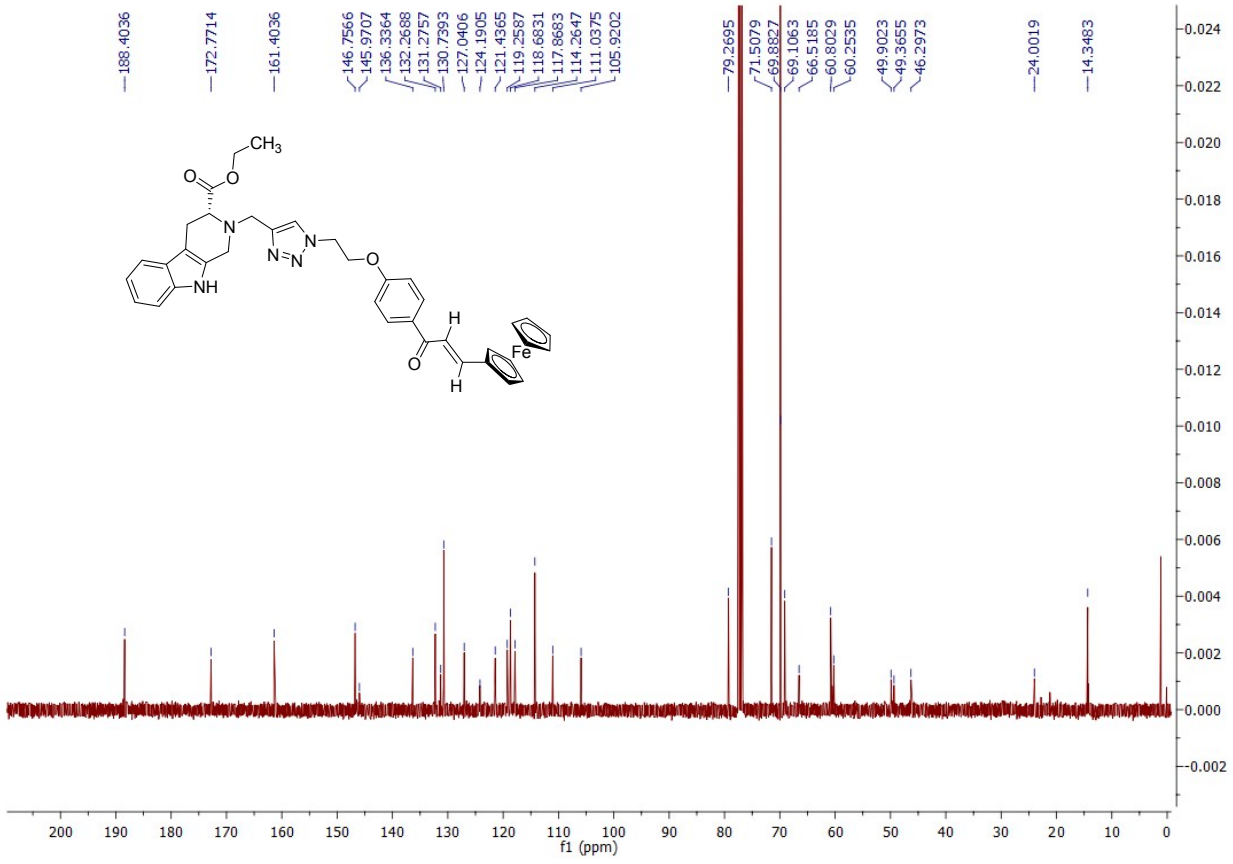
Supporting information

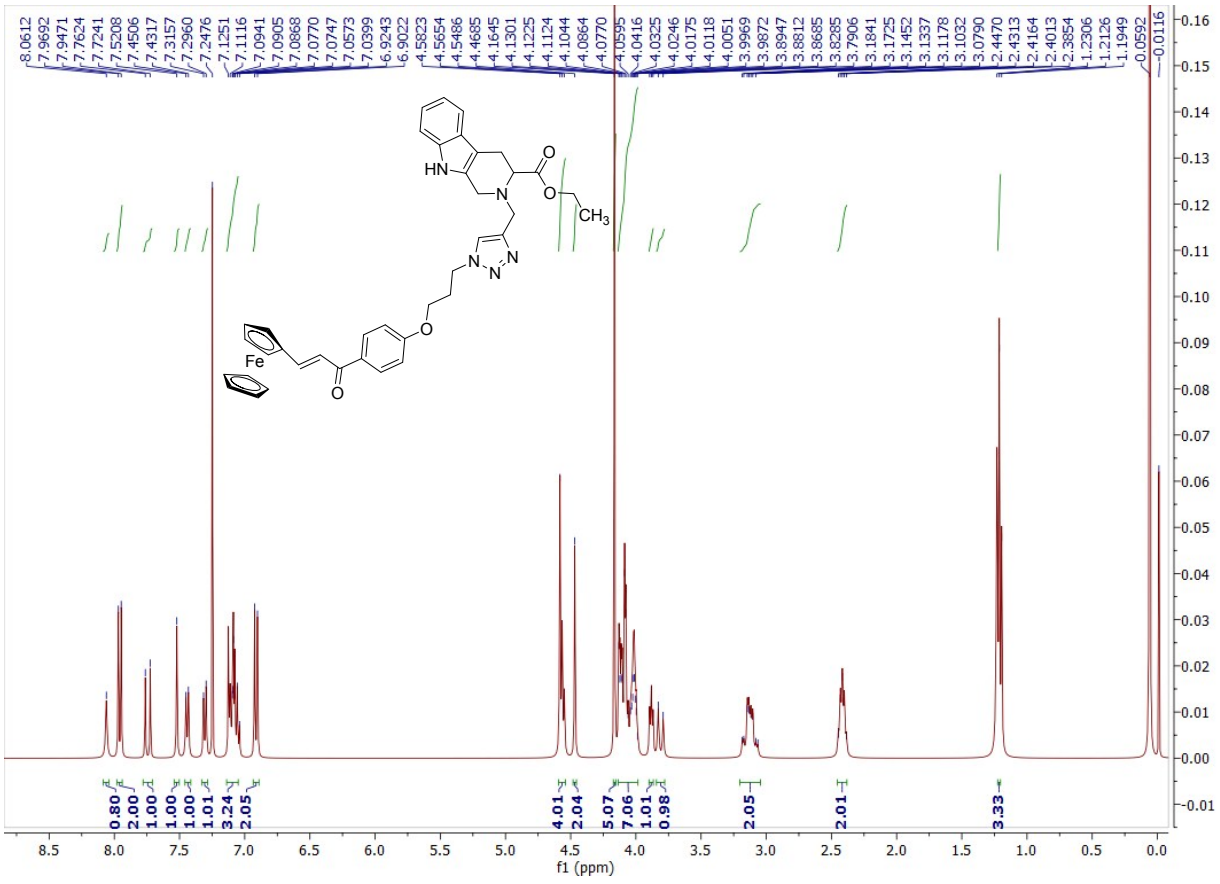
^{1}H NMR of 2-[1-(2-{4-[3-(ferrocenyl)-acryloyl]-phenoxy}-ethyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-*β*-carboline-3-carboxylic acid ethyl ester (12a)



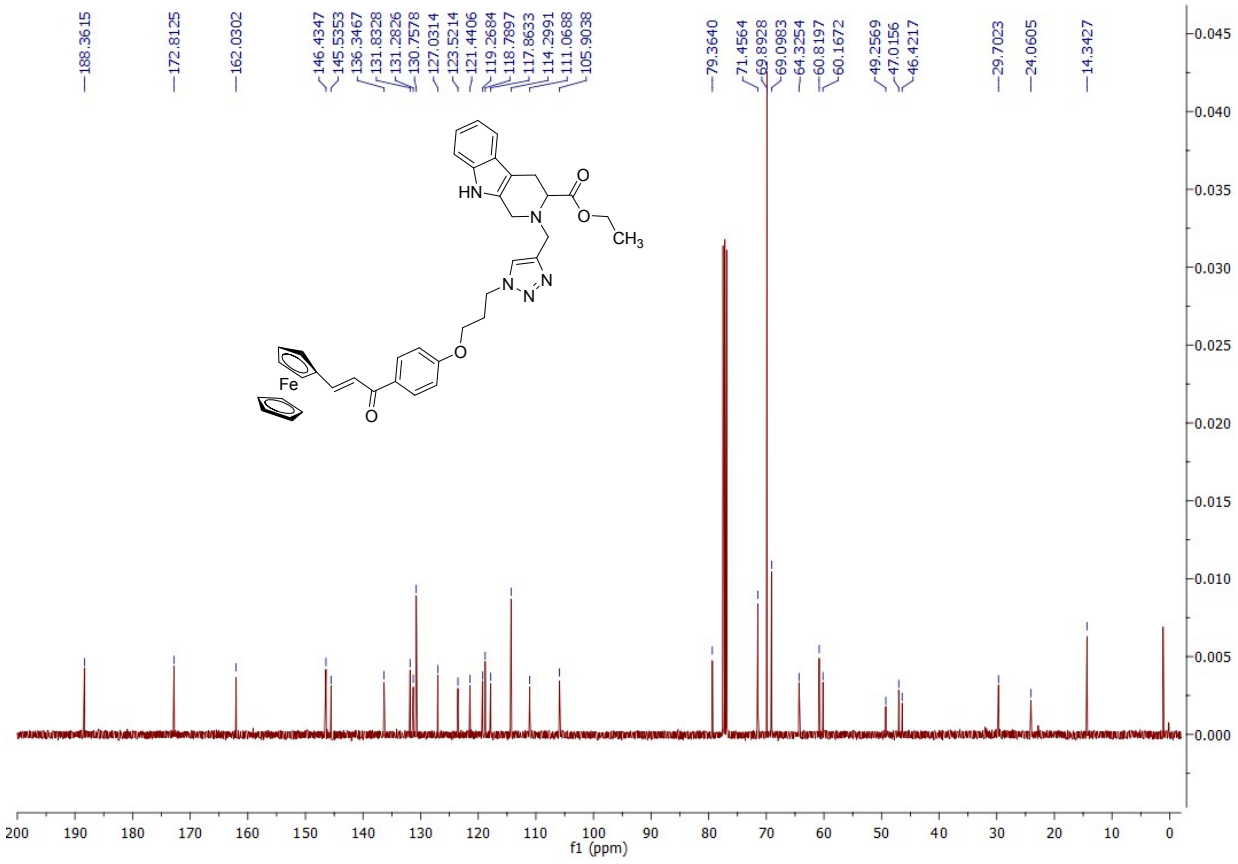
^{13}C NMR of 2-[1-(2-{4-[3-(ferrocenyl)-acryloyl]-phenoxy}-ethyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (12a)



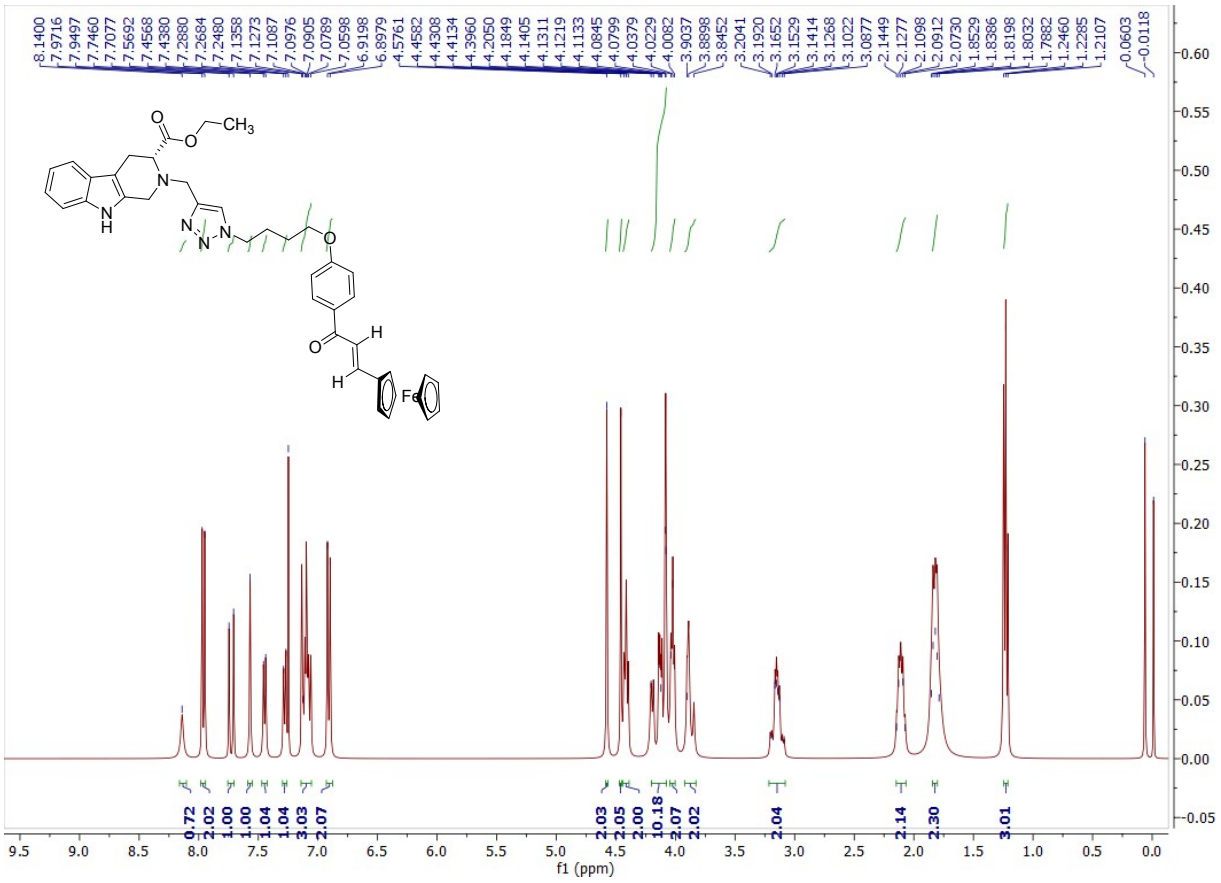
^{1}H NMR of 2-[1-(3-{4-[3-(ferrocenyl)-acryloyl]-phenoxy}-propyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (12b)



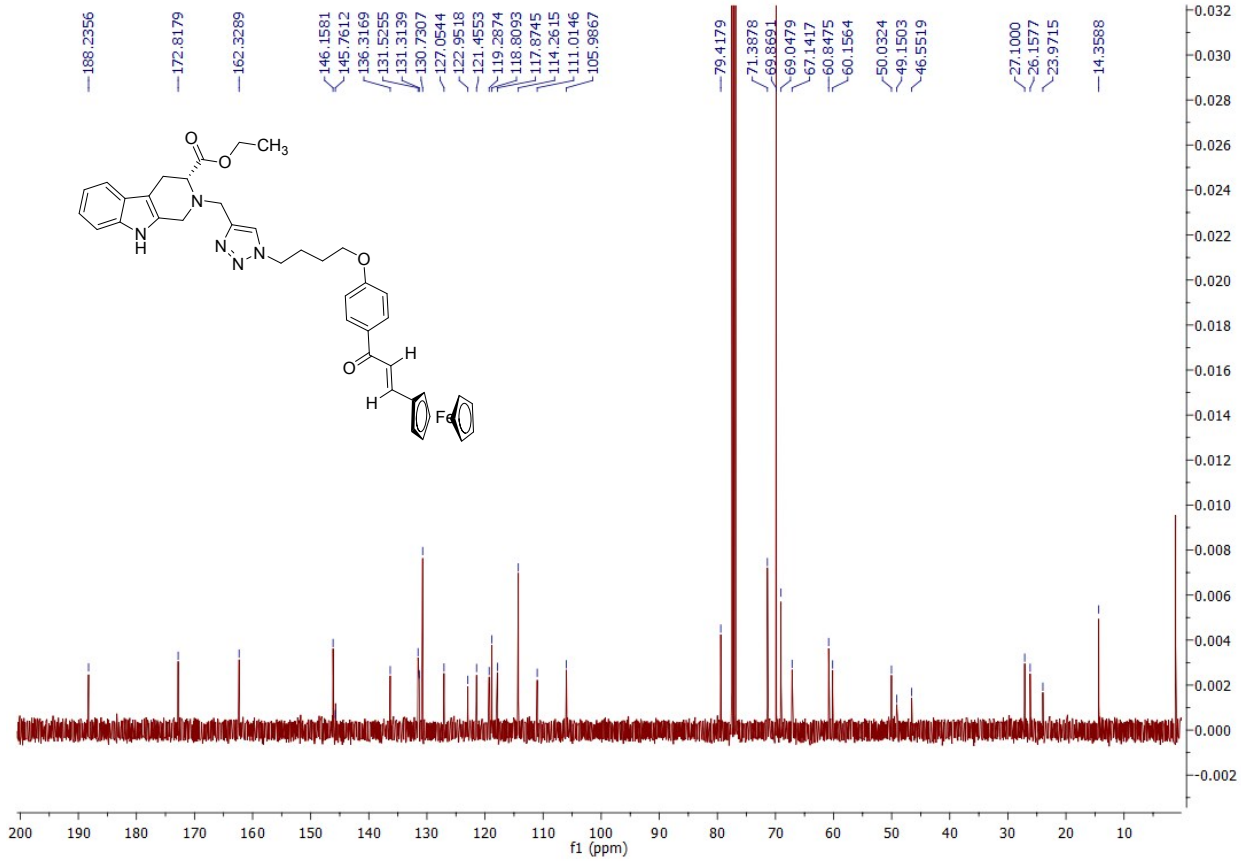
^{13}C NMR of 2-[1-(3-{4-[3-(ferrocenyl)-acryloyl]-phenoxy}-propyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (12b)



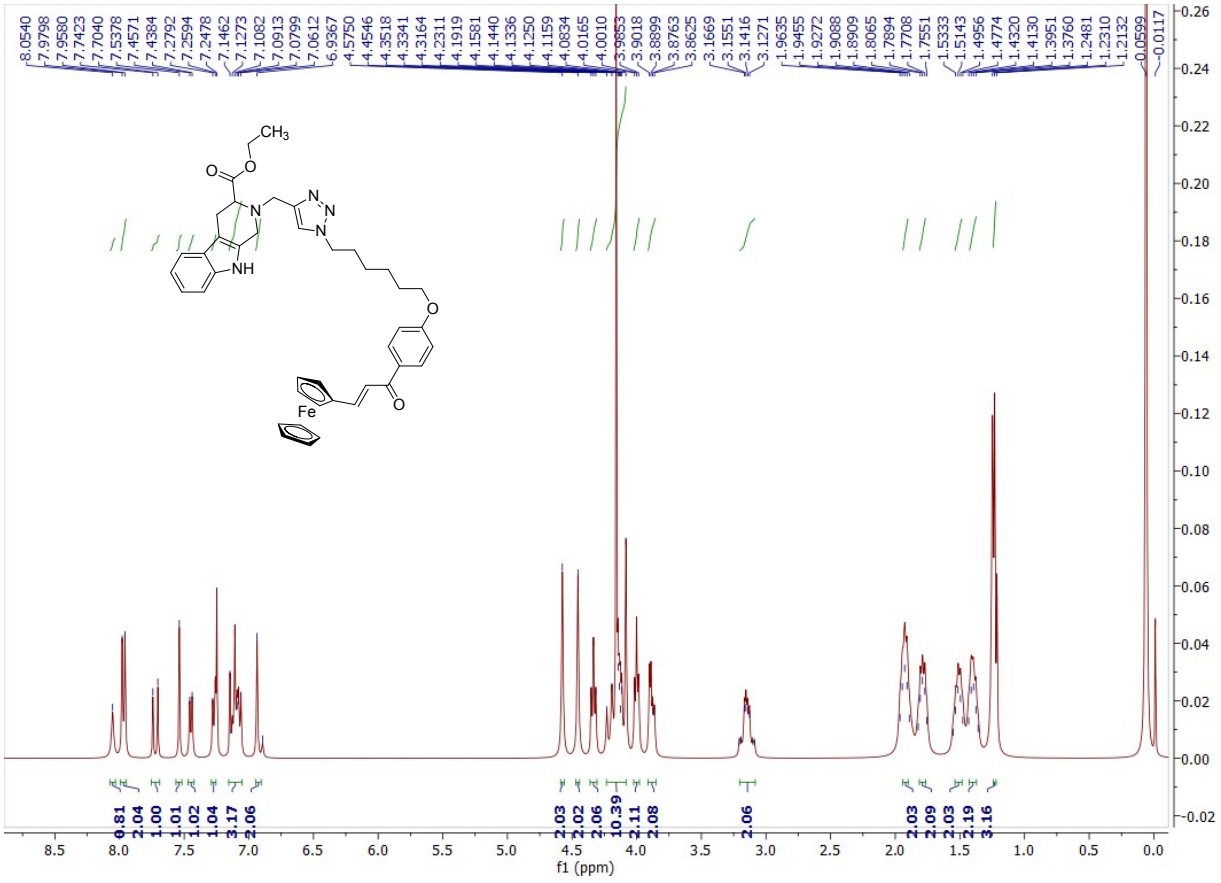
^{1}H NMR of 2-[1-(4-{4-[3-(ferrocenyl)-acryloyl]-phenoxy}-butyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (12c)



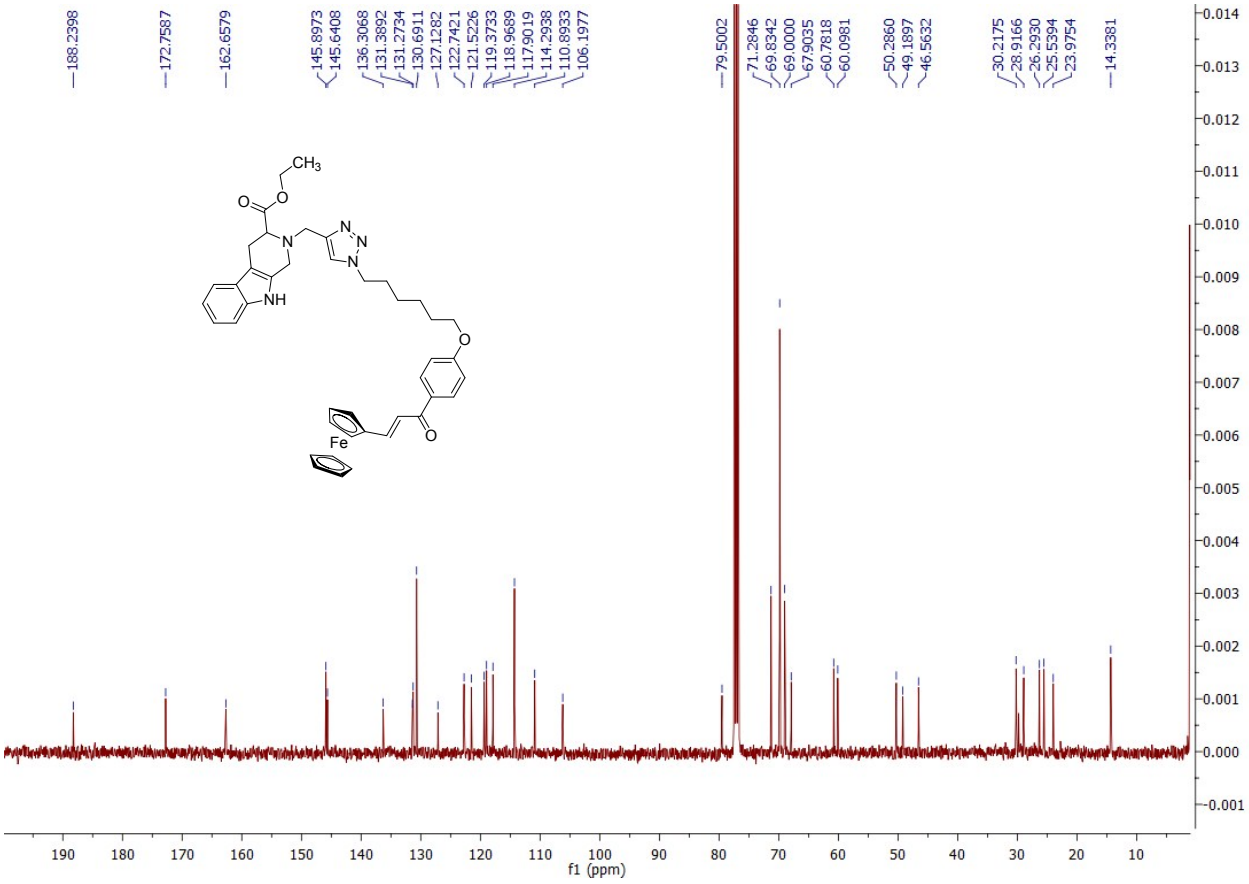
^{13}C NMR of 2-[1-(4-{4-[3-(ferrocenyl)-acryloyl]-phenoxy}-butyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (12c)



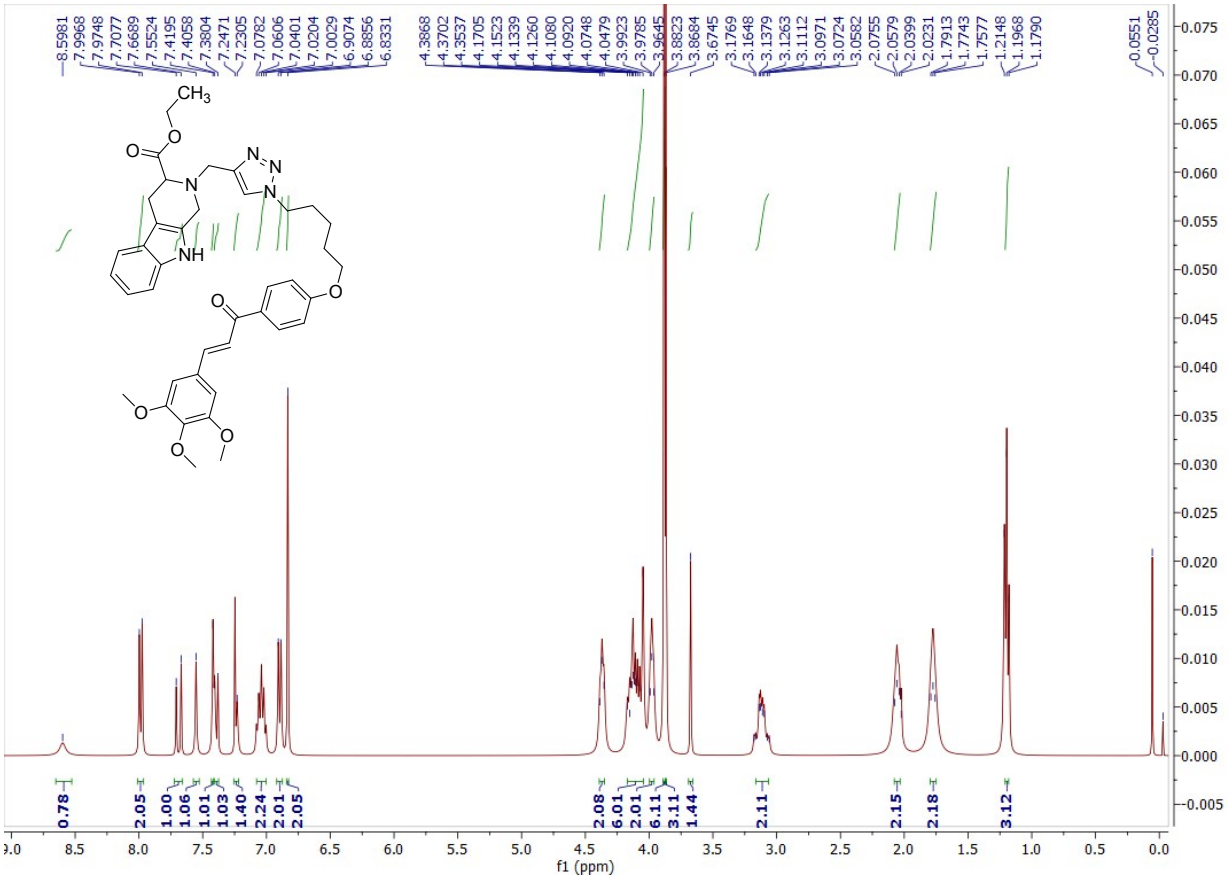
^{1}H NMR of 2-[1-(6-{4-[3-(ferrocenyl)-acryloyl]-phenoxy}-hexyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (12e)



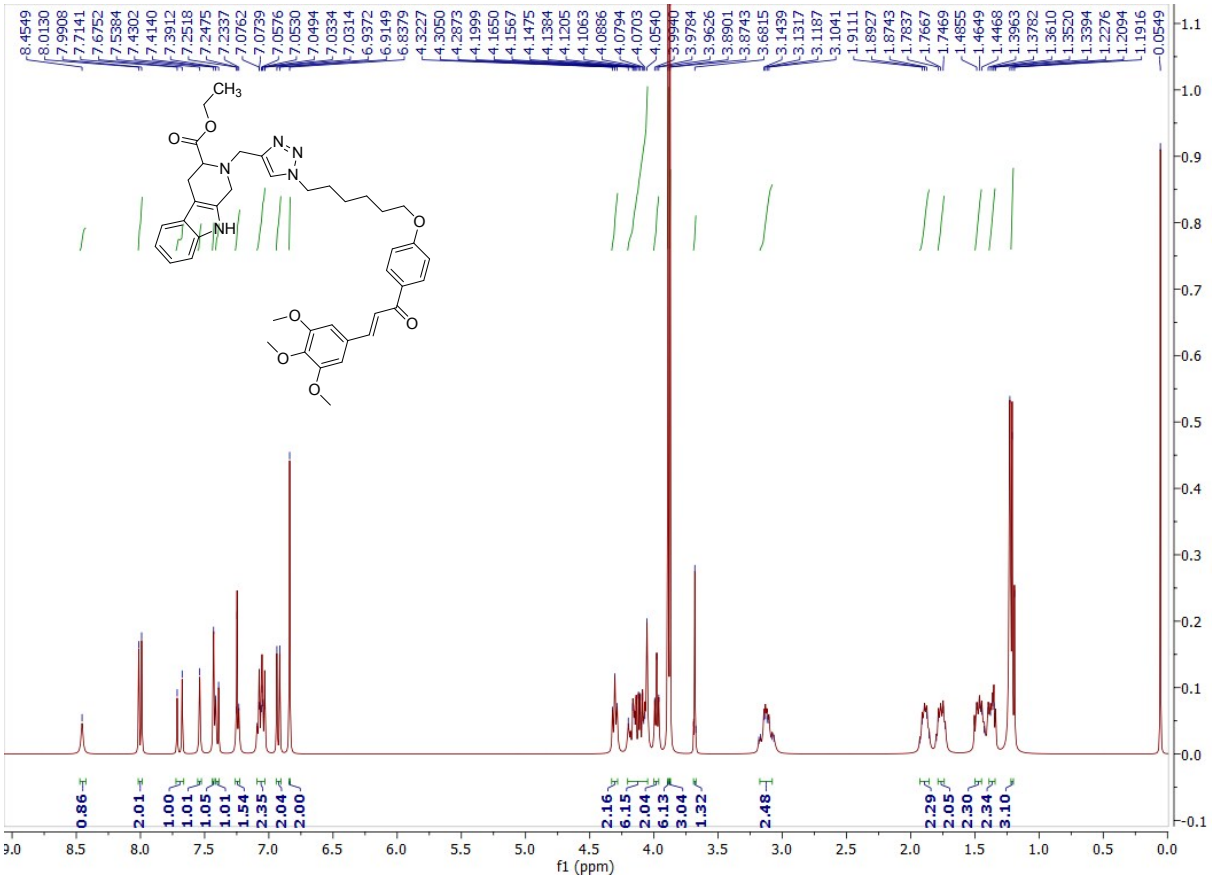
^{13}C NMR of 2-[1-(6-{4-[3-(ferrocenyl)-acryloyl]-phenoxy}-hexyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (12e)



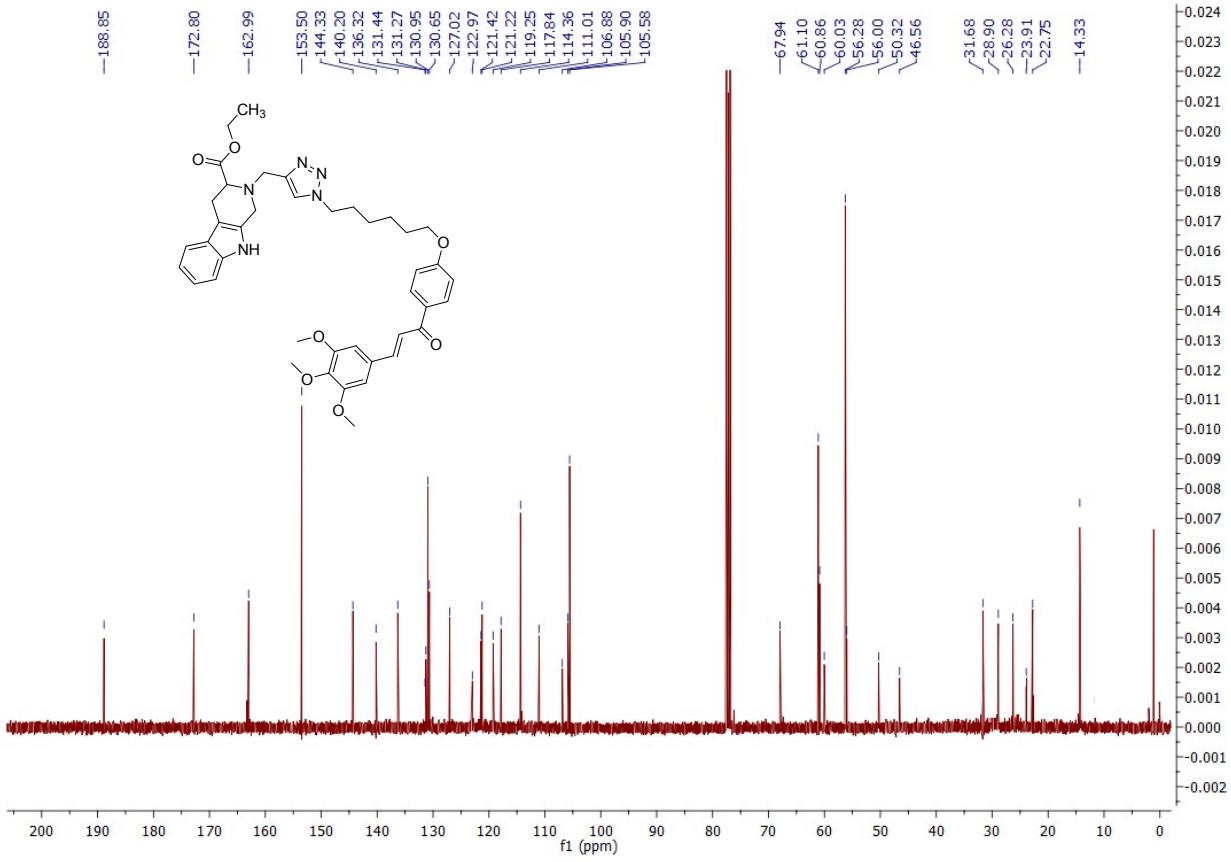
^{1}H NMR of 2-[1-(4-{4-[3-(3,4,5-Trimethoxy-phenyl)-acryloyl]-phenoxy}-butyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H–*β*–carboline-3-carboxylic acid ethyl ester (13c)



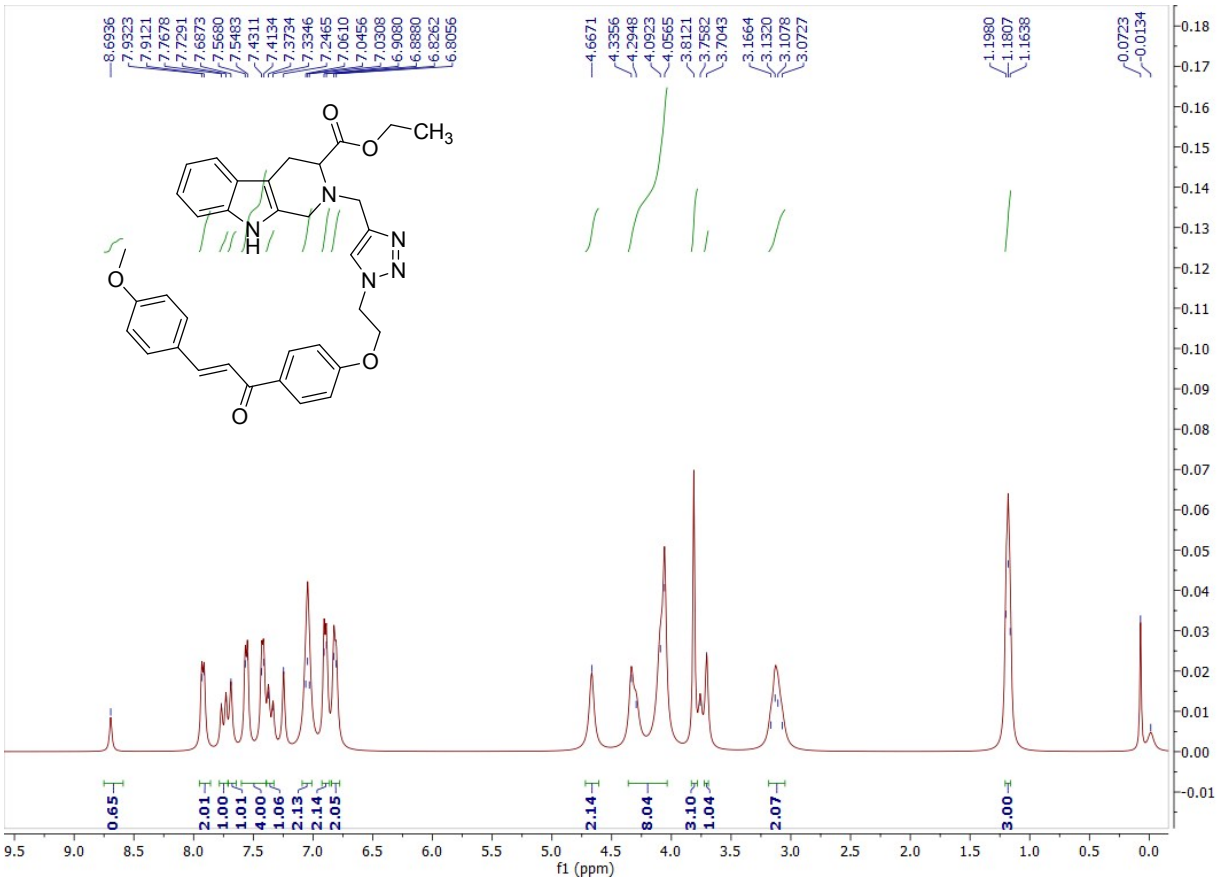
^{1}H NMR of 2-[1-(6-{4-[3-(3,4,5-Trimethoxy-phenyl)-acryloyl]-phenoxy}-hexyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13e)



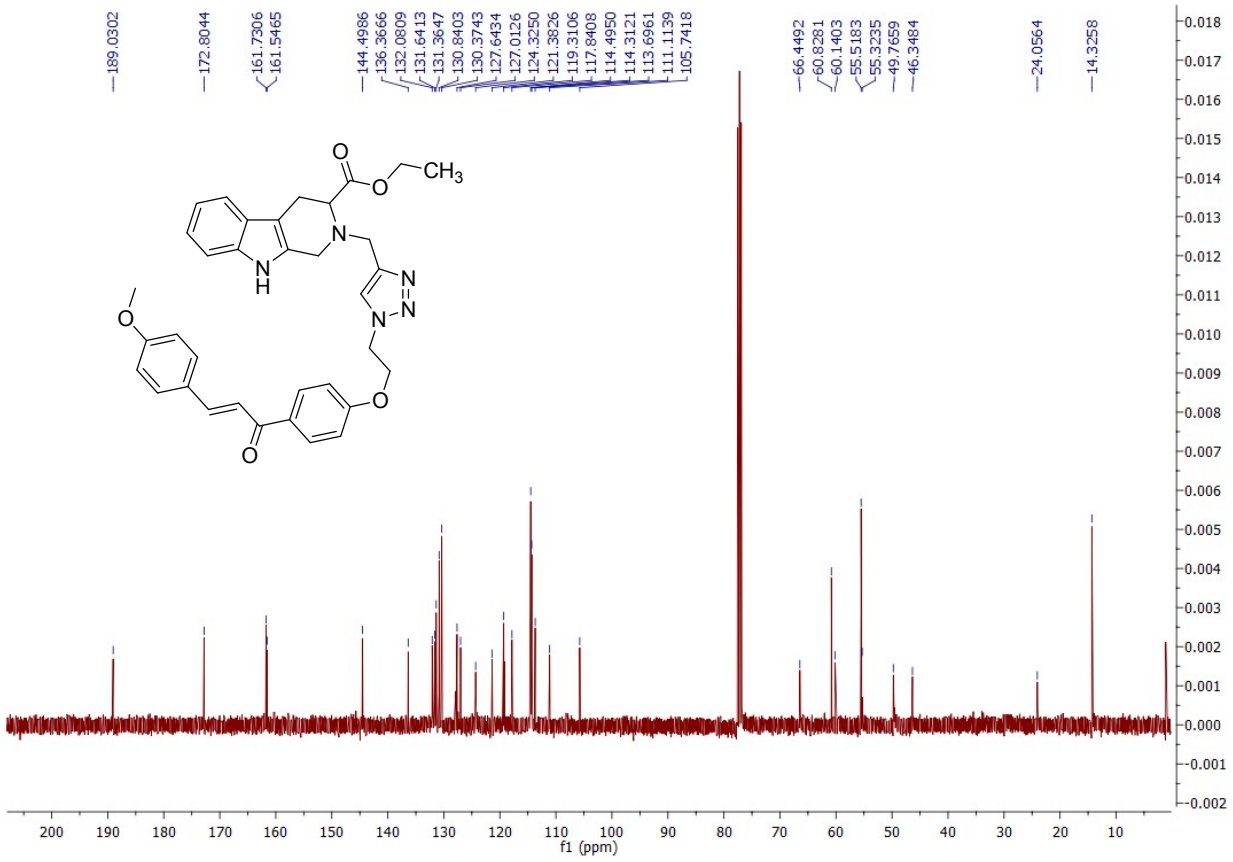
^{13}C NMR of 2-[1-(6-{4-[3-(3,4,5-Trimethoxy-phenyl)-acryloyl]-phenoxy}-hexyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13e)



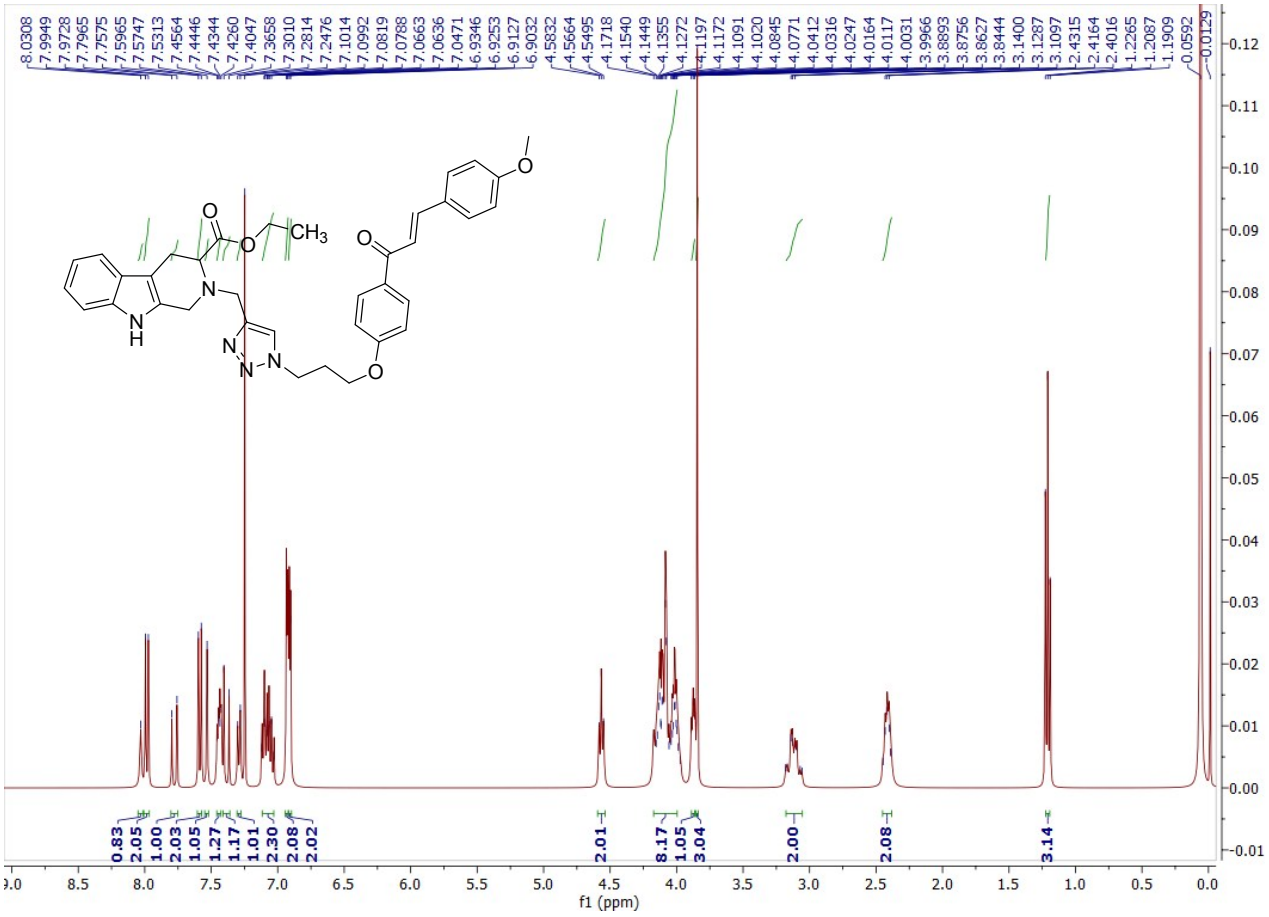
^{1}H NMR of 2-[1-(2-{4-[3-(4-Methoxy-phenyl)-acryloyl]-phenoxy}-ethyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13f)



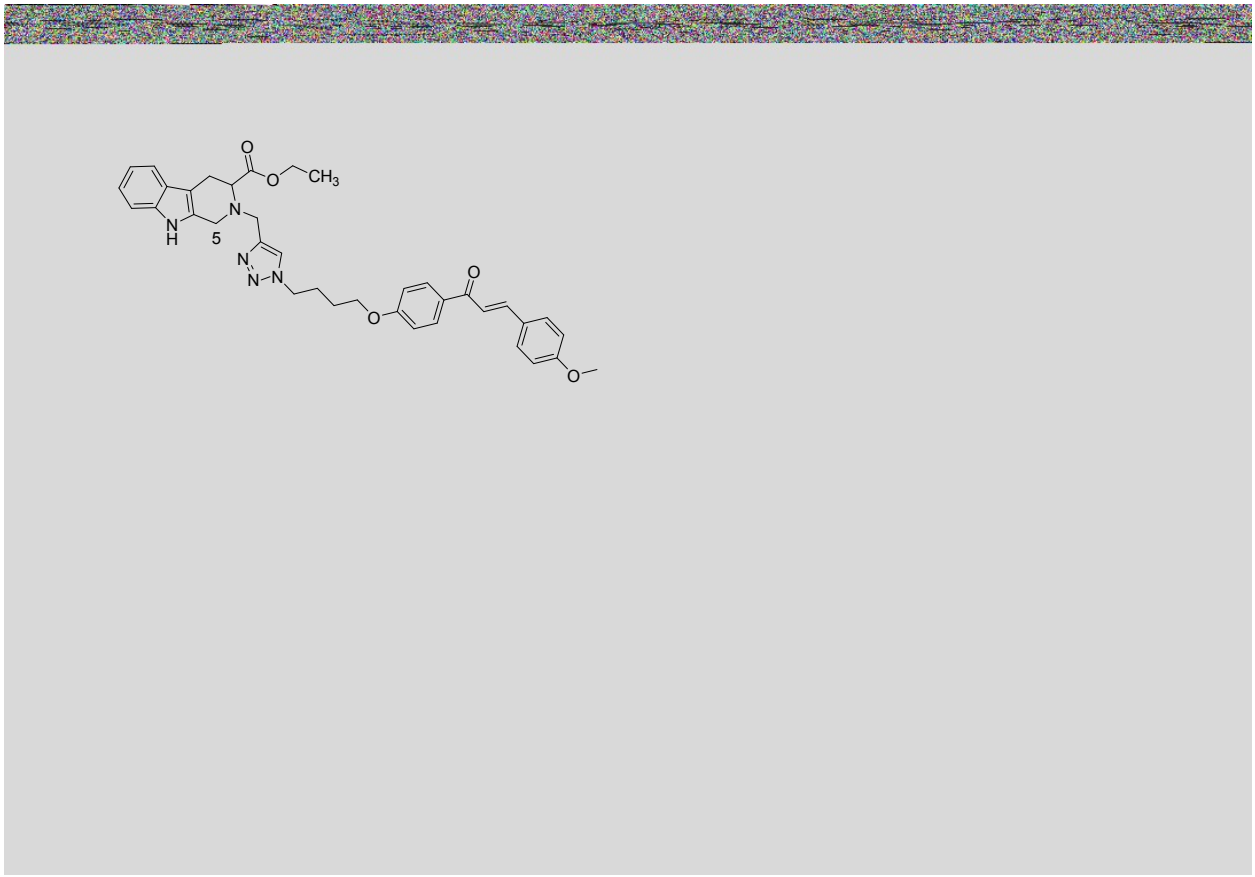
^{13}C NMR of 2-[1-(2-{4-[3-(4-Methoxy-phenyl)-acryloyl]-phenoxy}-ethyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13f)



^{1}H NMR of 2-[1-(3-{4-[3-(4-Methoxy-phenyl)-acryloyl]-phenoxy}-propyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13g)

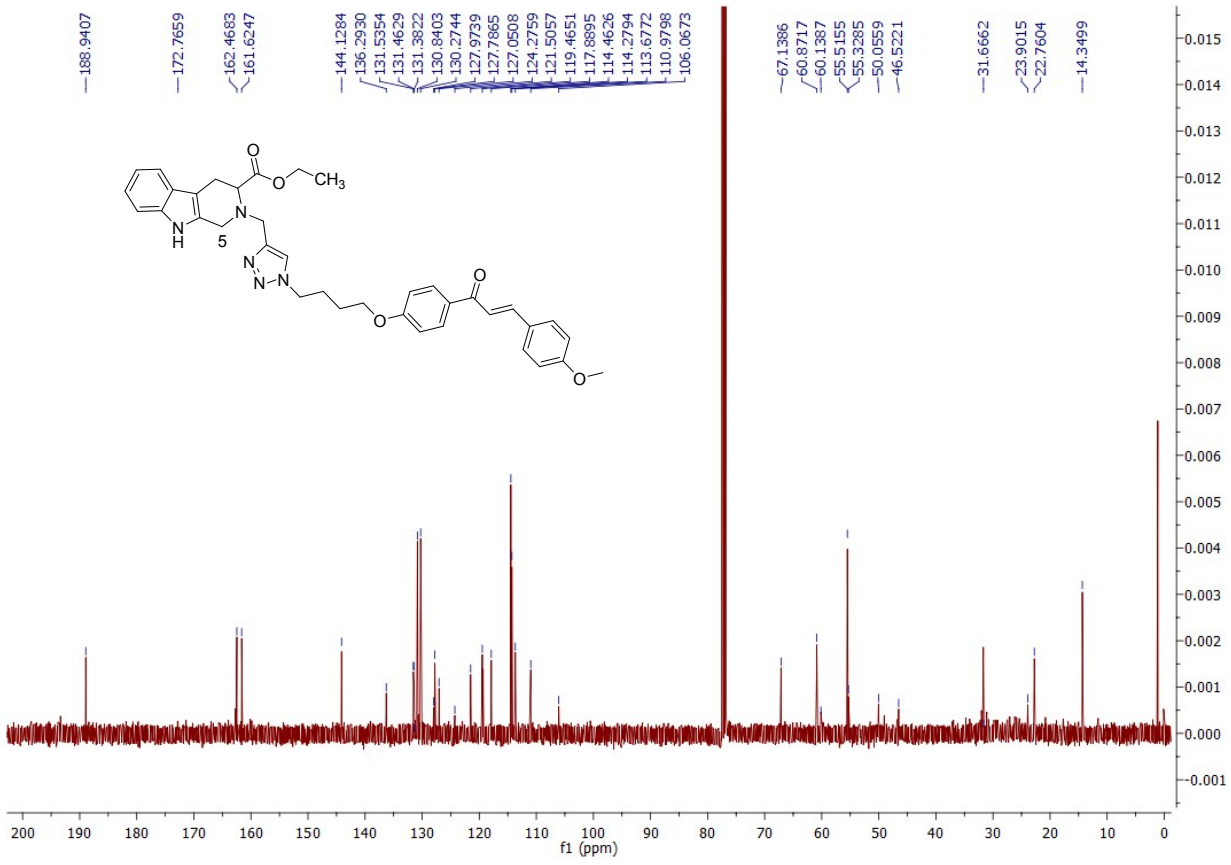


^{1}H NMR of 2-[1-(4-{4-[3-(4-Methoxy-phenyl)-acryloyl]-phenoxy}-butyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13h)

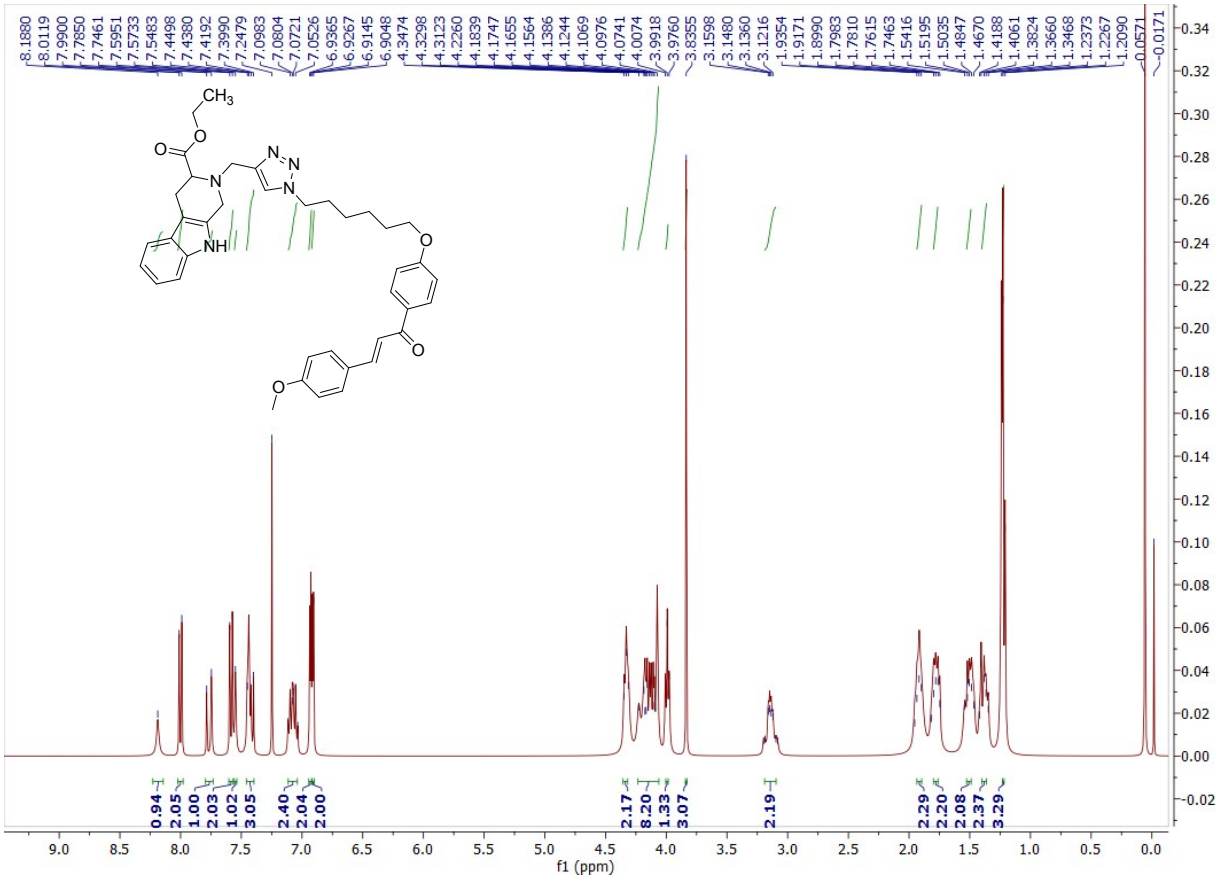


^{13}CNMR of 2-[1-(4-{4-[3-(4-Methoxy-phenyl)-acryloyl]-phenoxy}-butyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13h)

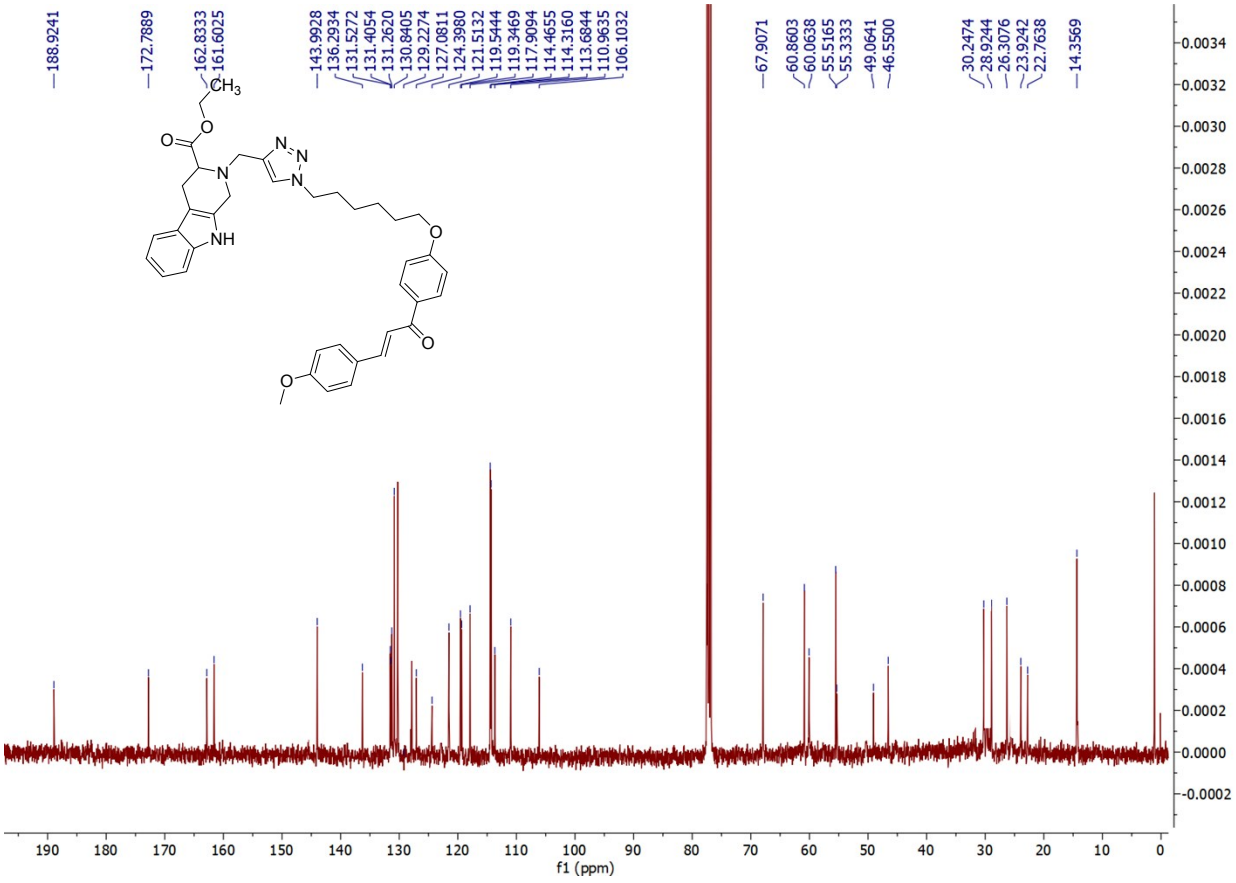
v



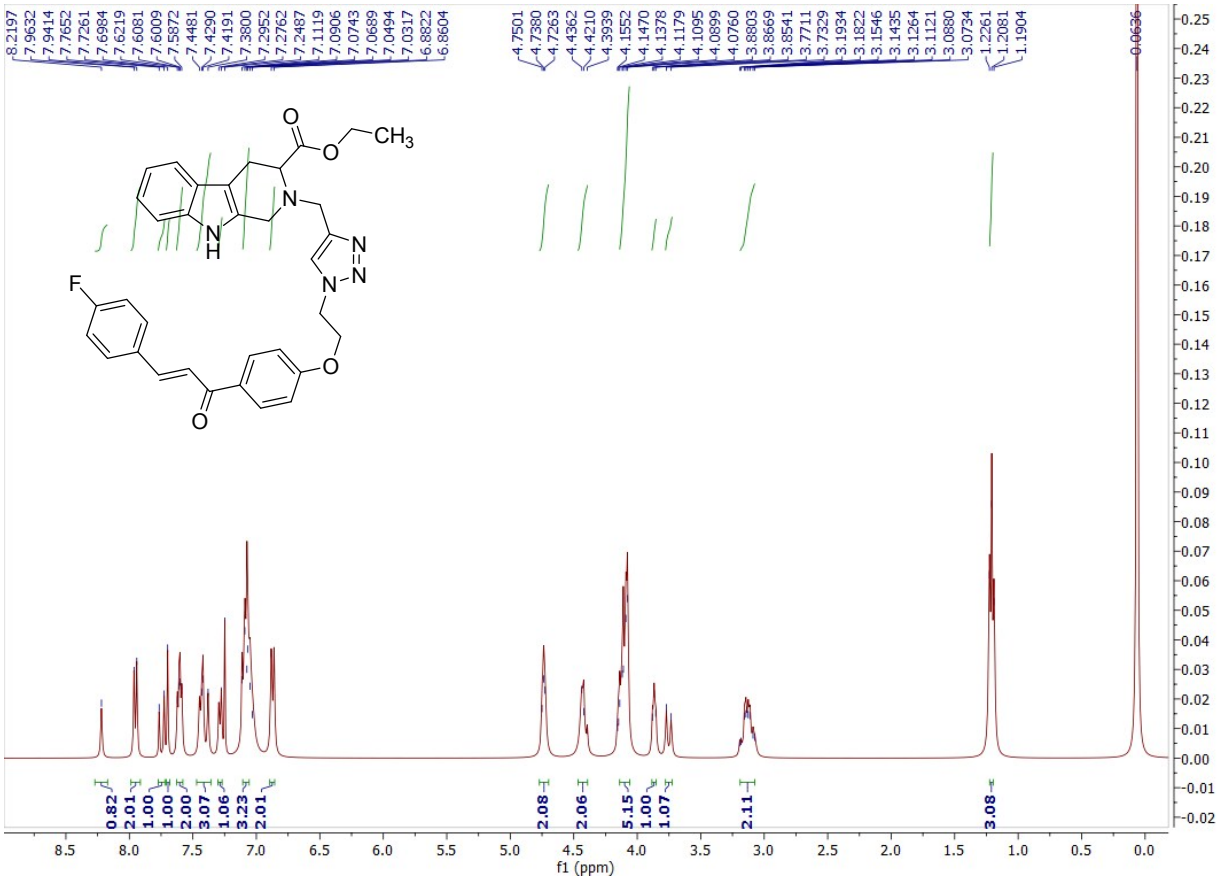
^{1}H NMR of 2-[1-(6-{4-[3-(4-Methoxy-phenyl)-acryloyl]-phenoxy}-hexyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13j)



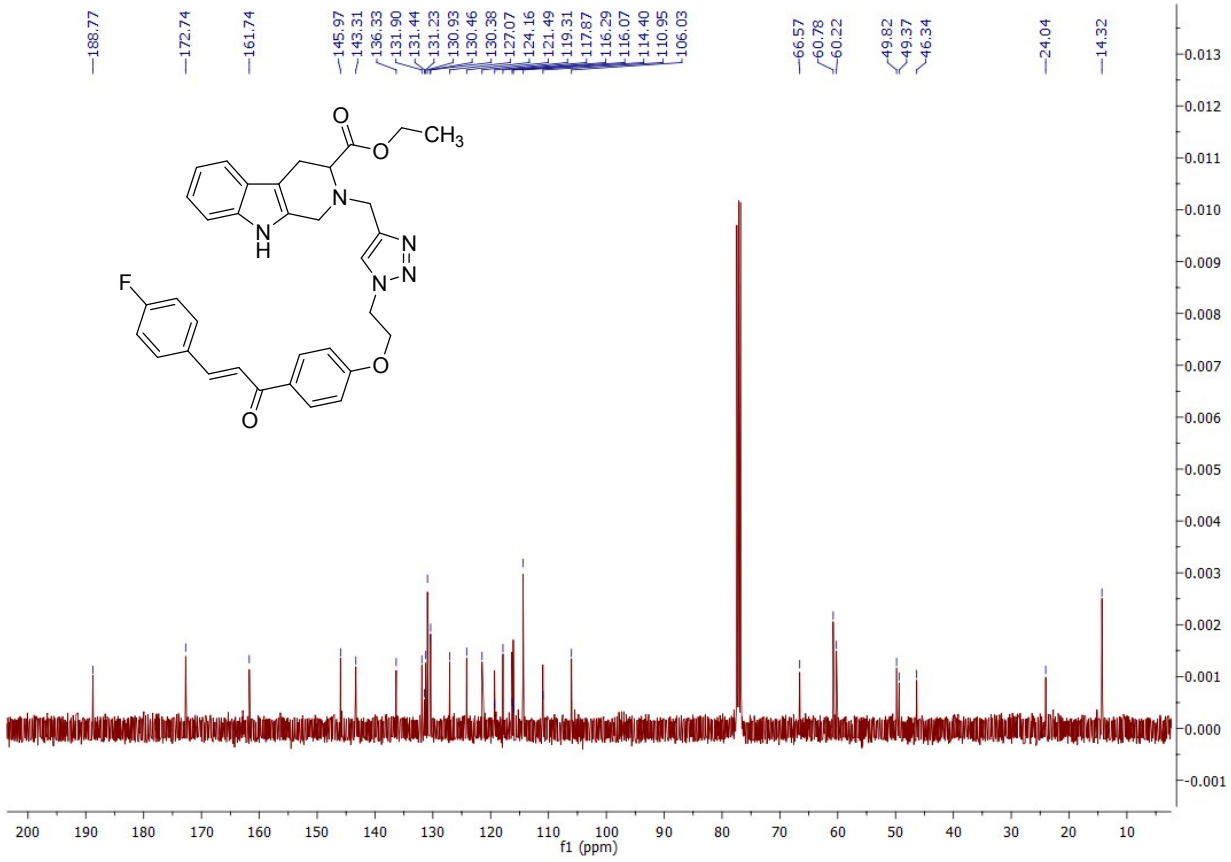
^{13}CNMR of 2-[1-(6-{4-[3-(4-Methoxy-phenyl)-acryloyl]-phenoxy}-hexyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13j)



^{1}H NMR of 2-[1-(2-{4-[3-(4-Fluoro-phenyl)-acryloyl]-phenoxy}-ethyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13k)



^{13} C NMR of 2-[1-(2-{4-[3-(4-Fluoro-phenyl)-acryloyl]-phenoxy}-ethyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13k)



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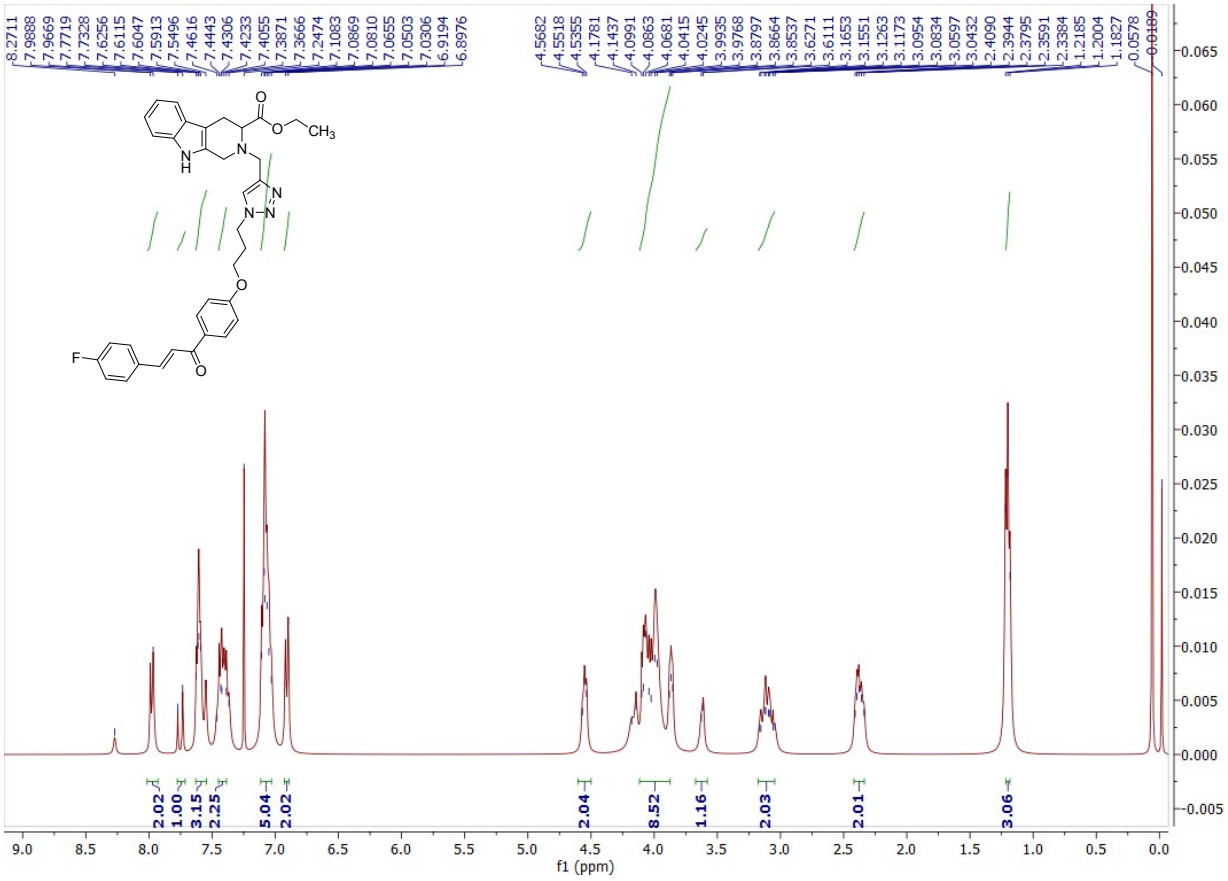
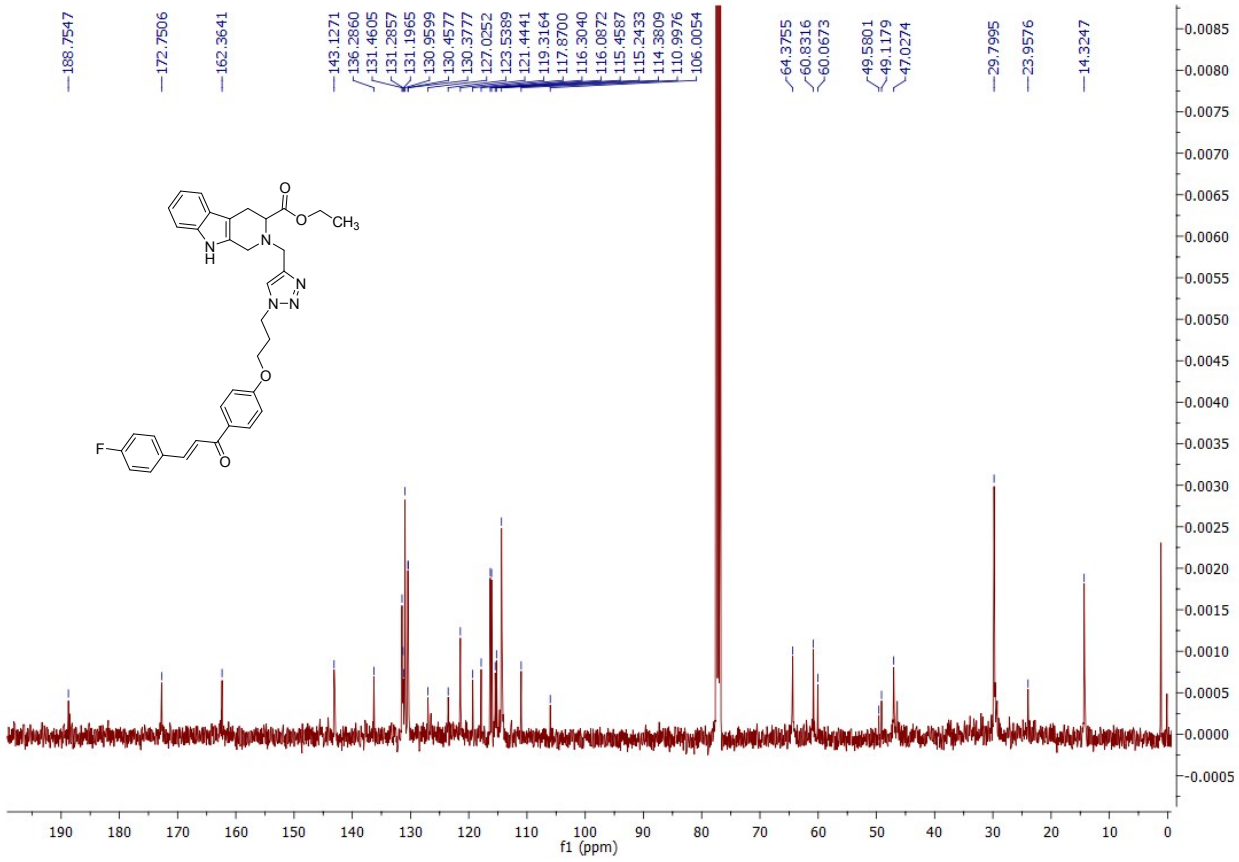
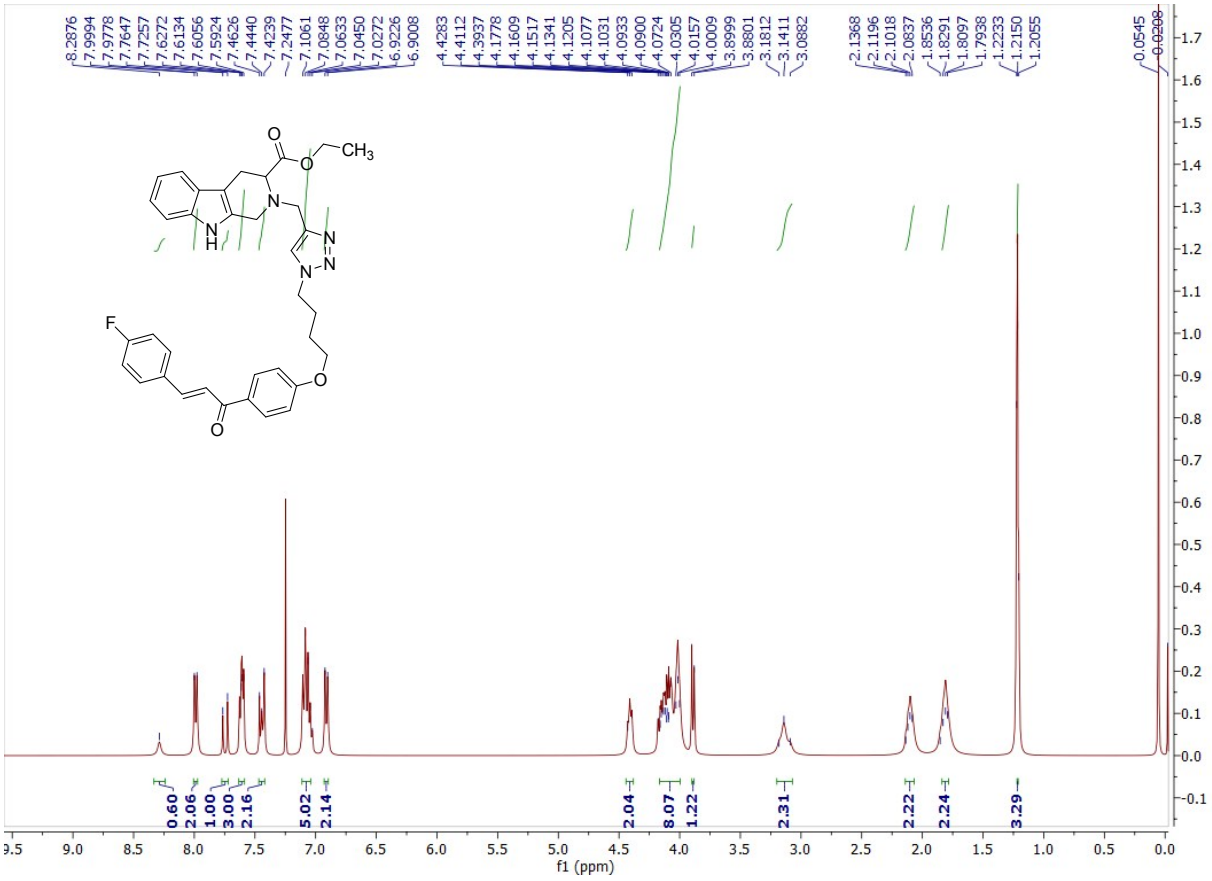


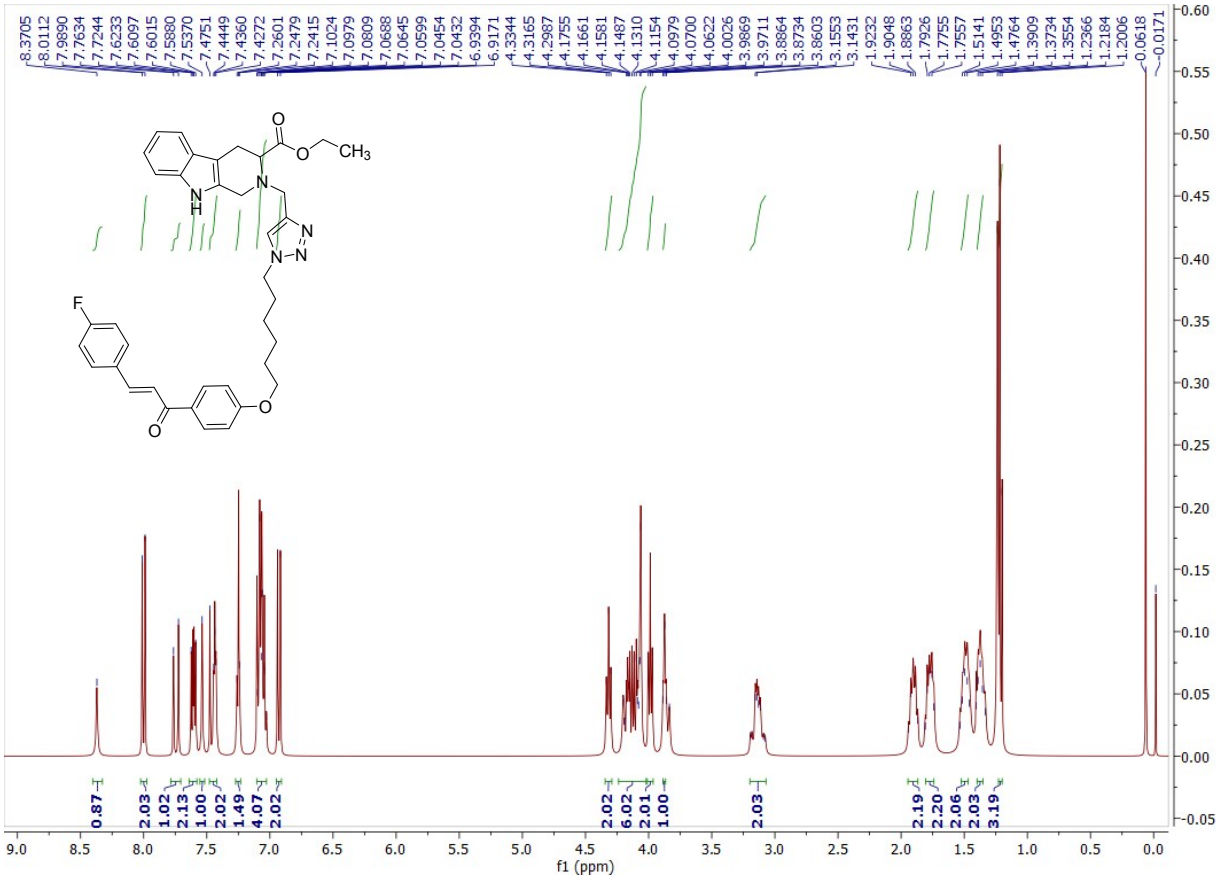
^{13}C NMR of 2-[1-(3-{4-[3-(4-Fluoro-phenyl)-acryloyl]-phenoxy}-propyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13l)



^{1}H NMR of 2-[1-(4-{4-[3-(4-Fluoro-phenyl)-acryloyl]-phenoxy}-butyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13m)



^{1}H NMR of 2-[1-(6-{4-[3-(4-Fluoro-phenyl)-acryloyl]-phenoxy}-hexyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13o)



^{13} C NMR of 2-[1-(6-{4-[3-(4-Fluoro-phenyl)-acryloyl]-phenoxy}-hexyl)-1H-[1,2,3]triazol-4-ylmethyl]-2,3,4,9-tetrahydro-1H-β-carboline-3-carboxylic acid ethyl ester (13o)