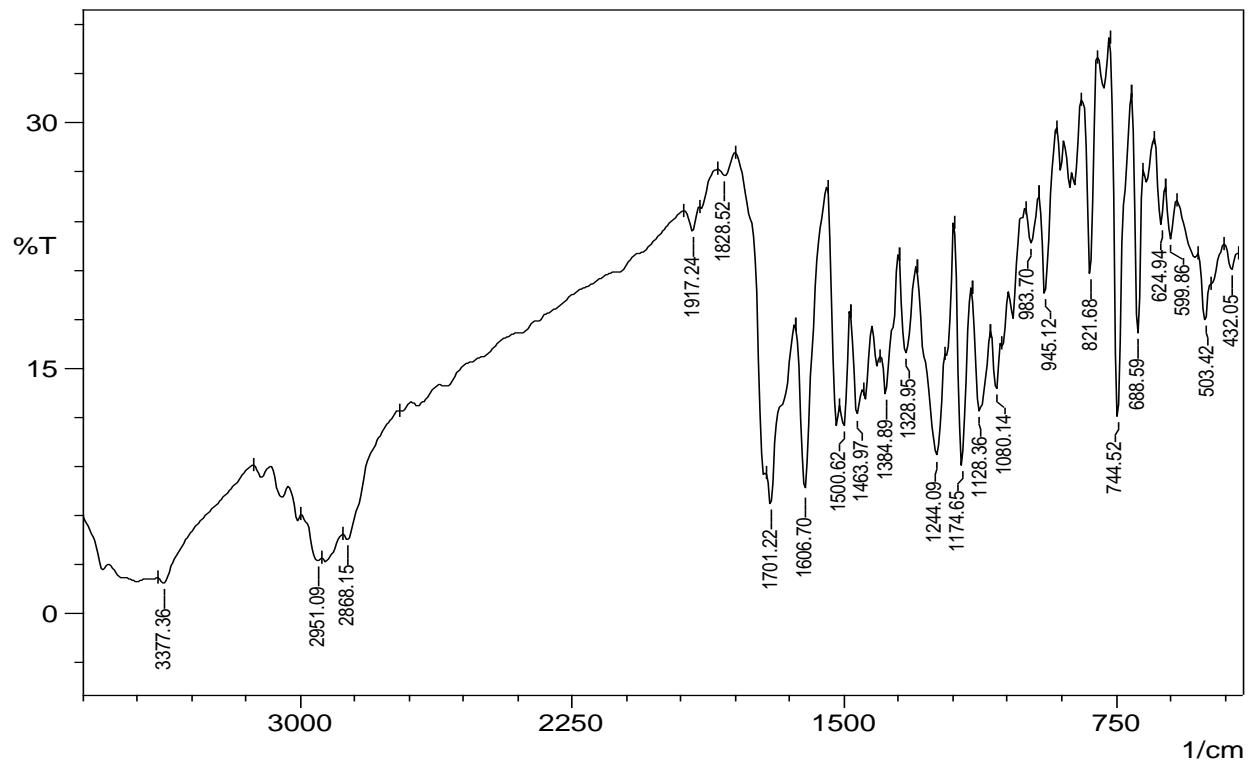


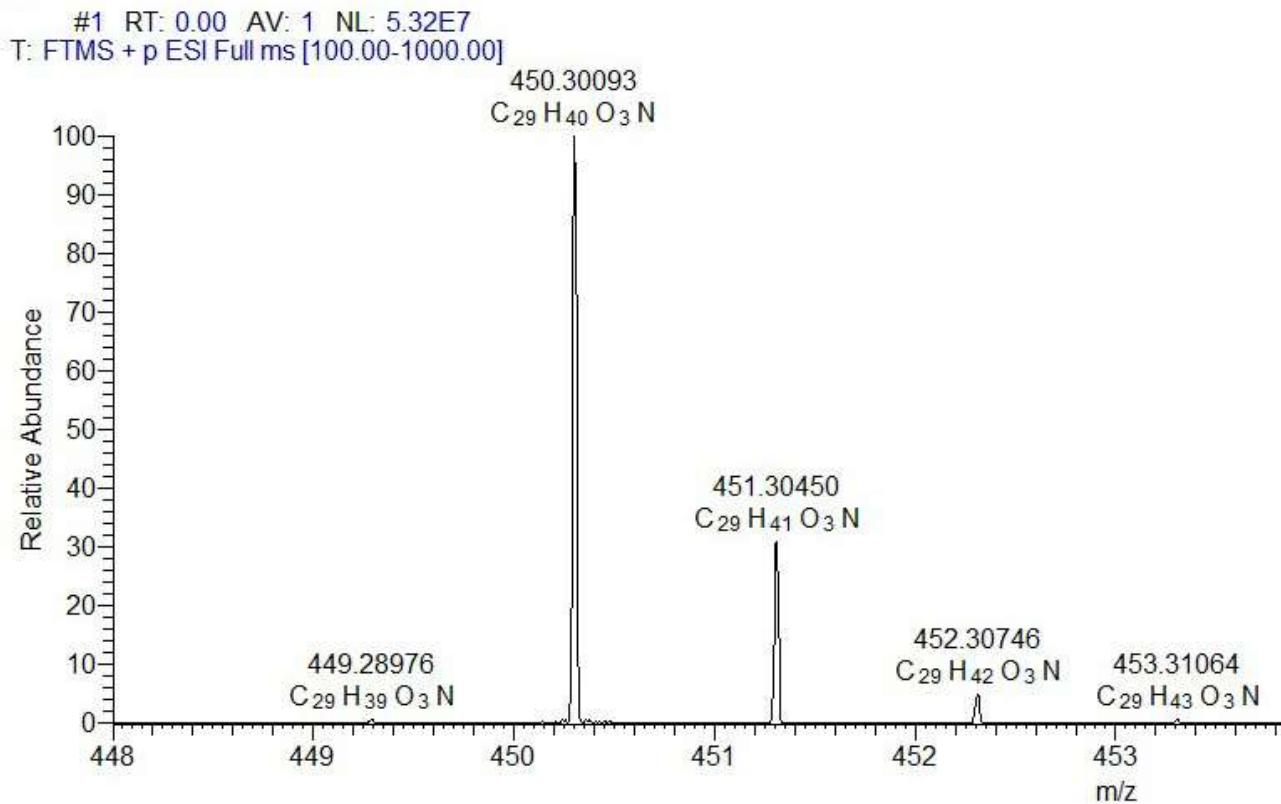
# Synthesis and Biological Evaluation of Novel Dehydroabietic Acid-Oxazolidinones Hybrids for Antitumor Properties

Xiu Wang , Fu-Hua Pang, Lin Huang, Xin-Ping Yang, Xian-Li Ma, Cai-Na Jiang, Fang-Yao Li and Fu-Hou Lei

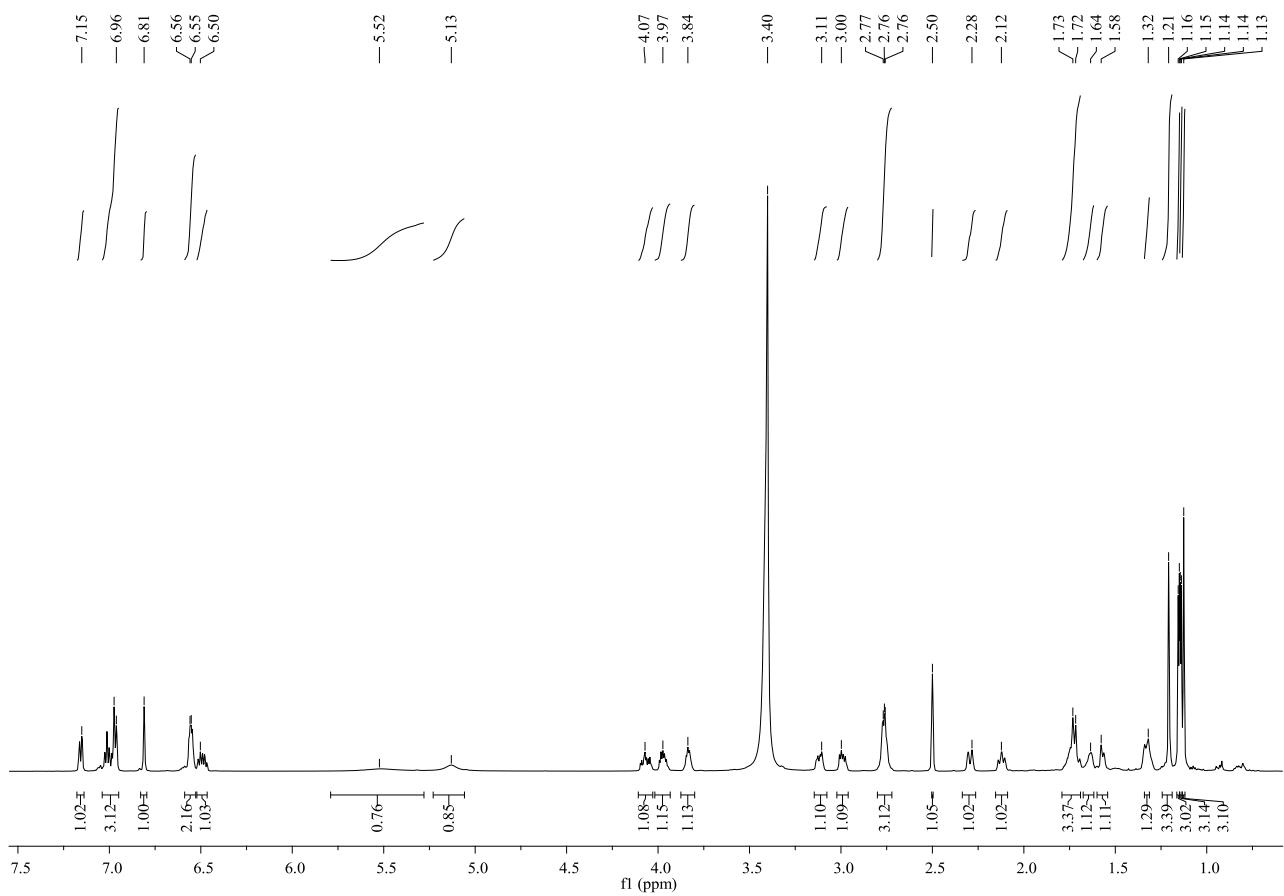
Figure S: FTIR ,<sup>1</sup>H-NMR, <sup>13</sup>C-NMR and HRMS-ESI spectrum of compounds **3a-o** and **4a-o**



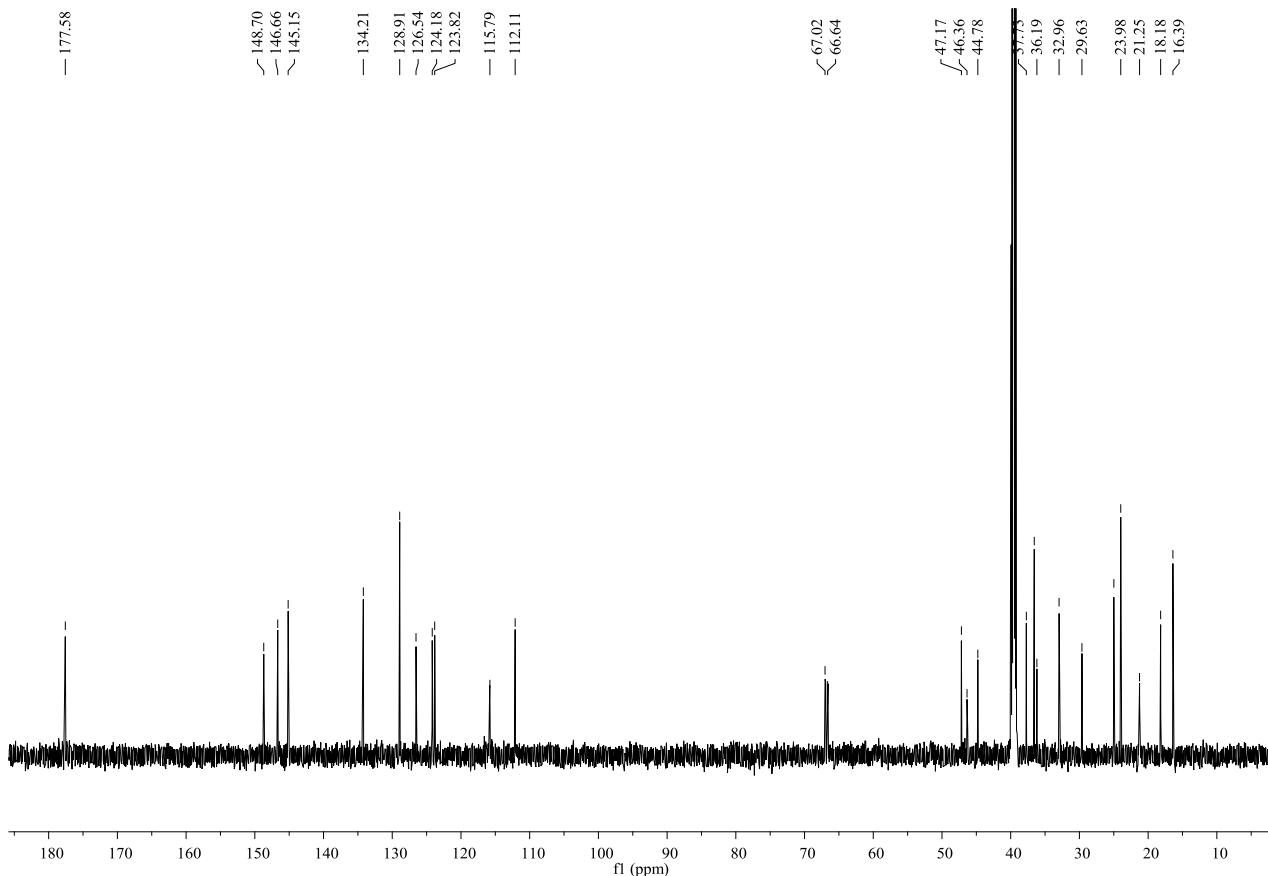
**Figure S1.** FTIR spectrum of the target compound (**3a**)



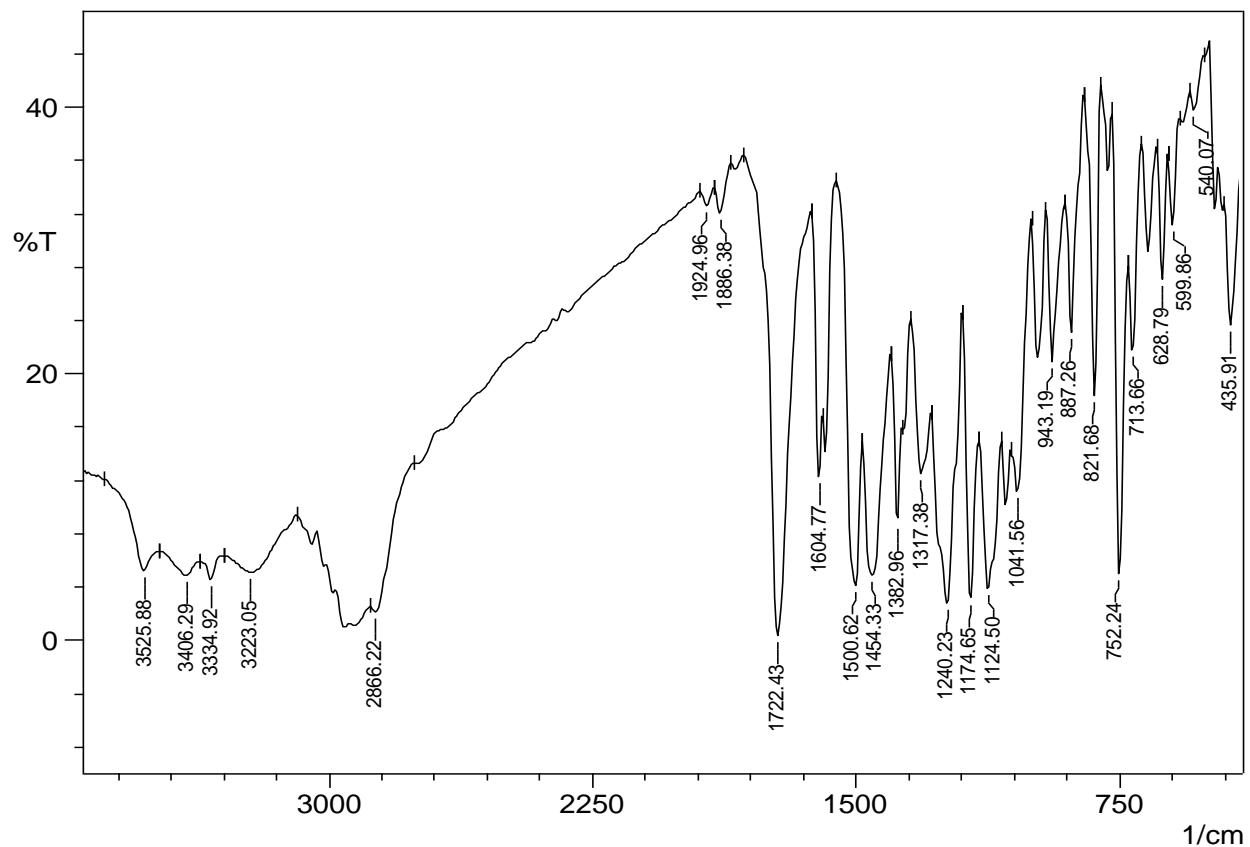
**Figure S2.** HRMS-ESI spectrum of the target compound (**3a**)



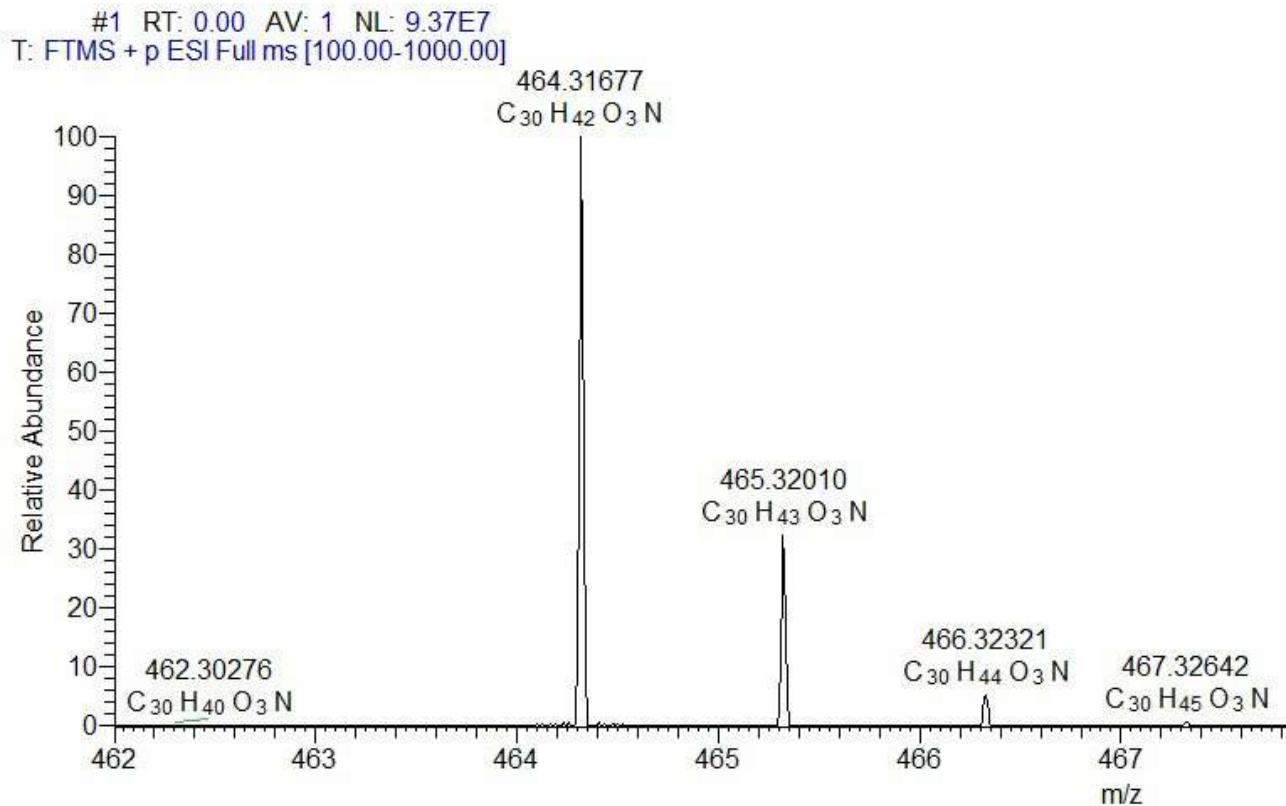
**Figure S3.**  $^1\text{H}$ -NMR spectrum of the target compound (**3a**) in DMSO



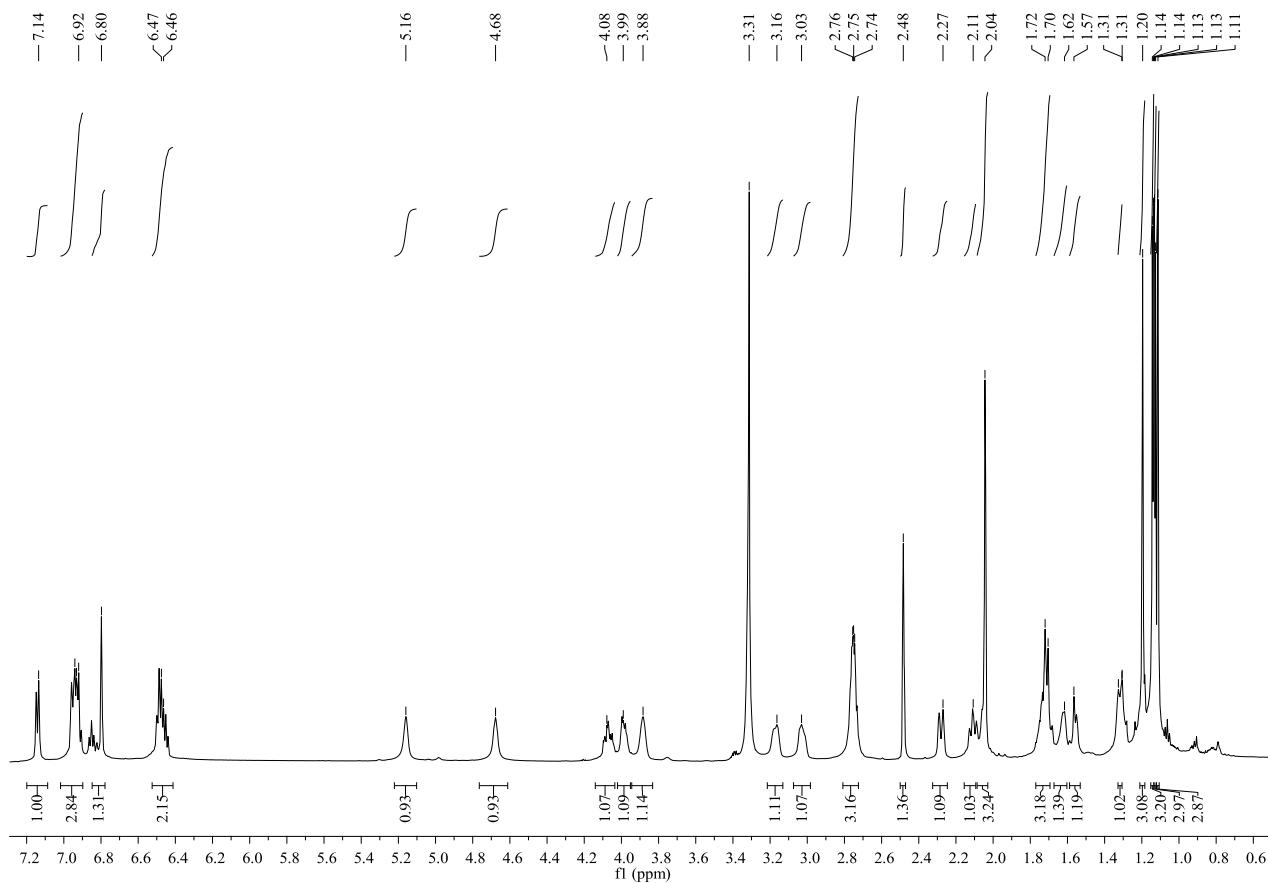
**Figure S4.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3a**) in DMSO



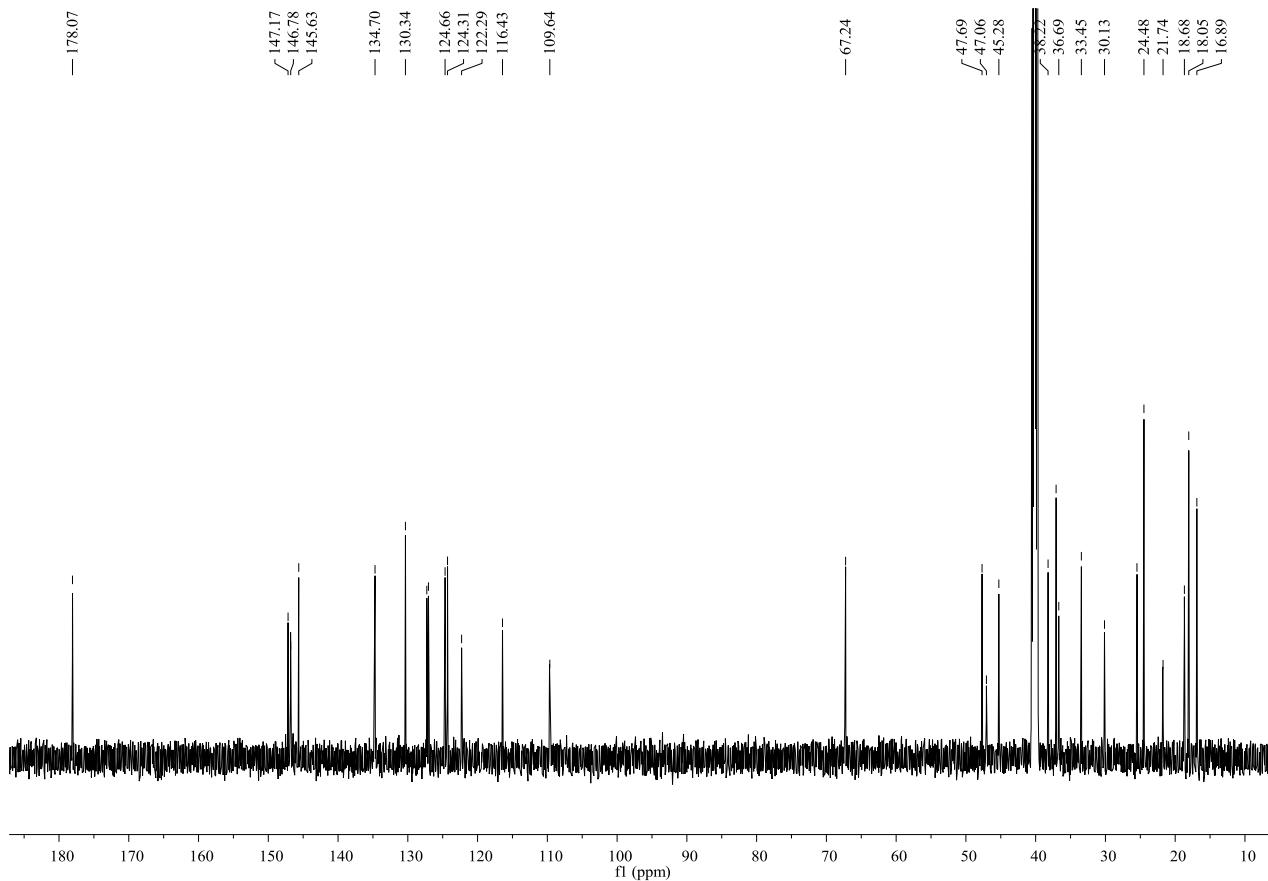
**Figure S5.** FTIR spectrum of the target compound (**3b**)



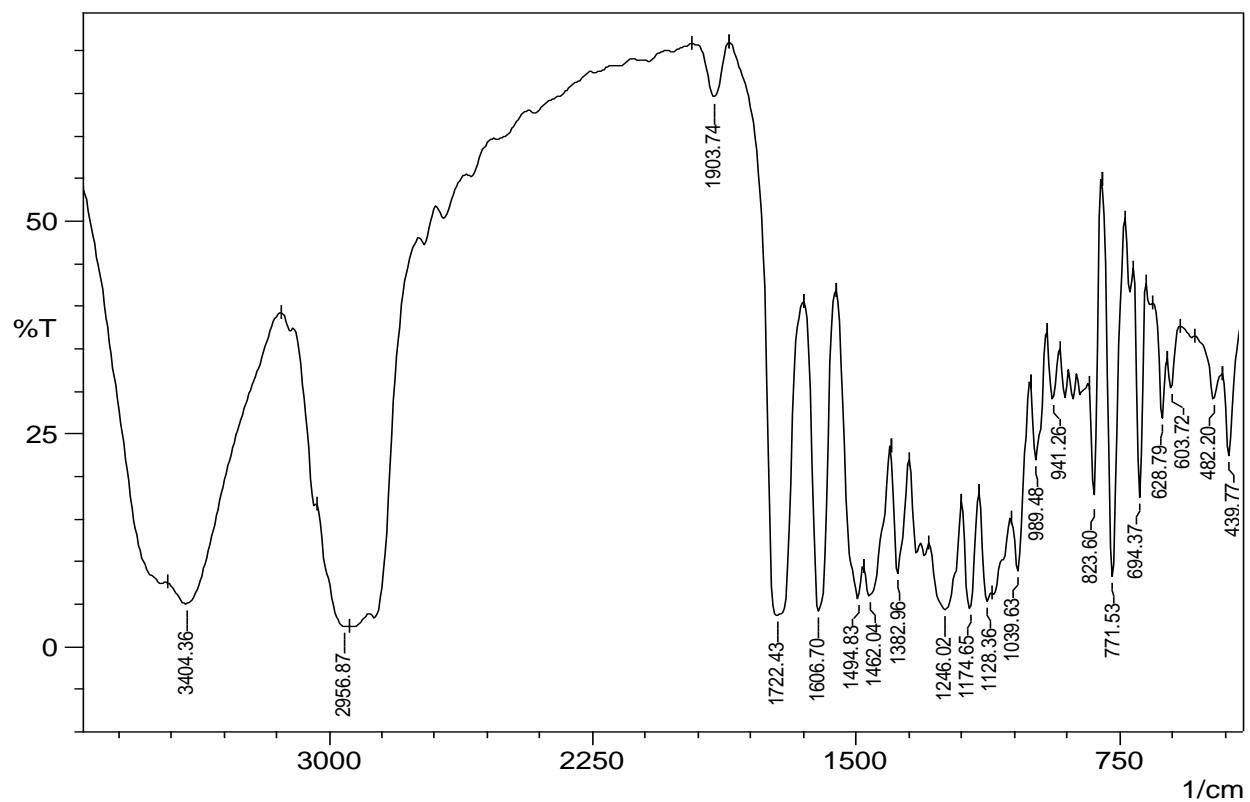
**Figure S6.** HRMS-ESI spectrum of the target compound (**3b**)



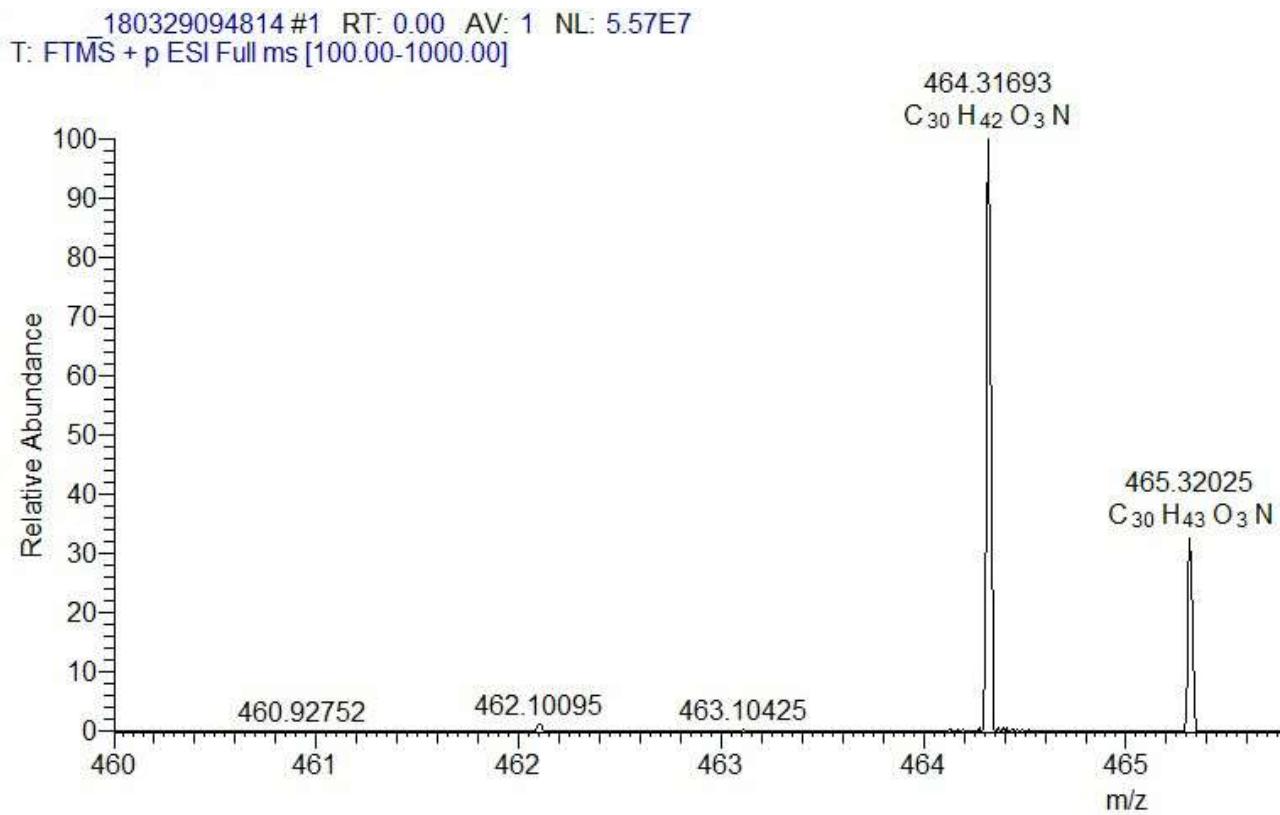
**Figure S7.**  $^1\text{H}$ -NMR spectrum of the target compound (**3b**) in DMSO



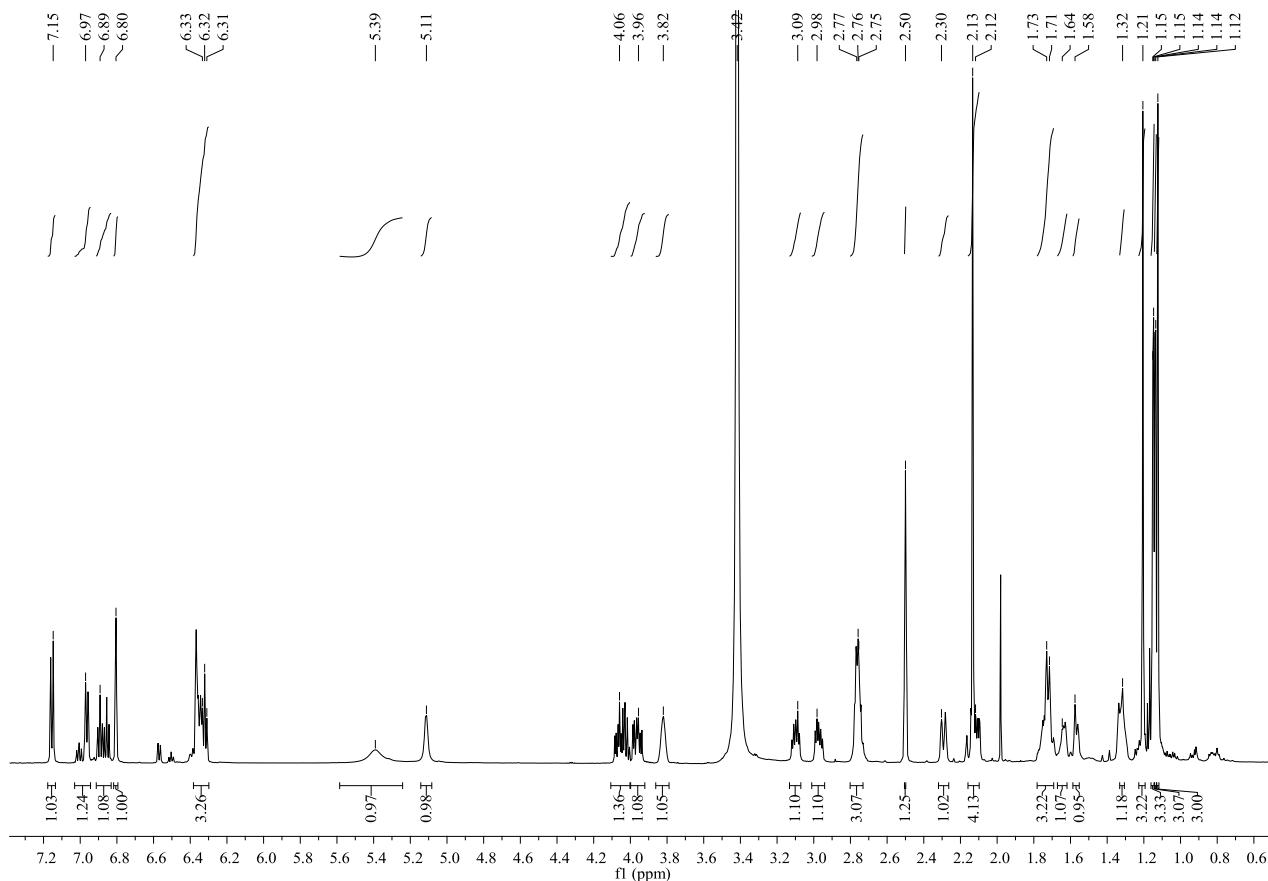
**Figure S8.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3b**) in DMSO



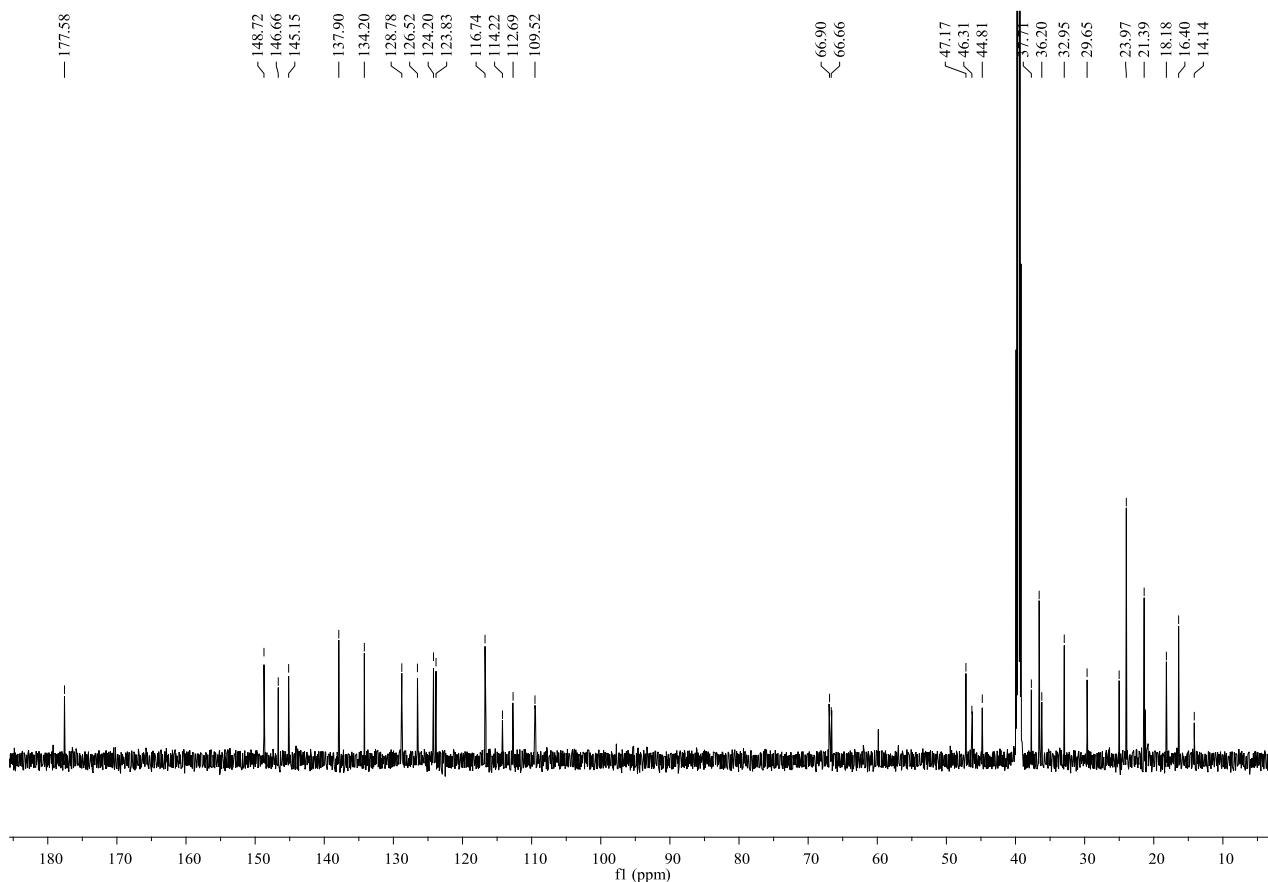
**Figure S9.** FTIR spectrum of the target compound (**3c**)



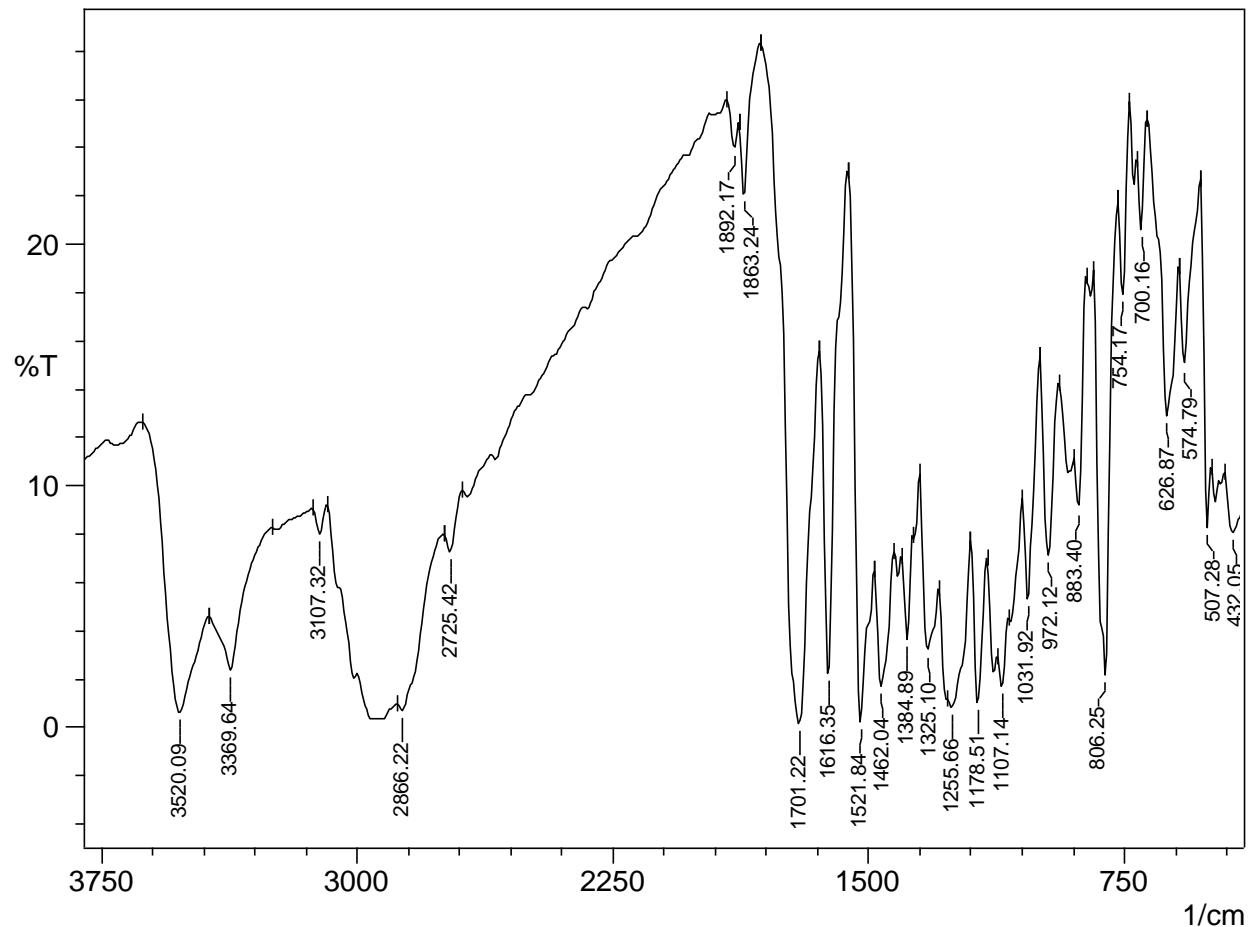
**Figure S10.** HRMS-ESI spectrum of the target compound (**3c**)



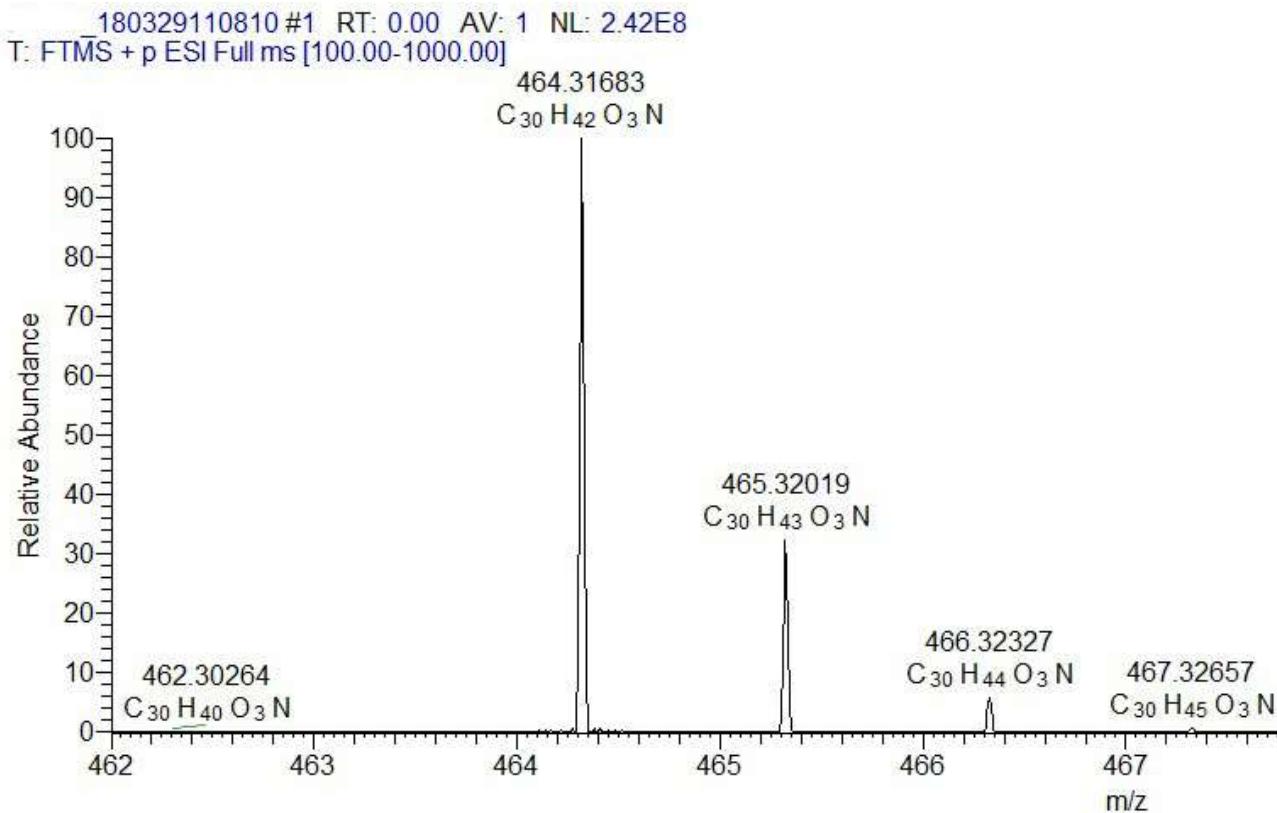
**Figure S11.**  $^1\text{H}$ -NMR spectrum of the target compound (**3c**) in DMSO



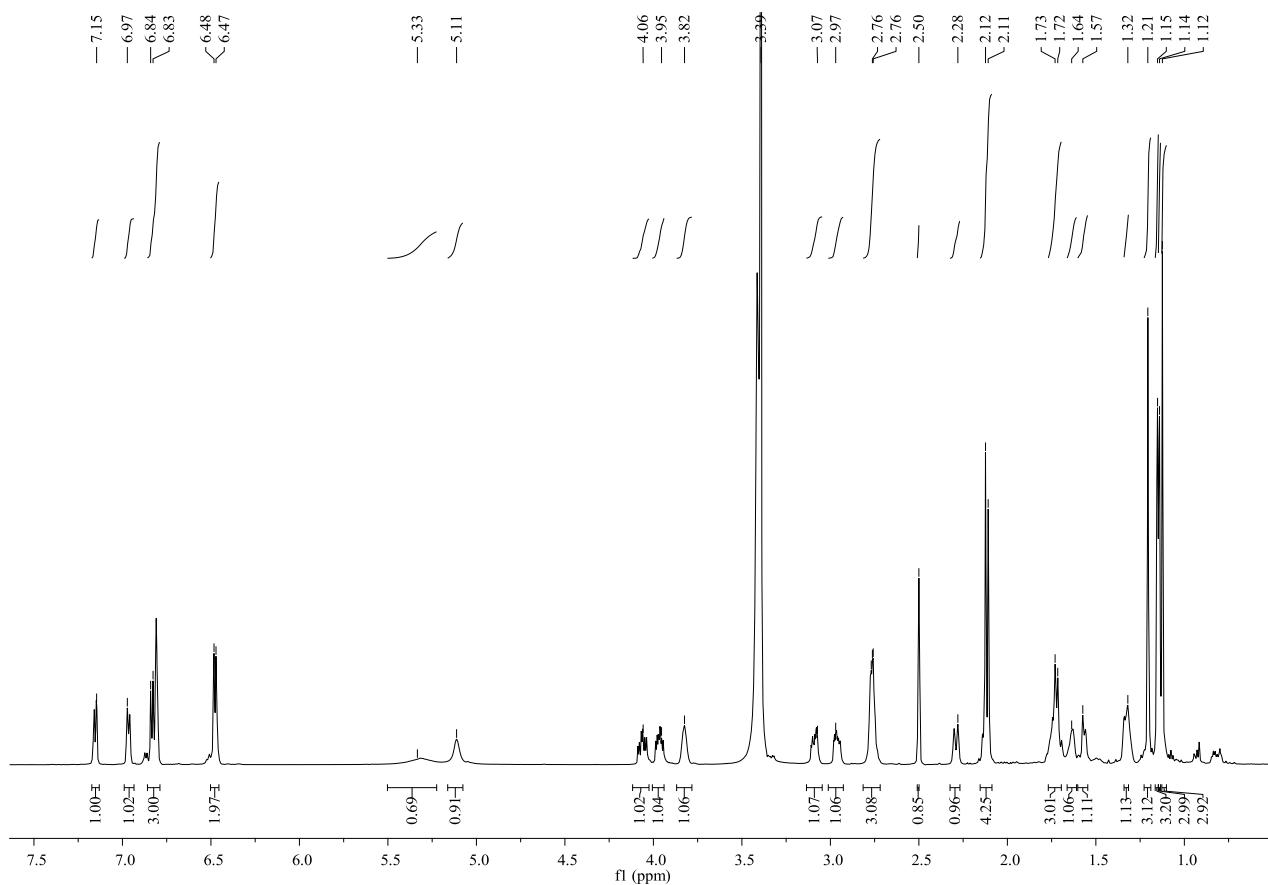
**Figure S12.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3c**) in DMSO



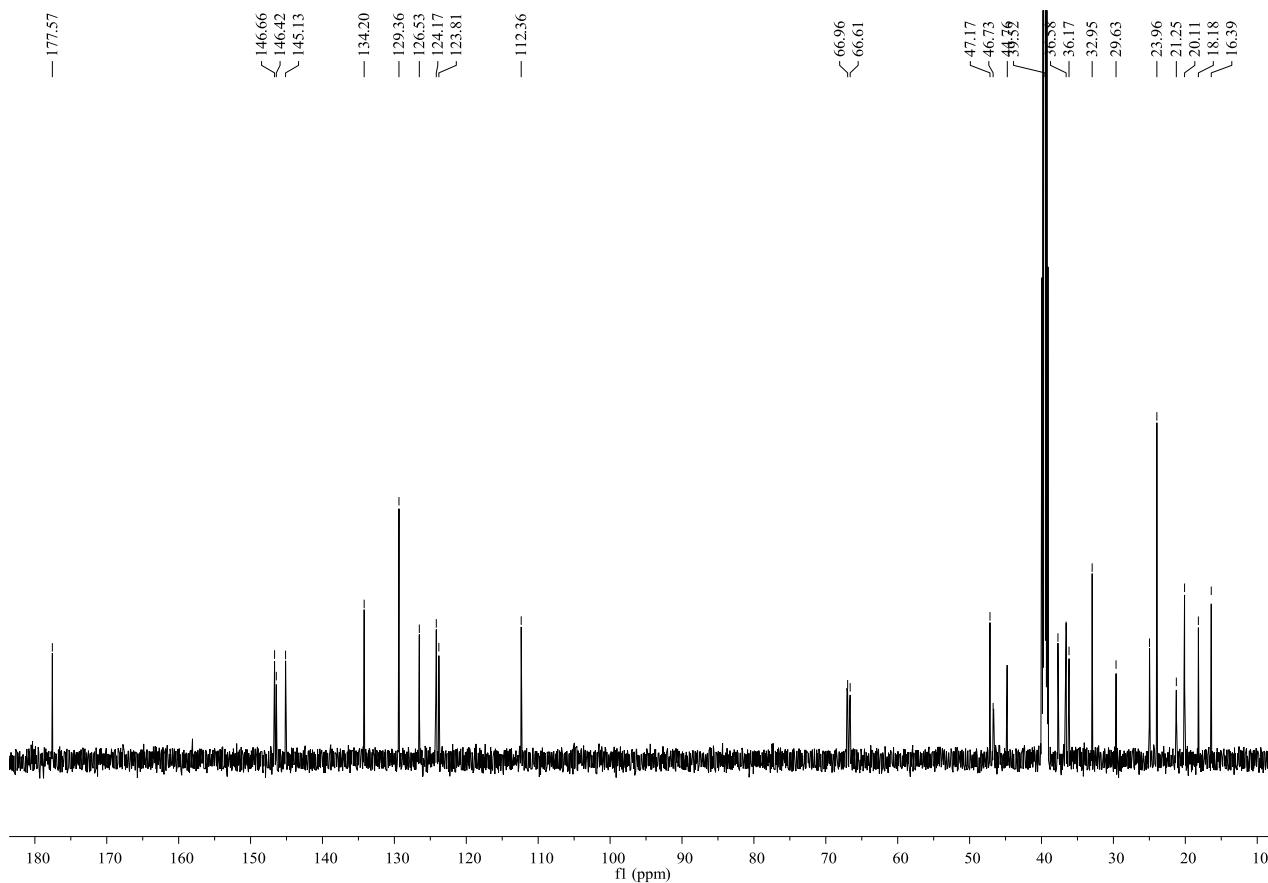
**Figure S13.** FTIR spectrum of the target compound (**3d**)



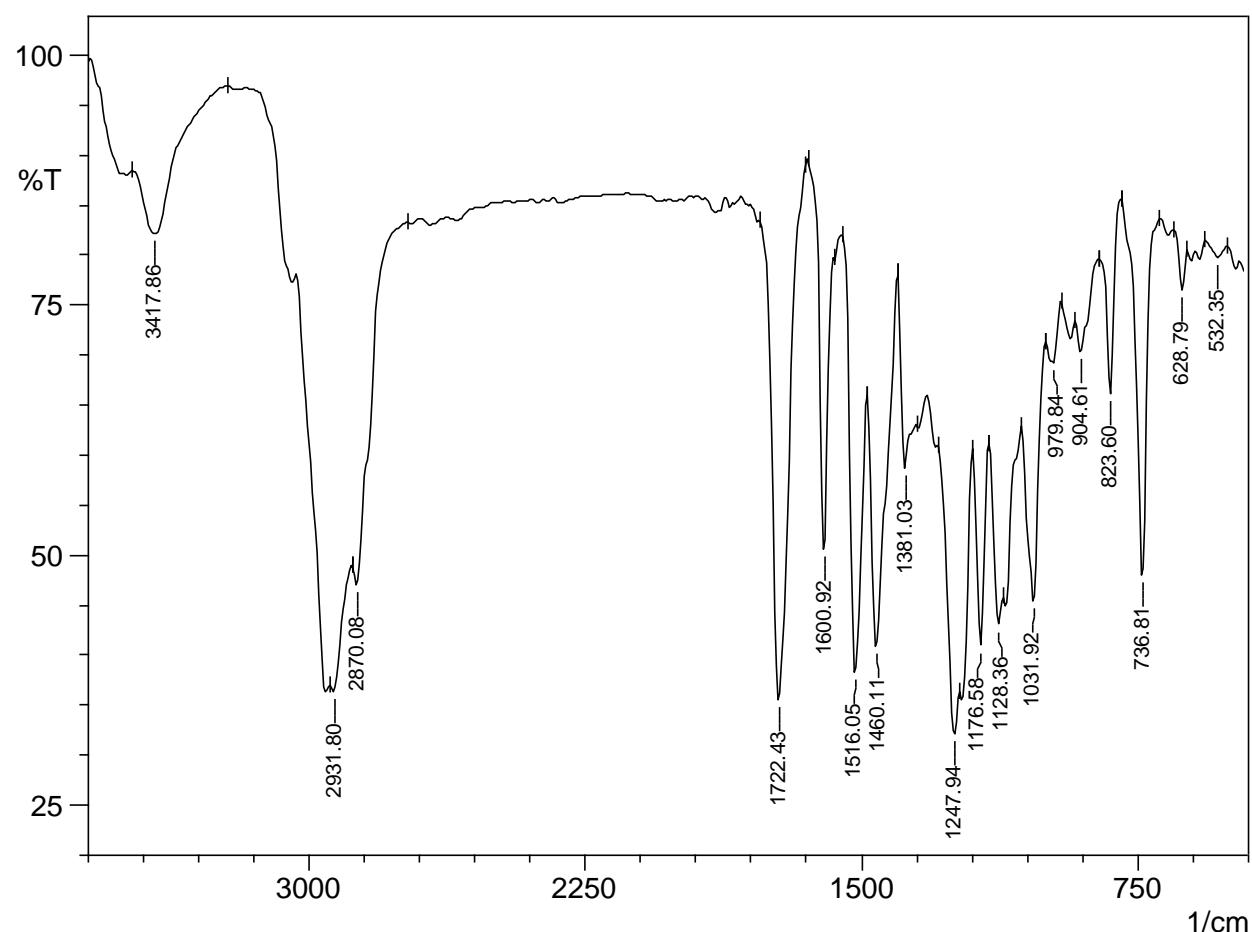
**Figure S14.** HRMS-ESI spectrum of the target compound (**3d**)



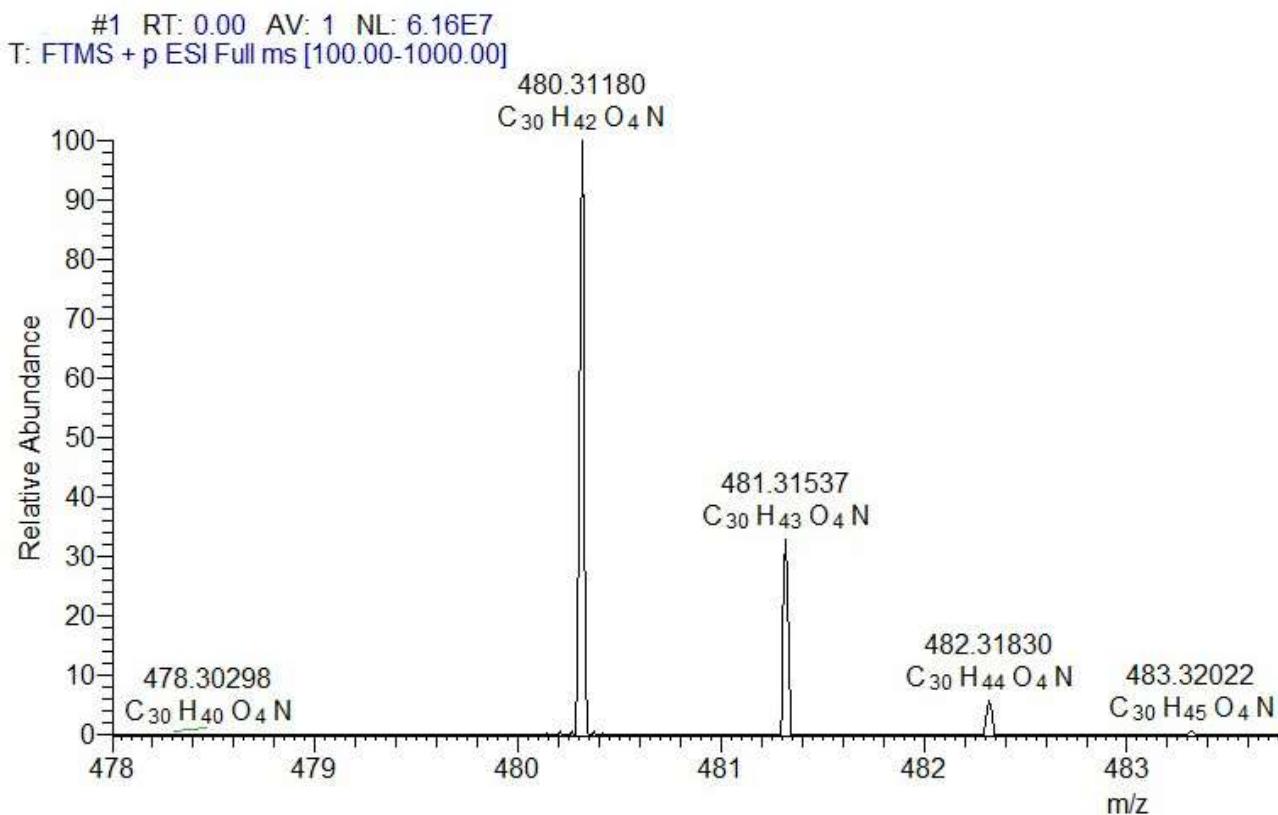
**Figure S15.**  $^1\text{H}$ -NMR spectrum of the target compound (**3d**) in DMSO



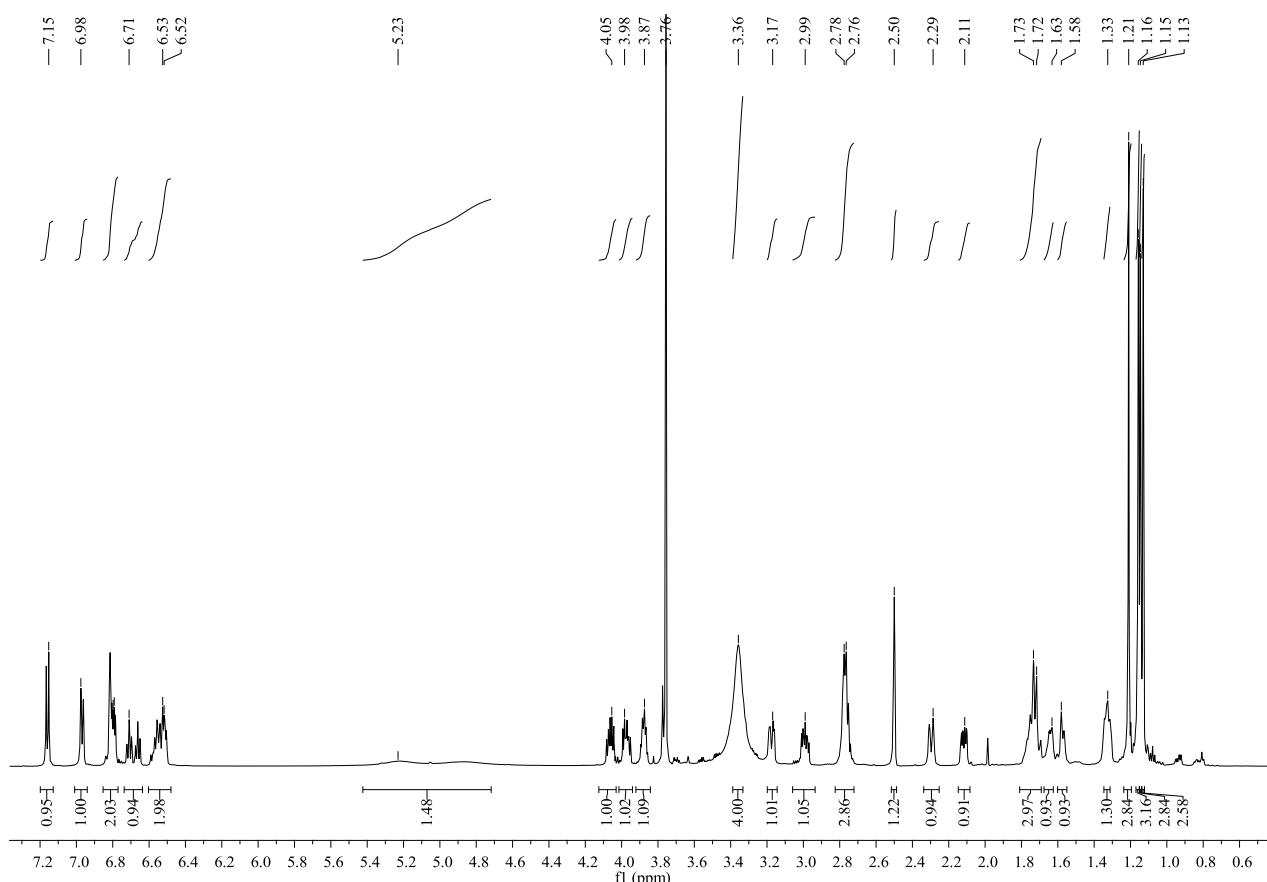
**Figure S16.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3d**) in DMSO



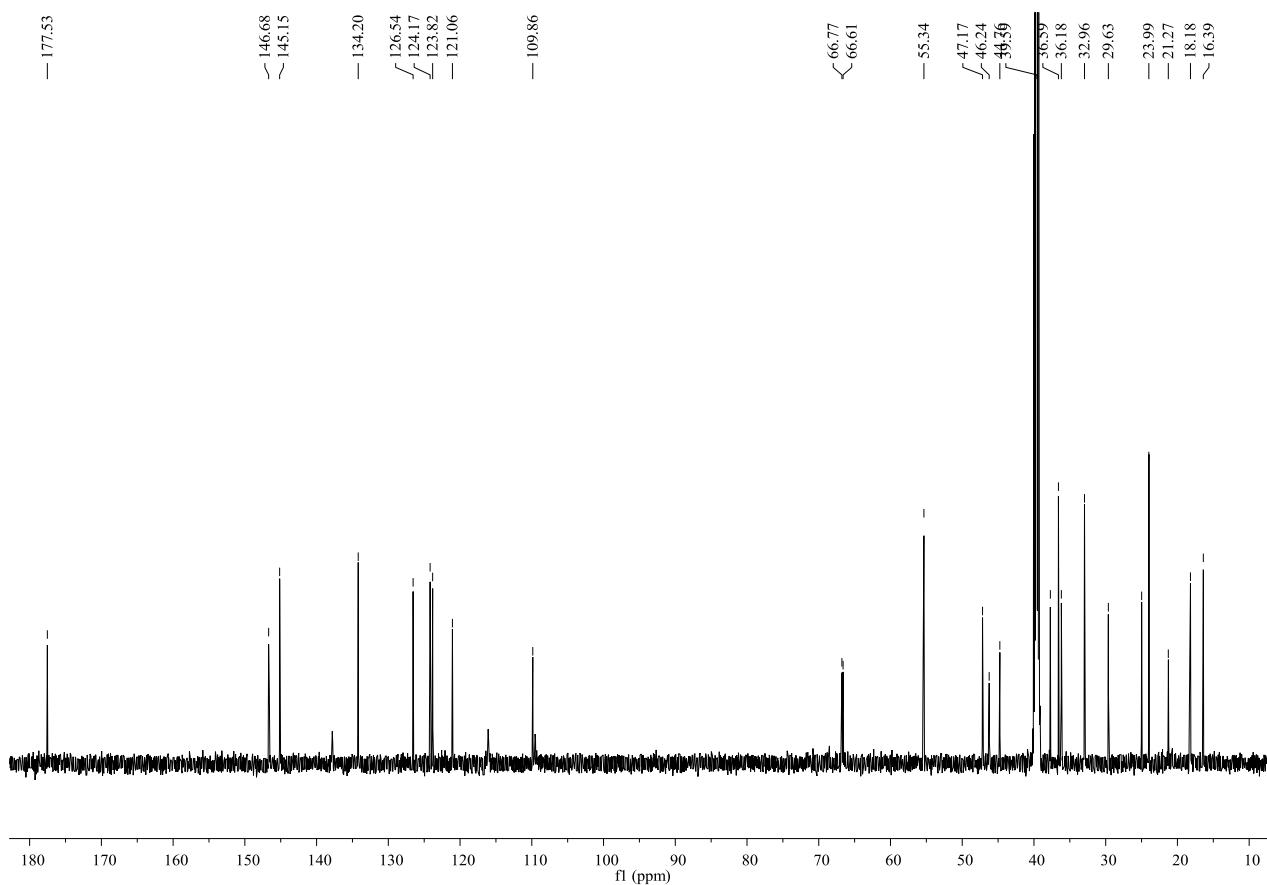
**Figure S17.** FTIR spectrum of the target compound (**3e**)



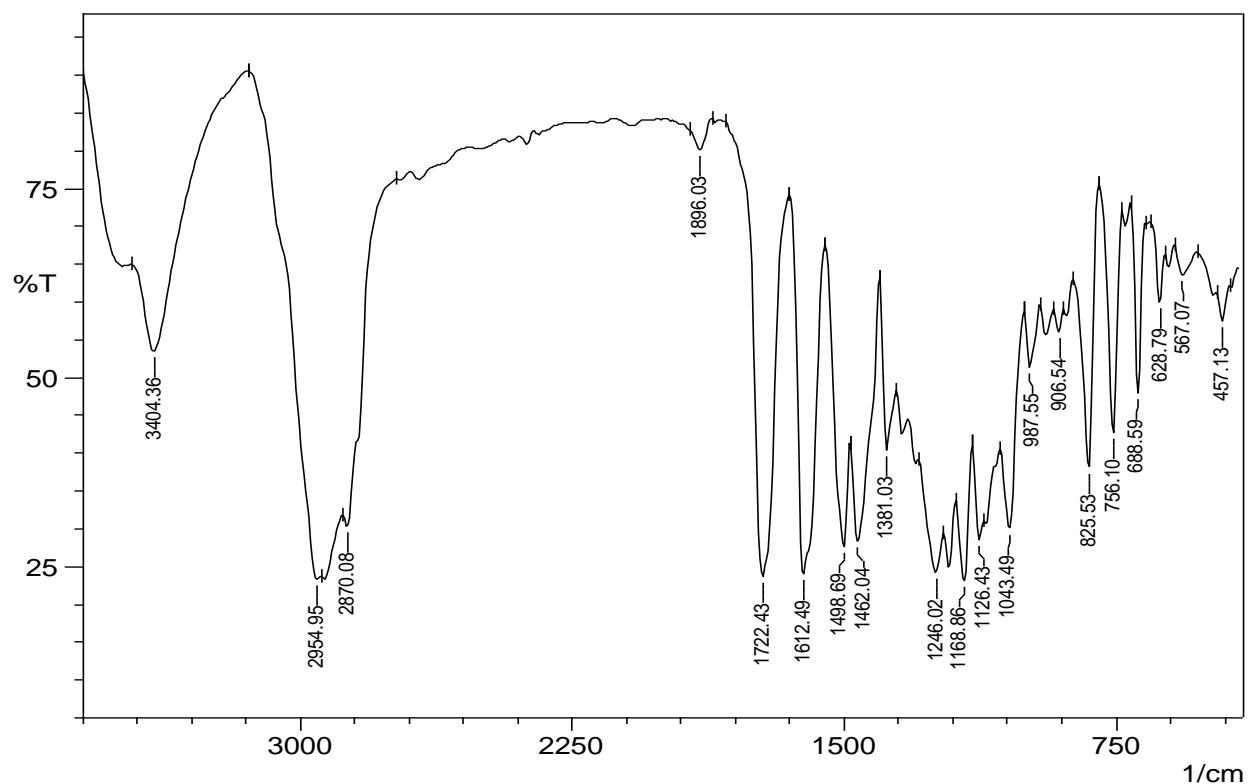
**Figure S18.** HRMS-ESI spectrum of the target compound (**3e**)



**Figure S19.**  $^1\text{H}$ -NMR spectrum of the target compound (**3e**) in DMSO

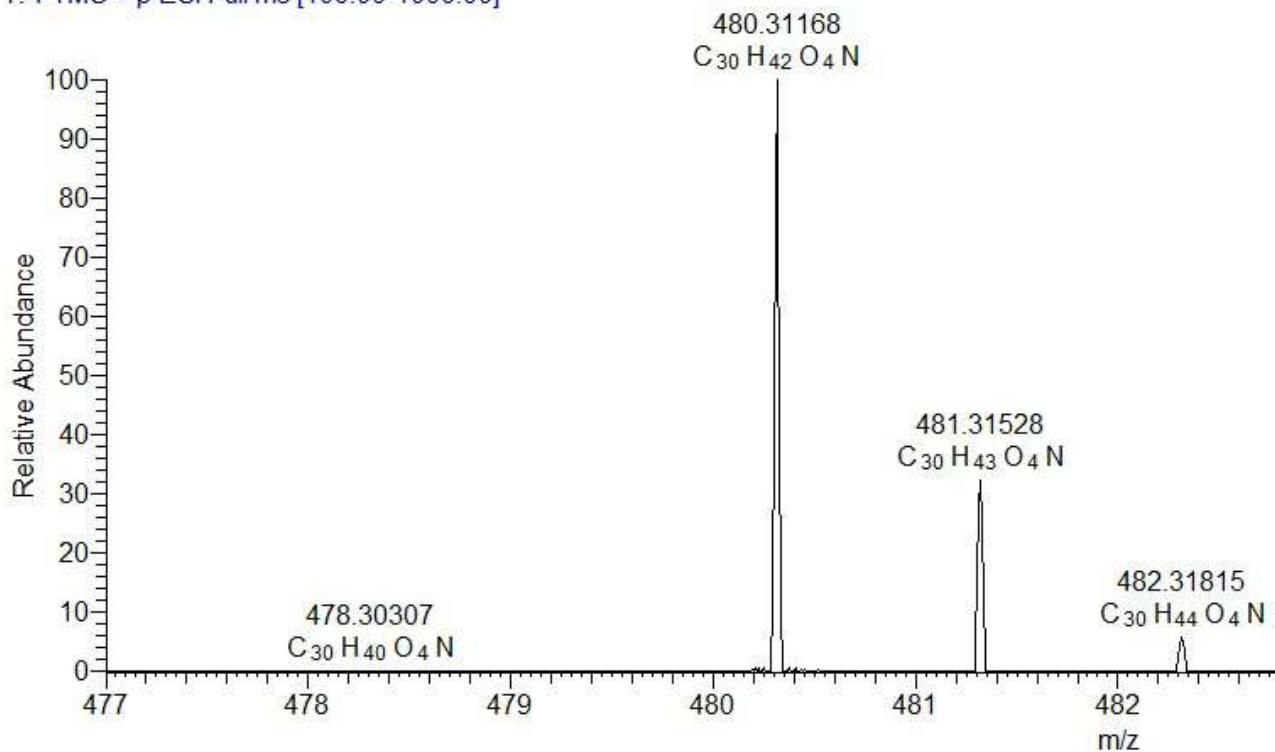


**Figure S20.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3e**) in DMSO

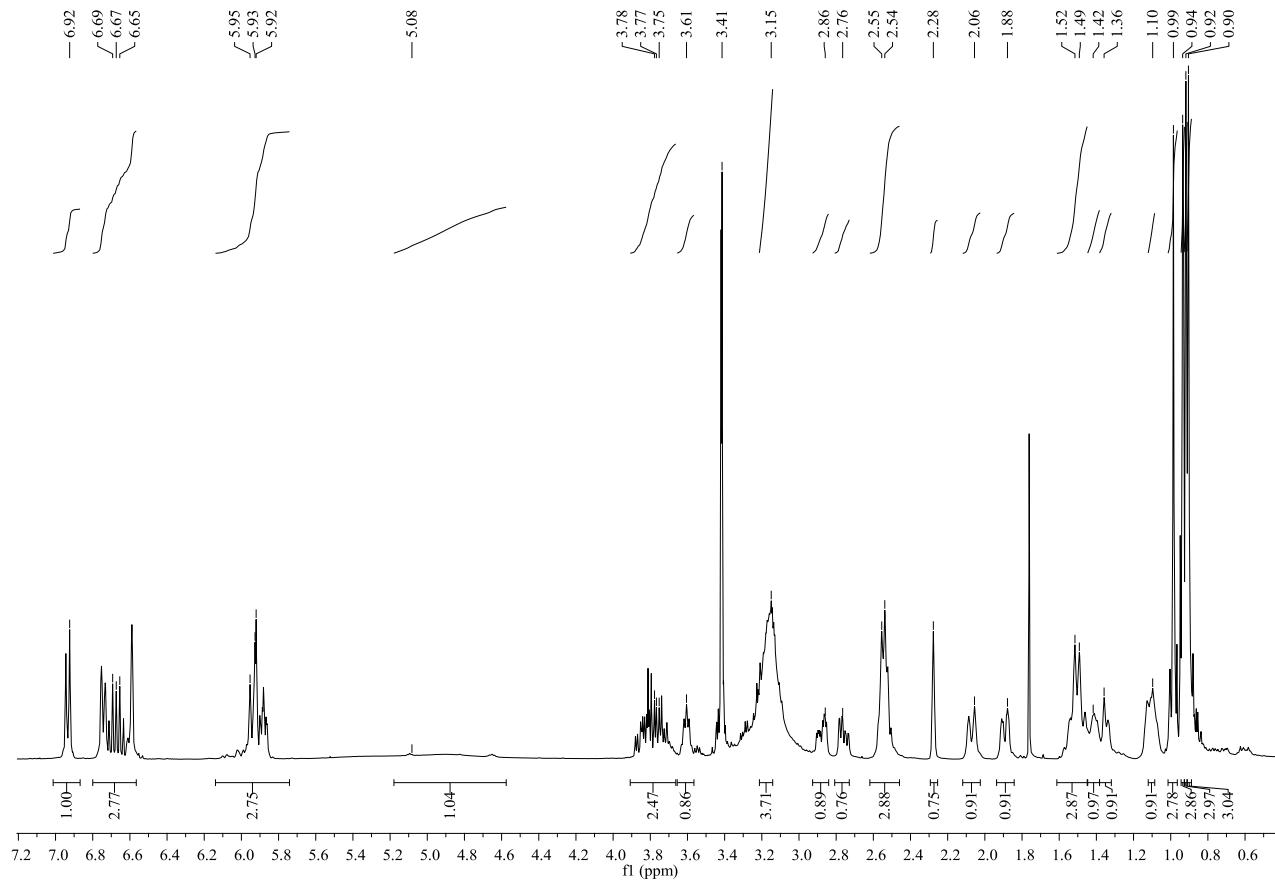


**Figure S21.** FTIR spectrum of the target compound (**3f**)

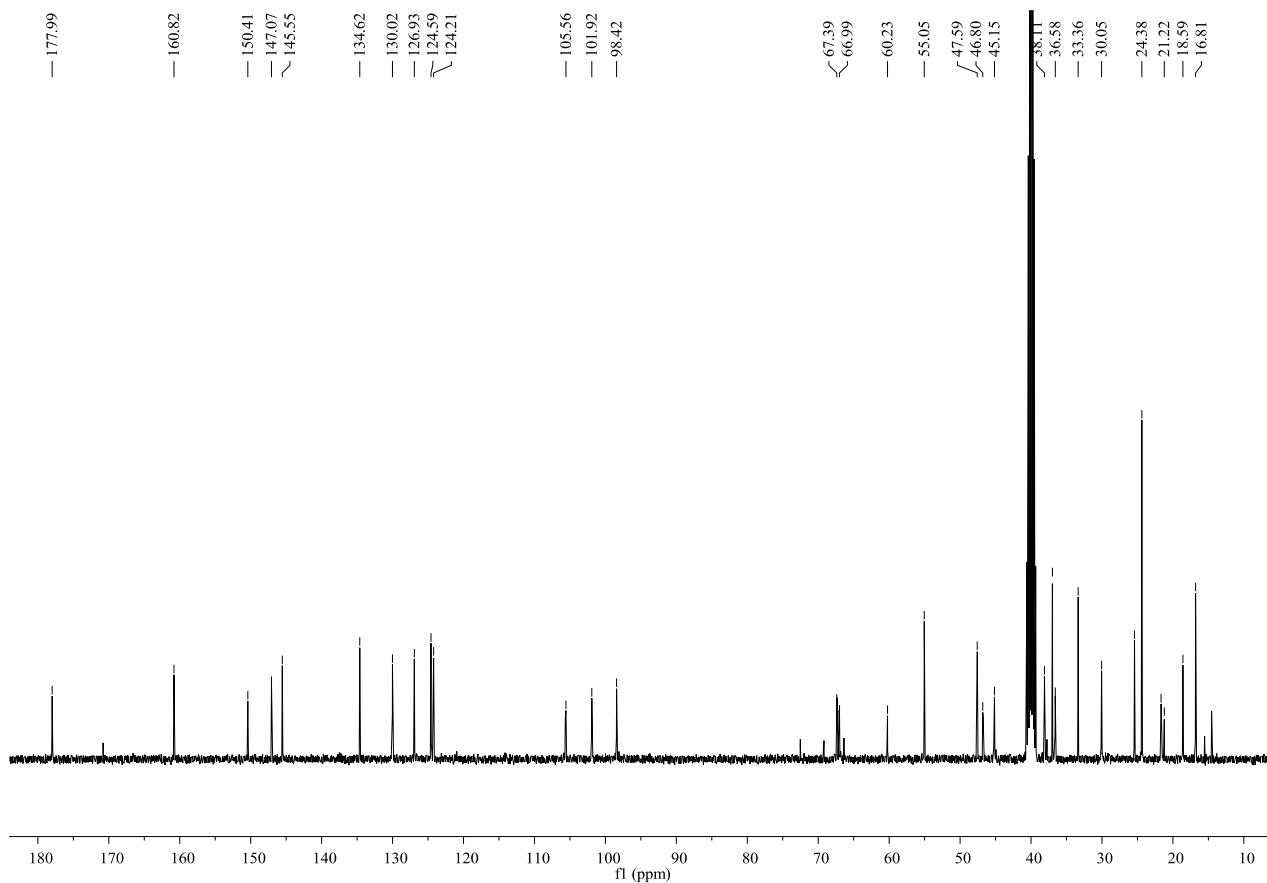
#1 RT: 0.00 AV: 1 NL: 2.18E8  
T: FTMS + p ESI Full ms [100.00-1000.00]



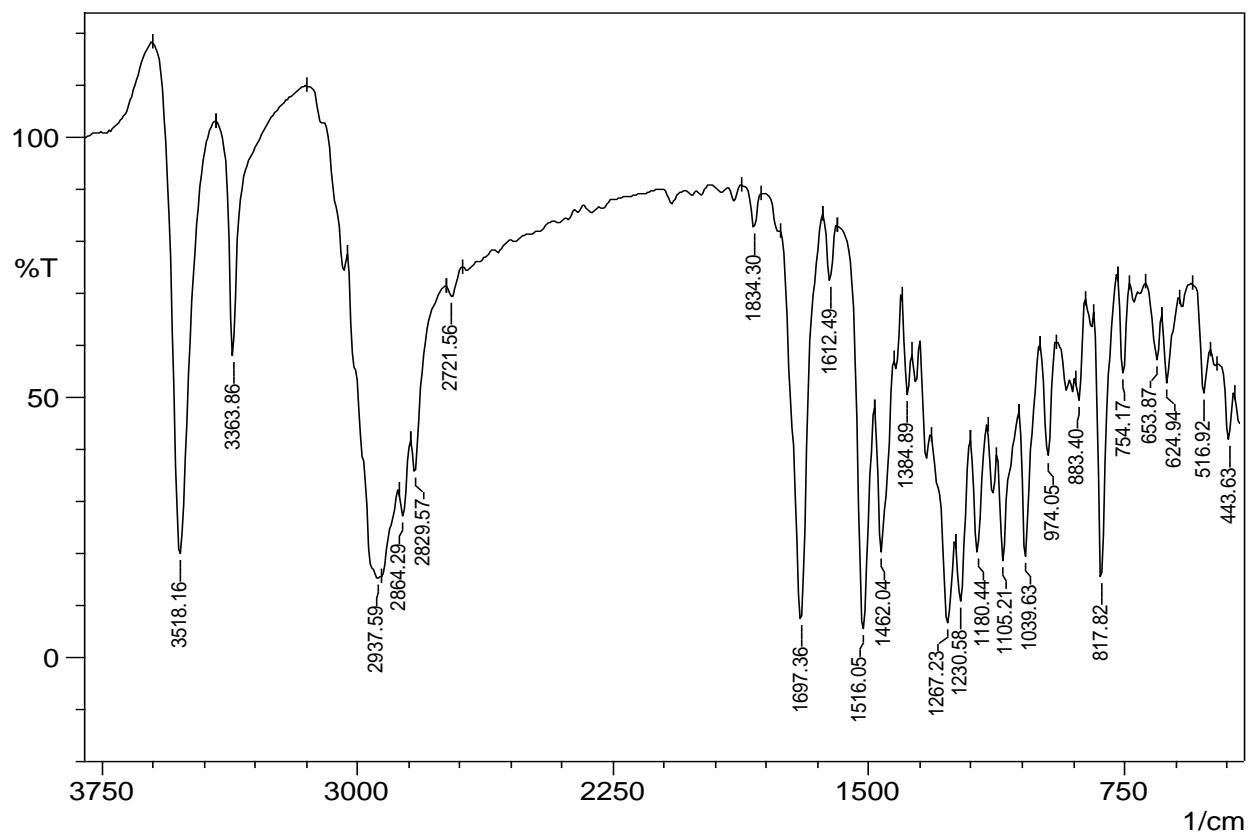
**Figure S22.** HRMS-ESI spectrum of the target compound (**3f**)



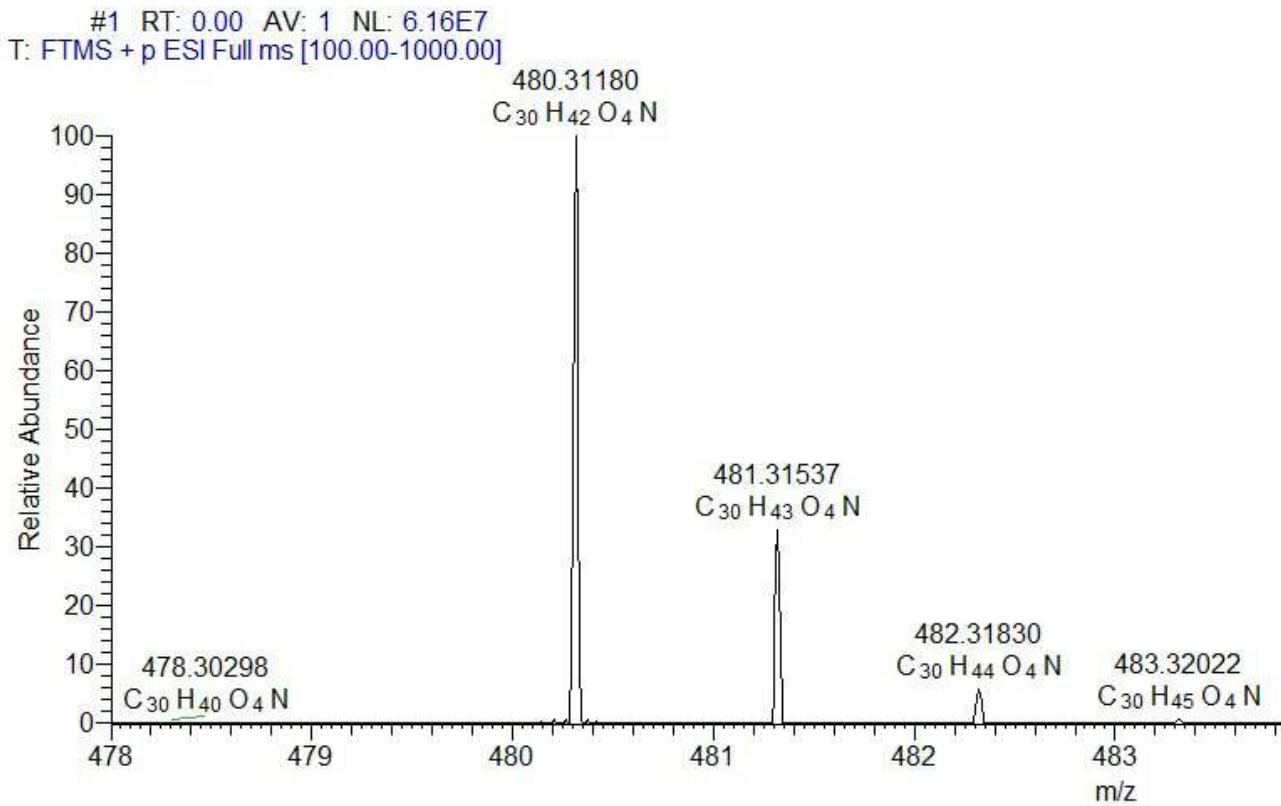
**Figure S23.**  $^1\text{H}$ -NMR spectrum of the target compound (**3f**) in DMSO



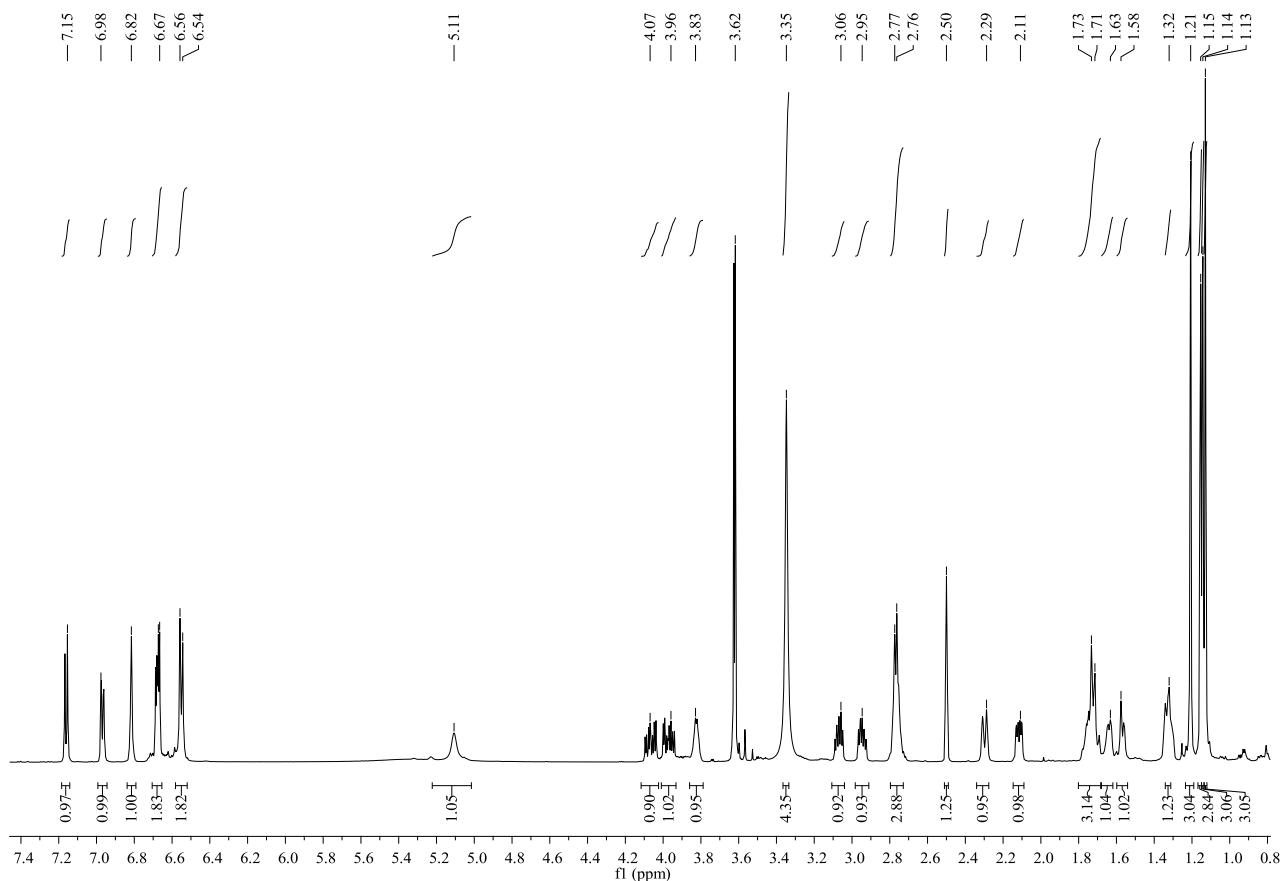
**Figure S24.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3f**) in DMSO



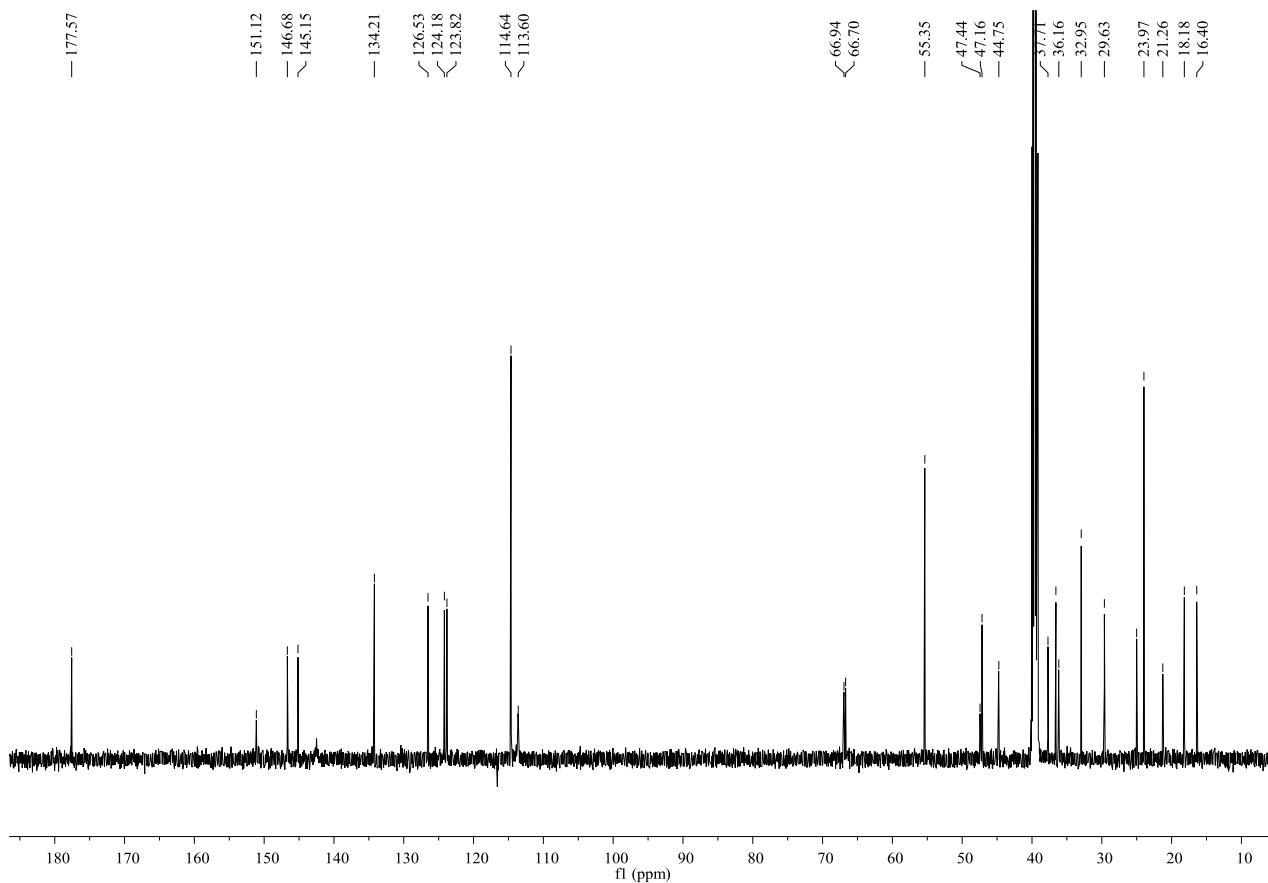
**Figure S25.** FTIR spectrum of the target compound (**3g**)



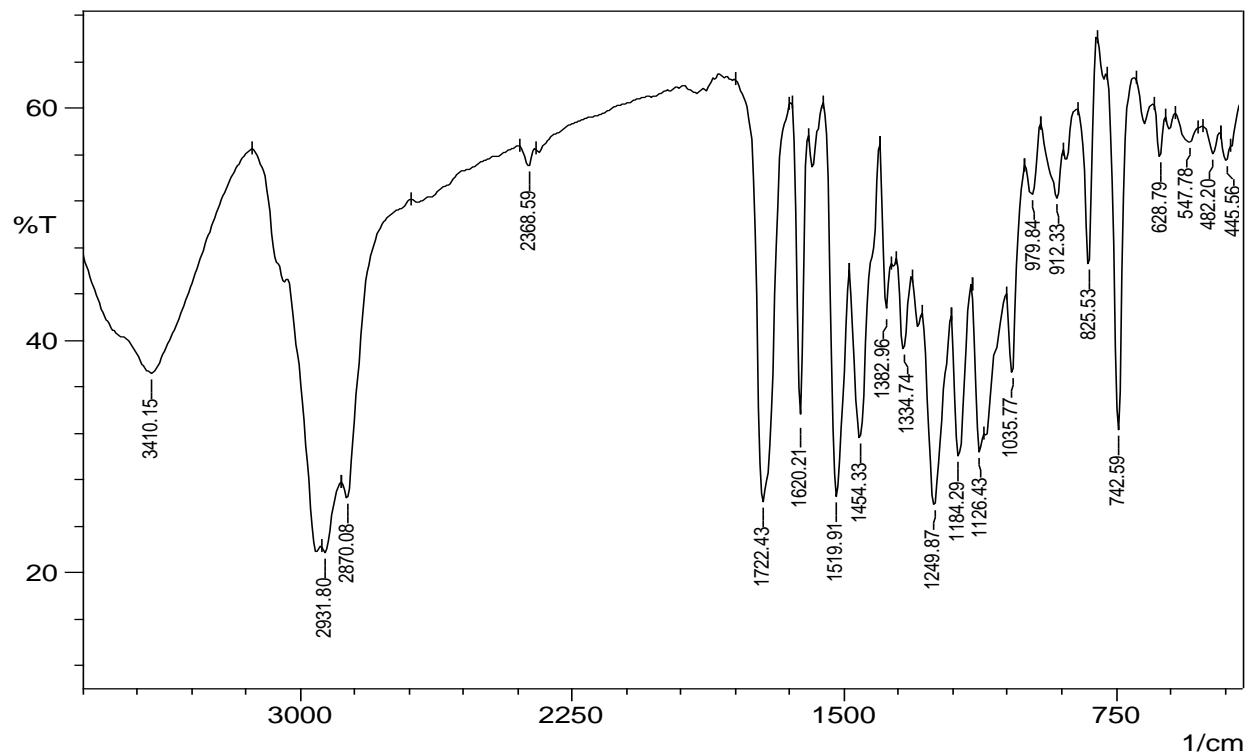
**Figure S26.** HRMS-ESI spectrum of the target compound (**3g**)



**Figure S27.**  $^1\text{H}$ -NMR spectrum of the target compound (**3g**) in DMSO

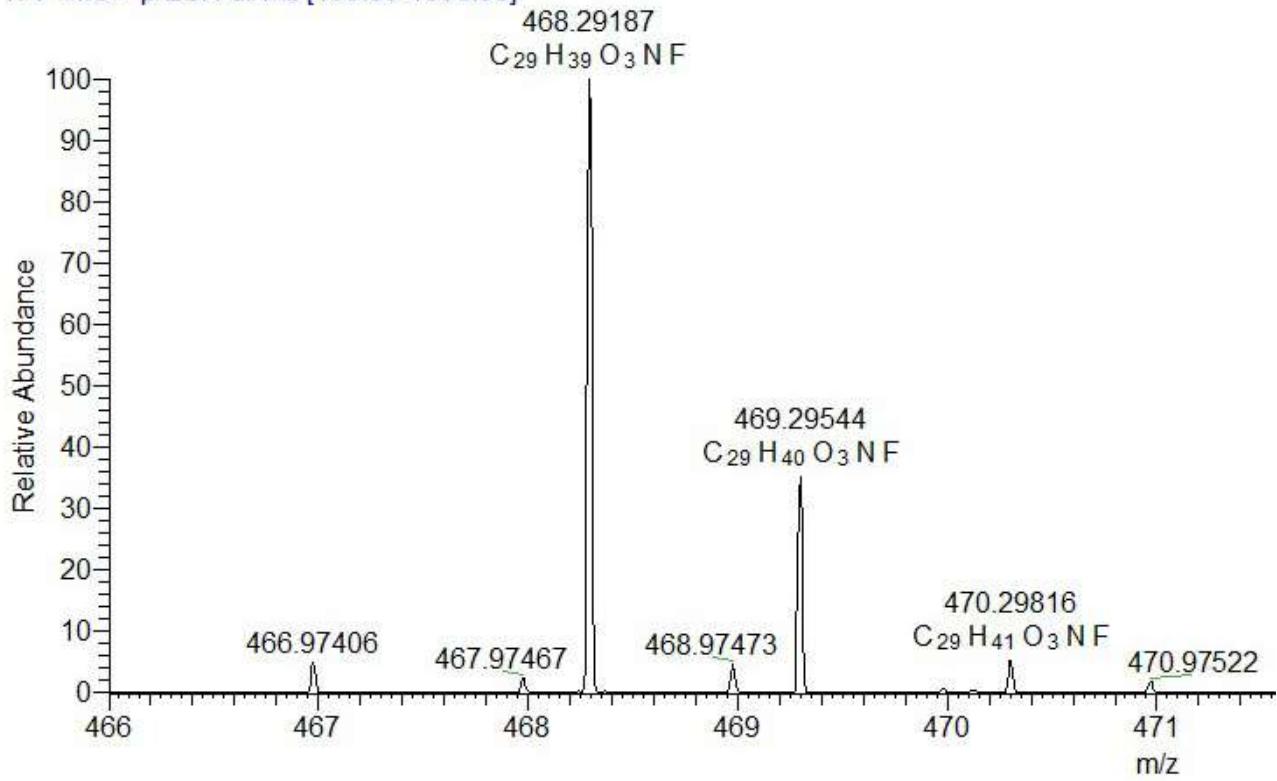


**Figure S28.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3g**) in DMSO

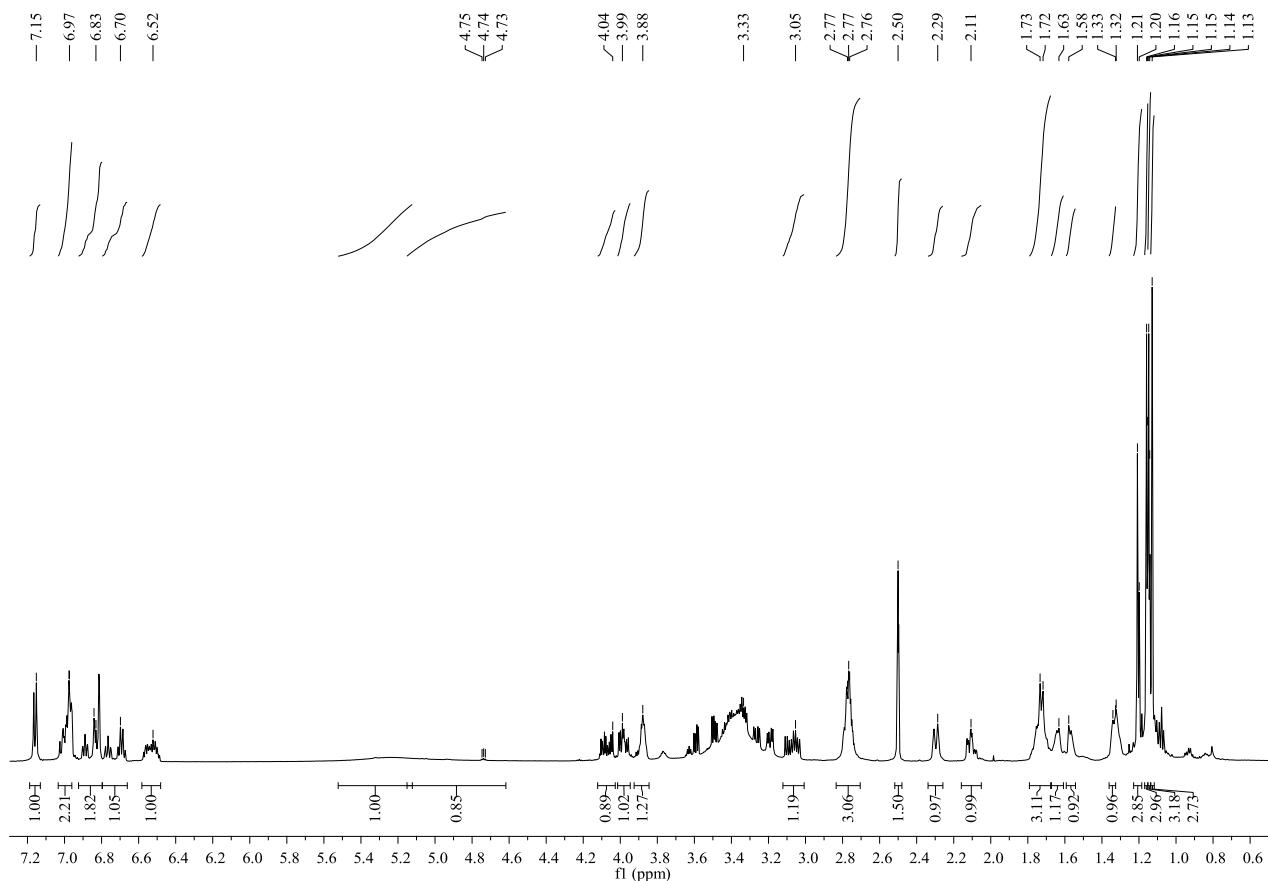


**Figure S29.** FTIR spectrum of the target compound (**3h**)

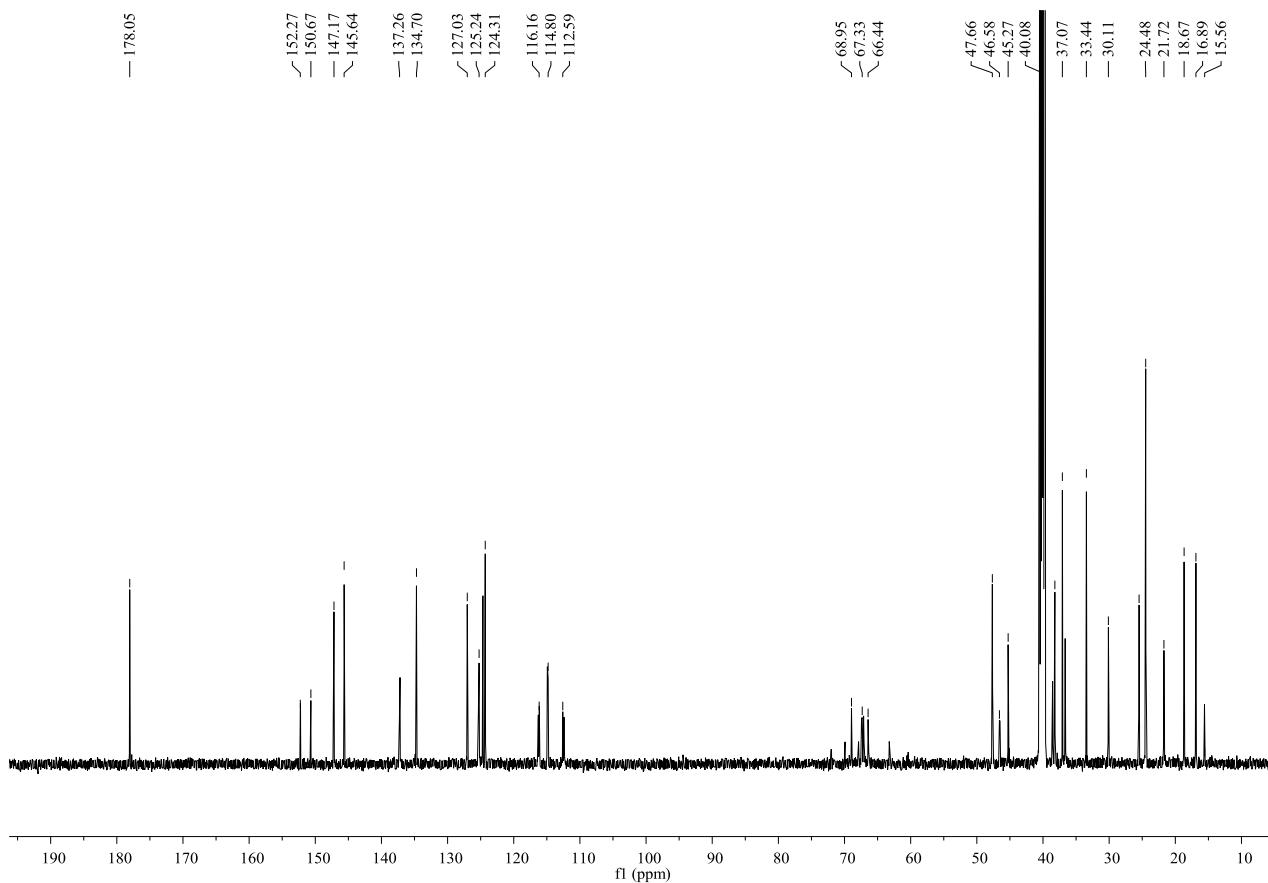
#1 RT: 0.00 AV: 1 NL: 5.69E6  
T: FTMS + p ESI Full ms [100.00-1000.00]



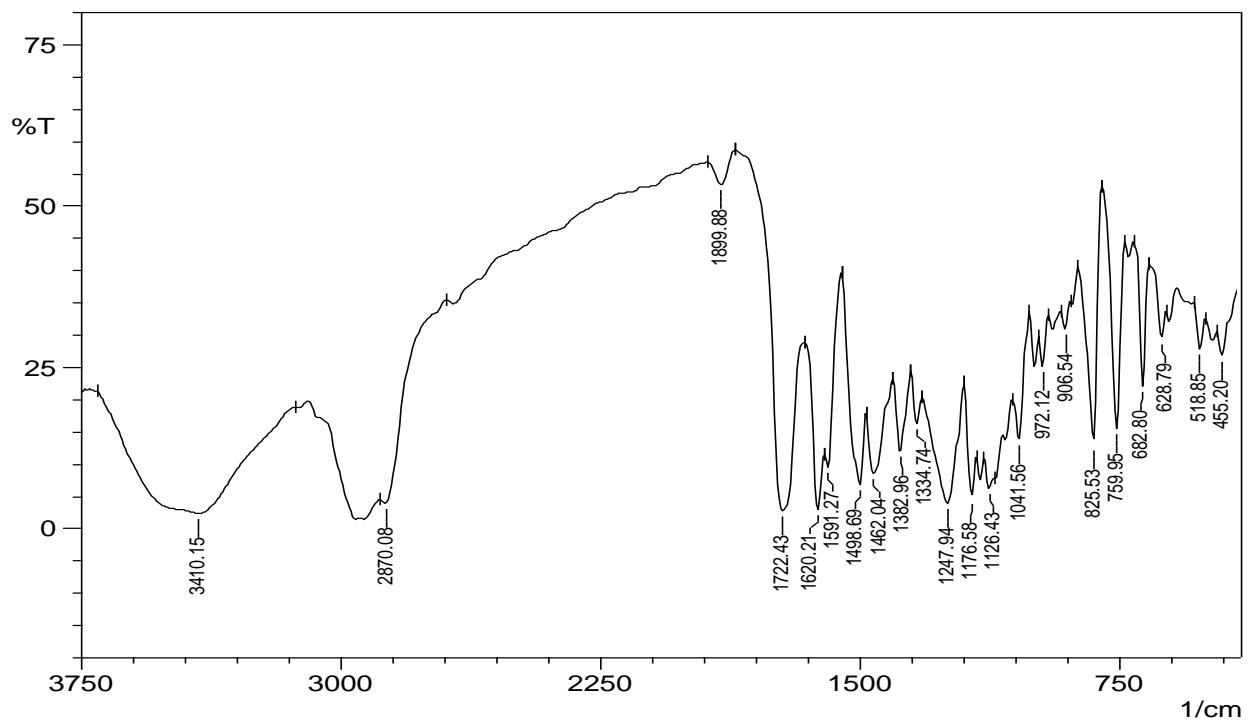
**Figure S30.** HRMS-ESI spectrum of the target compound (**3h**)



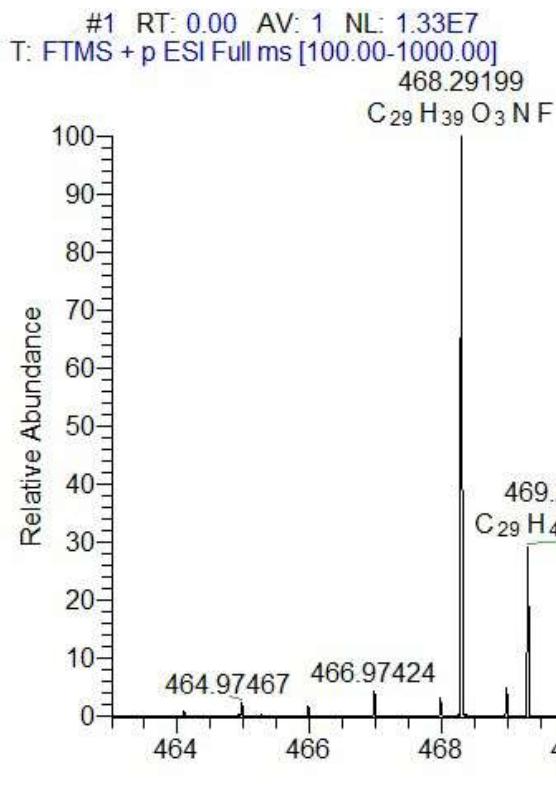
**Figure S31.**  $^1\text{H}$ -NMR spectrum of the target compound (**3h**) in DMSO



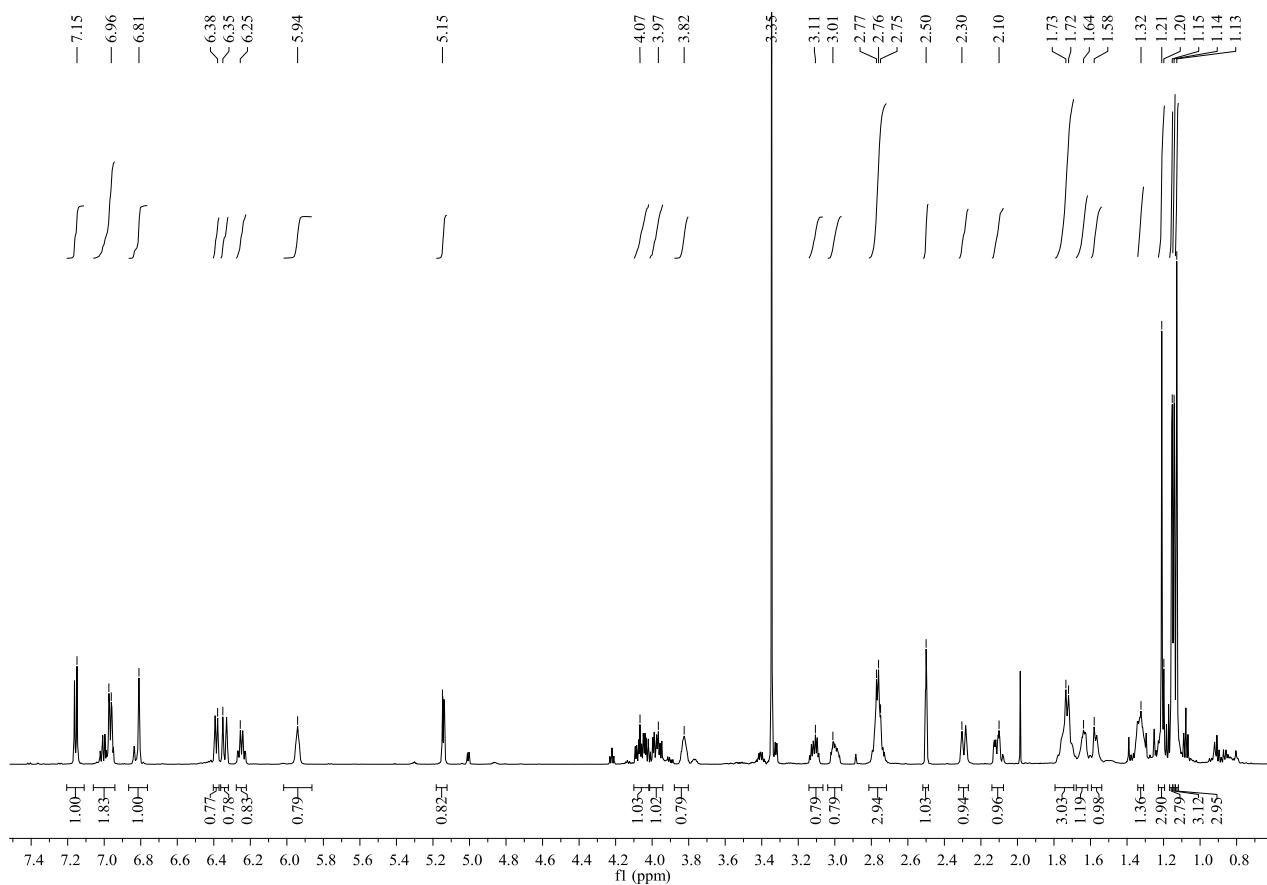
**Figure S32.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3h**) in DMSO



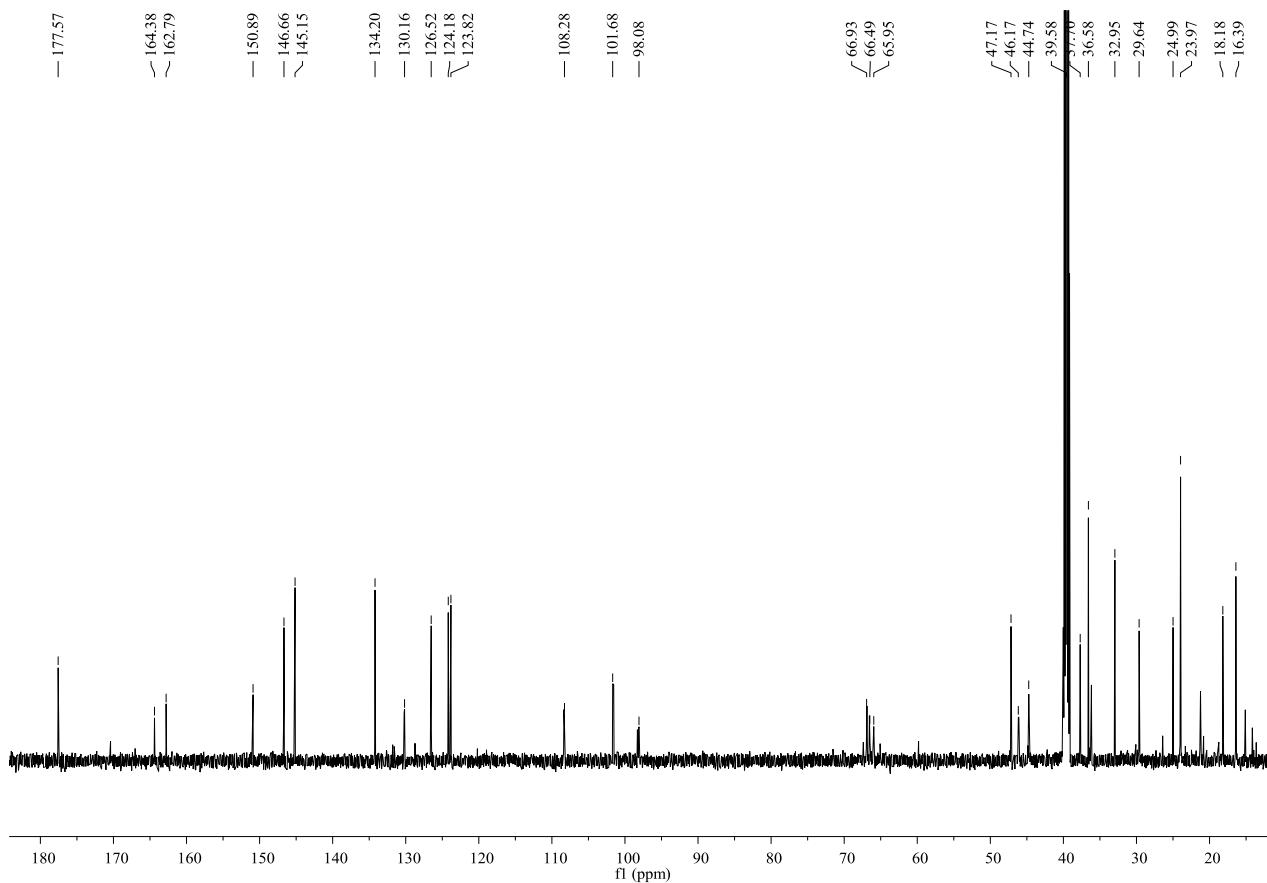
**Figure S33.** FTIR spectrum of the target compound (**3i**)



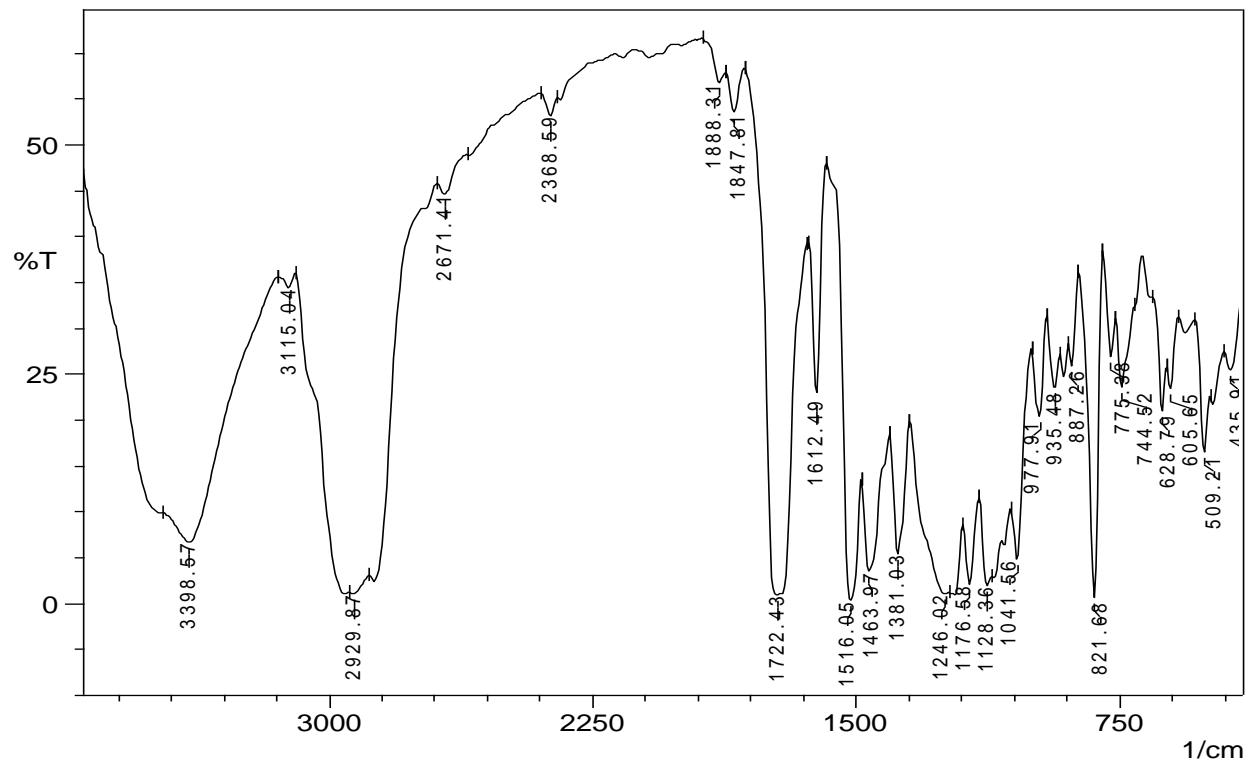
**Figure S34.** HRMS-ESI spectrum of the target compound (**3i**)



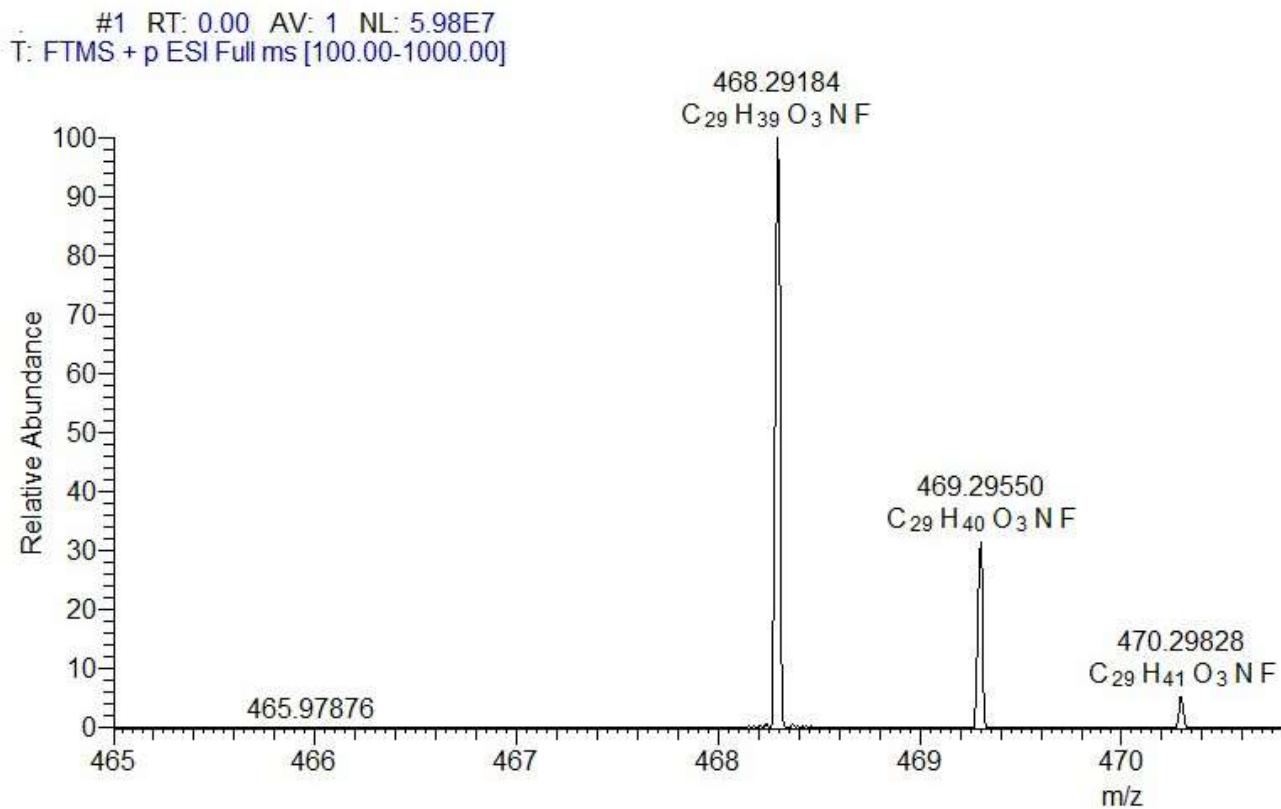
**Figure S35.**  $^1\text{H}$ -NMR spectrum of the target compound (**3i**) in DMSO



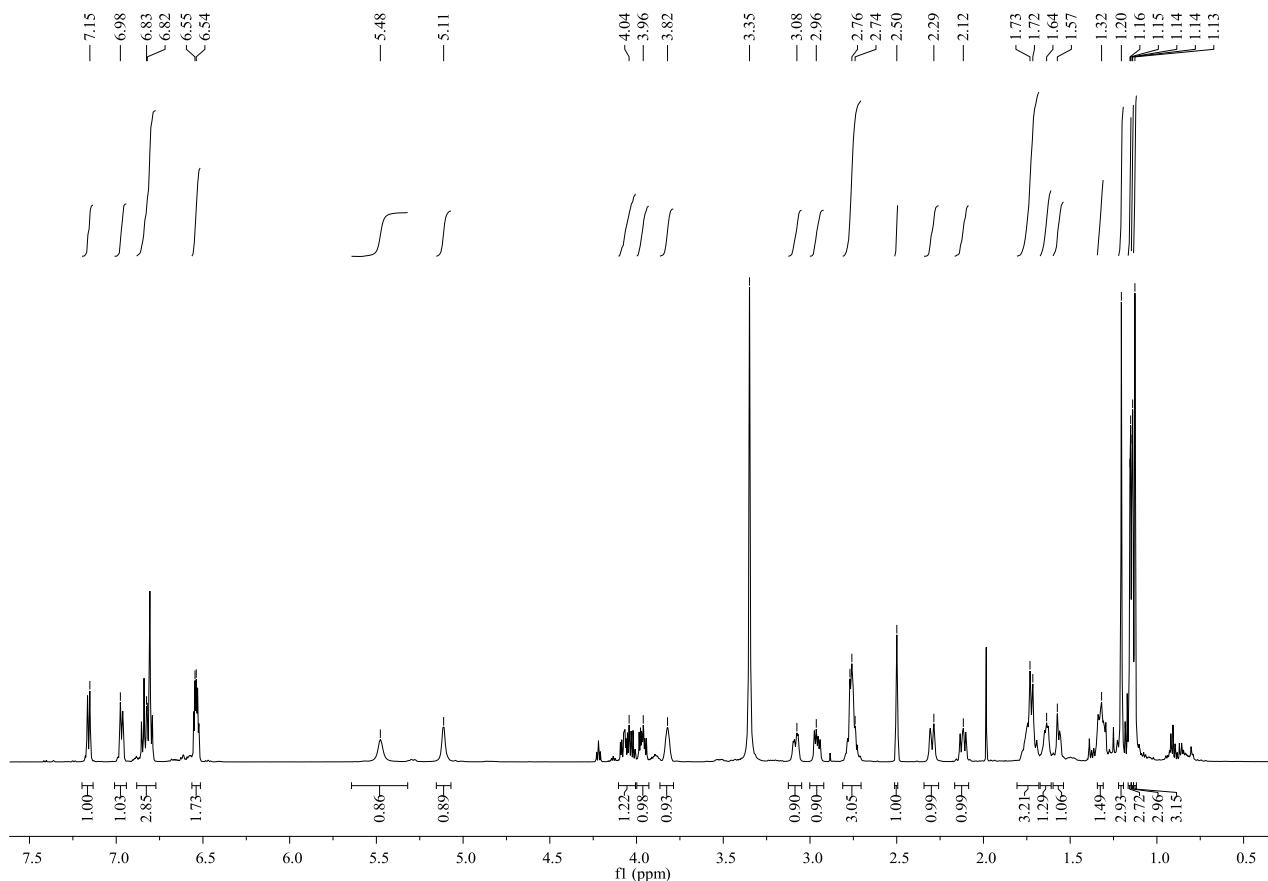
**Figure S36.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3i**) in DMSO



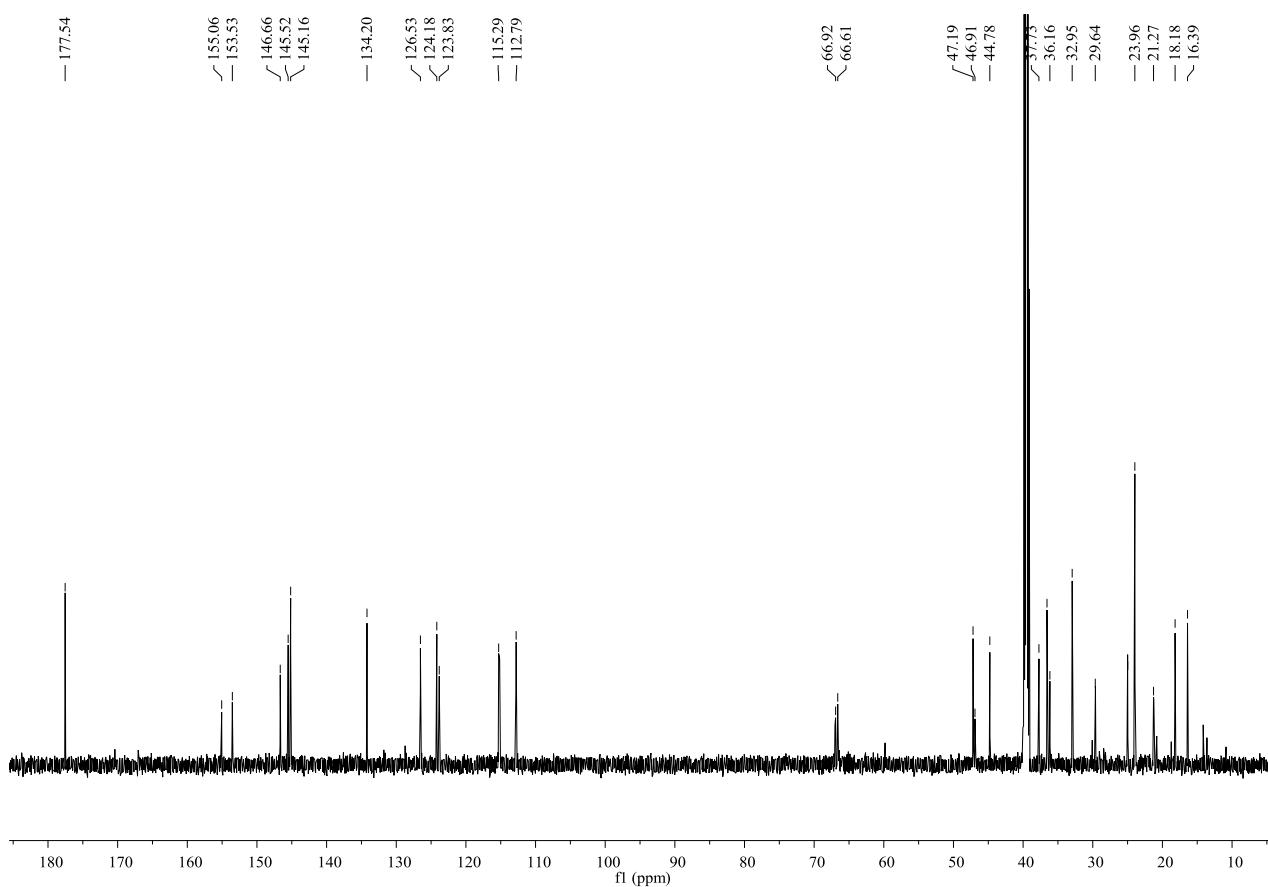
**Figure S37.** FTIR spectrum of the target compound (**3j**)



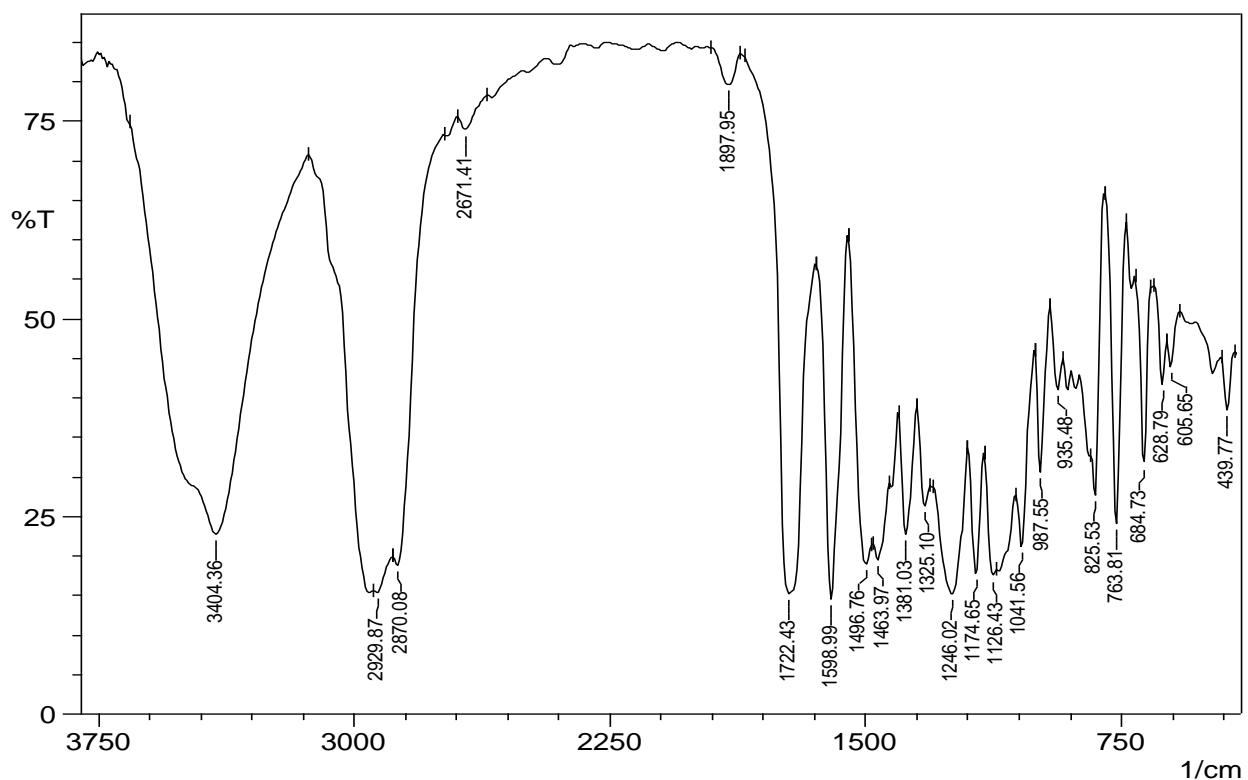
**Figure S38.** HRMS-ESI spectrum of the target compound (**3j**)



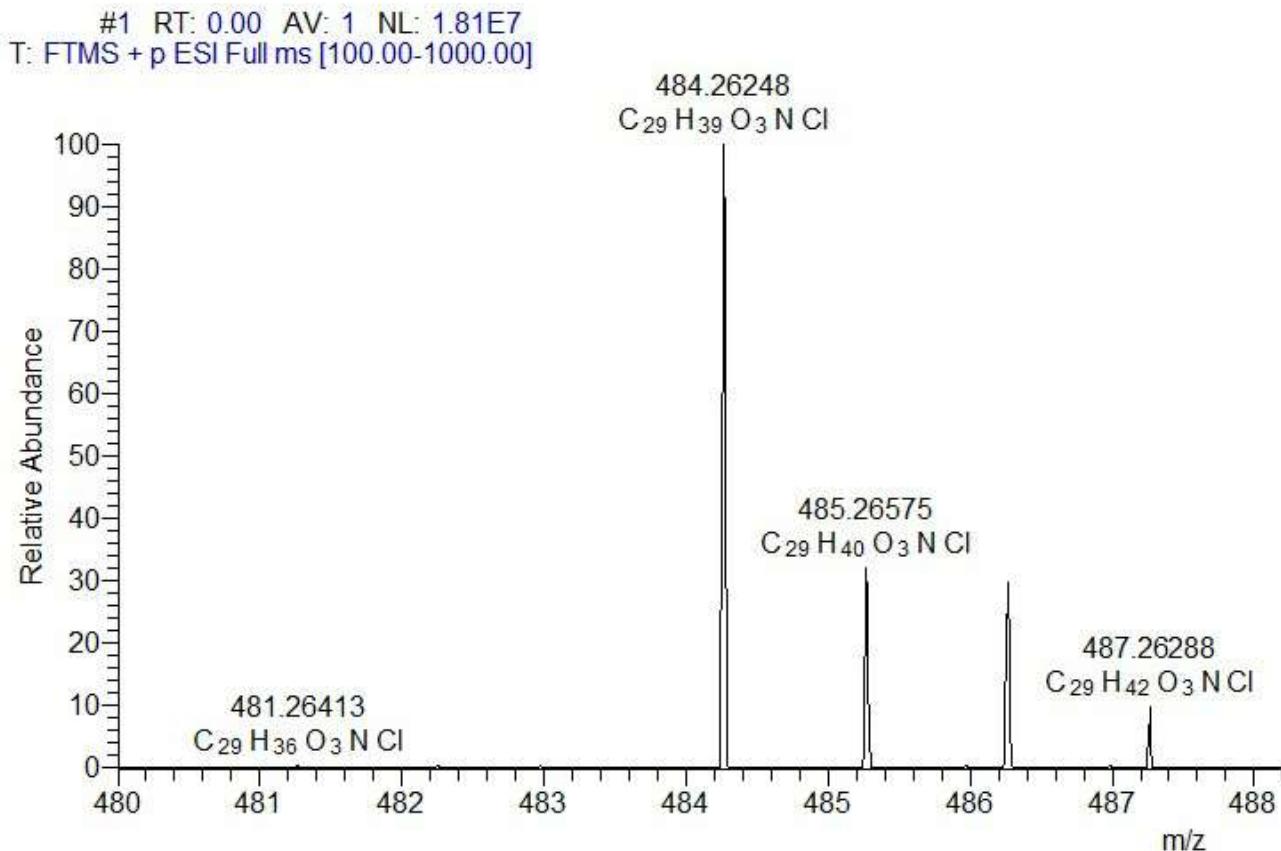
**Figure S39.**  $^1\text{H}$ -NMR spectrum of the target compound (**3j**) in DMSO



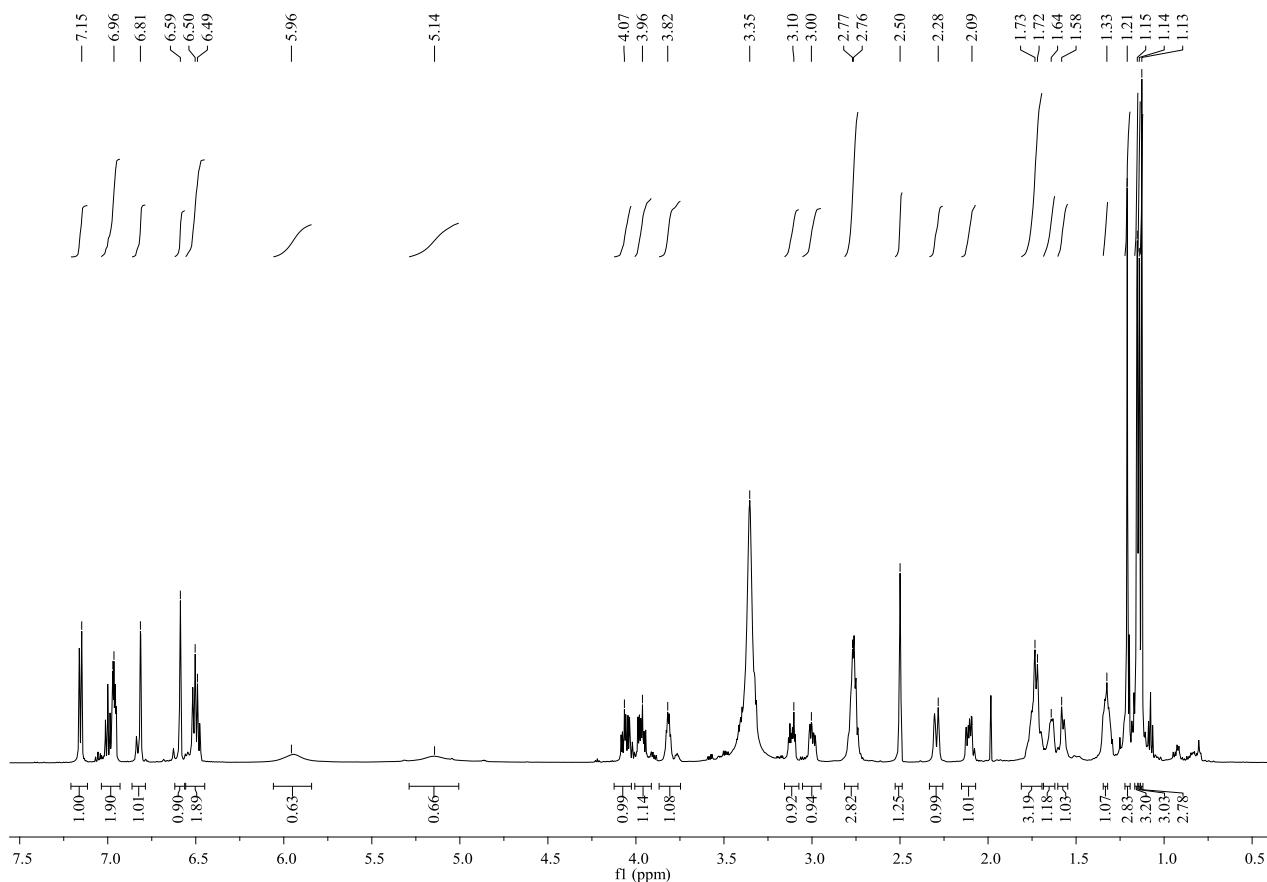
**Figure S40.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3j**) in DMSO



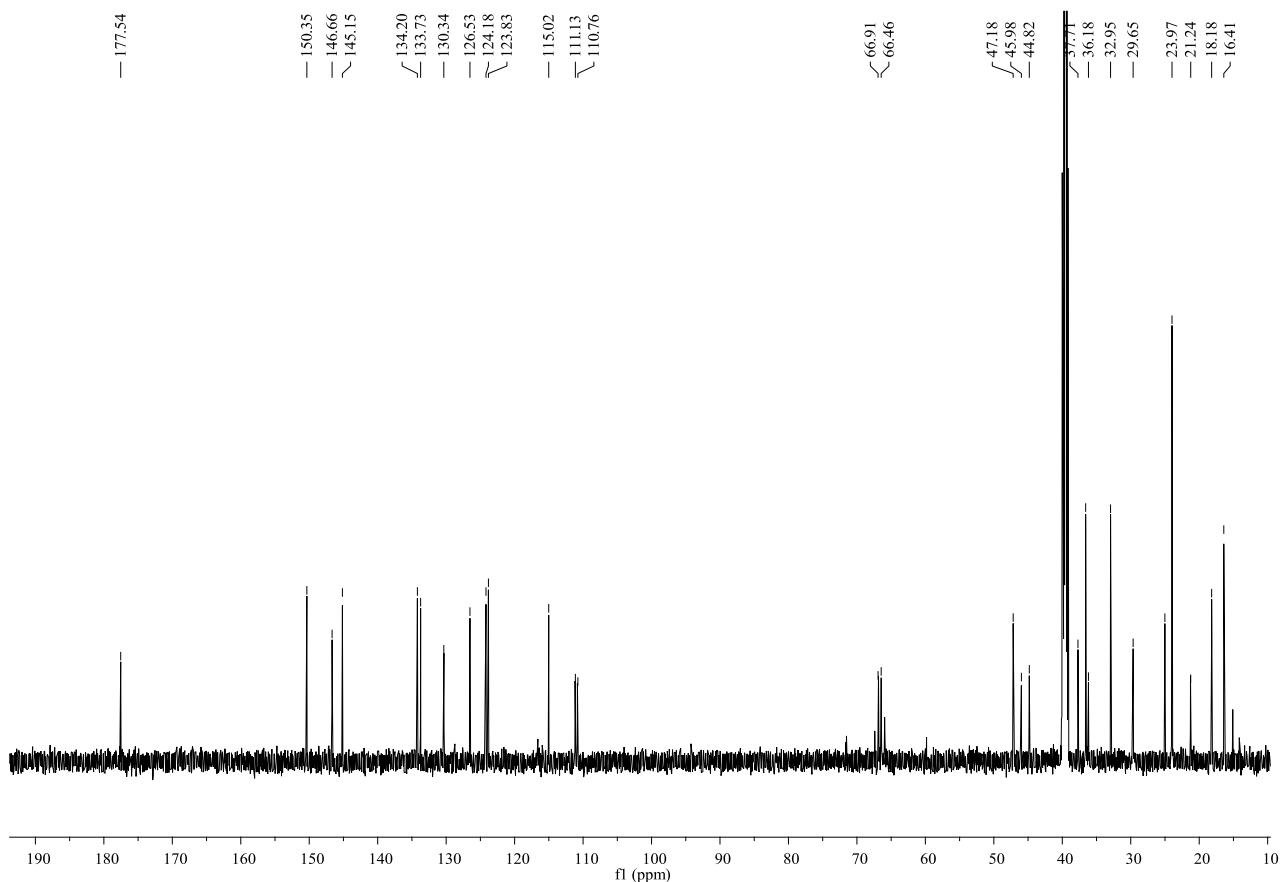
**Figure S41.** FTIR spectrum of the target compound (**3k**)



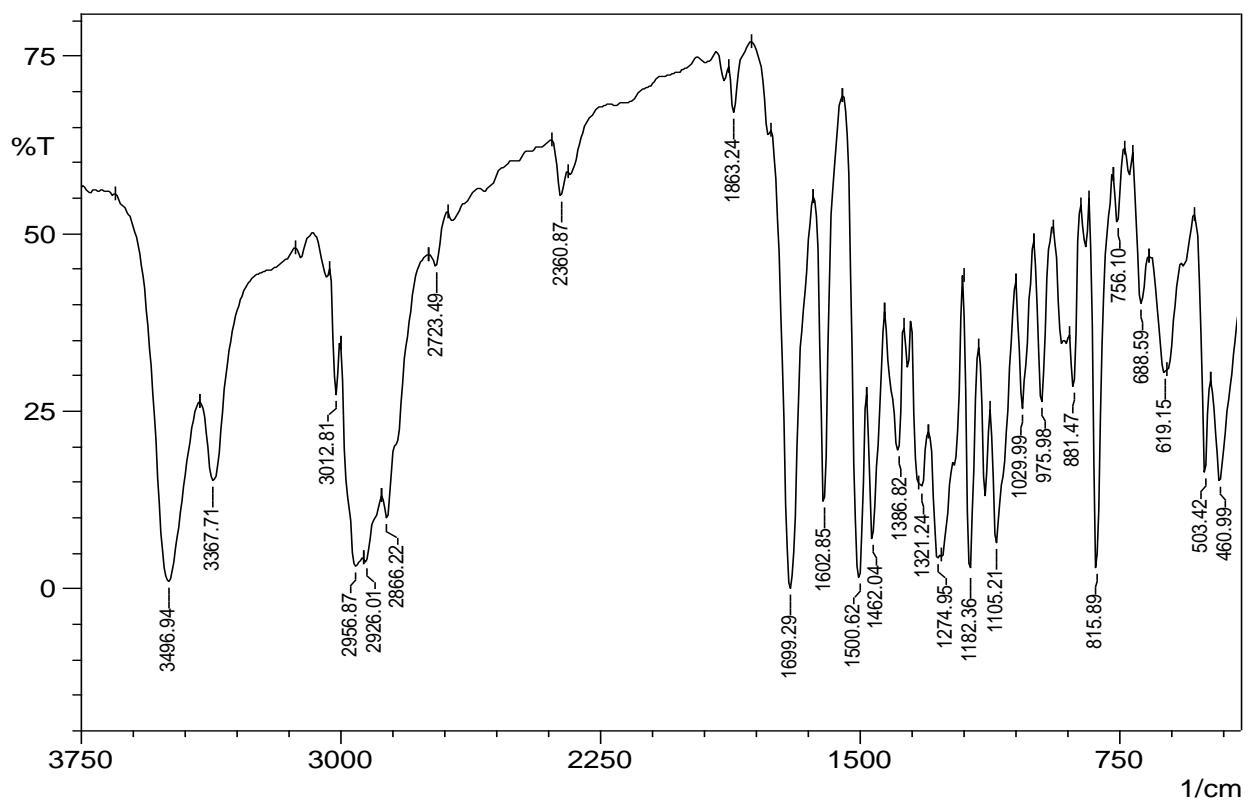
**Figure S42.** HRMS-ESI spectrum of the target compound (**3k**)



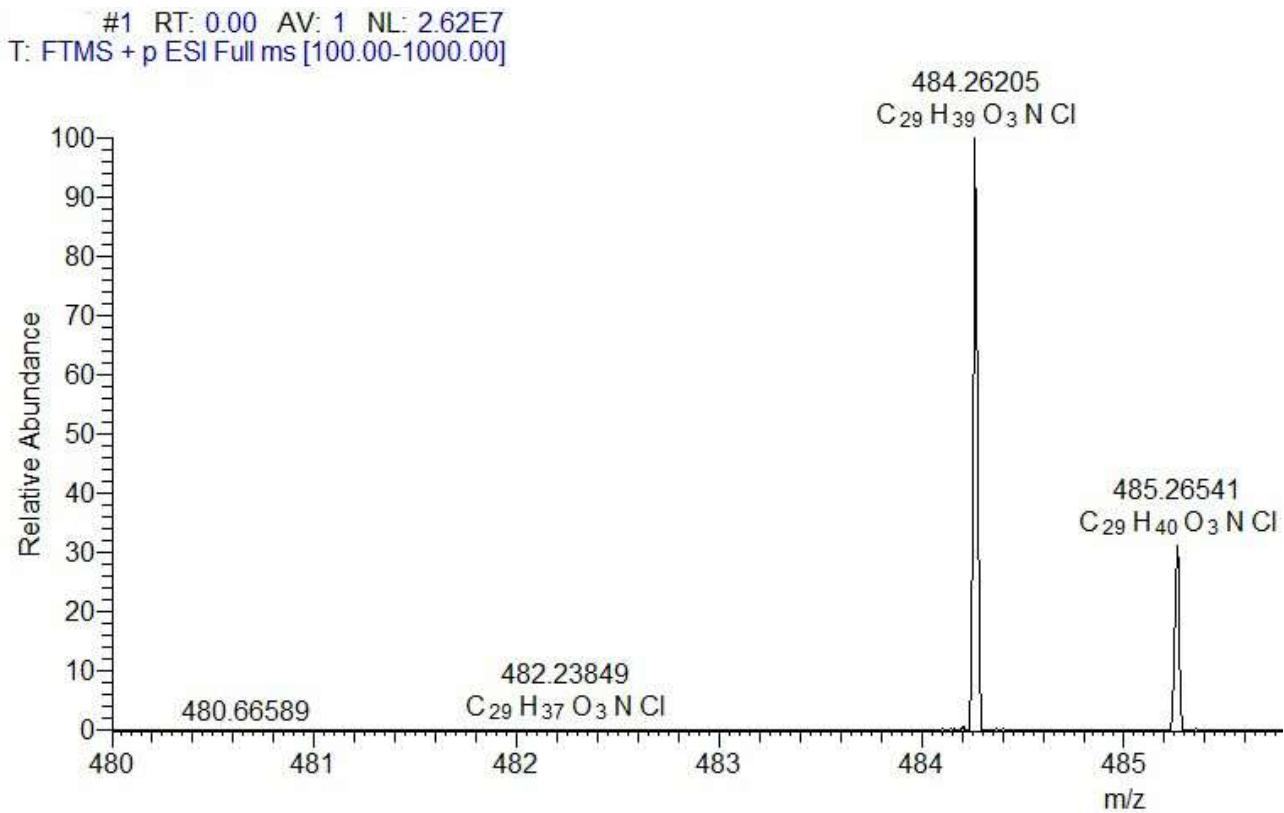
**Figure S43.**  $^1\text{H}$ -NMR spectrum of the target compound (**3k**) in DMSO



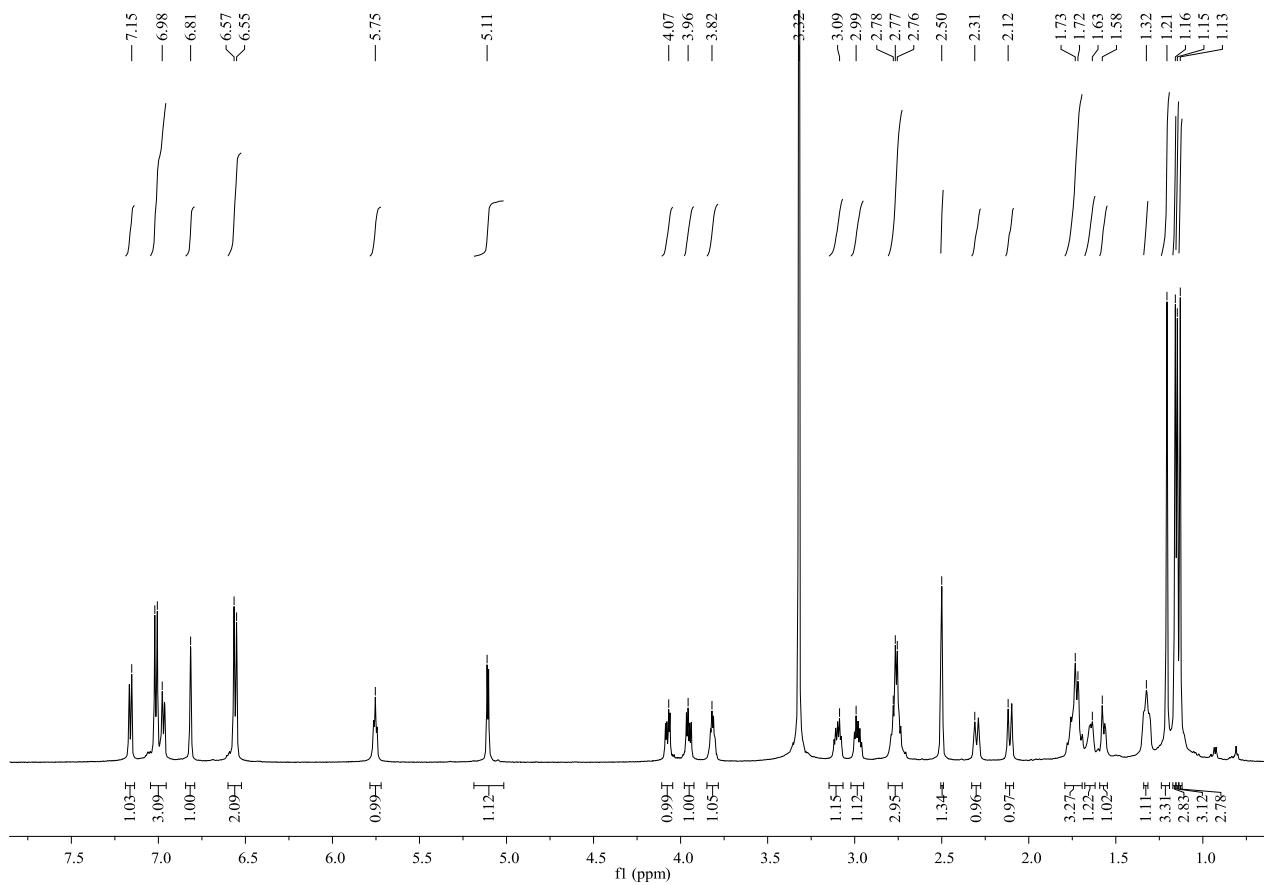
**Figure S44.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3k**) in DMSO



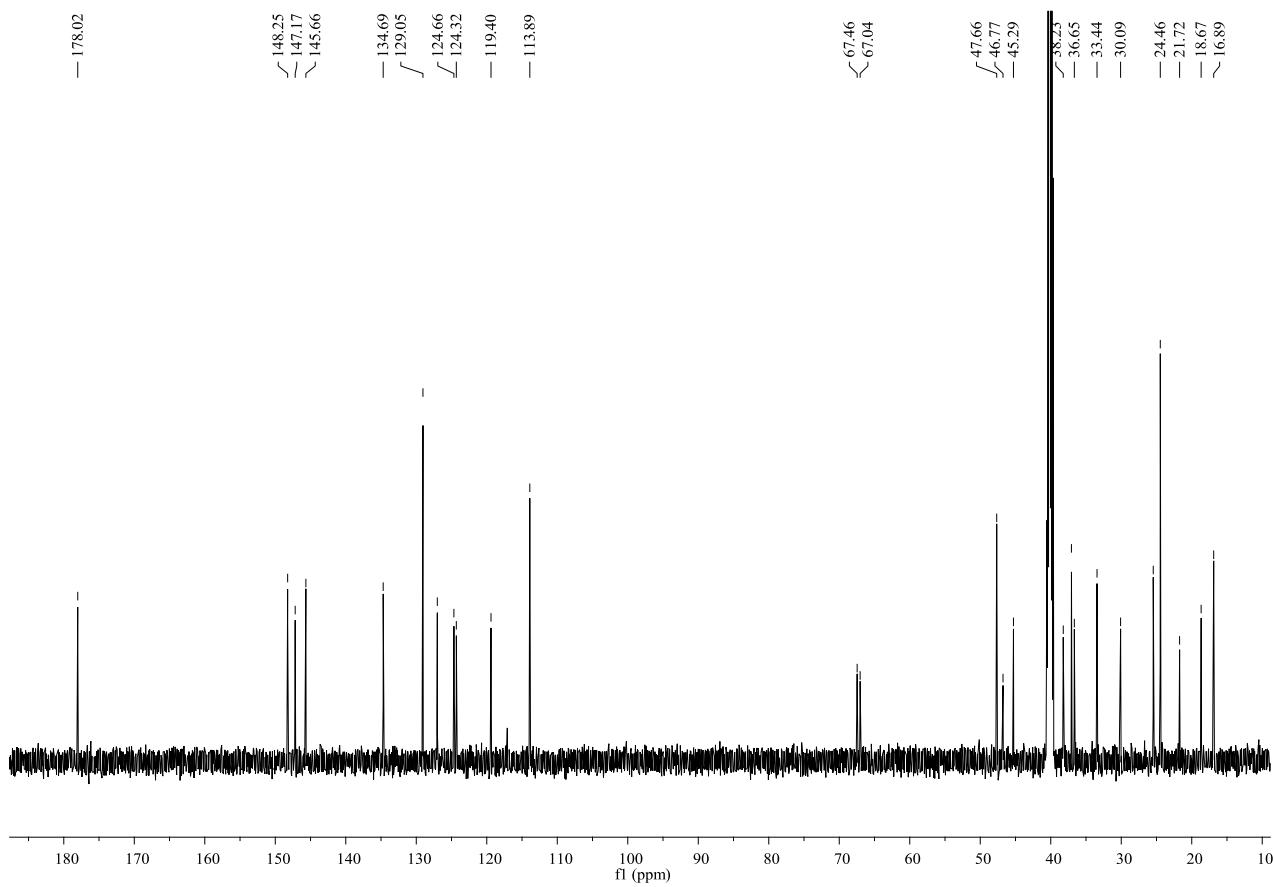
**Figure S45.** FTIR spectrum of the target compound (**3l**)



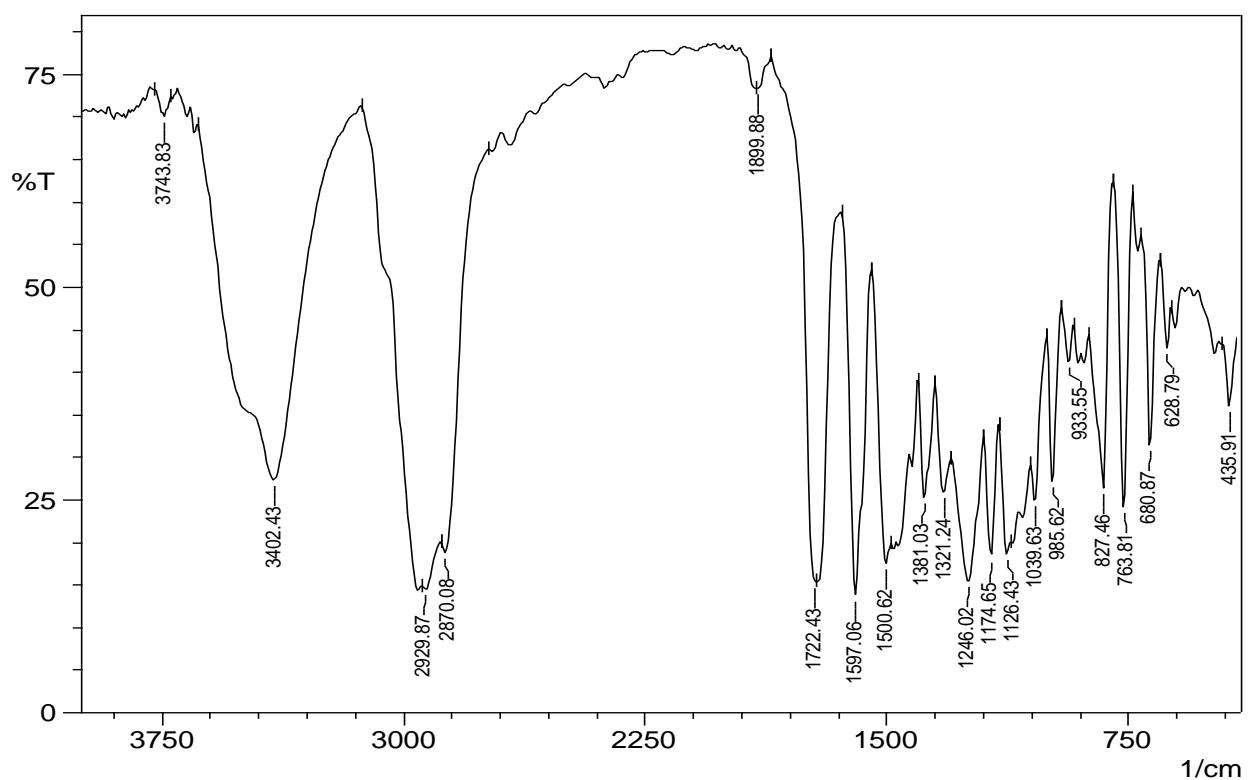
**Figure S46.** HRMS-ESI spectrum of the target compound (**3l**)



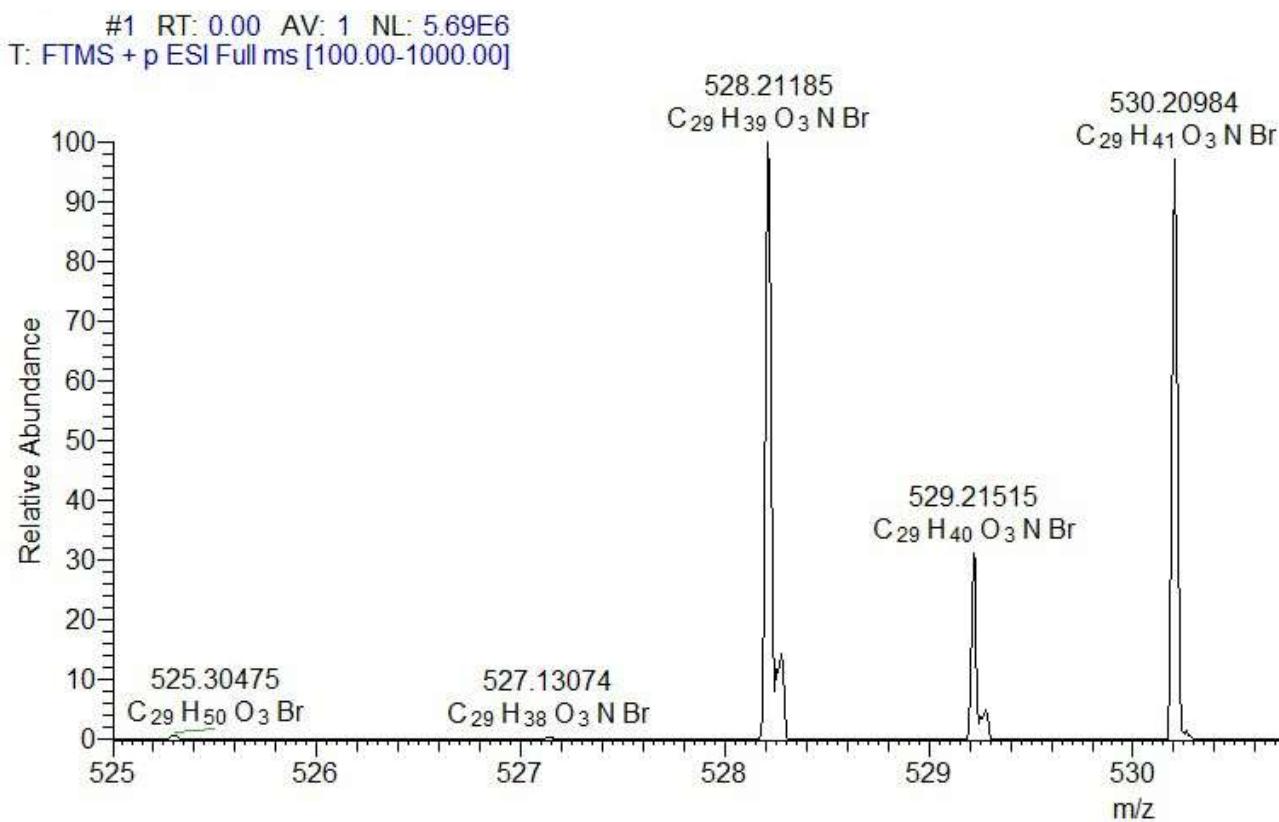
**Figure S47.**  $^1\text{H}$ -NMR spectrum of the target compound (**3l**) in DMSO



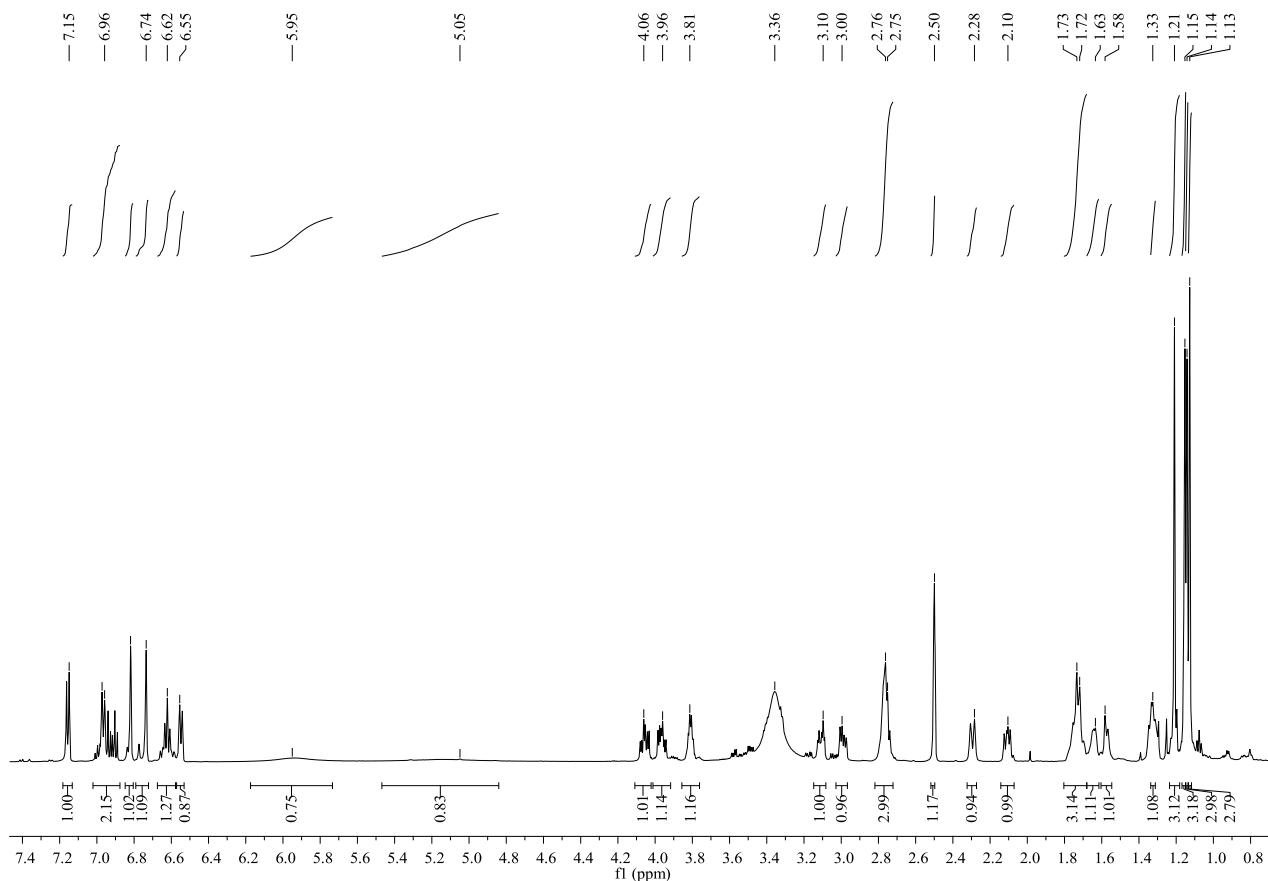
**Figure S48.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3l**) in DMSO



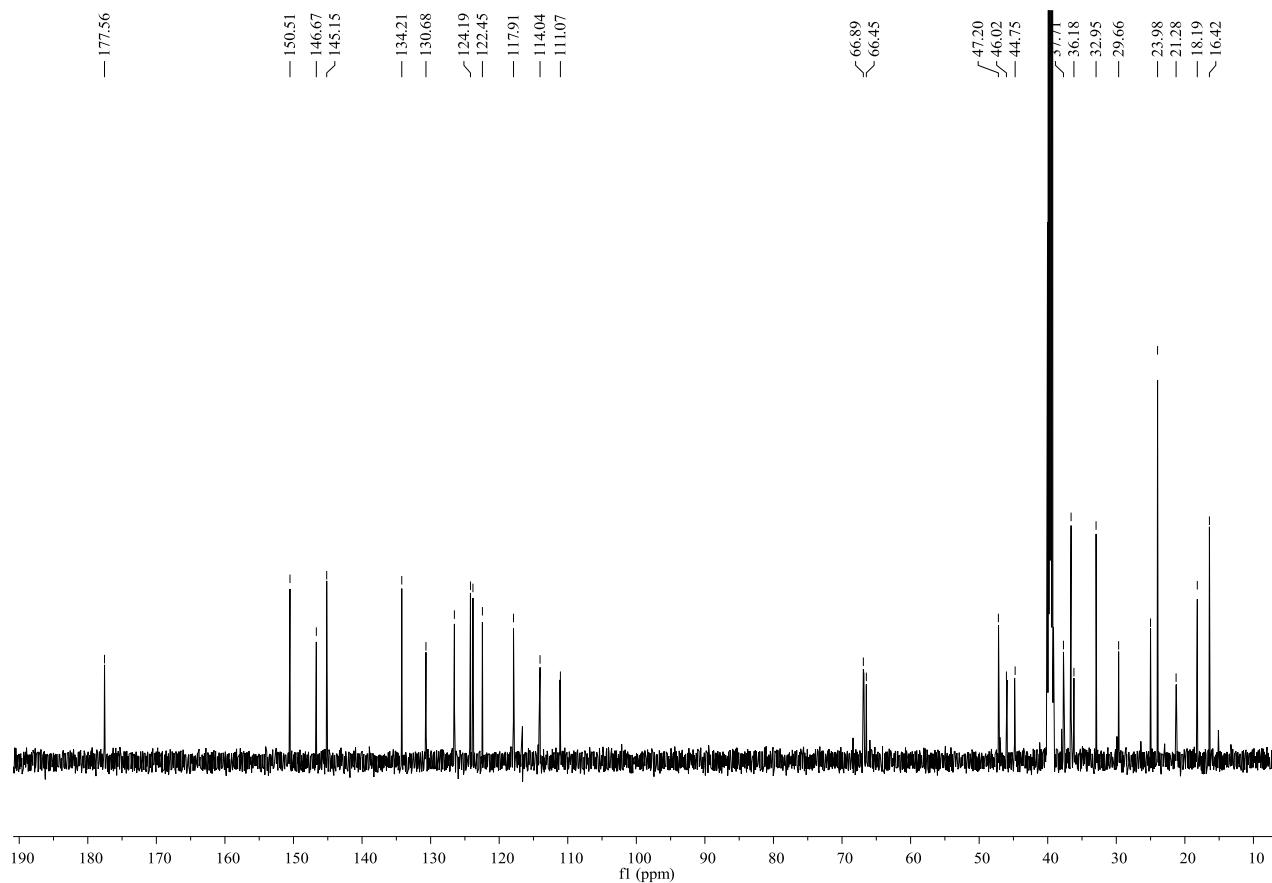
**Figure S49.** FTIR spectrum of the target compound (**3m**)



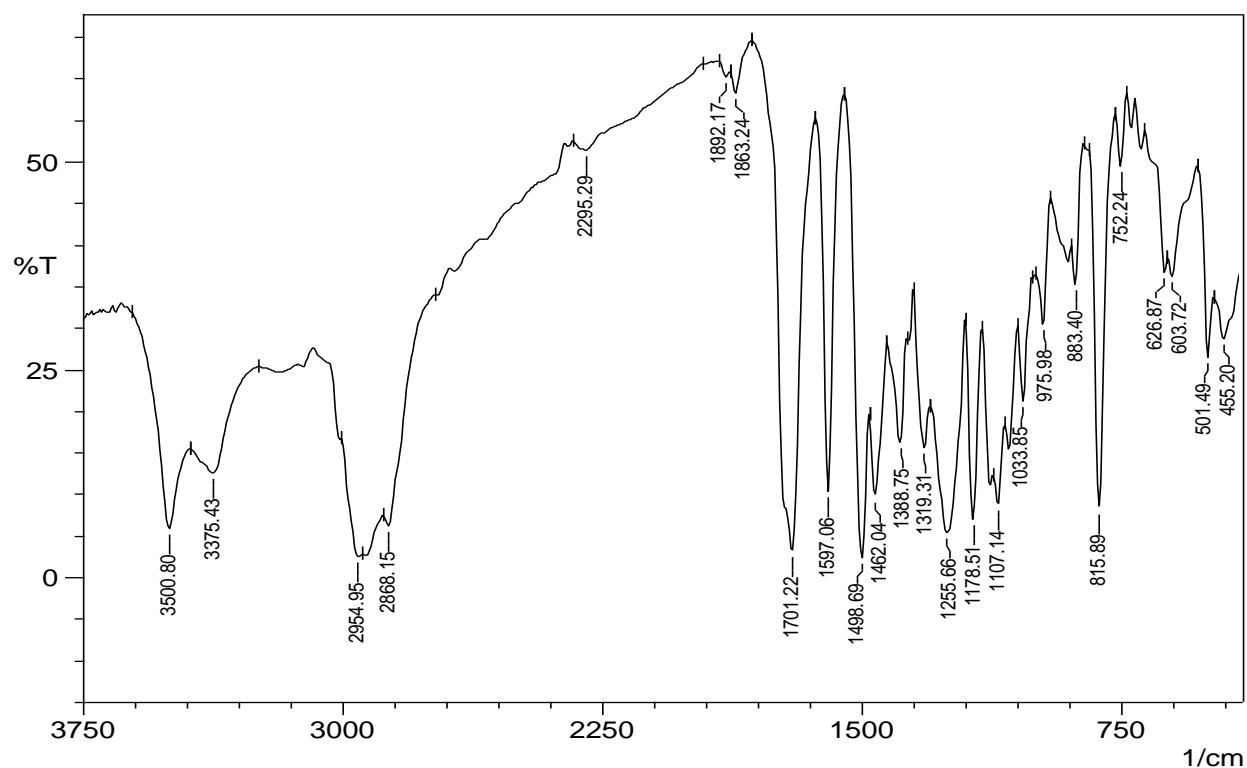
**Figure S50.** HRMS-ESI spectrum of the target compound (**3m**)



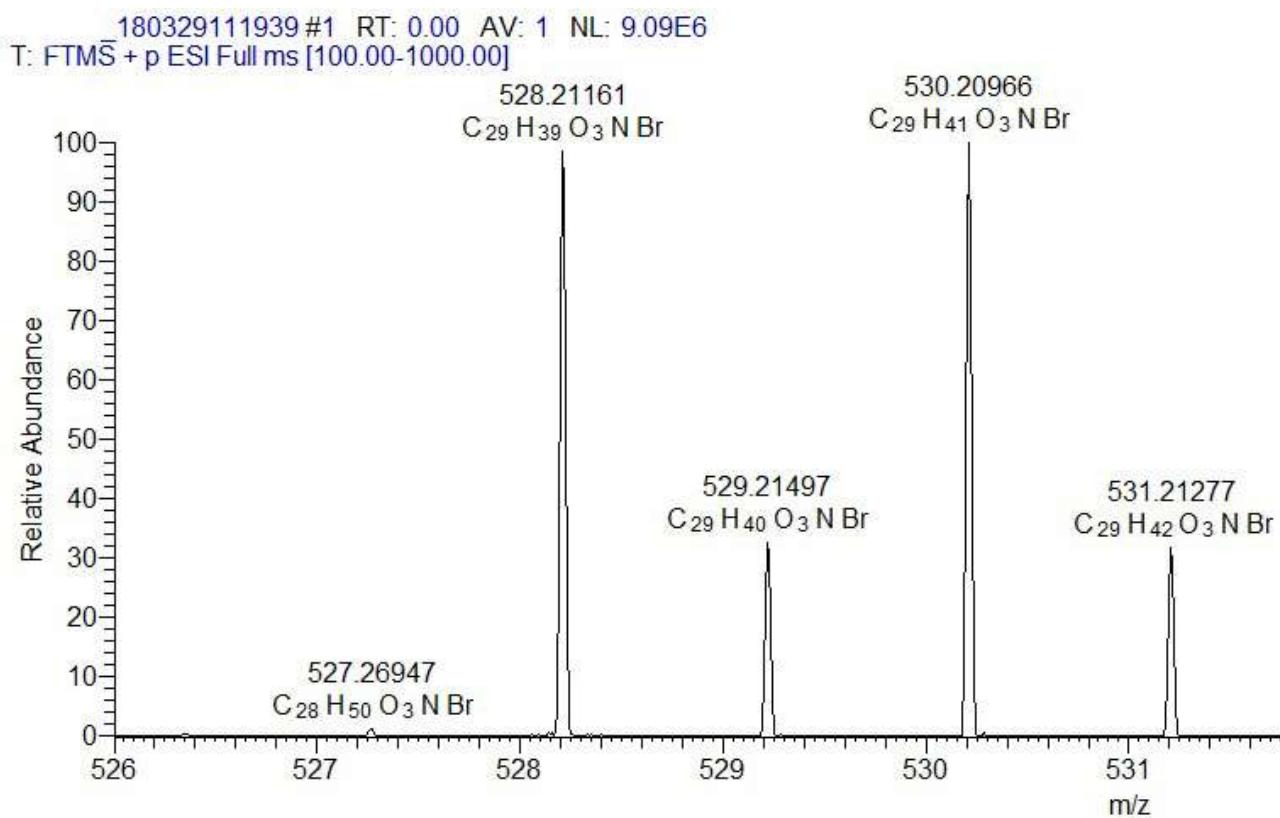
**Figure S51.**  $^1\text{H}$ -NMR spectrum of the target compound (**3m**) in DMSO



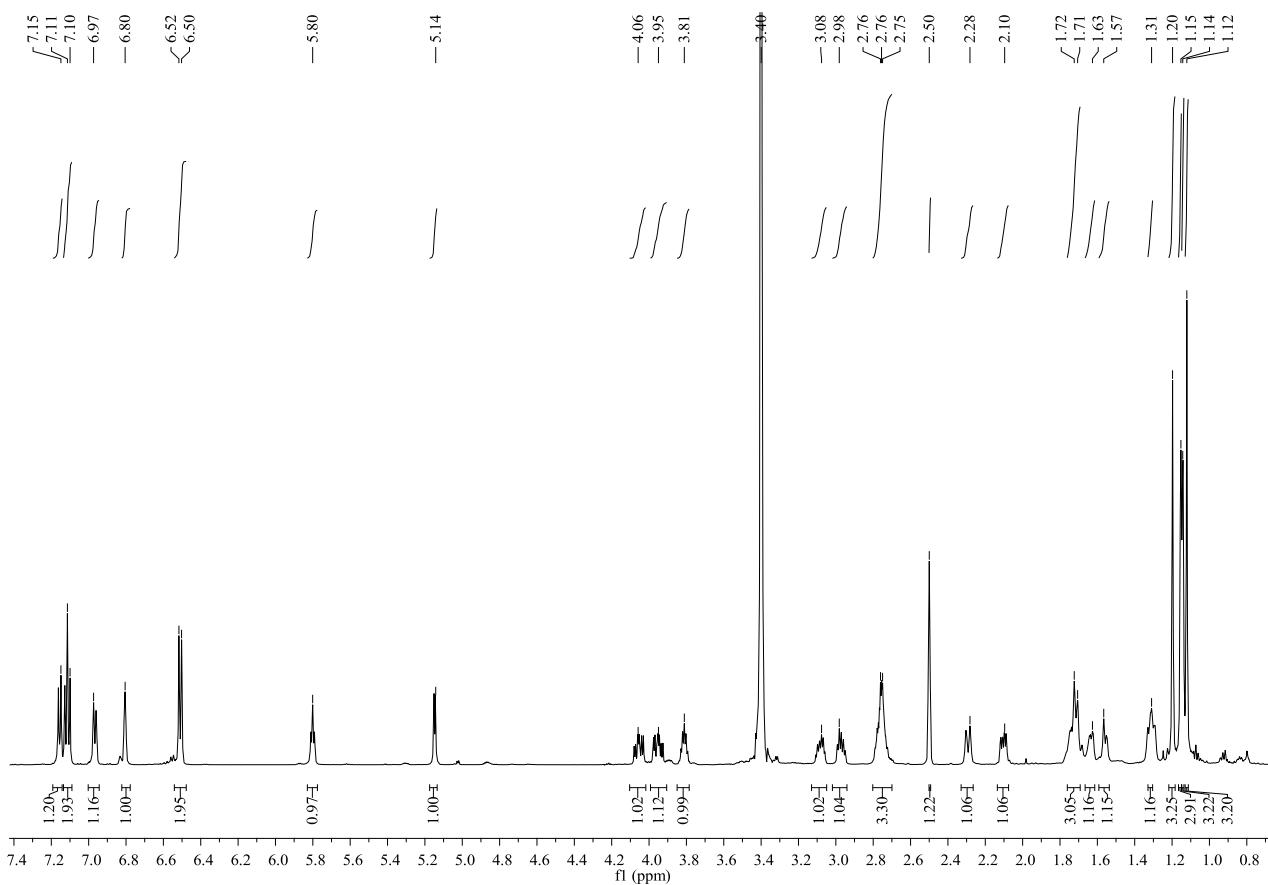
**Figure S52.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3m**) in DMSO



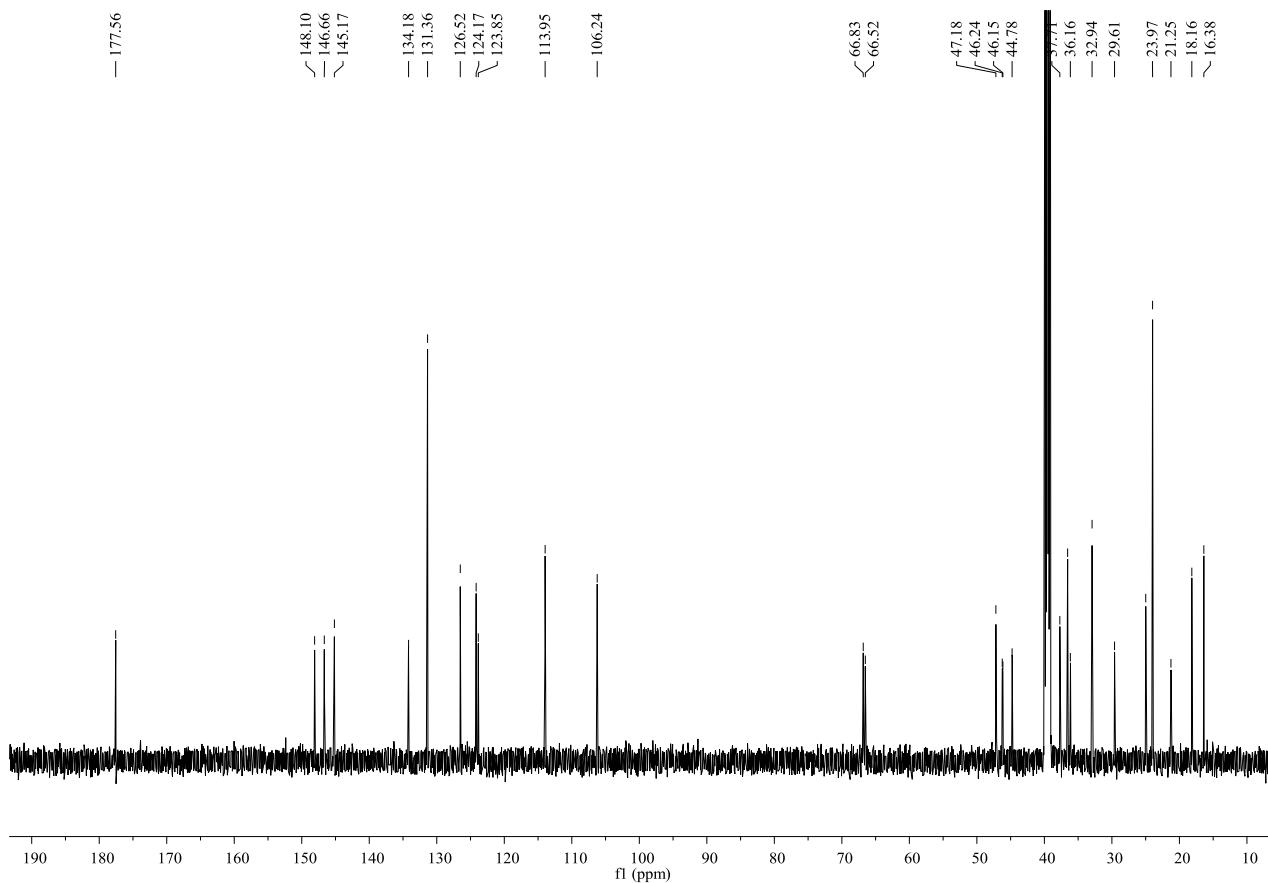
**Figure S53.** FTIR spectrum of the target compound (**3n**)



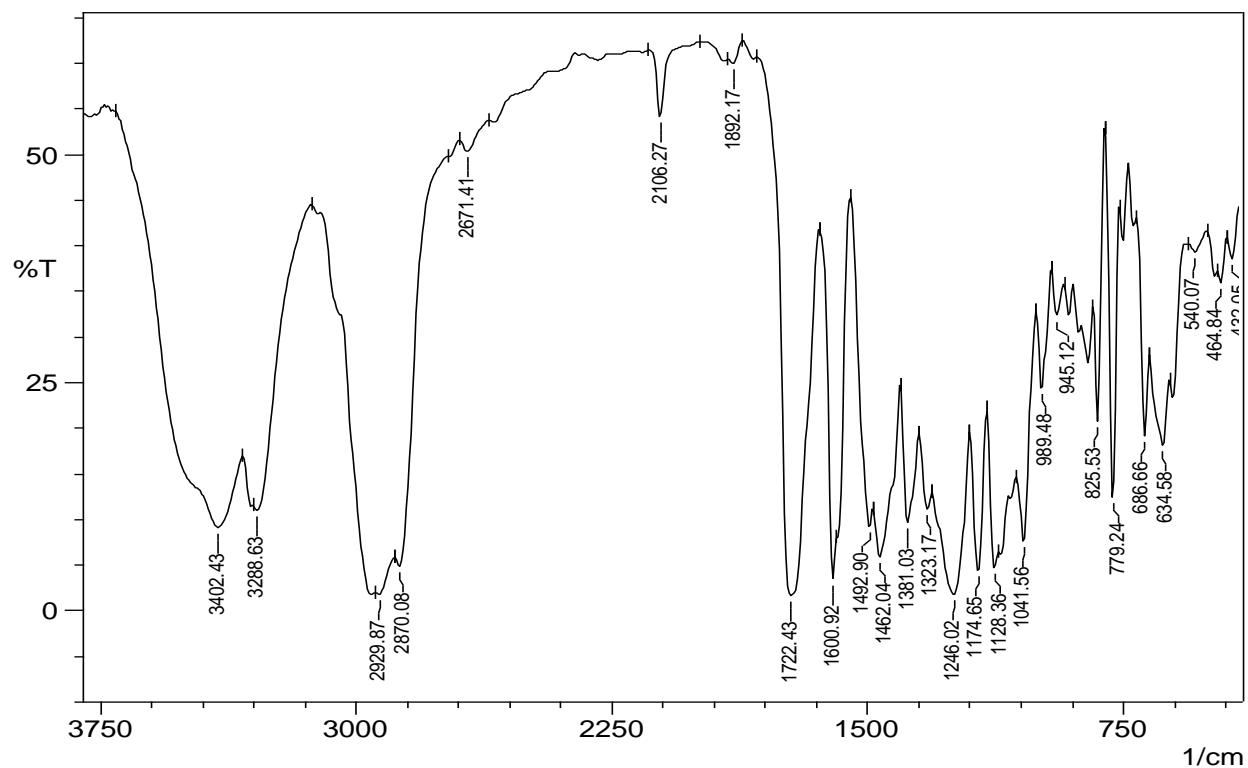
**Figure S54.** HRMS-ESI spectrum of the target compound (**3n**)



**Figure S55.**  $^1\text{H}$ -NMR spectrum of the target compound (**3n**) in DMSO

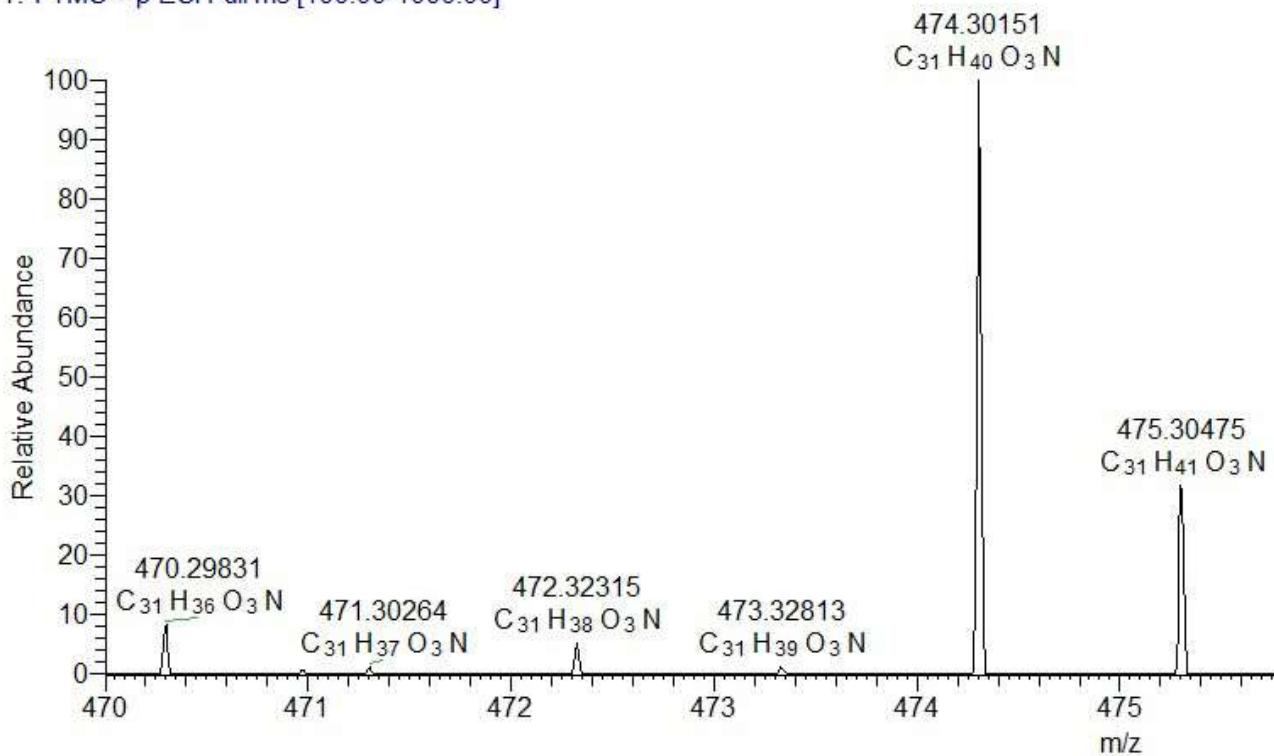


**Figure S56.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3n**) in DMSO

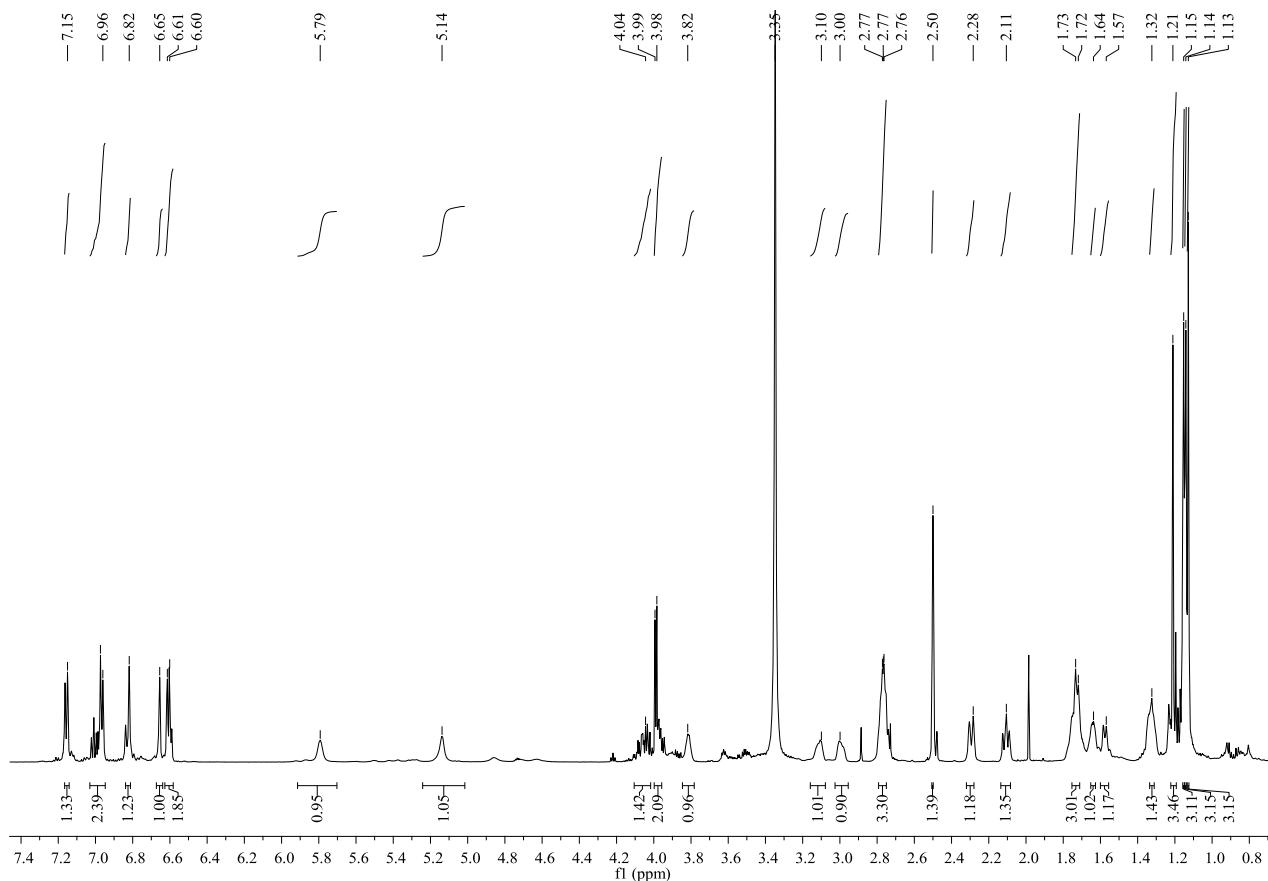


**Figure S57.** FTIR spectrum of the target compound (**3o**)

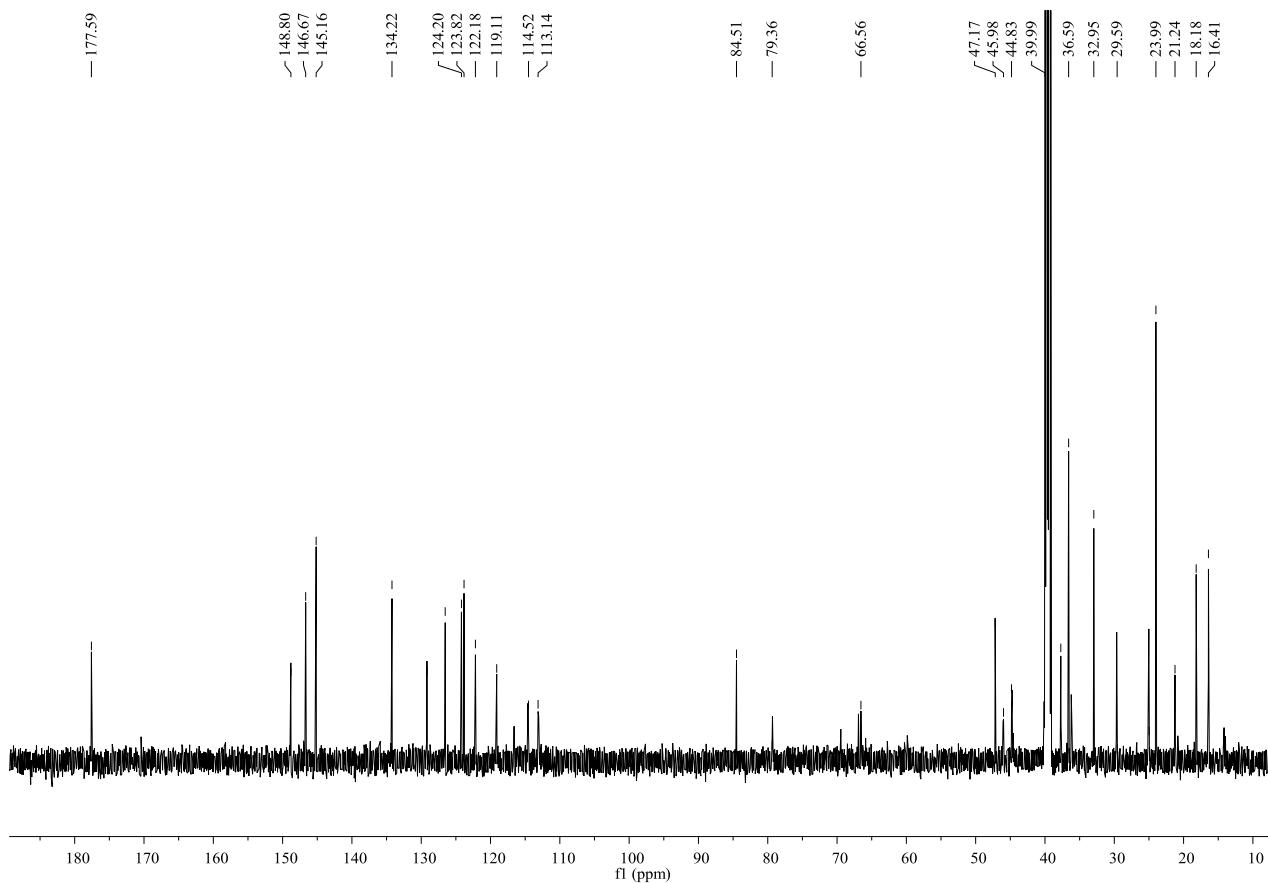
#1 RT: 0.00 AV: 1 NL: 6.66E6  
T: FTMS + p ESI Full ms [100.00-1000.00]



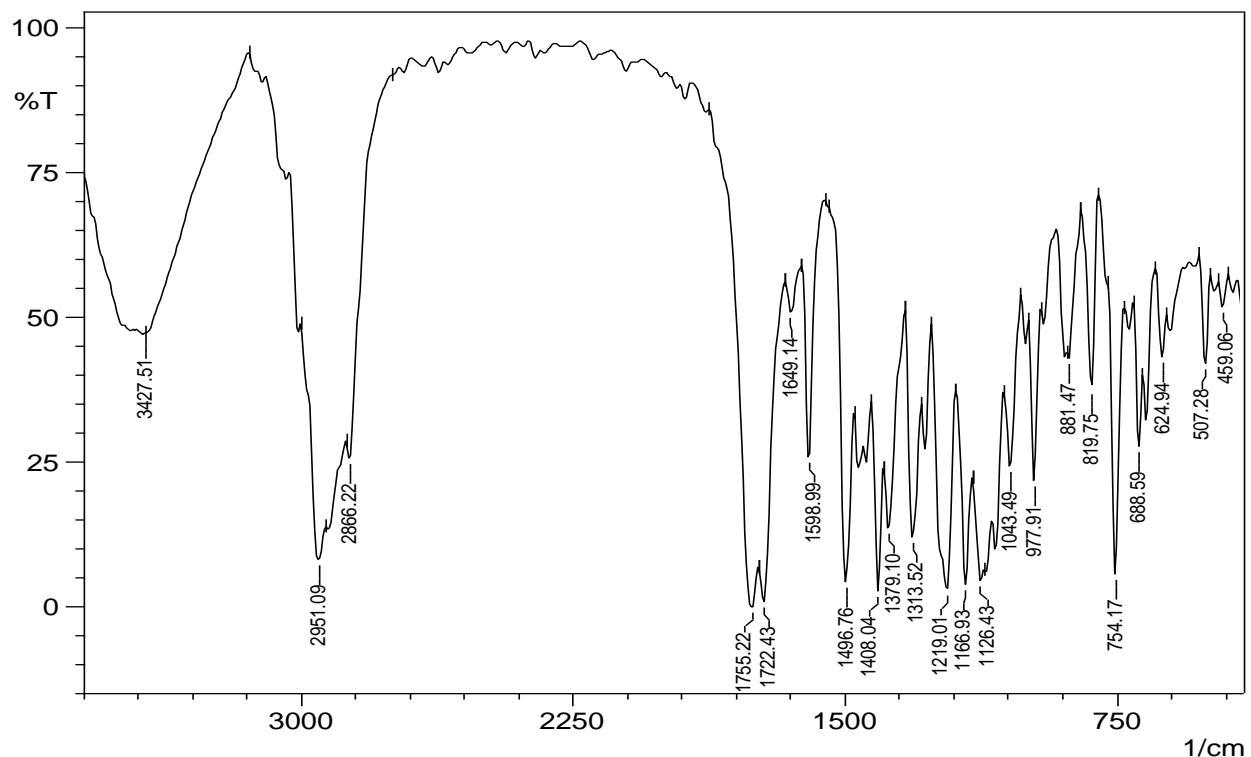
**Figure S58.** HRMS-ESI spectrum of the target compound (**3o**)



**Figure S59.**  $^1\text{H}$ -NMR spectrum of the target compound (**3o**) in DMSO

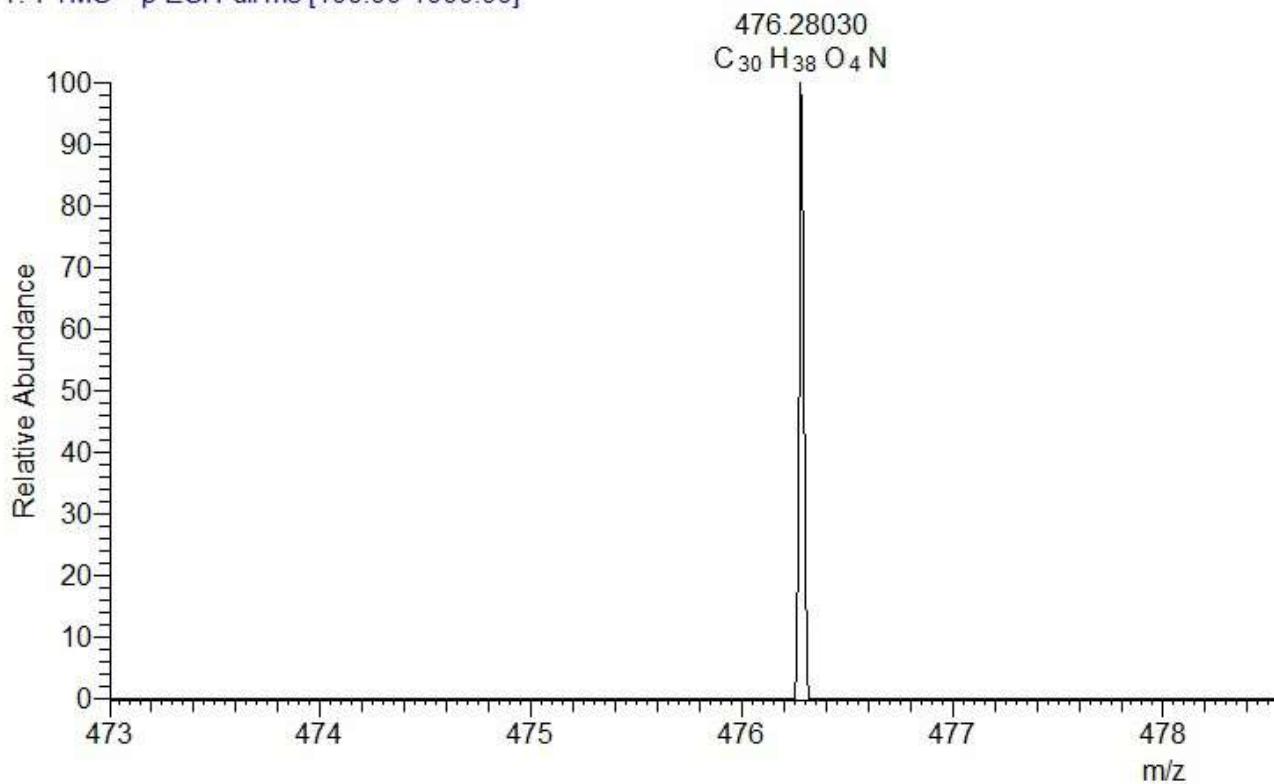


**Figure S60.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**3o**) in DMSO

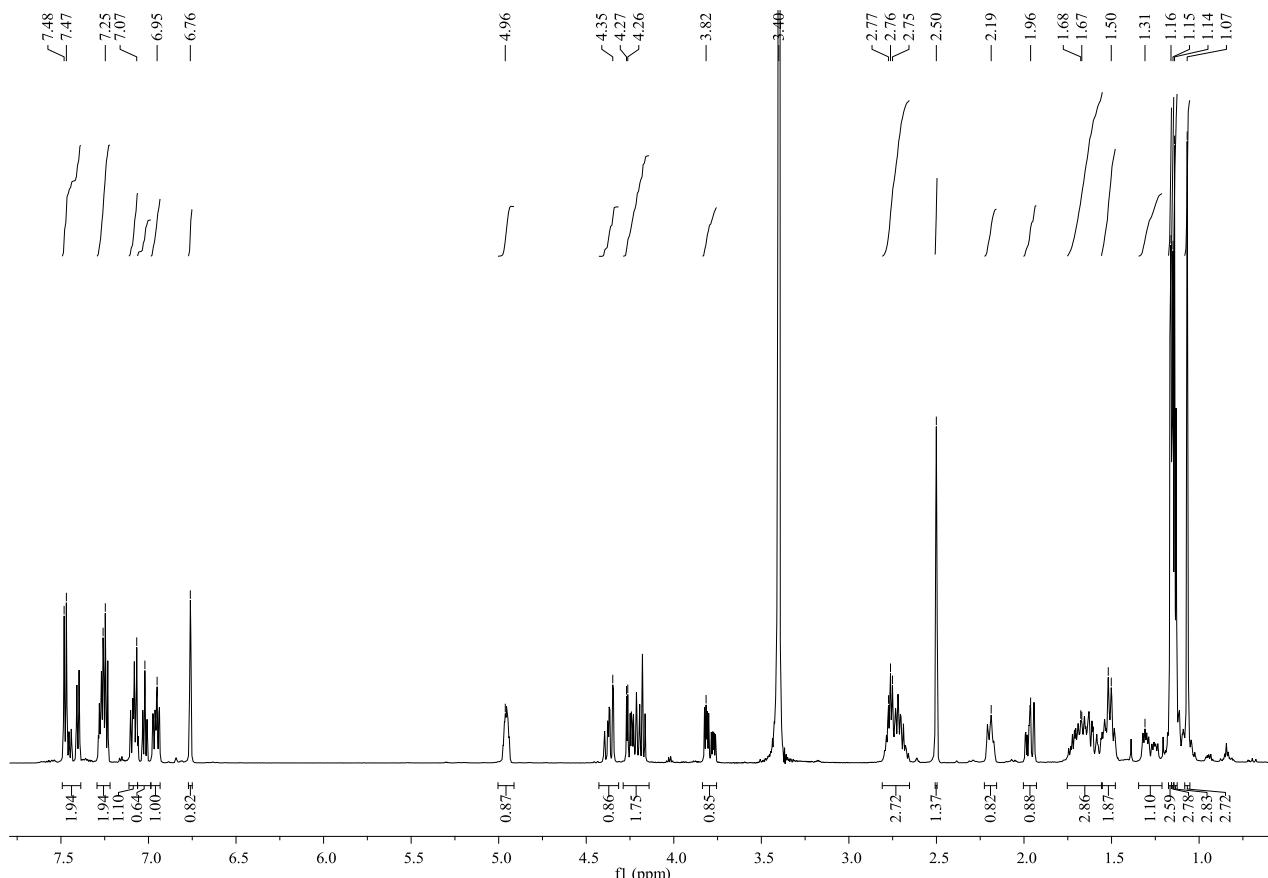


**Figure S61.** FTIR spectrum of the target compound (**4a**)

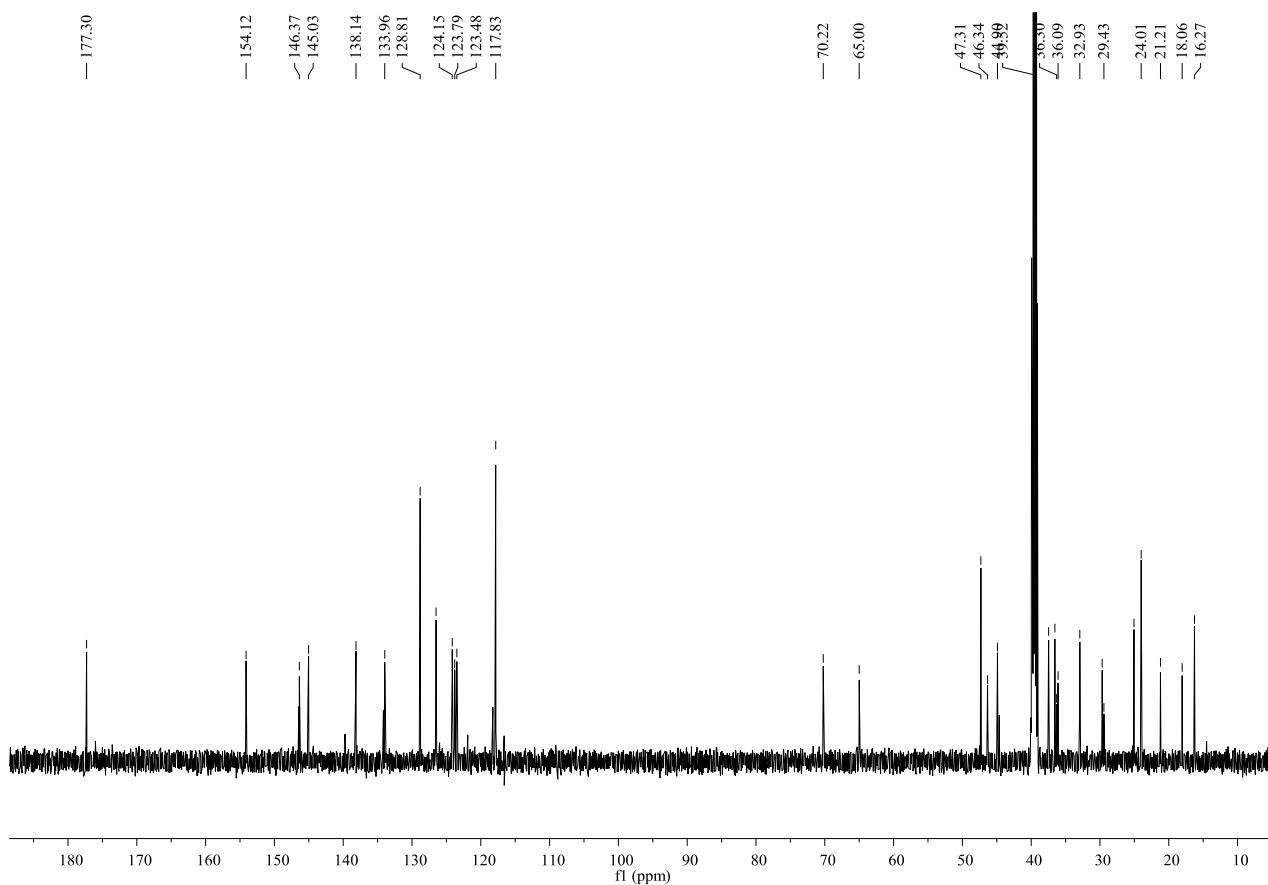
#1 RT: 0.00 AV: 1 NL: 8.95E3  
T: FTMS + p ESI Full ms [100.00-1000.00]



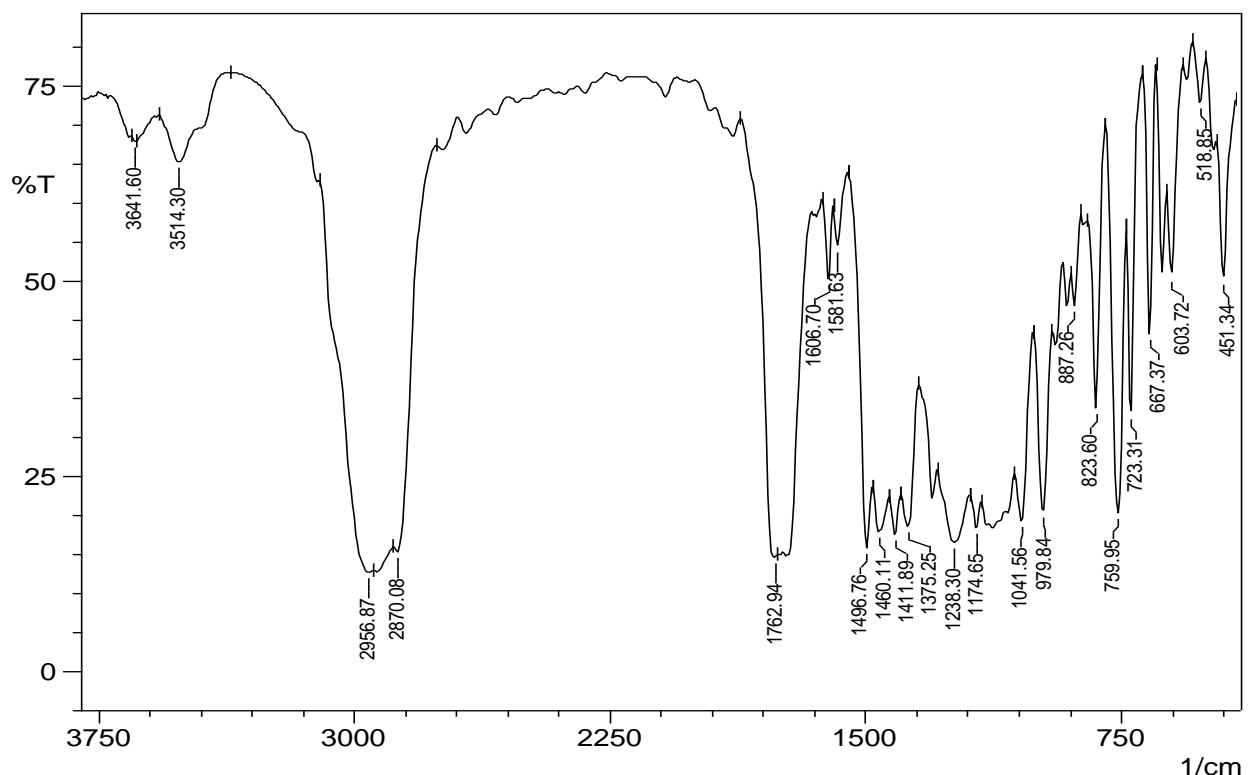
**Figure S62.** HRMS-ESI spectrum of the target compound (**4a**)



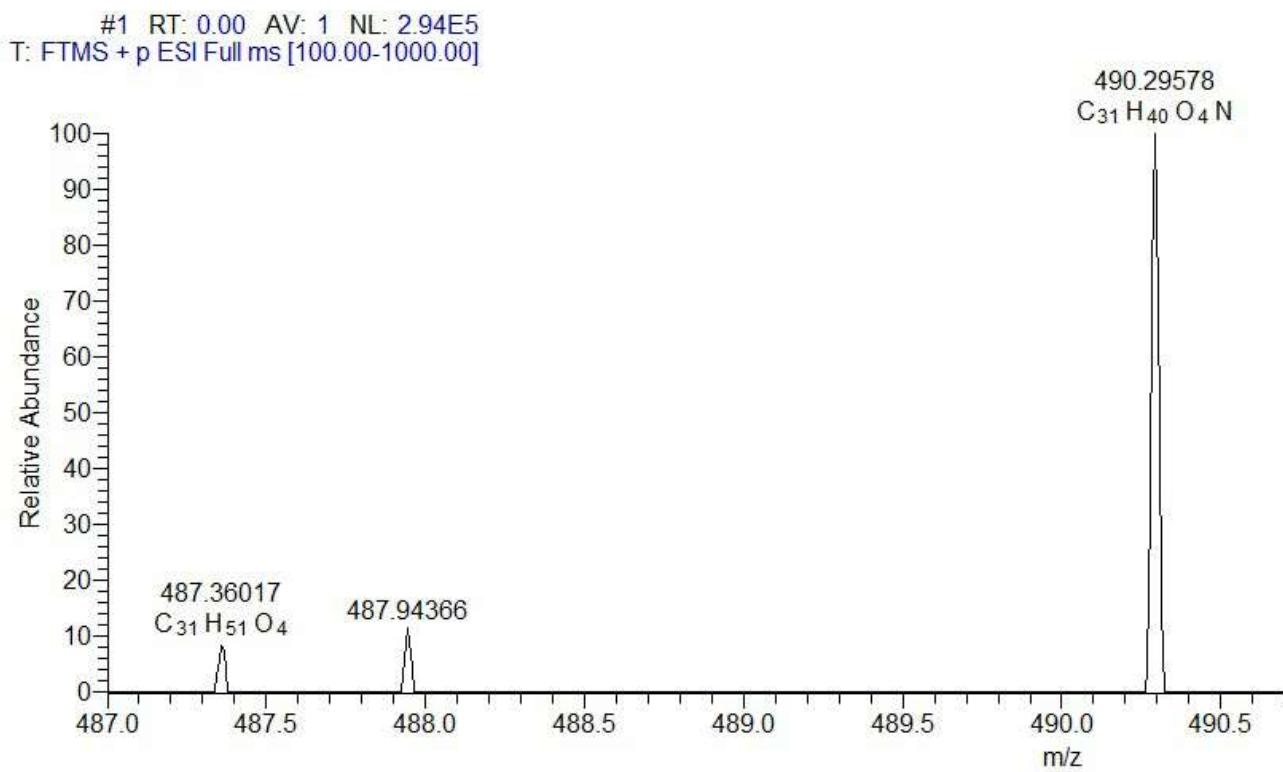
**Figure S63.**  $^1\text{H}$ -NMR spectrum of the target compound (**4a**) in DMSO



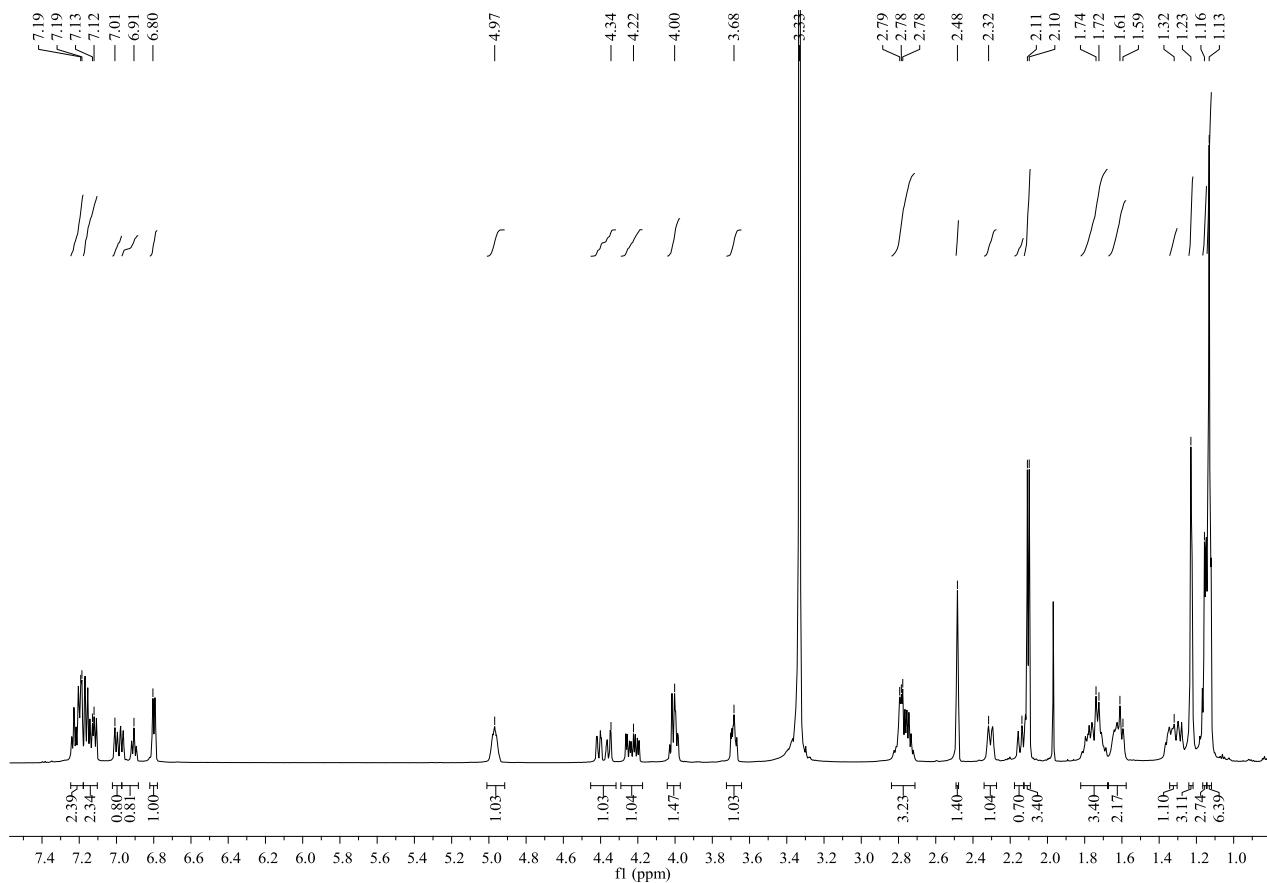
**Figure S64.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4a**) in DMSO



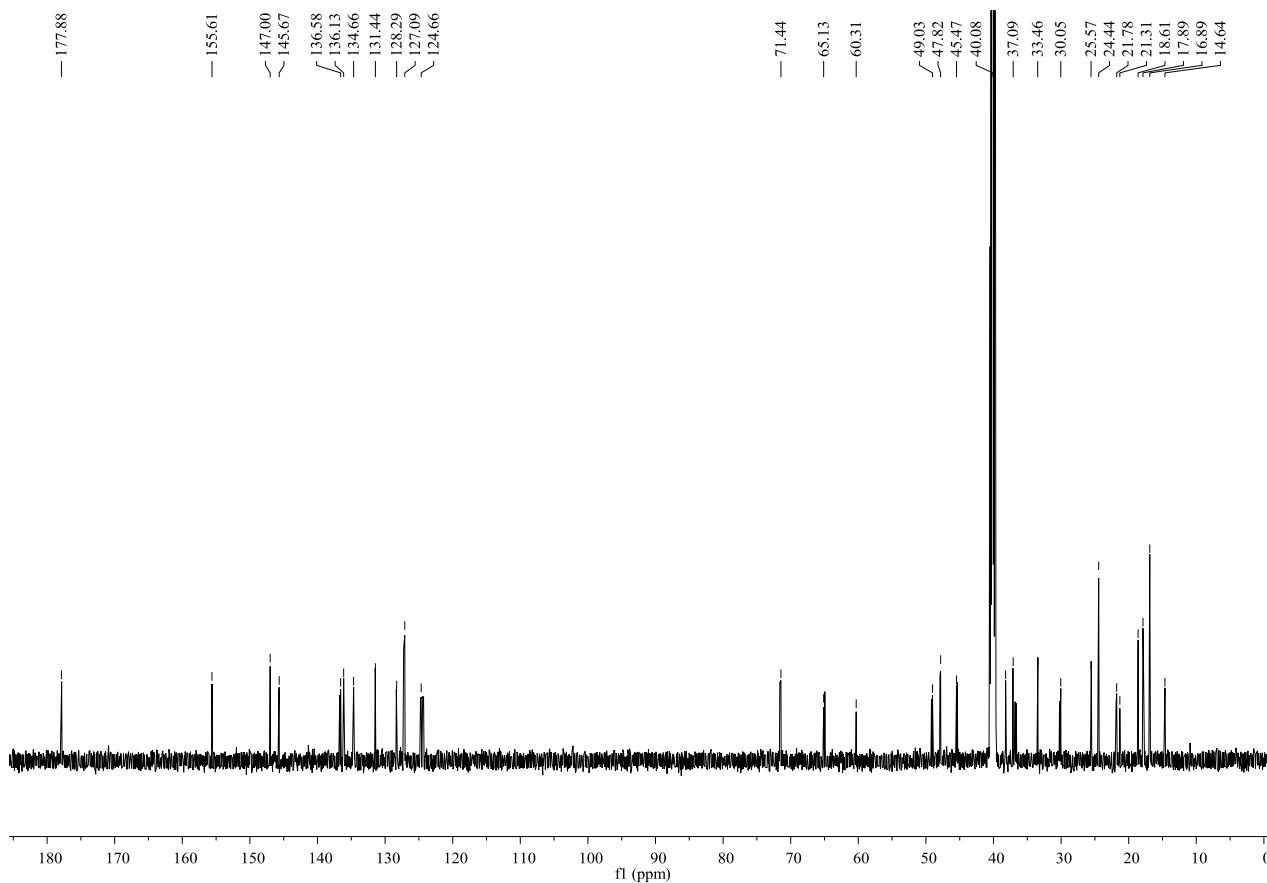
**Figure S65.** FTIR spectrum of the target compound (**4b**)



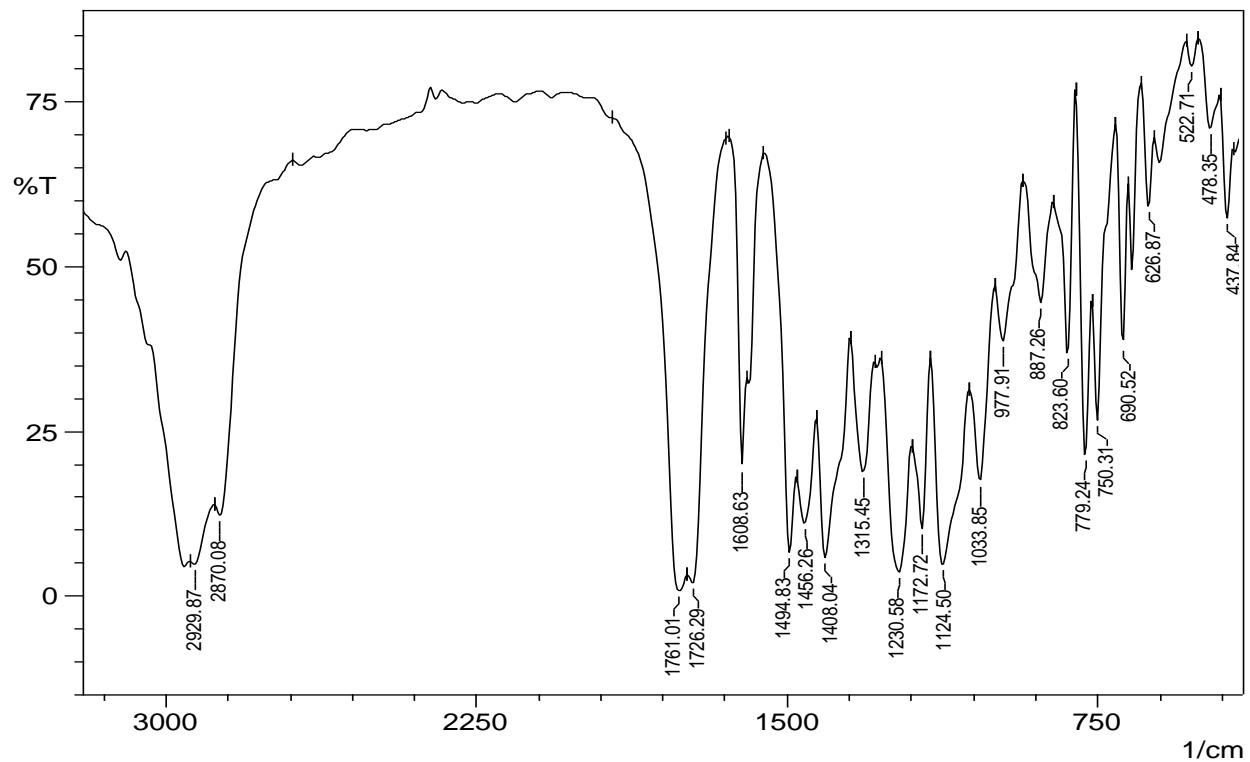
**Figure S66.** HRMS-ESI spectrum of the target compound (**4b**)



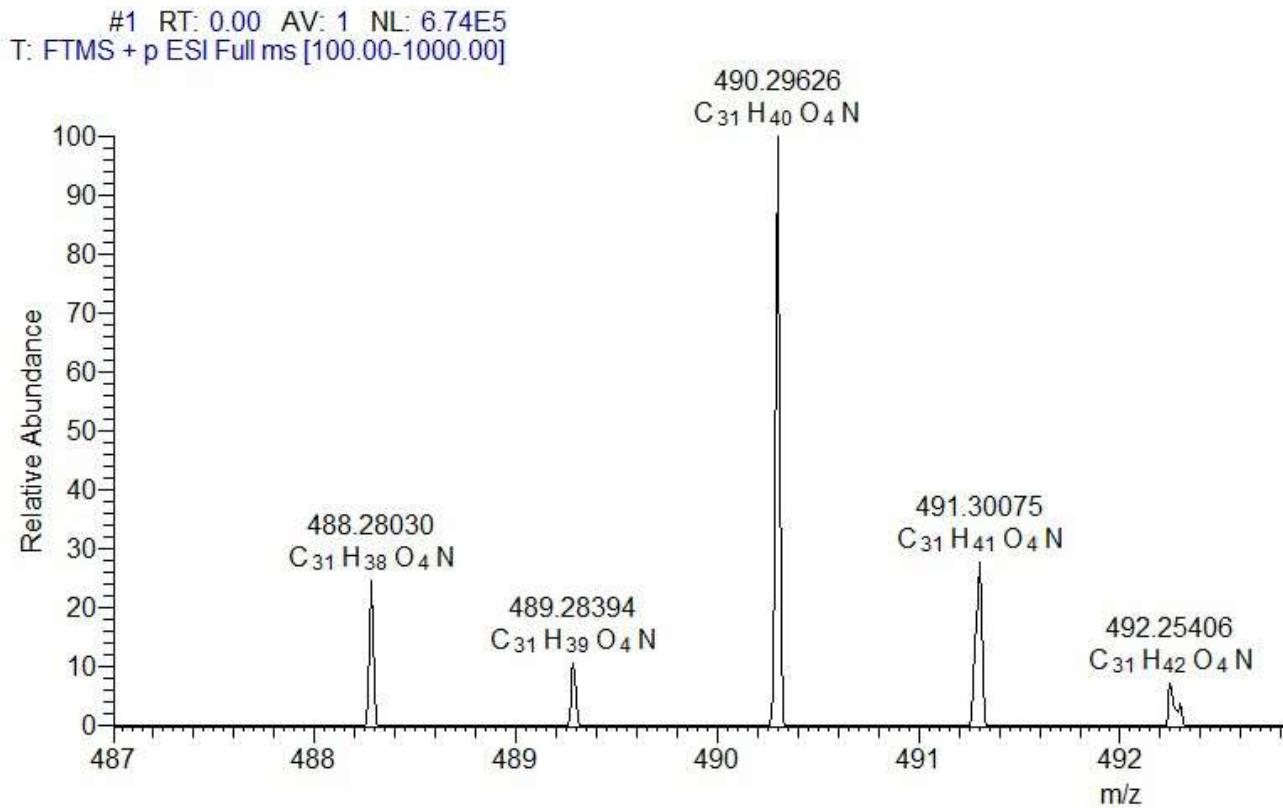
**Figure S67.**  $^1\text{H}$ -NMR spectrum of the target compound (**4b**) in DMSO



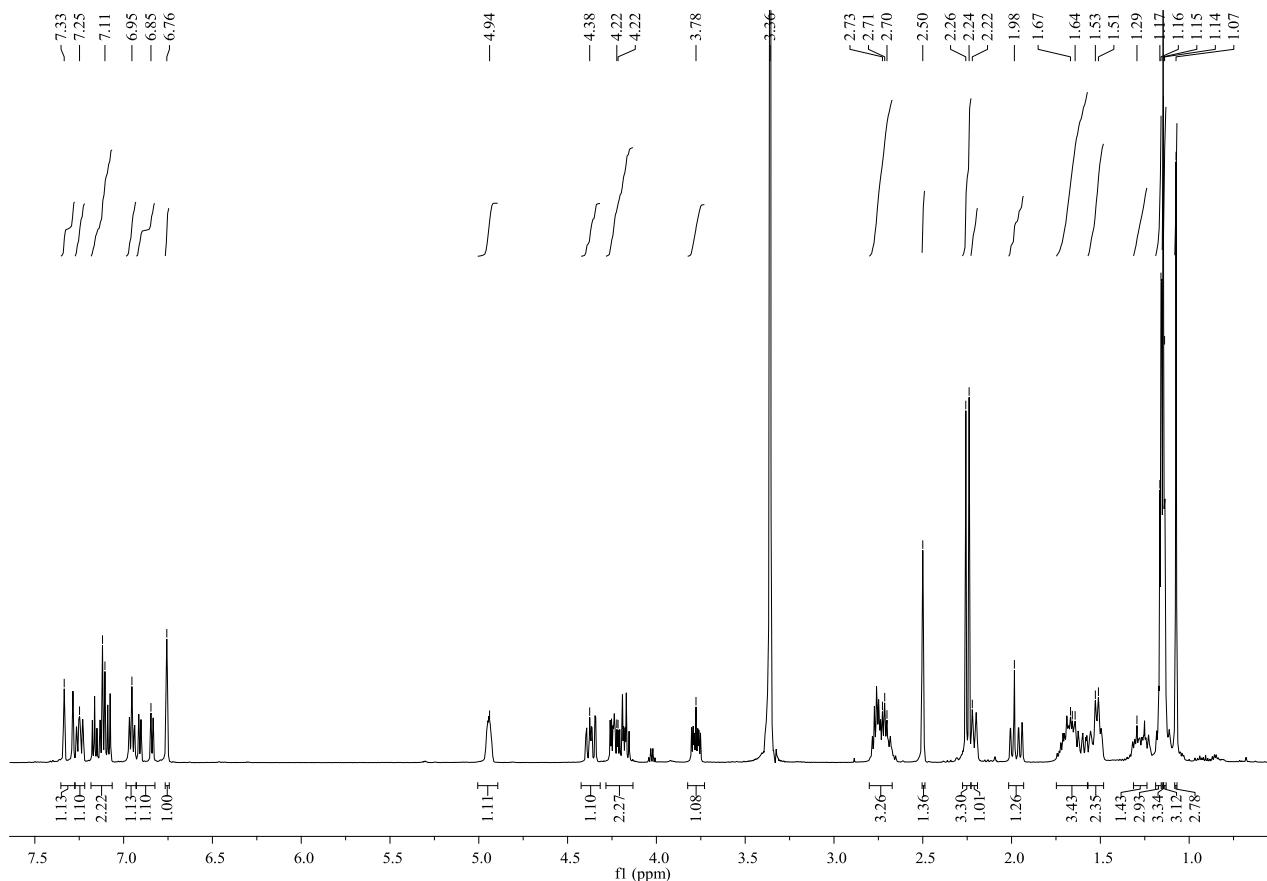
**Figure S68.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4b**) in DMSO



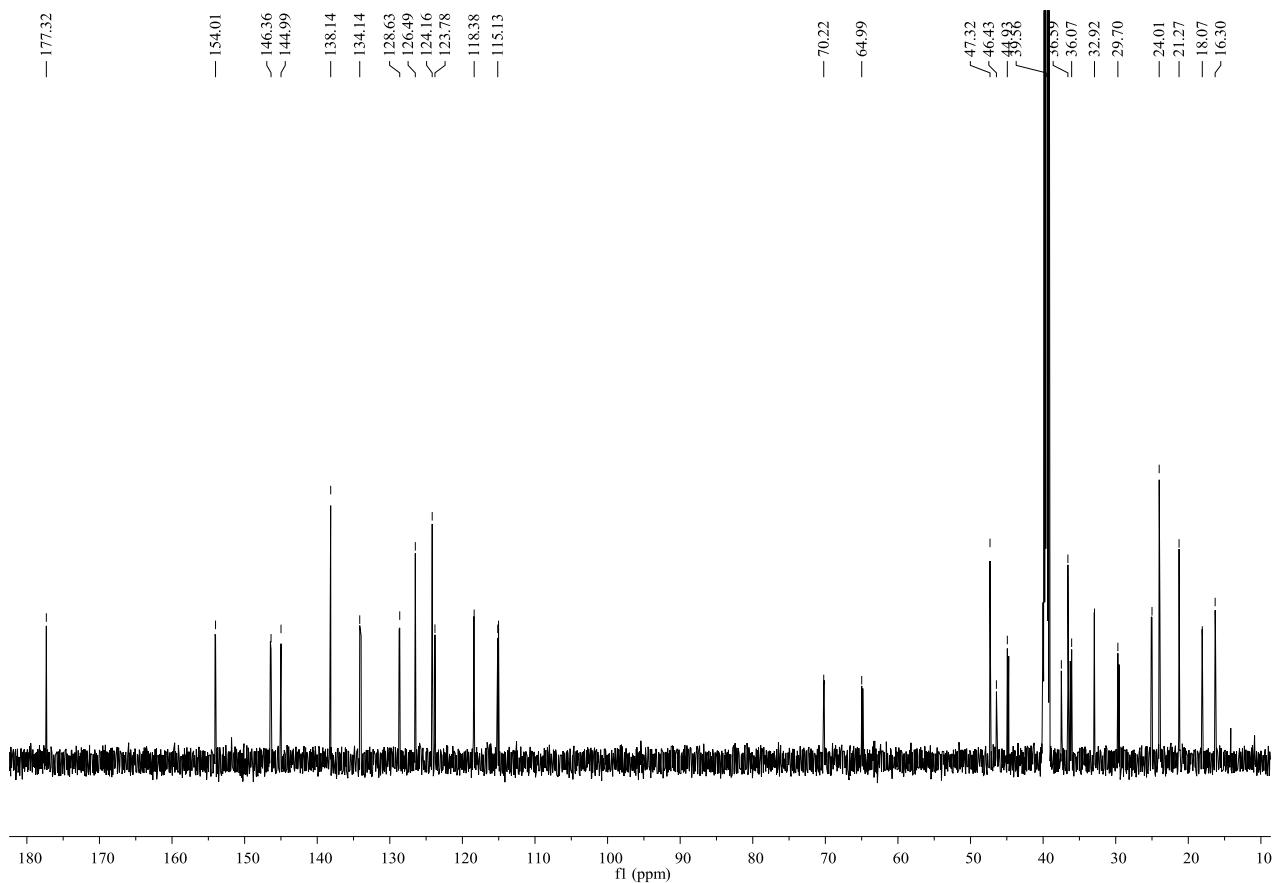
**Figure S69.** FTIR spectrum of the target compound (**4c**)



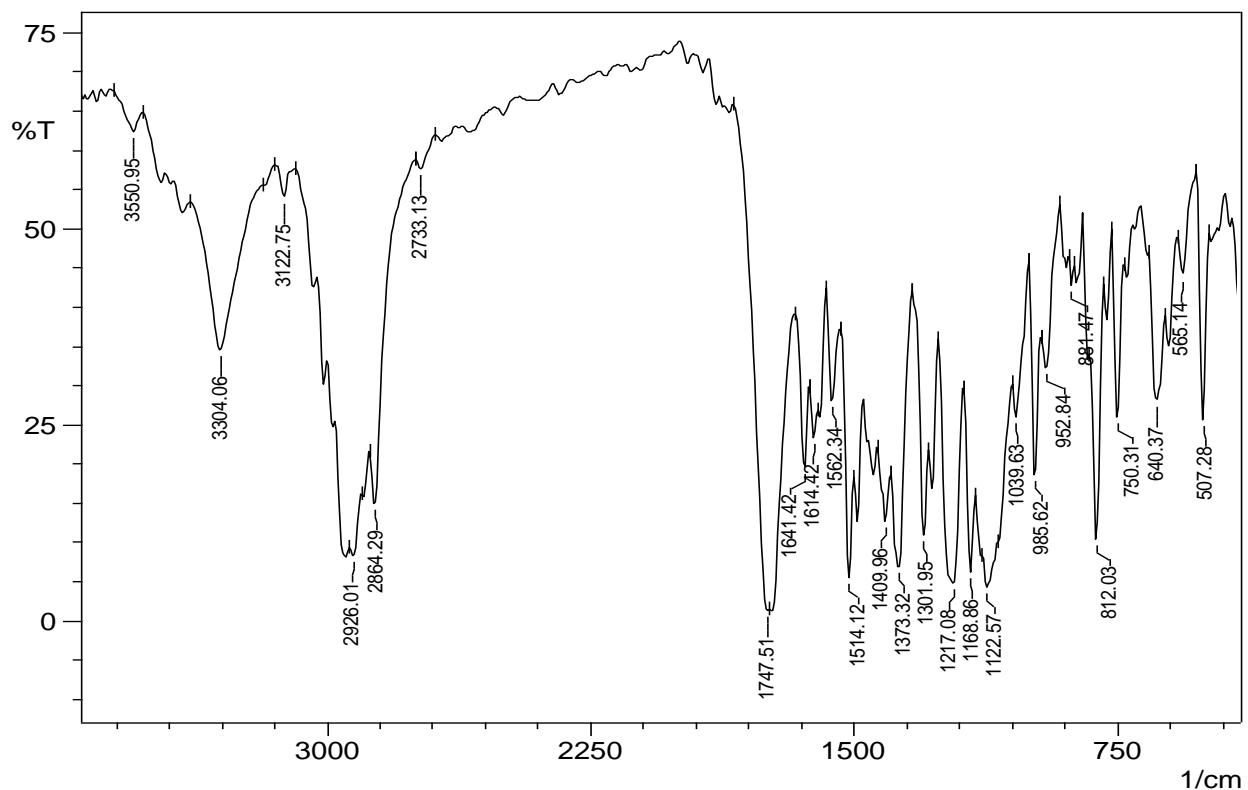
**Figure S70.** HRMS-ESI spectrum of the target compound (**4c**)



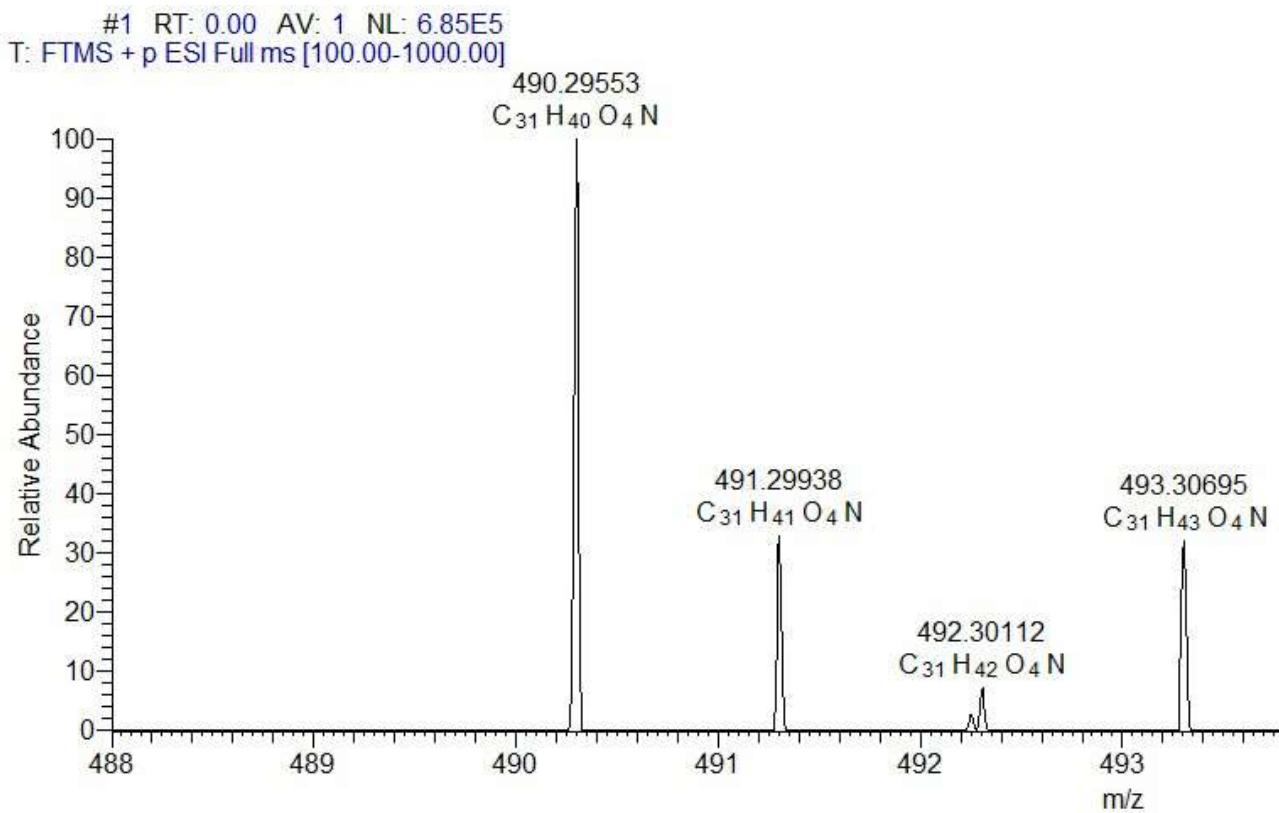
**Figure S71.**  $^1\text{H}$ -NMR spectrum of the target compound (**4c**) in DMSO



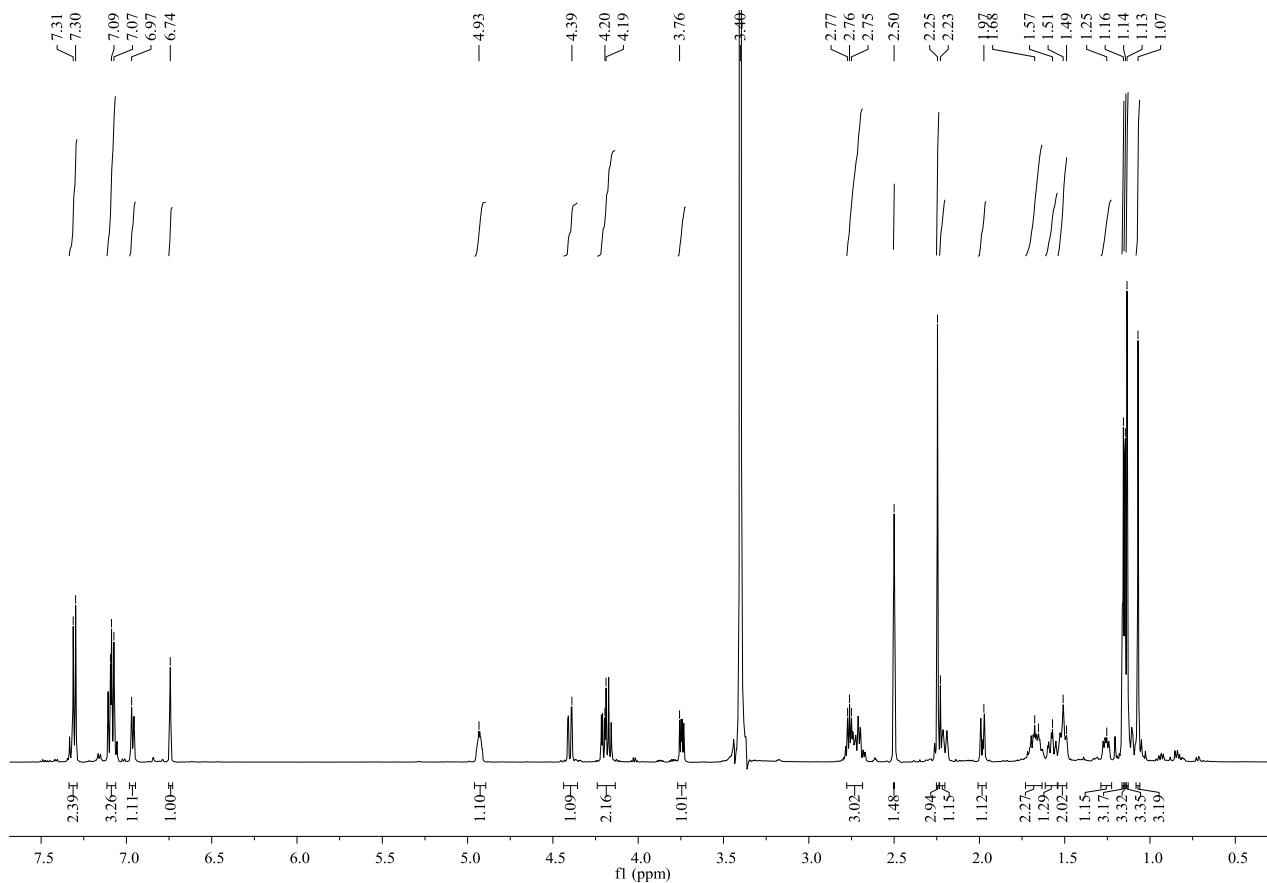
**Figure S72.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4c**) in DMSO



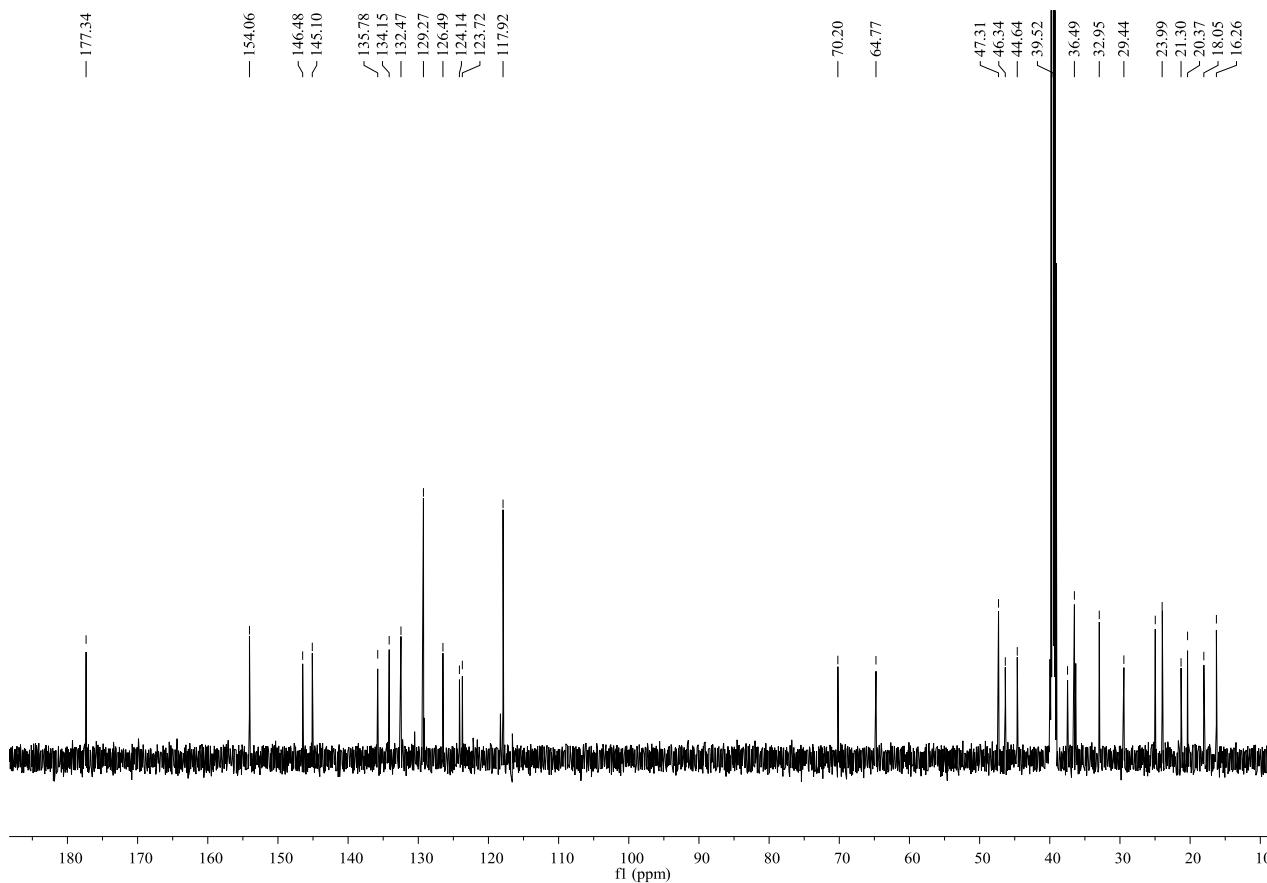
**Figure S73.** FTIR spectrum of the target compound (**4d**)



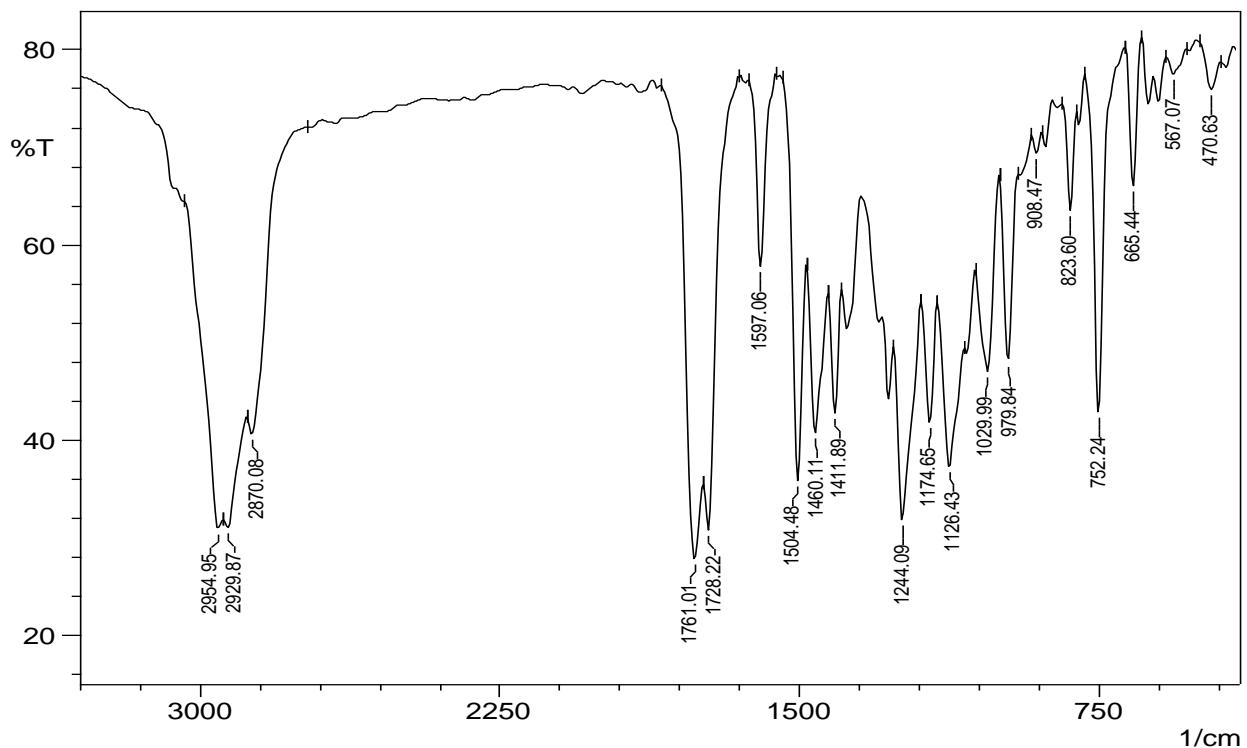
**Figure S74.** HRMS-ESI spectrum of the target compound (**4d**)



**Figure S75.**  $^1\text{H}$ -NMR spectrum of the target compound (**4d**) in DMSO

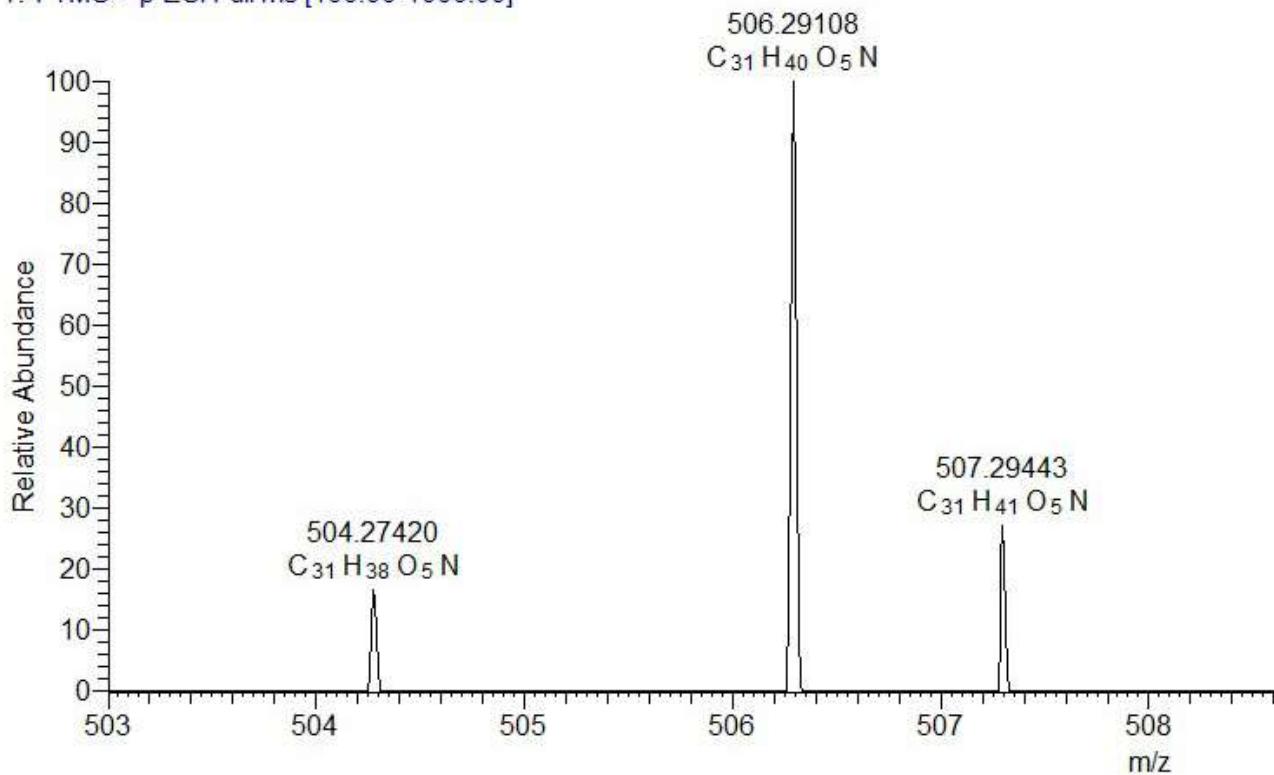


**Figure S76.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4d**) in DMSO

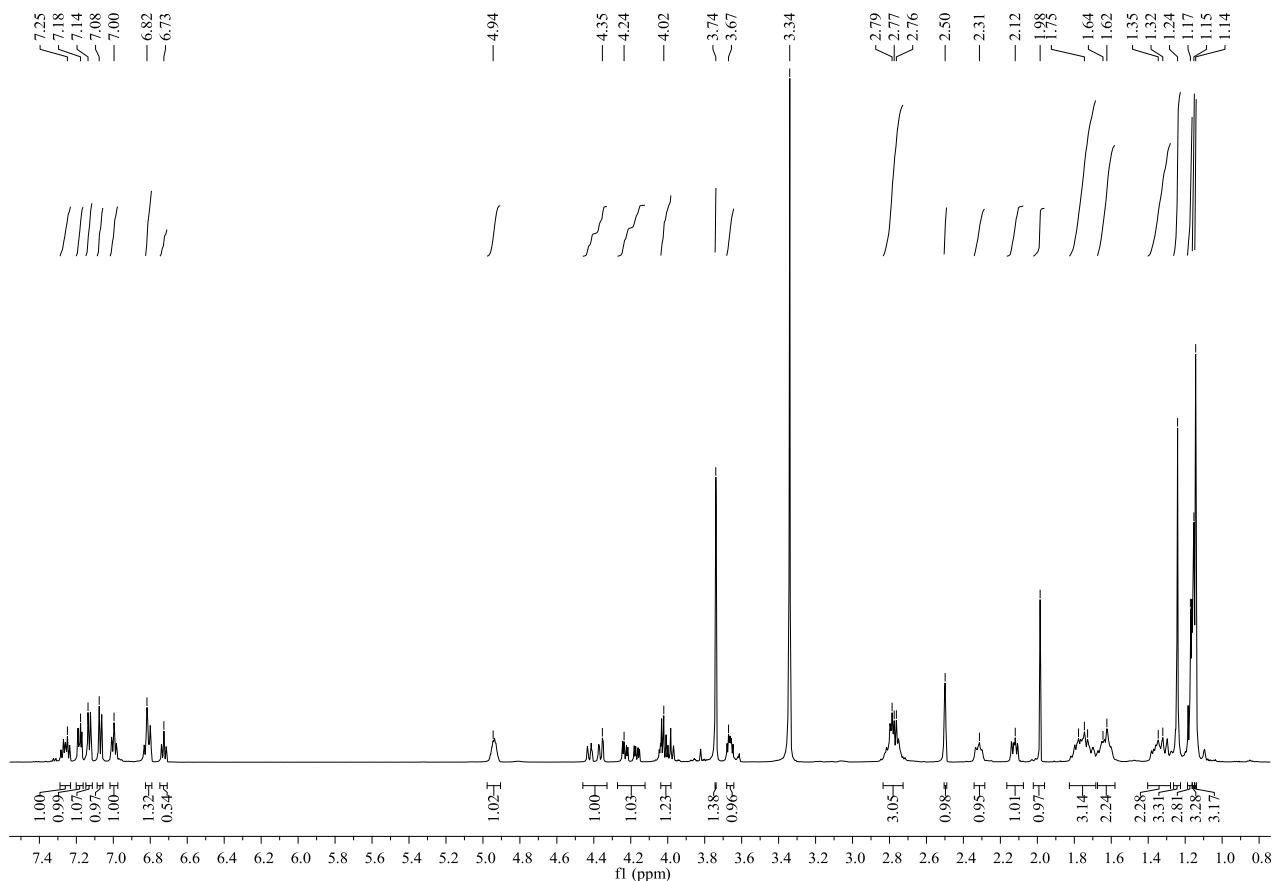


**Figure S77.** FTIR spectrum of the target compound (**4e**)

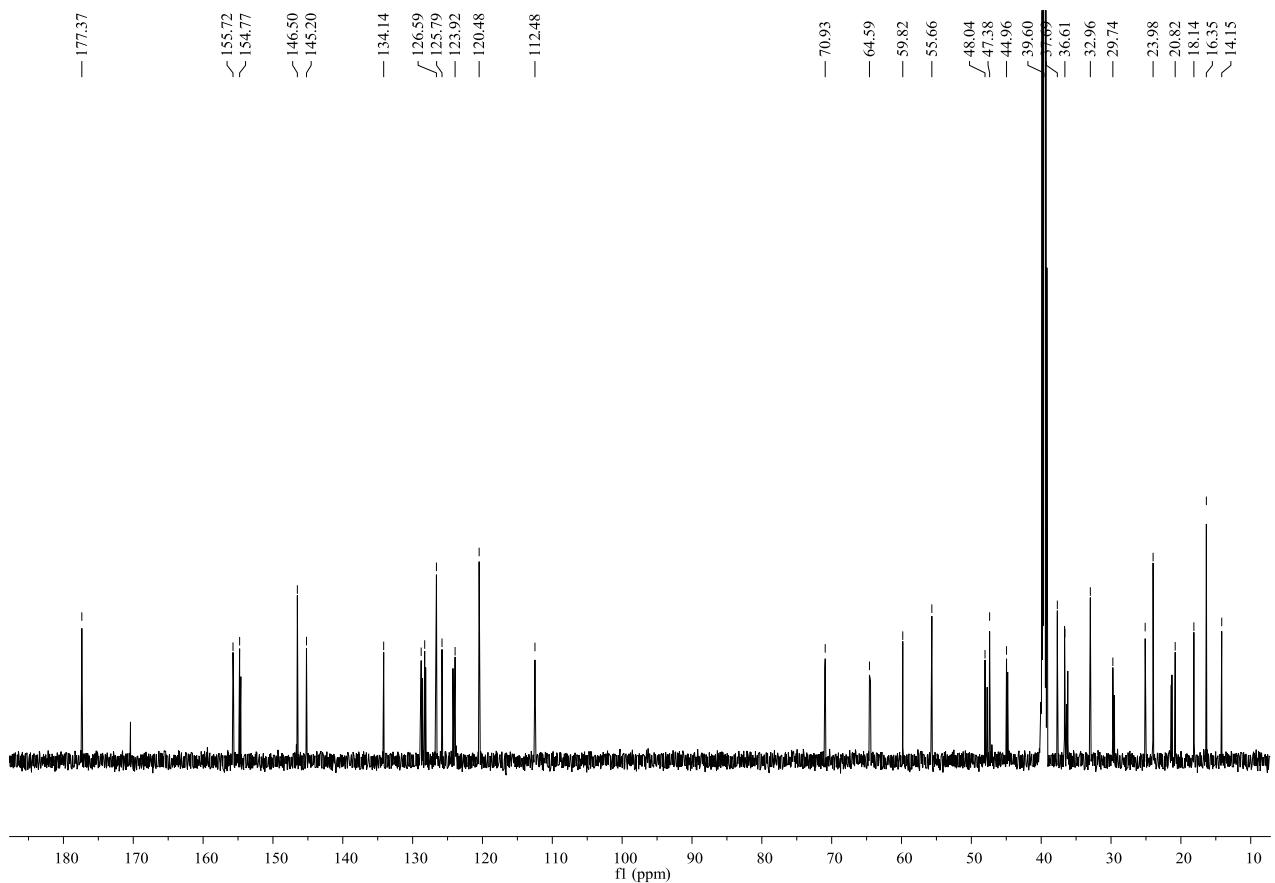
#1 RT: 0.00 AV: 1 NL: 4.15E5  
T: FTMS + p ESI Full ms [100.00-1000.00]



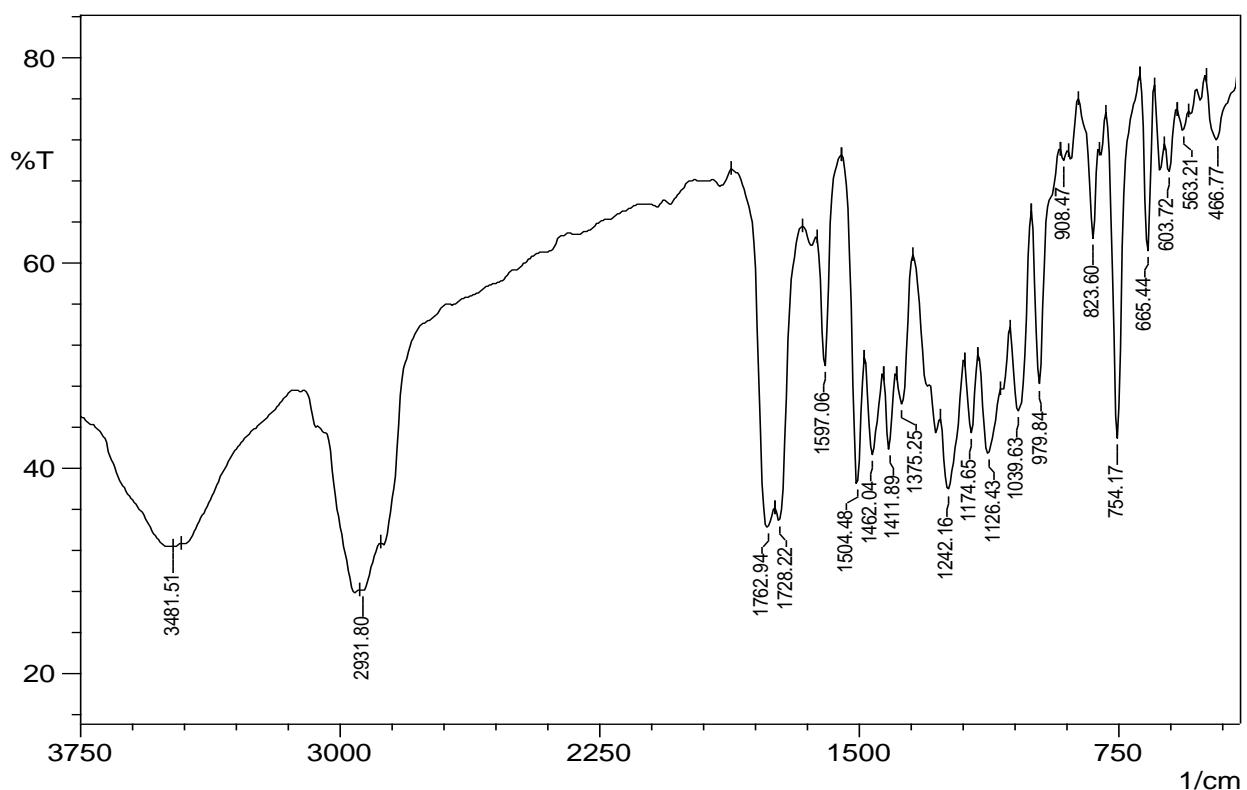
**Figure S78.** HRMS-ESI spectrum of the target compound (**4e**)



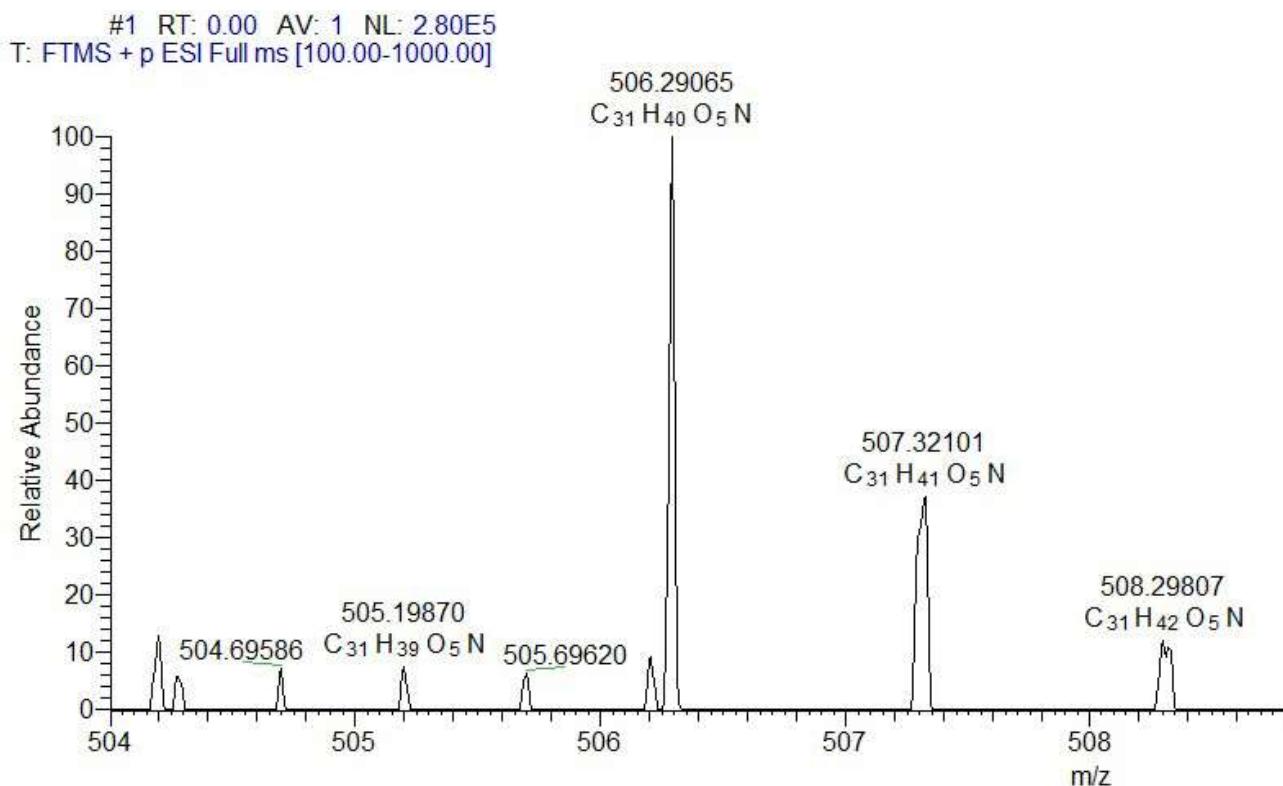
**Figure S79.**  $^1\text{H}$ -NMR spectrum of the target compound (**4e**) in DMSO



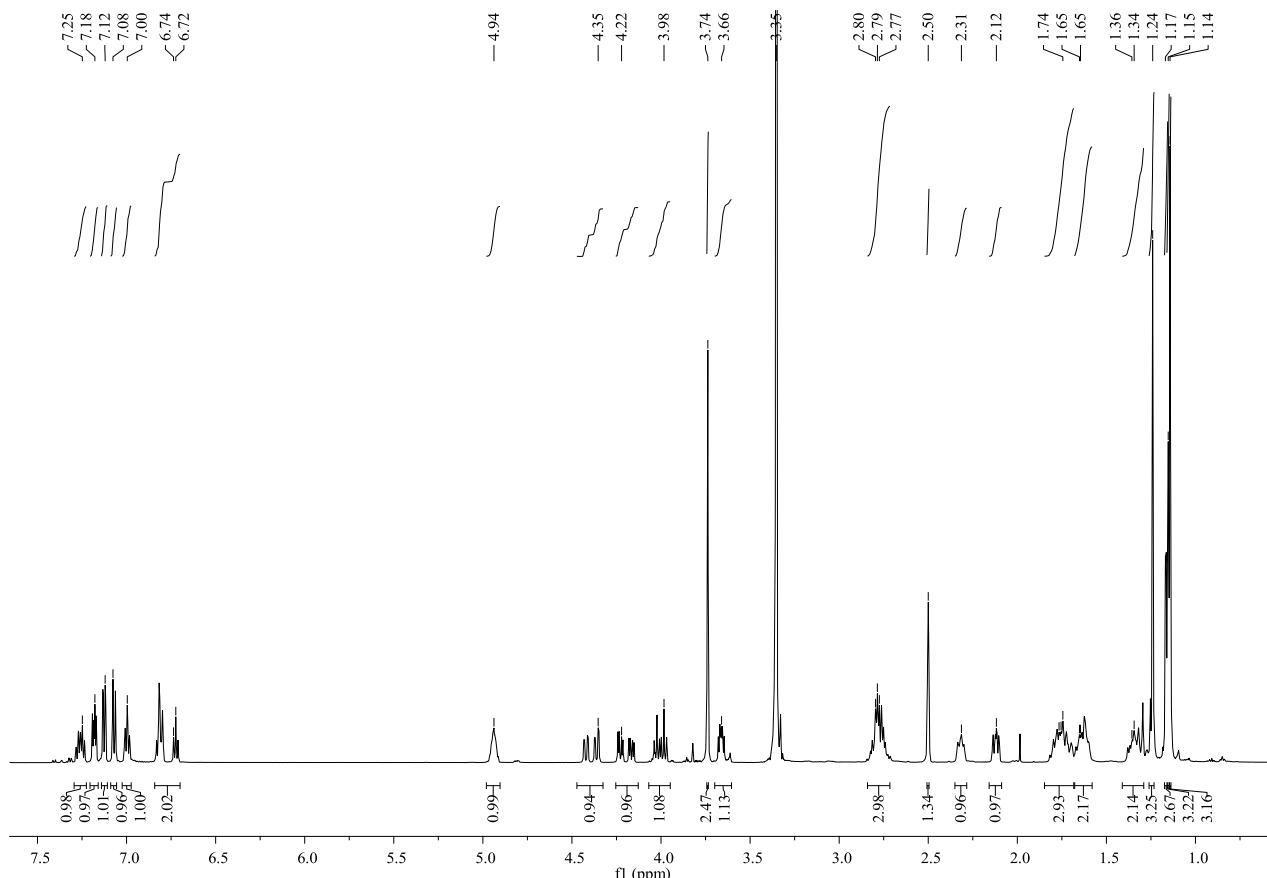
**Figure S80.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4e**) in DMSO



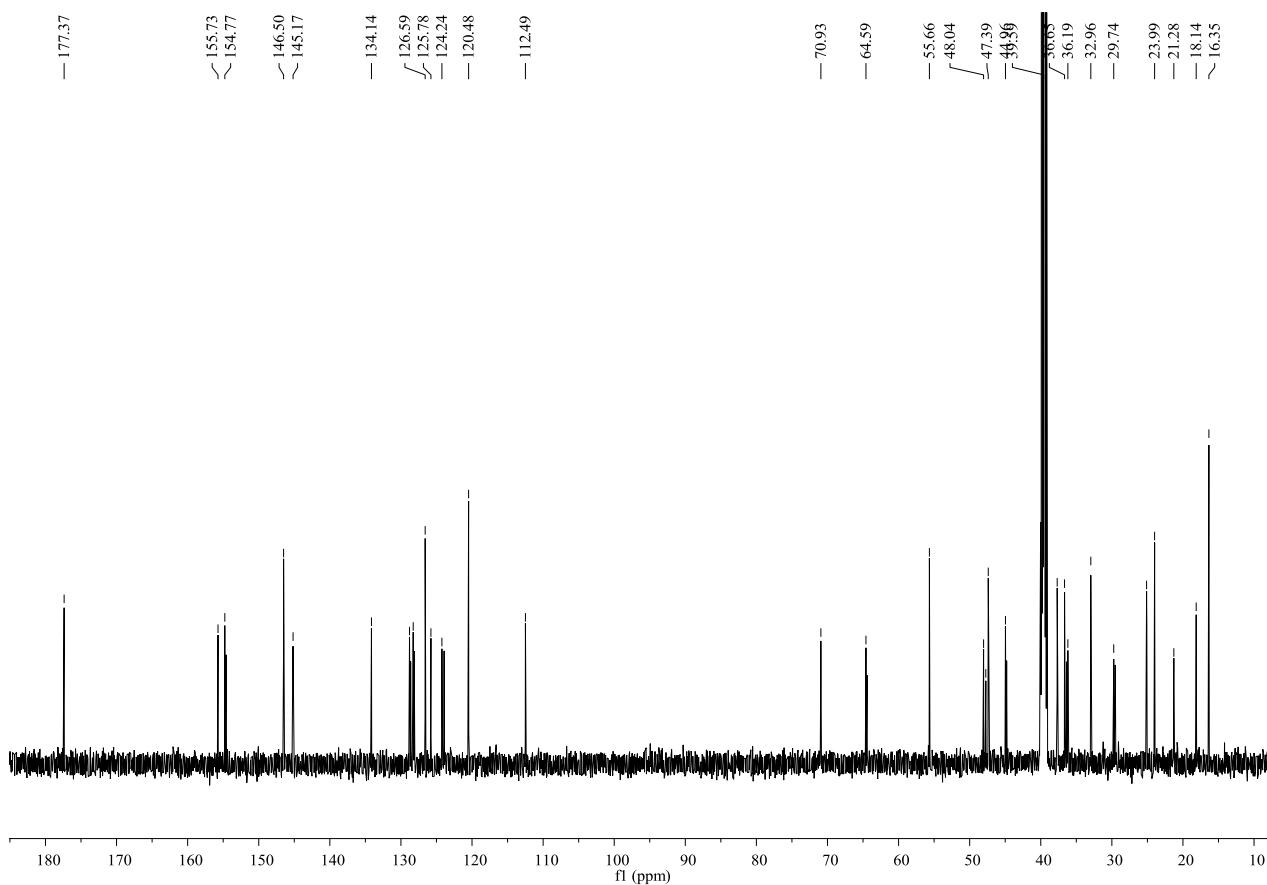
**Figure S81.** FTIR spectrum of the target compound (**4f**)



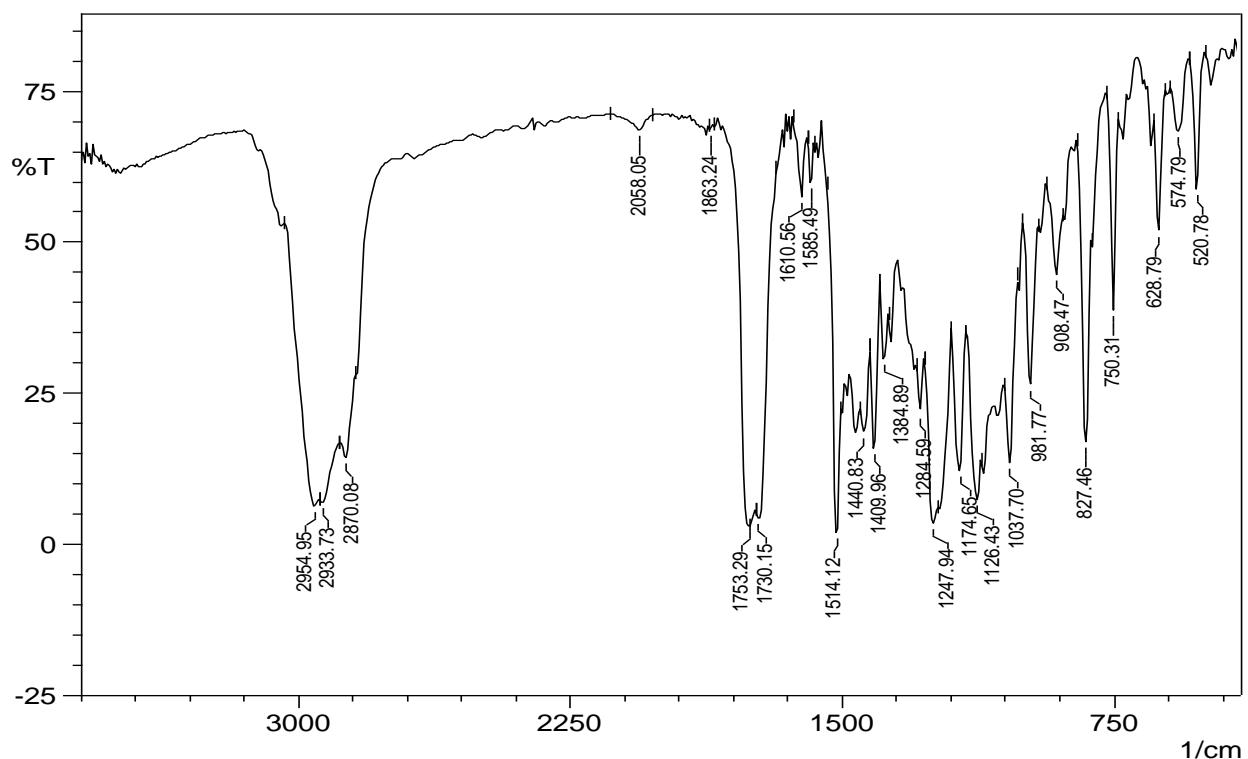
**Figure S82.** HRMS-ESI spectrum of the target compound (**4f**)



**Figure S83.**  $^1\text{H}$ -NMR spectrum of the target compound (**4f**) in DMSO

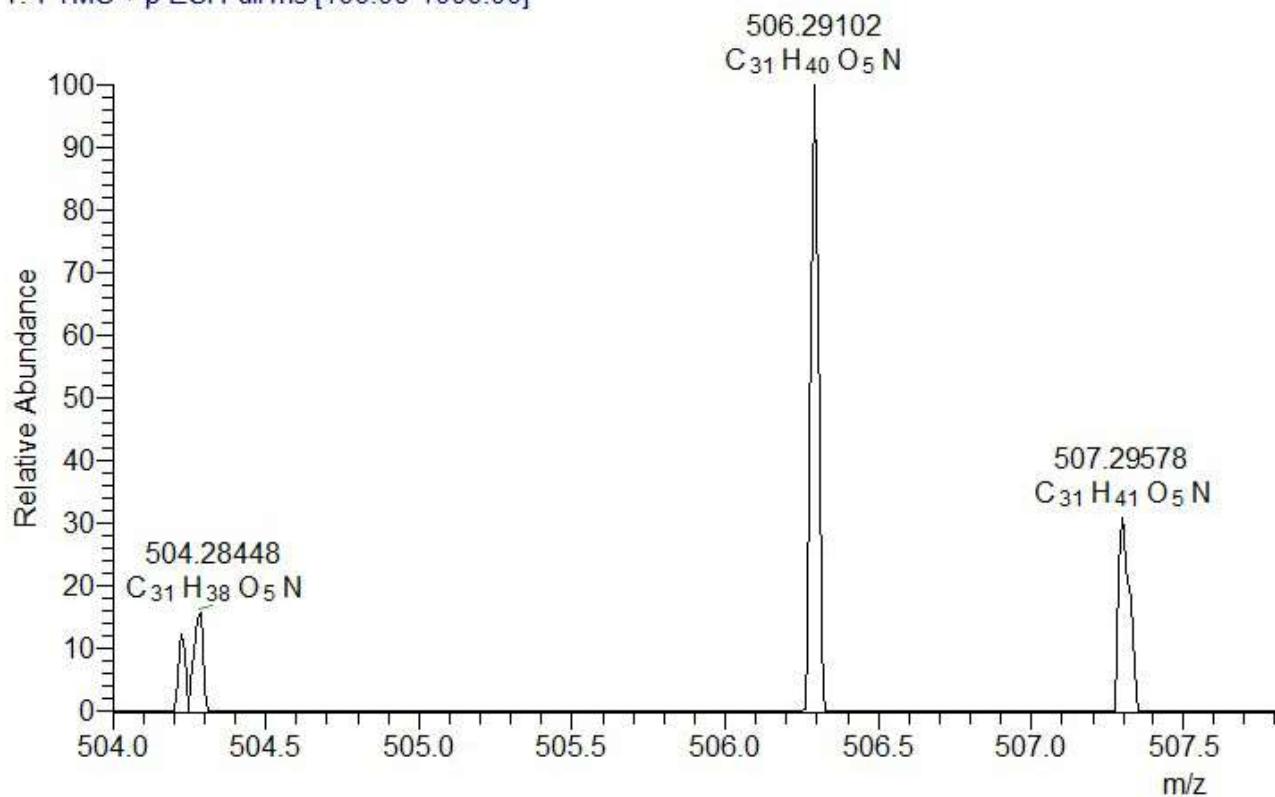


**Figure S84.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4f**) in DMSO

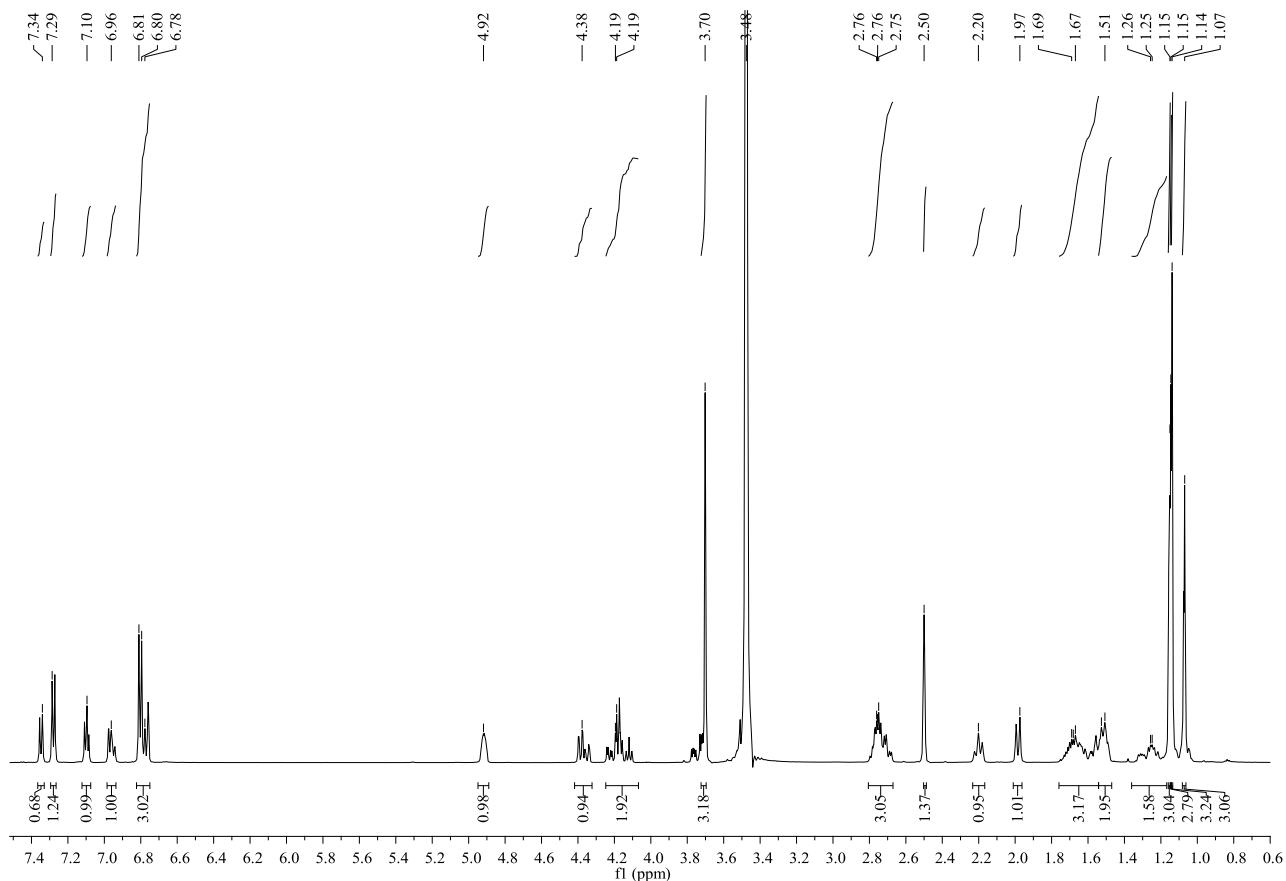


**Figure S85.** FTIR spectrum of the target compound (**4g**)

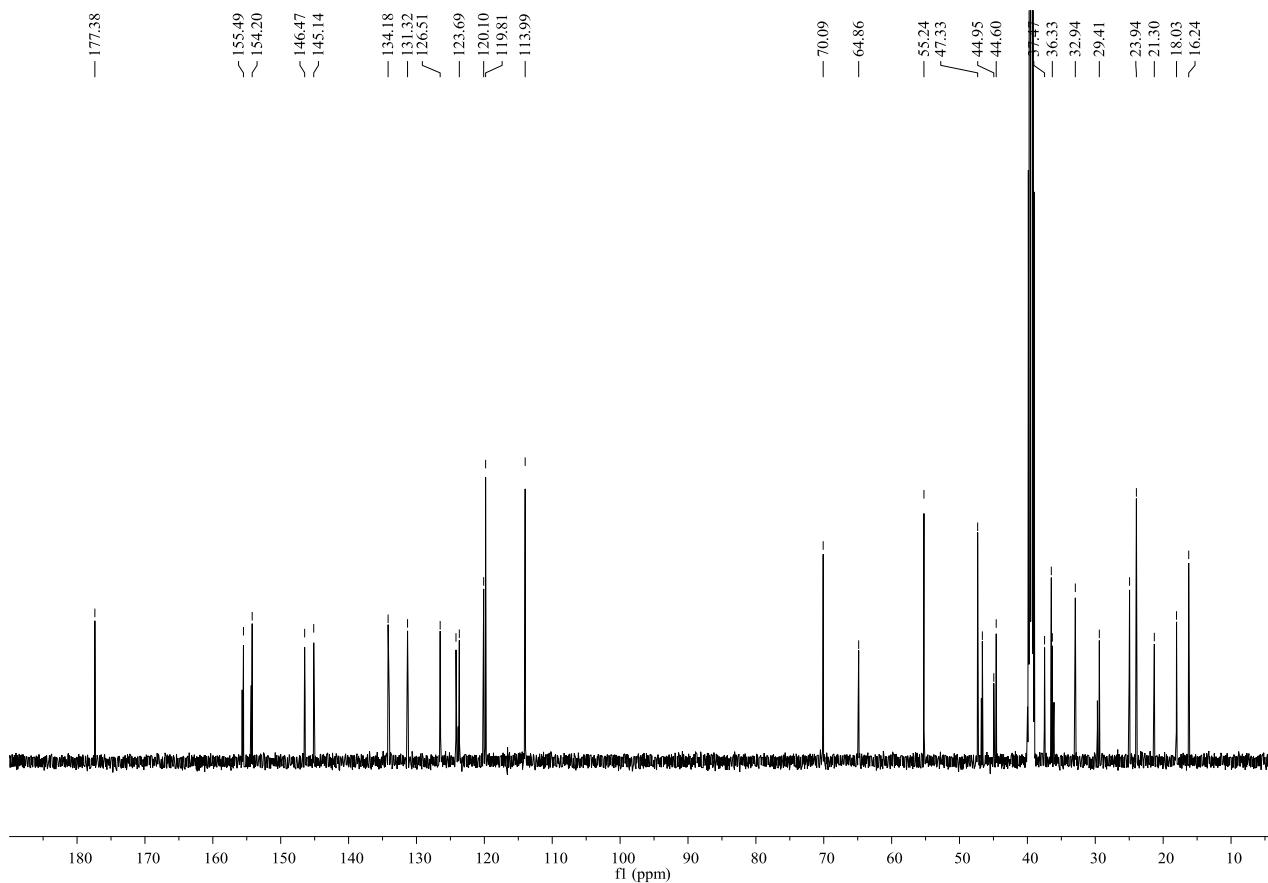
#1 RT: 0.00 AV: 1 NL: 2.81E5  
T: FTMS + p ESI Full ms [100.00-1000.00]



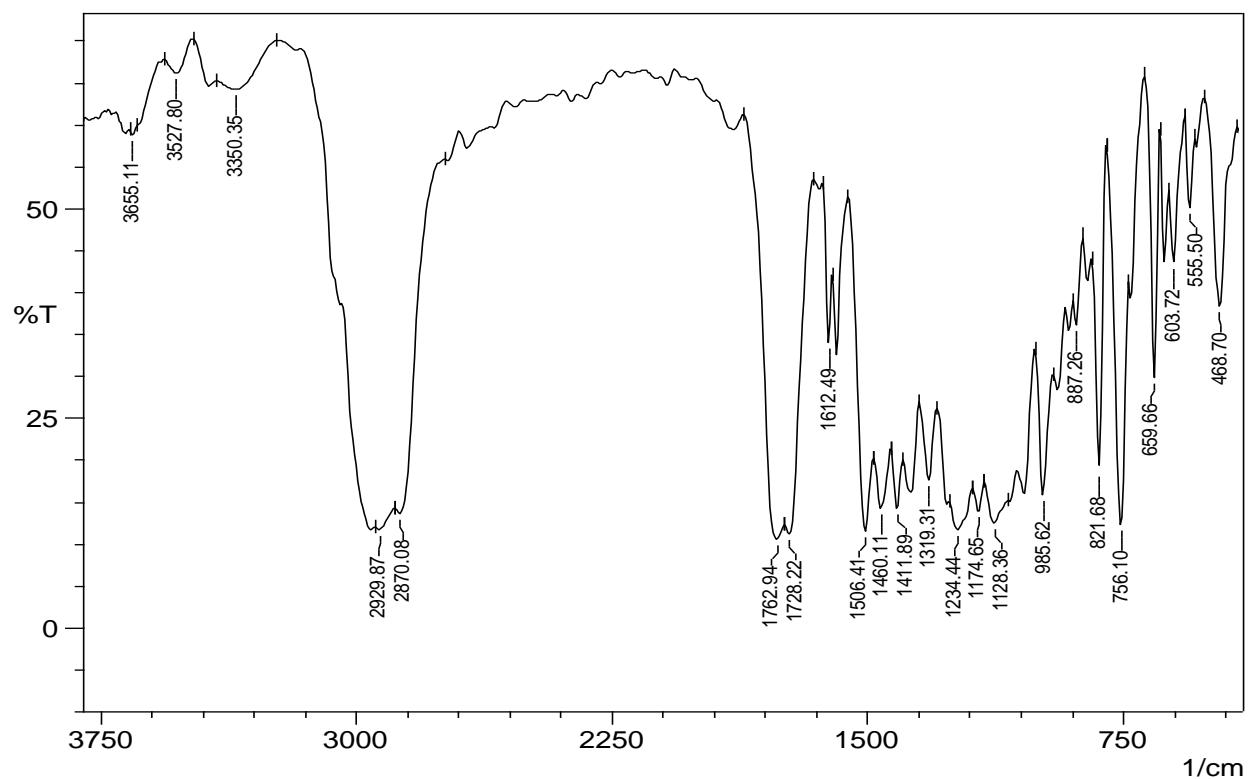
**Figure S86.** HRMS-ESI spectrum of the target compound (**4g**)



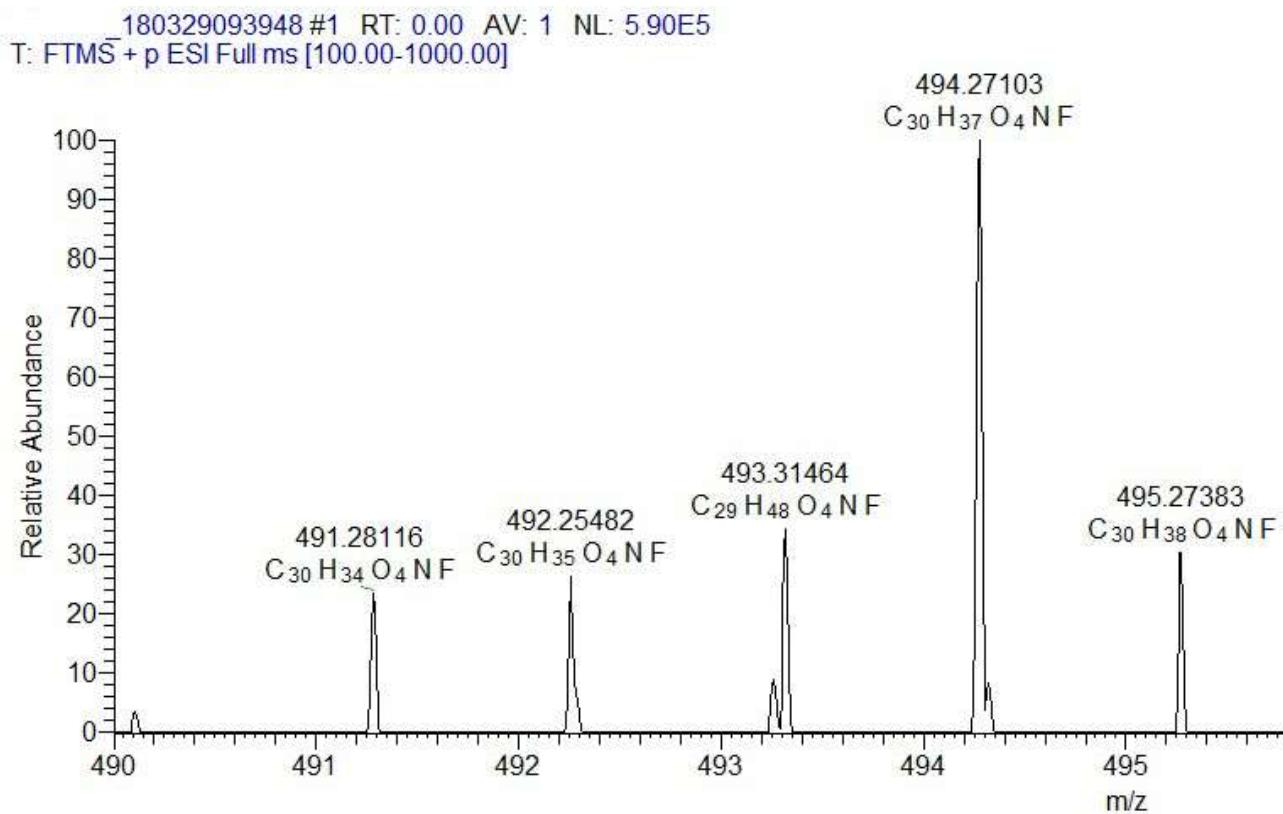
**Figure S87.**  $^1\text{H}$ -NMR spectrum of the target compound (**4g**) in DMSO



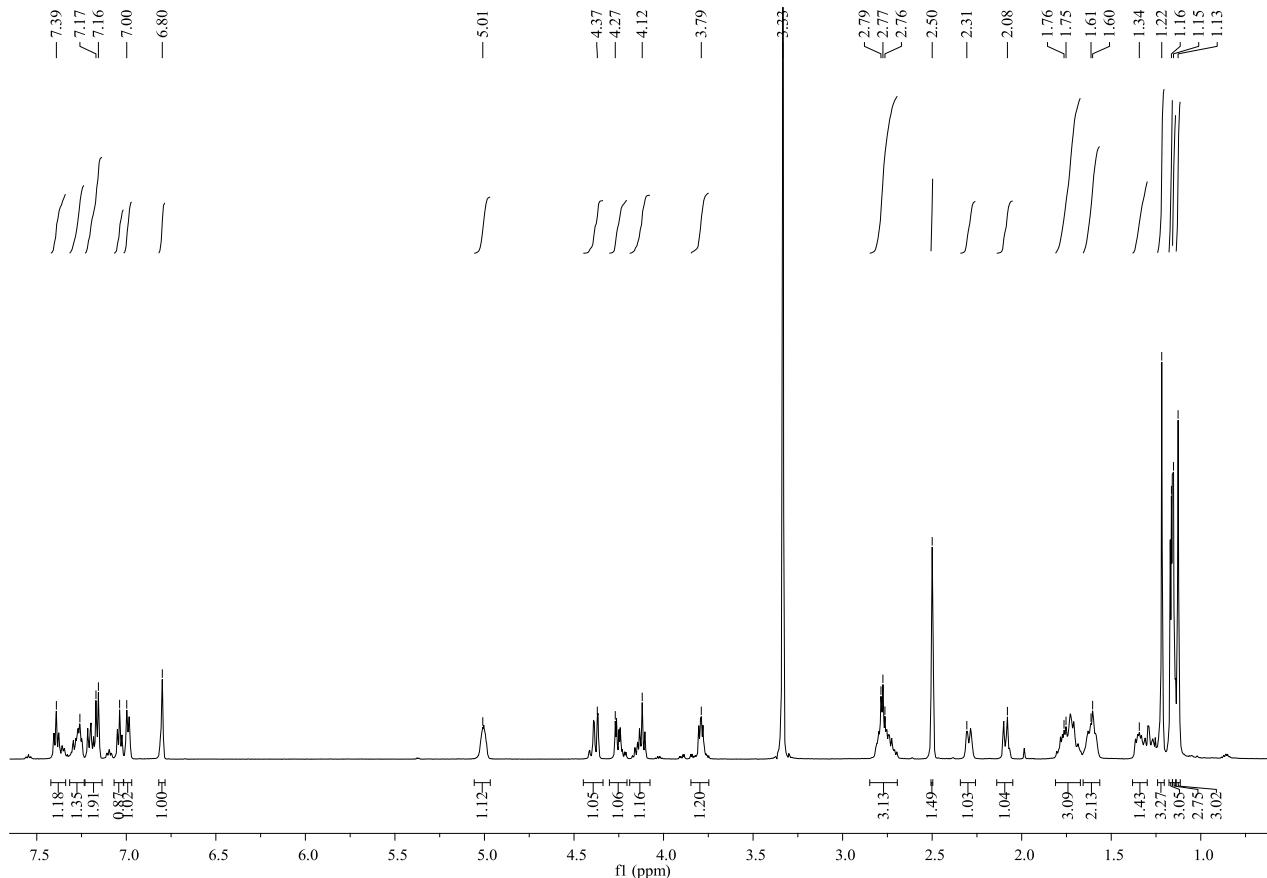
**Figure S88.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4g**) in DMSO



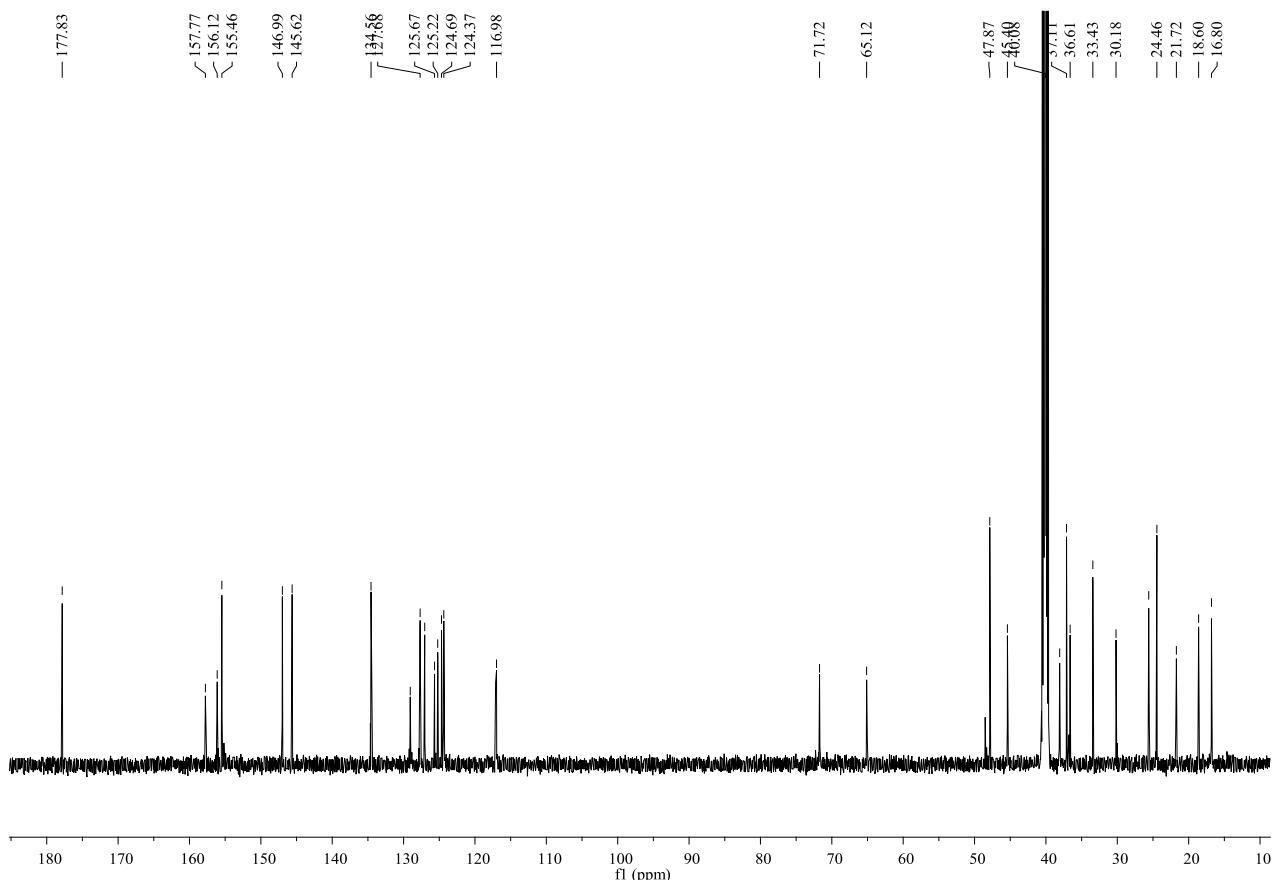
**Figure S89.** FTIR spectrum of the target compound (**4h**)



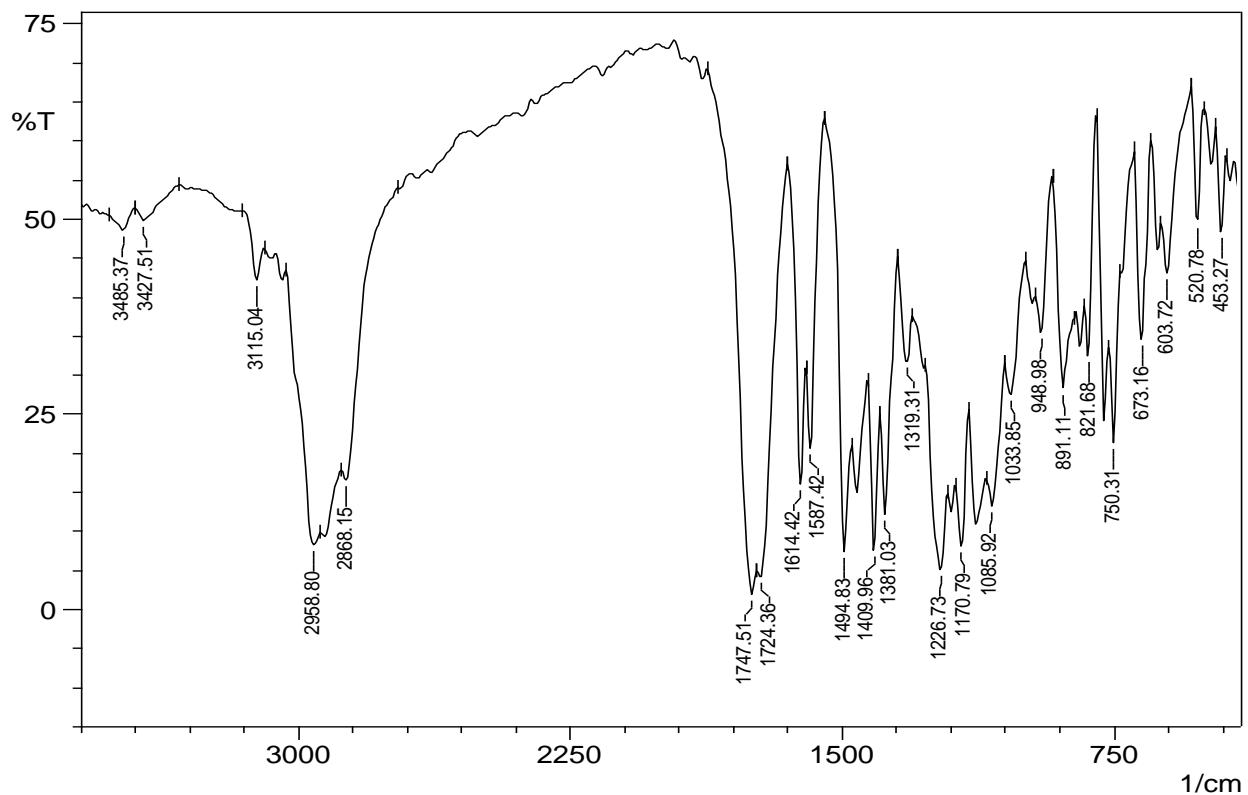
**Figure S90.** HRMS-ESI spectrum of the target compound (**4h**)



**Figure S91.**  $^1\text{H}$ -NMR spectrum of the target compound (**4h**) in DMSO

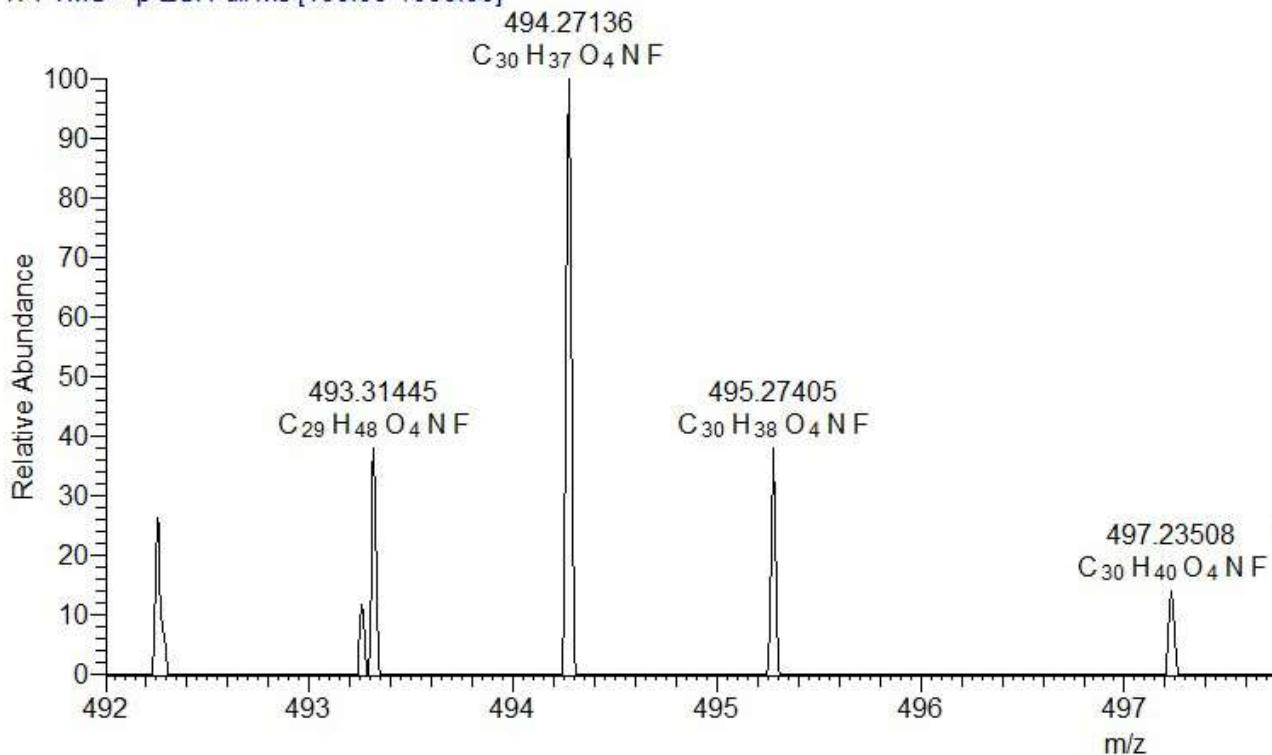


**Figure S92.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4h**) in DMSO

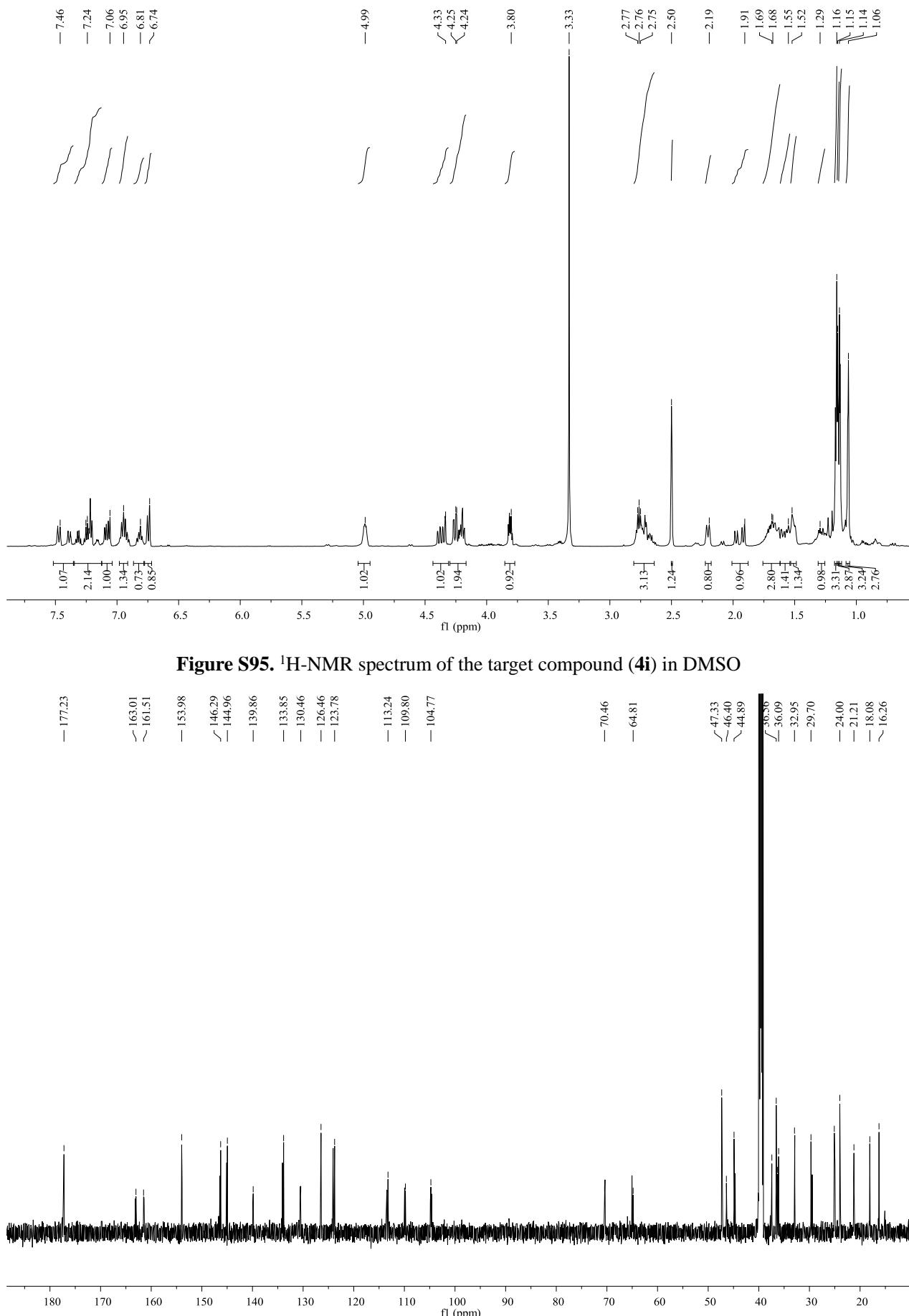


**Figure S93.** FTIR spectrum of the target compound (**4i**)

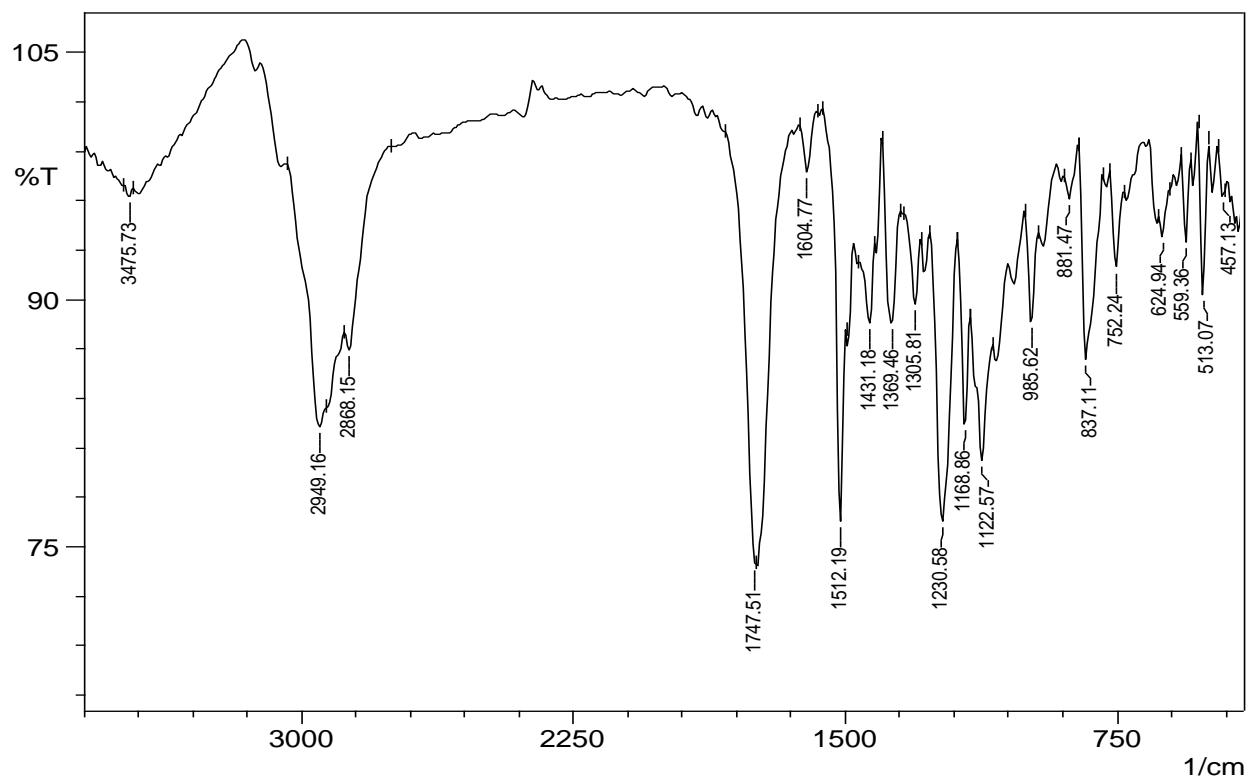
#1 RT: 0.00 AV: 1 NL: 3.01E5  
T: FTMS + p ESI Full ms [100.00-1000.00]



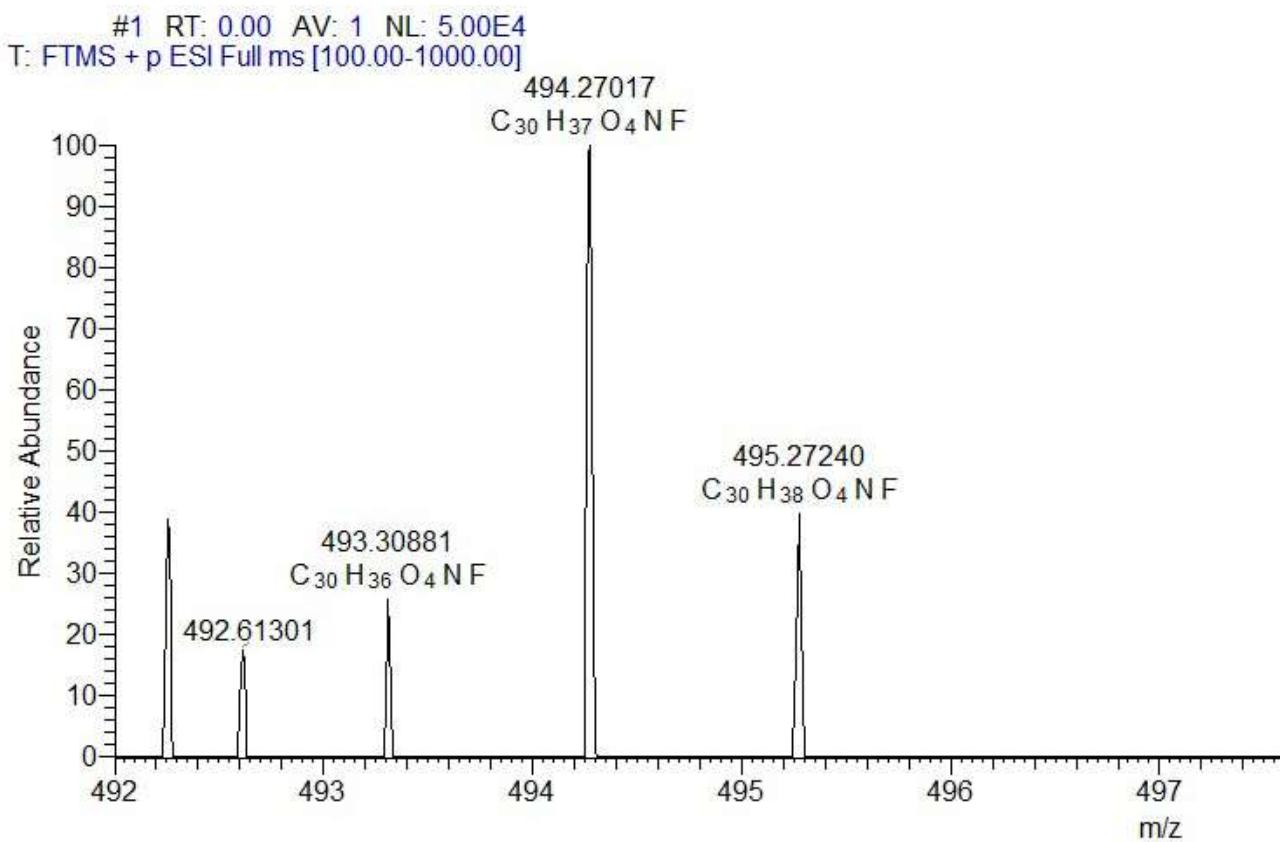
**Figure S94.** HRMS-ESI spectrum of the target compound (**4i**)



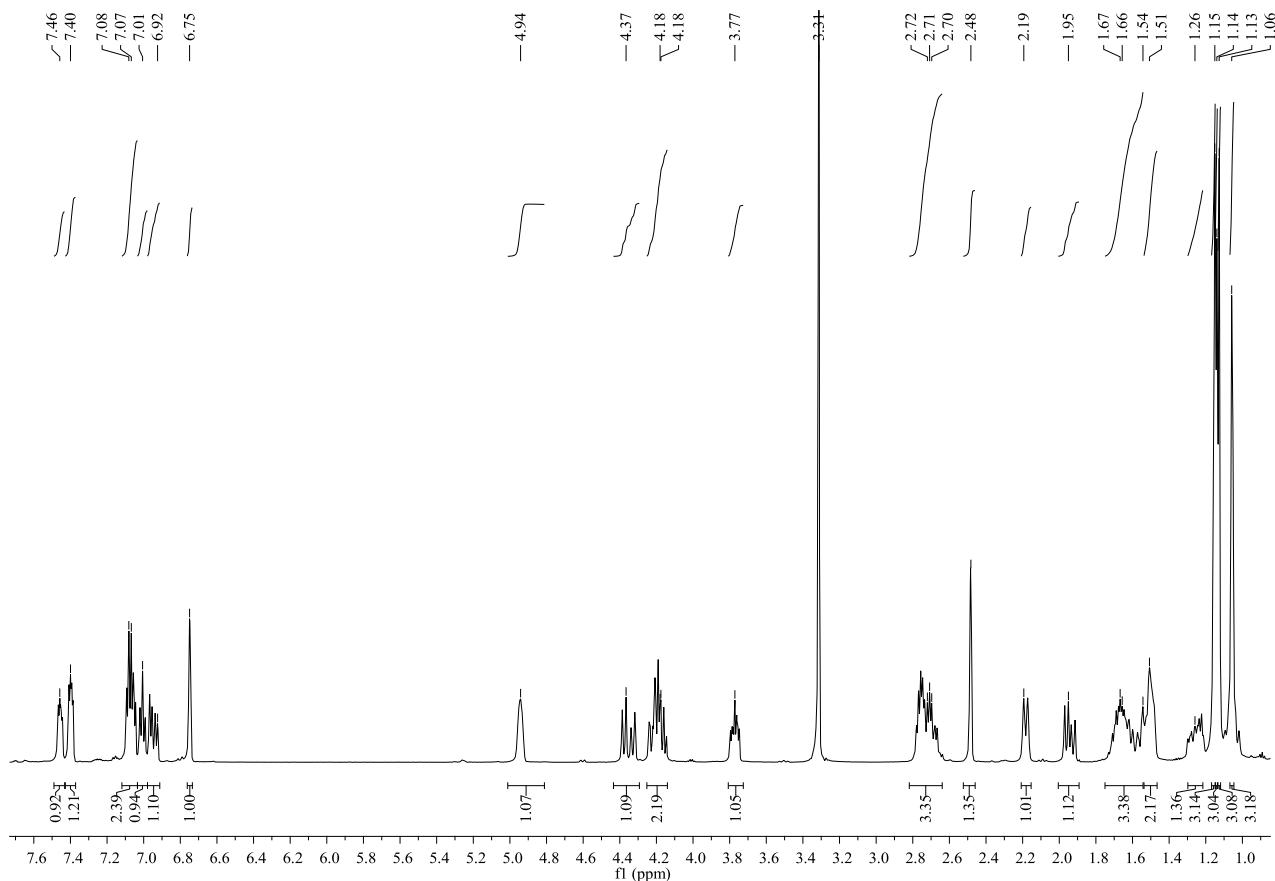
**Figure S96.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4i**) in DMSO



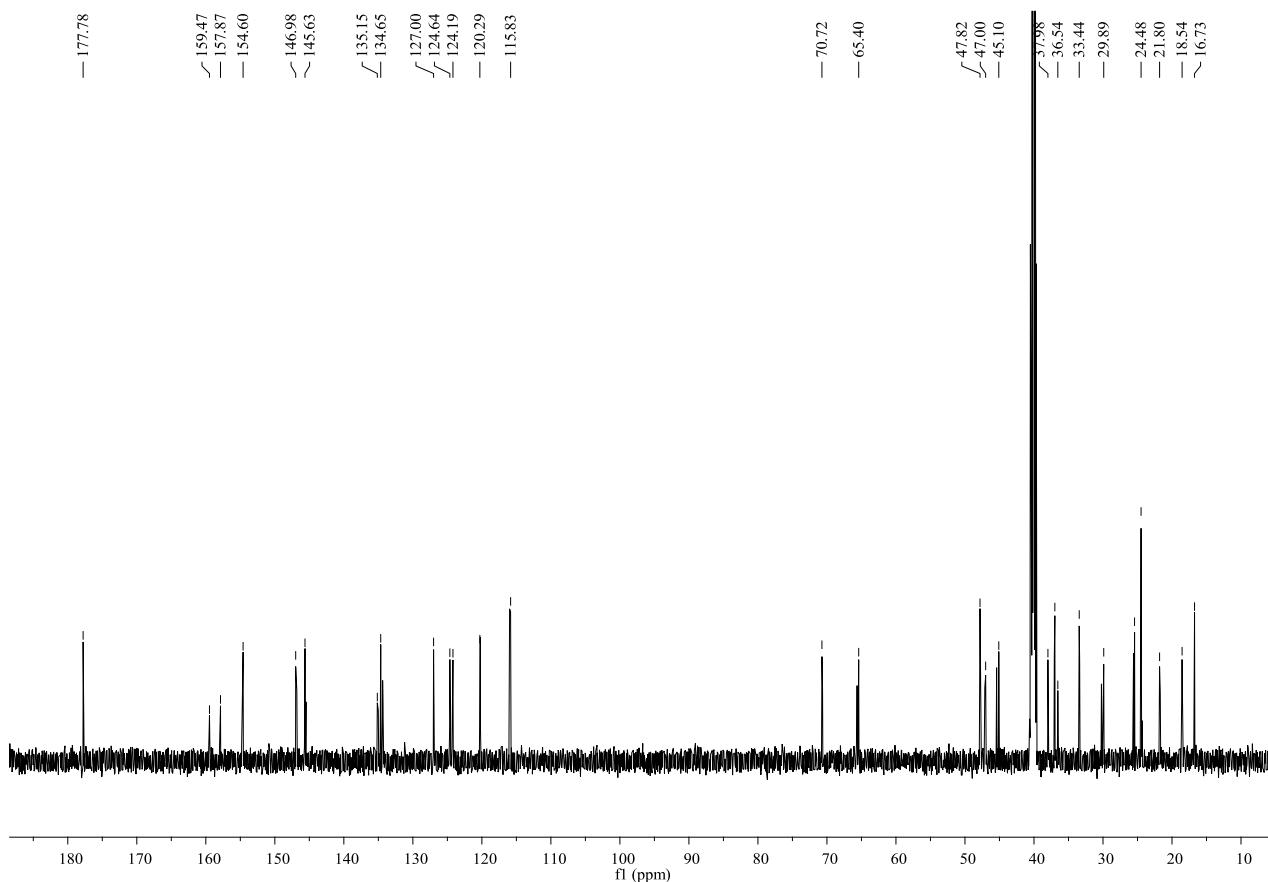
**Figure S97.** FTIR spectrum of the target compound (**4j**)



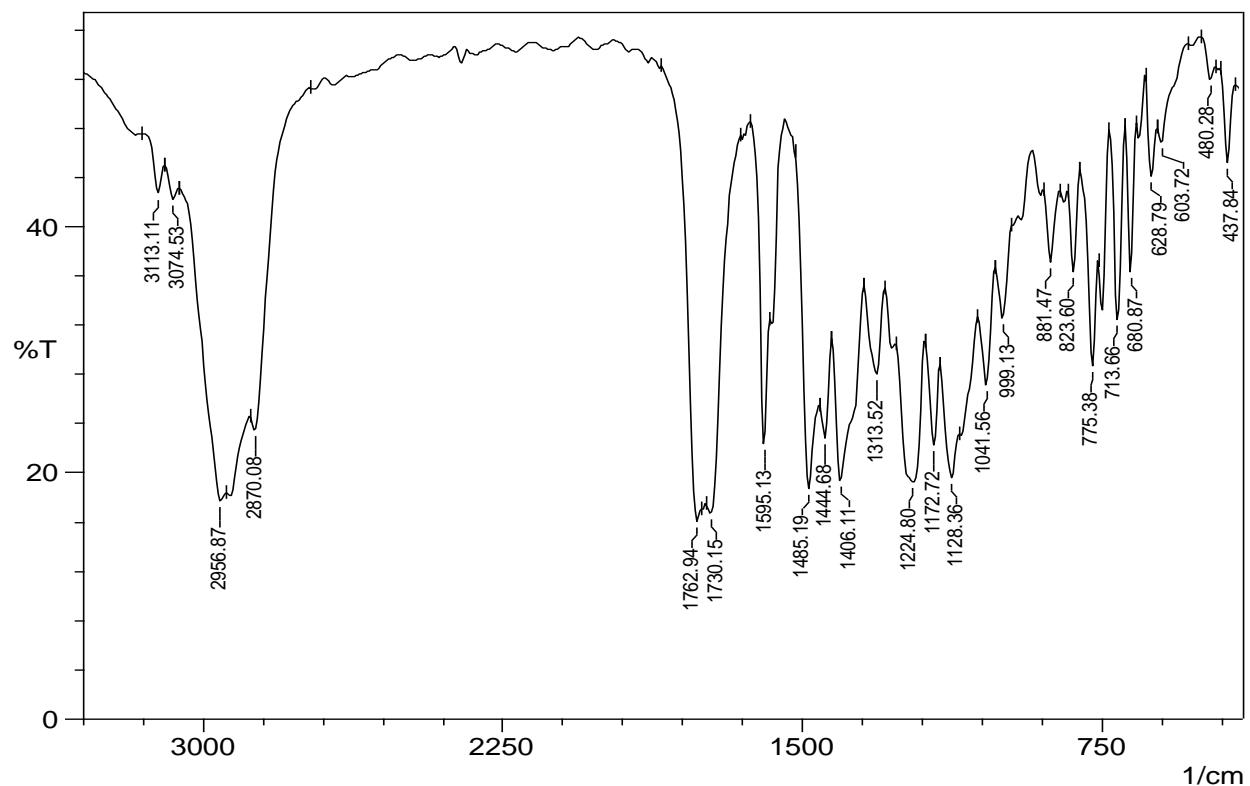
**Figure S98.** HRMS-ESI spectrum of the target compound (**4j**)



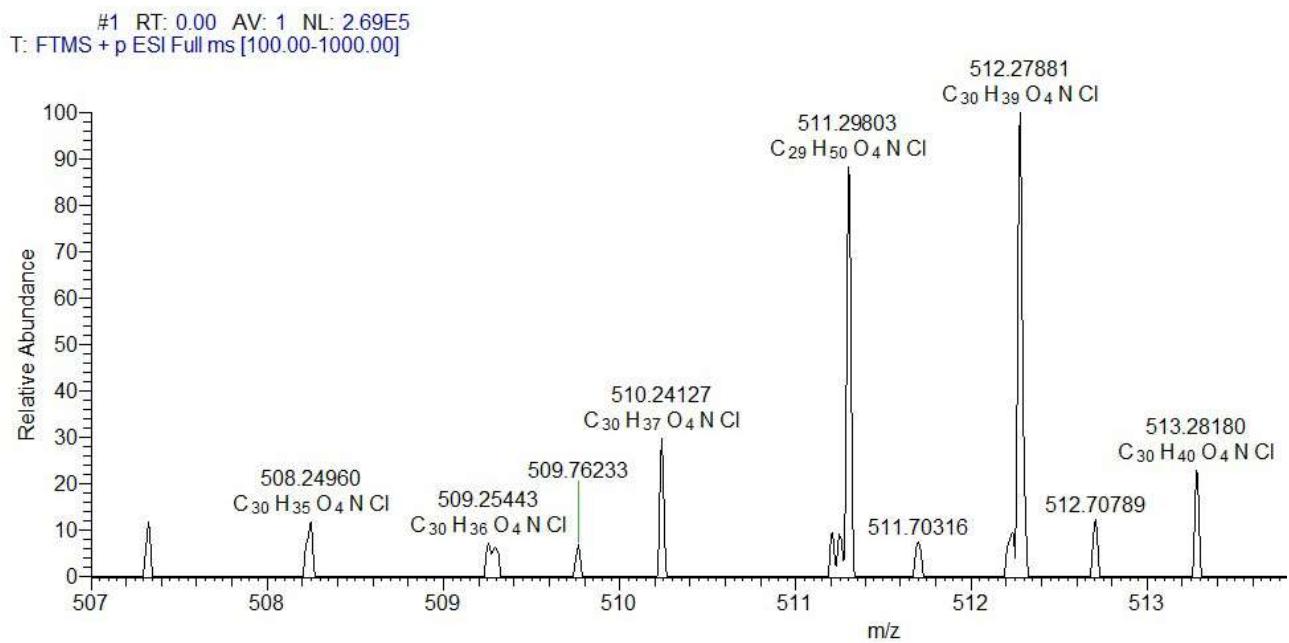
**Figure S99.**  $^1\text{H}$ -NMR spectrum of the target compound (**4j**) in DMSO



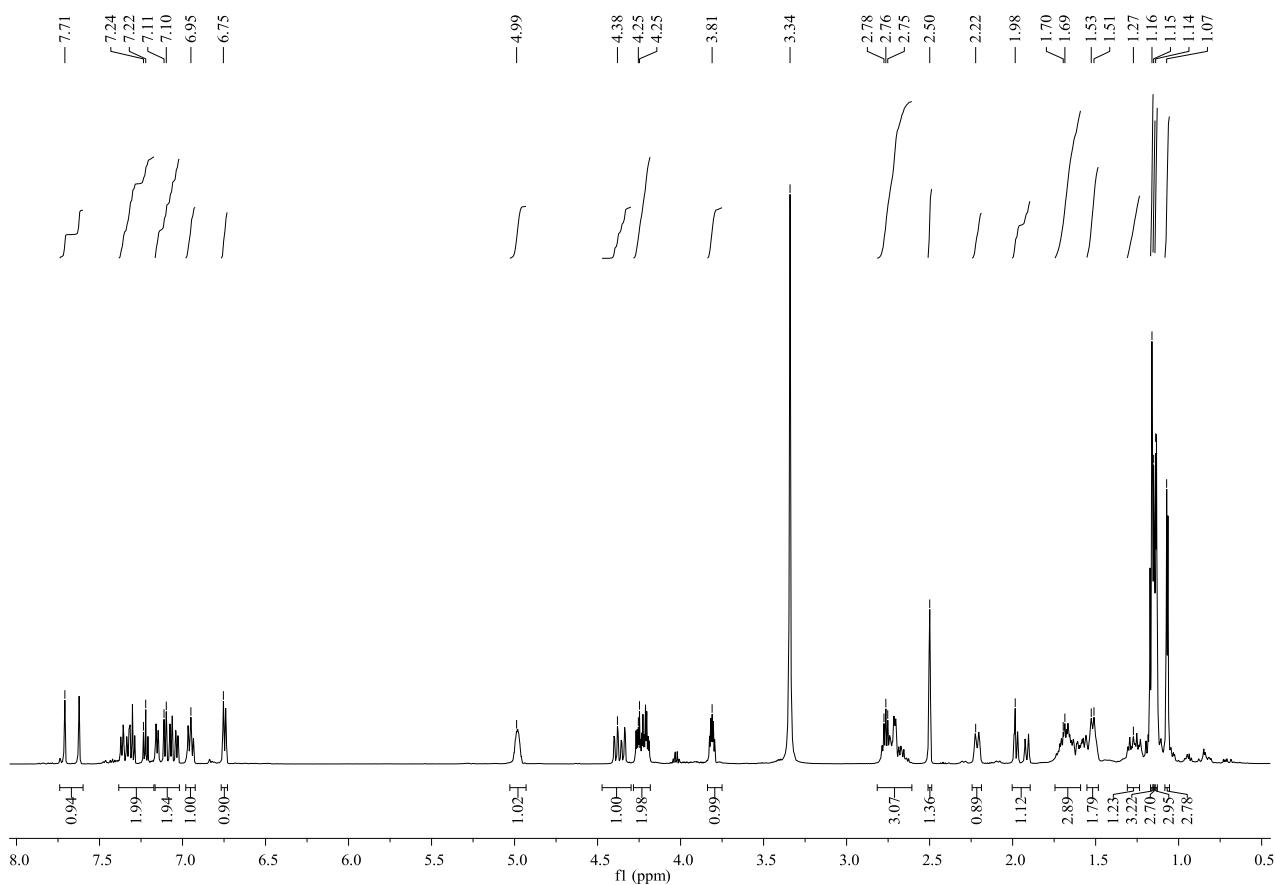
**Figure S100.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4j**) in DMSO



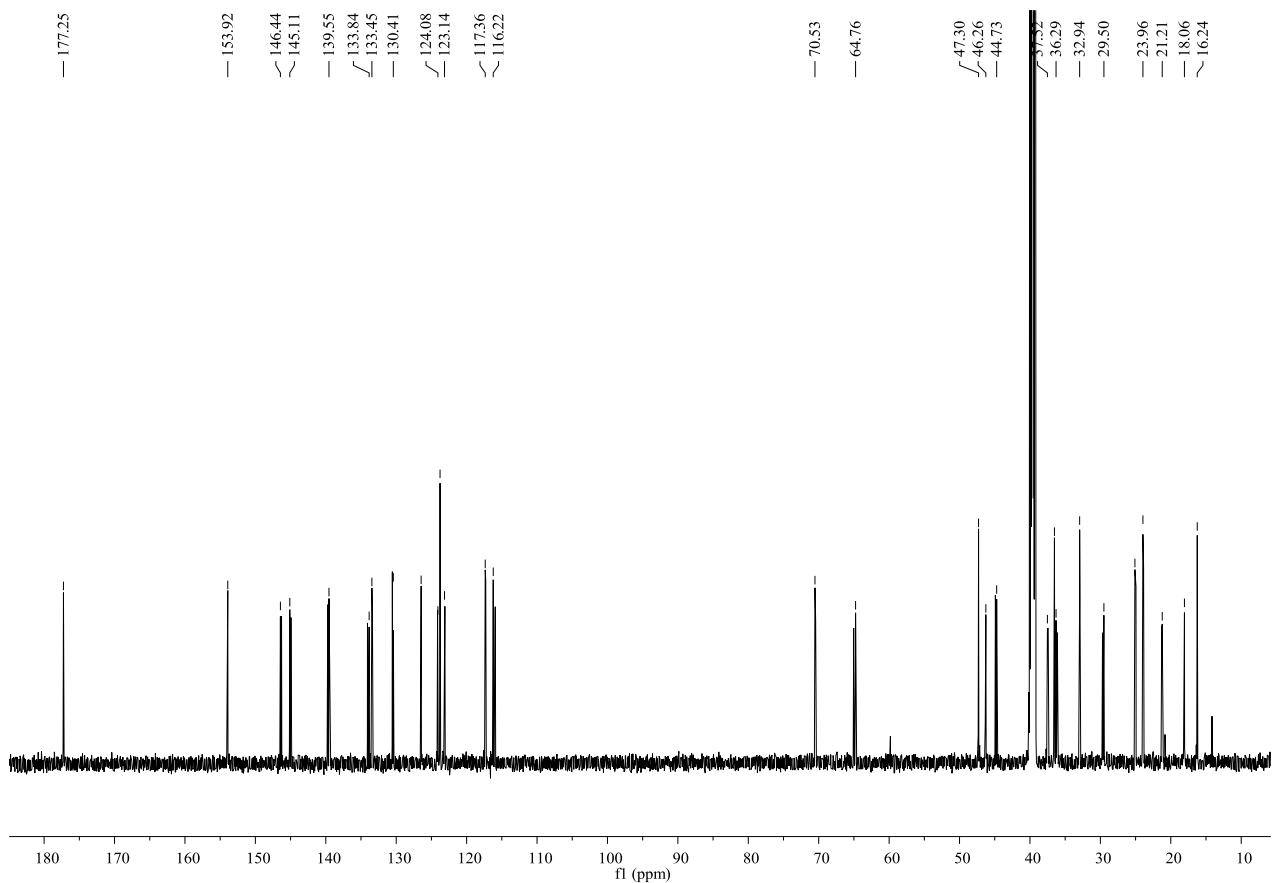
**Figure S101.** FTIR spectrum of the target compound (**4k**)



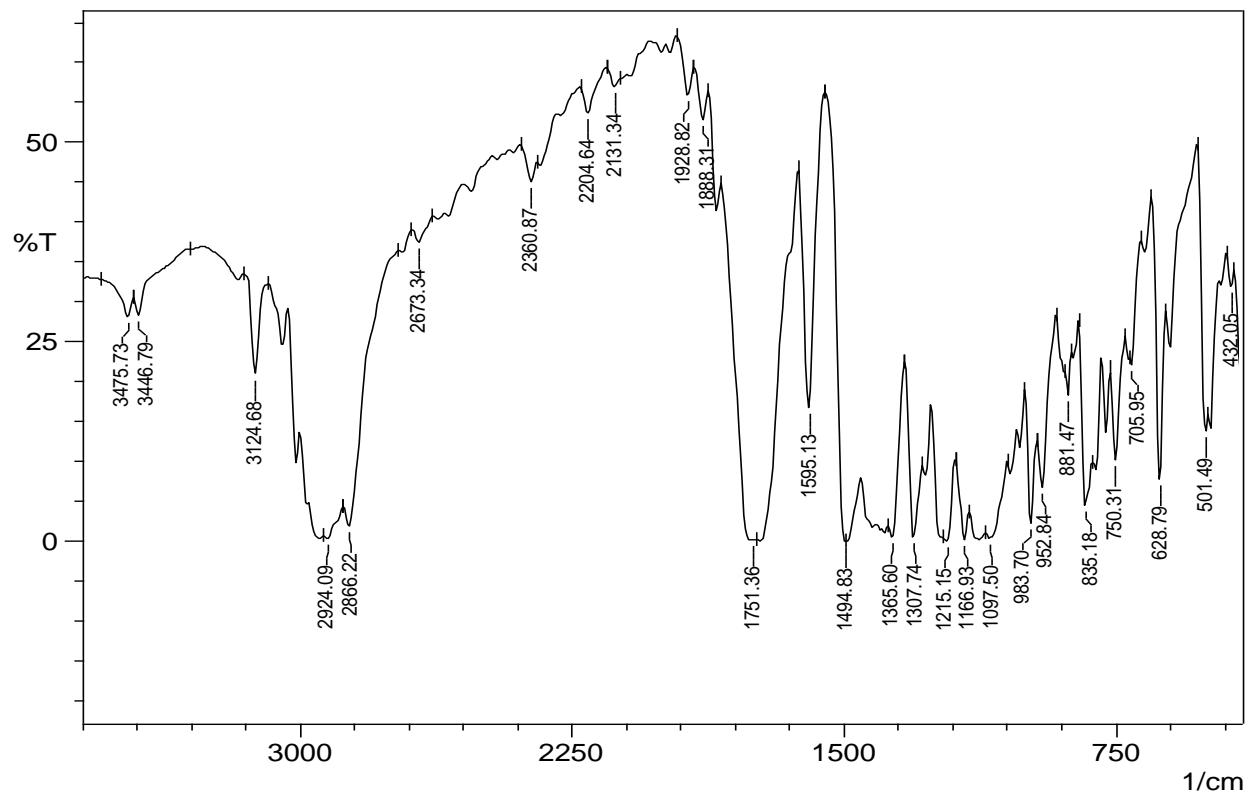
**Figure S102.** HRMS-ESI spectrum of the target compound (**4k**)



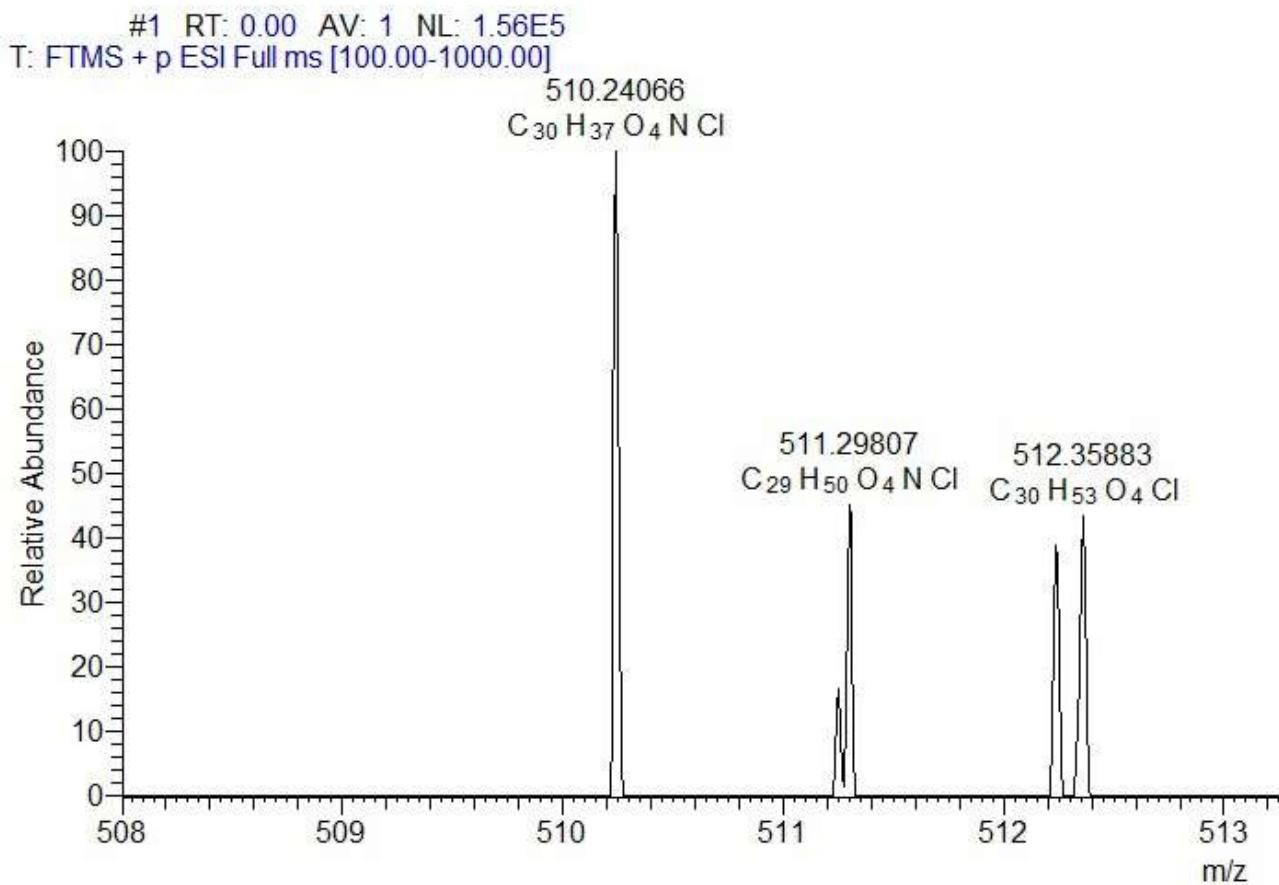
**Figure S103.**  $^1\text{H}$ -NMR spectrum of the target compound (**4k**) in DMSO



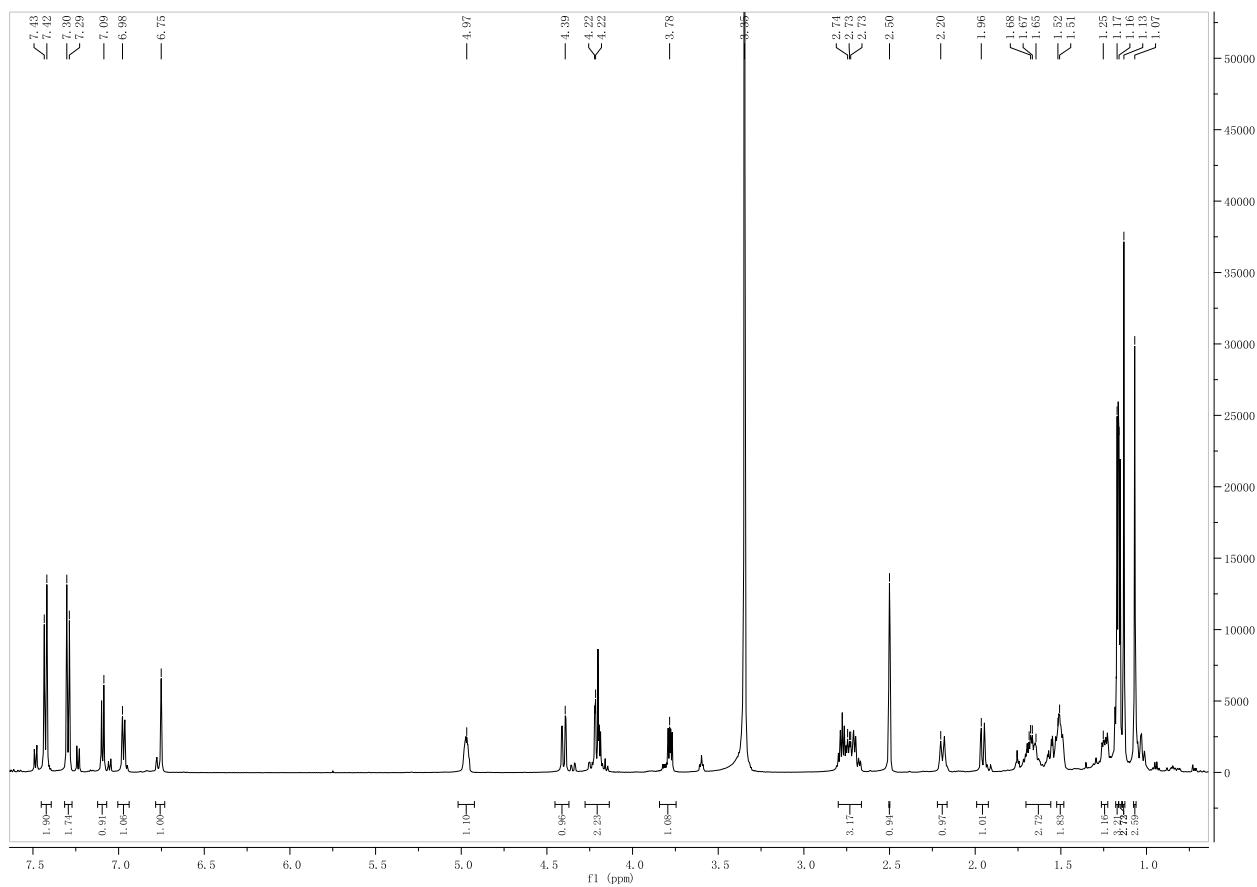
**Figure S104.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4k**) in DMSO



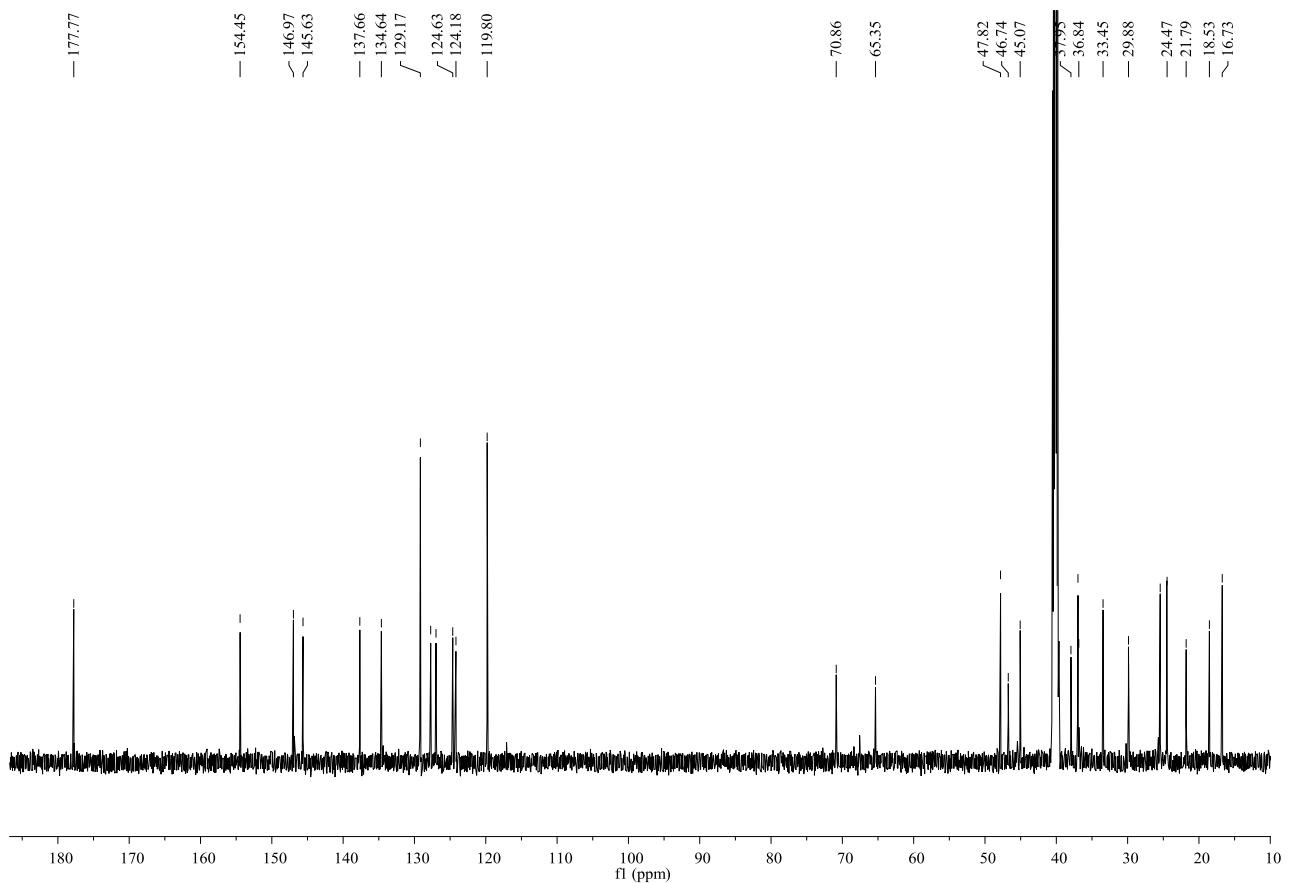
**Figure S105.** FTIR spectrum of the target compound (**4l**)



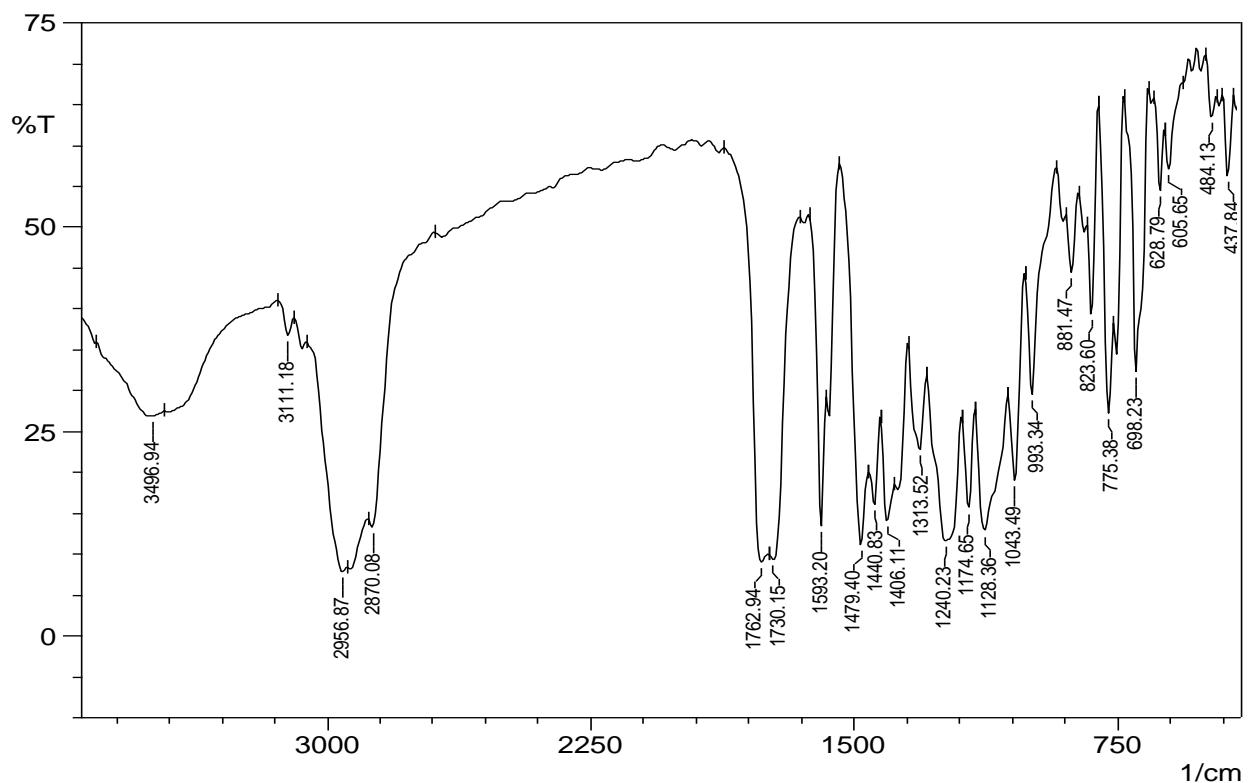
**Figure S106.** HRMS-ESI spectrum of the target compound (**4l**)



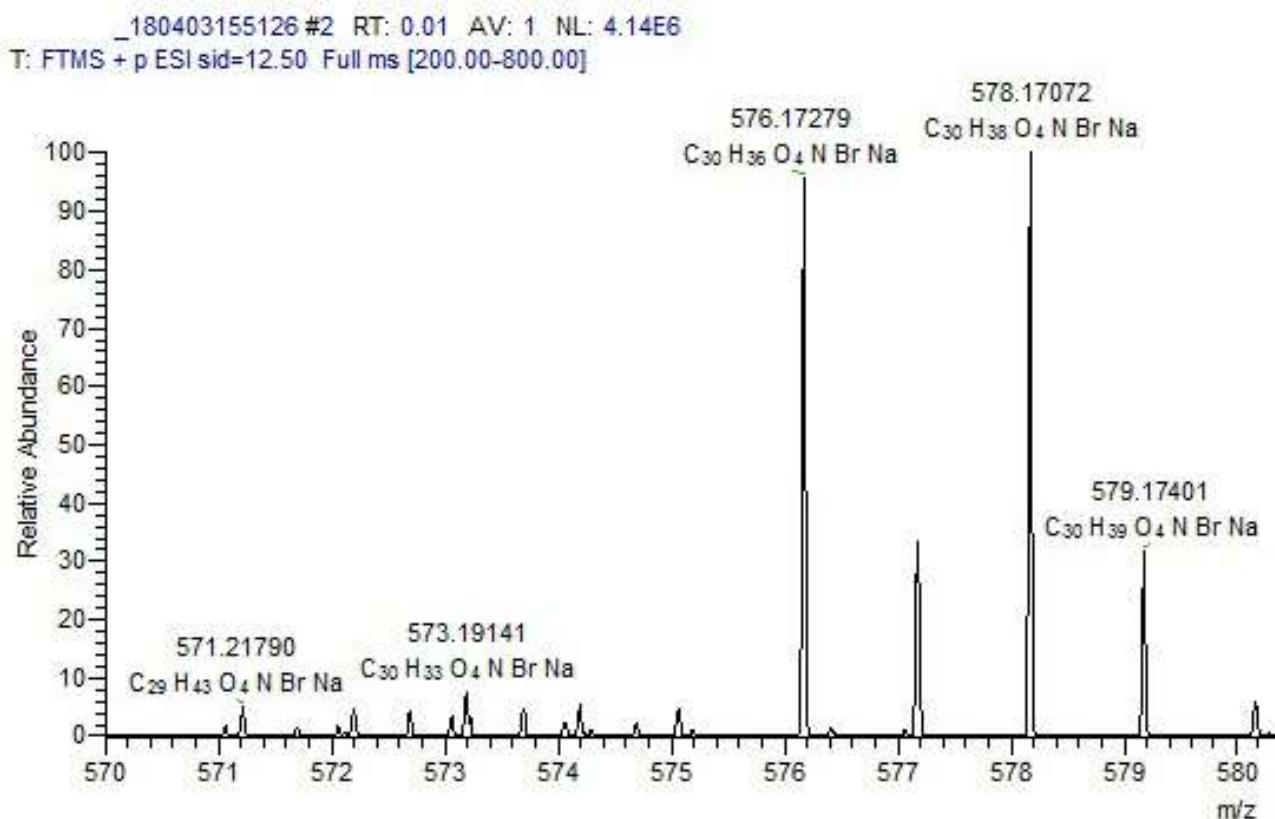
**Figure S107.**  $^1\text{H}$ -NMR spectrum of the target compound (**4I**) in DMSO



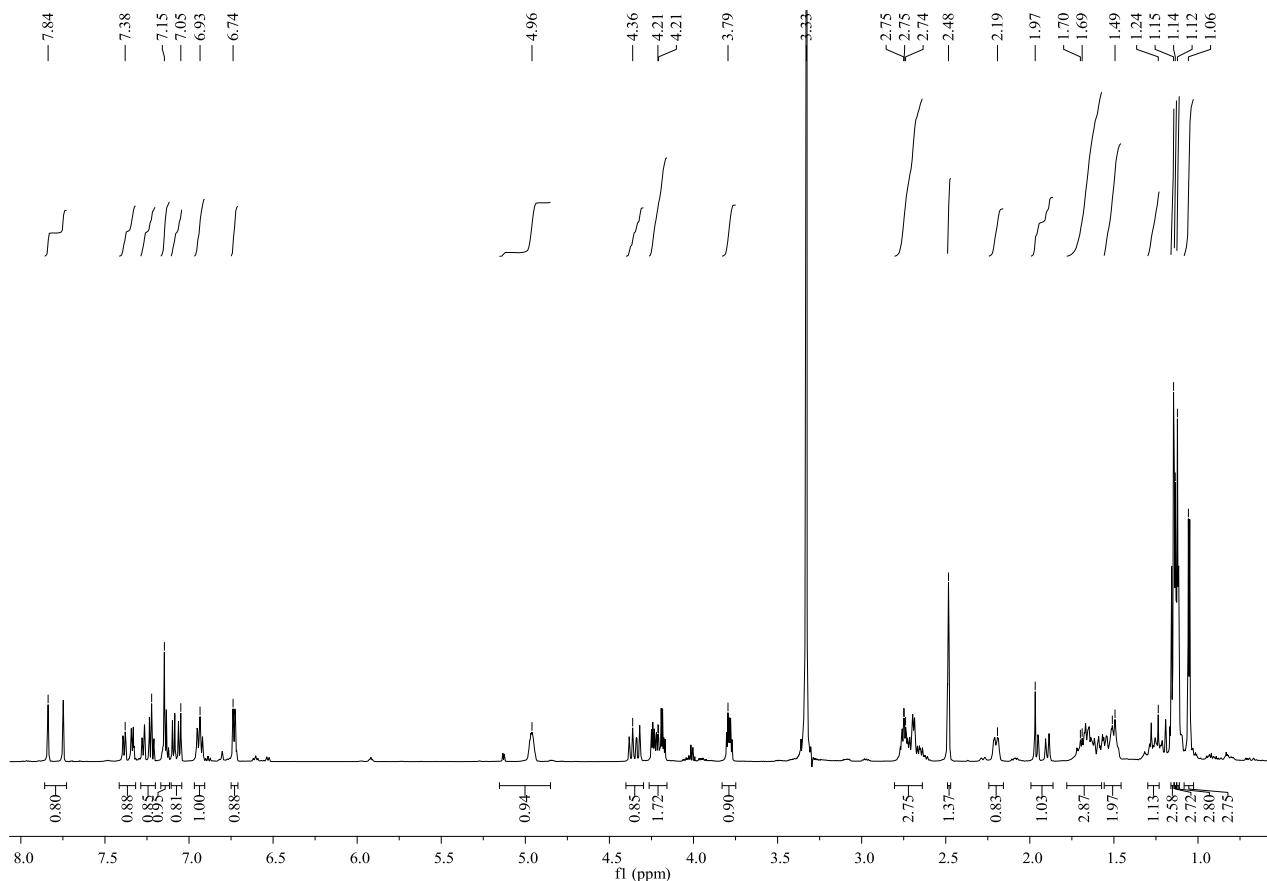
**Figure S108.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4I**) in DMSO



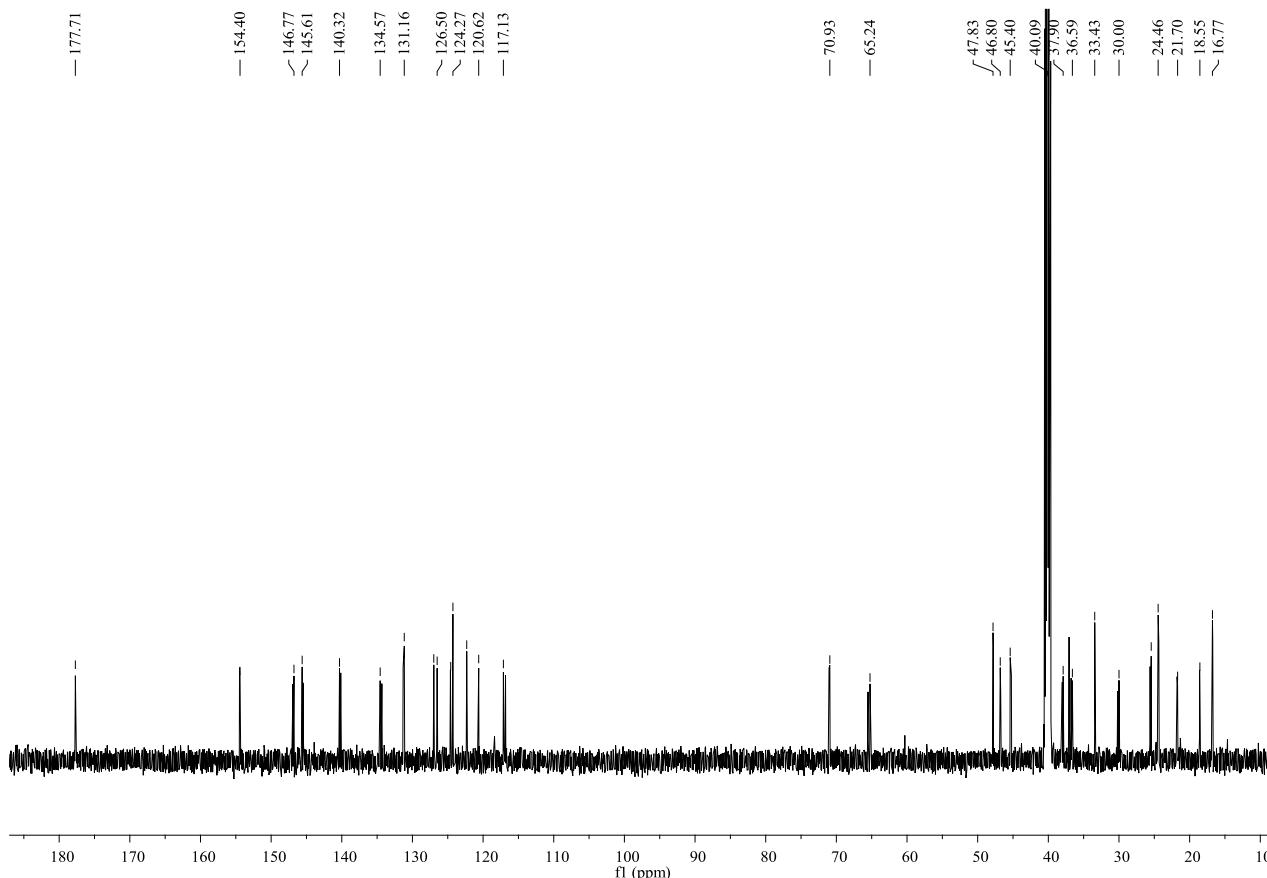
**Figure S109.** FTIR spectrum of the target compound (**4m**)



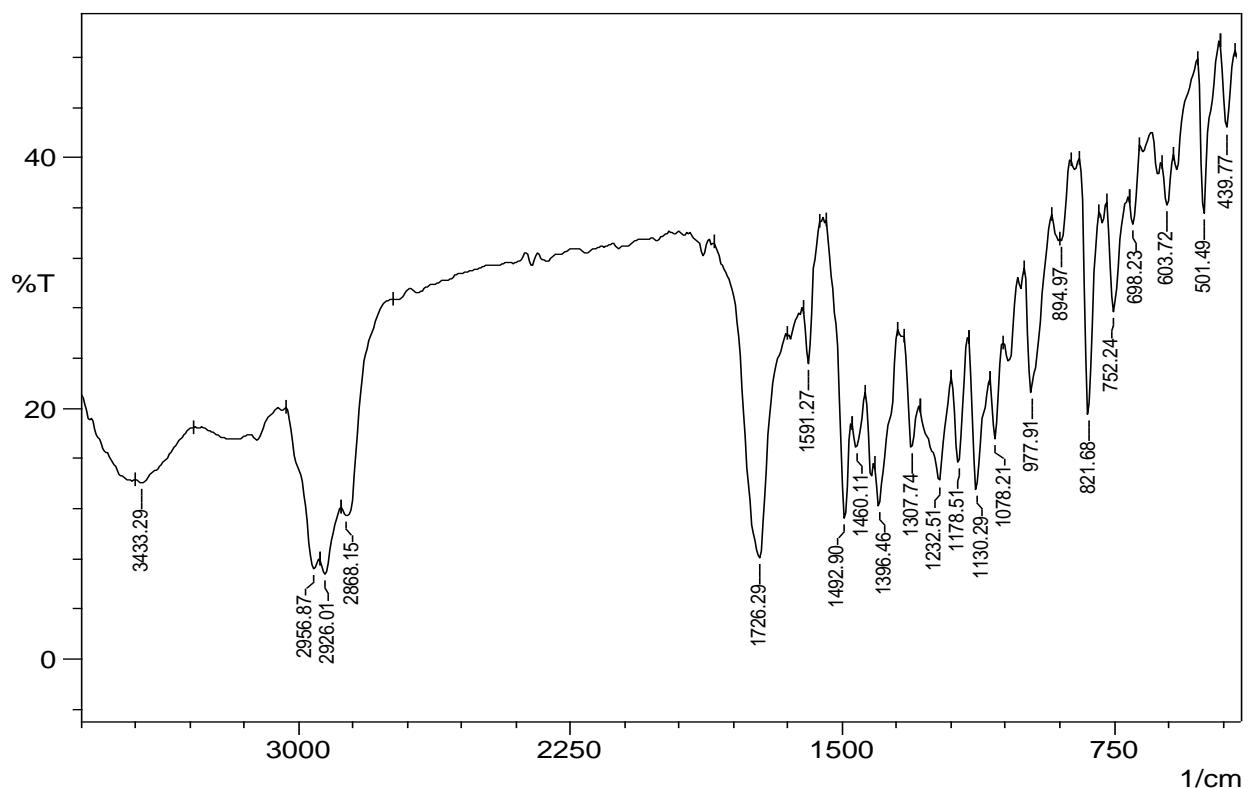
**Figure S110.** HRMS-ESI spectrum of the target compound (**4m**)



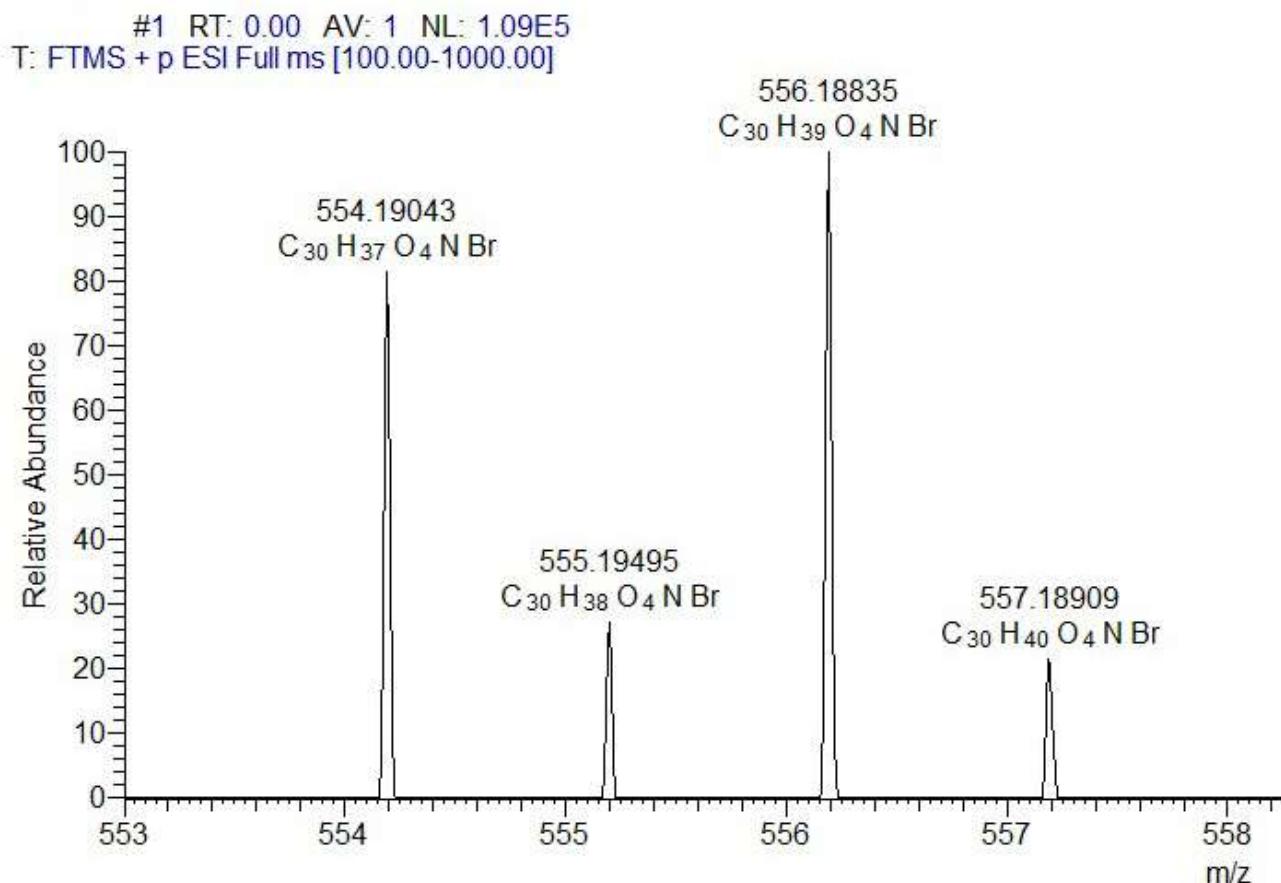
**Figure S111.**  $^1\text{H}$ -NMR spectrum of the target compound (**4m**) in DMSO



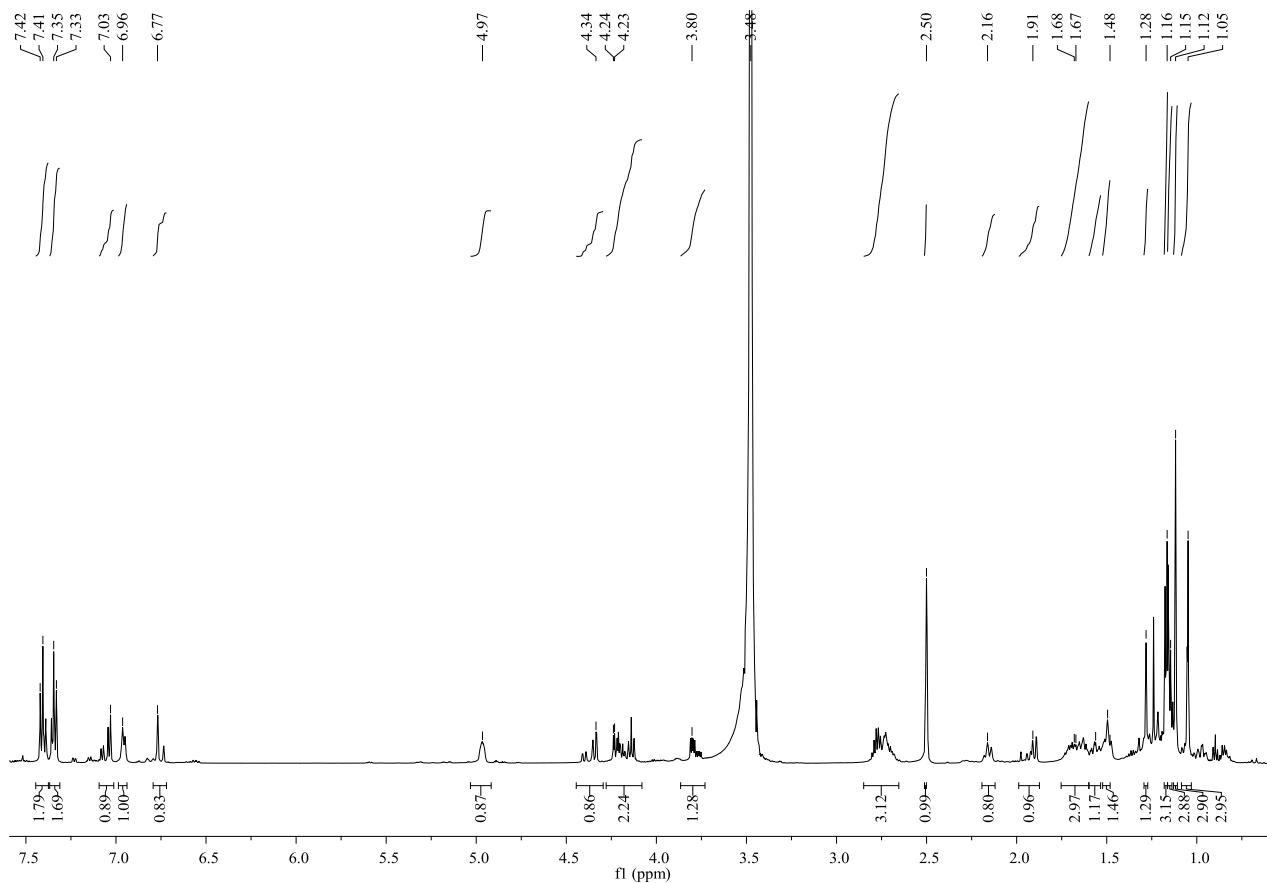
**Figure S112.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4m**) in DMSO



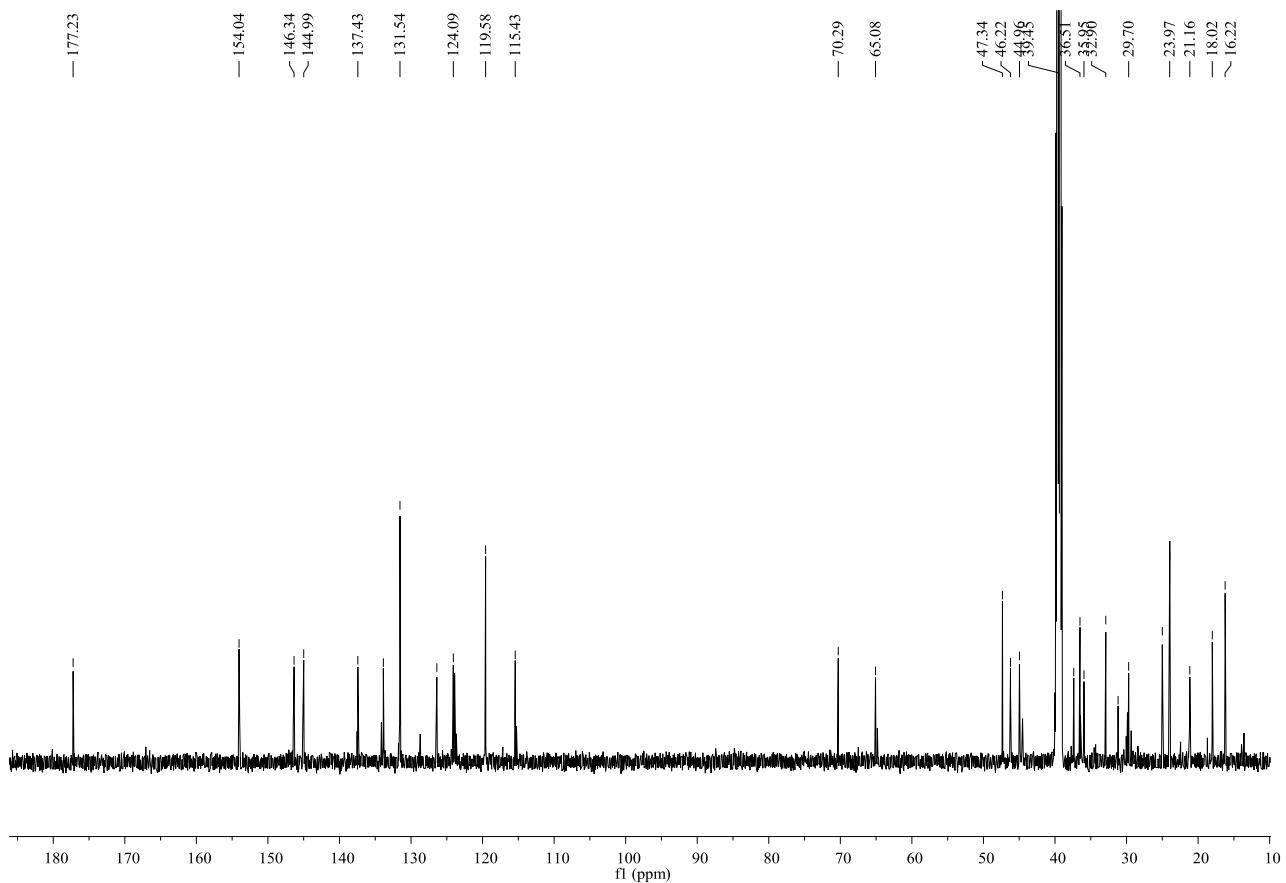
**Figure S113.** FTIR spectrum of the target compound (**4n**)



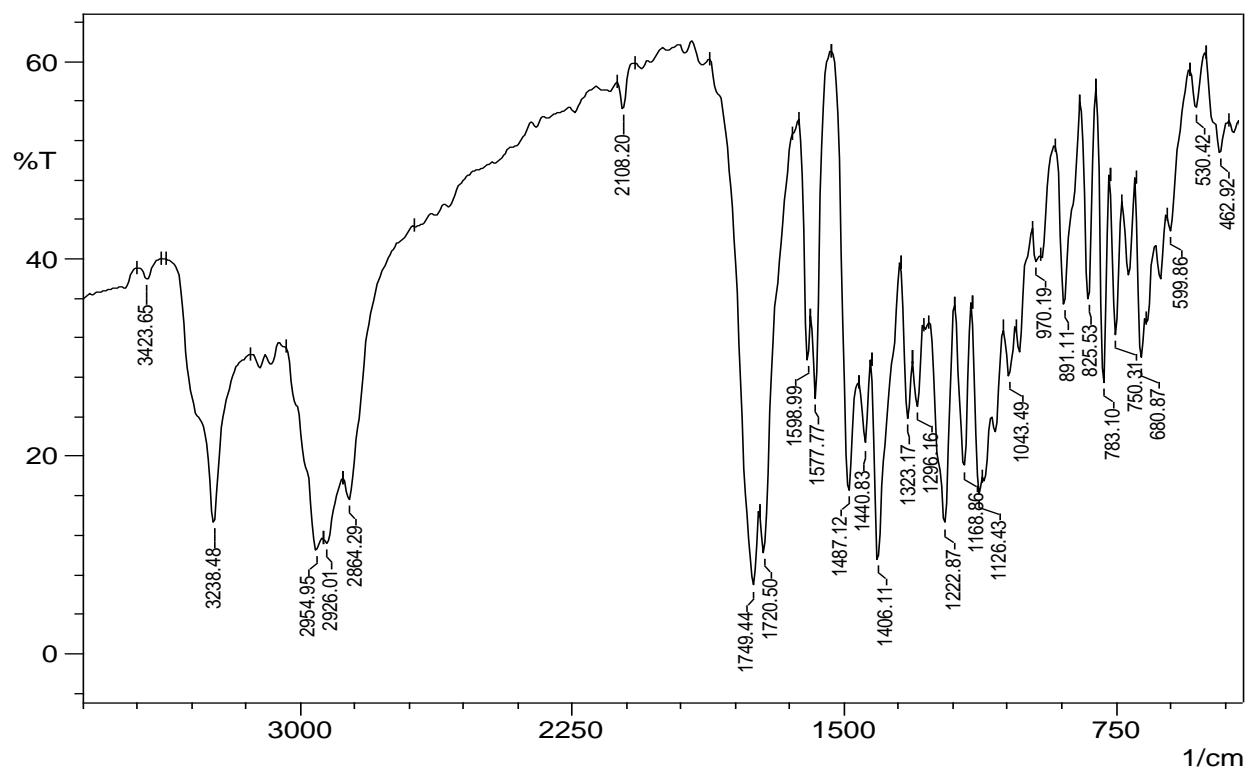
**Figure S114.** HRMS-ESI spectrum of the target compound (**4n**)



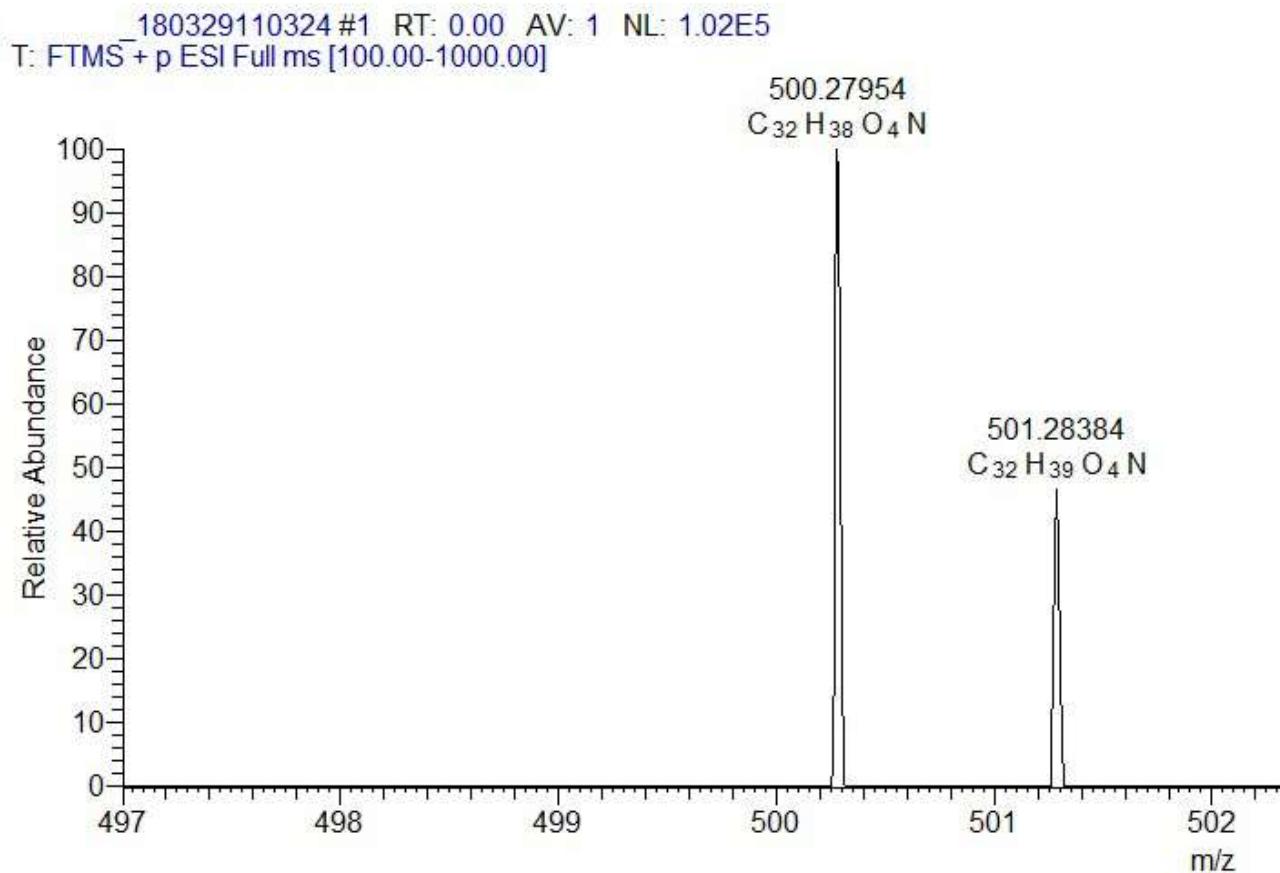
**Figure S115.**  $^1\text{H}$ -NMR spectrum of the target compound (**4n**) in DMSO



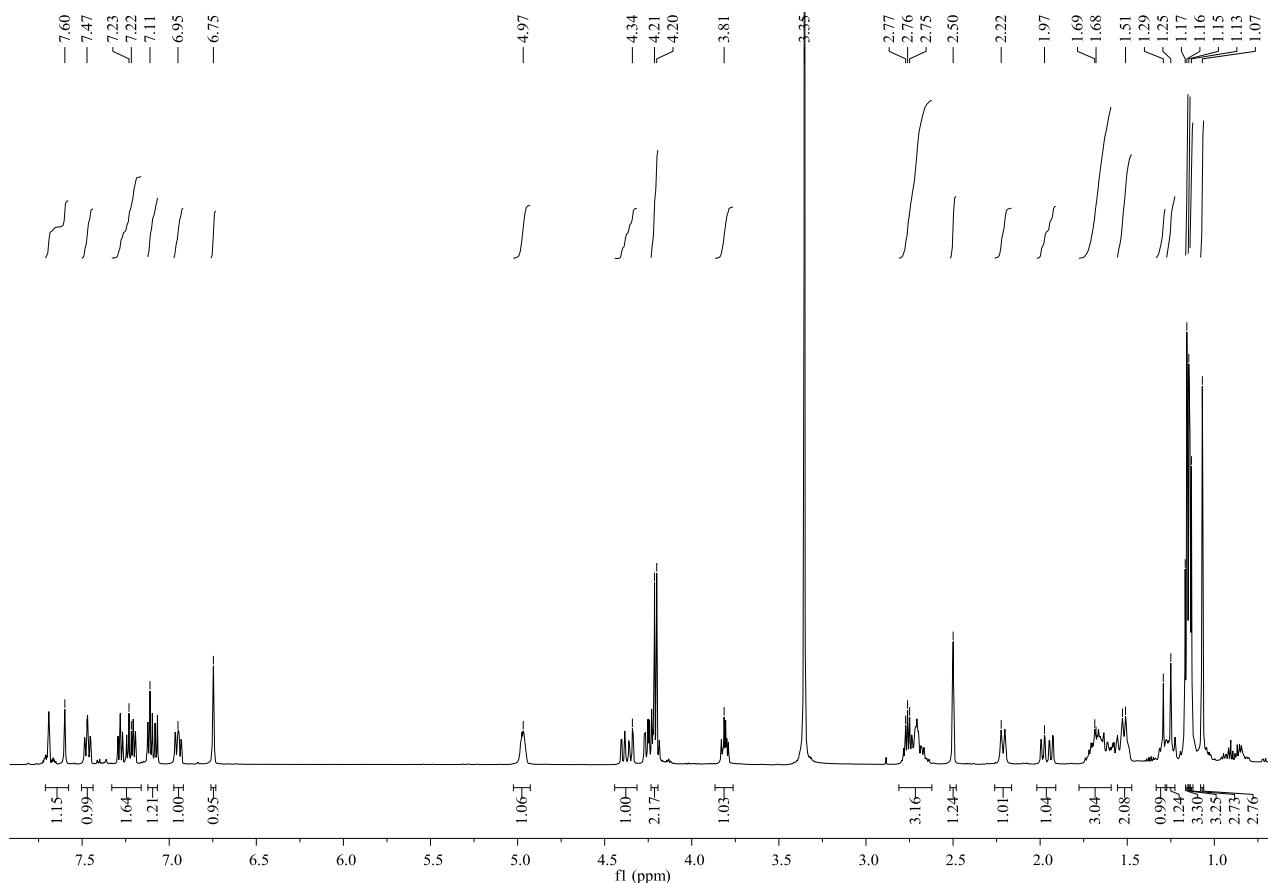
**Figure S116.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4n**) in DMSO



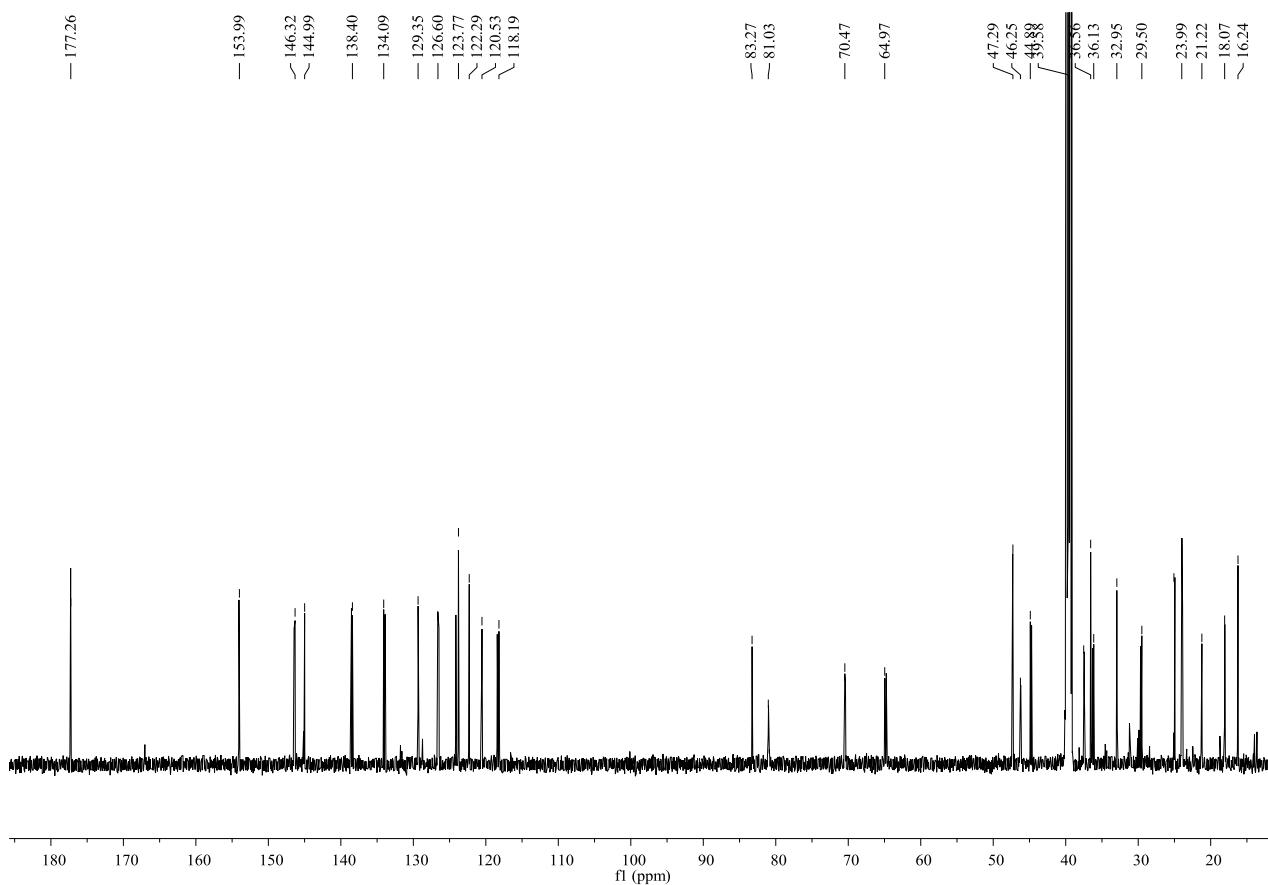
**Figure S117.** FTIR spectrum of the target compound (**4o**)



**Figure S118.** HRMS-ESI spectrum of the target compound (**4o**)



**Figure S119.**  $^1\text{H}$ -NMR spectrum of the target compound (**4o**) in DMSO



**Figure S120.**  $^{13}\text{C}$ -NMR spectrum of the target compound (**4o**) in DMSO