

SUPPLEMENTARY MATERIALS

The search for new antibacterial agents among 1,2,3-triazole functionalized Ciprofloxacin and Norfloxacin hybrids: synthesis, docking studies and biological activity evaluation

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7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid
1a

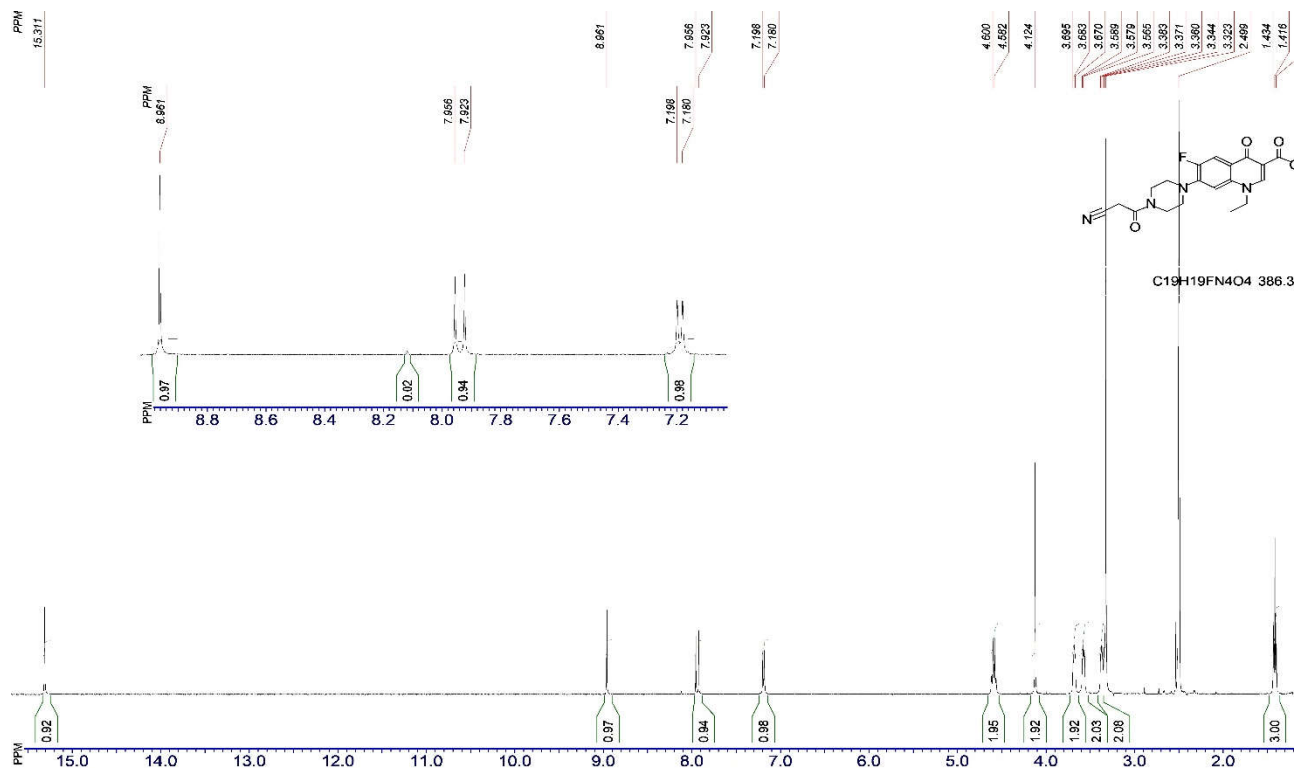


Figure S1. ¹H NMR spectrum (400 MHz, DMSO-d₆) of 7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1a**

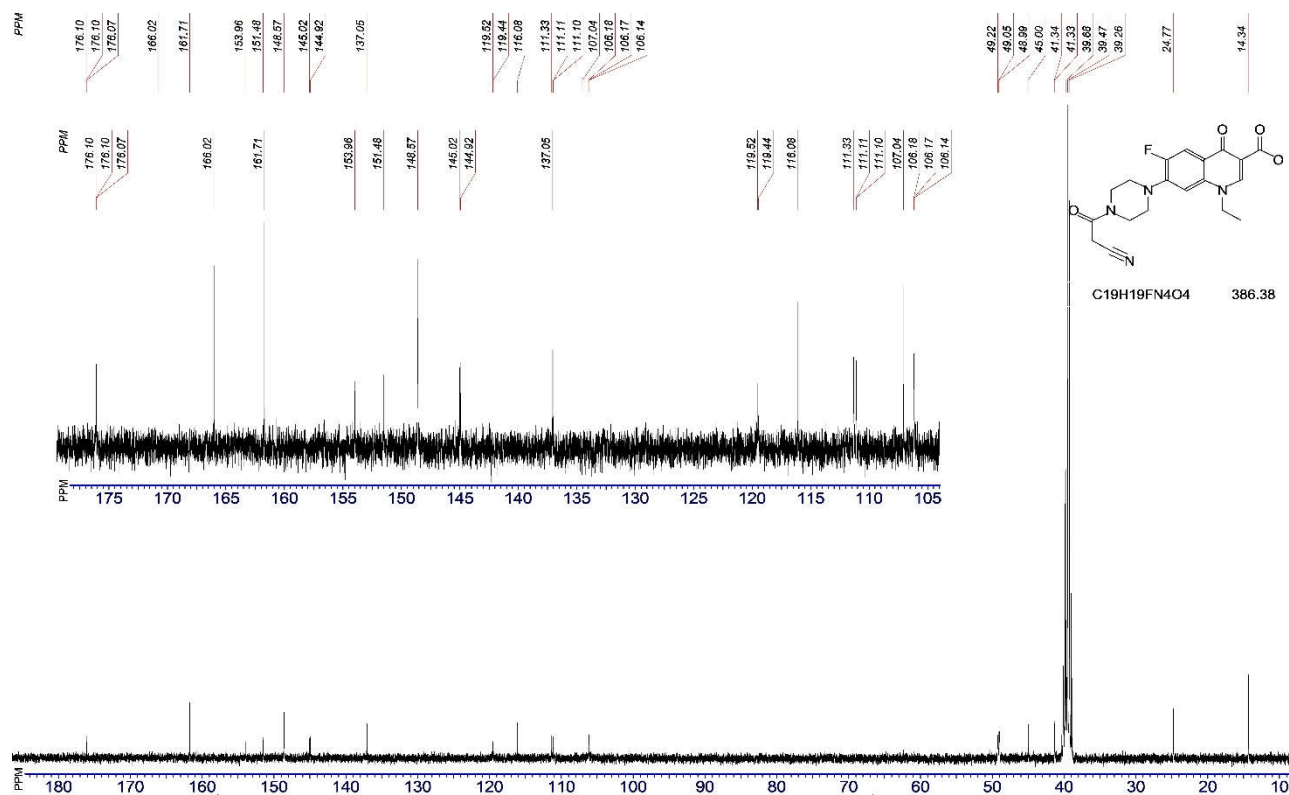


Figure S2. ¹³C NMR spectrum (100 MHz, DMSO-d₆) of 7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1a**

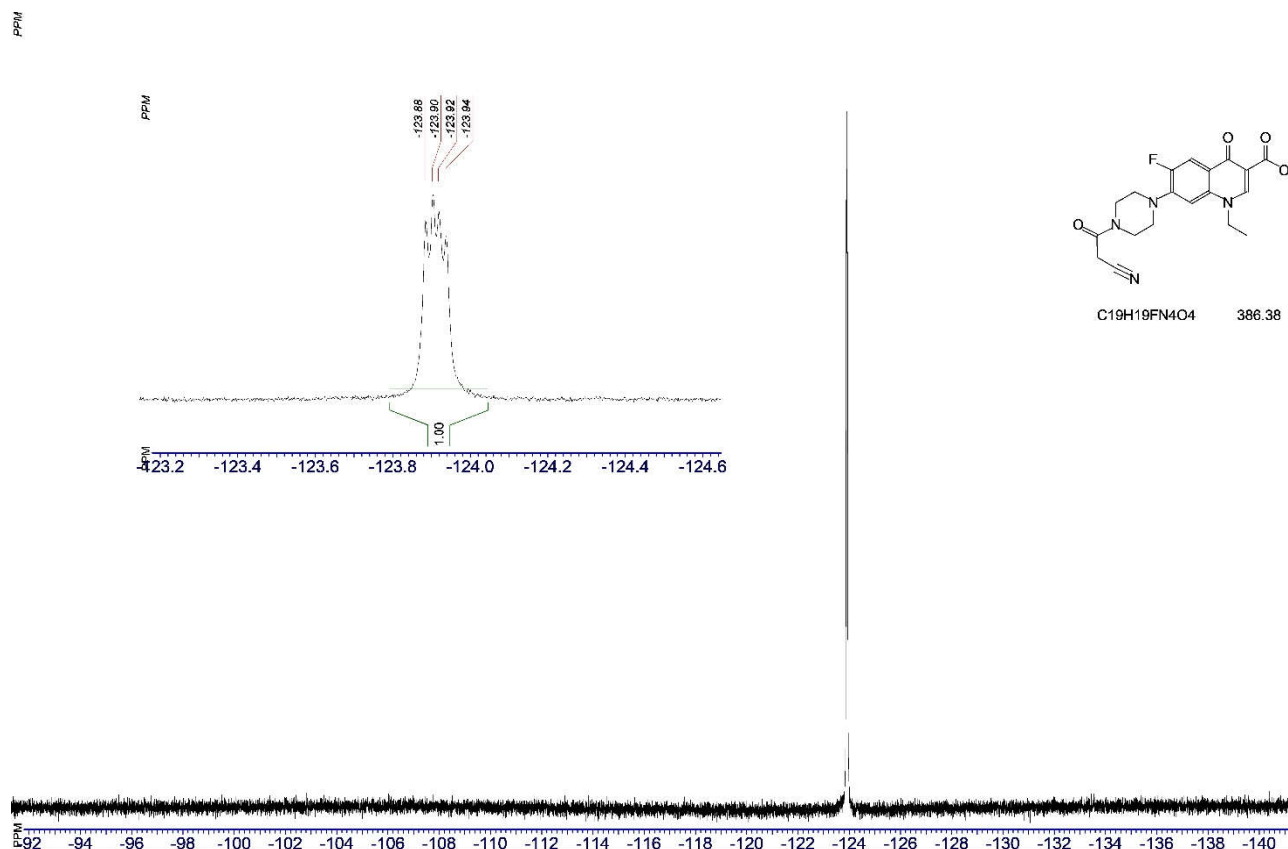
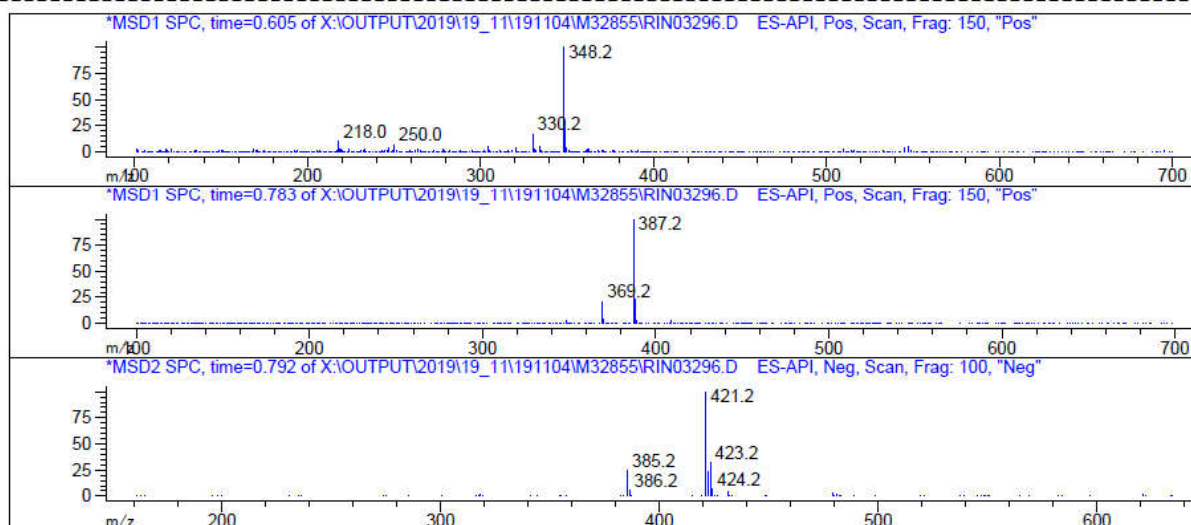
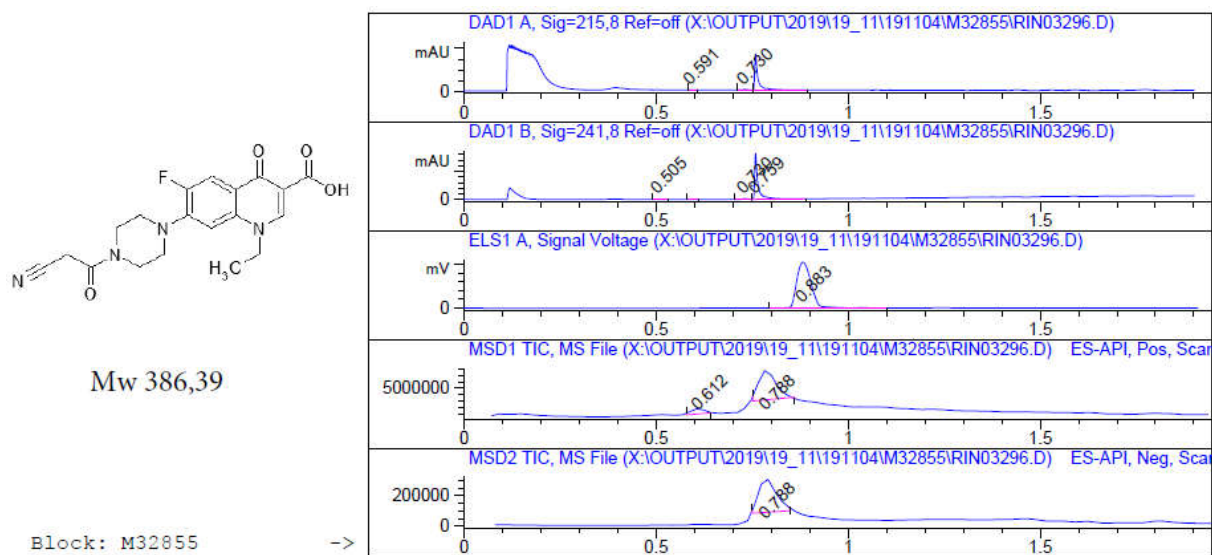


Figure S3. ^{19}F NMR spectrum (376 MHz, DMSO- d_6) of 7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1a**



#	Signal	R.Time	Area %
1	DAD1 A, Sig=215,8 Ref=off	0.591	1.732
2		0.730	2.940
3		0.759	95.327

#	Signal	R.Time	Area %
1	DAD1 B, Sig=241,8 Ref=off	0.505	1.502
2		0.591	1.070
3		0.730	2.284
4		0.759	95.143

#	Signal	R.Time	Area %
1	ELS1 A, Signal Voltage	0.883	100.000

Figure S4. LC/MS data for 7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1a**

#	Signal	R.Time	Area %
1	MSD1 TIC, MS File	0.612	11.830
2		0.788	88.170

#	Signal	R.Time	Area %
1	MSD2 TIC, MS File	0.788	100.000

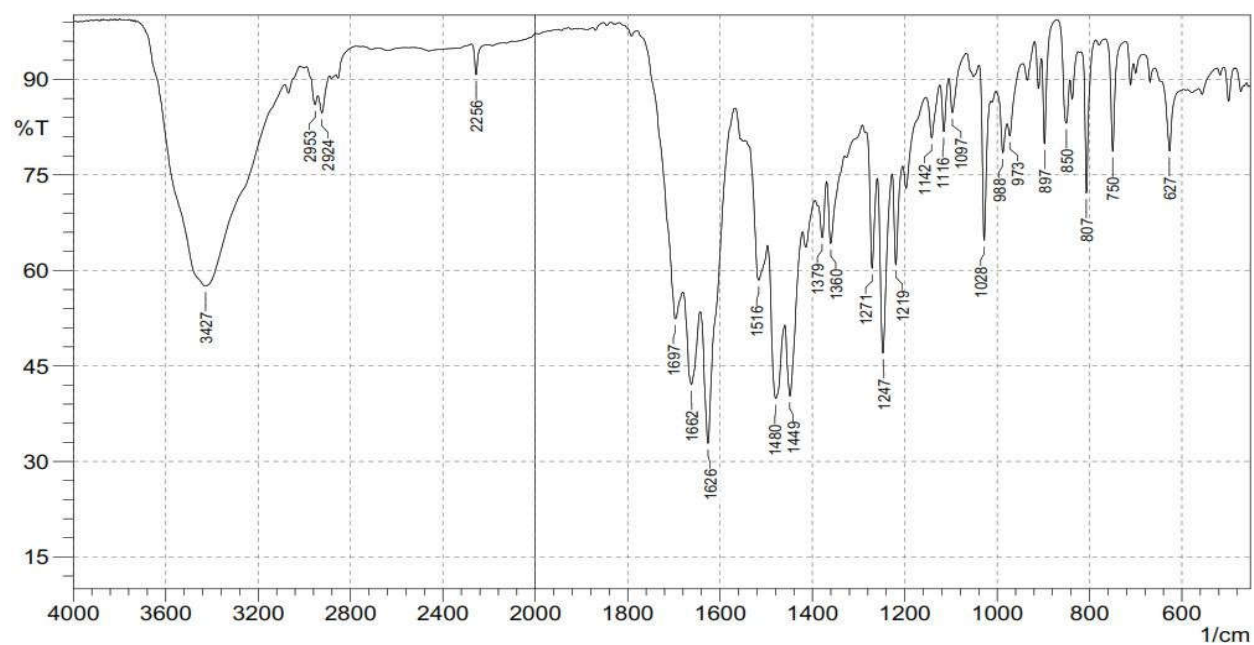


Figure S5. IR spectrum of 7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1a**

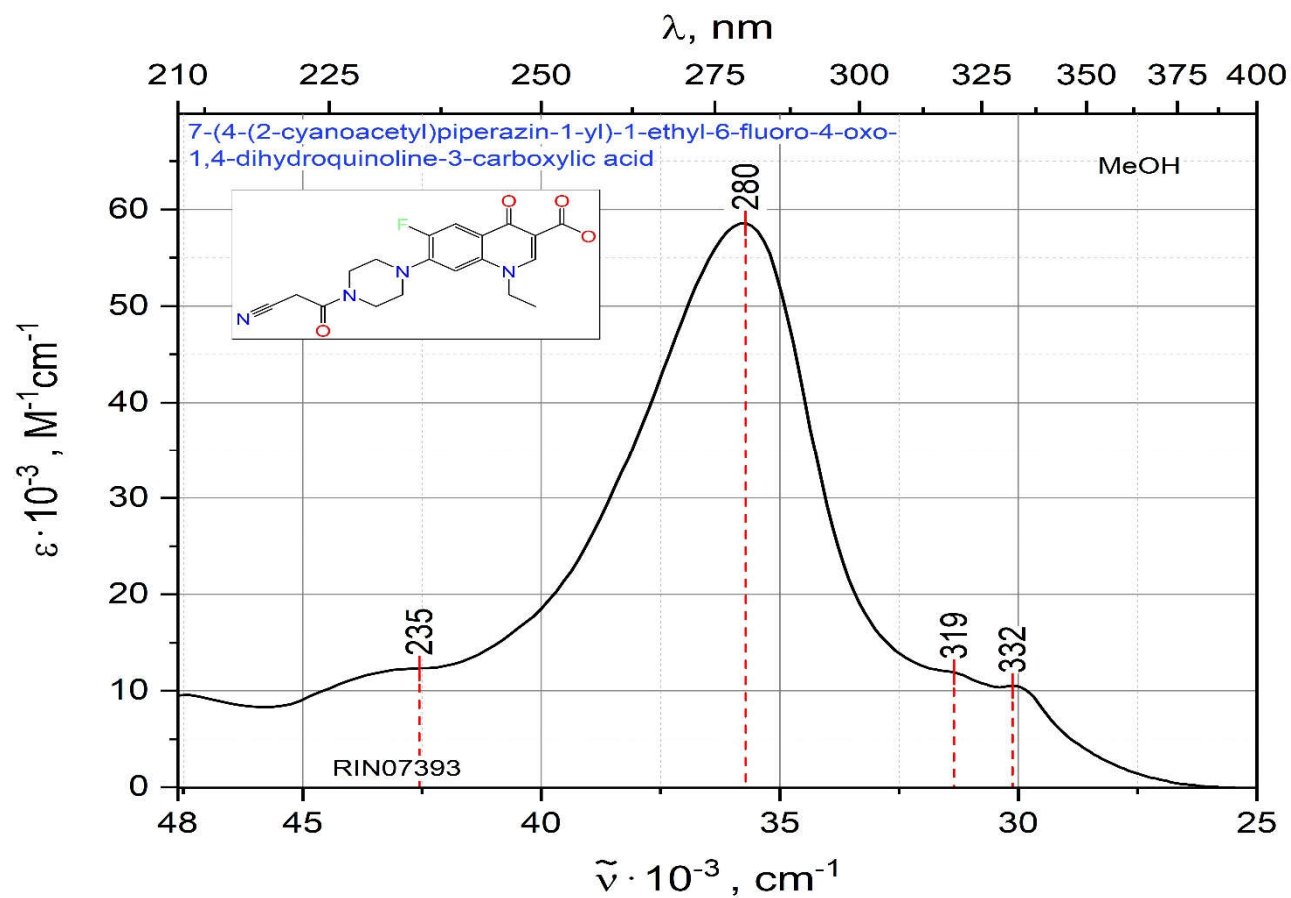


Figure S6. UV/Vis spectrum of 7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1a**

7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid 2a

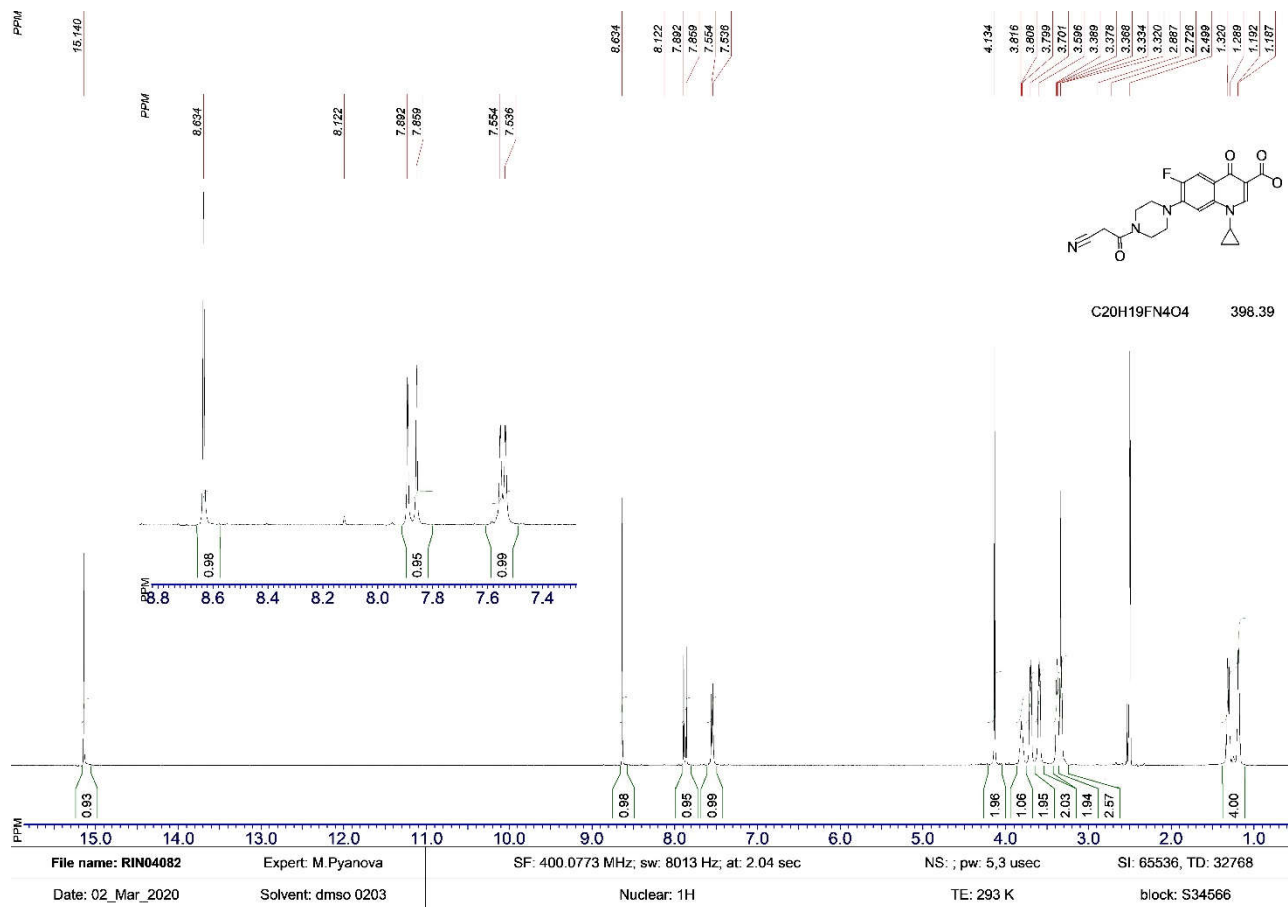


Figure S7. ¹H NMR spectrum (400 MHz, DMSO-d₆) of 7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2a**

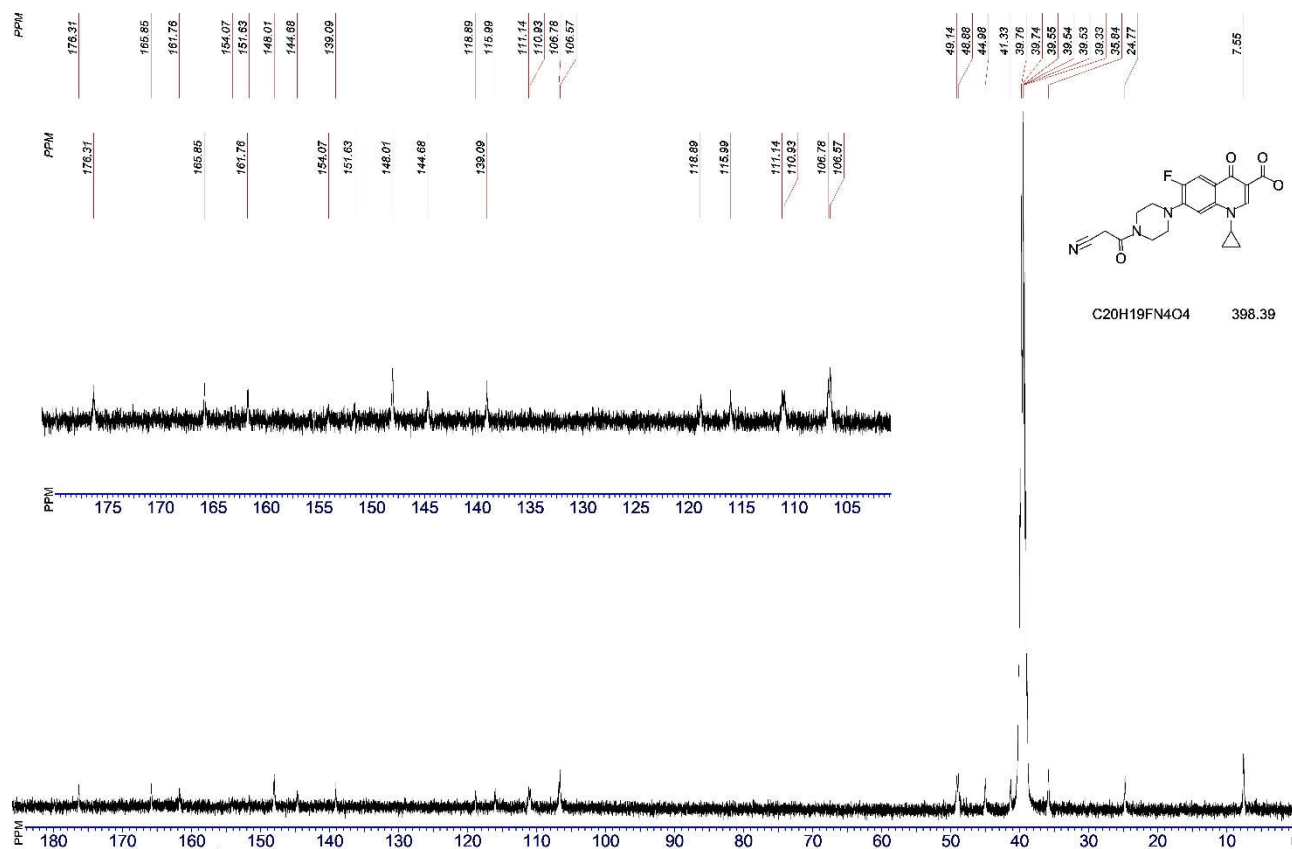


Figure S8. ¹³C NMR spectrum (100 MHz, DMSO-d₆) of 7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2a**

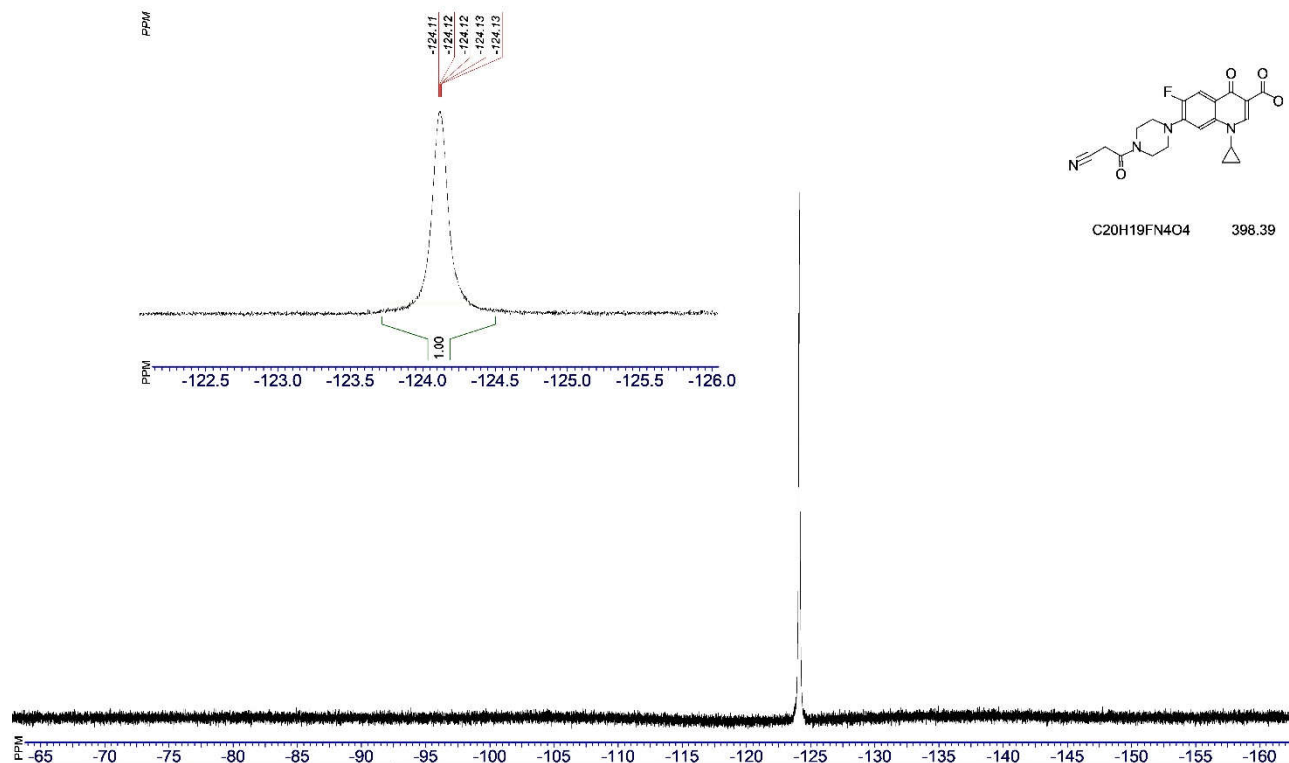
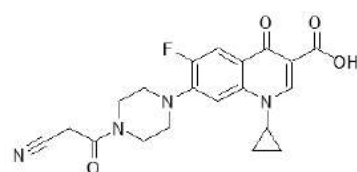


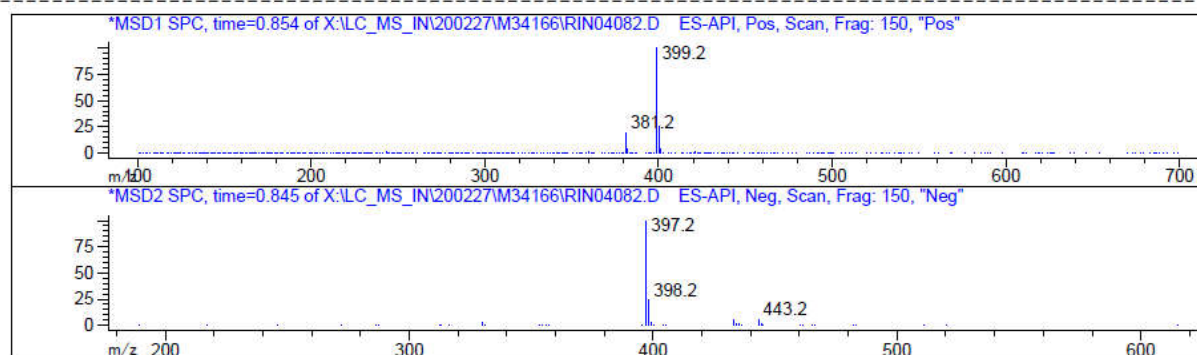
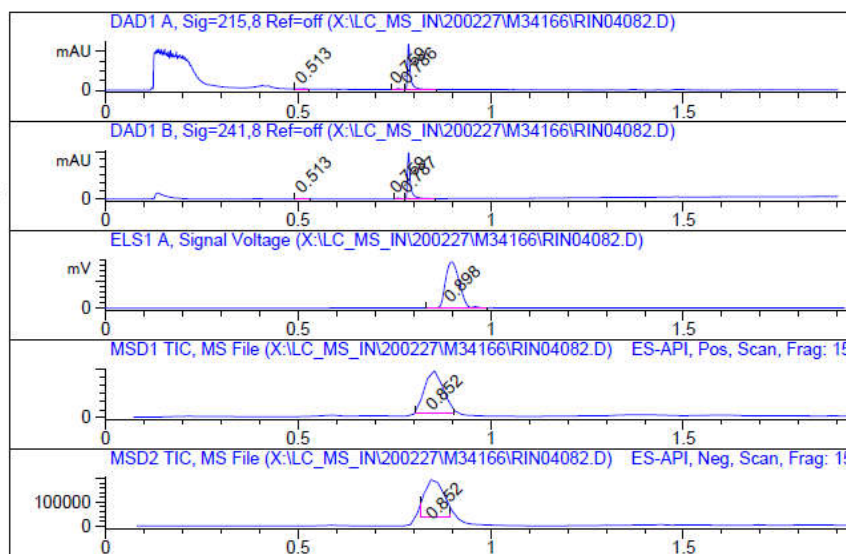
Figure S9. ^{19}F NMR spectrum (376 MHz, DMSO- d_6) of 7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2a**



Mw 398,40

Block: M34166

->



#	Signal	R.Time	Area %
1	DAD1 A, Sig=215,8 Ref=off	0.513	3.223
2		0.759	2.561
3		0.786	94.216

#	Signal	R.Time	Area %
1	DAD1 B, Sig=241,8 Ref=off	0.513	4.380
2		0.759	2.150
3		0.787	93.470

#	Signal	R.Time	Area %
1	ELS1 A, Signal Voltage	0.898	100.000

#	Signal	R.Time	Area %
1	MSD1 TIC, MS File	0.852	100.000

Figure S10. LC/MS data for 7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2a**

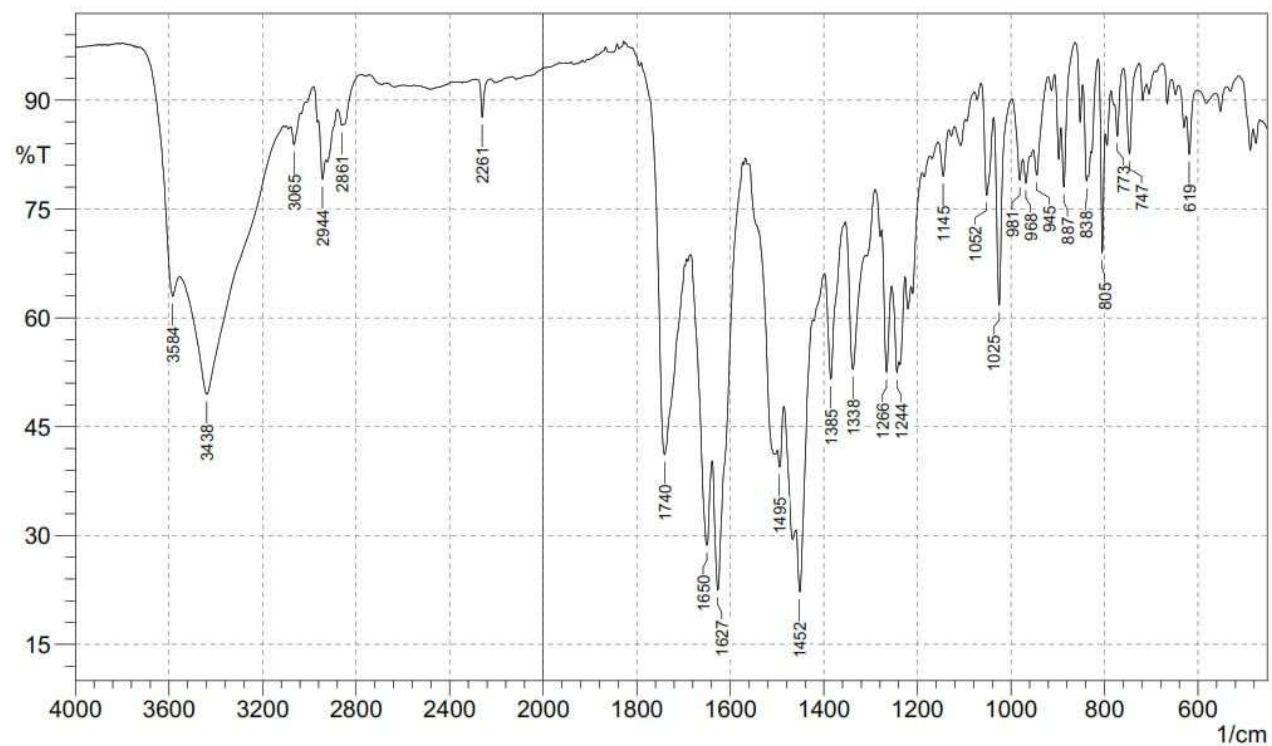


Figure S11. IR spectrum of 7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2a**

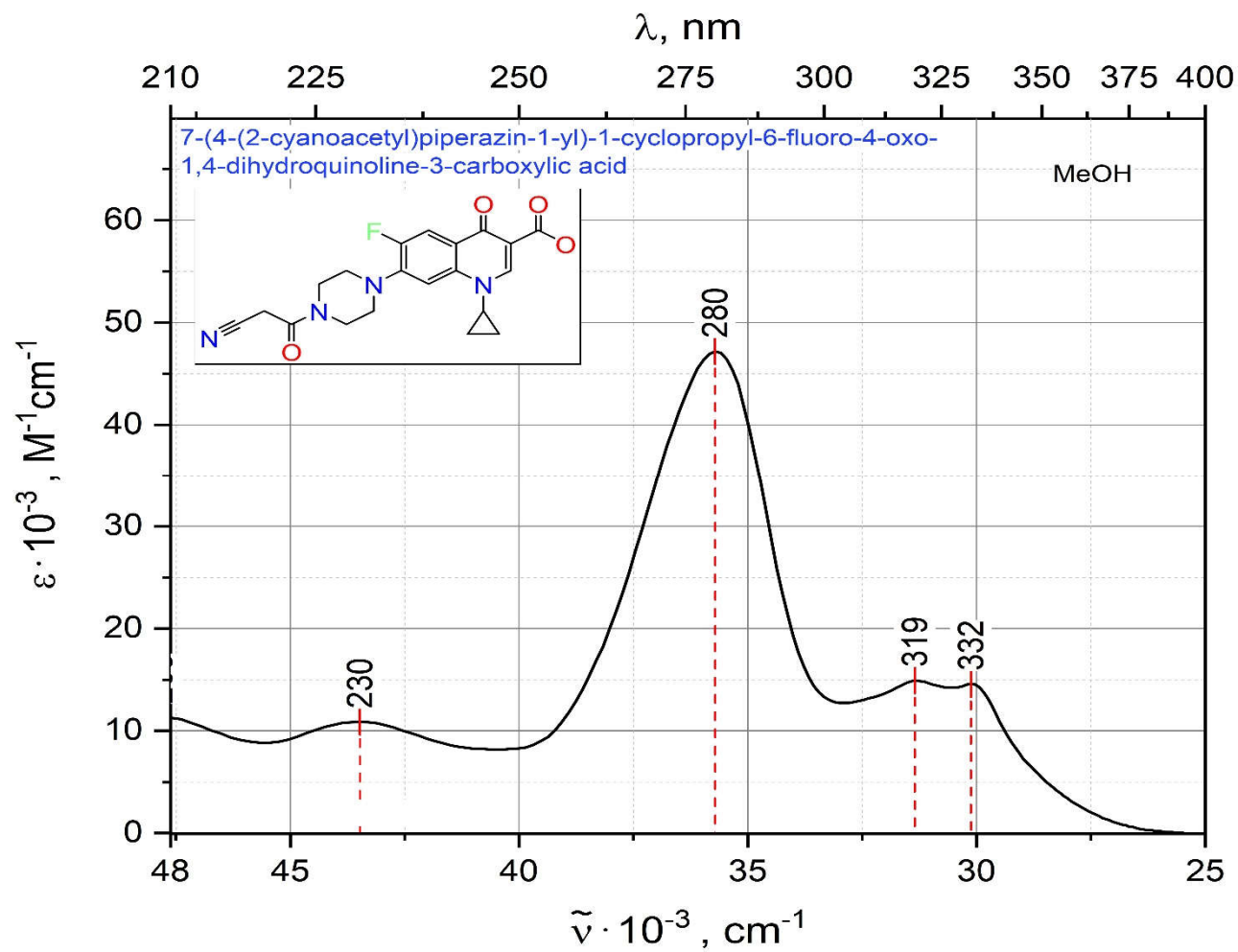


Figure S12. UV/Vis spectrum of 7-(4-(2-cyanoacetyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2a**

7-(4-(5-amino-1-(p-tolyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1b**

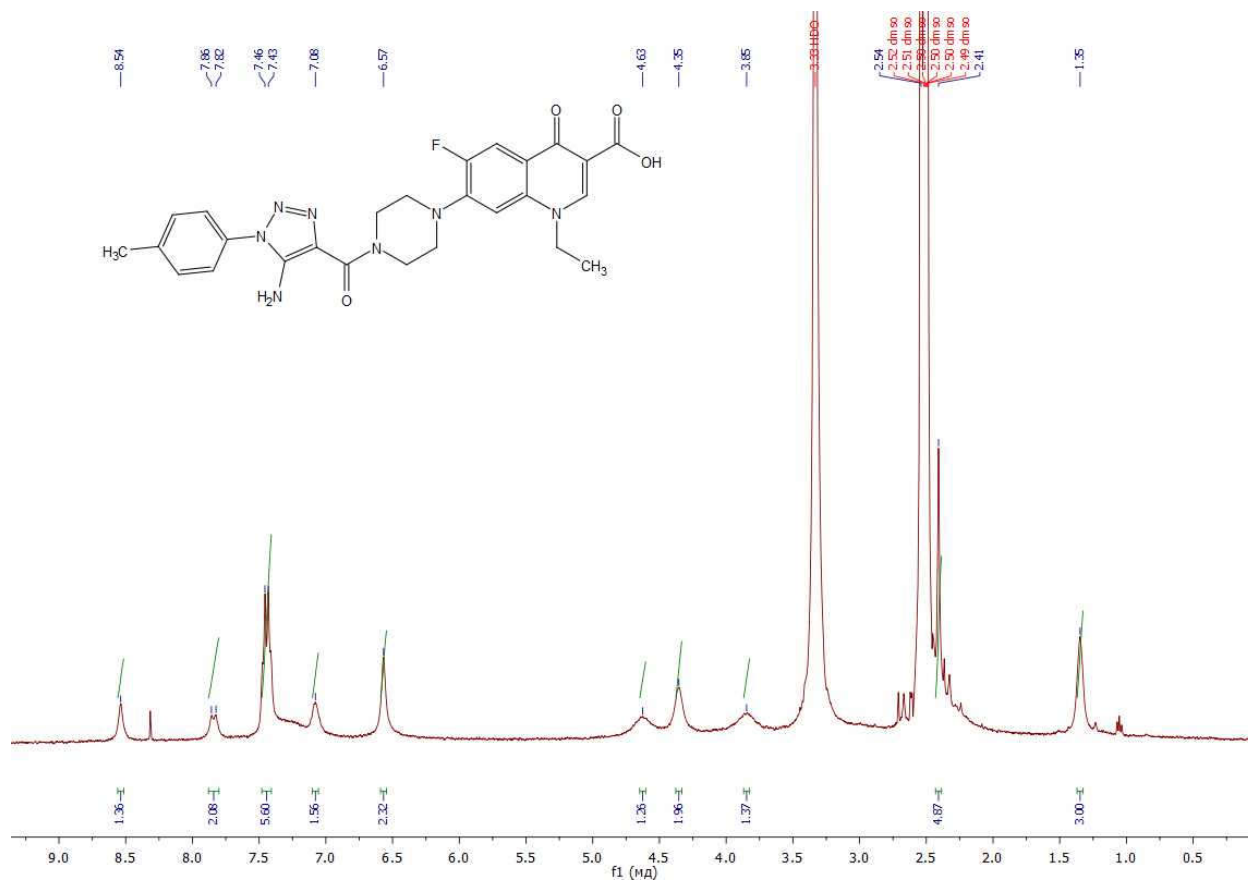


Figure S13. ¹H NMR spectrum (400 MHz, DMSO-d₆) of 7-(4-(5-amino-1-(p-tolyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1b**

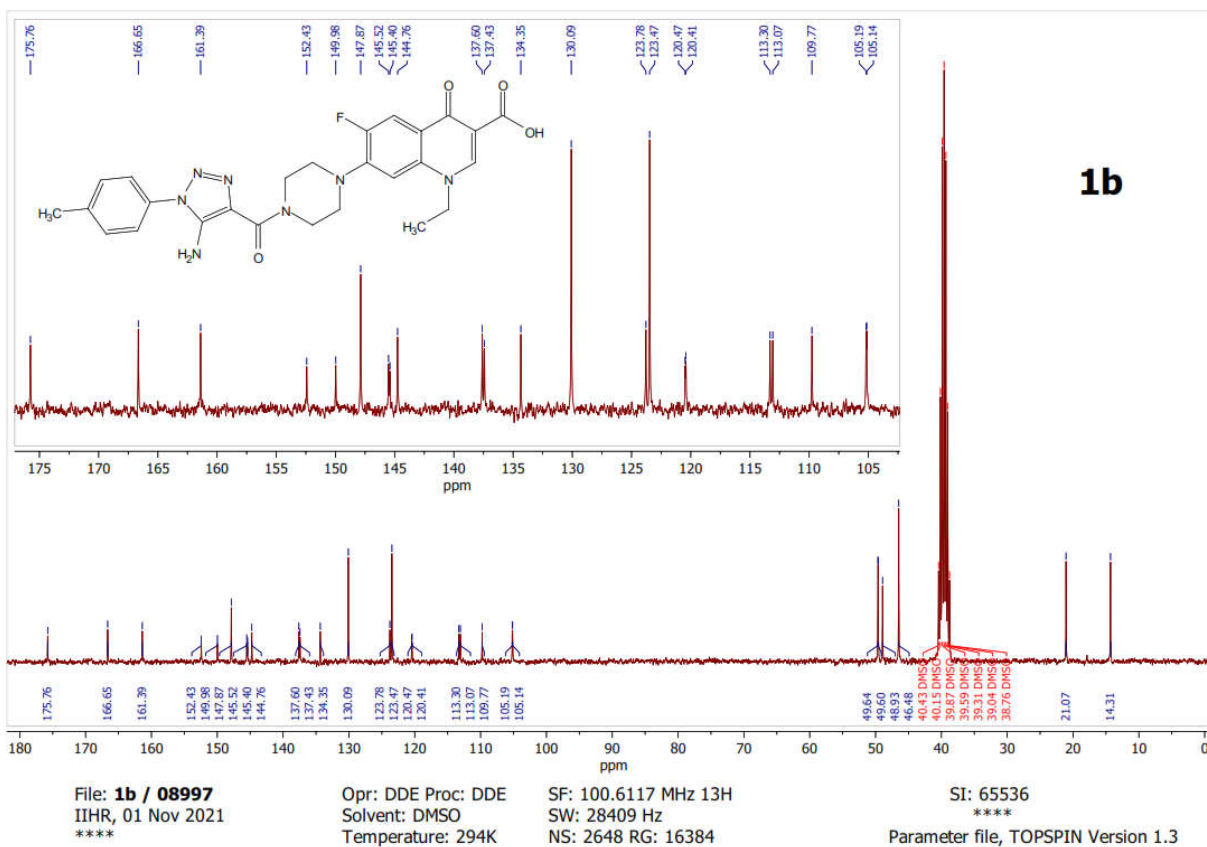


Figure S14. ^{13}C NMR spectrum (100 MHz, DMSO- d_6) of 7-(4-(5-amino-1-(p-tolyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1b**

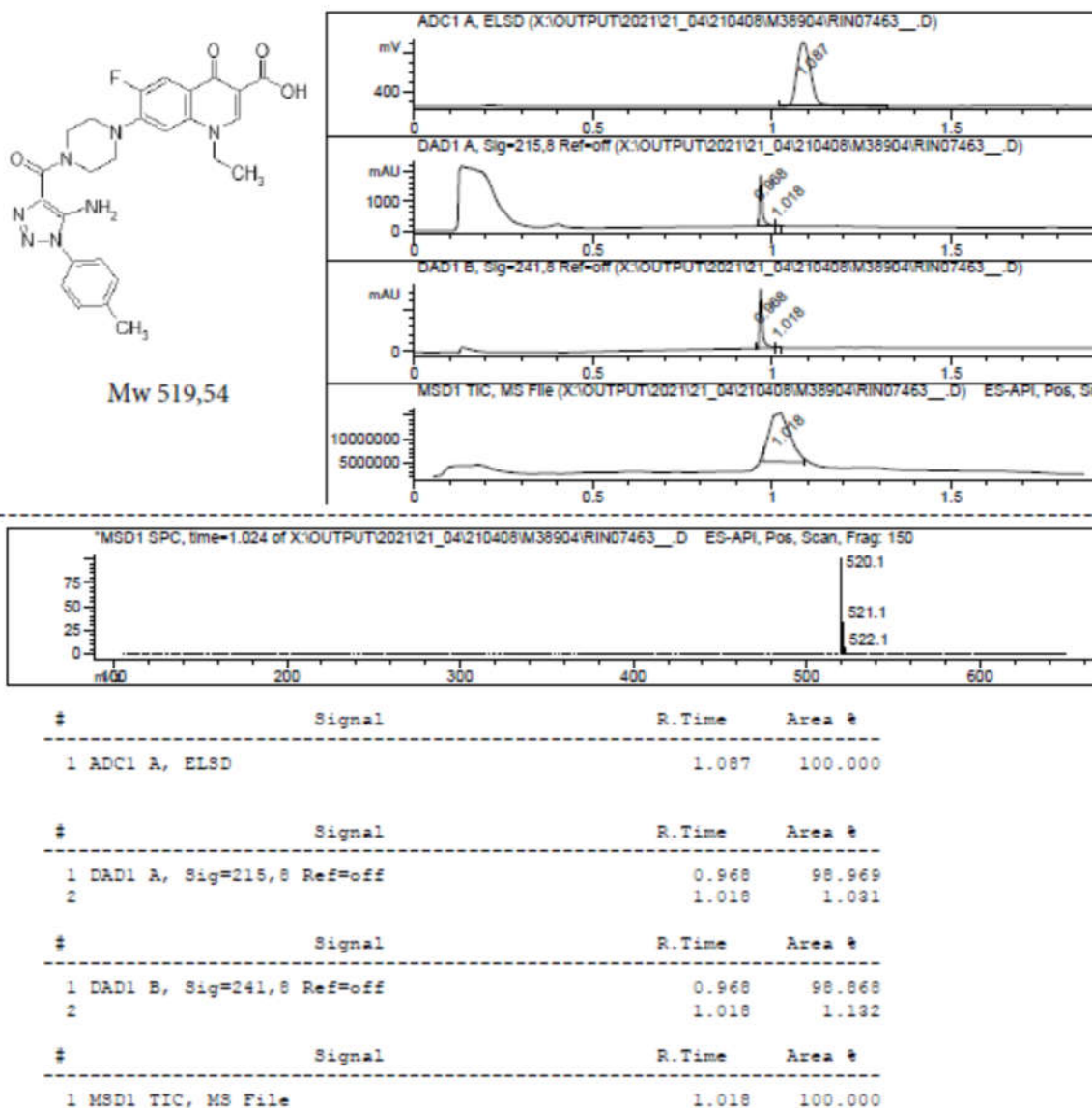


Figure S15. LC/MS data for 7-(4-(5-amino-1-(p-tolyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1b**

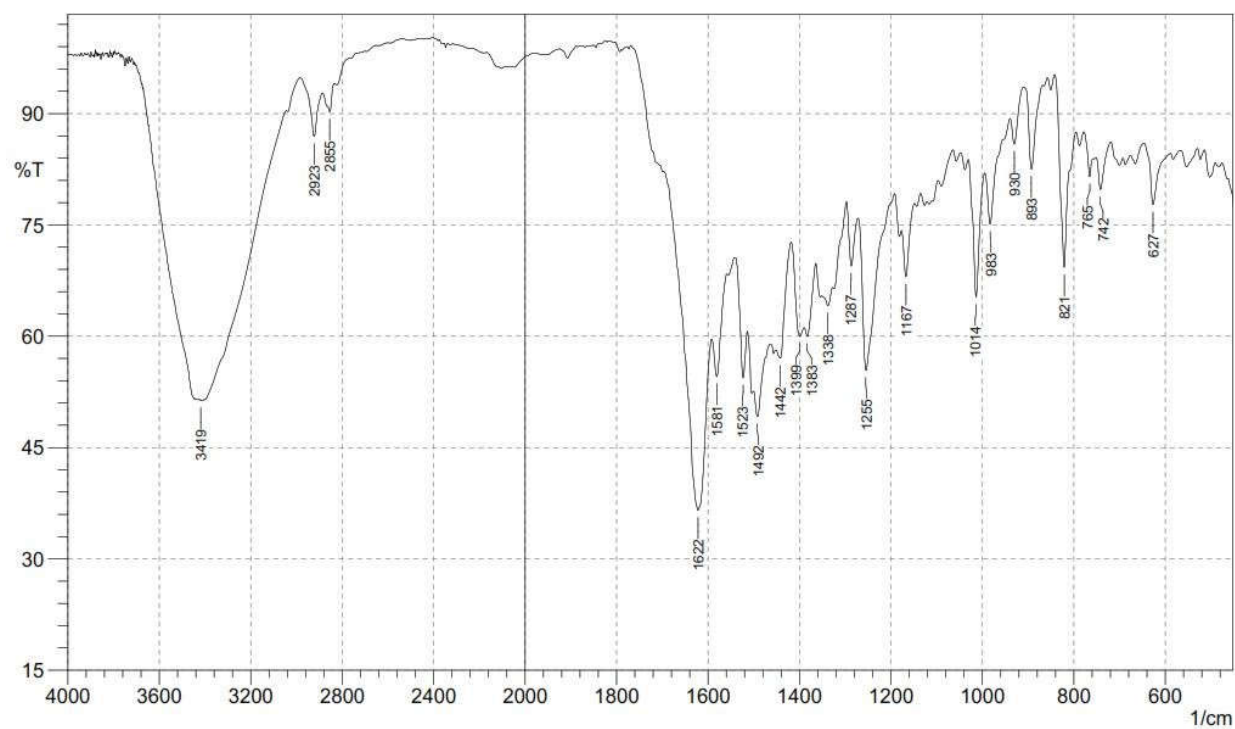


Figure S16. IR spectrum of 7-(4-(5-amino-1-(p-tolyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1b**.

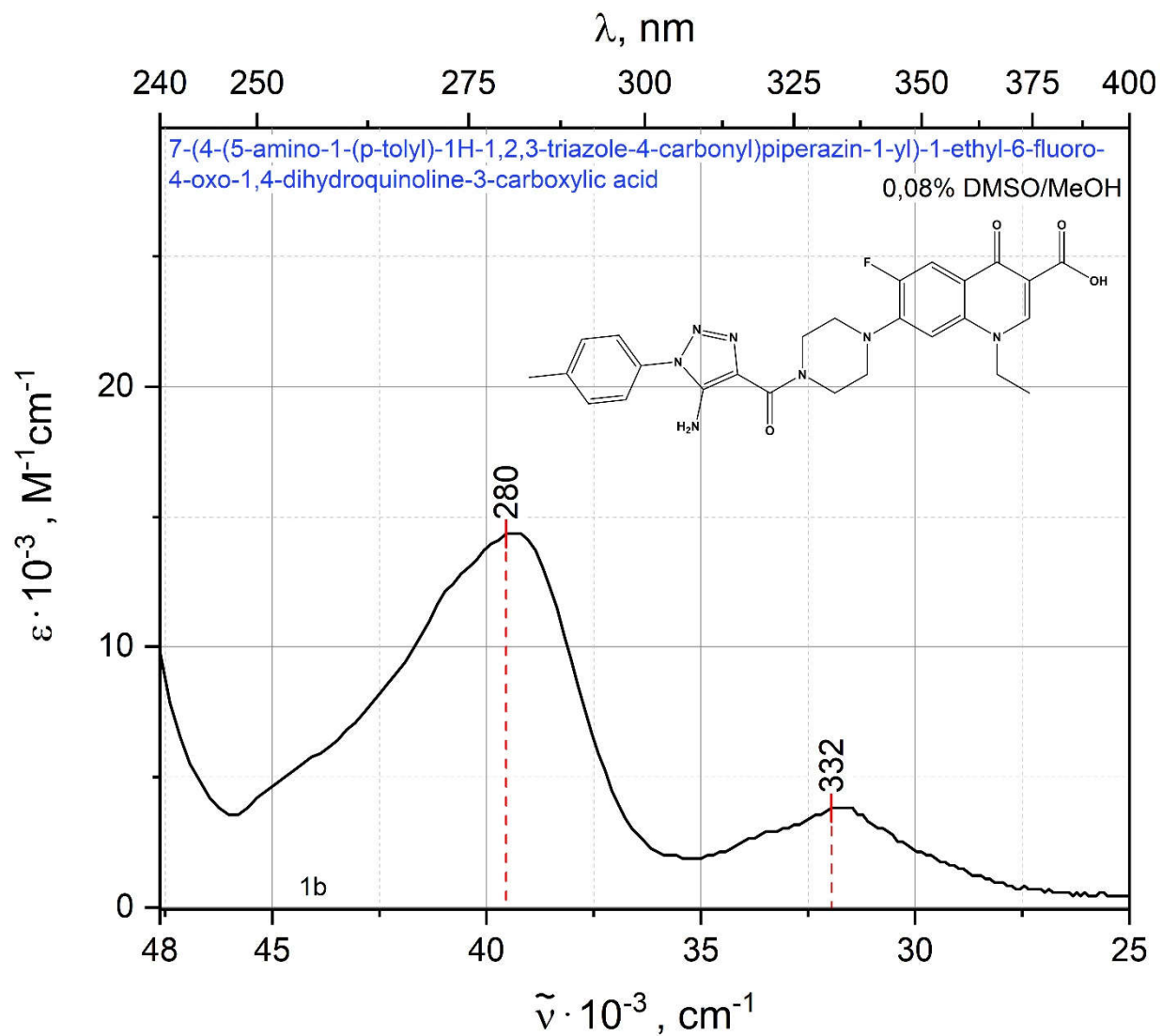


Figure S17. UV/Vis spectrum of 7-(4-(5-amino-1-(p-tolyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1b** (0.08%DMSO/MeOH)

7-(4-(5-amino-1-(4-bromophenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1c**

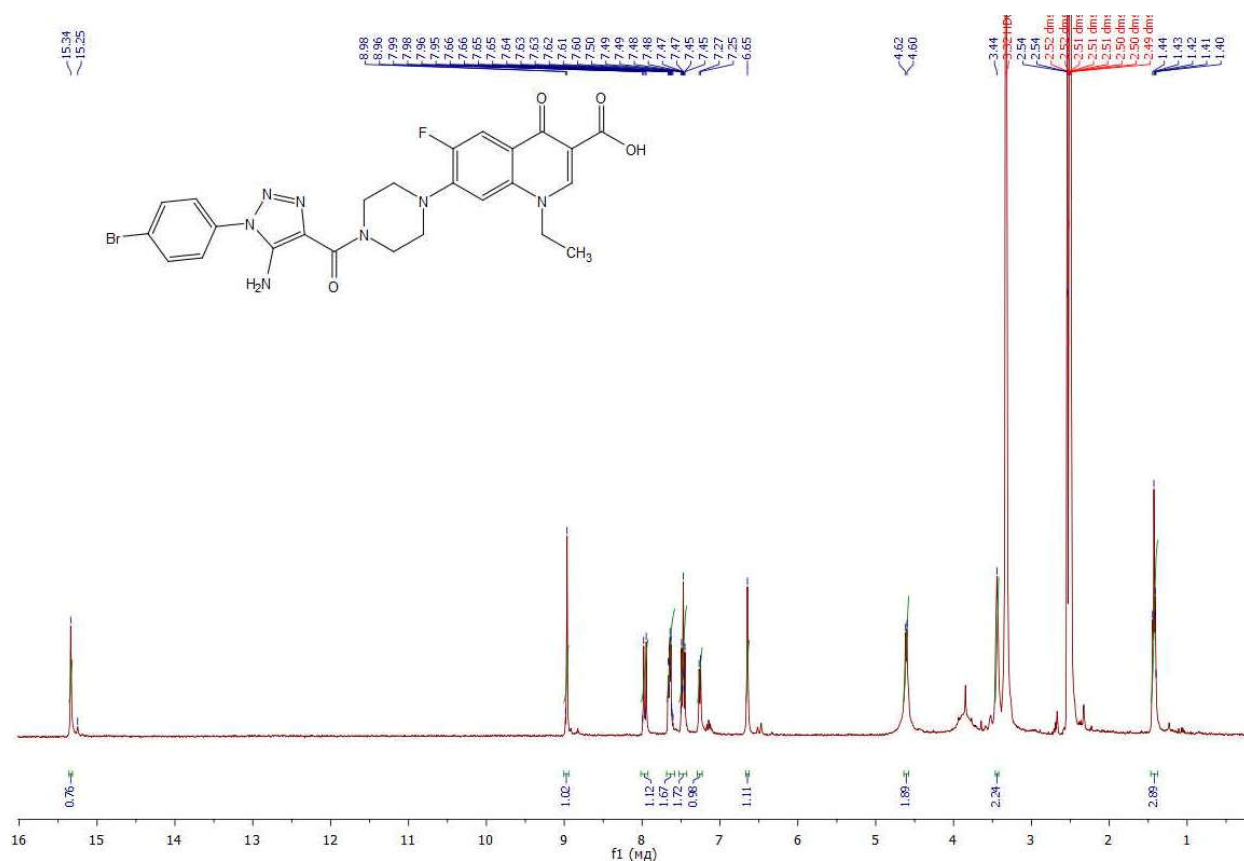


Figure S18. ¹H NMR spectrum (400 MHz, DMSO-d₆) of 7-(4-(5-amino-1-(4-bromophenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1c**

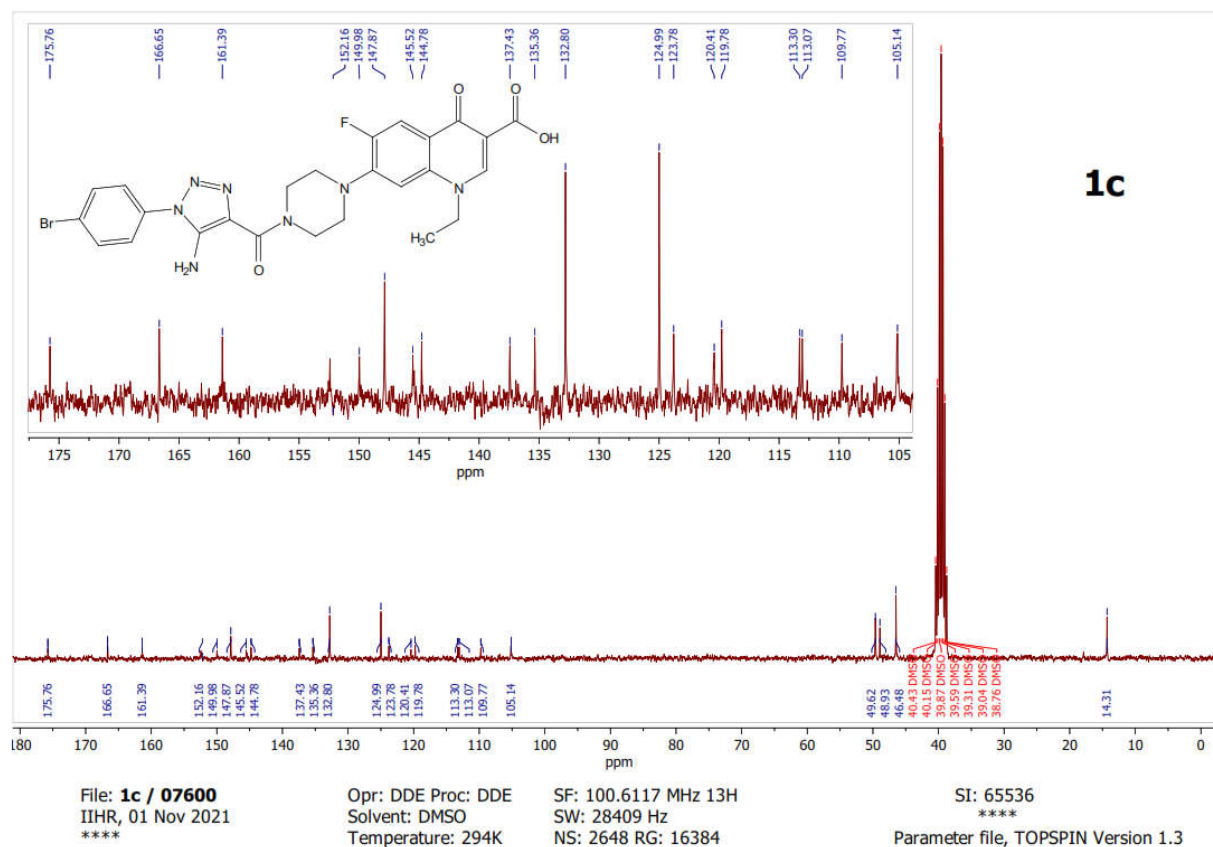


Figure S19. ^{13}C NMR spectrum (100 MHz, DMSO- d_6) of 7-(4-(5-amino-1-(4-bromophenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1c**

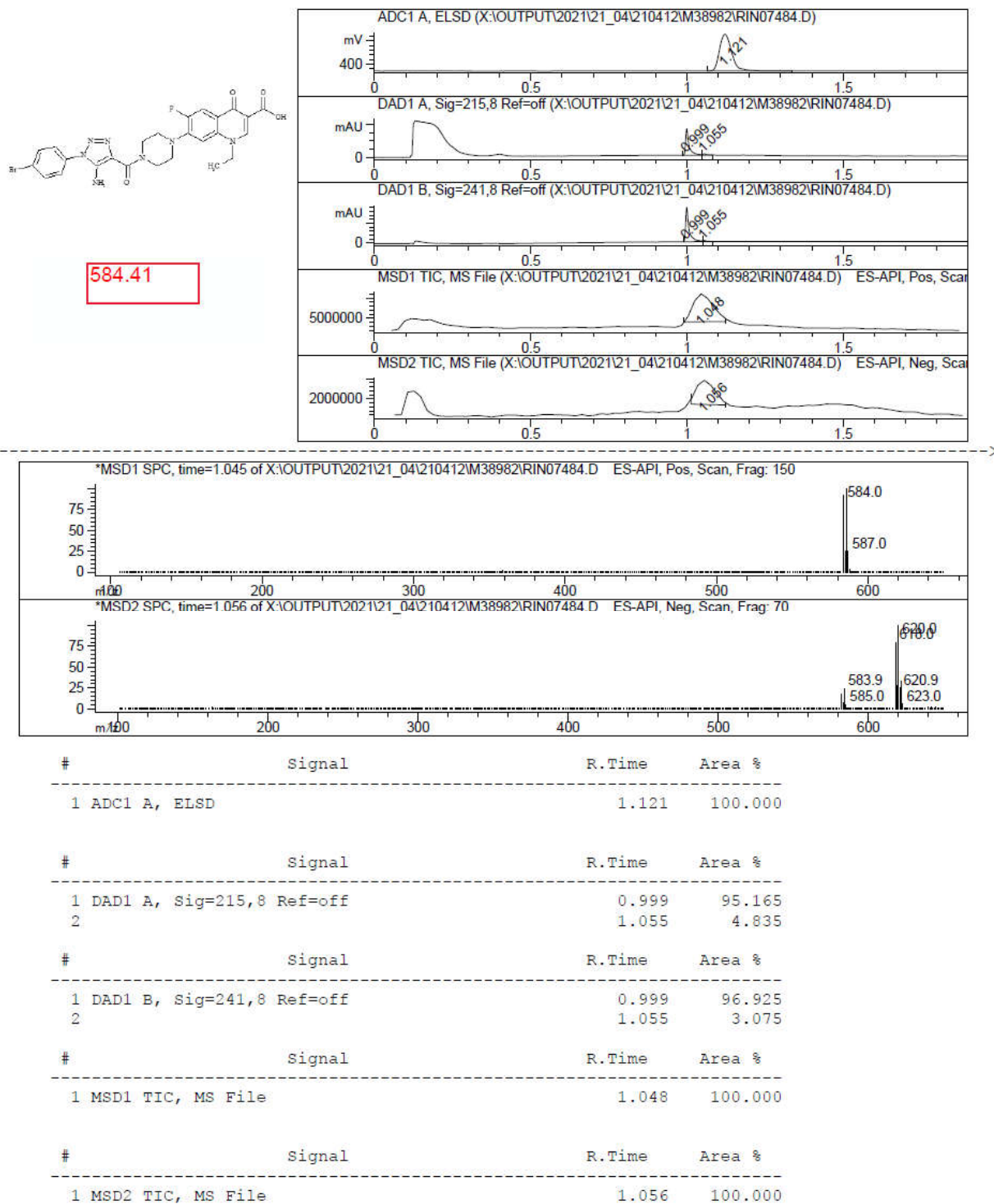


Figure S20. LC/MS data for 7-(4-(5-amino-1-(4-bromophenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1c**

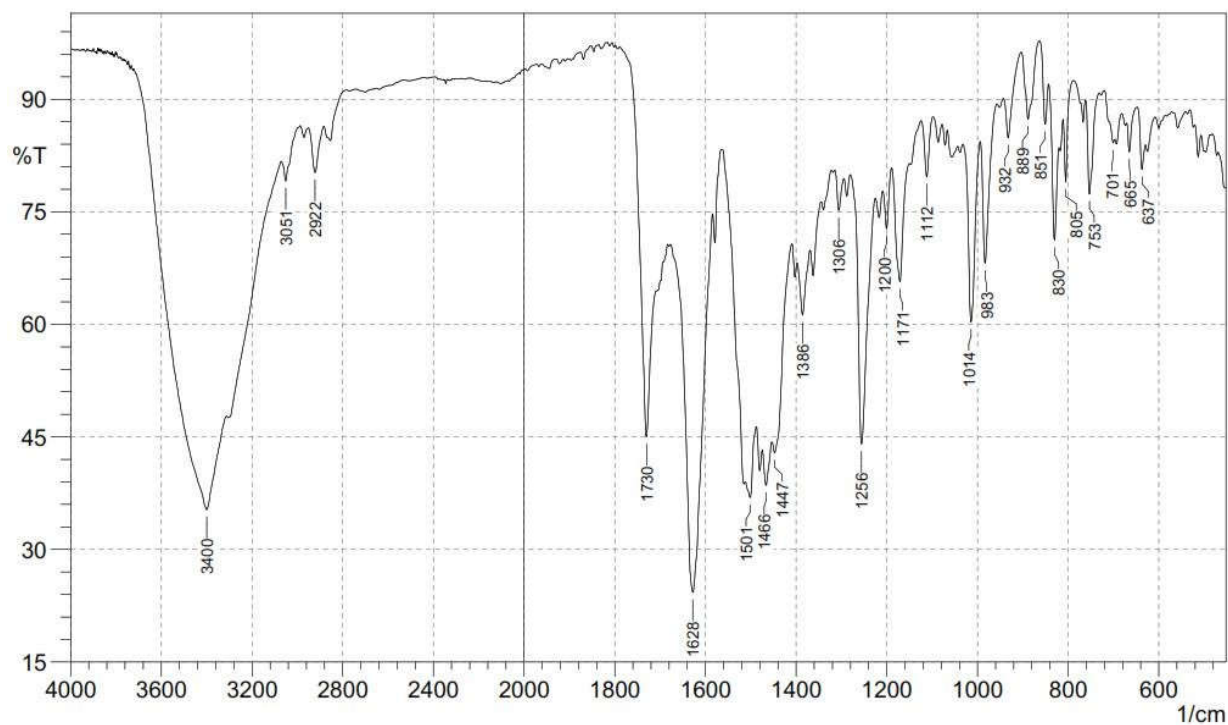


Figure S21. IR spectrum of 7-(4-(5-amino-1-(4-bromophenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1c**

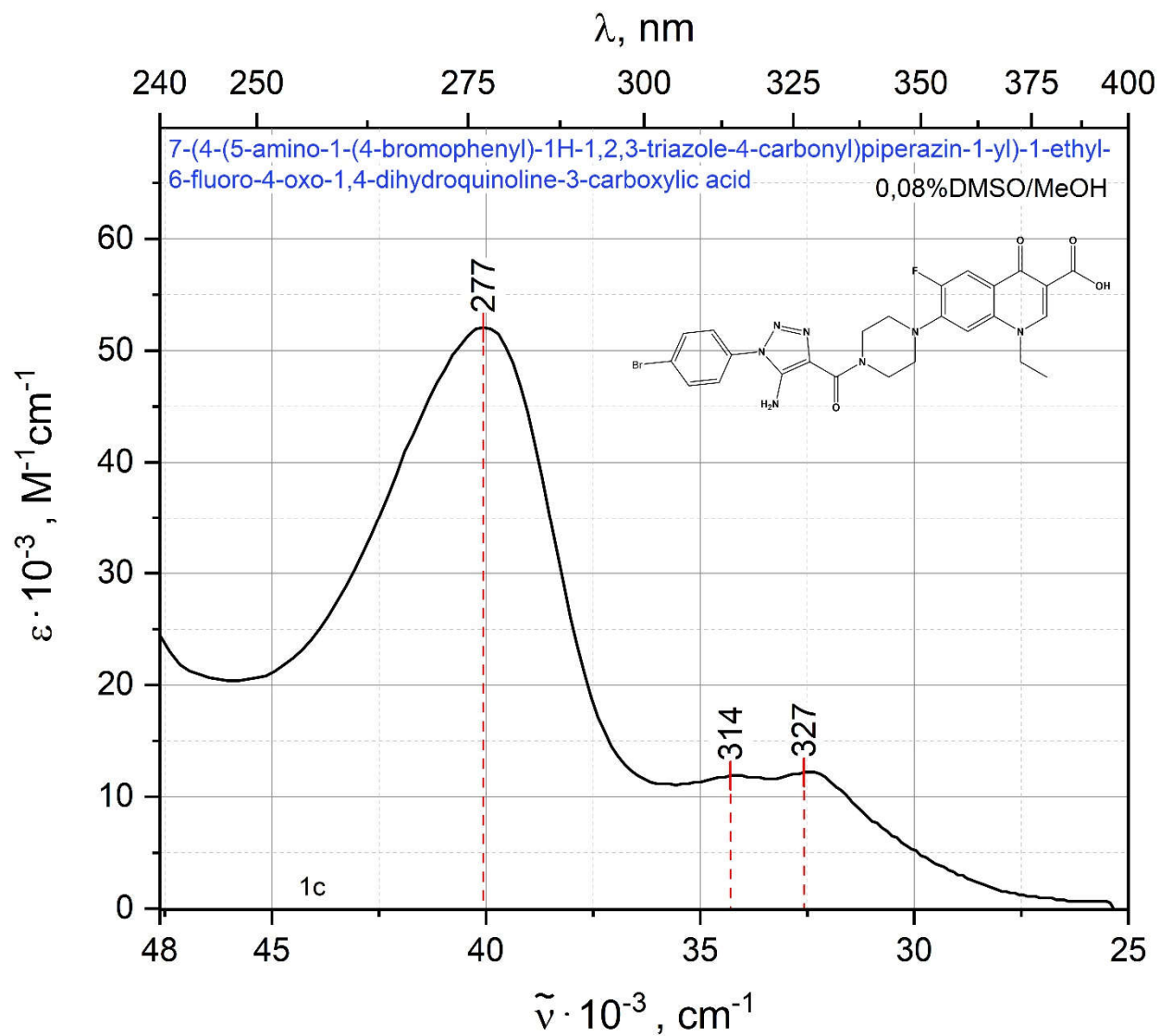


Figure S22. UV/Vis spectrum of 7-(4-(5-amino-1-(4-bromophenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-ethyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **1c** (0.08%DMSO/MeOH)

7-(4-(5-amino-1-phenyl-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2d**

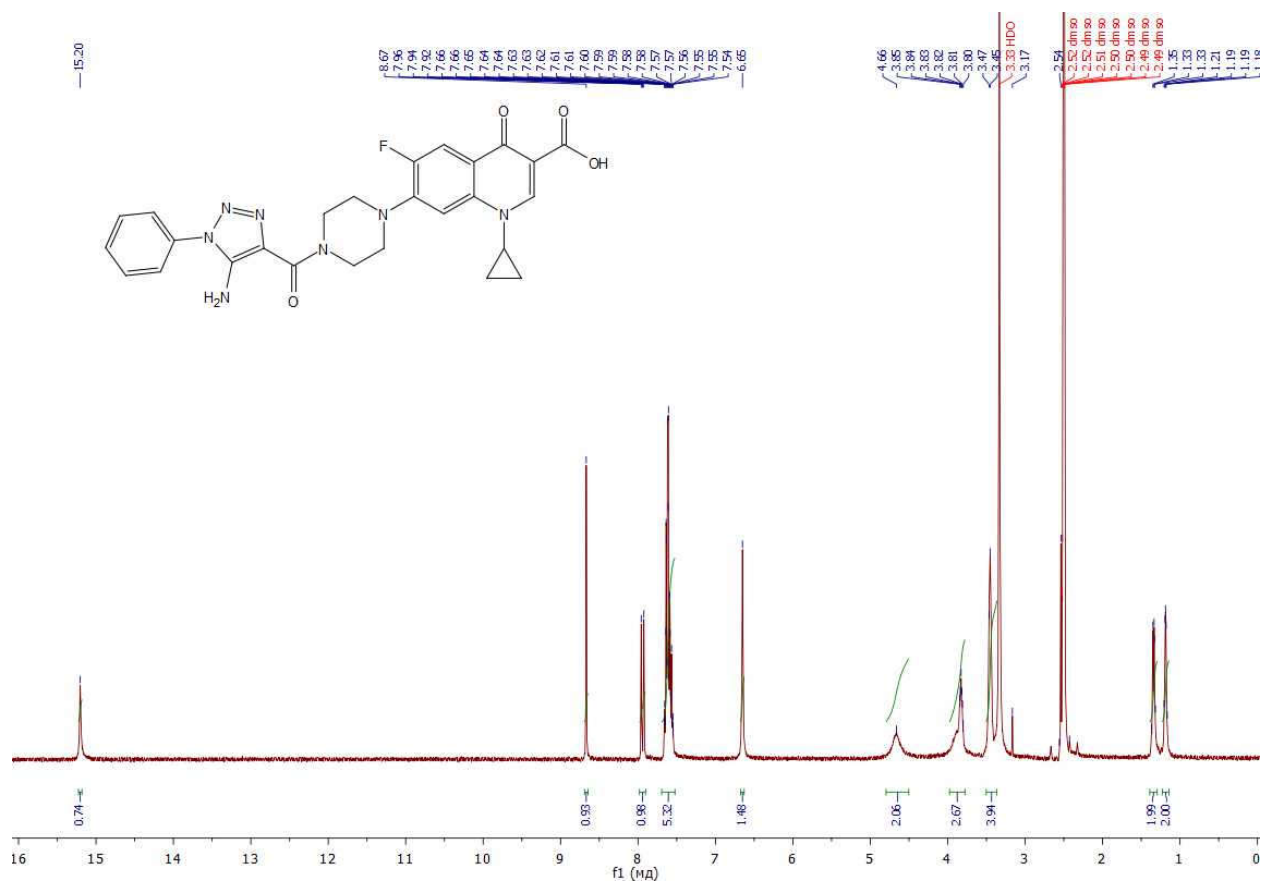


Figure S23. ¹H NMR spectrum (400 MHz, DMSO-d₆) of 7-(4-(5-amino-1-phenyl-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2d**

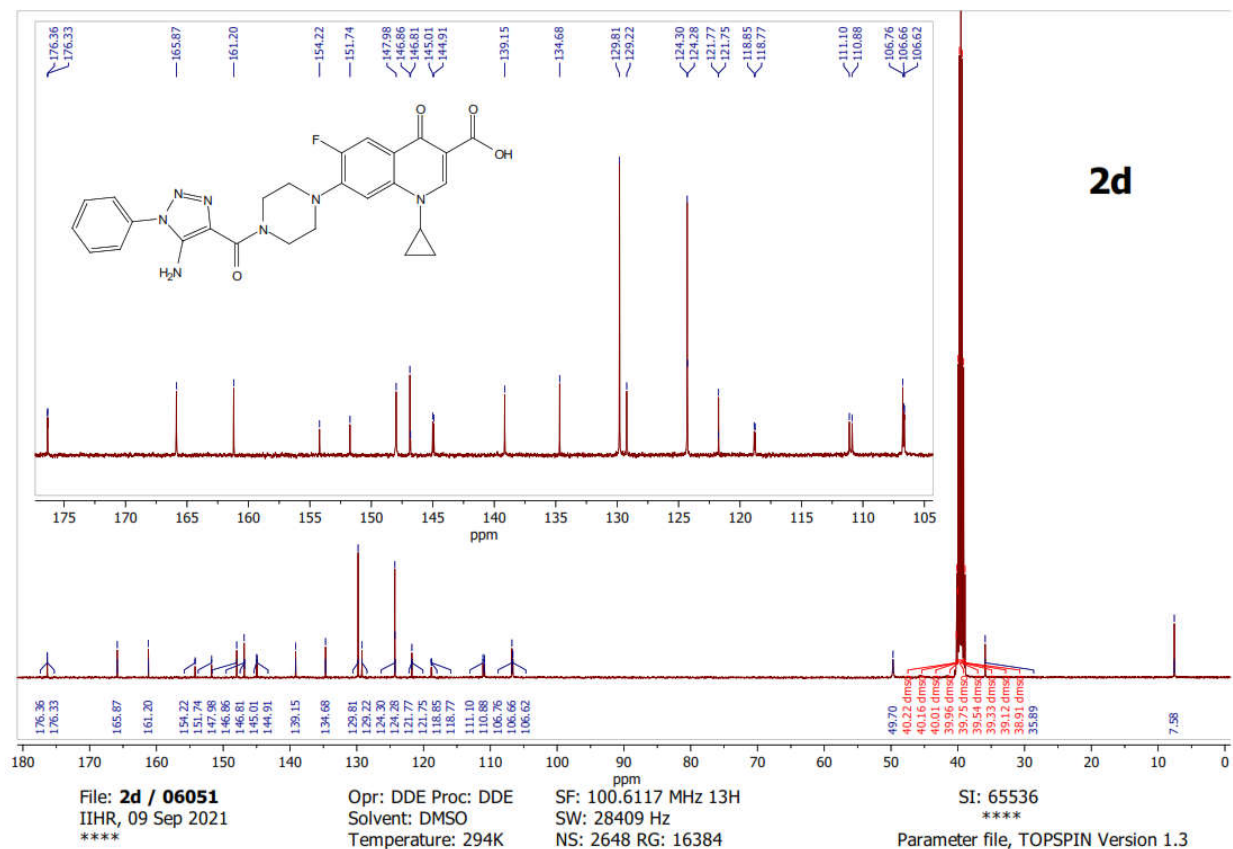


Figure S24. ¹³C NMR spectrum (100 MHz, DMSO-d₆) of 7-(4-(5-amino-1-phenyl-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2d**

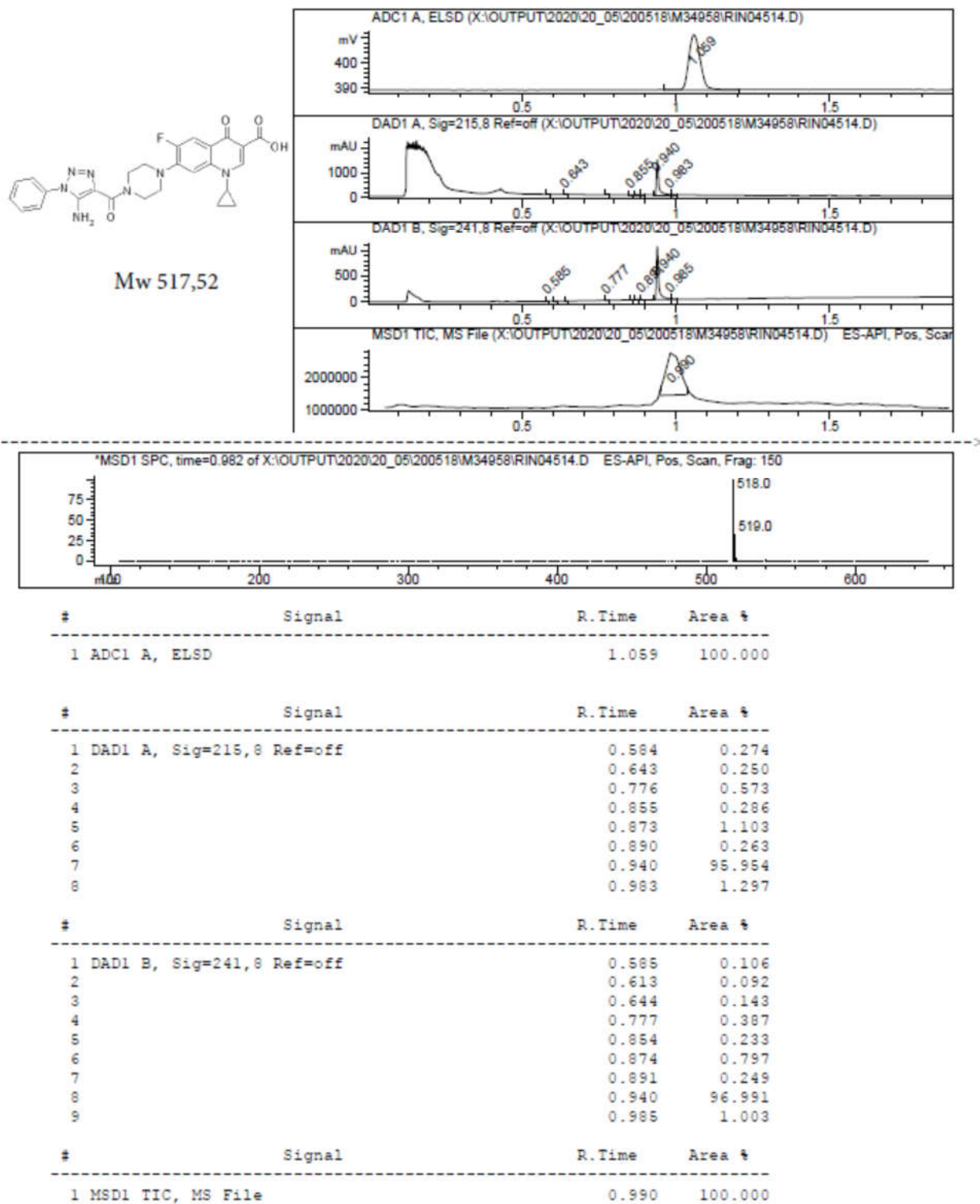


Figure S25. LC/MS data for 7-(4-(5-amino-1-phenyl-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2d**

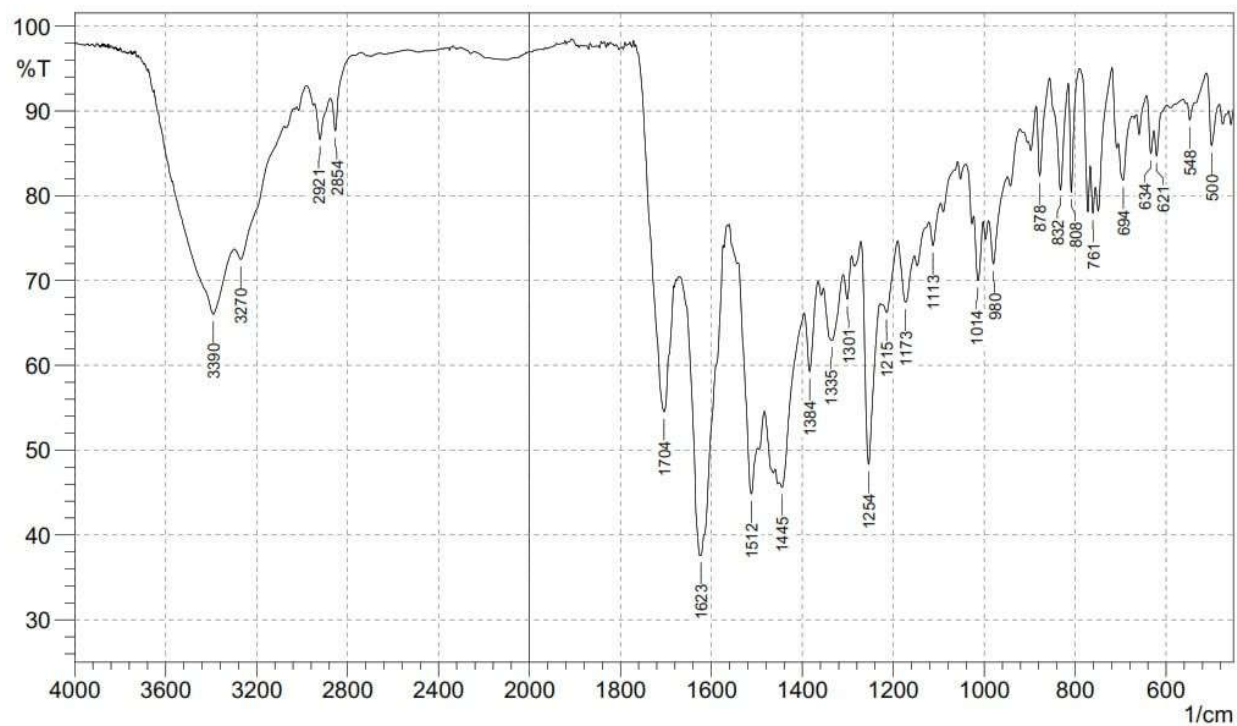


Figure S26. IR spectrum of 7-(4-(5-amino-1-phenyl-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2d**

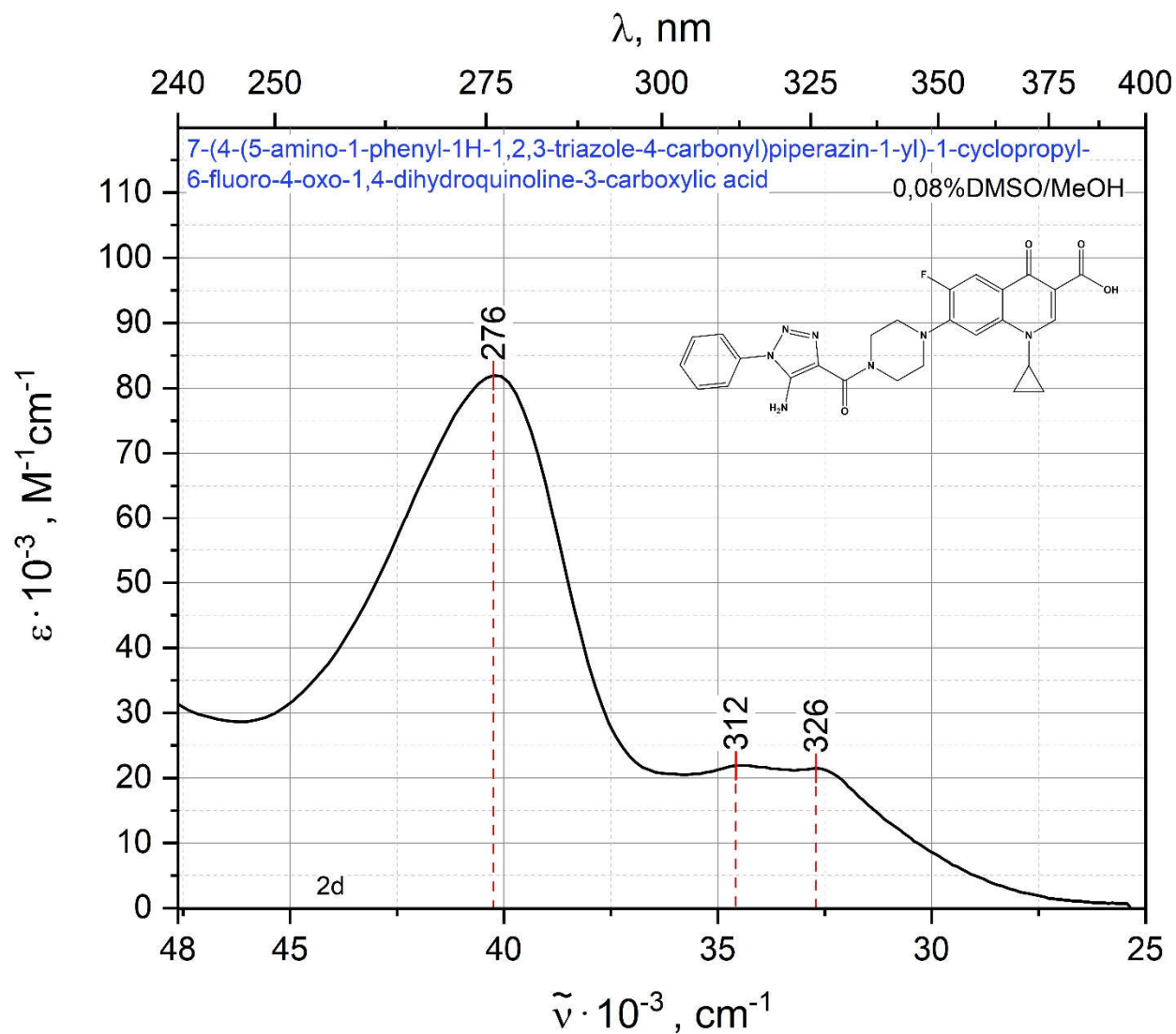


Figure S27. UV/Vis spectrum of 7-(4-(5-amino-1-phenyl-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2d** (0,08%DMSO/MeOH)

7-(4-(5-amino-1-(2-methylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid 2e

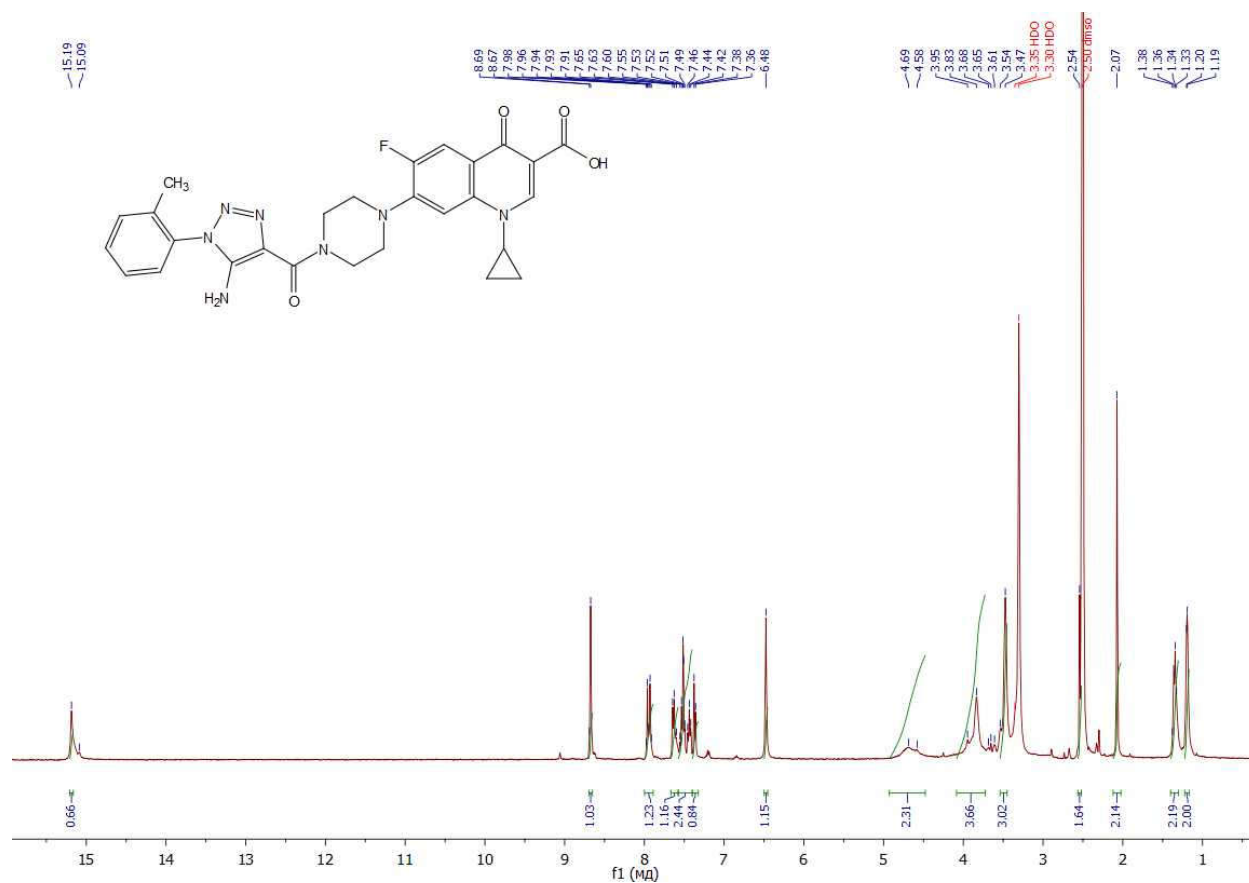


Figure S28. ¹H NMR spectrum (400 MHz, DMSO-d₆) of 7-(4-(5-amino-1-(2-methylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2e**

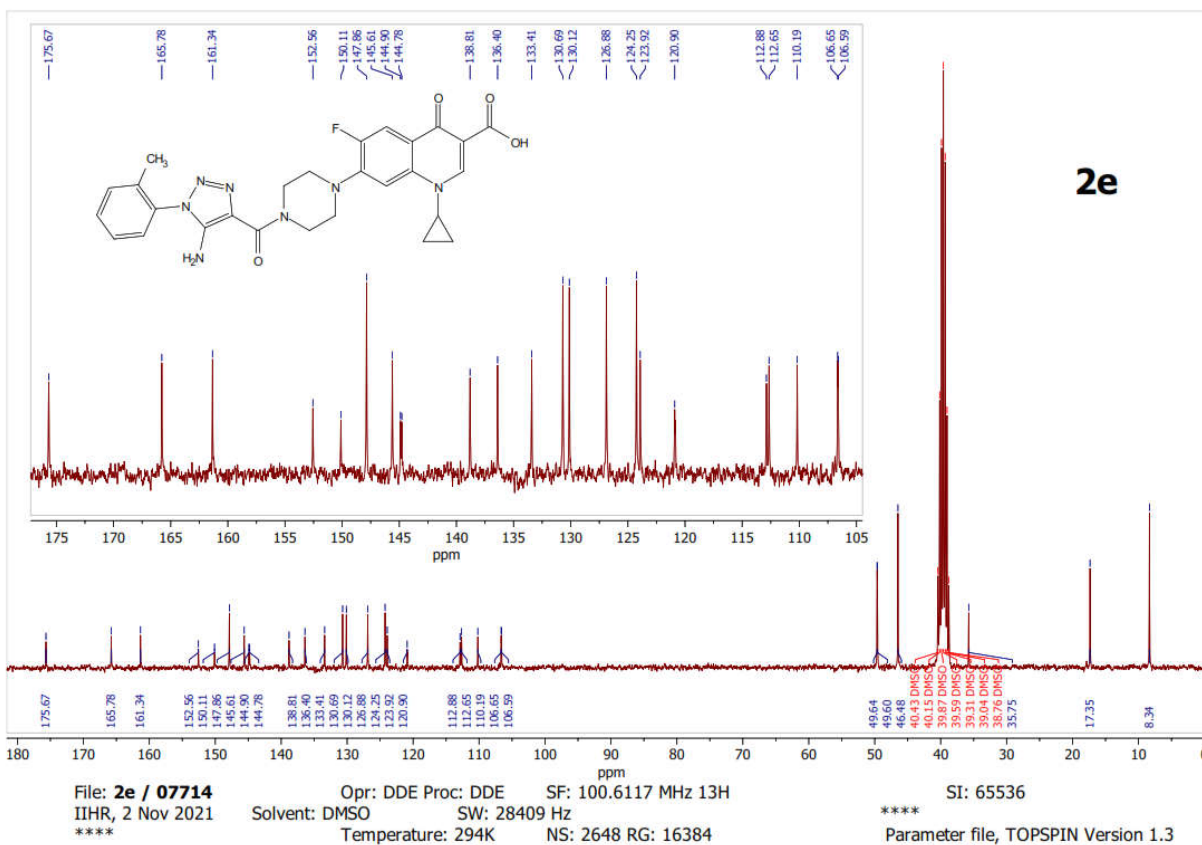


Figure S29. ^{13}C NMR spectrum (100 MHz, DMSO- d_6) of 7-(4-(5-amino-1-(2-methylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2e**

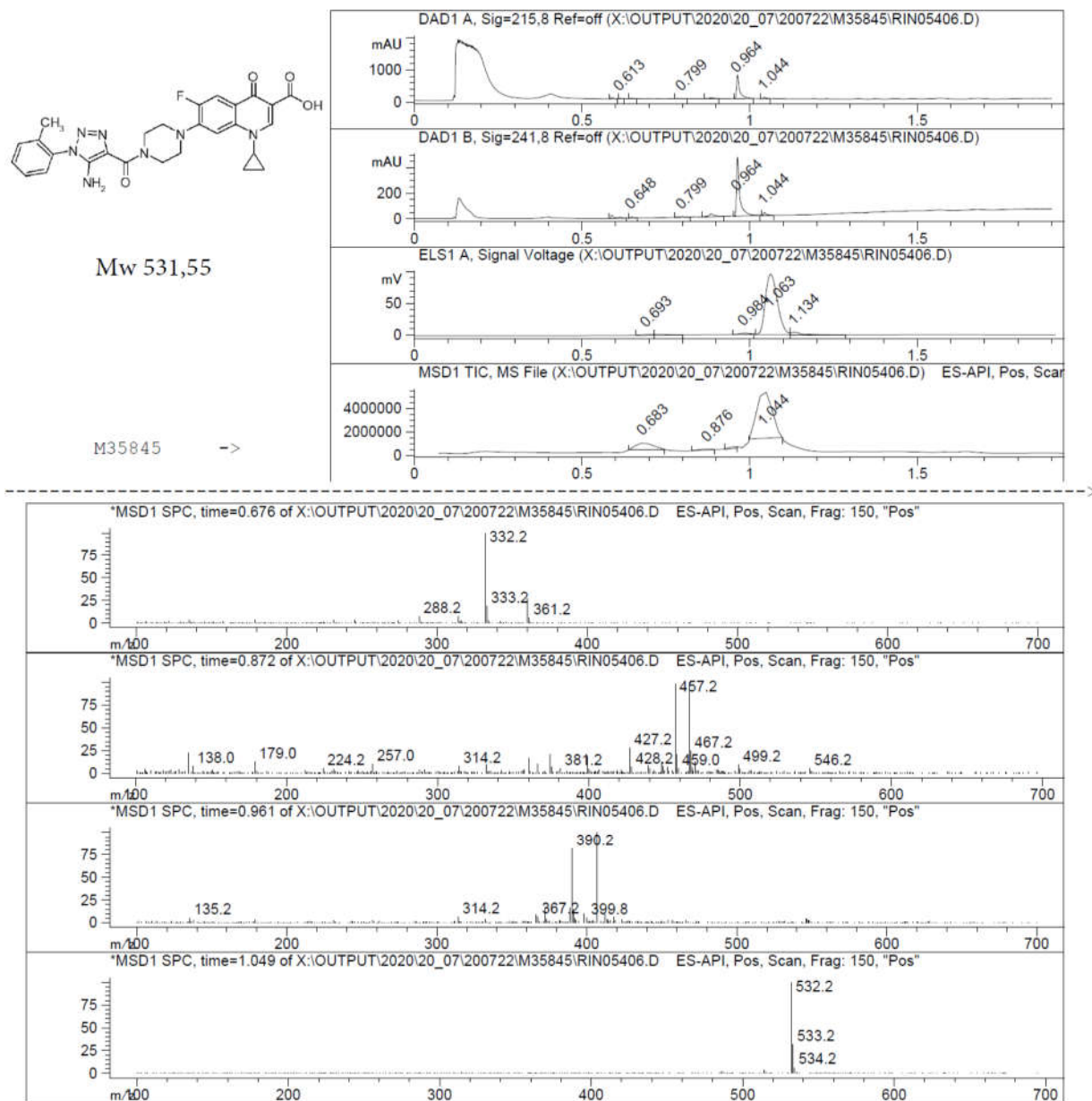


Figure S30. LC/MS data for 7-(4-(5-amino-1-(2-methylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2e**

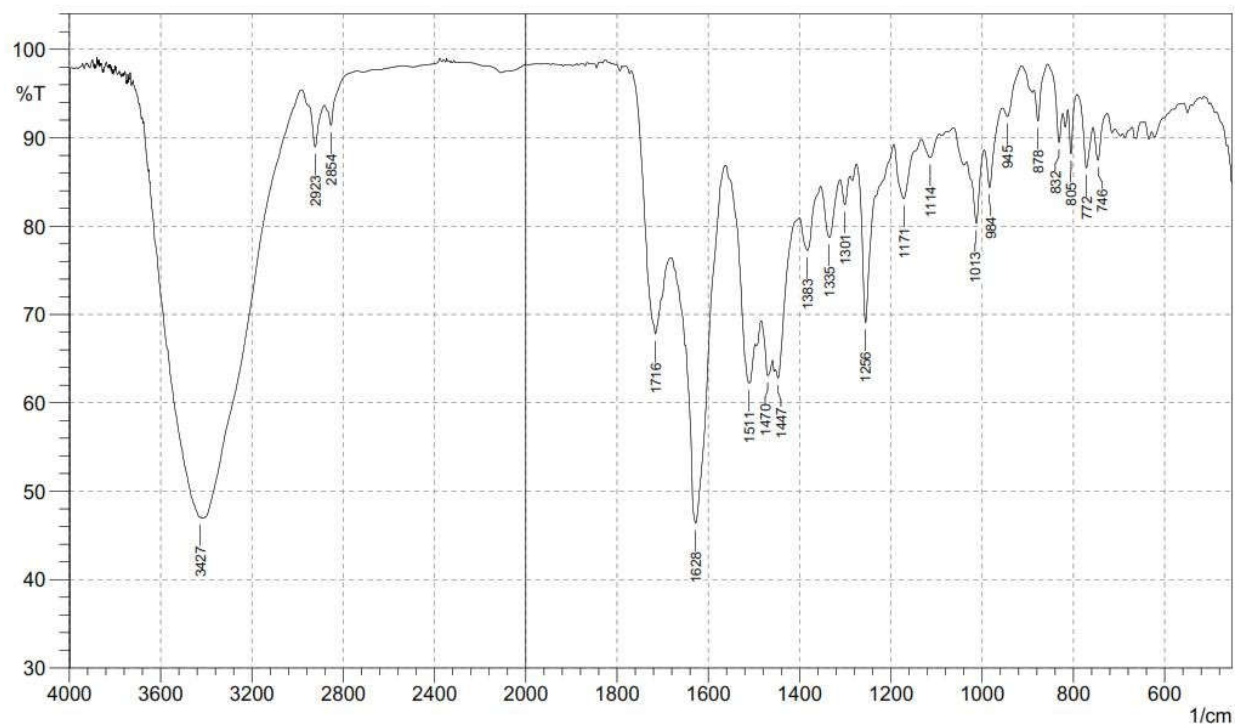


Figure S31. IR spectrum of 7-(4-(5-amino-1-(2-methylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2e**

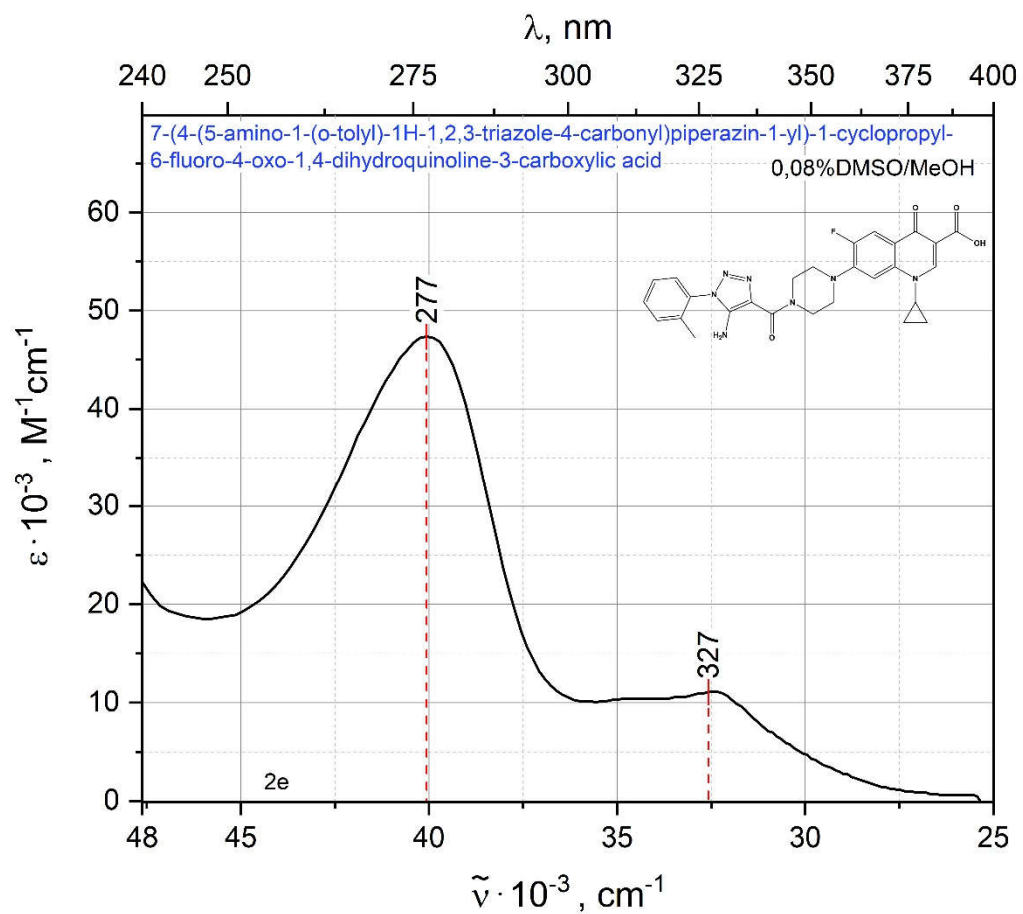


Figure S32. UV/Vis spectrum of 7-(4-(5-amino-1-(2-methylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2e** (0,08% DMSO/MeOH)

7-(4-(5-amino-1-(4-ethylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid 2f

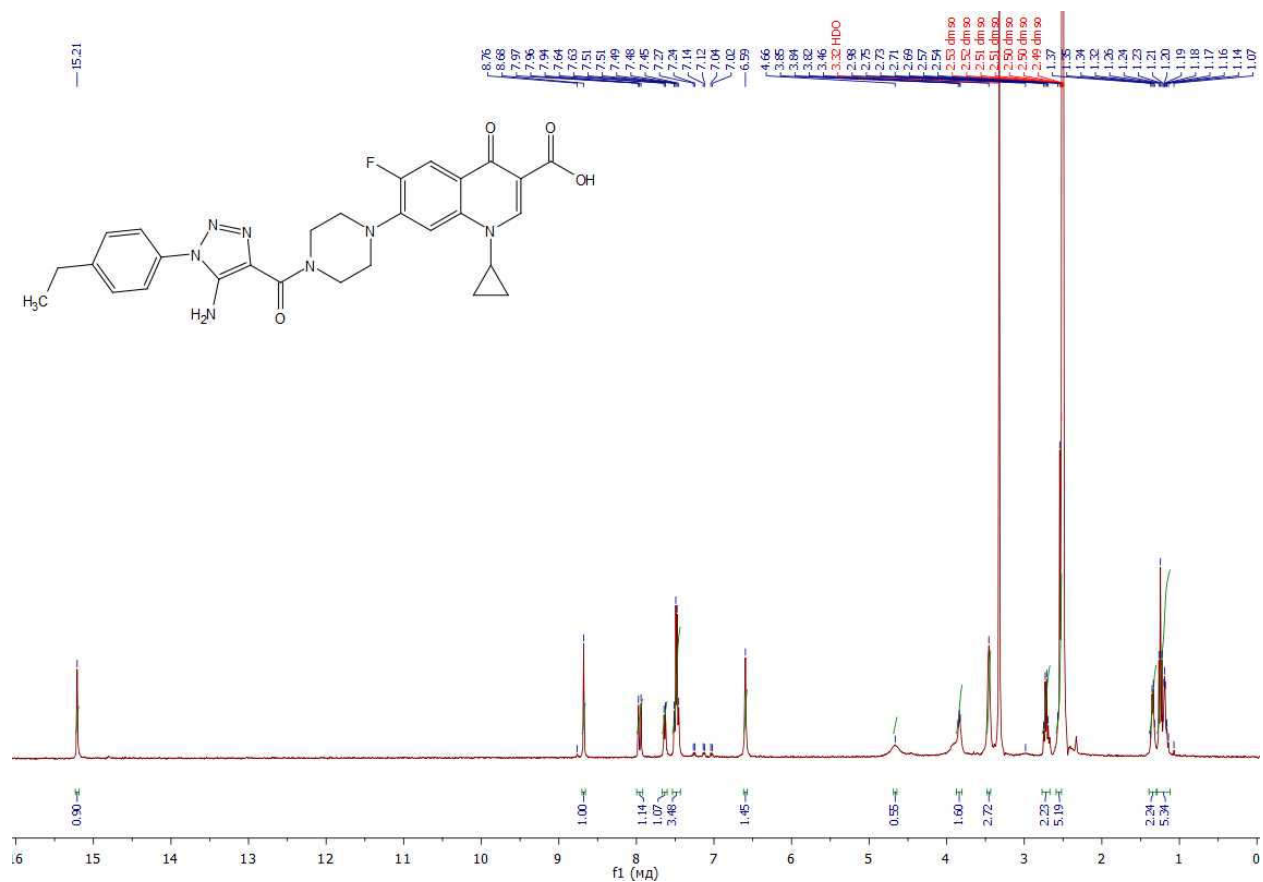


Figure S33. ¹H NMR spectrum (400 MHz, DMSO-d₆) of 7-(4-(5-amino-1-(4-ethylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid 2f

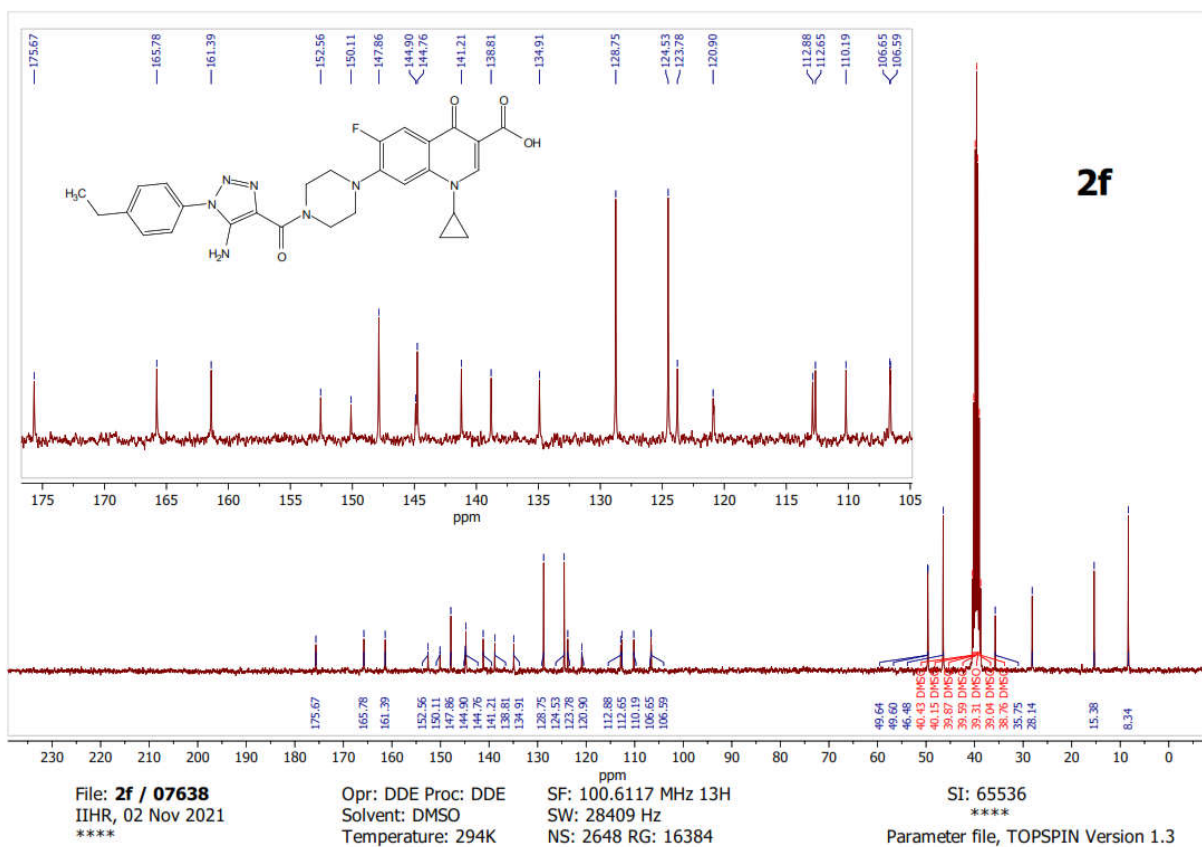


Figure S34. ^{13}C NMR spectrum (100 MHz, DMSO- d_6) of 7-(4-(5-amino-1-(4-ethylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid

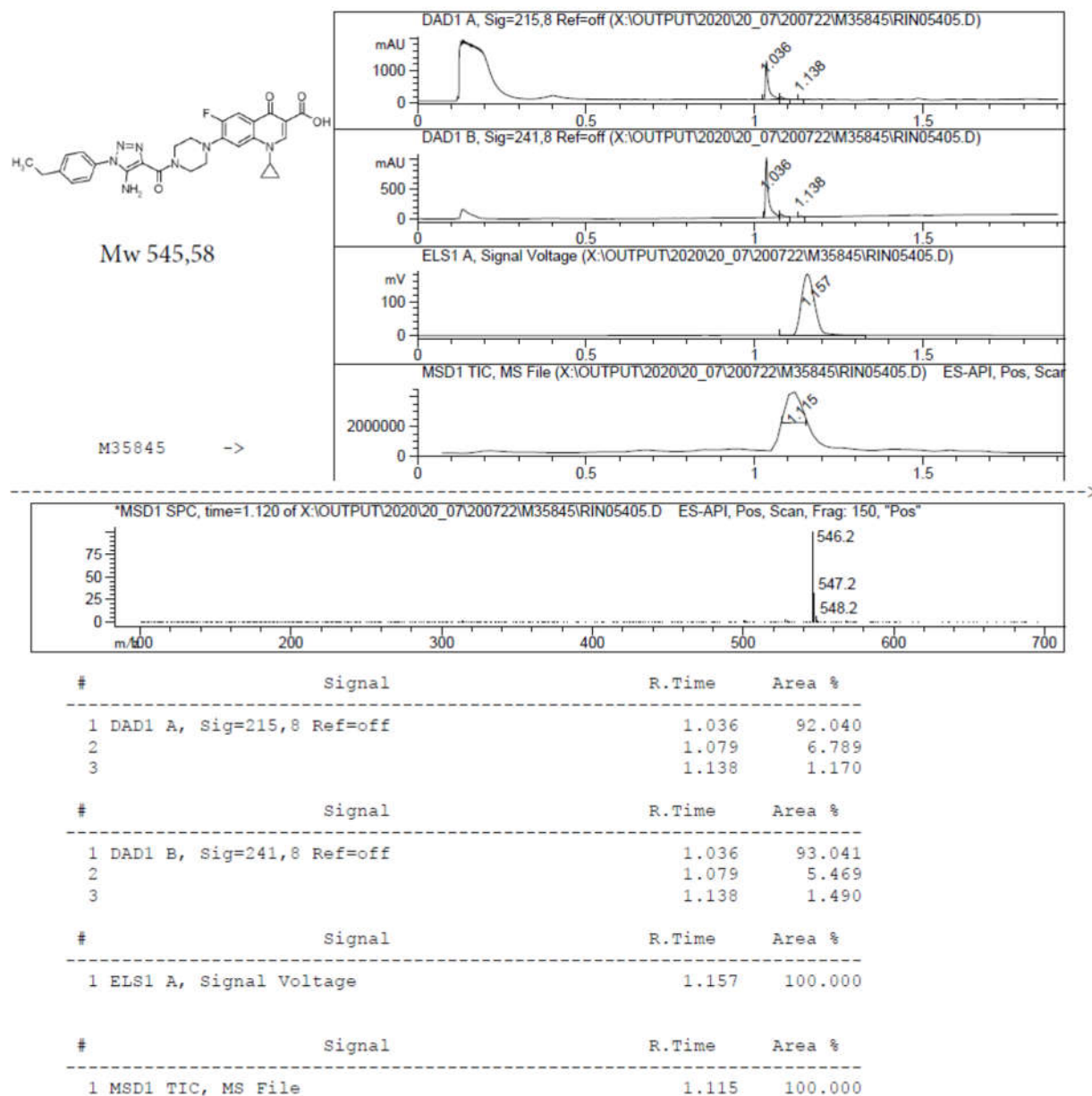


Figure S35. LC/MS data for 7-(4-(5-amino-1-(4-ethylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2f**

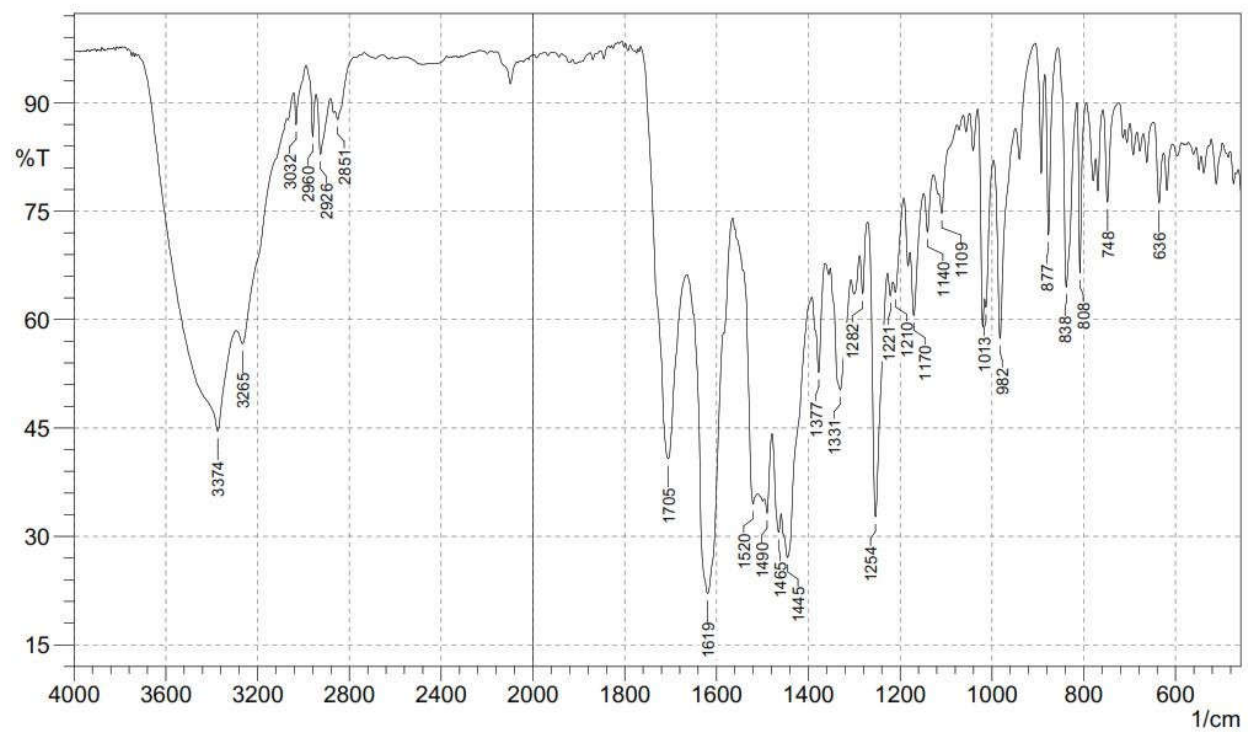


Figure S36. IR spectrum of 7-(4-(5-amino-1-(4-ethylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2f**

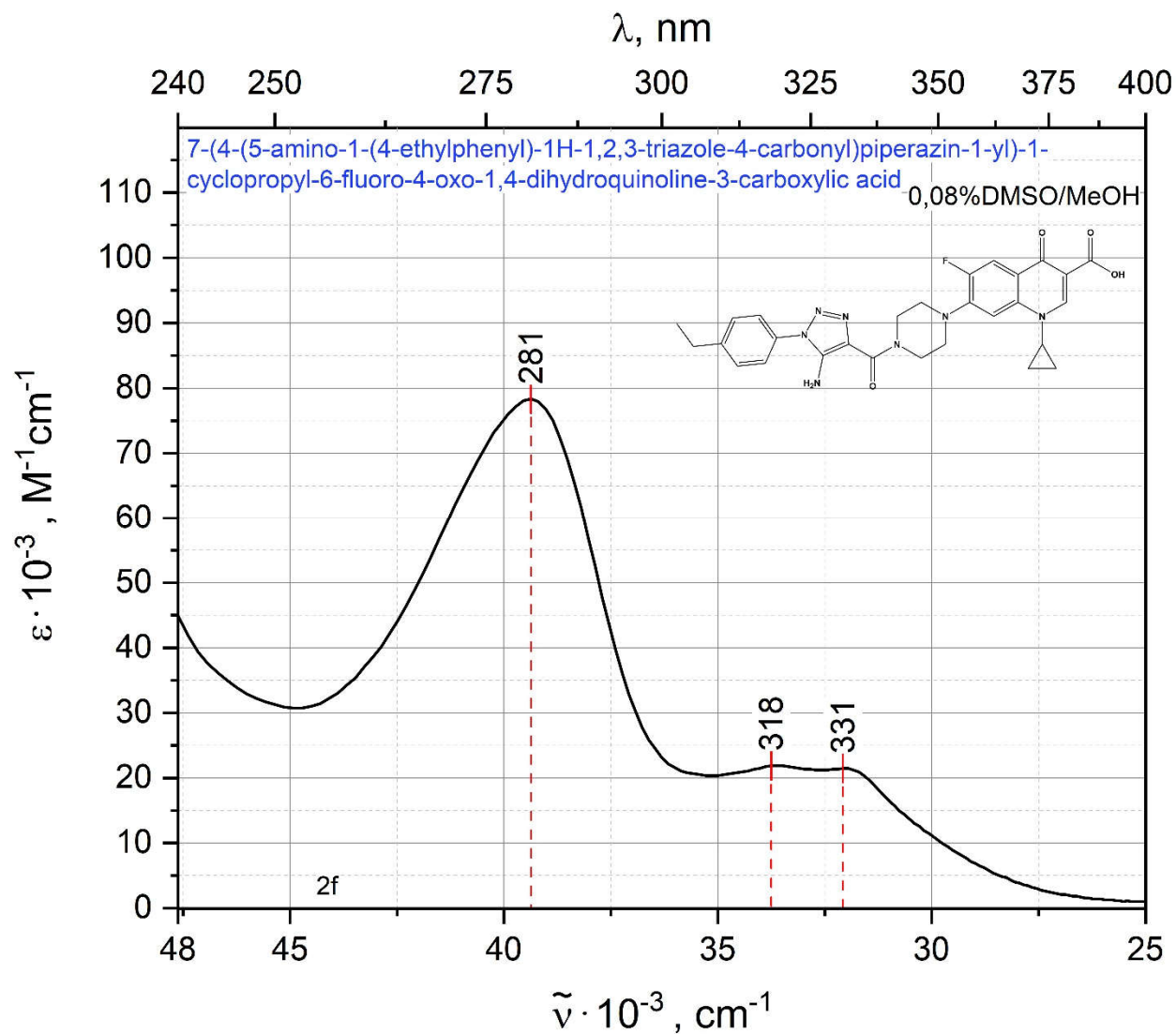


Figure S37. UV/Vis spectrum of 7-(4-(5-amino-1-(4-ethylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2f** (0.08% DMSO/MeOH)

[illegible]

39

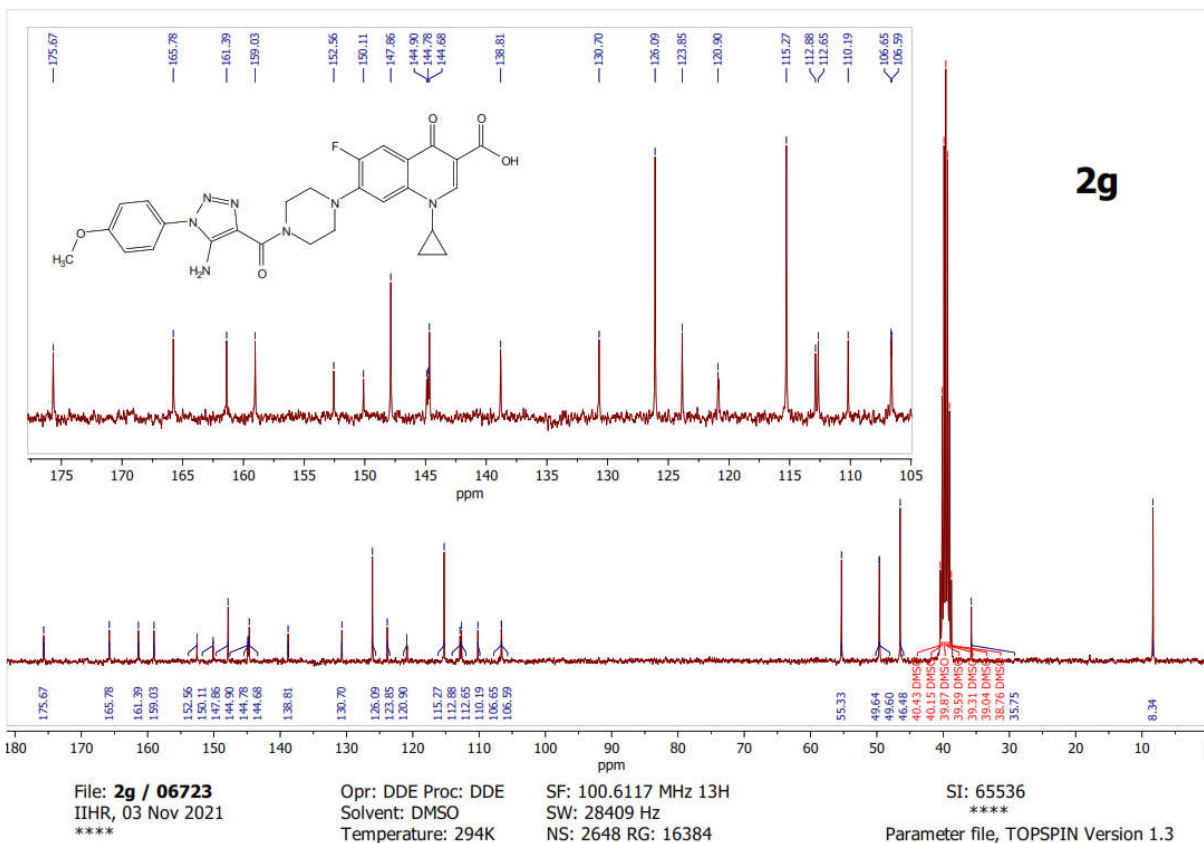


Figure S39. ^{13}C NMR spectrum (100 MHz, DMSO- d_6) of 7-(4-(5-amino-1-(4-methoxyphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2g**

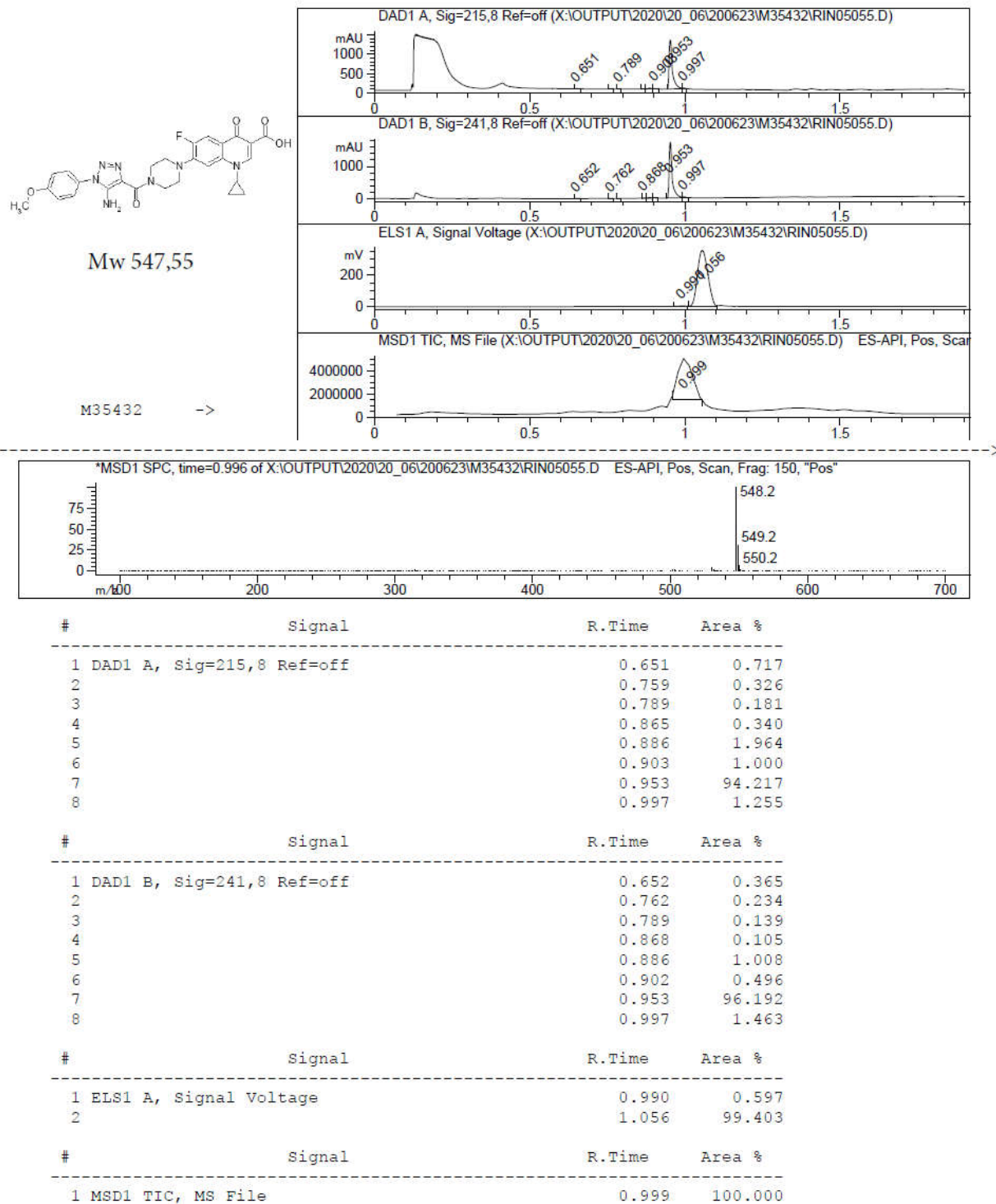


Figure S40. LC/MS data for 7-(4-(5-amino-1-(4-methoxyphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2g**

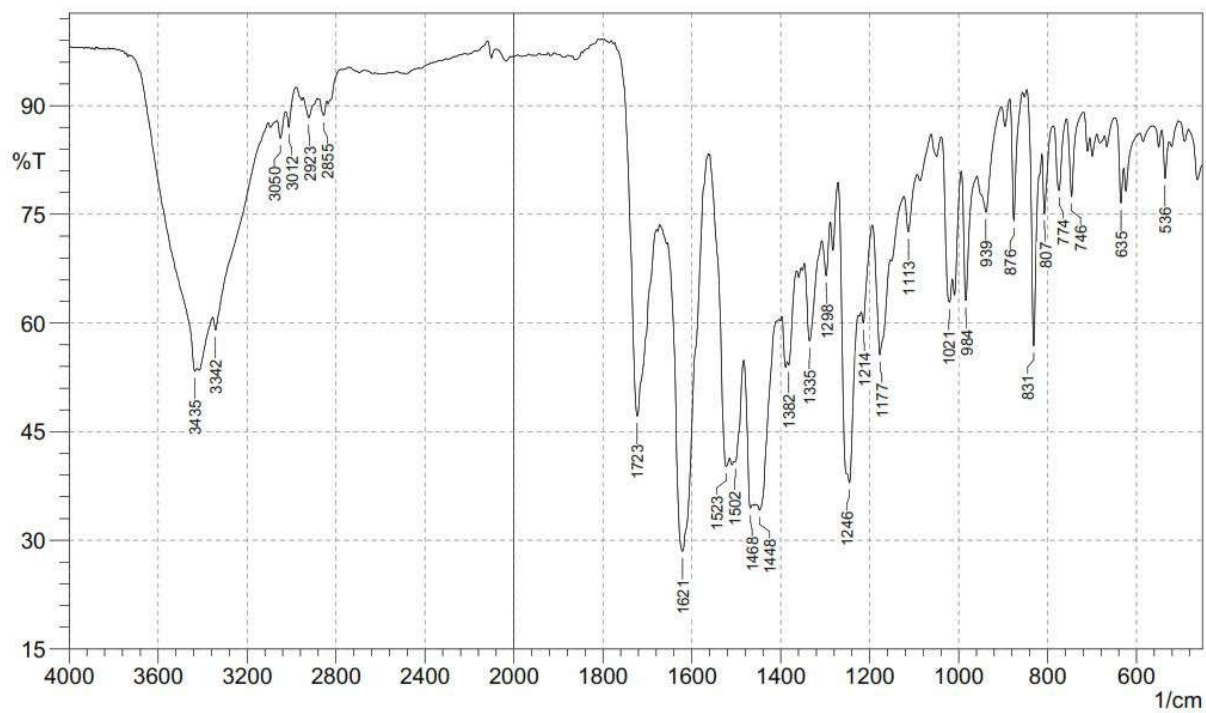


Figure S41. IR spectrum of 7-(4-(5-amino-1-(4-methoxyphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2g**

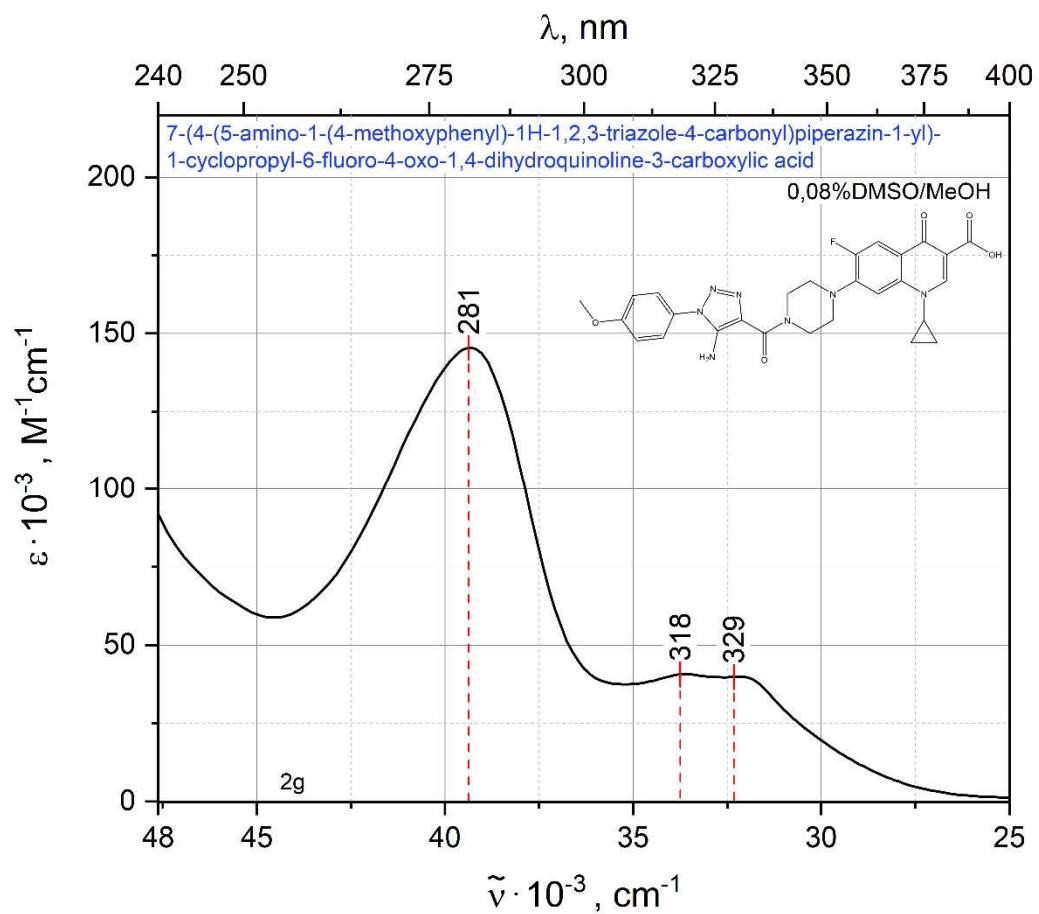


Figure S42. UV/Vis spectrum of 7-(4-(5-amino-1-(4-methoxyphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2g** (0.08% DMSO/MeOH)

7-(4-(5-amino-1-(4-(methylthio)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2h**

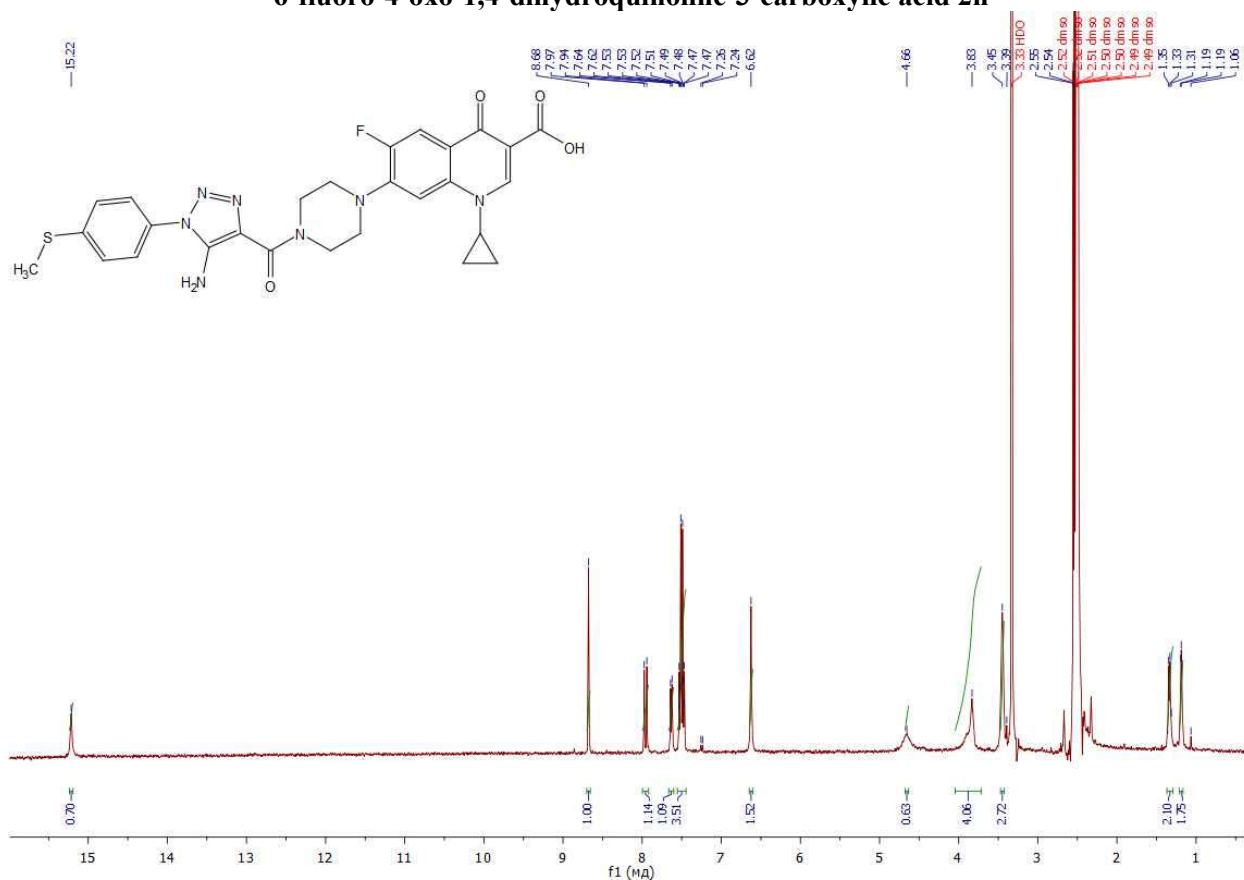


Figure S43. ¹H NMR spectrum (400 MHz, DMSO-d₆) of 7-(4-(5-amino-1-(4-(methylthio)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2h**

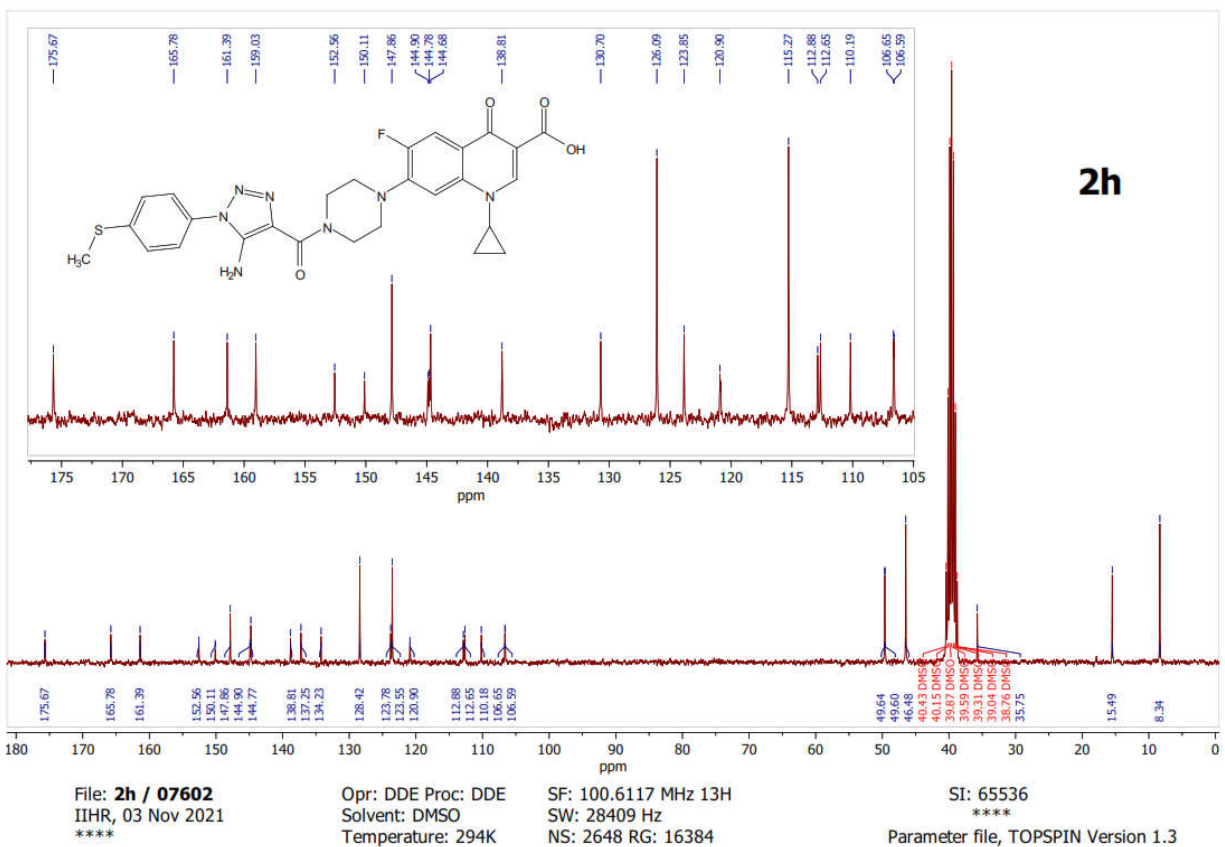
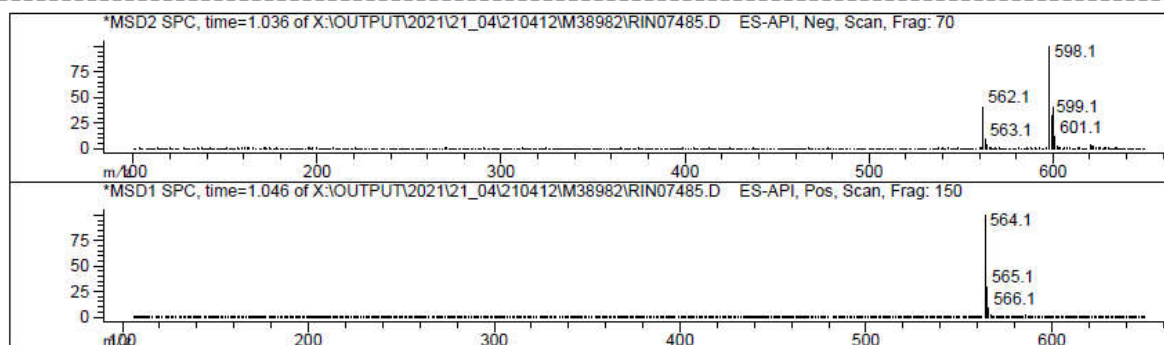
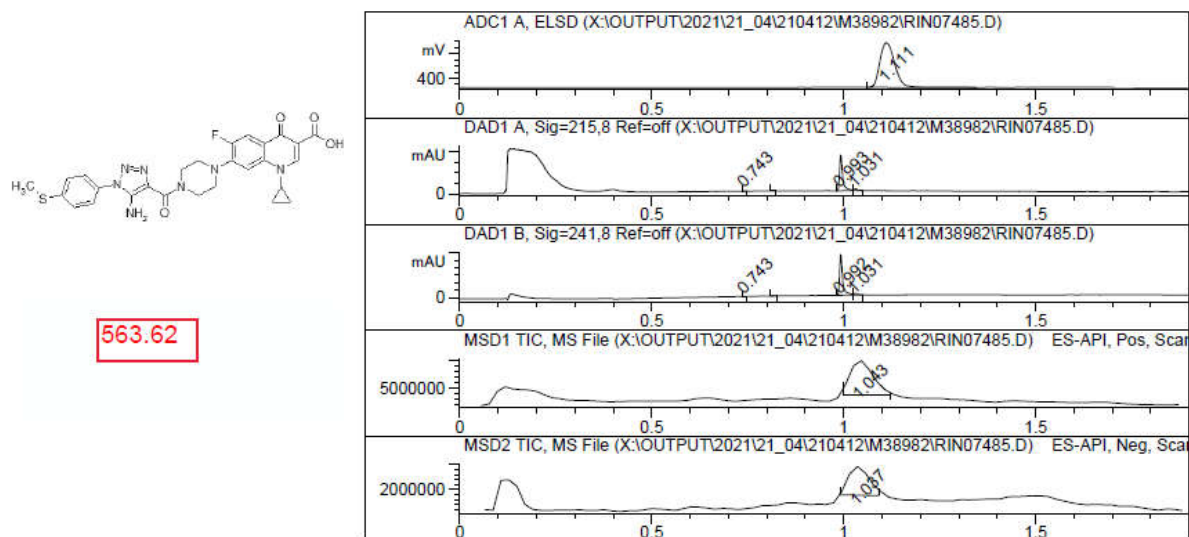


Figure S44. ¹³C NMR spectrum (100 MHz, DMSO-d₆) of 7-(4-(5-amino-1-(4-(methylthio)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2h**



#	Signal	R.Time	Area %
1	ADC1 A, ELSD	1.111	100.000

#	Signal	R.Time	Area %
1	DAD1 A, Sig=215,8 Ref=off	0.743	0.371
2		0.816	0.483
3		0.993	93.632
4		1.031	5.514

#	Signal	R.Time	Area %
1	DAD1 B, Sig=241,8 Ref=off	0.743	0.383
2		0.816	0.591
3		0.992	94.412
4		1.031	4.614

#	Signal	R.Time	Area %
1	MSD1 TIC, MS File	1.043	100.000

Figure S45. LC/MS data for 7-(4-(5-amino-1-(4-(methylthio)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2h**

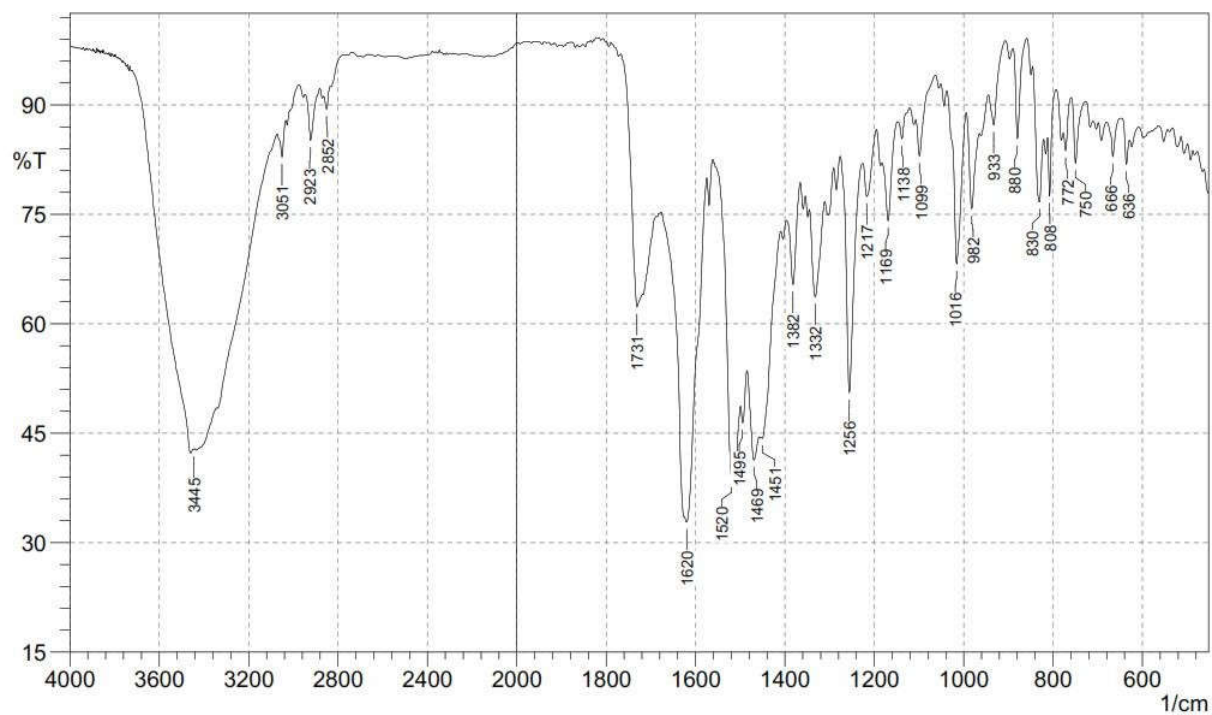


Figure S46. IR spectrum of 7-(4-(5-amino-1-(4-(methylthio)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2h**

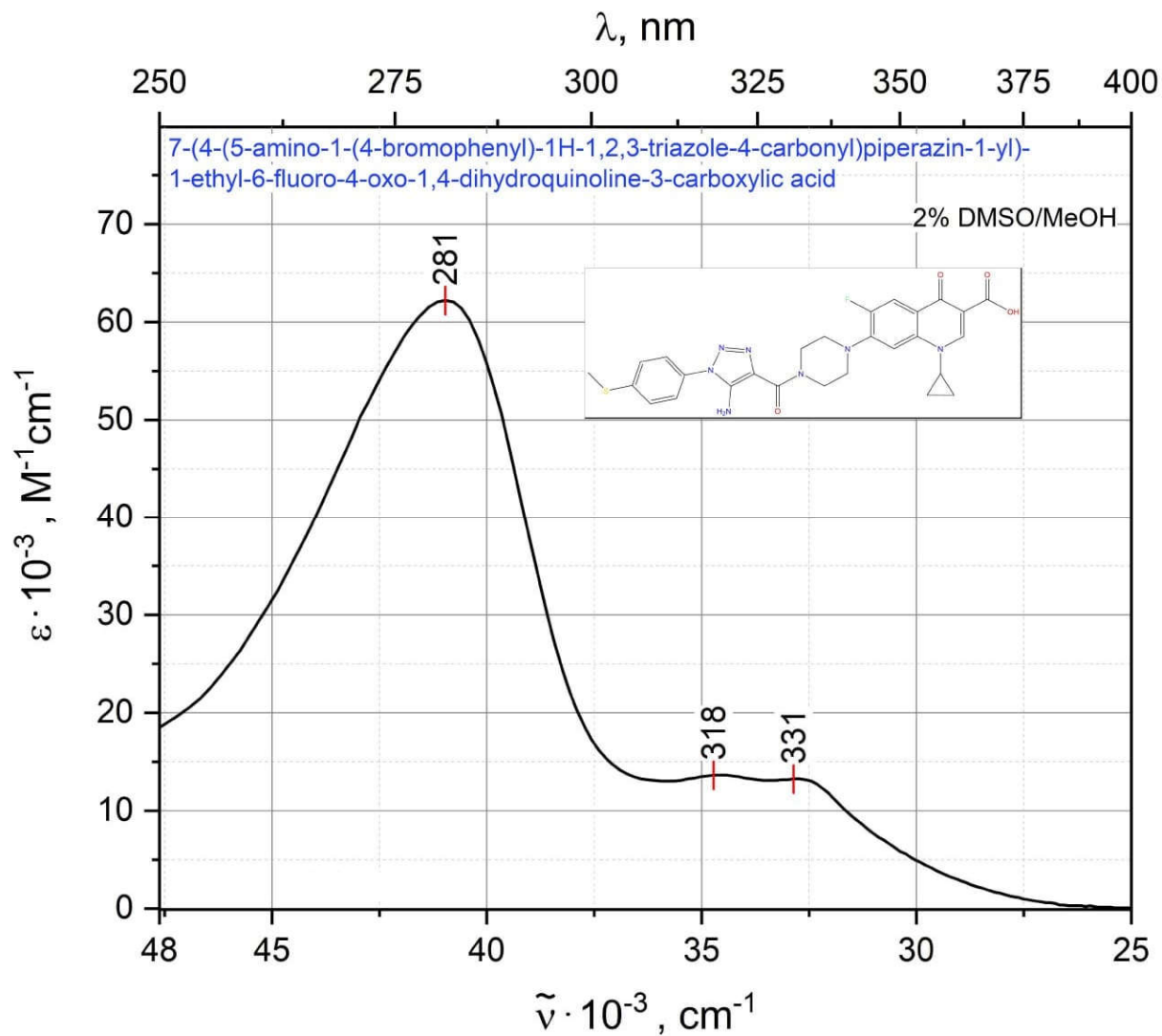


Figure S47. UV/Vis spectrum of 7-(4-(5-amino-1-(4-(methylthio)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2h** (2%DMSO/MeOH)

7-(4-(5-amino-1-(3-(methylthio)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2i**

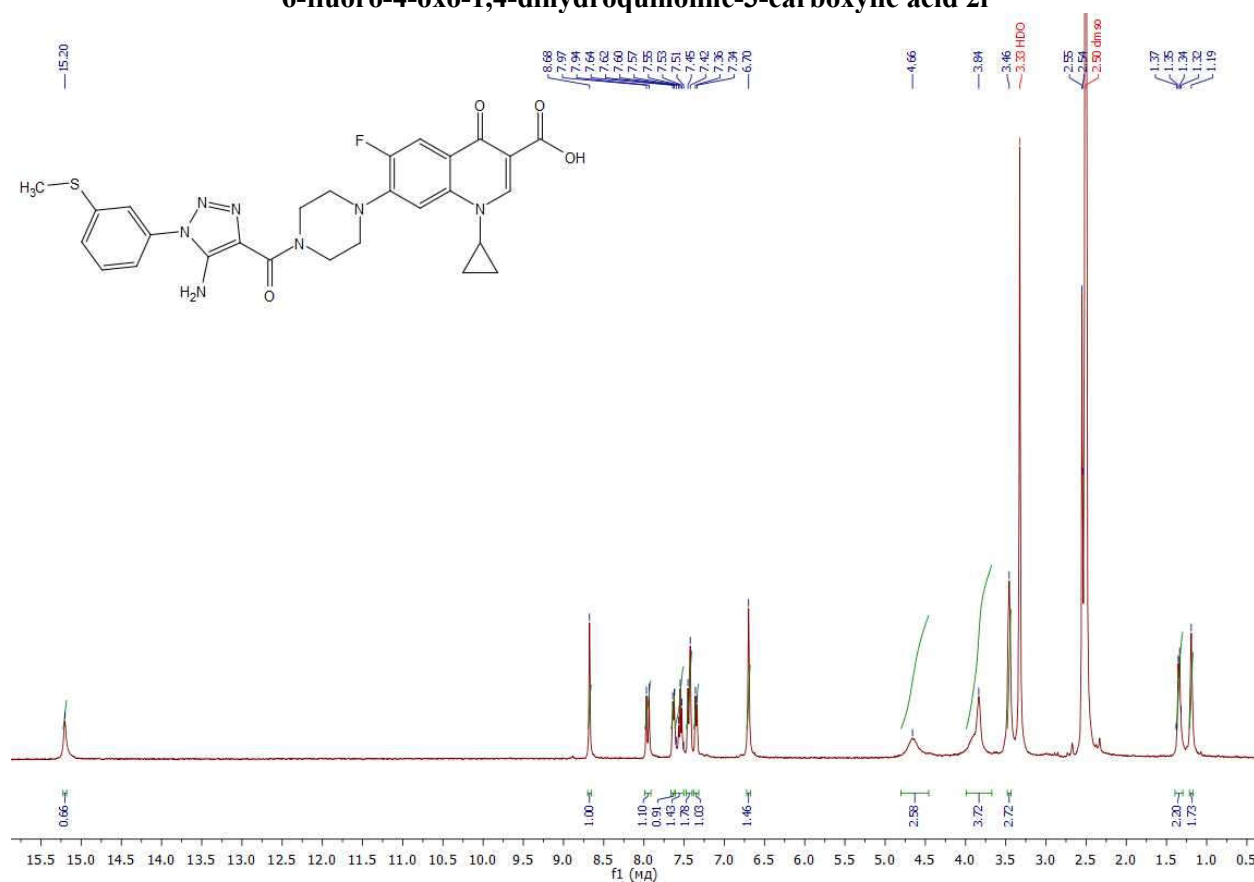


Figure S48. ¹H NMR spectrum (400 MHz, DMSO-d₆) of 7-(4-(5-amino-1-(3-(methylthio)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2i**

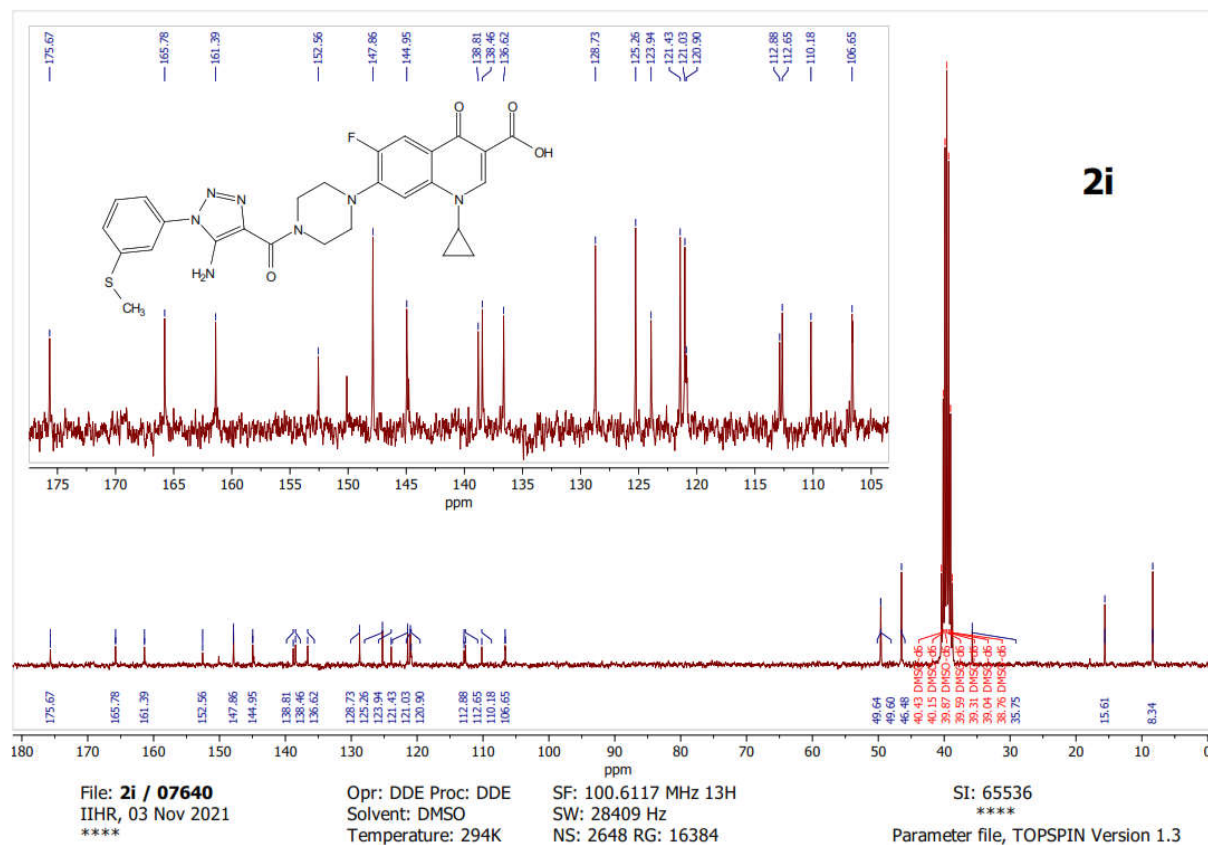


Figure S49. ¹³C NMR spectrum (100 MHz, DMSO-d₆) of 7-(4-(5-amino-1-(3-(methylthio)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2i**

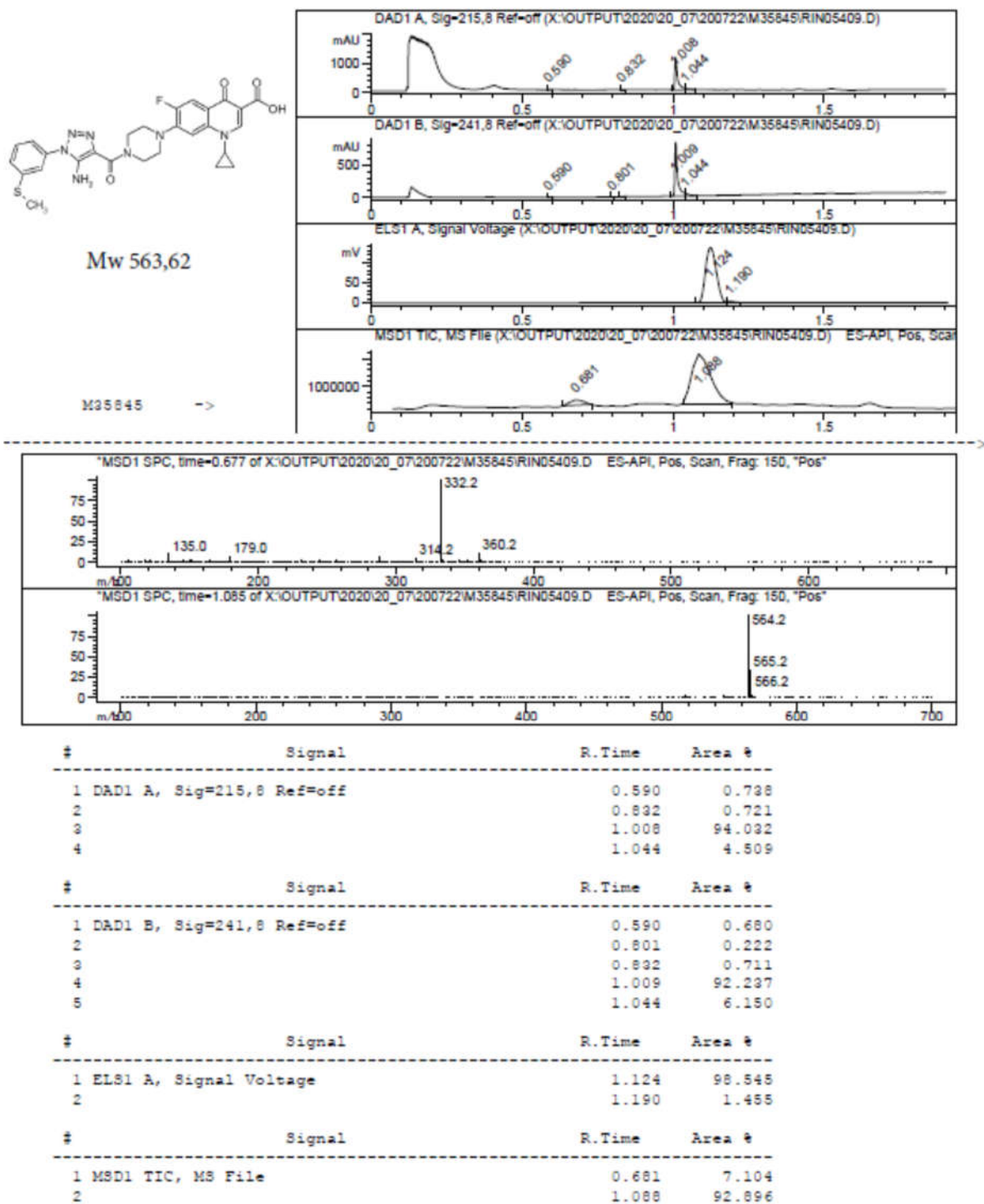


Figure S50. LC/MS data for 7-(4-(5-amino-1-(3-(methylthio)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2i**

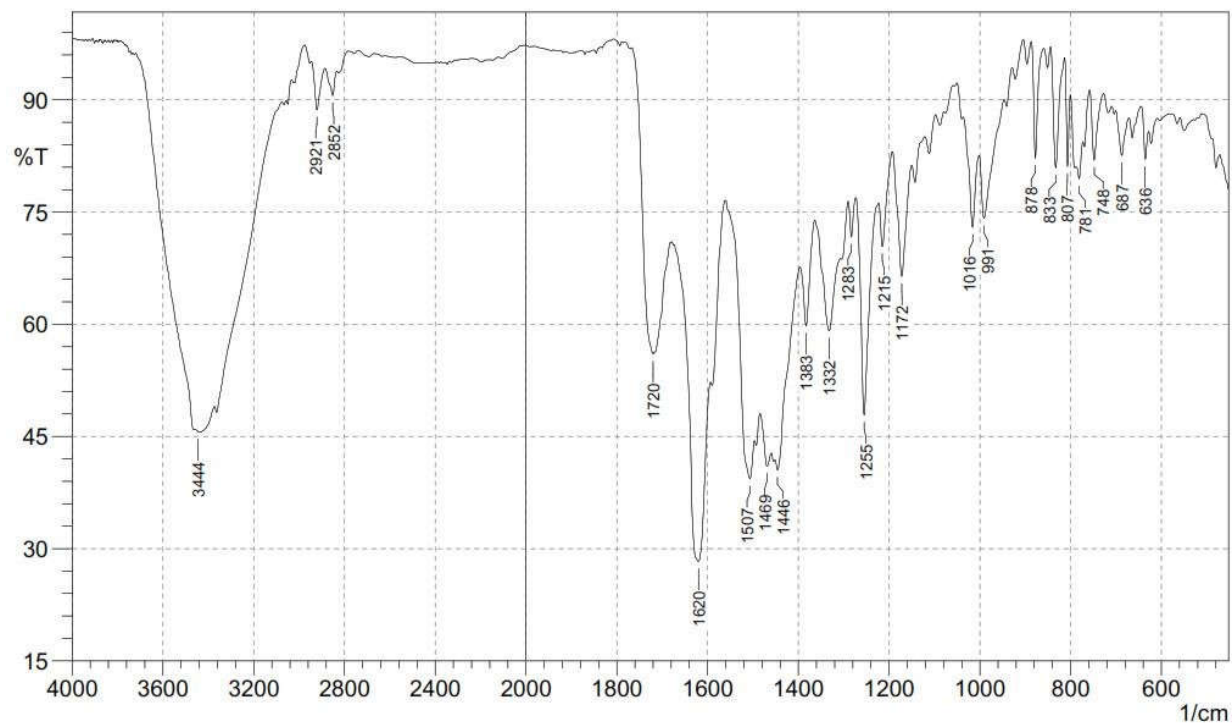


Figure S51. IR spectrum of 7-(4-(5-amino-1-(3-(methylthio)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2i**

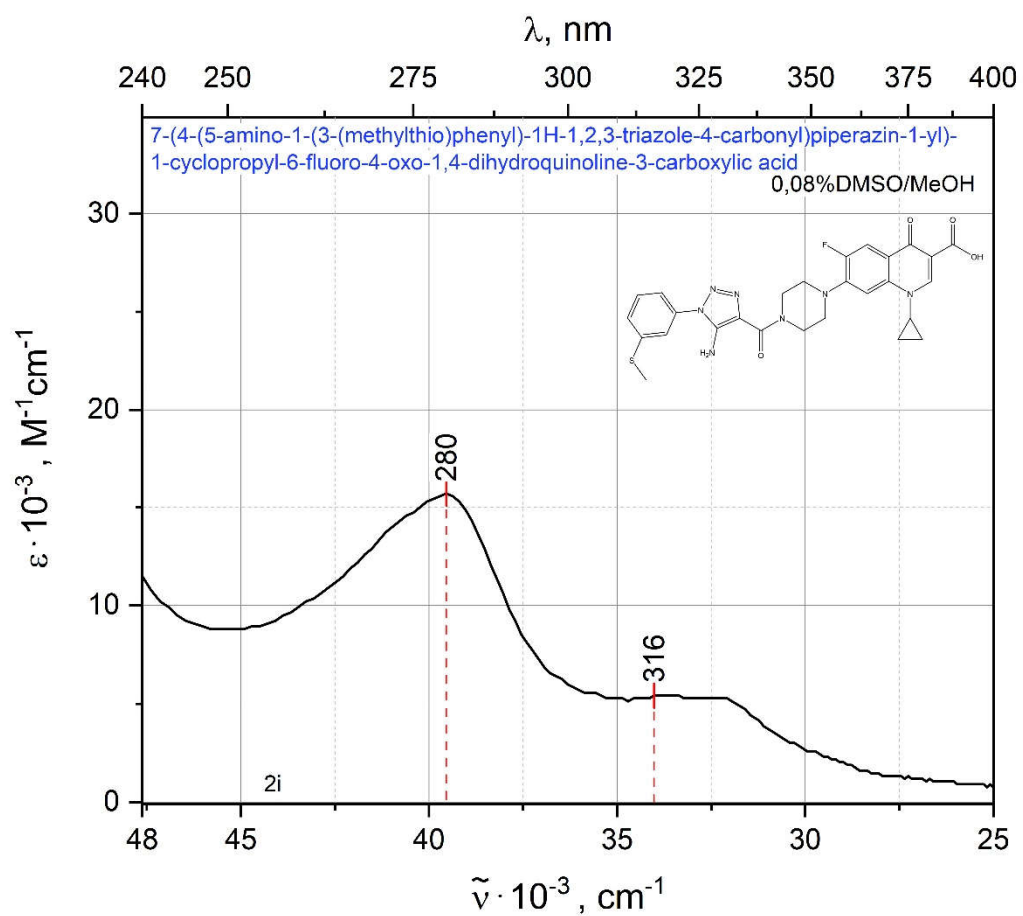


Figure S52. UV/Vis spectrum of 7-(4-(5-amino-1-(3-(methylthio)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2i** (0.08% DMSO/MeOH)

7-(4-(5-amino-1-(4-bromophenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid 2j

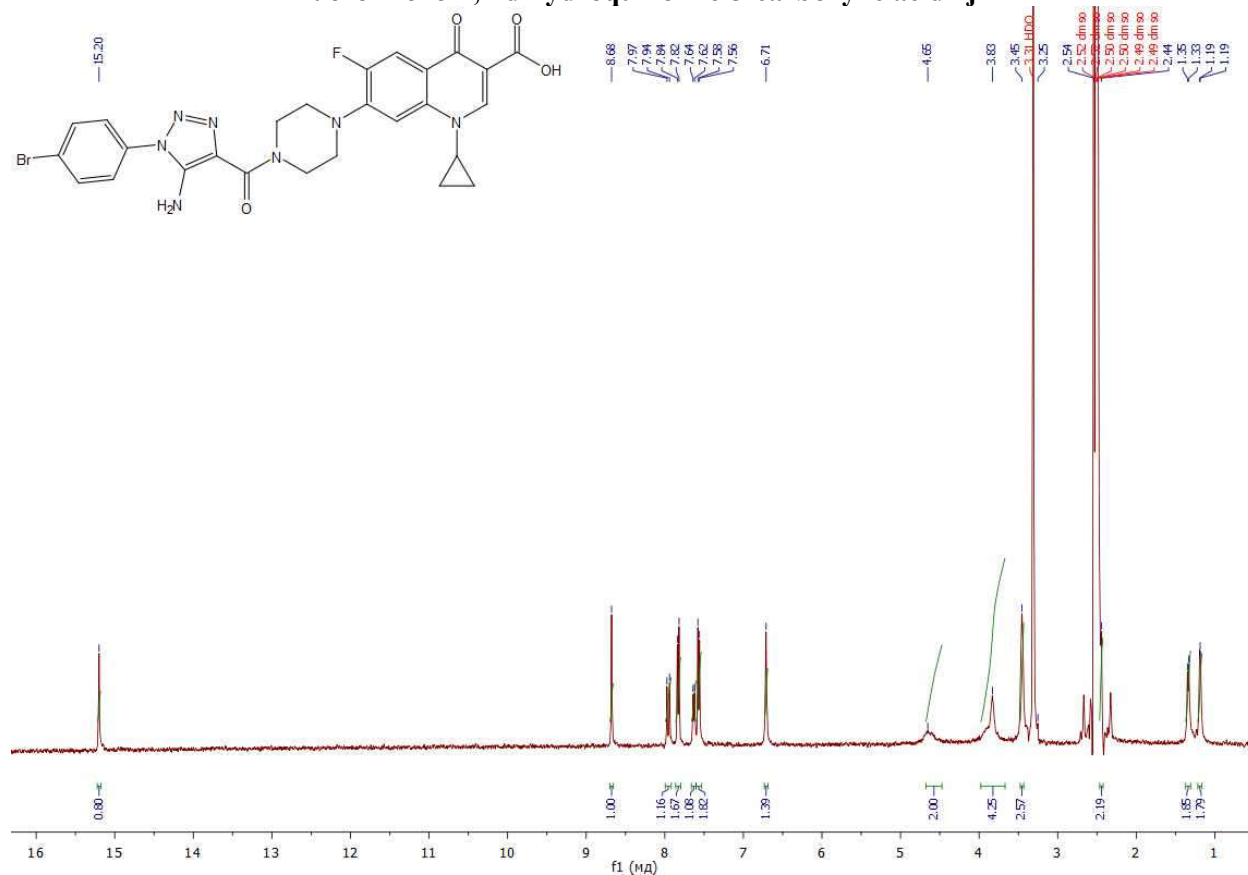


Figure S53. ^1H NMR spectrum (400 MHz, DMSO- d_6) of 7-(4-(5-amino-1-(4-bromophenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid 2j

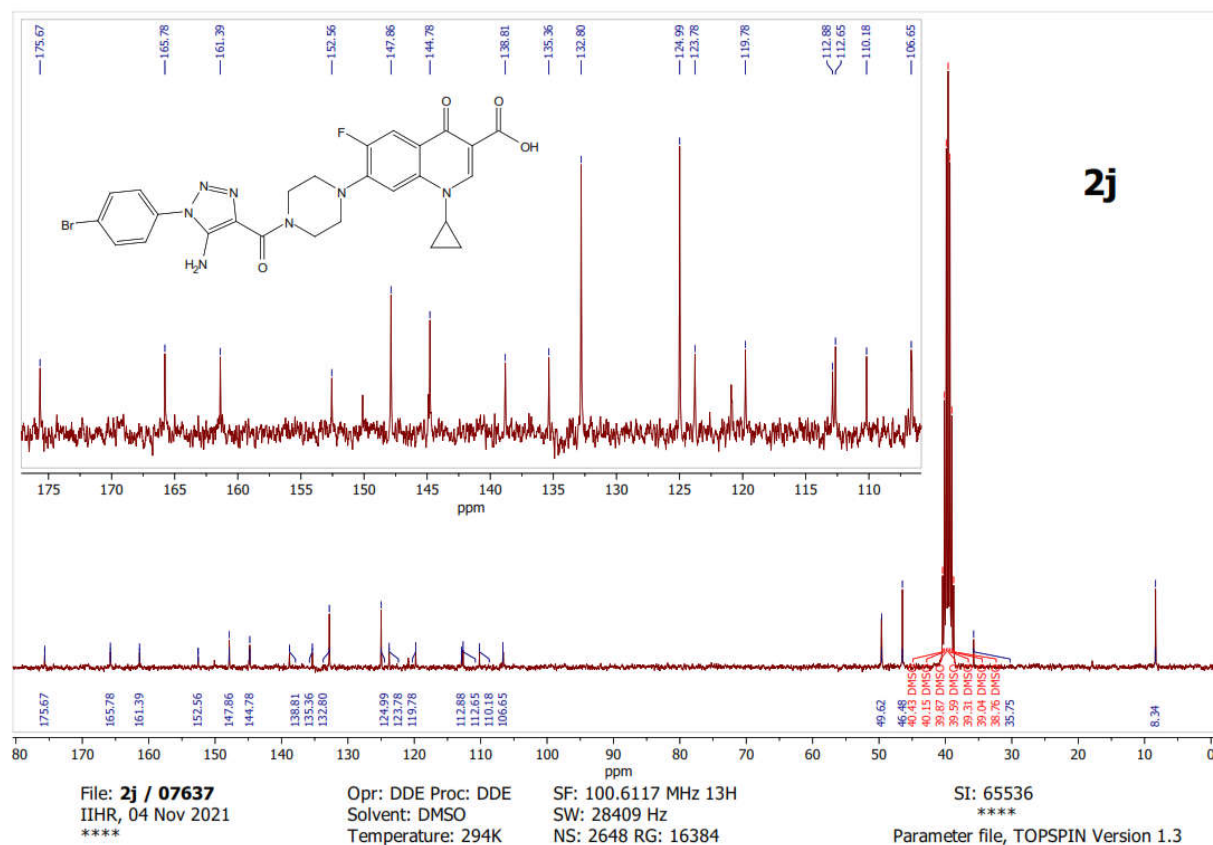


Figure S54. ^{13}C NMR spectrum (100 MHz, DMSO- d_6) of 7-(4-(5-amino-1-(4-bromophenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2j**

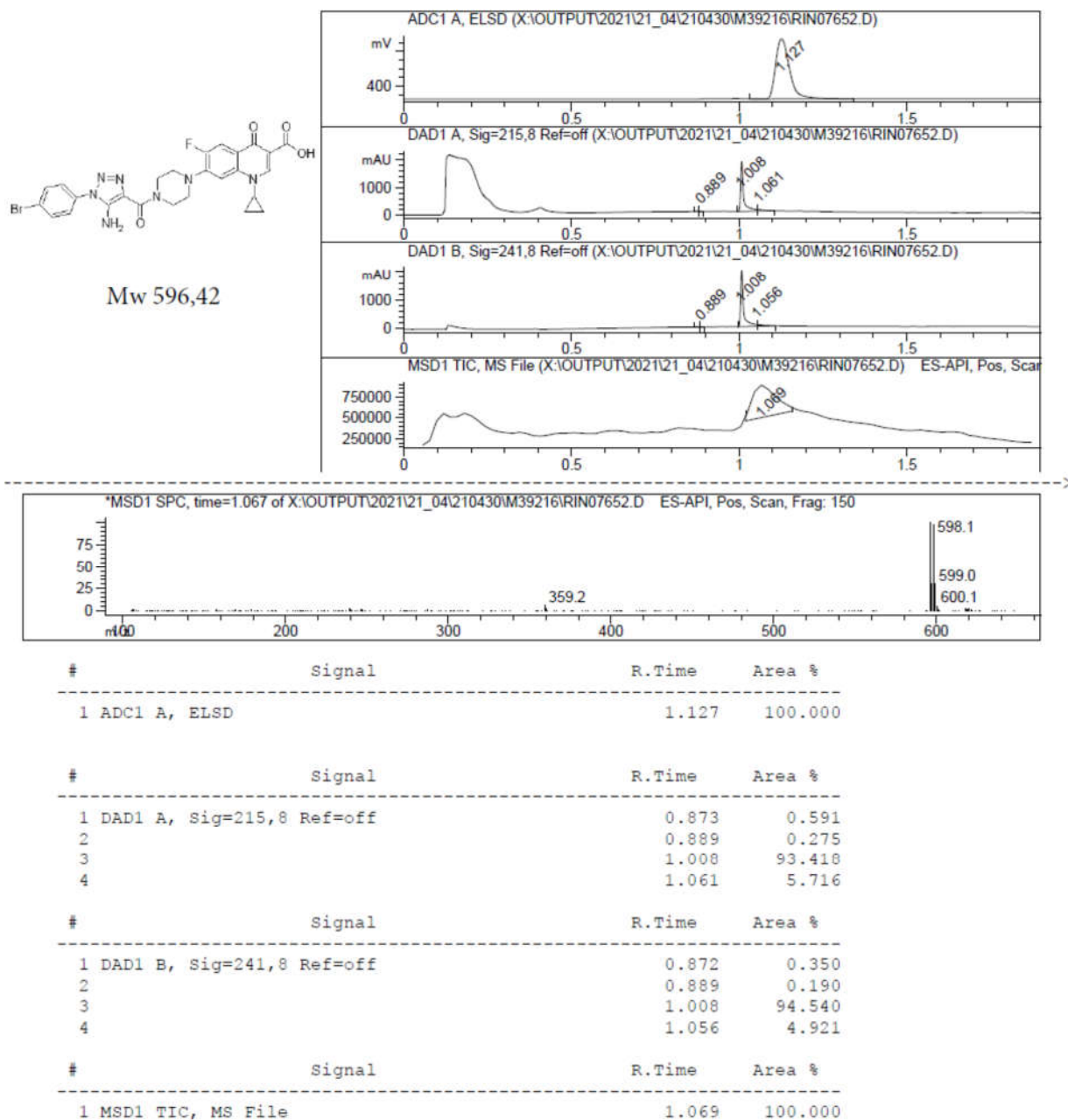


Figure S55. LC/MS data for 7-(4-(5-amino-1-(4-bromophenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2j**

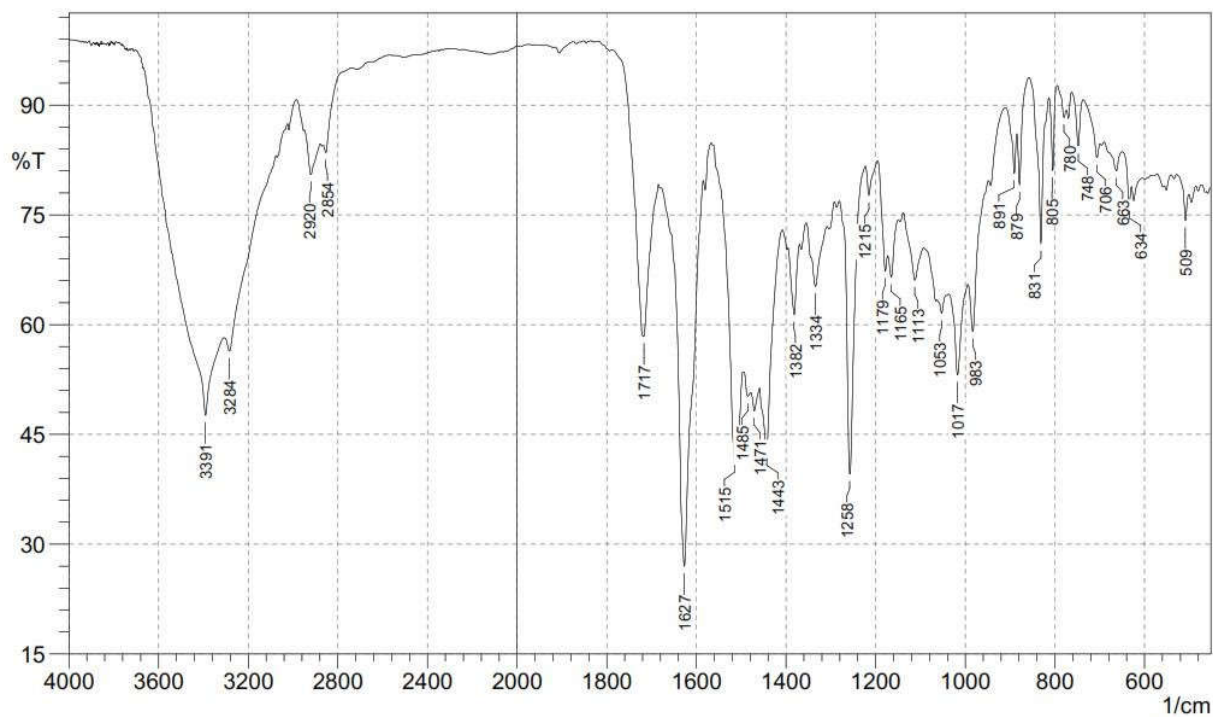


Figure S56. IR spectrum of 7-(4-(5-amino-1-(4-bromophenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2j**

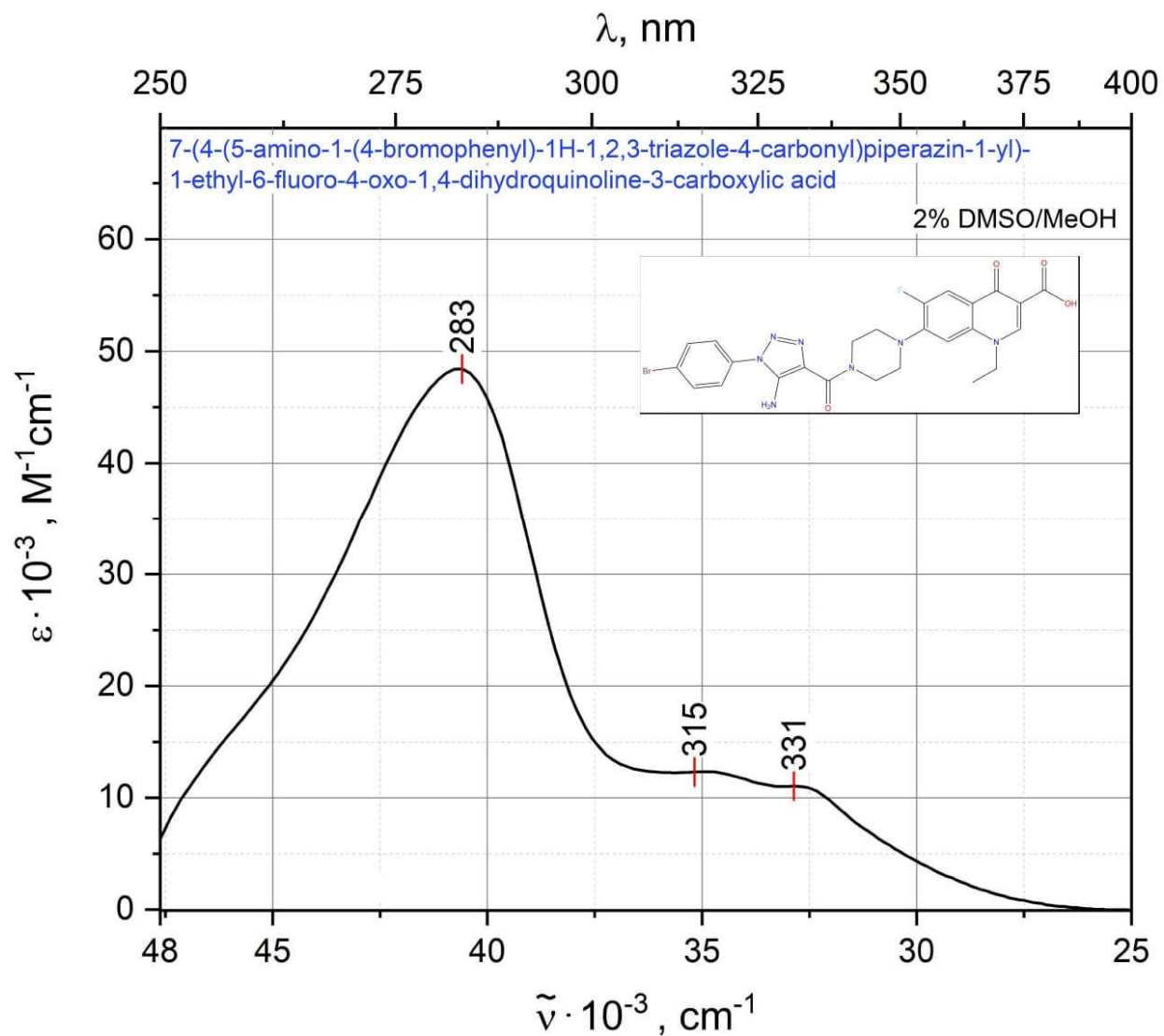


Figure S57. UV/Vis spectrum of 7-(4-(5-amino-1-(4-bromophenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2j** (2%DMSO/MeOH)

7-(4-(5-amino-1-(5-fluoro-2-methylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2k**

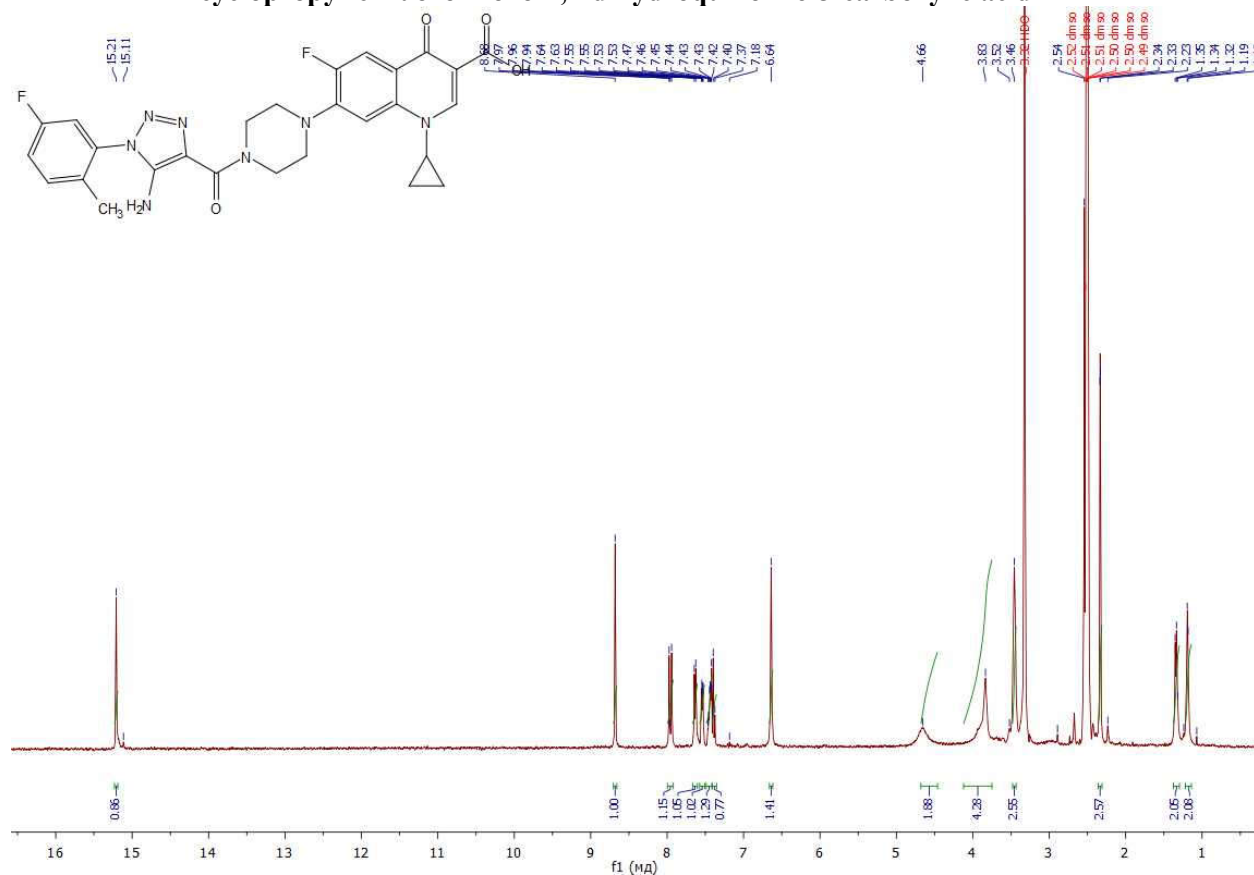


Figure S58. ¹H NMR spectrum (400 MHz, DMSO-d₆) of 7-(4-(5-amino-1-(5-fluoro-2-methylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2k**

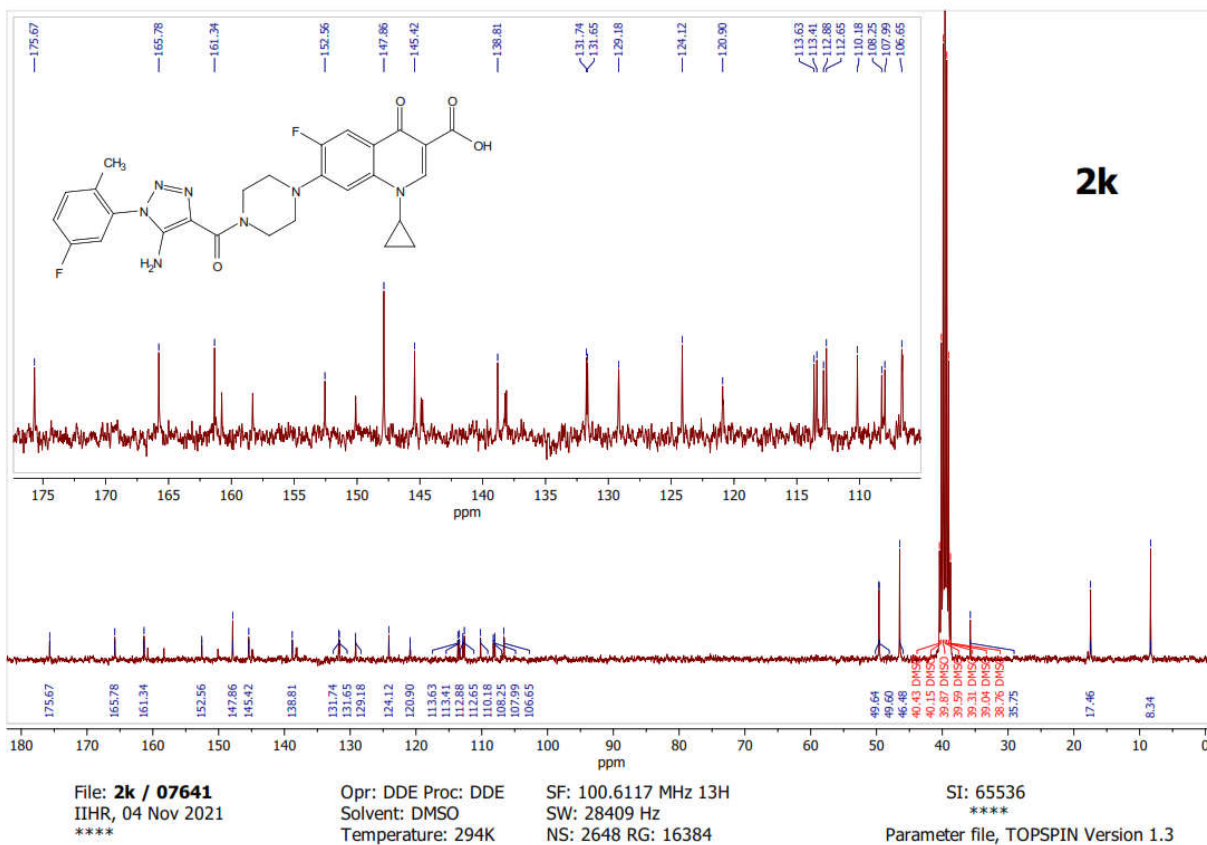


Figure S59. ¹³C NMR spectrum (100 MHz, DMSO-d₆) of 7-(4-(5-amino-1-(5-fluoro-2-methylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2k**

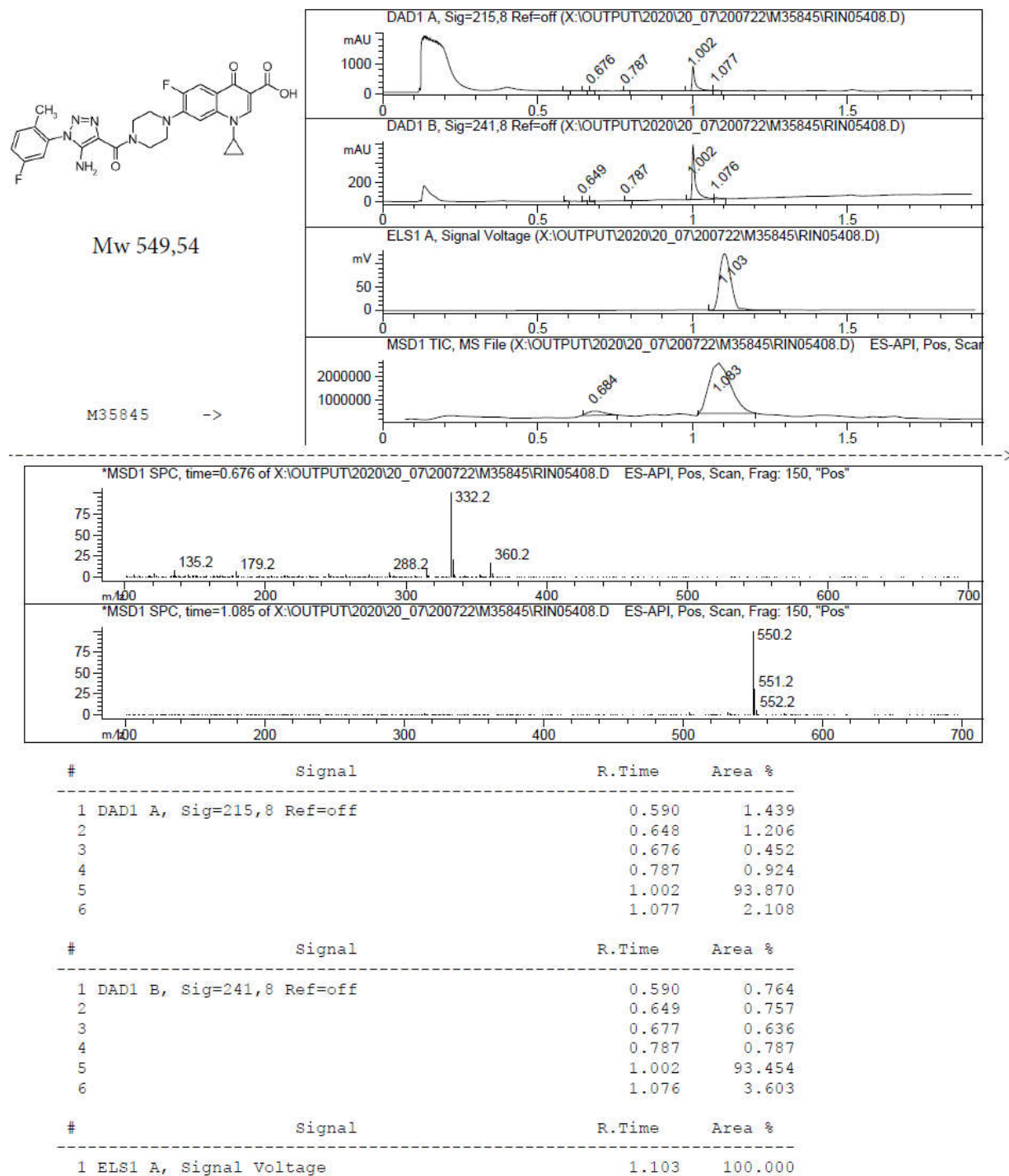


Figure S60. LC/MS data for 7-(4-(5-amino-1-(5-fluoro-2-methylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2k**

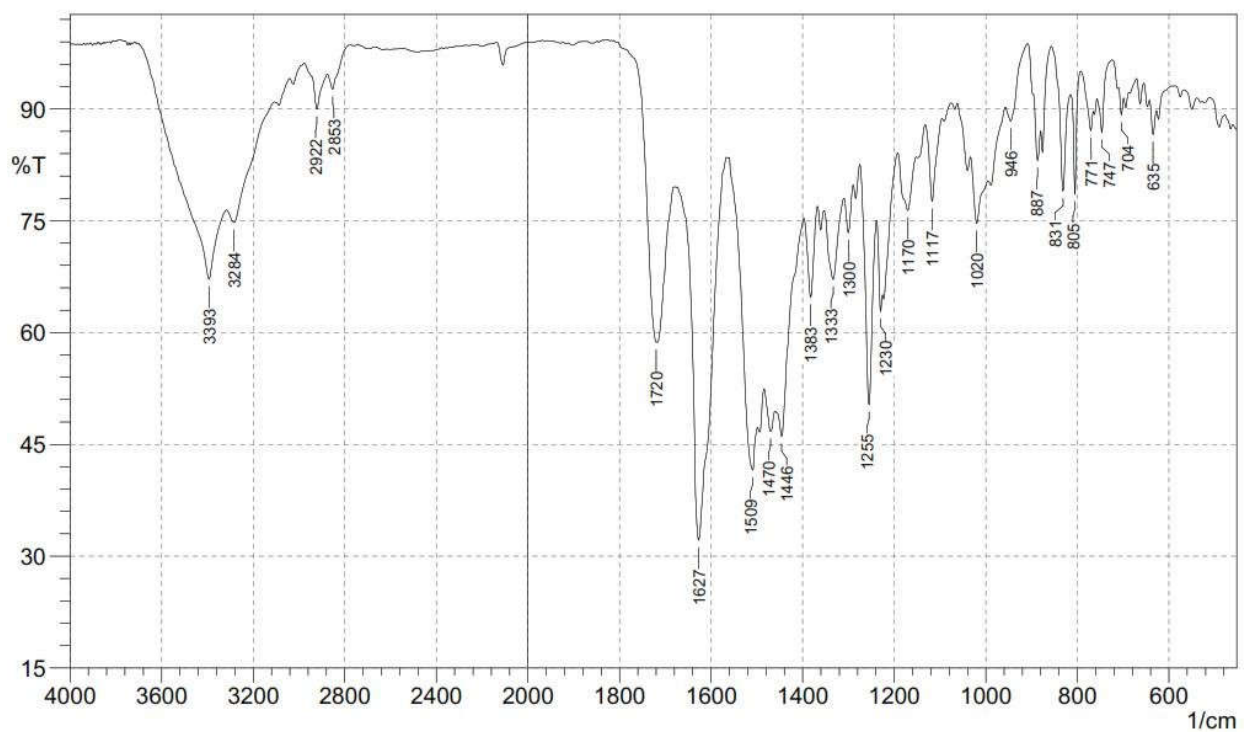


Figure S61. IR spectrum of 7-(4-(5-amino-1-(5-fluoro-2-methylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2k**

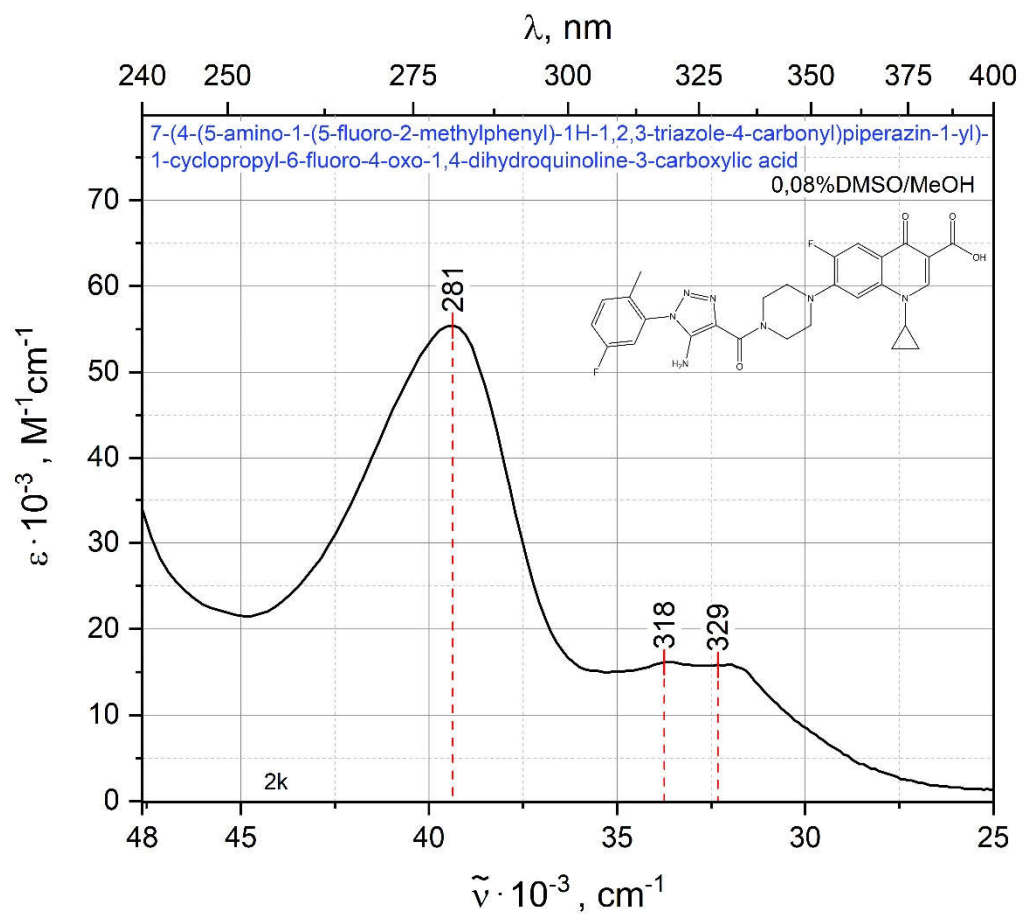


Figure S62. UV/Vis spectrum of 7-(4-(5-amino-1-(5-fluoro-2-methylphenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2k** (0.08% DMSO/MeOH)

7-(4-(5-amino-1-(4-(trifluoromethyl)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **21**

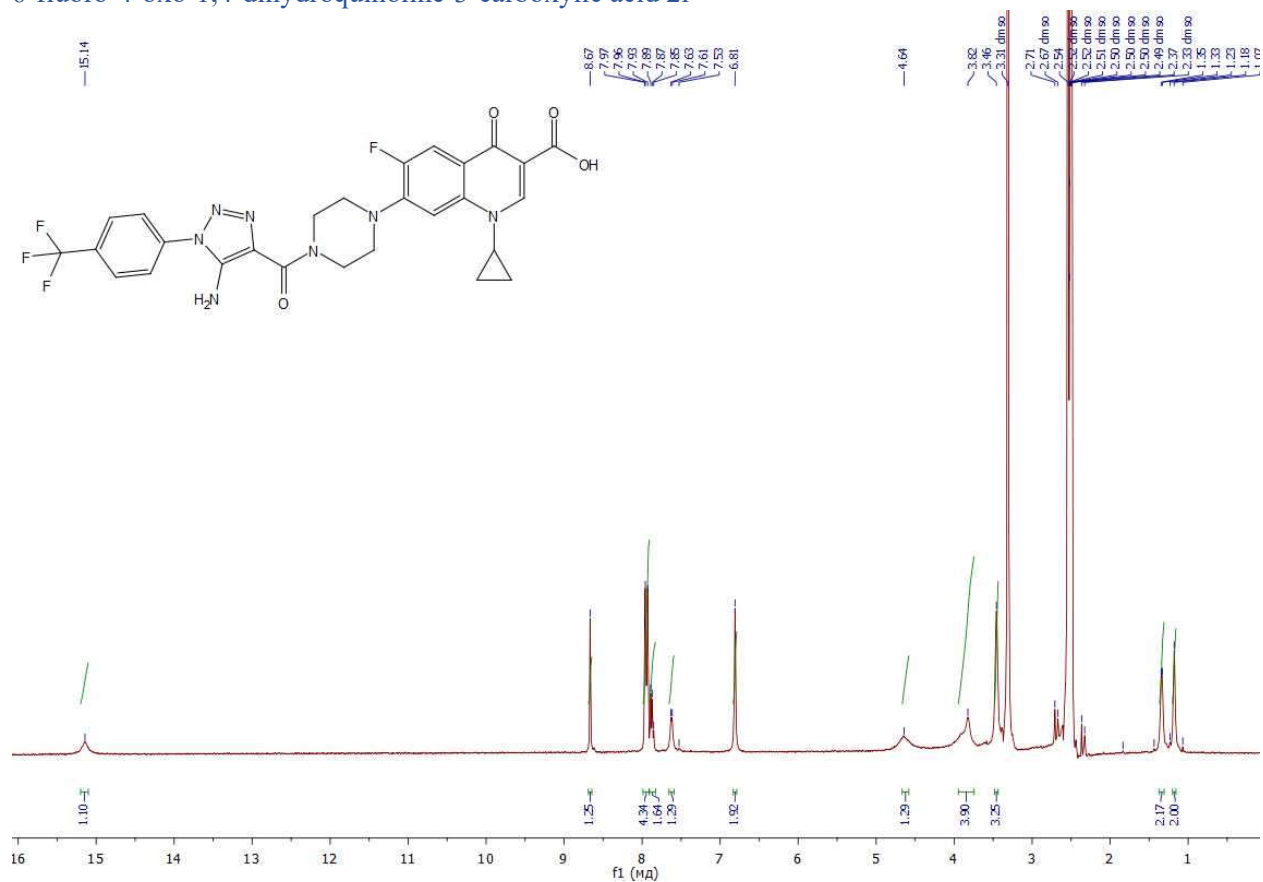


Figure S63. ¹H NMR spectrum (400 MHz, DMSO-d₆) of 7-(4-(5-amino-1-(4-(trifluoromethyl)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **21**

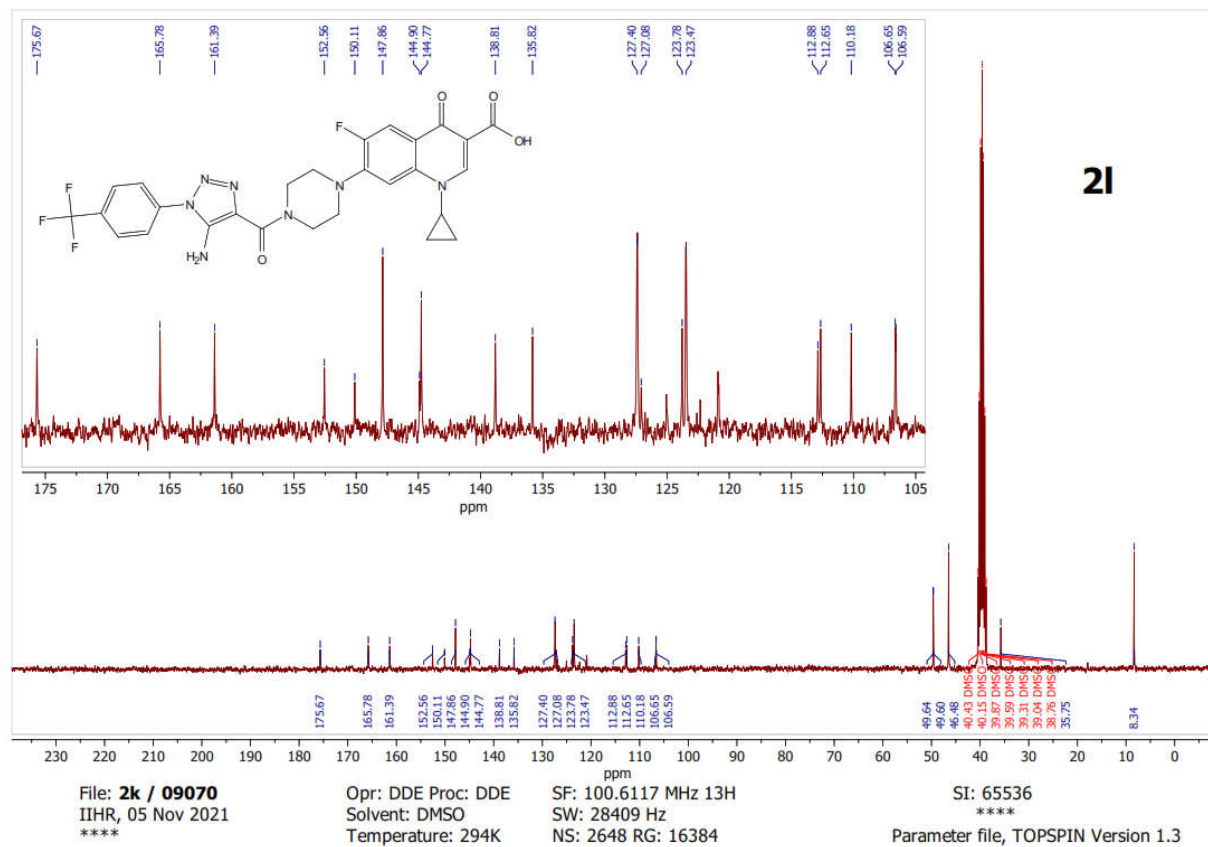


Figure S64. ¹³C NMR spectrum (100 MHz, DMSO-d₆) of 7-(4-(5-amino-1-(4-(trifluoromethyl)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2l**

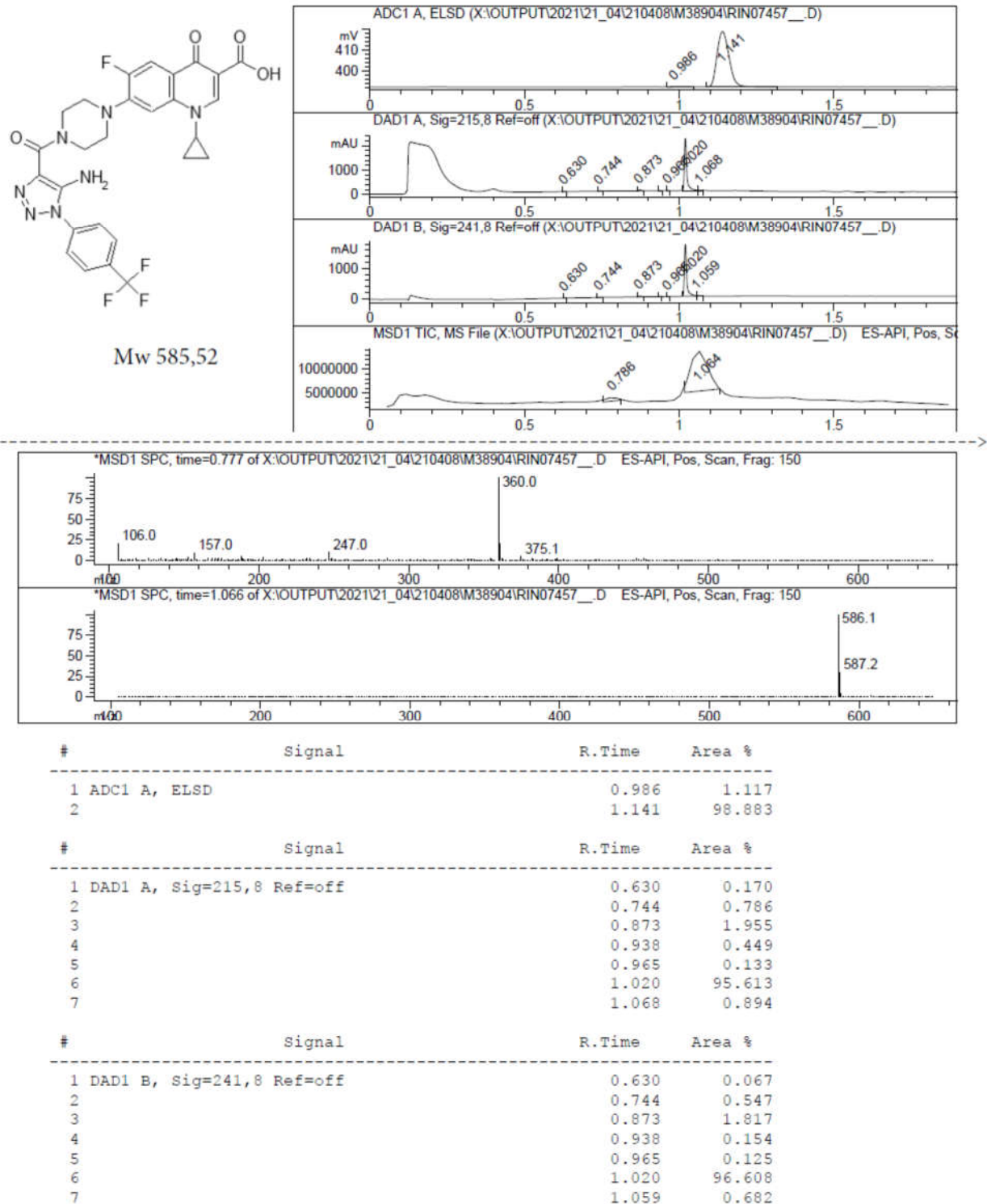


Figure S65. LC/MS data for 7-(4-(5-amino-1-(4-(trifluoromethyl)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **21**

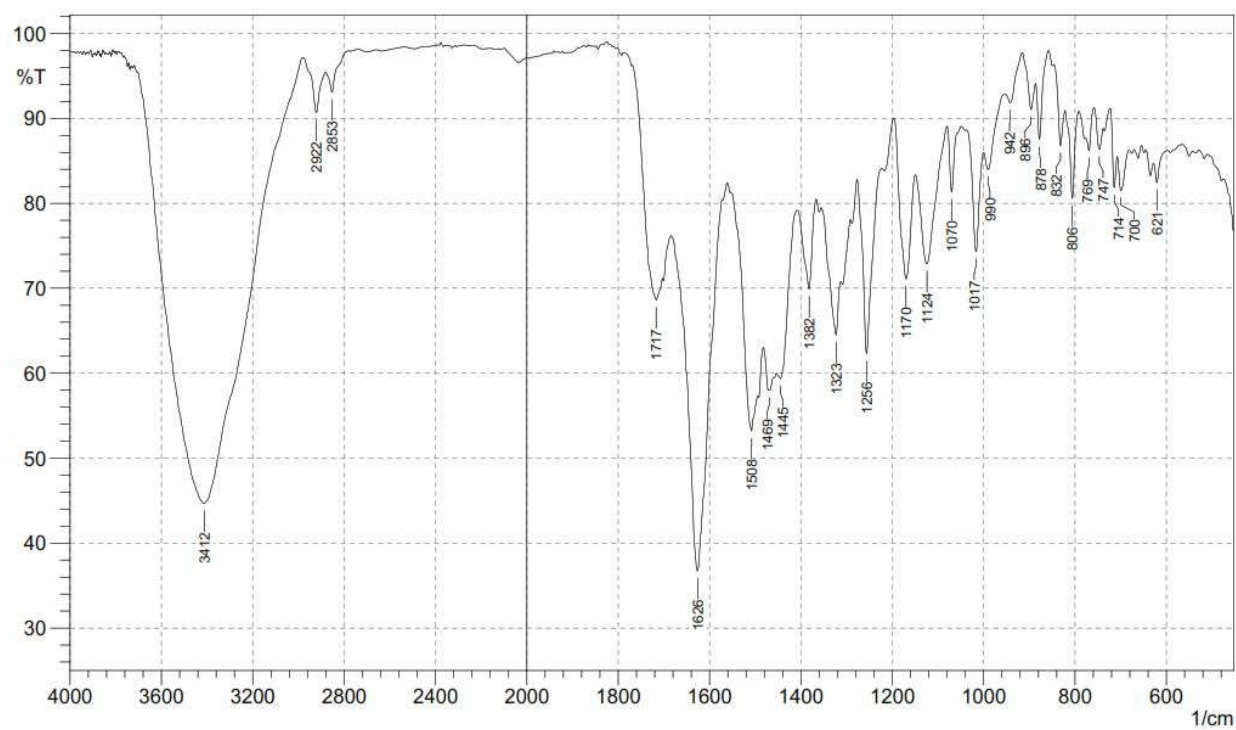


Figure S66. IR spectrum of 7-(4-(5-amino-1-(4-(trifluoromethyl)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2I**

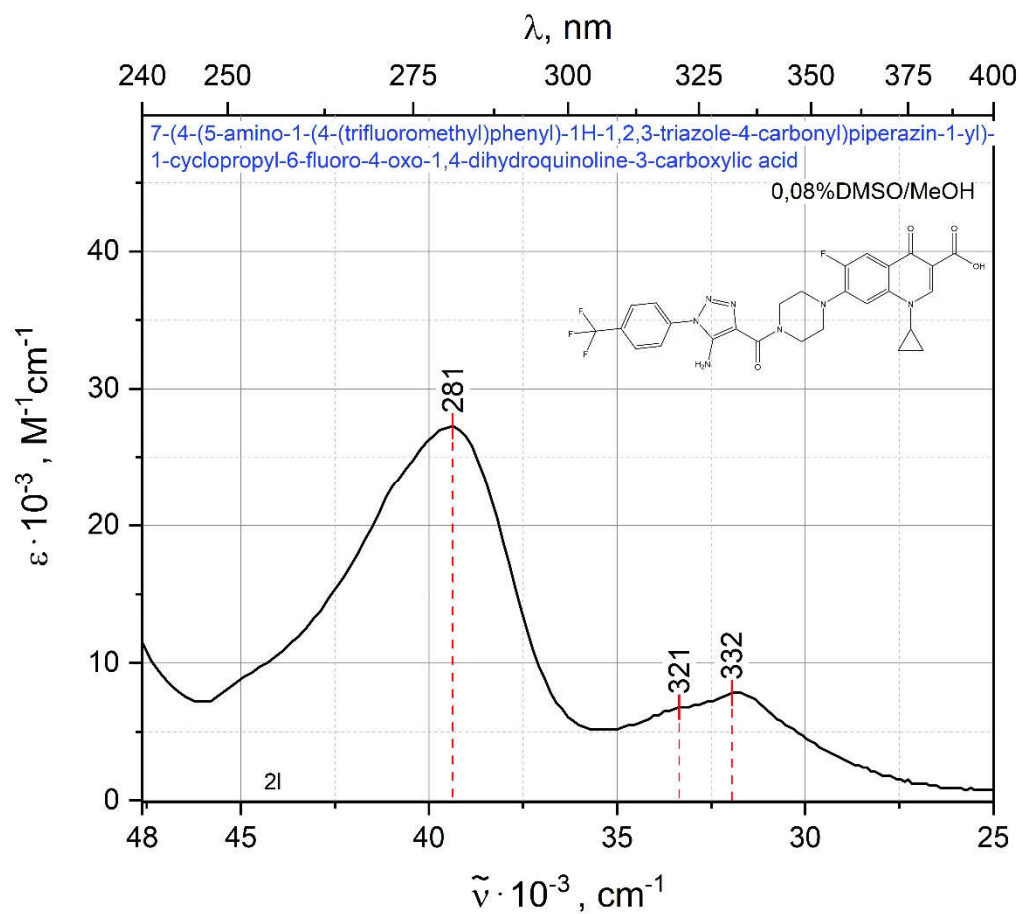


Figure S67. UV/Vis spectrum of 7-(4-(5-amino-1-(4-(trifluoromethyl)phenyl)-1H-1,2,3-triazole-4-carbonyl)piperazin-1-yl)-1-cyclopropyl-6-fluoro-4-oxo-1,4-dihydroquinoline-3-carboxylic acid **2I** (0,08% DMSO/MeOH)