

Supporting Information

Investigating tedizolid analogues as a new class of herbicides

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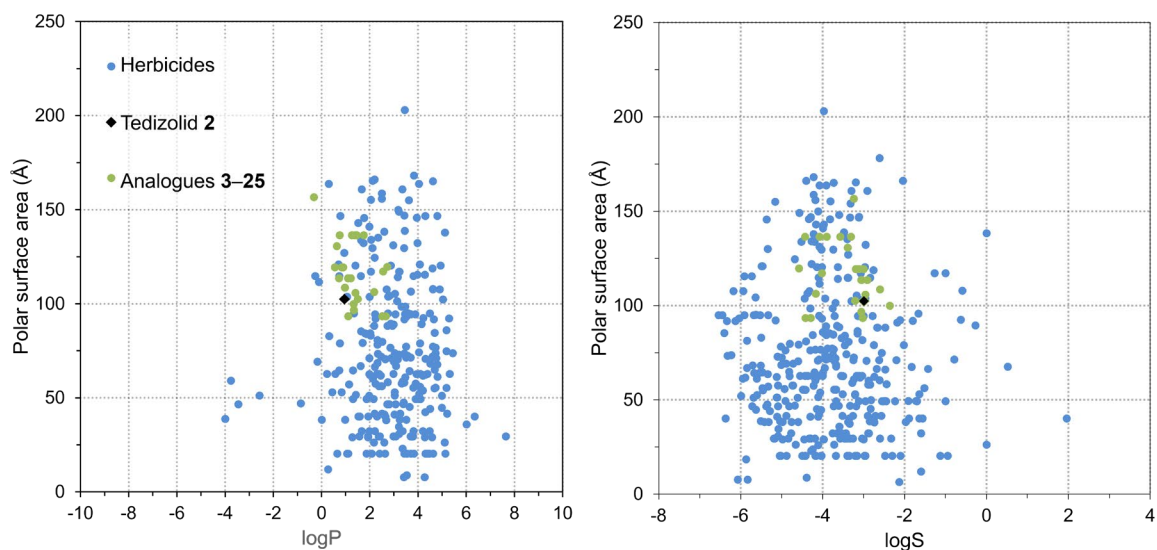
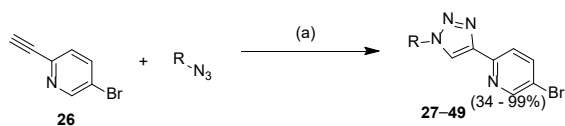
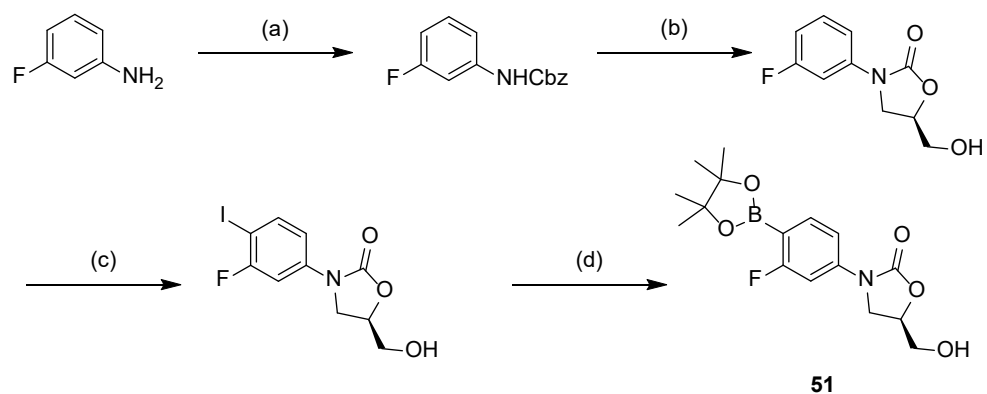


Figure S1. Cluster analysis of the physicochemical properties of tedizolid (**2**) and proposed analogues versus 360 commercial herbicides. An interactive database of physicochemical properties for commercial herbicides was used to extract these charts.^{1,2} logP and logS were calculated using vcclab.org and all other properties computed using Marvin Sketch. Values for this work (green circles, **2** shown as black diamond) were plotted and the two properties compared.

Table S1. Synthesis of triazoles **27–49**. (a) CuSO₄, sodium ascorbate, *t*-BuOH/H₂O, 40 °C, 2.5 h.



Intermediate triazole	R	Yield (%)	Intermediate triazole	R	Yield (%)
27		77	38		60
28		81	39		88
29		99	40		81
30		98	41		83
31		81	42		95
32		87	43		87
33		55	44		45
34		95	45		88
35		90	46		81
36		86	47		99
37		76	48		99
			49		56



Scheme S1. Synthesis of boronic ester intermediate **51**.³⁻⁵ (a) *N*-(Benzyloxycarbonyloxy)succinimide, THF, 40 °C, 82%; (b) (*R*)-glycidyl butyrate, *n*-BuLi, THF, -78 °C to rt, 87%; (c) *N*-iodosuccinimide, trifluoroacetic acid, rt, 78%; (d) Pd(dppf)₂Cl₂, bis(pinacolato)diboron, KOAc, DMSO, 80 °C, 90%.

Herbicidal activity assay

The herbicidal activity of compounds was determined based upon the previously published method from Sukhoverkov *et. al.*⁶

Antibacterial activity assay

The minimum inhibitory concentrations (MIC) against *Staphylococcus aureus* (ATCC 25923) and *Bacillus cereus* (ATCC10876) were determined as previously described.⁵ Minimum Inhibitory Concentrations (MIC) were determined via the Broth Microdilution Method, as per the Clinical and Laboratory Standards Institute Approved Standards.⁷ Compounds dissolved in Mueller Hinton broth with 4% DMSO, were added to 96-well plates with a 2-fold serial dilution. The bacteria were grown to exponential growth phase in Mueller Hinton broth, and 100 mL was added to the respective wells, at a concentration of 5×10^5 CFU/mL, with a final DMSO concentration of 2%. Plates were then incubated at 37 °C for 18 h. MICs were recorded by visual inspection and confirmed by absorbance measured at 600 nm with each compound tested in triplicate.

Experimental

General

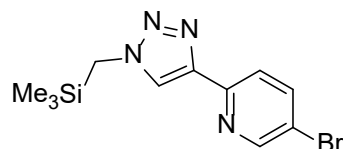
All reagents and materials were purchased from commercial suppliers unless otherwise specified. Thin layer chromatography (TLC) was performed on Merck silica gel 60 F254 aluminium-backed plates. Flash column chromatography was performed on Merck silica gel using the specified solvents. NMR spectra were obtained on a Bruker Avance IIIHD 400 (400 MHz for ¹H, 100.6 MHz for ¹³C), 500 (500 MHz for ¹H and 125.8 MHz for ¹³C) or 600 (600 MHz for ¹H and 150.9 MHz for ¹³C) spectrometers. The solvents used were CDCl₃, CD₃OD, DMSO-*d*₆, CD₃CN or (CD₃)₂CO, with CHCl₃ (¹H, δ 7.26 ppm), CDCl₃ (¹³C, δ 77.16 ppm), CD₂HOD (¹H, δ 3.31 ppm), CD₃OD (¹³C, δ 49.00 ppm), CD₃S(O)CD₂H (¹H, δ 2.50 ppm), (CD₃)₂SO (¹³C, δ 39.52 ppm), CD₂HCN (¹H, δ 1.94 ppm), CD₃CN (¹³C, δ 118.26 ppm), CD₂HCD₃CO (¹H, δ 2.05 ppm) or (CD₃)₂CO (¹³C, δ 29.84 ppm) used as an internal standard. Infrared spectra were recorded using a PerkinElmer spectrum one FT-IR spectrometer fitted with a PerkinElmer Universal Attenuated Total Reflectance (ATR) sampling accessory. High resolution mass spectra (HR-MS) were obtained on a Orbitrap Exploris 120 spectrometer, using the ESI equipped ion source in positive mode.

General Procedure A

5-Bromo-2-ethynylpyridine **26** (1.0 equiv.) and the relevant azide (2.0 equiv.) were dissolved in *t*-BuOH (4.6 mL/mmol). A solution of CuSO₄ (0.1 equiv.) and sodium ascorbate (0.5 equiv.) in H₂O (4.6 mL/mmol) was added and the mixture was stirred at 40 °C (1–2 h). The mixture was allowed to cool to room temperature (rt), concentrated under reduced pressure, dispersed in H₂O and extracted with EtOAc. The organic extracts were combined, washed with H₂O and brine, dried over anhydrous MgSO₄, filtered and concentrated under reduced pressure before being purified by flash column chromatography (FCC) to afford the desired compound.

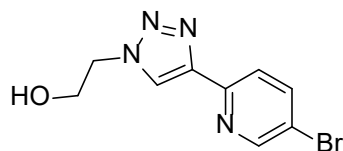
General Procedure B

The relevant triazole-containing compound (1.0 equiv.) and the boronic ester **51** (1.2 equiv.) were dissolved in 1,4-dioxane (14.6 mL/mmol) and saturated Na₂CO₃ solution (4.2 mL/mmol). The mixture was sparged with N₂ (10 min) before addition of Pd(PPh₃)₄ (5 mol%). The mixture further sparged with N₂ (3 min) before being heated at 100 °C under N₂ atmosphere (18 h). After cooling the reaction to rt, the solvent was removed *in vacuo* and the mixture was purified by FCC to afford the desired compound.



5-Bromo-2-{1-[(trimethylsilyl)methyl]-1*H*-1,2,3-triazol-4-yl}pyridine (**27**)

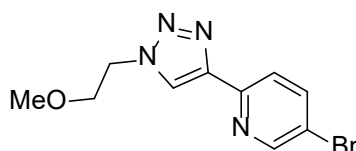
The title compound **27** was synthesised as a light brown solid (67 mg, 62%) according to general procedure A. ¹H NMR (400 MHz, CDCl₃): δ 8.61 (d, *J* = 2.0 Hz, 1H), 8.07 (d, *J* = 8.4 Hz, 1H), 7.99 (s, 1H), 7.88 (dd, *J* = 8.4, 2.0 Hz, 1H), 3.97 (s, 2H), 0.18 (s, 9H); ¹³C NMR (100.6 MHz, CDCl₃): δ 150.4, 149.1, 147.3, 139.7, 122.9, 121.5, 119.4, 42.5, -2.3; R_f = 0.18 (EtOAc:hexanes, 3:17); FT-IR (ATR): ν 2795, 1591 cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₁₁H₁₆N₄⁷⁹BrSi⁺: 311.0322, found: 311.0321.



28

2-[4-(5-Bromopyridin-2-yl)-1H-1,2,3-triazol-1-yl]ethan-1-ol (**28**)

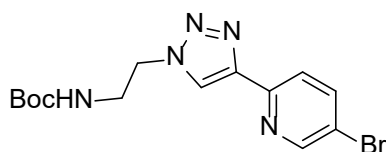
The title compound **28** was synthesised as a white solid (66 mg, 81%) according to general procedure A. ¹H NMR (600 MHz, CDCl₃): δ 8.52 (d, *J* = 2.2 Hz, 1H), 8.21 (s, 1H), 7.94 (d, *J* = 8.4 Hz, 1H), 7.87 (dd, *J* = 8.4, 2.2 Hz), 4.54 (t, *J* = 5.0 Hz, 2H), 4.13 (t, *J* = 5.0 Hz, 2H); ¹³C NMR (150.9 MHz, CDCl₃): δ 150.2, 148.4, 147.0, 139.7, 123.6, 121.3, 119.5, 61.1, 53.1; R_f = 0.40 (MeOH:CHCl₃, 1:19); FT-IR (ATR): ν 3260 (O-H) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₉H₁₀N₄O⁷⁹Br⁺: 269.0032, found: 269.0029.



29

5-Bromo-2-[1-(2-methoxyethyl)-1H-1,2,3-triazol-4-yl]pyridine (**29**)

The title compound **29** was synthesised as a white solid (84 mg) quantitatively according to general procedure A. ¹H NMR (400 MHz, CDCl₃): δ 8.63 (d, *J* = 2.0 Hz, 1H), 8.25 (s, 1H), 8.08 (d, *J* = 8.4 Hz, 1H), 7.90 (dd, *J* = 8.4, 2.0 Hz, 1H), 4.60 (t, *J* = 4.9 Hz, 2H), 3.80 (t, *J* = 4.9 Hz, 2H), 3.37 (s, 3H); ¹³C NMR (100.6 MHz, CDCl₃): δ 150.4, 148.9, 147.4, 139.8, 123.5, 121.6, 119.5, 70.7, 59.2, 50.6; R_f = 0.26 (EtOAc:hexanes, 1:1); FT-IR (ATR): ν 1595 cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₁₀H₁₂N₄O⁷⁹Br⁺: 283.0189, found: 283.0187.

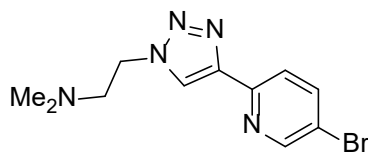


30

tert-Butyl N-{2-[4-(5-bromopyridin-2-yl)-1H-1,2,3-triazol-1-yl]ethyl}carbamate (**30**)

The title compound **30** was synthesised as a yellow solid (106 mg, 98%) according to general procedure A. ¹H NMR (500 MHz, CD₃CN): δ 8.68 (br s, 1H), 8.25 (s, 1H), 8.04–7.99 (m, 2H), 5.50 (s, 1H), 4.48 (t, *J* = 5.8 Hz, 2H), 3.52 (td, *J* = 5.8, 5.8 Hz, 2H), 1.34 (s, 9H); ¹³C NMR (125.8 MHz, CD₃CN): δ 156.7, 151.4, 150.2, 147.8, 140.5, 124.3, 122.0, 119.9, 79.6, 50.9,

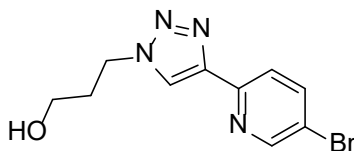
41.2, 28.5; $R_f = 0.49$ (MeOH/CHCl₃, 1:19); FT-IR (ATR): ν 3200 (N-H), 1722 (C=O) cm⁻¹; HR-MS (ESI): m/z [M+H]⁺ calculated for C₁₄H₁₉N₅O₂⁷⁹Br⁺: 368.0717, found: 368.0716.



31

{2-[4-(5-Bromopyridin-2-yl)-1H-1,2,3-triazol-1-yl]ethyl}dimethylamine (**31**)

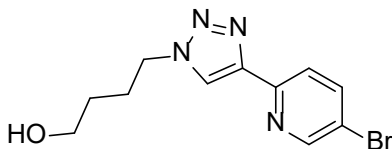
The title compound **31** was synthesised as a white solid (67 mg, 81%) according to general procedure A. ¹H NMR (400 MHz, CDCl₃): δ 8.62 (d, $J = 1.9$ Hz, 1H), 8.26 (s, 1H), 8.07 (d, $J = 8.4$ Hz, 1H), 7.89 (dd, $J = 8.4, 1.9$ Hz, 1H), 4.53 (t, $J = 6.2$ Hz, 2H), 2.84 (t, $J = 6.2$ Hz, 2H), 2.32 (s, 6H); ¹³C NMR (150.9 MHz, CDCl₃): δ 150.6, 149.1, 147.5, 139.6, 123.0, 121.5, 119.5, 58.8, 48.4, 45.5; $R_f = 0.49$ (MeOH:CHCl₃, 1:19); FT-IR (ATR): ν 1592 cm⁻¹; HR-MS (ESI): m/z [M+H]⁺ calculated for C₁₁H₁₅N₅⁷⁹Br⁺: 296.0505, found: 296.0505.



32

3-[4-(5-Bromopyridin-2-yl)-1H-1,2,3-triazol-1-yl]propan-1-ol (**32**)

The title compound **32** was synthesised as a white solid (70 mg, 87%) according to general procedure A. ¹H NMR (400 MHz, CDCl₃): δ 8.61 (d, $J = 2.0$ Hz, 1H), 8.21 (s, 1H), 8.07 (d, $J = 8.5$ Hz, 1H), 7.91 (dd, $J = 8.5, 2.0$ Hz, 1H), 4.60 (t, $J = 6.8$ Hz, 2H), 3.69 (t, $J = 5.8$ Hz, 2H), 2.19 (tt, $J = 6.8, 5.8$ Hz, 2H); ¹³C NMR (100.6 MHz, CDCl₃): δ 150.3, 148.7, 147.3, 140.0, 123.0, 121.6, 119.7, 58.7, 47.3, 32.6; $R_f = 0.21$ (EtOAc:hexanes, 8:2); FT-IR (ATR): ν 3401 (O-H) cm⁻¹; HR-MS (ESI): m/z [M+H]⁺ calculated for C₁₀H₁₂N₄O⁷⁹Br⁺: 283.0189, found: 283.0186.

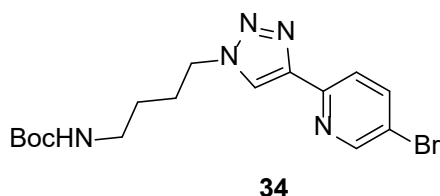


33

4-[4-(5-Bromopyridin-2-yl)-1H-1,2,3-triazol-1-yl]butan-1-ol (**33**)

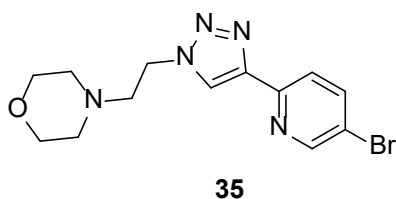
The title compound **33** was synthesised as a white solid (24 mg, 29%) according to general procedure A. ¹H NMR (600 MHz, CDCl₃): δ 8.61 (d, $J = 1.3$ Hz, 1H), 8.14 (s, 1H), 8.06 (d, J

= 8.4 Hz, 1H), 7.89 (dd, $J = 8.4, 2.1$ Hz), 4.48 (t, $J = 7.1$ Hz, 2H), 3.70 (t, $J = 6.2$ Hz, 2H), 2.08 (tt, $J = 7.1, 6.2$ Hz, 2H), 1.62 (tt, $J = 7.1, 6.2$ Hz, 2H); ^{13}C NMR (150.9 MHz, CDCl_3): δ 150.5, 148.9, 147.6, 139.7, 122.3, 121.5, 119.6, 62.0, 50.5, 29.3, 27.0; $R_f = 0.12$ (MeOH: CHCl_3 , 1:99); FT-IR (ATR): ν 3418 (O-H) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{11}\text{H}_{14}\text{N}_4\text{O}^{79}\text{Br}^+$: 297.0346, found: 297.0342.



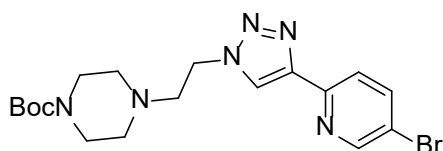
tert-Butyl N-{4-[4-(5-bromopyridin-2-yl)-1H-1,2,3-triazol-1-yl]butyl}carbamate (**34**)

The title compound **34** was synthesised as a white solid (107 mg, 95%) according to general procedure A. ^1H NMR (500 MHz, $(\text{CD}_3)_2\text{CO}$): δ 8.66–8.65 (m, 1H), 8.46 (s, 1H), 8.07 (m, 2H), 6.03 (br s, 1H), 4.54 (t, $J = 7.1$ Hz, 2H), 3.14 (dt, $J = 7.1, 6.4$ Hz, 2H), 2.01 (tt, $J = 7.1, 7.1$ Hz, 2H), 1.54 (tt, 7.1, 7.1 Hz, 2H), 1.39 (s, 9H); ^{13}C NMR (125.8 MHz, $(\text{CD}_3)_2\text{CO}$): δ 156.8, 151.3, 150.6, 147.8, 140.4, 123.7, 121.8, 119.5, 78.5, 50.5, 40.2, 28.6, 28.3, 27.8; $R_f = 0.47$ (MeOH: CHCl_3 , 1:19); FT-IR (ATR): ν 3391 (N-H), 1678 (C=O) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{16}\text{H}_{23}\text{N}_5\text{O}_2^{79}\text{Br}^+$: 396.1030, found: 396.1030.



4-{2-[4-(5-Bromopyridin-2-yl)-1H-1,2,3-triazol-1-yl]ethyl}morpholine (**35**)

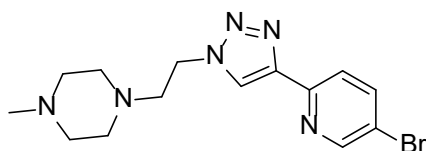
The title compound **35** was synthesised as a white solid (88 mg, 90%) according to general procedure A. ^1H NMR (400 MHz, $(\text{CD}_3)_2\text{CO}$): δ 8.67–8.66 (m, 1H), 8.49 (s, 1H), 8.08–8.07 (m, 2H), 4.63 (t, $J = 6.2$ Hz, 2H), 3.59 (t, $J = 4.6$ Hz, 4H), 2.89 (t, $J = 6.2$ Hz, 2H), 2.51 (t, $J = 4.6$ Hz, 4H); ^{13}C NMR (100.6 MHz, $(\text{CD}_3)_2\text{CO}$): δ 151.2, 150.6, 147.6, 140.3, 124.2, 121.8, 119.5, 67.4, 58.6, 54.3, 48.0; $R_f = 0.59$ (MeOH: CHCl_3 , 1:9); FT-IR (ATR): ν 1590 cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{13}\text{H}_{17}\text{N}_5\text{O}^{79}\text{Br}^+$: 338.0611, found: 338.0610.



36

tert-Butyl 4-{2-[4-(5-bromopyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]ethyl}piperazine-1-carboxylate (**36**)

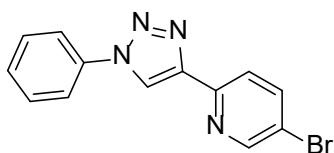
The title compound (**36**) was synthesised according as a light brown solid (106 mg, 86%) to general procedure A. ¹H NMR (600 MHz, CD₃OD): δ 8.66 (d, *J* = 1.7 Hz, 1H), 8.49 (s, 1H), 8.06 (dd, *J* = 8.5, 1.7 Hz, 1H), 7.98 (d, *J* = 8.5 Hz, 1H), 4.61 (t, *J* = 6.1 Hz, 2H), 3.40 (m, 4H), 2.90 (t, *J* = 6.1 Hz, 2H), 2.49 (m, 4H), 1.45 (s, 9H); ¹³C NMR (150.9 MHz, CDCl₃): δ 156.4, 151.6, 150.0, 147.9, 141.2, 125.0, 122.5, 120.6, 81.2, 58.4, 53.8, 49.0, 44.8, 28.6; *R*_f = 0.16 (EtOAc:hexanes, 1:1); FT-IR (ATR): ν 1692 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₁₈H₂₆N₆O₂⁷⁹Br⁺: 437.1295, found: 437.1293.



37

1-{2-[4-(5-Bromopyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]ethyl}-4-methylpiperazine (**37**)

The title compound **37** was synthesised as a light brown solid (76 mg, 76%) according to general procedure A. ¹H NMR (400 MHz, CD₃OD): δ 8.66 (d, *J* = 1.9 Hz, 1H), 8.49 (s, 1H), 8.06 (dd, *J* = 8.5, 1.9 Hz, 1H), 7.98 (d, *J* = 8.5 Hz, 1H), 4.61 (t, *J* = 6.2 Hz, 2H), 2.90 (t, *J* = 6.2 Hz, 2H), 2.59–2.44 (m, 8H), 2.28 (s, 3H); ¹³C NMR (100.6 MHz, CD₃OD): δ 151.6, 150.0, 147.9, 141.2, 124.9, 122.5, 120.6, 58.2, 55.8, 53.4, 45.9; *R*_f = 0.30 (MeOH:CHCl₃, 1:9); FT-IR (ATR): ν 2795, 1591 cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₁₄H₂₀N₆⁷⁹Br⁺: 351.0927, found: 351.0926.

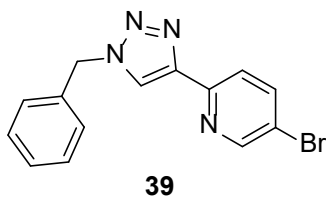


38

5-Bromo-2-(1-phenyl-1*H*-1,2,3-triazol-4-yl)pyridine (**38**)

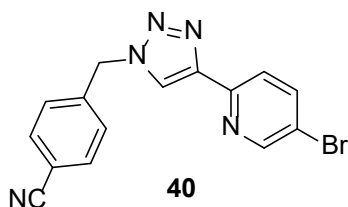
The title compound **38** was synthesised as an orange solid (50 mg, 60%) according to general procedure A. As a result of insolubility and restricted rotation, this compound was unable to be characterised by NMR before being carried forward. *R*_f = 0.36 (EtOAc:hexanes, 3:17); FT-IR

(ATR): ν 3077, 1593 cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{13}\text{H}_{10}\text{N}_4^{79}\text{Br}^+$: 301.0083, found: 301.0082.



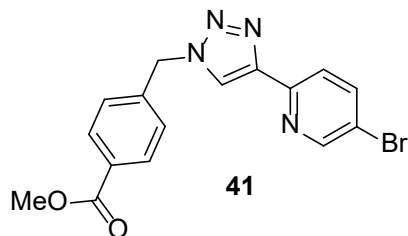
2-(1-Benzyl-1*H*-1,2,3-triazol-4-yl)-5-bromopyridine (**39**)

The title compound **39** was afforded as a white solid (81 mg, 88%) according to general procedure A. ^1H NMR (400 MHz, CDCl_3): δ 8.58 (d, $J = 2.4$ Hz, 1H), 8.08 (d, $J = 8.4$ Hz, 1H), 8.06 (s, 1H), 7.90 (dd, $J = 8.4, 2.4$ Hz, 1H), 7.42–7.32 (m, 5H), 5.58 (s, 2H). All spectroscopic data matched that reported in the literature.⁸



4-([4-(5-Bromopyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]methyl)benzotrile (**40**)

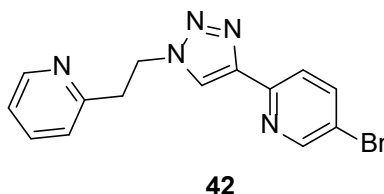
The title compound (**40**) was synthesised as a light brown solid (79 mg, 81%) according to general procedure A. ^1H NMR (400 MHz, $\text{DMSO}-d_6$): δ 8.77 (s, 1H), 8.72 (dd, $J = 2.4, 0.7$ Hz, 1H), 8.15 (dd, $J = 8.4, 2.4$ Hz, 1H), 7.99 (dd, $J = 8.4, 0.7$ Hz, 1H), 7.88–7.85 (m, 2H), 7.53–7.50 (m, 2H), 5.80 (s, 2H); ^{13}C NMR (100.6 MHz, $\text{DMSO}-d_6$): δ 150.4, 148.6, 146.6, 141.3, 140.0, 132.8, 128.8, 124.2, 121.2, 119.0, 118.6, 111.1, 52.5; $R_f = 0.12$ (EtOAc:hexanes, 7:13); FT-IR (ATR): ν 2224 ($\text{C}\equiv\text{N}$) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{15}\text{H}_{11}\text{N}_5^{79}\text{Br}^+$: 340.0192, found: 340.0193.



Methyl 4-([4-(5-bromopyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]methyl)benzoate (**41**)

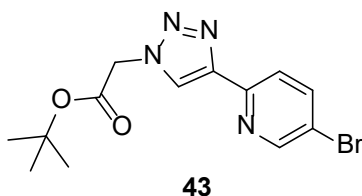
The title compound **41** was synthesised as a white solid (88 mg, 83%) according to general procedure A. ^1H NMR (500 MHz, $\text{DMSO}-d_6$): δ 8.77 (s, 1H), 8.72 (d, $J = 1.9$ Hz, 1H), 8.14 (dd, $J = 8.4, 1.9$ Hz, 1H), 7.99 (d, $J = 8.4$ Hz, 1H), 7.98–7.95 (m, 2H), 7.48–7.46 (m, 2H), 5.78

(s, 2H), 3.84 (s, 3H); ^{13}C NMR (125.8 MHz, DMSO- d_6): δ 166.3, 150.8, 149.1, 147.0, 141.5, 140.4, 130.1, 129.8, 128.6, 124.5, 121.6, 119.4, 53.1, 52.7; R_f = 0.53 (EtOAc:hexanes, 1:1); FT-IR (ATR): ν 1714 (C=O) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{16}\text{H}_{14}\text{N}_4\text{O}_2^{79}\text{Br}^+$: 373.0295, found: 373.0293.



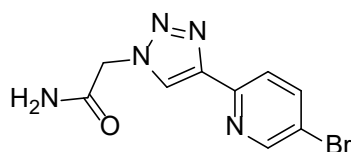
5-Bromo-2-{1-[2-(pyridin-2-yl)ethyl]-1H-1,2,3-triazol-4-yl}pyridine (**42**)

The title compound **42** was synthesised as a light brown solid (67 mg, 62%) according to general procedure A. ^1H NMR (400 MHz, CDCl_3): δ 8.59 (br s, 1H), 8.58 (d, J = 2.1 Hz, 1H), 8.03 (d, J = 8.5 Hz, 1H), 7.97 (s, 1H), 7.86 (dd, J = 8.5, 2.1 Hz, 1H), 7.59 (ddd, J = 7.6, 7.6, 2.1 Hz, 1H), 7.19 (ddd, J = 7.6, 5.0, 0.7 Hz, 1H), 7.08 (d, J = 7.6 Hz, 1H), 4.91 (t, J = 7.0 Hz, 2H), 3.47 (t, J = 7.0 Hz, 2H); ^{13}C NMR (100.6 MHz, CDCl_3): δ 156.5, 150.6, 149.1, 148.9, 147.3, 139.5, 137.6, 124.2, 122.8, 122.5, 121.5, 119.5, 49.6, 38.0; R_f = 0.30 (EtOAc); FT-IR (ATR): ν 3111, 1591 cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{14}\text{H}_{13}\text{N}_5^{79}\text{Br}^+$: 330.0349, found: 330.0347.



tert-Butyl 2-[4-(5-bromopyridin-2-yl)-1H-1,2,3-triazol-1-yl]acetate (**43**)

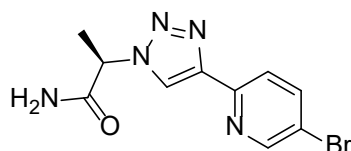
The title compound **43** was afforded as a yellow solid (162 mg, 98%) according to general procedure A. ^1H NMR (400 MHz, $(\text{CD}_3)_2\text{CO}$): δ 8.67 (br s, 1H), 8.52 (s, 1H), 8.09 (m, 2H), 5.34 (s, 2H), 1.48 (s, 9H); ^{13}C NMR (100.6 MHz, $(\text{CD}_3)_2\text{CO}$): δ 166.7, 151.3, 150.3, 147.9, 140.4, 125.3, 121.9, 119.7, 83.4, 52.2, 28.1; R_f = 0.21 (EtOAc:hexanes, 1:4); FT-IR (ATR): ν 1723 (C=O) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{13}\text{H}_{16}\text{N}_4\text{O}_2^{79}\text{Br}^+$: 339.0451, found: 339.0449.



44

2-[4-(5-Bromopyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]acetamide (**44**)

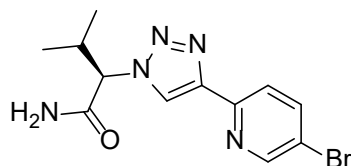
The title compound **44** was synthesised as a white solid (36 mg, 45%) according to general procedure A. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.74 (dd, *J* = 2.4, 0.4 Hz, 1H), 8.55 (s, 1H), 8.15 (dd, *J* = 8.5, 2.4 Hz, 1H), 7.99 (dd, *J* = 8.5, 0.4 Hz, 1H), 7.77 (br s, 1H), 7.43 (br s, 1H), 5.15 (s, 2H); ¹³C NMR (150.9 MHz, DMSO-*d*₆): δ 167.1, 150.3, 148.8, 145.9, 139.9, 125.2, 121.1, 118.8, 51.6; *R*_f = 0.25 (EtOAc); FT-IR (ATR): ν 3346 (N-H), 1679 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₉H₉N₅O⁷⁹Br⁺: 281.9985, found: 281.9982.



45

(2*S*)-2-[4-(5-Bromopyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]propanamide (**45**)

The title compound **45** was synthesised as a white solid (75 mg, 88%) according to general procedure A. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.73 (dd, *J* = 2.4, 0.5 Hz, 1H), 8.67 (s, 1H), 8.15 (dd, *J* = 8.5, 2.4 Hz, 1H), 7.99 (dd, *J* = 8.5, 0.5 Hz, 1H), 7.79 (br s, 1H), 7.43 (br s, 1H), 5.41 (q, *J* = 7.3 Hz, 1H), 1.75 (d, *J* = 7.3 Hz, 3H); ¹³C NMR (150.9 MHz, DMSO-*d*₆): δ 170.2, 150.3, 148.8, 145.9, 139.9, 123.0, 121.1, 118.8, 58.4, 17.8; *R*_f = 0.12 (MeOH:CHCl₃, 3:97); FT-IR (ATR): ν 3362 (N-H), 1680 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₁₀H₁₁N₅O⁷⁹Br⁺: 296.0141, found: 296.0137.

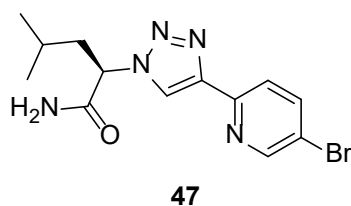


46

(2*S*)-2-[4-(5-Bromopyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]-3-methylbutanamide (**46**)

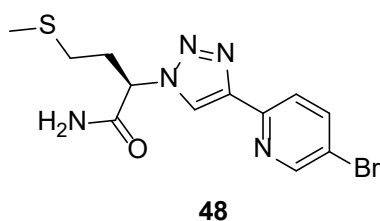
The title compound **46** was synthesised as a white solid (82 mg, 81%) according to general procedure A. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.73 (d, *J* = 1.2 Hz, 1H), 8.63 (s, 1H), 8.15 (dd, *J* = 8.3, 1.2 Hz, 1H), 8.02 (br s, 1H), 8.00 (d, *J* = 8.3 Hz, 1H), 7.55 (br s, 1H), 5.01 (d, *J* = 9.9 Hz, 1H), 2.48–2.47 (m, 1H), 1.01 (d, *J* = 6.5 Hz, 3H), 0.72 (d, *J* = 6.5 Hz, 3H); ¹³C NMR

(150.9 MHz, DMSO-*d*₆): δ 169.0, 150.3, 148.6, 146.2, 139.9, 122.3, 121.2, 118.9, 69.0, 30.8, 18.9, 18.5; $R_f = 0.22$ (EtOAc/hexanes, 3:5); FT-IR (ATR): ν 3381 (N-H), 3158, 1675 (C=O) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{12}\text{H}_{15}\text{N}_5\text{O}^{79}\text{Br}^+$: 324.0454, found: 324.0452.



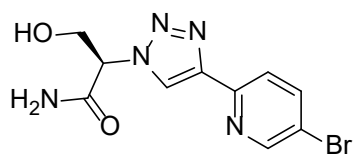
(2*S*)-2-[4-(5-Bromopyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]-4-methylpentanamide (**47**)

The title compound **47** was synthesised as a white solid (100 mg, 99%) according to general procedure A. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.73 (d, $J = 1.3$ Hz, 1H), 8.69 (s, 1H), 8.14 (dd, $J = 8.4, 1.3$ Hz, 1H), 7.99 (d, $J = 8.4$ Hz, 1H), 7.92 (br s, 1H), 7.46 (br s, 1H), 5.42 (dd, $J = 10.4, 5.1$ Hz, 1H), 2.18–2.13 (m, 1H), 1.91–1.87 (m, 1H), 1.27–1.21 (m, 1H), 0.90 (d, $J = 6.5$ Hz, 3H), 0.86 (d, $J = 6.5$ Hz, 3H); ¹³C NMR (150.9 MHz, DMSO-*d*₆): δ 169.8, 150.3, 148.7, 146.1, 139.9, 122.9, 121.1, 118.8, 61.4, 24.5, 22.5, 21.2; $R_f = 0.21$ (EtOAc/hexanes, 1:1); FT-IR (ATR): ν 3400 (N-H), 3180, 1679 (C=O) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{13}\text{H}_{17}\text{N}_5\text{O}^{79}\text{Br}^+$: 338.0611, found: 338.0609.



(2*S*)-2-[4-(5-Bromopyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]-4-(methylsulfanyl)butanamide (**48**)

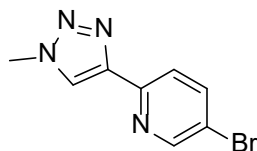
The title compound **48** was synthesised as a white solid (100 mg, 99%) according to general procedure A. ¹H NMR (500 MHz, DMSO-*d*₆): δ 8.73 (s, 1H), 8.72 (s, 1H), 8.15 (d, $J = 8.2$ Hz, 1H), 8.00 (d, $J = 8.2$ Hz, 1H), 7.90 (br s, 1H), 7.50 (br s, 1H), 5.46 (dd, $J = 8.7, 3.9$ Hz, 1H), 2.47–2.28 (m, 4H), 2.05 (s, 3H); ¹³C NMR (125.8 MHz, DMSO-*d*₆): δ 169.1, 150.3, 150.3, 148.7, 146.1, 139.9, 123.3, 123.2, 121.2, 118.9, 62.0, 31.1, 29.4, 14.6; $R_f = 0.17$ (EtOAc/hexanes, 3:2); FT-IR (ATR): ν 3402 (N-H), 3177, 1682 (C=O) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{12}\text{H}_{15}\text{N}_5\text{O}^{79}\text{BrS}^+$: 356.0175, found: 356.0174.



49

(2*S*)-2-[4-(5-Bromopyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]-3-hydroxypropanamide (**49**)

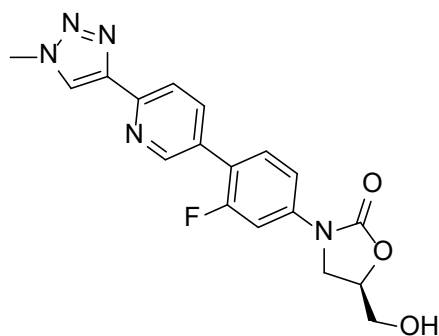
The title compound **49** was synthesised as a white solid (40 mg, 56%) according to general procedure A. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.73 (d, *J* = 2.2 Hz, 1H), 8.62 (s, 1H), 8.14 (dd, *J* = 8.5, 2.2 Hz, 1H), 8.00 (d, *J* = 8.5 Hz, 1H), 7.88 (br s, 1H), 7.50 (br s, 1H), 5.42 (m, 2H), 4.12–4.09 (m, 1H), 4.01–3.99 (m, 1H); ¹³C NMR (150.9 MHz, DMSO-*d*₆): δ 167.9, 150.4, 148.9, 145.9, 140.0, 123.6, 121.2, 118.9, 65.3, 61.4 ; R_f = 0.26 (MeOH:CHCl₃, 1:9); FT-IR (ATR): ν 3350 (N-H), 3151, 2921, 1682 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₁₀H₁₁N₅O₂⁷⁹Br⁺: 312.0091, found: 312.0088.



50

5-Bromo-2-(1-methyl-1*H*-1,2,3-triazol-4-yl)pyridine (**50**)

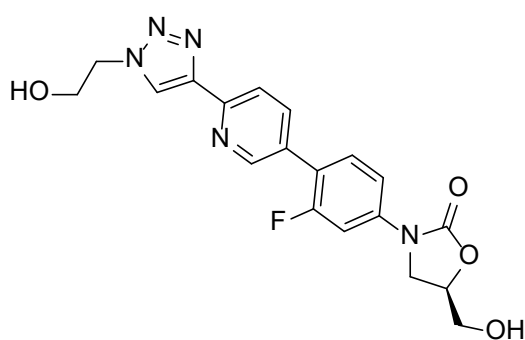
The title compound **50** was synthesised according to Fedorovich⁸ affording **50** as a white solid (32 mg, quantitative). ¹H NMR (400 MHz, CDCl₃): δ 8.61 (d, *J* = 2.2 Hz, 1H), 8.11 (s, 1H), 8.07 (d, *J* = 8.4 Hz, 1H), 7.89 (dd, *J* = 8.4, 2.2 Hz, 1H), 4.16 (s, 3H); ¹³C NMR (100.6 MHz, CDCl₃): δ 150.3, 148.7, 147.6, 139.9, 123.5, 121.6, 119.6, 37.0; R_f = 0.29 (EtOAc:hexanes, 1:1); FT-IR (ATR): ν 2923, 1596 cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₈H₈N₄⁷⁹Br⁺: 238.9927, found: 238.9925.



3

(5*R*)-3-{3-Fluoro-4-[6-(1-methyl-1*H*-1,2,3-triazol-4-yl)pyridin-3-yl]phenyl}-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**3**)

The title compound **3** was synthesised as a white solid (29 mg, 54%) according to general procedure B. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.79 (br s, 1H), 8.61 (s, 1H), 8.12 (d, *J* = 8.2 Hz, 1H), 8.08 (ddd, *J* = 8.3, 2.2, 1.2 Hz, 1H), 7.70 (dd, *J* = 9.0, 9.0 Hz, 1H), 7.69 (dd, *J* = 14.4, 2.0 Hz, 1H), 7.50 (dd, *J* = 9.0, 2.0 Hz, 1H), 5.26 (br s, 1H), 4.78–4.74 (m, 1H), 4.15 (dd, *J* = 9.0, 9.0 Hz, 1H), 4.14 (s, 3H), 3.90 (dd, *J* = 9.0, 6.2 Hz, 1H), 3.71 (dd, *J* = 12.2, 2.9 Hz, 1H), 3.59 (dd, *J* = 12.2, 2.9 Hz, 1H); ¹³C NMR (150.6 MHz, DMSO-*d*₆): δ 159.3 (d, *J* = 245 Hz), 154.4, 149.0 (d, *J* = 5.3 ppm), 149.0, 146.9, 140.2 (d, *J* = 11.1 Hz), 136.9 (d, *J* = 3.0 Hz), 130.8 (d, *J* = 4.4 Hz), 129.4, 124.3, 119.1 (d, *J* = 13.3 Hz), 119.1, 114.0 (d, *J* = 2.4 Hz), 105.4 (d, *J* = 28.5 Hz), 73.4, 61.6, 46.0, 36.5; *R*_f = 0.09 (MeOH:CHCl₃, 3:97); FT-IR (ATR): ν 3361 (O-H), 1732 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₁₈H₁₇FN₅O₃⁺: 370.1310, found: 370.1307.

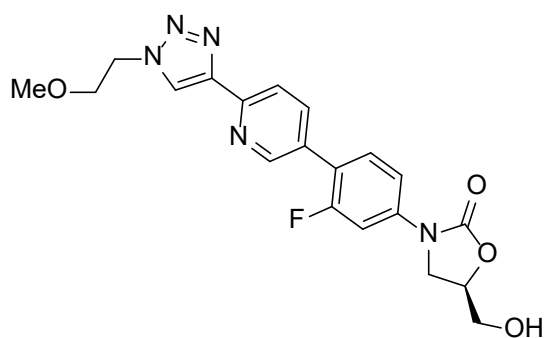


4

(5*R*)-3-(3-Fluoro-4-{6-[1-(2-hydroxyethyl)-1*H*-1,2,3-triazol-4-yl]pyridin-3-yl}phenyl)-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**4**)

The title compound **4** was synthesised as a white solid (46 mg, 45%) according to general procedure B. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.79 (br s, 1H), 8.60 (s, 1H), 8.13 (d, *J* = 8.2 Hz, 1H), 8.09 (dd, 8.8, 1.7 Hz, 1H), 7.71 (dd, *J* = 8.8, 8.8 Hz, 1H), 7.69 (dd, *J* = 8.8, 2.2 Hz,

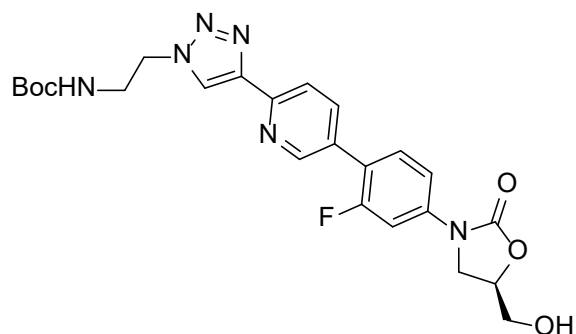
1H), 7.51 (dd, $J = 8.8, 2.2$ Hz, 1H), 5.26 (br s, 1H), 5.10 (br s, 1H), 4.78–4.74 (m, 1H), 4.50 (t, $J = 5.5$ Hz, 2H), 4.15 (dd, $J = 8.9, 8.9$ Hz, 1H), 3.90 (dd, $J = 8.9, 6.2$ Hz, 1H), 3.85 (m, 2H), 3.71 (d, $J = 12.4$ Hz, 1H), 3.59 (d, $J = 12.4$ Hz, 1H); ^{13}C NMR (150.9 MHz, DMSO- d_6): δ 159.7 (d, $J = 245$ Hz), 154.4, 149.0 (d, $J = 3.6$ Hz), 148.9, 146.7, 140.1 (d, $J = 11.5$ Hz), 136.9 (d, $J = 2.9$ Hz), 130.8 (d, $J = 4.6$ Hz), 129.4, 123.8, 119.1 (d, $J = 13.2$ Hz), 119.1, 114.0 (d, $J = 3.2$ Hz), 105.4 (d, $J = 28.4$ Hz), 73.5, 61.6, 59.8, 52.4, 46.0; $R_f = 0.23$ (MeOH:CHCl₃, 1:19); FT-IR (ATR): ν 3376 (O-H), 1746 (C=O) cm⁻¹; HR-MS (ESI): m/z [M+H]⁺ calculated for C₁₉H₁₉FN₅O₄⁺: 400.1416, found: 400.1414.



5

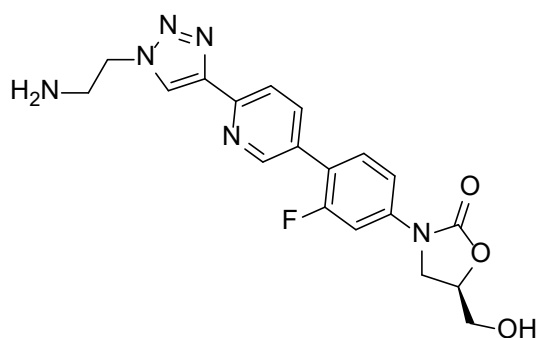
(5*R*)-3-(3-Fluoro-4-{6-[1-(2-methoxyethyl)-1*H*-1,2,3-triazol-4-yl]pyridin-3-yl}phenyl)-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**5**)

The title compound **5** was synthesised as a white solid (52 mg, 72%) according to general procedure B. ^1H NMR (400 MHz, DMSO- d_6): δ 8.79 (br s, 1H), 8.61 (s, 1H), 8.13 (dd, $J = 8.2, 0.8$ Hz, 1H), 8.08 (ddd, $J = 8.4, 2.0, 1.4$ Hz, 1H), 7.71 (dd, $J = 8.9, 8.9$ Hz, 1H), 7.69 (dd, $J = 13.4, 2.0$ Hz), 7.51 (dd, $J = 8.9, 2.0$ Hz, 1H), 5.26 (br s, 1H), 4.79–4.73 (m, 1H), 4.63 (t, $J = 5.1$ Hz, 2H), 4.15 (dd, $J = 9.1, 9.1$ Hz, 1H), 3.90 (dd, $J = 9.1, 6.2$ Hz, 1H), 3.81 (t, $J = 5.1$ Hz, 2H), 3.71 (d, $J = 12.3$ Hz, 1H), 3.59 (d, $J = 12.3$ Hz, 1H), 3.27 (s, 3H); ^{13}C NMR (100.6 MHz, DMSO- d_6): δ 159.5 (d, $J = 245$ Hz), 154.4, 149.0, 149.0 (d, $J = 3.2$ Hz), 146.8, 140.2 (d, $J = 11.3$ Hz), 136.9 (d, $J = 3.2$ Hz), 130.8 (d, $J = 4.6$ Hz), 129.4 (d, $J = 2.0$ Hz), 123.8, 119.2, 119.1 (d, $J = 13.5$ Hz), 114.0 (d, $J = 3.0$ Hz), 105.4 (d, $J = 28.5$ Hz), 73.5, 70.1, 61.6, 58.0, 49.5, 46.0; $R_f = 0.12$ (MeOH:CHCl₃, 3:97); FT-IR (ATR): ν 3364 (O-H), 1740 (C=O) cm⁻¹; HR-MS (ESI): m/z [M+H]⁺ calculated for C₂₀H₂₁FN₅O₄⁺: 414.1572, found: 414.1572.



tert-Butyl N-{2-[4-(5-{2-fluoro-4-[(5*R*)-5-(hydroxymethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}pyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]ethyl}carbamate

The title compound was synthesised as an off-white solid (28 mg, 52%) according to general procedure B. ¹H NMR (500 MHz, DMSO-*d*₆): δ 8.80 (br s, 1H), 8.59 (s, 1H), 8.12 (d, *J* = 8.2 Hz, 1H), 8.08 (d, *J* = 8.2 Hz, 1H), 7.71 (dd, *J* = 9.0, 9.0 Hz, 1H), 7.69 (dd, *J* = 14.0, 2.0 Hz, 1H), 7.51 (dd, *J* = 9.0, 1.9 Hz, 1H), 7.04 (t, *J* = 5.6 Hz, 1H), 5.26 (br s, 1H), 4.78–4.74 (m, 1H), 4.49 (t, *J* = 5.7 Hz, 2H), 4.15 (dd, *J* = 8.9, 8.9 Hz, 1H), 3.90 (dd, *J* = 8.9, 6.2 Hz, 1H), 3.71 (d, *J* = 12.2 Hz, 1H), 3.59 (d, *J* = 12.2 Hz, 1H), 3.44 (dt, *J* = 5.7, 5.6 Hz, 2H), 1.33 (s, 9H); ¹³C NMR (125.8 MHz, DMSO-*d*₆): δ 159.3 (d, *J* = 245 Hz), 155.6, 154.4, 149.0 (d, *J* = 4.0 Hz), 148.9, 146.8, 140.2 (d, *J* = 11.2 Hz), 136.9 (d, *J* = 3.0 Hz), 130.8 (d, *J* = 4.6 Hz), 129.4, 123.7, 119.1 (d, *J* = 13.2 Hz), 119.1, 114.0 (d, *J* = 2.9 Hz), 105.4 (d, *J* = 28.5 Hz), 78.0, 73.5, 61.6, 49.4, 46.0, 40.2, 28.2; *R*_f = 0.29 (MeOH:CHCl₃, 1:19); FT-IR (ATR): ν 3438 (N-H), 3370 (O-H), 1709 (C=O), 1689 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₂₄H₂₈FN₆O₅⁺: 499.2100, found: 499.2096.

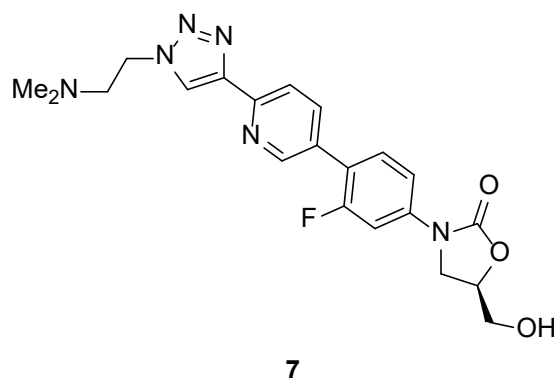


6

(5*R*)-3-(4-{6-[1-(2-Aminoethyl)-1*H*-1,2,3-triazol-4-yl]pyridin-3-yl}-3-fluorophenyl)-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**6**)

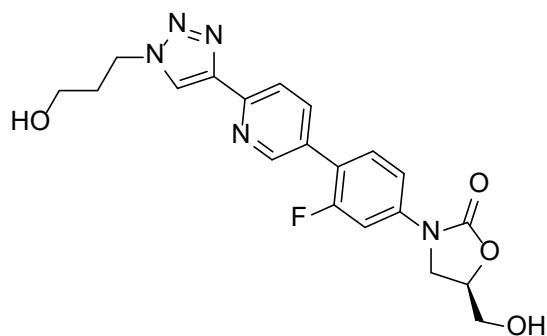
The above protected amine was dissolved in CH₂Cl₂ (3.0 mL) and to this, TFA (0.5 mL) was added dropwise. The resulting solution was stirred at rt (18 h). After being cooled to 0 °C, the solution was neutralised with saturated NaHCO₃ solution, extracted with CH₂Cl₂/MeOH (1:1,

3 × 30 mL). The organic extracts were combined, dried over anhydrous MgSO₄, filtered, concentrated under reduced pressure and purified by FCC to afford the title compound **6** as a white solid (26 mg) quantitatively. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.78 (br s, 1H), 8.64 (s, 1H), 8.13 (d, *J* = 8.1 Hz, 1H), 8.08 (d, *J* = 8.1 Hz, 1H), 7.72–7.67 (m, 2H), 7.50 (d, *J* = 8.1 Hz, 1H), 5.30 (br s, 1H), 4.77–4.74 (m, 1H), 4.44–4.40 (m, 2H), 4.15 (dd, *J* = 8.1, 8.1 Hz, 1H), 3.90 (dd, *J* = 8.1, 6.1 Hz, 1H), 3.70 (d, *J* = 11.6 Hz, 1H), 3.60 (d, *J* = 11.6 Hz, 1H), 3.05 (s, 2H); ¹³C NMR (150.9 MHz, DMSO-*d*₆, TFA salt): δ 159.2 (d, *J* = 245.0 Hz), 154.5, 149.1 (d, *J* = 3.9 Hz), 149.0, 146.8, 140.2 (d, *J* = 10.4 Hz), 137.0 (d, *J* = 3.0 Hz), 130.9 (d, *J* = 4.7 Hz), 129.5, 123.9, 119.3, 119.2 (d, *J* = 12.2 Hz), 114.1 (d, *J* = 3.0 Hz), 105.5 (d, *J* = 28.3 Hz), 73.6, 61.7, 46.1, 41.7; R_f = 0.17 (MeOH:CHCl₃, 2:8); FT-IR (ATR): ν 3361 (O-H/N-H), 1742 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₁₉H₂₀FN₆O₃⁺: 399.1575, found: 399.1574.



(5*R*)-3-[4-(6-{1-[2-(Dimethylamino)ethyl]-1*H*-1,2,3-triazol-4-yl}pyridin-3-yl)-3-fluorophenyl]-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**7**)

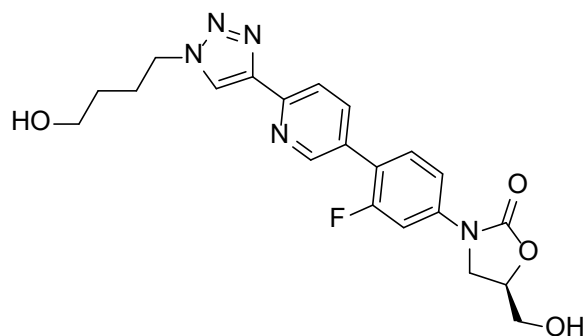
The title compound **7** was synthesised as a white solid (53 mg, 73%) according to general procedure B. ¹H NMR (500 MHz, DMSO-*d*₆): δ 8.79 (br s, 1H), 8.64 (s, 1H), 8.13 (dd, *J* = 8.2, 0.7 Hz, 1H), 8.08 (ddd, *J* = 8.2, 2.0, 1.4 Hz, 1H), 7.71 (dd, *J* = 8.7, 8.7 Hz, 1H), 7.69 (dd, *J* = 13.8, 2.0, 1H), 7.51 (dd, *J* = 8.7, 2.0 Hz, 1H), 5.25 (t, *J* = 5.6 Hz, 1H), 4.78–4.74 (m, 1H), 4.54 (t, *J* = 6.2 Hz, 2H), 4.15 (dd, *J* = 9.1, 9.1 Hz, 1H), 3.90 (dd, *J* = 9.1, 6.2 Hz, 1H), 3.71 (ddd, *J* = 12.5, 5.6, 3.4 Hz, 1H), 3.59 (ddd, *J* = 12.5, 5.6, 4.1 Hz, 1H), 2.75 (t, *J* = 6.2 Hz, 2H), 2.20 (s, 6H); ¹³C NMR (125.8 MHz, DMSO-*d*₆): δ 159.3 (d, *J* = 245.3 Hz), 154.3, 149.0 (d, *J* = 3.9 Hz), 148.9, 146.6, 140.1 (d, *J* = 11.3 Hz), 136.9 (d, *J* = 3.2 Hz), 130.8 (d, *J* = 4.5 Hz), 129.4 (d, *J* = 1.9 Hz), 123.7, 119.2, 119.1, 114.0 (d, *J* = 2.8 Hz), 105.4 (d, *J* = 28.6 Hz), 73.4, 61.6, 58.2, 47.5, 46.0, 44.9; R_f = 0.32 (MeOH:CHCl₃:NH₃, 1:9:0.05); FT-IR (ATR): ν 3353 (O-H), 1738 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₁₉H₂₀FN₆O₃⁺: 427.1888, found: 427.1887.



8

(5*R*)-3-(3-Fluoro-4-{6-[1-(3-hydroxypropyl)-1*H*-1,2,3-triazol-4-yl]pyridin-3-yl}phenyl)-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**8**)

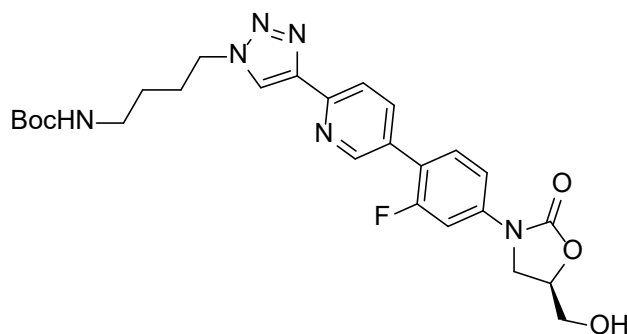
The title compound **8** was synthesised as a white solid (19 mg, 52%) according to general procedure B. ¹H NMR (400 MHz, DMSO-*d*₆): δ 8.79 (br s, 1H), 8.66 (s, 1H), 8.13 (dd, *J* = 8.2, 0.8 Hz, 1H), 8.08 (ddd, *J* = 8.2, 2.2, 1.3 Hz, 1H), 7.70 (dd, *J* = 8.7, 8.7 Hz, 1H), 7.69 (dd, *J* = 13.6, 2.2 Hz, 1H), 7.50 (dd, *J* = 8.7, 2.2 Hz, 1H), 5.26 (br s, 1H), 4.79–4.73 (m, 1H), 4.71 (t, *J* = 4.4 Hz, 1H), 4.51 (t, *J* = 7.0 Hz, 2H), 4.15 (dd, *J* = 9.1, 9.1 Hz, 1H), 3.90 (dd, *J* = 9.1, 6.2 Hz, 1H), 3.71 (d, *J* = 12.2 Hz, 1H), 3.59 (d, *J* = 12.2 Hz, 1H), 3.44 (td, *J* = 6.4, 4.4 Hz, 2H), 2.04 (tt, *J* = 7.0, 6.4 Hz, 2H); ¹³C NMR (100.6 MHz, DMSO-*d*₆): δ 159.4 (d, *J* = 245 Hz), 154.4, 149.0 (d, *J* = 8.2 Hz), 148.9, 146.8, 140.2 (d, *J* = 11.3 Hz), 136.9 (d, *J* = 3.3 Hz), 130.8 (d, *J* = 4.6 Hz), 129.4 (d, *J* = 1.9 Hz), 123.5, 119.2, 119.2 (d, *J* = 13.5 Hz), 114.0 (d, *J* = 3.0 Hz), 105.4 (d, *J* = 28.5 Hz), 73.5, 61.6, 57.5, 47.0, 46.0, 32.8; *R*_f = 0.29 (MeOH:CHCl₃, 1:9); FT-IR (ATR): ν 3263 (O-H), 1739 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₂₀H₂₁FN₅O₄⁺: 414.1572, found: 414.1570.



9

(5*R*)-3-(3-Fluoro-4-{6-[1-(4-hydroxybutyl)-1*H*-1,2,3-triazol-4-yl]pyridin-3-yl}phenyl)-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**9**)

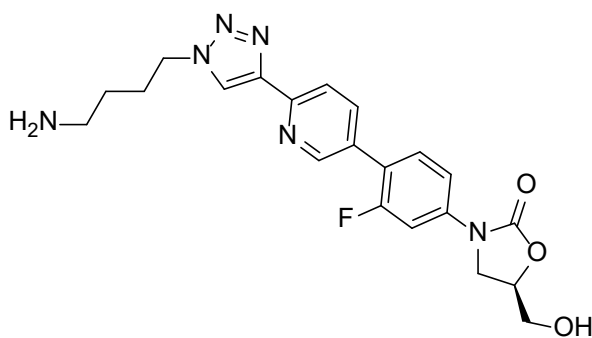
The title compound **9** was synthesised as a light brown solid (53 mg, 76%) according to general procedure B. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.79 (br s, 1H), 8.67 (s, 1H), 8.13 (d, *J* = 8.2 Hz, 1H), 8.08 (ap dt, *J* = 8.7, 1.4 Hz, 1H), 7.70 (dd, *J* = 9.2, 9.2 Hz, 1H), 7.69 (dd, *J* = 13.6, 2.2 Hz, 1H), 7.51 (dd, *J* = 9.2, 2.1 Hz, 1H), 5.25 (t, *J* = 5.6 Hz, 1H), 4.78–4.74 (m, 1H), 4.49–4.45 (m, 3H), 4.15 (dd, *J* = 8.9, 8.9 Hz, 1H), 3.90 (dd, *J* = 8.9, 6.2 Hz, 1H), 3.71 (ddd, *J* = 12.5, 5.6, 3.4 Hz, 1H), 3.59 (ddd, *J* = 12.5, 5.6, 4.1 Hz, 1H), 3.43 (td, *J* = 6.2, 6.2 Hz, 2H), 1.92 (tt, *J* = 7.2, 7.2 Hz, 2H), 1.42 (tt, *J* = 6.2, 6.2 Hz, 2H); ¹³C NMR (150.9 MHz, DMSO-*d*₆): δ 159.3 (d, *J* = 245 Hz), 154.4, 149.0 (d, *J* = 4.0 Hz), 148.9, 146.8, 140.2 (d, *J* = 11.1 Hz), 136.9 (d, *J* = 3.0 Hz), 130.8 (d, *J* = 4.4 Hz), 129.4, 123.4, 119.2, 119.1 (*J* = 13.1 Hz), 114.0 (d, *J* = 2.9 Hz), 105.4 (d, *J* = 28.5 Hz), 73.5, 61.6, 60.0, 49.6, 46.0, 29.3, 26.5; *R*_f = 0.30 (MeOH:CHCl₃, 1:9); FT-IR (ATR): ν 3306 (O-H), 3191, 1743 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₂₁H₂₃FN₅O₄⁺: 428.1729, found: 428.1725.



tert-Butyl N-{4-[4-(5-{2-fluoro-4-[(5*R*)-5-(hydroxymethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}pyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]butyl}carbamate

The title compound was synthesised as a white solid (57 mg, 85%) according to general procedure B. ¹H NMR (500 MHz, DMSO-*d*₆): δ 8.78 (br s, 1H), 8.67 (s, 1H), 8.13 (d, *J* = 8.2

Hz, 1H), 8.08 (ddd, $J = 8.2, 2.1, 1.3$ Hz, 1H), 7.70 (dd, $J = 8.7, 8.7$ Hz, 1H), 7.69 (dd, $J = 13.9, 2.1$ Hz, 1H), 7.51 (dd, $J = 8.7, 2.1$ Hz, 1H), 6.84 (t, $J = 5.4$ Hz, 1H), 5.26 (t, $J = 5.6$ Hz, 1H), 4.78–4.74 (m, 1H), 4.45 (t, $J = 7.0$ Hz, 2H), 4.15 (dd, $J = 9.0, 9.0$ Hz, 1H), 3.90 (dd, $J = 9.0, 6.2$ Hz, 1H), 3.71 (ddd, $J = 12.5, 5.6, 3.4$ Hz, 1H), 3.59 (ddd, $J = 12.5, 5.6, 4.0$ Hz, 1H), 2.95 (td, $J = 6.5, 6.5$ Hz, 2H), 1.87 (tt, $J = 7.0, 7.0$ Hz, 2H), 1.40–1.34 (m, 2H), 1.36 (s, 9H); ^{13}C NMR (125.8 MHz, DMSO- d_6): δ 159.3 (d, $J = 245$ Hz), 155.7, 154.4, 149.0 (d, $J = 3.8$ Hz), 149.0, 146.8, 140.2 (d, $J = 11.4$ Hz), 136.9 (d, $J = 2.7$ Hz), 130.8 (d, $J = 4.4$ Hz), 129.4, 123.4, 119.2, 119.1 (d, $J = 13.1$ Hz), 114.0 (d, $J = 2.8$ Hz), 105.4 (d, $J = 28.6$ Hz), 77.5, 73.5, 61.6, 49.3, 46.0, 39.4, 28.3, 27.1, 26.5; $R_f = 0.40$ (MeOH:CHCl₃, 1:19); FT-IR (ATR): ν 3442 (N-H), 3362 (O-H), 1709 (C=O), 1686 (C=O) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for C₂₆H₃₂FN₆O₅⁺: 527.2413, found: 527.2410.

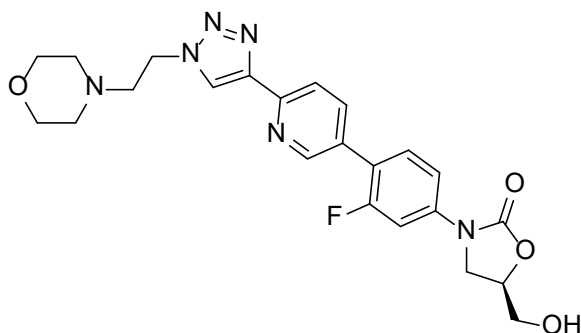


10

(5*R*)-3-(4-{6-[1-(4-Aminobutyl)-1*H*-1,2,3-triazol-4-yl]pyridin-3-yl}-3-fluorophenyl)-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**10**)

The above protected amine was dissolved in CH₂Cl₂ (3.0 mL) and to this, TFA (0.5 mL) was added dropwise. The resulting solution was stirred at rt (18 h). After being cooled to 0 °C, the solution was neutralised with saturated NaHCO₃ solution, extracted with CH₂Cl₂/MeOH (1:1, 3 × 30 mL). The organic extracts were combined, dried over anhydrous MgSO₄, filtered, concentrated under reduced pressure and purified by FCC to afford the title compound **10** as a white solid (34 mg) quantitatively. ^1H NMR (600 MHz, DMSO- d_6): δ 8.78 (br s, 1H), 8.67 (s, 1H), 8.13 (d, $J = 8.2$ Hz, 1H), 8.08 (d, $J = 8.2$ Hz, 1H), 7.70 (dd, $J = 9.0, 9.0$ Hz, 1H), 7.69 (dd, $J = 13.6, 2.0$ Hz, 1H), 7.50 (dd, $J = 9.0, 2.0$ Hz, 1H), 5.27 (br s, 1H), 4.77–4.74 (m, 1H), 4.44 (t, $J = 7.0$ Hz, 2H), 4.15 (dd, $J = 9.0, 9.0$ Hz, 1H), 4.07 (br s, 2H), 3.89 (dd, $J = 9.0, 6.2$ Hz, 1H), 3.71 (d, $J = 12.2$ Hz, 1H), 3.58 (d, $J = 12.2$ Hz, 1H), 2.60–2.52 (m, 2H), 1.91 (td, $J = 7.0, 7.0$ Hz, 2H), 1.34 (td, $J = 7.1, 7.1$ Hz, 2H); ^{13}C NMR (150.9 MHz, DMSO- d_6): δ 159.4 (d, $J = 245.5$ Hz), 154.4, 149.0 (d, $J = 4.2$ Hz), 149.0, 146.8, 140.2, (d, $J = 11.3$ Hz), 137.0 (d, $J = 2.6$

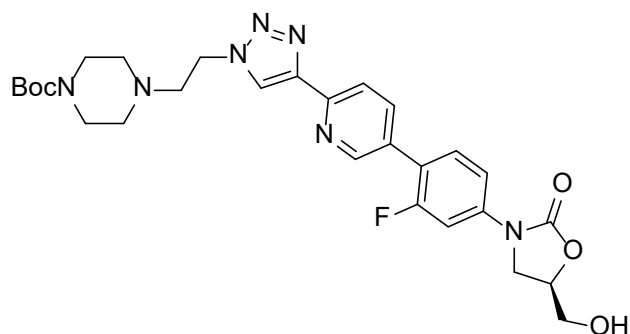
Hz), 130.8 (d, $J = 4.1$ Hz), 129.5, 123.4, 119.2, 119.2, 114.1 (d, $J = 1.4$ Hz), 105.4 (d, $J = 28.7$ Hz), 73.5, 61.6, 49.7, 46.0, 40.9, 29.9, 27.3; $R_f = 0.08$ (MeOH:CHCl₃:NH₃, 2:10:0.1); FT-IR (ATR): ν 3365 (O-H/N-H), 1709 (C=O) cm⁻¹; HR-MS (ESI): m/z [M+H]⁺ calculated for C₂₁H₂₄FN₆O₃⁺: 427.1888, found: 427.1882.



11

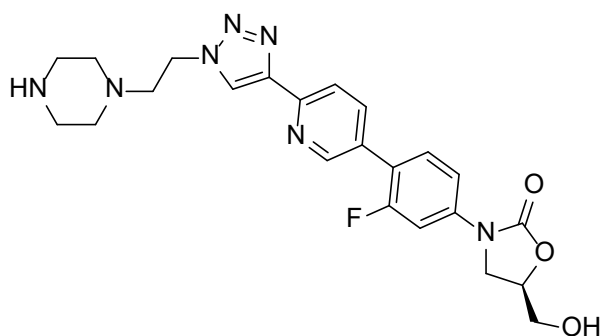
(5*R*)-3-[3-Fluoro-4-(6-{1-[2-(morpholin-4-yl)ethyl]-1*H*-1,2,3-triazol-4-yl}pyridin-3-yl)phenyl]-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**11**)

The title compound **11** was synthesised as a white solid (55 mg, 66%) according to general procedure B. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.79 (br s, 1H), 8.65 (s, 1H), 8.13 (dd, $J = 8.1, 0.4$ Hz, 1H), 8.08 (ddd, $J = 8.5, 2.2, 1.3$ Hz, 1H), 7.70 (dd, $J = 8.9, 8.9$ Hz, 1H), 7.69 (dd, $J = 13.5, 2.2$ Hz, 1H), 7.50 (dd, $J = 8.9$ Hz, 2.2 Hz, 1H), 5.28 (br s, 1H), 4.78–4.74 (m, 1H), 4.58 (t, $J = 6.3$ Hz, 2H), 4.15 (dd, $J = 9.0, 9.0$ Hz, 1H), 3.89 (dd, $J = 9.0, 6.3$ Hz, 1H), 3.71 (m, 1H), 3.58 (m, 1H), 3.54 (m, 4H), 2.82 (t, $J = 6.2$ Hz, 2H), 2.45 (br s, 4H); ¹³C NMR (150.9 MHz, DMSO-*d*₆): δ 159.3 (d, $J = 245$ Hz), 154.4, 149.1 (d, $J = 4.0$ Hz), 149.0, 146.7, 140.2 (d, $J = 11.1$ Hz), 137.0 (d, $J = 2.9$ Hz), 130.8 (d, $J = 4.4$ Hz), 129.5, 123.8, 119.2, 119.2, 114.1 (d, $J = 2.2$ Hz), 105.5 (d, $J = 28.5$ Hz), 73.5, 66.2, 61.7, 57.4, 53.0, 46.7, 46.0; $R_f = 0.30$ (MeOH:CHCl₃, 1:19); FT-IR (ATR): ν 3438 (O-H), 1734 (C=O) cm⁻¹; HR-MS (ESI): m/z [M+H]⁺ calculated for C₂₃H₂₆FN₆O₄⁺: 469.1994, found: 469.1990.



tert-Butyl 4-{2-[4-(5-{2-fluoro-4-[(5*R*)-5-(hydroxymethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}pyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]ethyl}piperazine-1-carboxylate

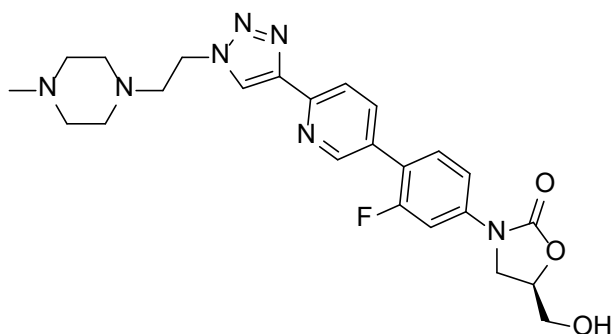
The title compound was synthesised as a white solid (45 mg, 65%) according to general procedure B. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.79 (br s, 1H), 8.66 (s, 1H), 8.13 (dd, *J* = 8.2, 0.5 Hz, 1H), 8.08 (ddd, *J* = 9.0, 2.0, 1.2 Hz), 7.71 (dd, *J* = 9.0, 9.0 Hz, 1H), 7.69 (dd, *J* = 13.7, 2.0 Hz, 1H), 7.51 (dd, *J* = 9.0, 2.1 Hz, 1H), 5.26 (br s, 1H), 4.78–4.74 (m, 1H), 4.58 (t, *J* = 6.2 Hz, 2H), 4.15 (dd, *J* = 9.0, 9.0 Hz, 1H), 3.90 (dd, *J* = 9.0, 6.2 Hz, 1H), 3.70 (d, *J* = 12.2 Hz, 1H), 3.58 (d, *J* = 12.2 Hz, 1H), 3.27–3.26 (m, 4H), 2.85 (t, *J* = 6.2 Hz, 2H), 2.42–2.41 (m, 4H), 1.39 (s, 9H); ¹³C NMR (150.9 MHz, DMSO-*d*₆): δ 159.3 (d, *J* = 245.1 Hz), 154.3, 153.8, 149.0 (d, *J* = 4.1 Hz), 148.9, 146.6, 140.1 (d, *J* = 11.5 Hz), 136.9 (d, *J* = 3.6 Hz), 130.8 (d, *J* = 4.6 Hz), 129.4, 123.8, 119.1 (t, *J* = 6.3 Hz), 114.0 (d, *J* = 3.0 Hz), 105.4 (d, *J* = 28.6 Hz), 78.8, 73.4, 61.6, 56.8, 52.1, 46.9, 46.0, 42.8, 28.0; *R*_f = 0.31 (MeOH:CHCl₃, 1:19); FT-IR (ATR): ν 3474 (N-H), 3365 (O-H), 1717 (C=O), 1688 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₂₈H₃₅FN₇O₅⁺: 568.2678, found: 568.2675.



12

(5*R*)-3-[3-Fluoro-4-(6-{1-[2-(piperazin-1-yl)ethyl]-1*H*-1,2,3-triazol-4-yl}pyridin-3-yl)phenyl]-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**12**)

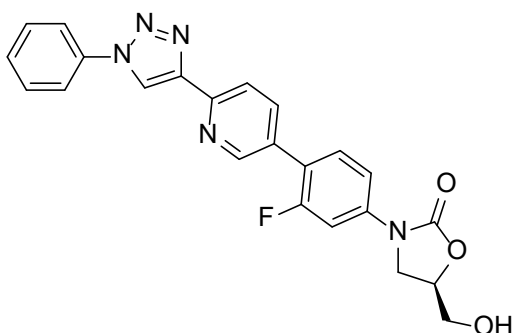
The above protected amine was dissolved in CH₂Cl₂ (3.0 mL) and to this, TFA (0.5 mL) was added dropwise. The resulting solution was stirred at rt (18 h). After being cooled to 0 °C, the solution was neutralised with saturated NaHCO₃ solution, extracted with CH₂Cl₂/MeOH (1:1, 3 × 30 mL). The organic extracts were combined, dried over anhydrous MgSO₄, filtered, concentrated under reduced pressure and purified by FCC to afford the title compound **12** as a white solid (32 mg) quantitatively. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.79 (br s, 1H), 8.64 (s, 1H), 8.13 (d, *J* = 8.2 Hz, 1H), 8.08 (ddd, *J* = 8.2, 2.2, 1.2 Hz, 1H), 7.71 (dd, *J* = 9.0, 9.0 Hz, 1H), 7.69 (dd, *J* = 13.5, 2.2 Hz, 1H), 7.51 (dd, *J* = 9.0, 2.2 Hz, 1H), 5.26 (br s, 1H), 4.78–4.74 (m, 1H), 4.56 (t, *J* = 6.3 Hz, 2H), 4.15 (dd, *J* = 9.1, 9.1 Hz, 1H), 3.90 (dd, *J* = 9.1 Hz, 6.3 Hz, 1H), 3.71 (d, *J* = 12.3 Hz, 1H), 3.59 (d, *J* = 12.3 Hz, 1H), 2.77 (t, *J* = 6.3 Hz, 2H), 2.65 (br s, 4H), 2.37 (br s, 4H); ¹³C NMR (150.6 MHz, DMSO-*d*₆): δ 159.3 (d, *J* = 245 Hz), 154.4, 149.0 (d, *J* = 3.7 Hz), 149.0, 146.6, 140.2 (d, *J* = 11.2 Hz), 136.9 (d, *J* = 3.2 Hz), 130.8 (d, *J* = 4.6 Hz), 129.4, 123.8, 119.2 (d, *J* = 10.6 Hz), 119.1, 114.0 (d, *J* = 3.0 Hz), 105.4 (d, *J* = 28.5 Hz), 73.5, 61.6, 57.7, 53.9, 46.9, 46.0, 45.6; R_f = 0.08 (MeOH:CHCl₃, 1:4); FT-IR (ATR): ν 3370 (O-H), 3131 (N-H), 1728 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₂₃H₂₇FN₇O₃⁺: 468.2154, found: 468.2150.



13

(5*R*)-3-[3-Fluoro-4-(6-{1-[2-(4-methylpiperazin-1-yl)ethyl]-1*H*-1,2,3-triazol-4-yl}pyridin-3-yl)phenyl]-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**13**)

The title compound **13** was synthesised as a white solid (53 mg, 77%) according to general procedure B. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.79 (br s, 1H), 8.63 (s, 1H), 8.13 (d, *J* = 8.2 Hz, 1H), 8.08 (ddd, *J* = 8.6, 2.1, 1.3 Hz), 7.71 (dd, *J* = 8.9, 8.9 Hz, 1H), 7.69 (dd, *J* = 13.1, 2.2 Hz, 1H), 7.51 (dd, *J* = 8.9, 2.1 Hz, 1H), 5.26 (br s, 1H), 4.78–4.74 (m, 1H), 4.56 (t, *J* = 6.1 Hz, 2H), 4.15 (dd, *J* = 9.0, 9.0 Hz, 1H), 3.90 (dd, *J* = 9.0, 6.1 Hz, 1H), 3.70 (dd, *J* = 12.2, 2.4 Hz, 1H), 3.59 (dd, *J* = 12.2, 2.4 Hz, 1H), 2.81 (t, *J* = 6.1 Hz, 2H), 2.45 (br s, 4H), 2.28 (br s, 4H), 2.13 (s, 3H); ¹³C NMR (150.9 MHz, DMSO-*d*₆): δ 159.3 (d, *J* = 245.2 Hz), 154.4, 149.0 (d, *J* = 3.8 Hz), 149.0, 146.6, 140.2 (d, *J* = 11.4 Hz), 136.9 (d, *J* = 2.9 Hz), 130.8 (d, *J* = 4.4 Hz), 129.4, 123.7, 119.2, 119.1, 114.0 (d, *J* = 3.3 Hz), 105.4 (*J* = 28.5 Hz), 73.4, 61.6, 56.9, 54.7, 52.4, 47.0, 46.0, 45.7; *R*_f = 0.25 (MeOH:CHCl₃:NH₃, 1:9:0.05); FT-IR (ATR): ν 3468 (O-H), 1738 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₂₄H₂₉FN₇O₃⁺: 482.2310, found: 482.2310.

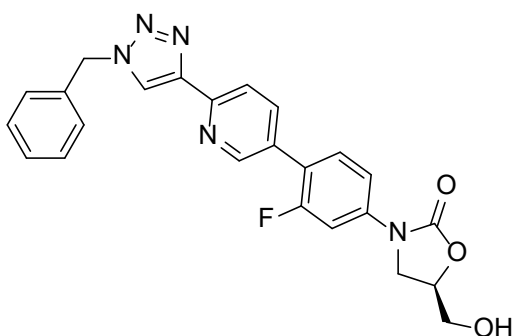


14

(5*R*)-3-{3-Fluoro-4-[6-(1-phenyl-1*H*-1,2,3-triazol-4-yl)pyridin-3-yl]phenyl}-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**14**)

The title compound **14** was synthesised as a white solid (35 mg, 69%) according to general procedure B. ¹H NMR (600 MHz, DMSO-*d*₆): δ 9.39 (s, 1H), 8.85 (br s, 1H), 8.22 (dd, *J* = 8.2,

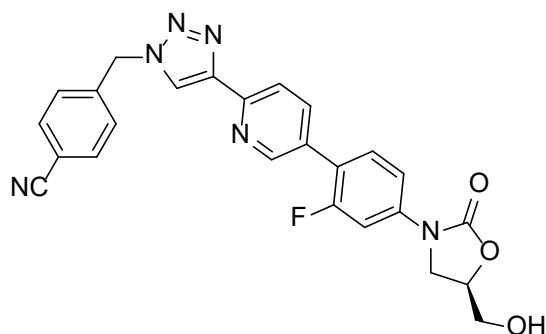
0.4 Hz, 1H), 8.15 (ddd, $J = 8.3, 2.2, 1.2$ Hz, 1H), 8.06–8.04 (m, 2H), 7.74 (dd, $J = 8.8, 8.8$ Hz, 1H), 7.71 (dd, $J = 13.5, 2.2$ Hz, 1H), 7.65–7.62 (m, 2H), 7.55–7.51 (m, 2H), 5.26 (t, $J = 5.6$ Hz, 1H), 4.78–4.75 (m, 1H), 4.16 (dd, $J = 9.1, 9.1$ Hz, 1H), 3.91 (dd, $J = 9.1, 6.2$ Hz, 1H), 3.71 (ddd, $J = 12.4, 5.6, 3.3$ Hz, 1H), 3.59 (ddd, $J = 12.4, 5.6, 4.0$ Hz, 1H); ^{13}C NMR (150.9 MHz, DMSO- d_6): δ 159.3 (d, $J = 245$ Hz), 154.4, 149.0 (d, $J = 3.9$ Hz), 148.4, 147.9, 140.3 (d, $J = 11.4$ Hz), 137.0 (d, $J = 2.8$ Hz), 136.6, 130.8 (d, $J = 4.5$ Hz), 129.9, 129.8, 128.9, 121.4, 120.2, 119.6, 119.1 (d, $J = 13.5$ Hz), 114.0, (d, $J = 2.7$ Hz), 105.4 (d, $J = 28.4$ Hz), 73.5, 61.6, 46.0; $R_f = 0.49$ (MeOH:CHCl₃, 1:19); FT-IR (ATR): ν 3350 (O-H), 1757 (C=O) cm⁻¹; HR-MS (ESI): m/z [M+H]⁺ calculated for C₂₃H₁₉FN₅O₃⁺: 432.1466, found: 432.1462.



15

(5*R*)-3-{4-[6-(1-Benzyl-1*H*-1,2,3-triazol-4-yl)pyridin-3-yl]-3-fluorophenyl}-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**15**)

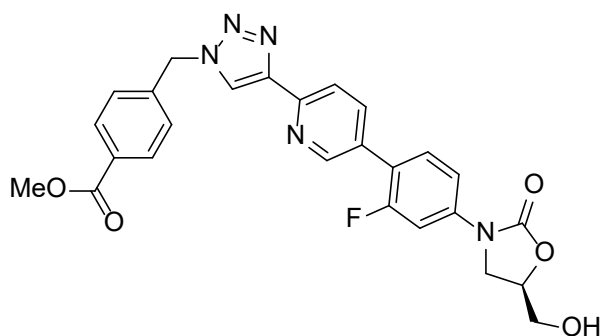
The title compound **15** was synthesised as a white solid (56 mg, 77%) according to general procedure B. ^1H NMR (600 MHz, DMSO- d_6): δ 8.78 (br s, 1H), 8.74 (s, 1H), 8.13 (d, $J = 8.2$ Hz, 1H), 8.08 (d, $J = 8.2$ Hz, 1H), 7.70 (dd, $J = 8.6, 8.6$ Hz, 1H), 7.69 (dd, $J = 13.7, 2.1$ Hz, 1H), 7.50 (dd, $J = 8.6, 2.0$ Hz, 1H), 7.40–7.38 (m, 4H), 7.37–7.33 (m, 1H), 5.69 (s, 2H), 5.27 (br s, 1H), 4.78–4.74 (m, 1H), 4.15 (dd, $J = 8.8, 8.8$ Hz, 1H), 3.90 (dd, $J = 8.8, 6.3$ Hz, 1H), 3.72–3.70 (m, 1H), 3.60–3.58 (m, 1H); ^{13}C NMR (150.9 MHz, DMSO- d_6): δ 159.3 (d, $J = 245$ Hz), 154.3, 149.0 (d, $J = 3.8$ Hz), 148.9, 147.1, 140.2 (d, $J = 11.3$ Hz), 136.9 (d, $J = 3.0$ Hz), 135.9, 130.8 (d, $J = 4.5$ Hz), 129.5, 128.8, 128.2, 128.0, 123.6, 119.2, 119.1 (d, $J = 13.4$ Hz), 114.0 (d, $J = 2.4$ Hz), 105.4 (d, $J = 28.6$ Hz), 73.5, 61.6, 53.1, 46.0; $R_f = 0.39$ (MeOH:CHCl₃, 1:19); FT-IR (ATR): ν 3366 (O-H), 1745 (C=O) cm⁻¹; HR-MS (ESI): m/z [M+H]⁺ calculated for C₂₄H₂₁FN₅O₃⁺: 446.1623, found: 446.1620.



16

4-{[4-(5-{2-Fluoro-4-[(5*R*)-5-(hydroxymethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}pyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]methyl}benzonitrile (**16**)

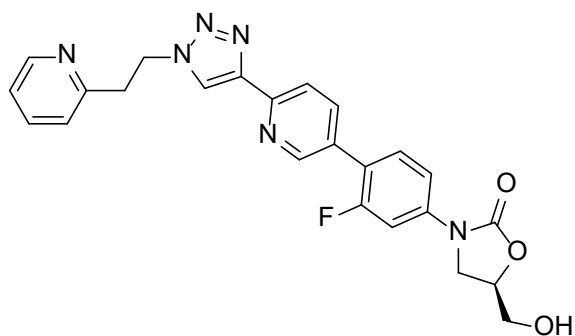
The title compound **16** was synthesised as a white solid (37 mg, 48%) according to general procedure B. ^1H NMR (600 MHz, $\text{DMSO-}d_6$): δ 8.79 (s, 1H), 8.78 (br s, 1H), 8.13 (d, $J = 8.2$ Hz, 1H), 8.09 (ddd, $J = 8.2, 2.1, 1.2$ Hz, 1H), 7.87–7.86 (m, 2H), 7.69 (dd, $J = 9.1, 9.1$ Hz, 1H), 7.67 (dd, $J = 14.0, 1.9$ Hz, 1H), 7.54–7.52 (m, 2H), 7.49 (dd, $J = 8.4, 1.9$ Hz, 1H), 5.81 (s, 2H), 5.31 (br s, 1H), 4.77–4.73 (m, 1H), 4.14 (dd, $J = 9.0, 9.0$ Hz, 1H), 3.89 (dd, $J = 9.0, 6.6$ Hz, 1H), 3.70 (d, $J = 11.8$ Hz, 1H), 3.56 (d, $J = 11.8$ Hz, 1H); ^{13}C NMR (150.6 MHz, $\text{DMSO-}d_6$): δ 159.4 (d, $J = 245$ Hz), 154.6, 154.4, 149.1 (d, $J = 2.6$ Hz), 148.8, 147.4, 141.5, 140.3 (d, $J = 3.5$ Hz), 137.2 (d, $J = 2.7$ Hz), 133.0, 130.9 (d, $J = 4.3$ Hz), 129.8 (d, $J = 1.5$ Hz), 128.9, 124.2, 119.5, 119.2 (d, $J = 13.3$ Hz), 118.7, 114.2 (d, $J = 2.6$ Hz), 111.1, 105.5 (d, $J = 29.1$ Hz), 73.6, 61.7, 52.6, 46.1; $R_f = 0.12$ (MeOH: CHCl_3 , 3:97); FT-IR (ATR): ν 3485 (O-H), 2232 ($\text{C}\equiv\text{N}$), 1739 ($\text{C}=\text{O}$) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{25}\text{H}_{20}\text{FN}_6\text{O}_3^+$: 471.1575, found: 471.1569.



17

Methyl 4-{{4-(5-{2-fluoro-4-[(5*R*)-5-(hydroxymethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}pyridin-2-yl)-1*H*-1,2,3-triazol-1-yl)methyl}benzoate (**17**)

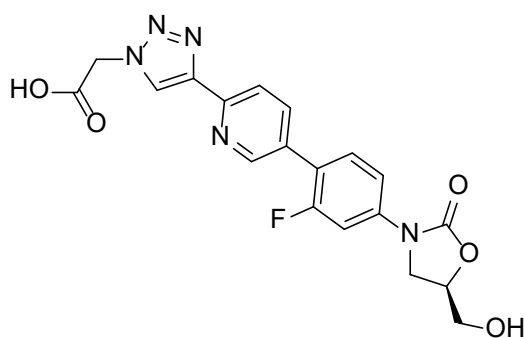
The title compound **17** was synthesised as a white solid (43 mg, 70%) according to general procedure B. ¹H NMR (500 MHz, DMSO-*d*₆): δ 8.80 (s, 1H), 8.79 (br s, 1H), 8.14 (dd, *J* = 8.2, 0.7 Hz, 1H), 8.09 (dt, *J* = 8.2, 1.4 Hz, 1H), 7.99–7.97 (m, 2H), 7.70 (dd, *J* = 8.8, 8.8 Hz, 1H), 7.69 (dd, *J* = 13.4, 2.2 Hz, 1H), 7.50 (dd, *J* = 8.8, 2.2 Hz, 1H), 7.50–7.48 (m, 2H), 5.81 (s, 2H), 5.25 (t, *J* = 5.5 Hz, 1H), 4.78–4.74 (m, 1H), 4.15 (dd, *J* = 9.1, 9.1 Hz, 1H), 3.90 (dd, *J* = 9.1, 6.2 Hz, 1H), 3.85 (s, 3H), 3.70 (ddd, *J* = 12.5, 5.5, 3.3 Hz, 1H), 3.58 (ddd, *J* = 12.5, 5.5, 4.1 Hz, 1H); ¹³C NMR (125.8 MHz, DMSO-*d*₆): δ 165.9, 159.3 (d, *J* = 245.3 Hz), 154.4, 149.0, 148.9 (d, *J* = 3.8 Hz), 147.2, 141.2, 140.2 (d, *J* = 11.2 Hz), 136.9 (d, *J* = 3.1 Hz), 130.8 (d, *J* = 4.5 Hz), 129.7, 129.6 (d, *J* = 2.0 Hz), 129.4, 128.1, 124.0, 119.2, 119.1 (d, *J* = 13.5 Hz), 114.0 (d, *J* = 2.9 Hz), 105.4 (d, *J* = 28.5 Hz), 73.5, 61.6, 52.6, 52.2, 46.0; *R*_f = 0.32 (MeOH:CHCl₃, 1:19); FT-IR (ATR): ν 3425 (O-H), 1710 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₂₆H₂₃FN₅O₅⁺: 504.1678, found: 504.1676.



18

(5*R*)-3-[3-Fluoro-4-(6-{1-[2-(pyridin-2-yl)ethyl]-1*H*-1,2,3-triazol-4-yl}pyridin-3-yl)phenyl]-5-(hydroxymethyl)-1,3-oxazolidin-2-one (**18**)

The title compound **18** was synthesised as a white solid (63 mg, 87%) according to general procedure B. ¹H NMR (400 MHz, DMSO-*d*₆): δ 8.77 (br s, 1H), 8.59 (s, 1H), 8.53 (ddd, *J* = 4.8, 1.7, 0.9 Hz, 1H), 8.11–8.05 (m, 2H), 7.72–7.66 (m, 3H), 7.50 (dd, *J* = 8.6, 2.2 Hz, 1H), 7.28–7.22 (m, 2H), 5.26 (br s, 1H), 4.87 (t, *J* = 7.1 Hz, 2H), 4.79–4.73 (m, 1H), 4.15 (dd, *J* = 9.1 Hz, 1H), 3.90 (dd, *J* = 9.1, 6.2 Hz, 1H), 3.71 (d, *J* = 11.8 Hz, 1H), 3.59 (d, *J* = 11.8 Hz, 1H), 3.42 (t, *J* = 7.1 Hz, 2H); ¹³C NMR (100.6 MHz, DMSO-*d*₆): δ 159.3 (d, *J* = 245 Hz), 157.3, 154.4, 149.2, 148.9 (d, *J* = 2.7 Hz), 146.7, 140.2 (d, *J* = 11.2 Hz), 136.9 (d, *J* = 3.2 Hz), 136.7, 130.8 (d, *J* = 4.6 Hz), 129.4 (d, *J* = 1.9 Hz), 123.4, 122.0, 119.1 (t, *J* = 6.8 Hz), 114.0 (d, *J* = 3.0 Hz), 105.4 (d, *J* = 28.5 Hz), 73.5, 61.6, 48.9, 46.0, 37.4; *R*_f = 0.06 (MeOH:CHCl₃, 3:97); FT-IR (ATR): ν 3386 (O-H), 1709 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₂₄H₂₂FN₆O₃⁺: 461.1732, found: 461.1729.

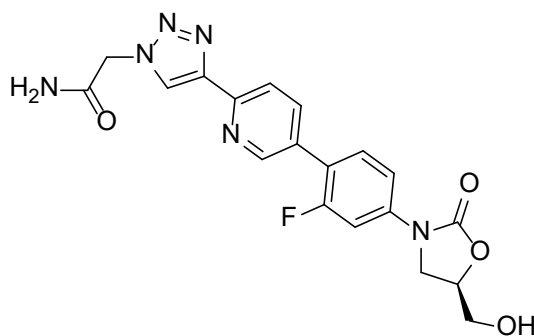


19

2-[4-(5-{2-Fluoro-4-[(5*R*)-5-(hydroxymethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}pyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]acetic acid (**19**)

The title compound **19** was synthesised as an off-white solid (31 mg, 42%) according to general procedure B. ¹H NMR (400 MHz, DMSO-*d*₆): δ 8.80 (br s, 1H), 8.59 (s, 1H), 8.14 (d, *J* = 8.4

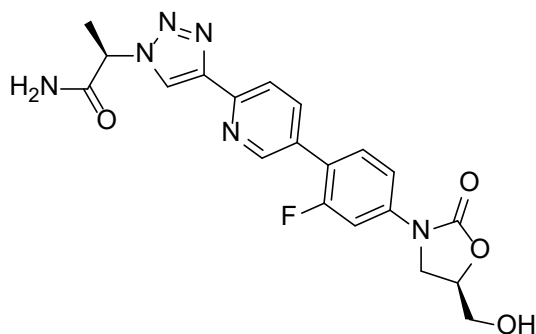
Hz, 1H), 8.08 (d, $J = 8.4$ Hz, 1H), 7.71 (dd, $J = 8.9, 8.9$ Hz, 1H), 7.69 (dd, $J = 13.9, 2.1$ Hz, 1H), 7.51 (dd, $J = 8.9, 1.9$ Hz, 1H), 7.18 (br s, 1H), 5.22 (br s, 1H), 4.79–4.73 (m, 1H), 4.15 (dd, $J = 9.0, 9.0$ Hz, 1H), 3.90 (dd, $J = 9.0, 6.2$ Hz, 1H), 3.71 (dd, $J = 12.6, 3.4$ Hz, 1H), 3.59 (dd, $J = 12.6, 3.4$ Hz, 1H); ^{13}C NMR (150.9 MHz, DMSO- d_6): δ 168.3, 158.5 (d, $J = 245$ Hz), 154.4, 149.0, 149.0, 146.6, 140.2 (d, $J = 11.3$ Hz), 136.9, 130.8 (d, $J = 4.2$ Hz), 129.4, 124.8, 119.1, 119.1 (d, $J = 12.1$ Hz) 114.0 (d, $J = 2.8$ Hz), 105.4 (d, $J = 28.4$ Hz), 73.5, 61.6, 51.6, 46.0; $R_f = 0.43$ (MeOH:CHCl₃, 3:7); FT-IR (ATR): ν 3135 (O-H), 1733 (C=O), 1622 (C=O) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for C₁₉H₁₇FN₅O₅⁺: 414.1208, found: 414.1206.



20

2-[4-(5-{2-Fluoro-4-[(5*R*)-5-(hydroxymethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}pyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]acetamide (**20**)

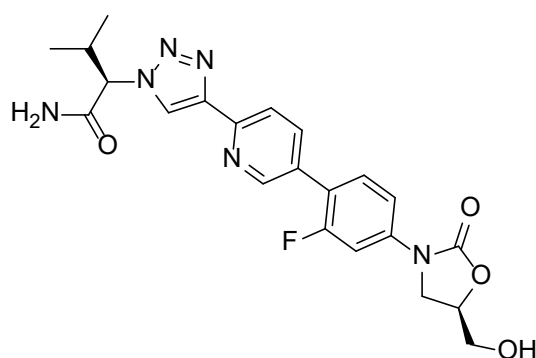
The title compound **20** was synthesised as a white solid (19 mg, 52%) according to general procedure B. ^1H NMR (600 MHz, DMSO- d_6): δ 8.79 (br s, 1H), 8.57 (s, 1H), 8.13 (d, $J = 7.8$ Hz, 1H), 8.09 (ddd, $J = 8.4, 2.0, 1.3$ Hz, 1H), 7.80 (br s, 1H), 7.70 (dd, $J = 8.8, 8.8$ Hz, 1H), 7.68 (dd, $J = 13.2, 2.0$ Hz, 1H), 7.50 (dd, $J = 8.8, 2.0$ Hz, 1H), 7.43 (br s, 1H), 5.29 (t, $J = 5.2$ Hz, 1H), 5.17 (s, 2H), 4.77–4.74 (m, 1H), 4.15 (dd, $J = 9.1, 9.1$ Hz, 1H), 3.89 (dd, $J = 9.1, 6.2$ Hz, 1H), 3.70 (ddd, $J = 12.0, 5.2, 3.6$ Hz, 1H), 3.58 (ddd, $J = 12.0, 5.2, 4.2$ Hz, 1H); ^{13}C NMR (150.9 MHz, DMSO- d_6): δ 167.4, 159.5 (d, $J = 245$ Hz), 154.5, 149.1, 149.1 (d, $J = 6.6$ Hz), 146.7, 140.2 (d, $J = 10.7$ Hz), 137.1 (d, $J = 3.3$ Hz), 130.9 (d, $J = 4.4$ Hz), 129.6, 125.2, 121.8, 119.7, 119.3, 114.1 (d, $J = 2.9$ Hz), 105.5 (d, $J = 28.5$ Hz), 73.6, 61.7, 51.7, 46.1; $R_f = 0.29$ (MeOH:CHCl₃, 3:17); FT-IR (ATR): ν 3347 (O-H), 3151 (N-H), 1689 (C=O), 1682 (C=O) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for C₁₉H₁₈FN₆O₄⁺: 413.1368, found: 413.1365.



21

(2*R*)-2-[4-(5-{2-Fluoro-4-[(5*R*)-5-(hydroxymethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}pyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]propanamide (**21**)

The title compound (**21**) was synthesised as a white solid (42 mg, 59%) according to general procedure B. ¹H NMR (400 MHz, DMSO-*d*₆): δ 8.81 (br s, 1H), 8.69 (s, 1H), 8.14 (d, *J* = 8.1 Hz, 1H), 8.10 (d, *J* = 8.1 Hz, 1H), 7.82 (br s, 1H), 7.71 (dd, *J* = 9.0, 9.0 Hz, 1H), 7.69 (dd, *J* = 13.8, 2.1 Hz, 1H), 7.50 (dd, *J* = 9.0, 2.1 Hz, 1H), 7.44 (br s, 1H), 5.44 (q, *J* = 7.1 Hz, 1H), 5.24 (br s, 1H), 4.79–4.73 (m, 1H), 4.15 (dd, *J* = 9.1, 9.1 Hz, 1H), 3.90 (dd, *J* = 9.1, 6.2 Hz, 1H), 3.71 (dd, *J* = 12.4, 3.2 Hz, 1H), 3.59 (dd, *J* = 12.4, 3.2 Hz, 1H), 1.77 (d, *J* = 7.1 Hz, 3H); ¹³C NMR (100.6 MHz, DMSO-*d*₆): δ 170.4, 159.2 (d, *J* = 245 Hz), 154.4, 149.0, 149.0 (d, *J* = 4.1 Hz), 146.6, 140.2 (d, *J* = 11.3 Hz), 137.0, 130.8 (d, *J* = 4.6 Hz), 129.5, 122.9, 119.3, 119.1 (d, *J* = 16.1 Hz), 114.0 (d, *J* = 2.8 Hz), 105.4 (d, *J* = 28.6 Hz), 73.5, 61.6, 58.5, 46.0, 17.9; *R*_f = 0.22 (MeOH:CHCl₃, 1:9); FT-IR (ATR): ν 3355 (O-H), 1710 (C=O), 1682 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₂₀H₂₀FN₆O₄⁺: 427.1525, found: 427.1521.

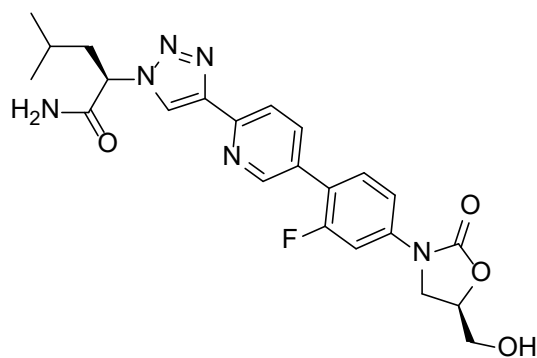


22

(2*R*)-2-[4-(5-{2-Fluoro-4-[(5*R*)-5-(hydroxymethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}pyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]-3-methylbutanamide (**22**)

The title compound **22** was synthesised as a white solid (40 mg, 69%) according to general procedure B. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.80 (br s, 1H), 8.65 (s, 1H), 8.14 (dd, *J* = 8.2,

0.5 Hz, 1H), 8.09 (ddd, $J = 8.2, 2.0, 1.4$ Hz, 1H), 8.03 (br s, 1H), 7.70 (dd, $J = 8.8, 8.8$ Hz, 1H), 7.69 (dd, $J = 13.7, 2.3$ Hz, 1H), 7.56 (br s, 1H), 7.50 (dd, $J = 8.8, 2.3$ Hz, 1H), 5.26 (t, $J = 4.8$ Hz, 1H), 5.03 (d, $J = 10.0$ Hz, 1H), 4.78–4.74 (m, 1H), 4.15 (dd, $J = 9.0, 9.0$ Hz, 1H), 3.90 (dd, $J = 9.0, 6.2$ Hz, 1H), 3.71 (ddd, $J = 12.2, 4.8, 4.1$ Hz, 1H), 3.59 (ddd, $J = 12.2, 4.8, 4.1$ Hz, 1H), 2.54–2.46 (m, 1H), 1.02 (d, $J = 6.6$ Hz, 3H), 0.74 (d, $J = 6.6$ Hz, 3H); ^{13}C NMR (150.9 MHz, DMSO- d_6): δ 169.1, 159.3 (d, $J = 245$ Hz), 154.3, 149.0, 148.9 (d, $J = 3.6$ Hz), 146.9, 140.2 (d, $J = 11.5$ Hz), 136.9 (d, $J = 1.7$ Hz), 130.8 (d, $J = 4.4$ Hz), 129.5, 122.1, 119.3, 119.1 (d, $J = 13.9$ Hz), 114.0 (d, $J = 3.1$ Hz), 105.4 (d, $J = 28.5$ Hz), 73.5, 69.0, 61.6, 46.0, 30.9, 19.0, 18.5; $R_f = 0.35$ (MeOH:CHCl₃, 1:9); FT-IR (ATR): ν 3404 (N-H), 3367 (O-H), 1739 (C=O), 1678 (C=O) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for C₂₂H₂₄FN₆O₄⁺: 455.1838, found: 414.1836.

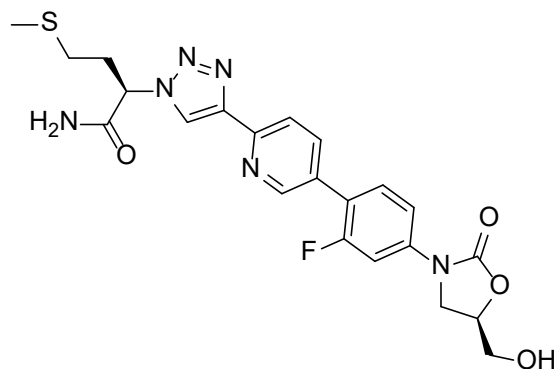


23

(2*R*)-2-[4-(5-{2-Fluoro-4-[(5*R*)-5-(hydroxymethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}pyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]-4-methylpentanamide (**23**)

The title compound **23** was synthesised as a white solid (45 mg, 66%) according to general procedure B. ^1H NMR (600 MHz, DMSO- d_6): δ 8.80 (br s, 1H), 8.70 (s, 1H), 8.13 (d, $J = 8.3$ Hz, 1H), 8.09 (ddd, $J = 8.3, 2.0, 1.4$ Hz, 1H), 7.93 (br s, 1H), 7.70 (dd, $J = 9.0, 9.0$ Hz, 1H), 7.69 (dd, $J = 13.3, 2.0$ Hz, 1H), 7.50 (dd, $J = 9.0, 2.0$ Hz, 1H), 7.46 (br s, 1H), 5.44 (dd, $J = 10.4, 5.4$ Hz, 1H), 5.26 (br s, 1H), 4.78–4.74 (m, 1H), 4.15 (dd, $J = 9.0, 9.0$ Hz, 1H), 3.90 (dd, $J = 9.0, 6.2$ Hz, 1H), 3.71 (dd, $J = 12.2, 2.2$ Hz, 1H), 3.59 (dd, $J = 12.2, 2.2$ Hz, 1H), 2.19–2.14 (m, 1H), 1.94–1.89 (m, 1H), 1.30–1.24 (m, 1H), 0.92 (d, $J = 6.6$ Hz, 3H), 0.88 (d, $J = 6.6$ Hz, 3H); ^{13}C NMR (150.9 MHz, DMSO- d_6): δ 168.8, 159.2 (d, $J = 245$ Hz), 154.3, 149.0 (d, $J = 4.0$ Hz), 148.9, 146.7, 140.2 (d, $J = 11.4$ Hz), 136.9 (d, $J = 3.2$ Hz), 130.7 (d, $J = 4.4$ Hz), 129.5, 122.7, 119.2, 119.1 (d, $J = 13.6$ Hz), 114.0 (d, $J = 2.7$ Hz), 105.4 (d, $J = 28.5$ Hz), 73.5, 61.6, 61.4, 46.0, 40.4, 24.5, 22.5, 21.2; $R_f = 0.35$ (MeOH:CHCl₃, 1:9); FT-IR (ATR): ν 3400 (N-H),

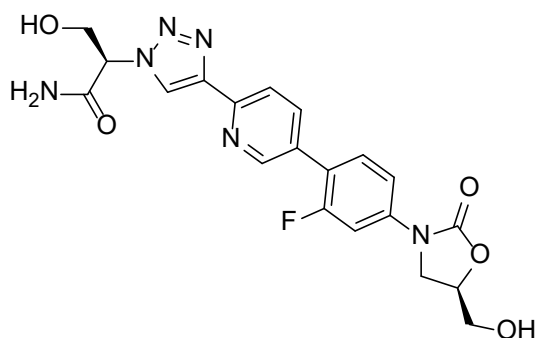
3305 (O-H), 1739 (C=O), 1676 (C=O) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{22}\text{H}_{24}\text{FN}_6\text{O}_4^+$: 469.1994, found: 469.1994.



24

(2*R*)-2-[4-(5-{2-Fluoro-4-[(5*R*)-5-(hydroxymethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}pyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]-4-(methylsulfanyl)butanamide (**24**)

The title compound **24** was synthesised as a white solid (32 mg, 45%) according to general procedure B. ^1H NMR (600 MHz, $\text{DMSO}-d_6$): δ 8.80 (br s, 1H), 8.73 (s, 1H), 8.14 (d, $J = 8.3$ Hz, 1H), 8.09 (d, $J = 8.3$ Hz, 1H), 7.91 (br s, 1H), 7.71 (dd, $J = 9.1, 9.1$ Hz, 1H), 7.69 (dd, $J = 13.7, 2.0$ Hz, 1H), 7.51 (br s, 1H), 7.50 (dd, $J = 9.1, 2.0$ Hz, 1H), 5.48 (dd, $J = 9.0, 5.9$ Hz, 1H), 5.26 (br s, 1H), 4.78–4.74 (m, 1H), 4.15 (dd, $J = 9.0, 9.0$ Hz, 1H), 3.90 (dd, $J = 9.0, 6.2$ Hz, 1H), 3.71 (d, $J = 12.0$ Hz, 1H), 3.59 (d, $J = 12.0$ Hz, 1H), 2.44–2.33 (m, 4H), 2.06 (s, 3H); ^{13}C NMR (150.9 MHz, $\text{DMSO}-d_6$): δ 169.1, 159.3 (d, $J = 245$ Hz), 154.3, 148.9 (d, $J = 3.7$ Hz), 148.9, 146.8, 140.1 (d, $J = 11.1$ Hz), 136.9 (d, $J = 2.3$ Hz), 130.7 (d, $J = 4.4$ Hz), 129.5 (d, $J = 2.1$ Hz), 123.0, 119.3, 119.1 (d, $J = 13.4$ Hz), 114.0 (d, $J = 2.6$ Hz), 105.4 (d, $J = 28.5$ Hz), 73.4, 62.0, 61.6, 46.0, 31.2, 29.5, 14.6; $R_f = 0.36$ (MeOH: CHCl_3 , 3:17); FT-IR (ATR): ν 3488 (N-H), 3176 (O-H), 1742 (C=O), 1677 (C=O) cm^{-1} ; HR-MS (ESI): m/z $[\text{M}+\text{H}]^+$ calculated for $\text{C}_{22}\text{H}_{24}\text{FN}_6\text{O}_4\text{S}^+$: 487.1588 found: 487.1592.

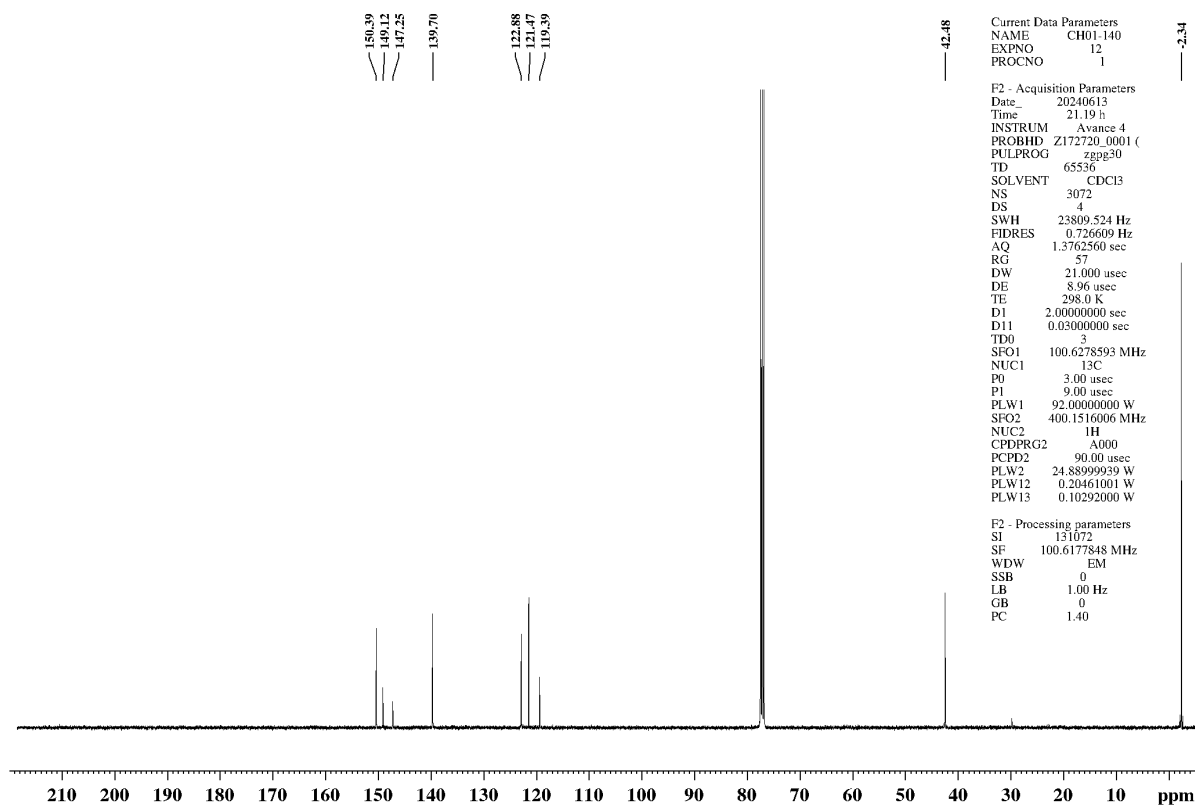
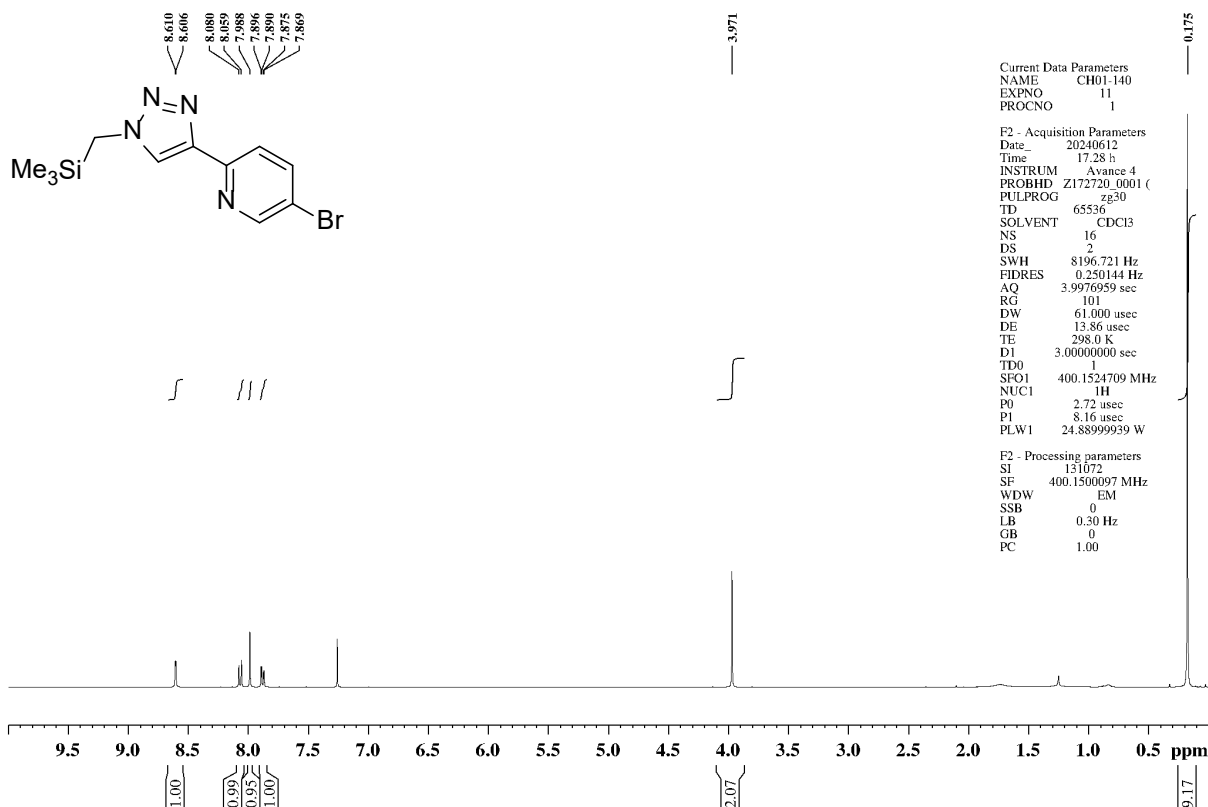


25

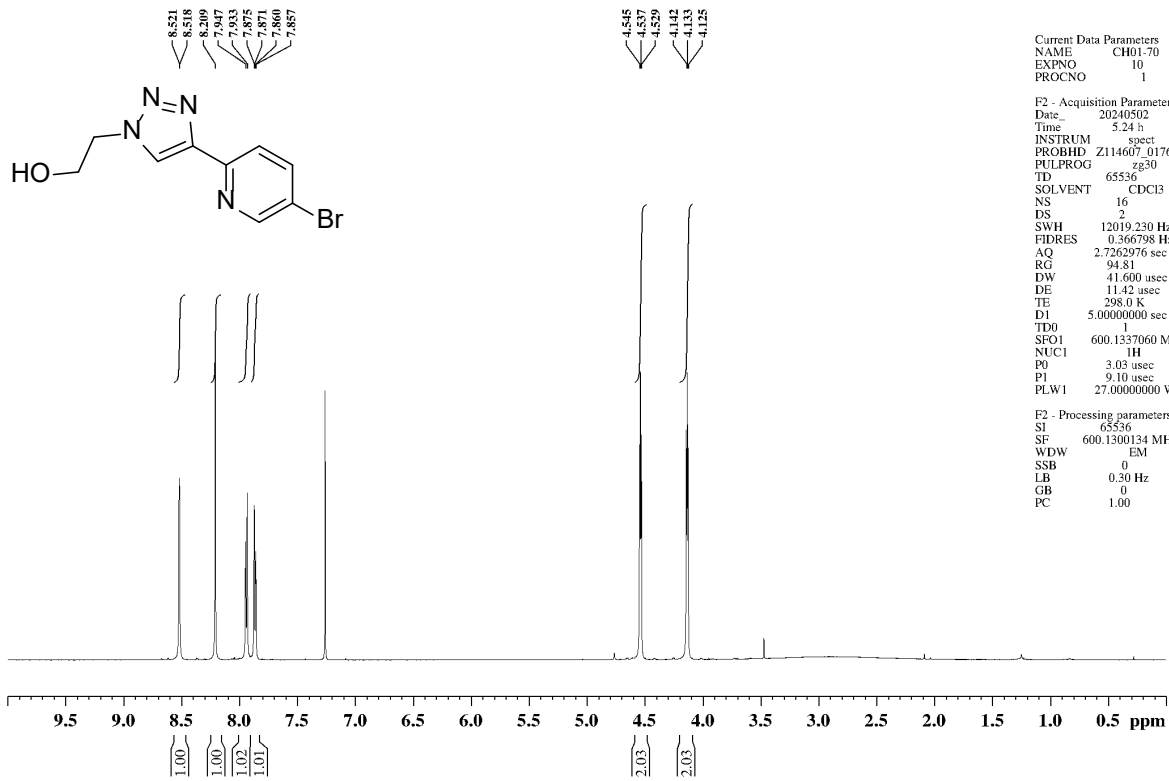
(2*R*)-2-[4-(5-{2-Fluoro-4-[(5*R*)-5-(hydroxymethyl)-2-oxo-1,3-oxazolidin-3-yl]phenyl}pyridin-2-yl)-1*H*-1,2,3-triazol-1-yl]-3-hydroxypropanamide (**25**)

The title compound **25** was synthesised as a white solid (8 mg, 15%) according to general procedure B. ¹H NMR (600 MHz, DMSO-*d*₆): δ 8.80 (br s, 1H), 8.65 (s, 1H), 8.14 (d, *J* = 7.9 Hz, 1H), 8.10 (d, *J* = 7.9 Hz, 1H), 7.89 (br s, 1H), 7.73–7.68 (m, 2H), 7.51–7.50 (m, 2H), 5.44–5.42 (m, 2H), 5.26 (br s, 1H), 4.78–4.74 (m, 1H), 4.15 (dd, *J* = 9.0, 9.0 Hz, 1H), 4.12 (d, *J* = 7.2 Hz, 1H), 4.03 (d, *J* = 7.2 Hz, 1H), 3.90 (dd, *J* = 9.0, 6.7 Hz, 1H), 3.71 (d, *J* = 12.0 Hz, 1H), 3.59 (d, *J* = 12.0 Hz, 1H); ¹³C NMR (150.9 MHz, DMSO-*d*₆): δ 167.9, 159.3 (d, *J* = 245 Hz), 154.4, 149.0, 149.0 (d, *J* = 6.2 Hz), 146.4, 140.2 (d, *J* = 11.3 Hz), 137.0, 130.8 (d, *J* = 4.4 Hz), 129.4, 123.4, 119.2, 119.1 (d, *J* = 11.4 Hz), 114.0, 105.4 (d, *J* = 28.6 Hz), 73.5, 65.2, 61.6, 61.4, 46.0; *R*_f = 0.27 (MeOH:CHCl₃, 1:9); FT-IR (ATR): ν 3491 (N-H), 3306 (O-H), 1742 (C=O), 1677 (C=O) cm⁻¹; HR-MS (ESI): *m/z* [M+H]⁺ calculated for C₂₀H₂₀FN₆O₅⁺: 443.1474 found: 443.1470.

¹H and ¹³C NMR of 27 (400 MHz, CDCl₃):



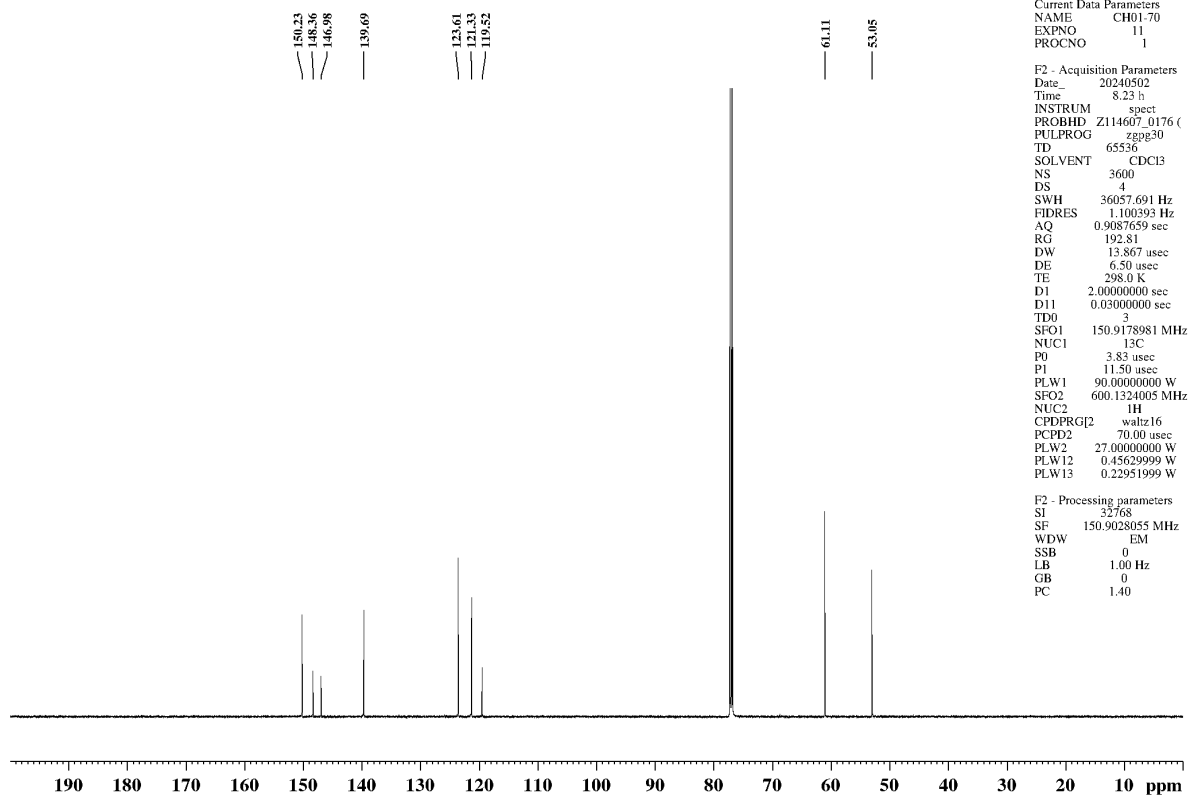
¹H and ¹³C NMR of 28 (600 MHz, CDCl₃):



Current Data Parameters
 NAME CH01-70
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240502
 Time 5.24 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 94.81
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.0000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 1H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300134 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

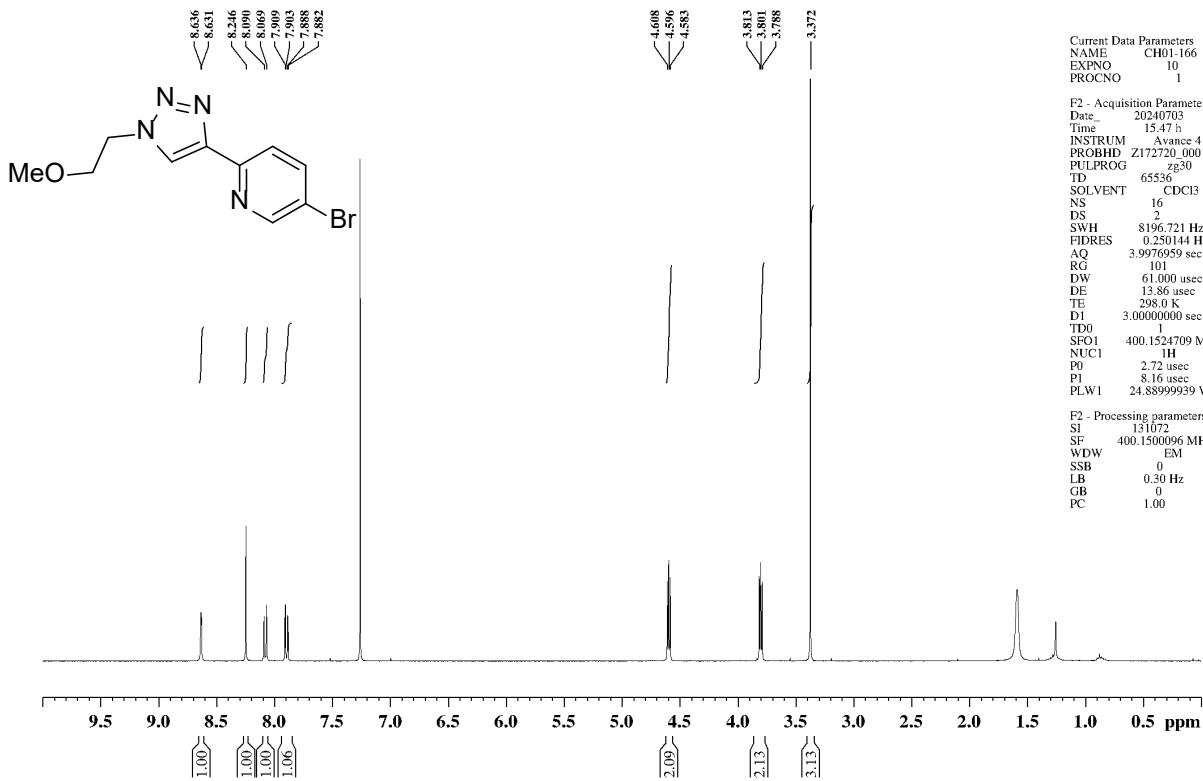


Current Data Parameters
 NAME CH01-70
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240502
 Time 8.23 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 3600
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 3
 SFO1 150.9178981 MHz
 NUC1 13C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 walz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028055 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

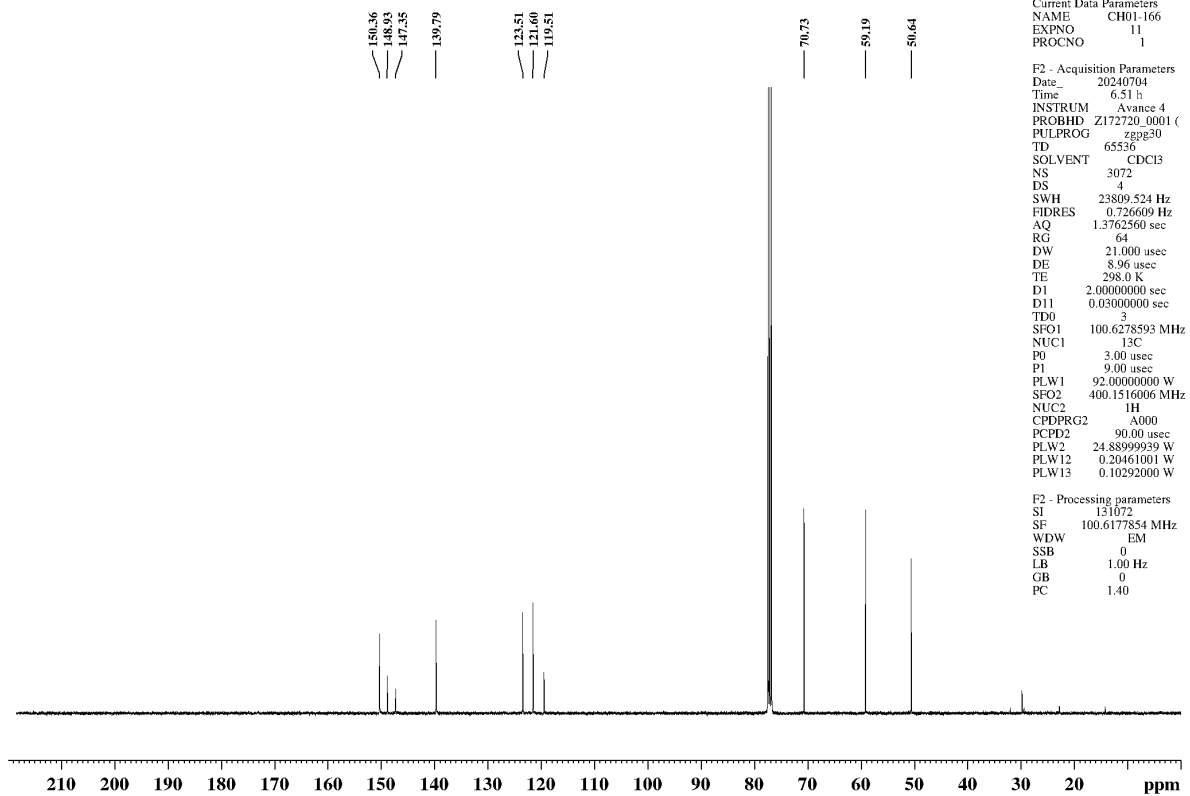
¹H and ¹³C NMR of 29 (400 MHz, CDCl₃):



Current Data Parameters
 NAME CH01-166
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240703
 Time 15:47 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (C
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8196.721 Hz
 FIDRES 0.250144 Hz
 AQ 3.9976959 sec
 RG 101
 DW 61.000 usec
 DE 13.86 usec
 TE 298.0 K
 D1 3.00000000 sec
 TD0 1
 SFO1 400.1524709 MHz
 NUC1 ¹H
 P0 2.72 usec
 P1 8.16 usec
 PLW1 24.88999939 W

F2 - Processing parameters
 SI 131072
 SF 400.1500096 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

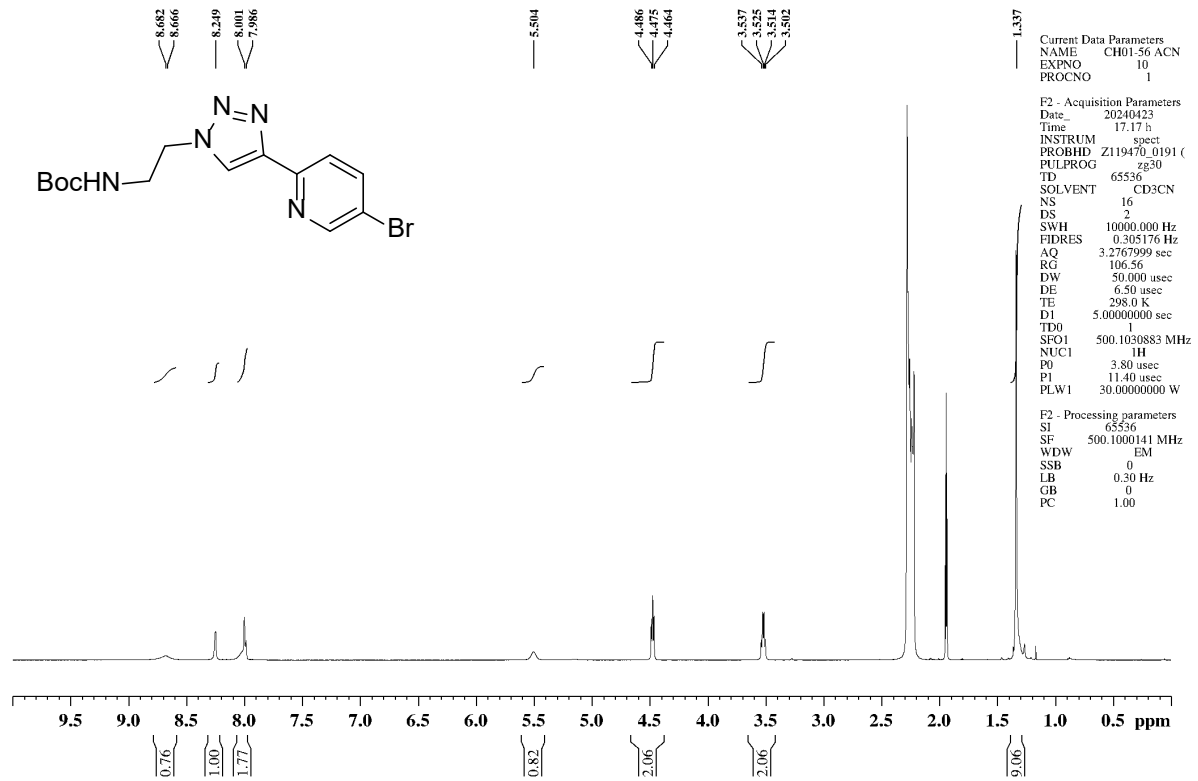


Current Data Parameters
 NAME CH01-166
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240704
 Time 6:51 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (C
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 3072
 DS 4
 SWH 23809.524 Hz
 FIDRES 0.726609 Hz
 AQ 1.3762560 sec
 RG 64
 DW 21.000 usec
 DE 8.96 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 3
 SFO1 100.6278593 MHz
 NUC1 ¹³C
 P0 3.00 usec
 P1 9.00 usec
 PLW1 92.00000000 W
 SFO2 400.1516006 MHz
 NUC2 ¹H
 CPDPRG2 A000
 PCPD2 90.00 usec
 PLW2 24.88999939 W
 PLW12 0.20461001 W
 PLW13 0.10292000 W

F2 - Processing parameters
 SI 131072
 SF 100.6177854 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

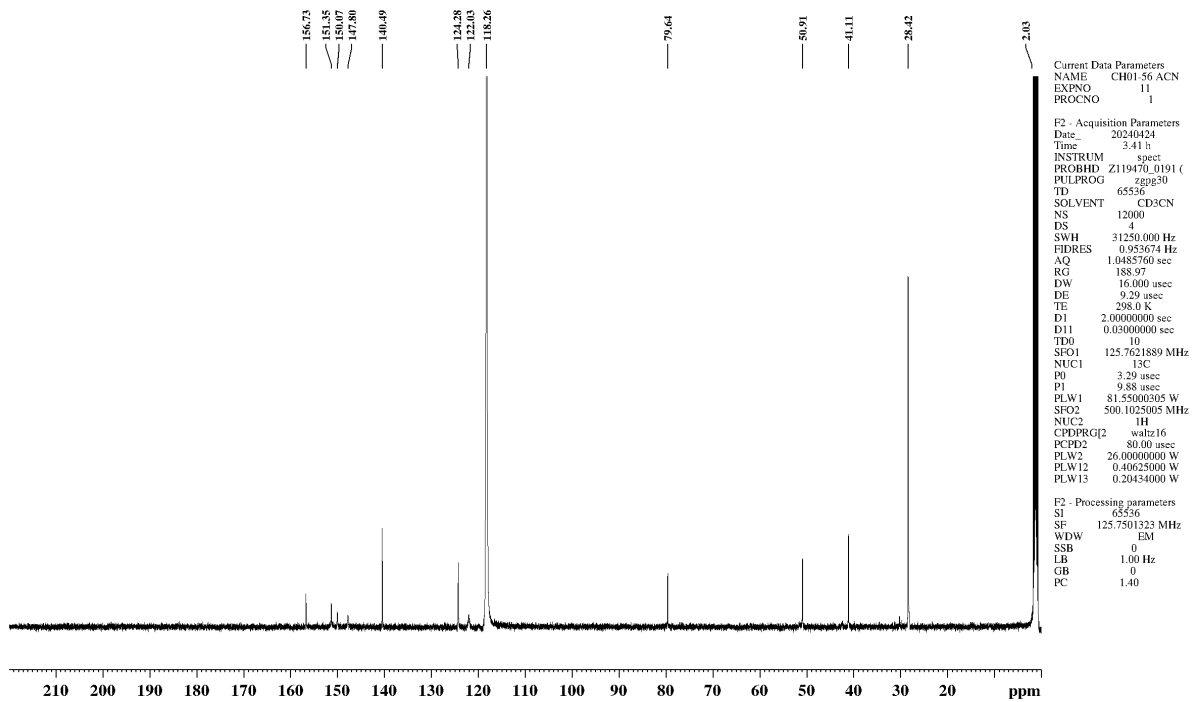
¹H and ¹³C NMR of 30 (500 MHz, CD₃CN):



Current Data Parameters
 NAME CH01-56 ACN
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240423
 Time 17.17 h
 INSTRUM spect
 PROBHD Z119470_0191 (Z)
 PULPROG zg30
 TD 65536
 SOLVENT CD3CN
 NS 16
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.305176 Hz
 AQ 3.2767999 sec
 RG 106.56
 DW 50.000 usec
 DE 6.50 usec
 TE 298.0 K
 D1 5.0000000 sec
 TDO 1
 SFO1 500.1030883 MHz
 NUC1 1H
 P0 3.80 usec
 PL1 11.40 usec
 PLW1 30.00000000 W

F2 - Processing parameters
 SI 65536
 SF 500.1000141 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

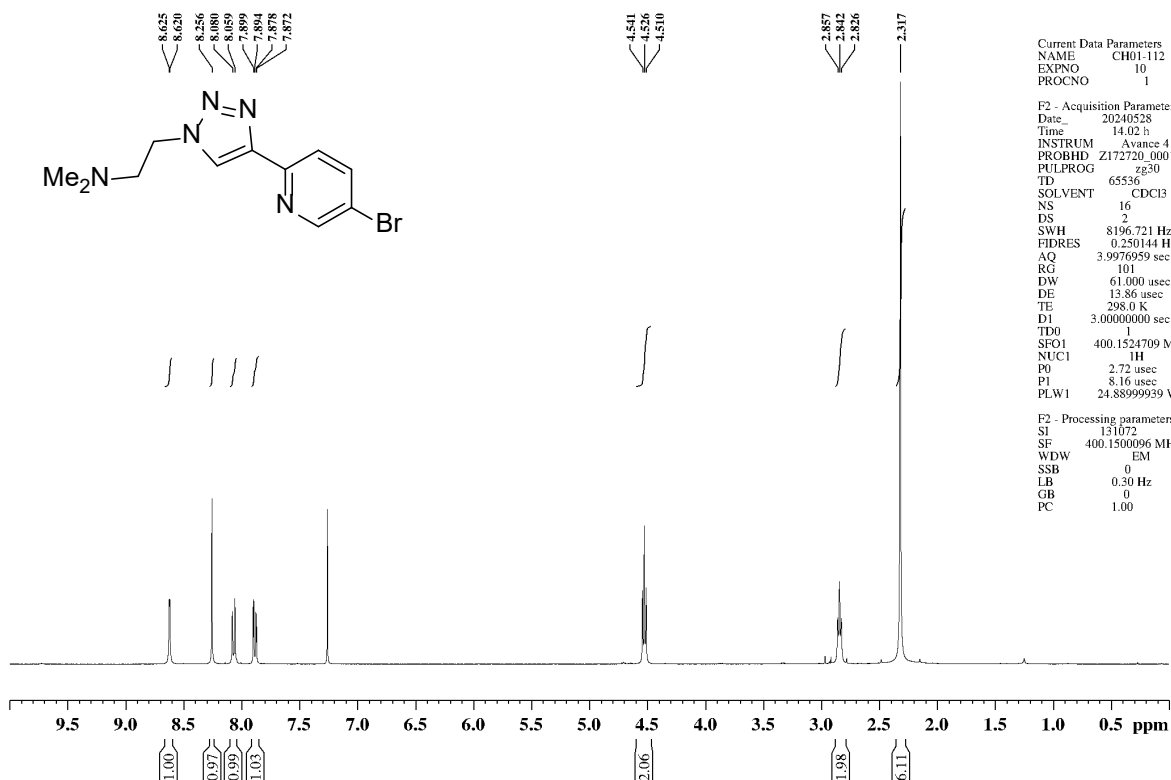
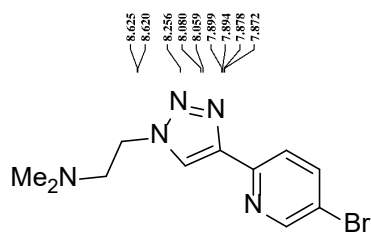


Current Data Parameters
 NAME CH01-56 ACN
 EXPNO 11
 PROCNO 1

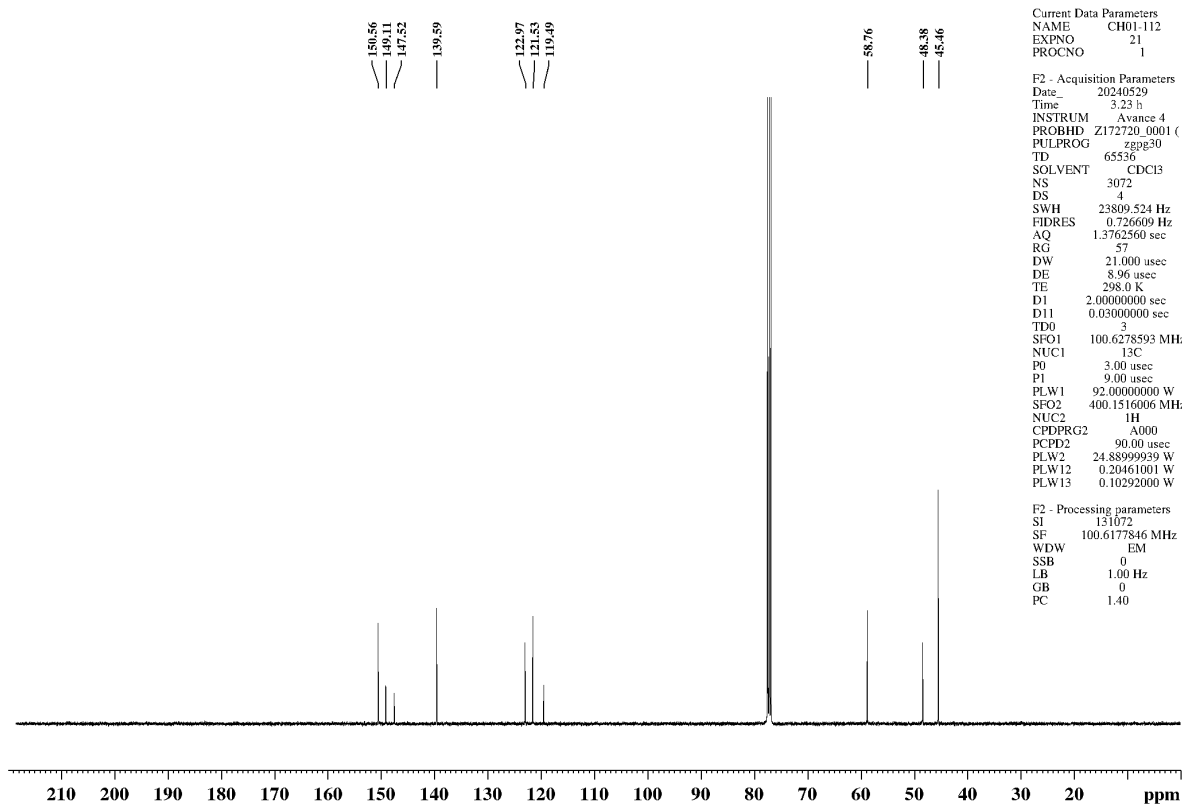
F2 - Acquisition Parameters
 Date_ 20240424
 Time 3.41 h
 INSTRUM spect
 PROBHD Z119470_0191 (Z)
 PULPROG zgpg30
 TD 65536
 SOLVENT CD3CN
 NS 12000
 DS 4
 SWH 31250.000 Hz
 FIDRES 0.953674 Hz
 AQ 1.0485760 sec
 RG 188.97
 DW 16.000 usec
 DE 9.29 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 TDO 10
 SFO1 125.7621889 MHz
 NUC1 13C
 P0 3.29 usec
 PL1 9.88 usec
 PLW1 81.55000305 W
 SFO2 500.1025005 MHz
 NUC2 1H
 CPDPRG12 waltz16
 PCPD2 80.00 usec
 PLW2 26.00000000 W
 PLW12 0.40625000 W
 PLW13 0.20434000 W

F2 - Processing parameters
 SI 65536
 SF 125.7501323 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

¹H and ¹³C NMR of 31 (400 MHz, CDCl₃):

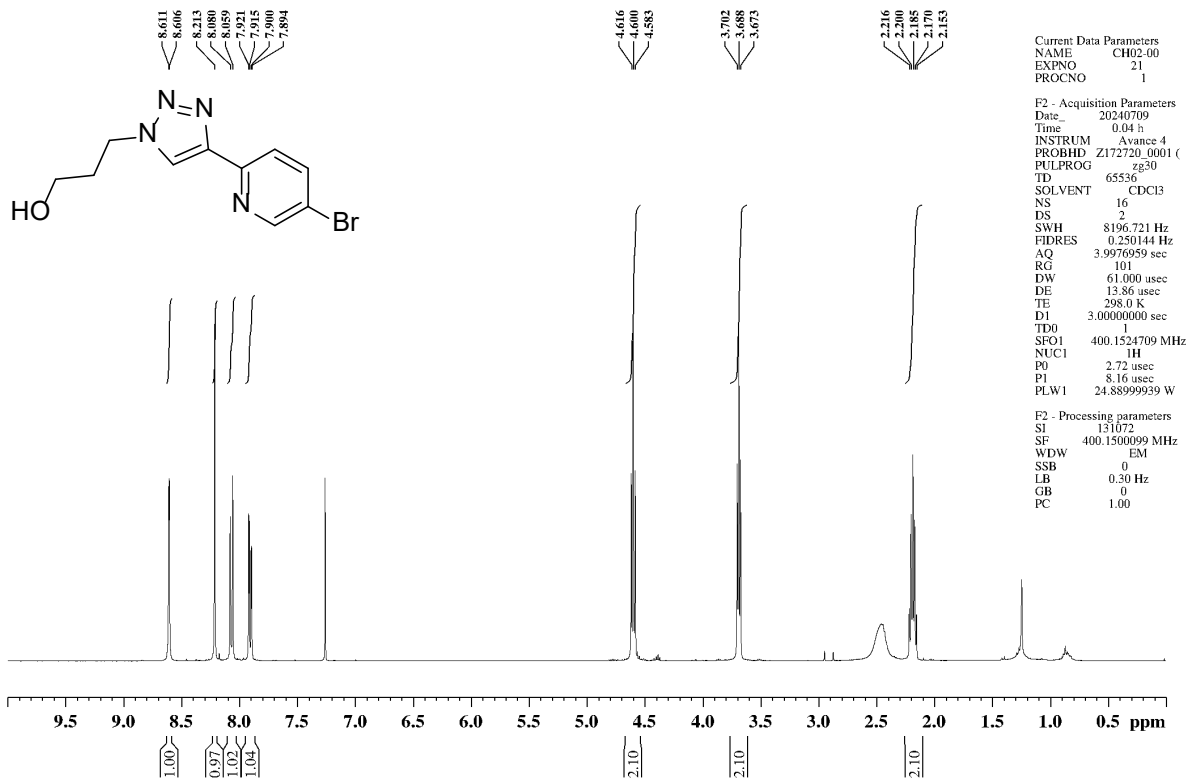


Current Data Parameters
 NAME CH01-112
 EXPNO 10
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20240528
 Time 14.02 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 ()
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8196.721 Hz
 FIDRES 0.250144 Hz
 AQ 3.9976959 sec
 RG 101
 DW 61.000 usec
 DE 12.86 usec
 TE 298.0 K
 D1 3.00000000 sec
 TD0 1
 SFO1 400.1524709 MHz
 NUC1 ¹H
 P0 2.72 usec
 P1 8.16 usec
 PLW1 24.88999939 W
 F2 - Processing parameters
 SI 131072
 SF 400.1500096 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



Current Data Parameters
 NAME CH01-112
 EXPNO 21
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20240529
 Time 3.23 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 3072
 DS 4
 SWH 23809.524 Hz
 FIDRES 0.726609 Hz
 AQ 1.3762560 sec
 RG 57
 DW 21.000 usec
 DE 8.96 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 3
 SFO1 100.6278593 MHz
 NUC1 ¹³C
 P0 3.00 usec
 P1 9.00 usec
 PLW1 92.0000000 W
 SFO2 400.1516006 MHz
 NUC2 ¹H
 CPDPRG2 A000
 PCPD2 90.00 usec
 PLW2 24.88999939 W
 PLW12 0.20461001 W
 PLW13 0.10292000 W
 F2 - Processing parameters
 SI 131072
 SF 100.6177846 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

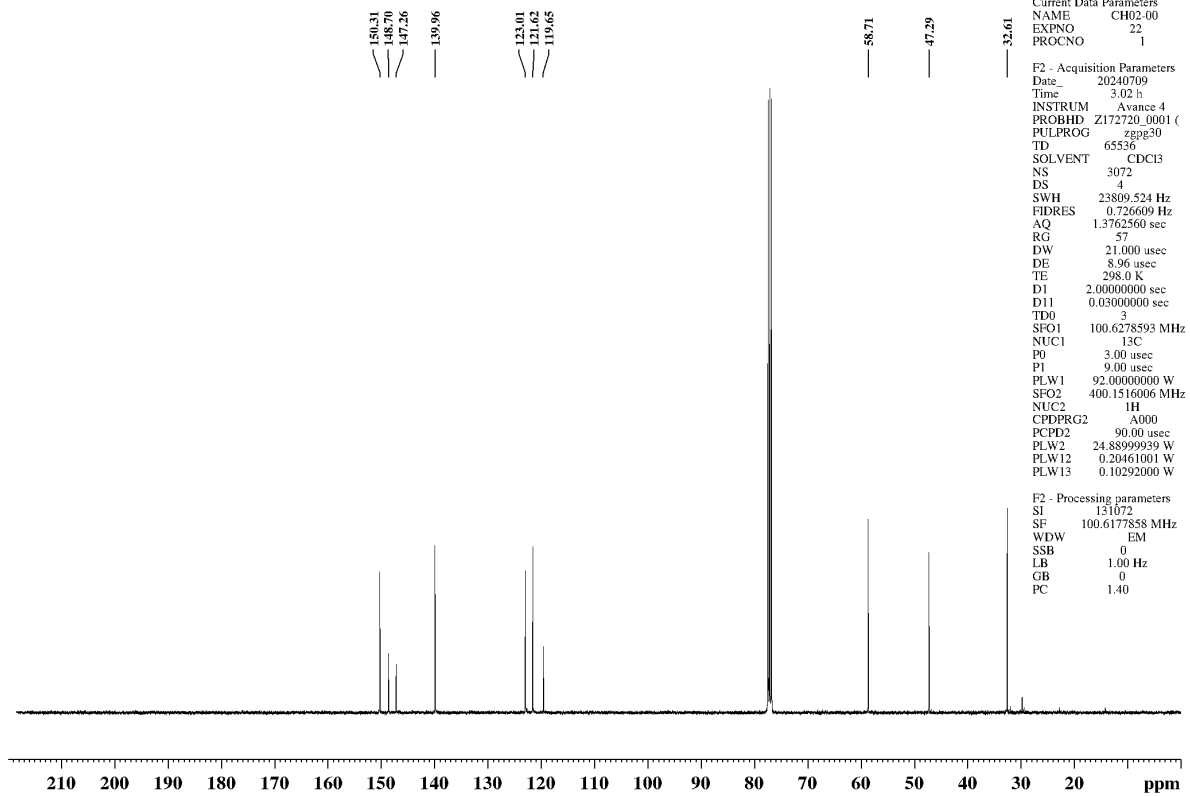
¹H and ¹³C NMR of 32 (400 MHz, CDCl₃):



Current Data Parameters
 NAME CH02-00
 EXPNO 21
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240709
 Time 0.04 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 ()
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8196.721 Hz
 FIDRES 0.250144 Hz
 AQ 3.9976959 sec
 RG 101
 DW 61.000 usec
 DE 13.86 usec
 TE 298.0 K
 D1 3.00000000 sec
 TD0 1
 SFO1 400.1524709 MHz
 NUC1 ¹H
 P0 2.72 usec
 P1 8.16 usec
 PLW1 24.88999939 W

F2 - Processing parameters
 SI 131072
 SF 400.1500099 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

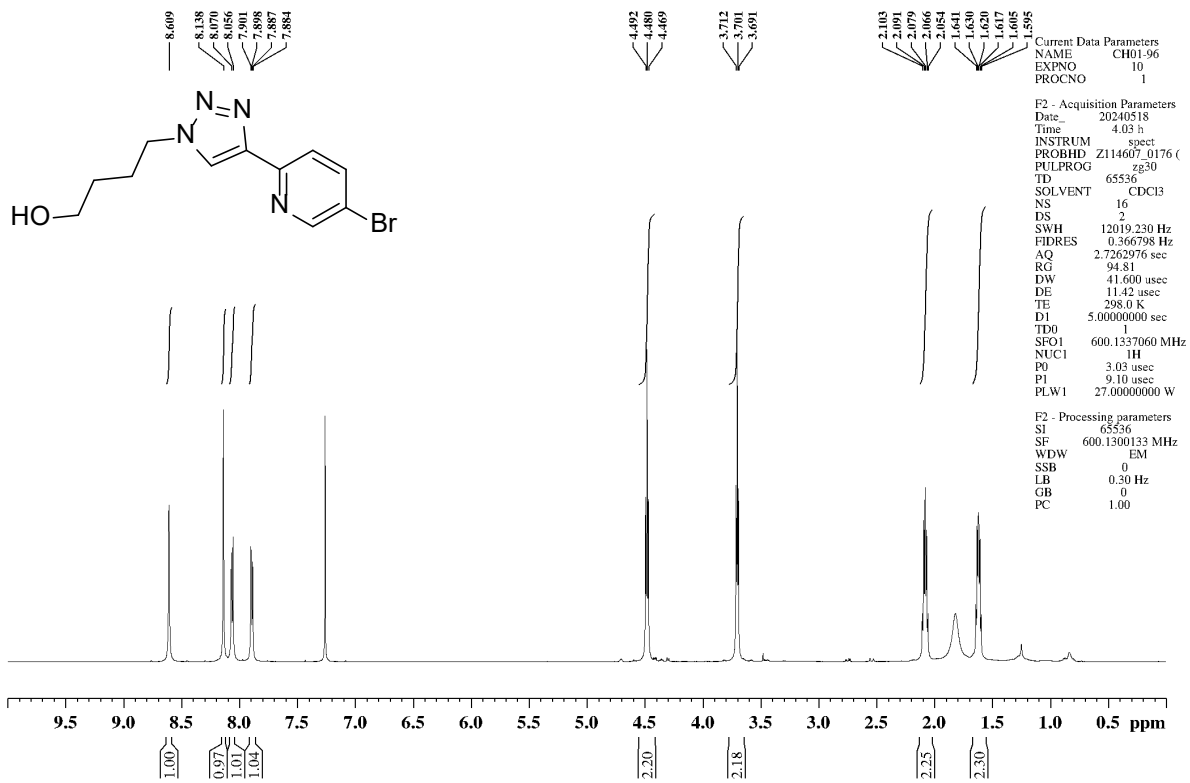


Current Data Parameters
 NAME CH02-00
 EXPNO 22
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240709
 Time 3.02 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 3072
 DS 4
 SWH 23809.524 Hz
 FIDRES 0.726609 Hz
 AQ 1.3762560 sec
 RG 57
 DW 21.000 usec
 DE 8.96 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 3
 SFO1 100.6278593 MHz
 NUC1 ¹³C
 P0 3.00 usec
 P1 9.00 usec
 PLW1 92.00000000 W
 SFO2 400.1516006 MHz
 NUC2 ¹H
 CPDPRG2 A000
 PCPD2 90.00 usec
 PLW2 24.88999939 W
 PLW12 0.20461001 W
 PLW13 0.10292000 W

F2 - Processing parameters
 SI 131072
 SF 100.6177858 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

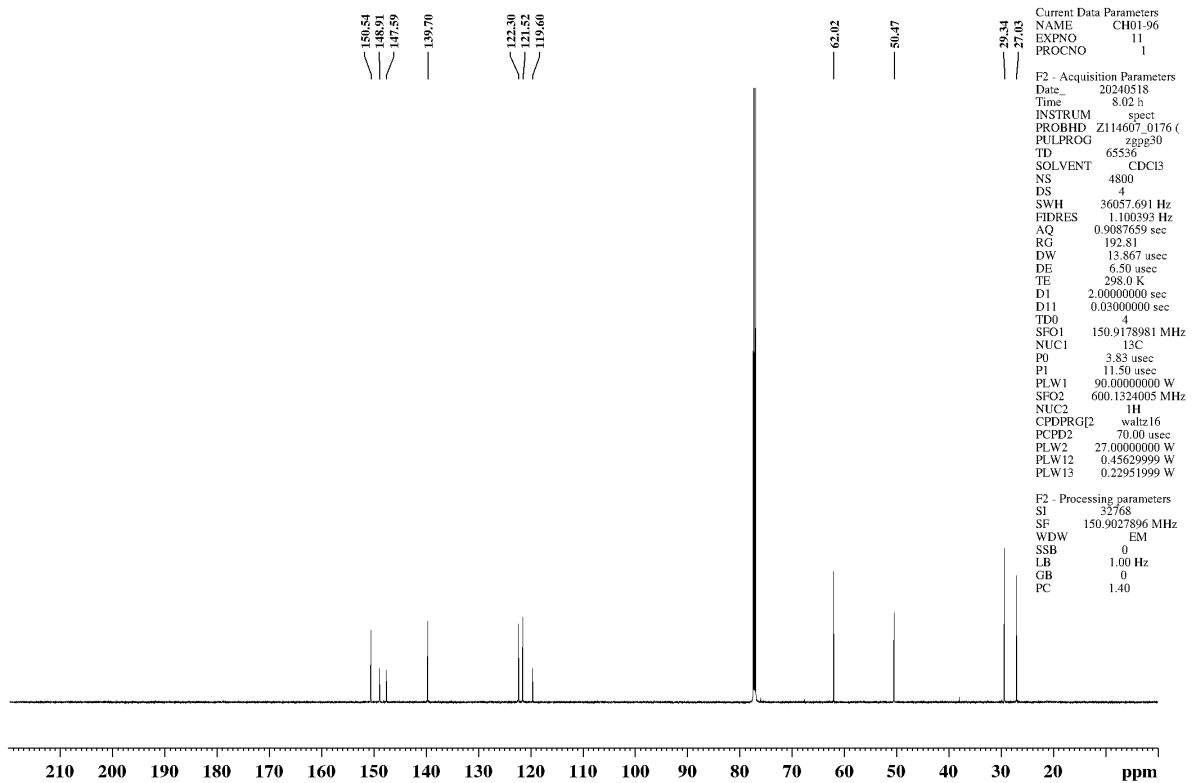
¹H and ¹³C NMR of 33 (600 MHz, CDCl₃):



Current Data Parameters
 NAME CH01-96
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240518
 Time 4.03 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 94.81
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.0000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 1H
 PO 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300133 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

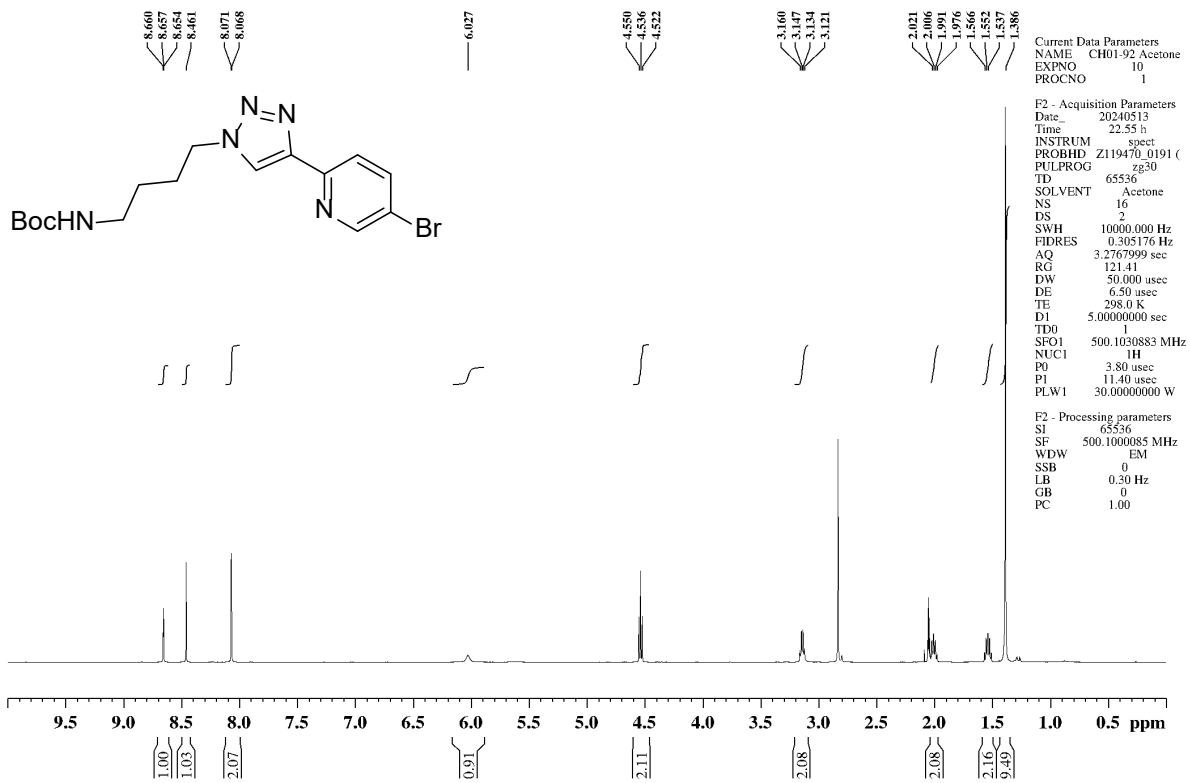


Current Data Parameters
 NAME CH01-96
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240518
 Time 8.02 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 4800
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 4
 SFO1 150.9178981 MHz
 NUC1 13C
 PO 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 FCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9027896 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

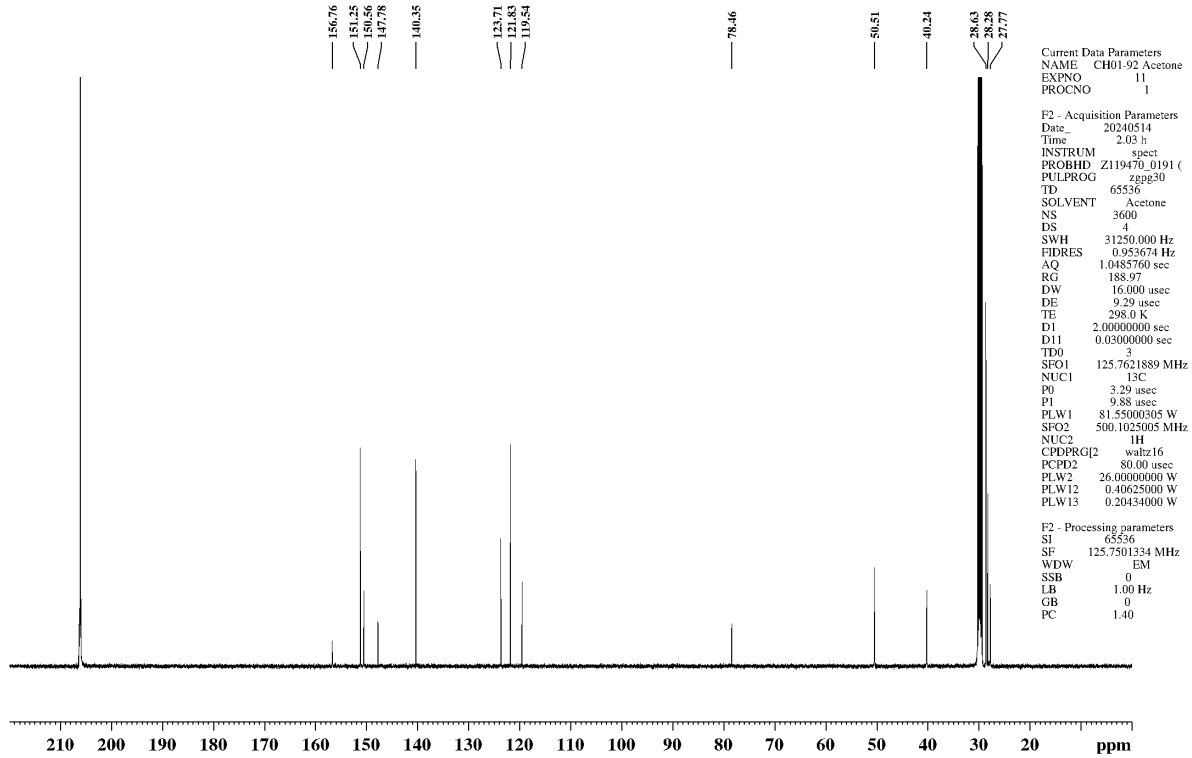
¹H and ¹³C NMR of 34 (500 MHz, (CD₃)₂CO):



Current Data Parameters
 NAME CH01-92 Acetone
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240513
 Time 22.55 h
 INSTRUM spect
 PROBHD Z119470_0191 ()
 PULPROG zg30
 TD 65536
 SOLVENT Acetone
 NS 16
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.305176 Hz
 AQ 3.2767999 sec
 RG 121.41
 DW 50.000 usec
 DE 6.50 usec
 TE 298.0 K
 D1 5.00000000 sec
 TD0 1
 SFO1 500.1030833 MHz
 NUC1 ¹H
 P0 3.80 usec
 P1 11.40 usec
 PLW1 30.00000000 W

F2 - Processing parameters
 SI 65536
 SF 500.1000085 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

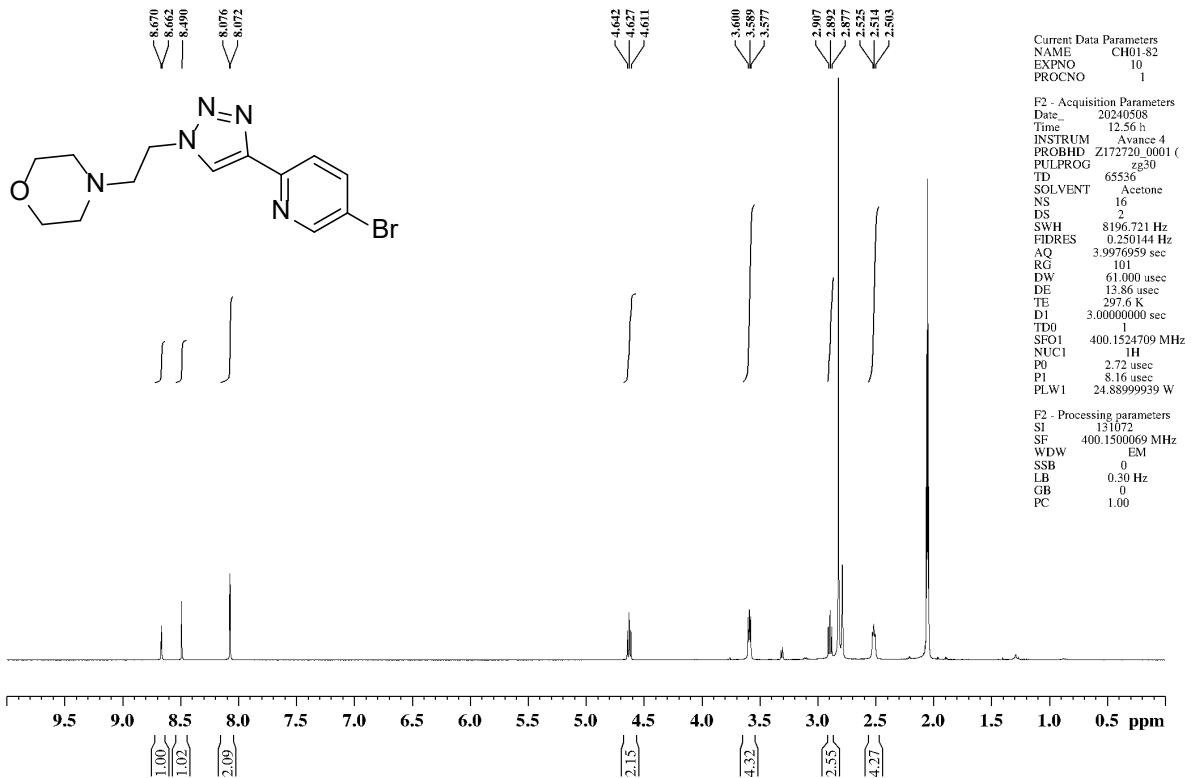


Current Data Parameters
 NAME CH01-92 Acetone
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240514
 Time 2.03 h
 INSTRUM spect
 PROBHD Z119470_0191 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT Acetone
 NS 3600
 DS 4
 SWH 31250.000 Hz
 FIDRES 0.953674 Hz
 AQ 1.0485760 sec
 RG 188.97
 DW 16.000 usec
 DE 9.29 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.05000000 sec
 TD0 3
 SFO1 125.7621889 MHz
 NUC1 ¹³C
 P0 3.29 usec
 P1 9.88 usec
 PLW1 81.55000305 W
 SFO2 500.1025005 MHz
 NUC2 ¹H
 CPMRG12 waltz16
 PCPD2 80.00 usec
 PLW2 26.00000000 W
 PLW12 0.40625000 W
 PLW13 0.20434000 W

F2 - Processing parameters
 SI 65536
 SF 125.7501334 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

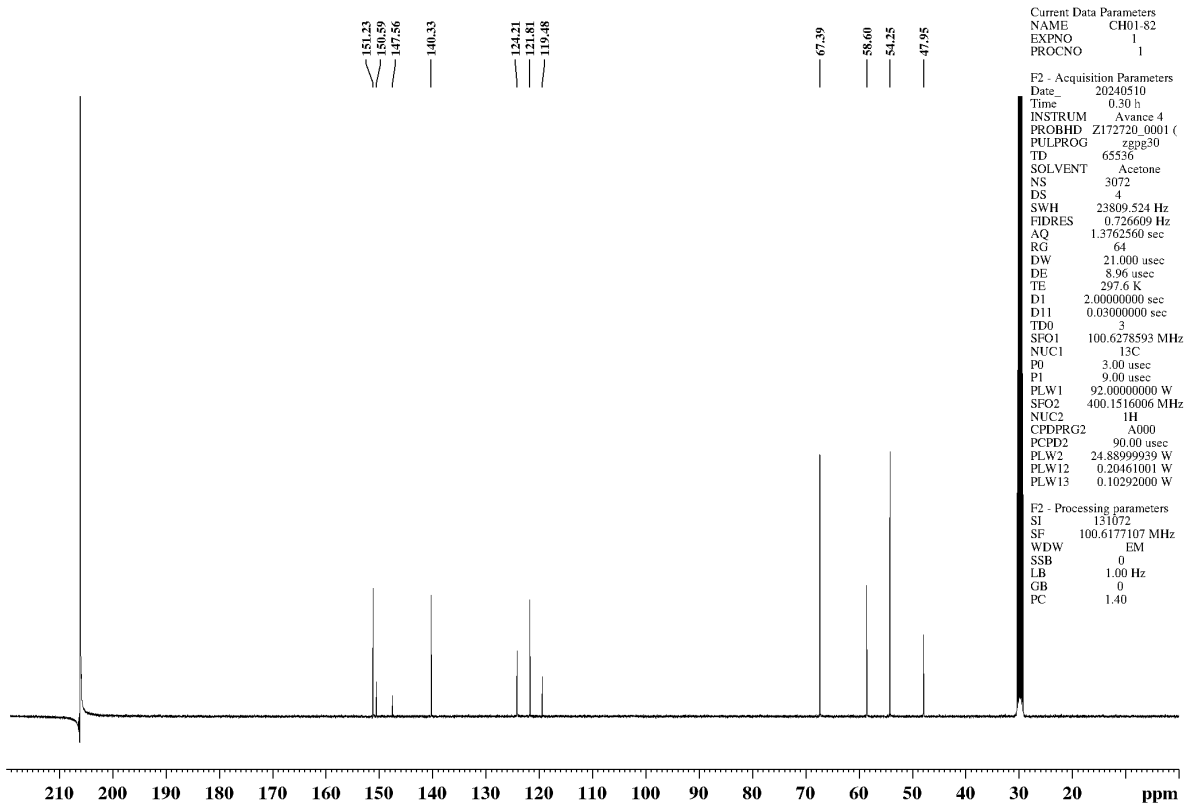
¹H and ¹³C NMR of 35 (400 MHz, (CD₃)₂CO):



Current Data Parameters
 NAME CH01-82
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240508
 Time 12.56 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT Acetone
 NS 2
 DS 16
 SWH 8196.721 Hz
 FIDRES 0.250144 Hz
 AQ 3.9976959 sec
 RG 101
 DW 61.000 usec
 DE 13.86 usec
 TE 297.6 K
 D1 3.00000000 sec
 TD0
 SFO1 400.1524709 MHz
 NUC1 ¹H
 P0 2.72 usec
 P1 8.16 usec
 PLW1 24.88999939 W

F2 - Processing parameters
 SI 131072
 SF 400.1500069 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

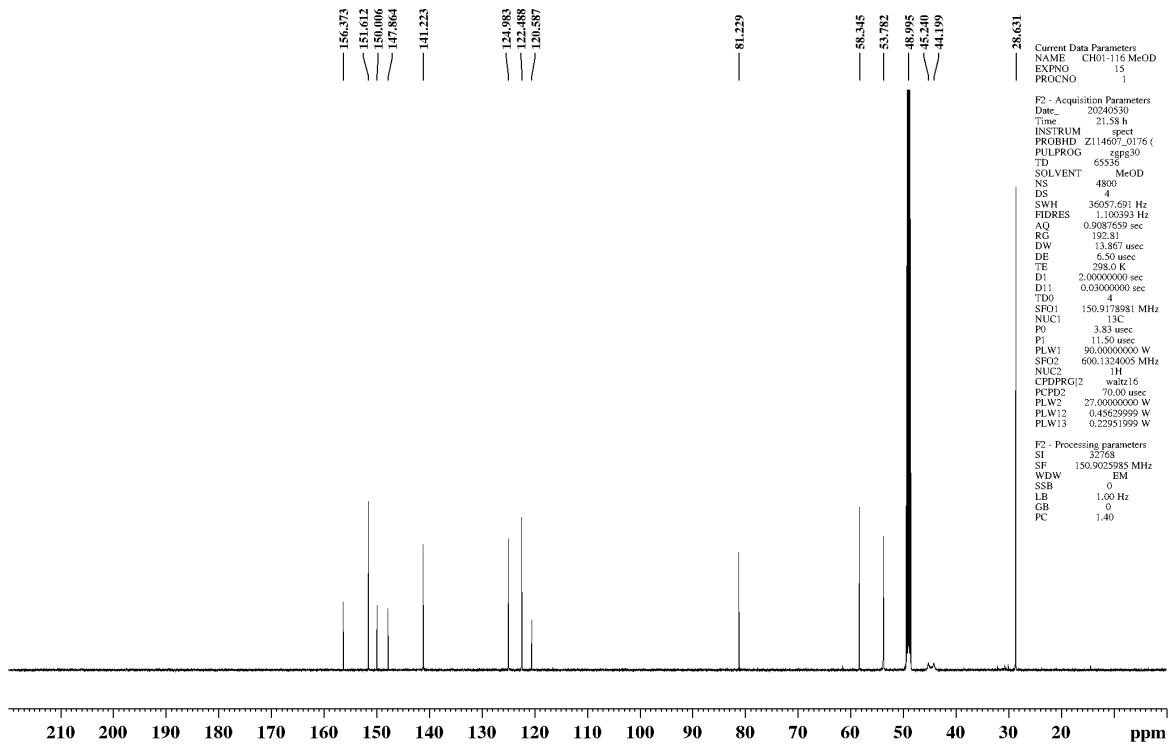
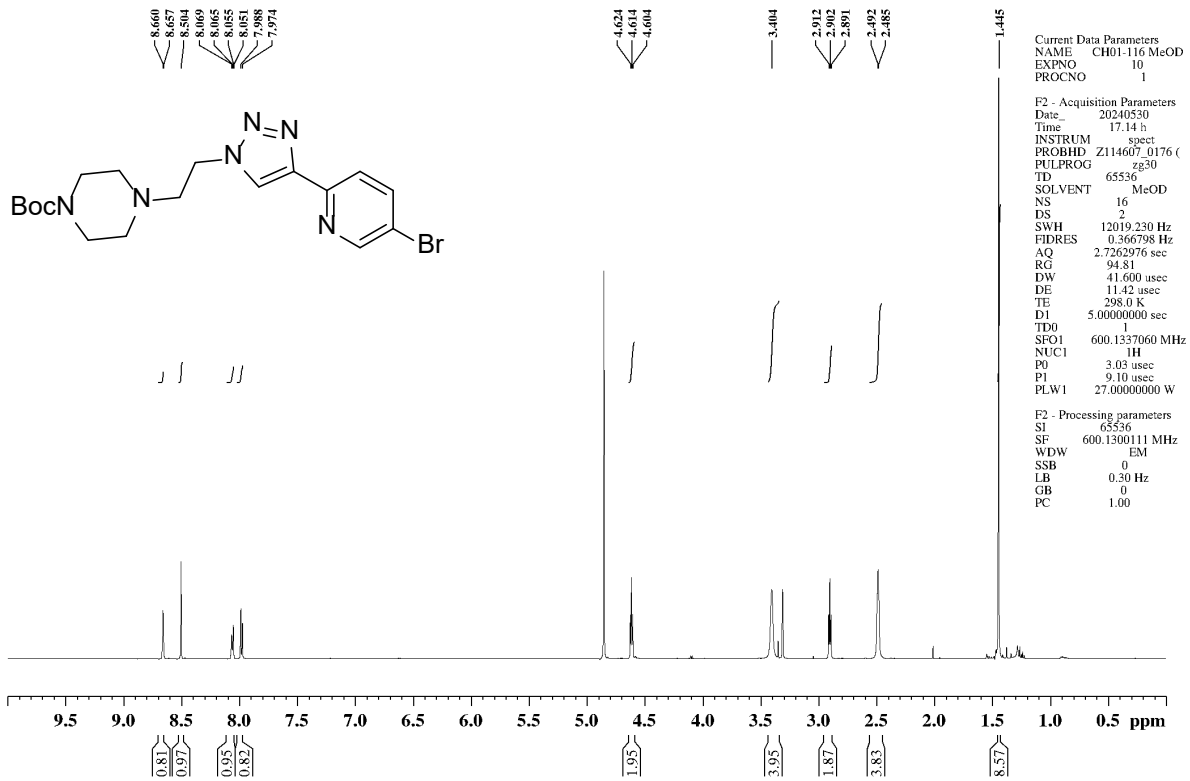


Current Data Parameters
 NAME CH01-82
 EXPNO 1
 PROCNO 1

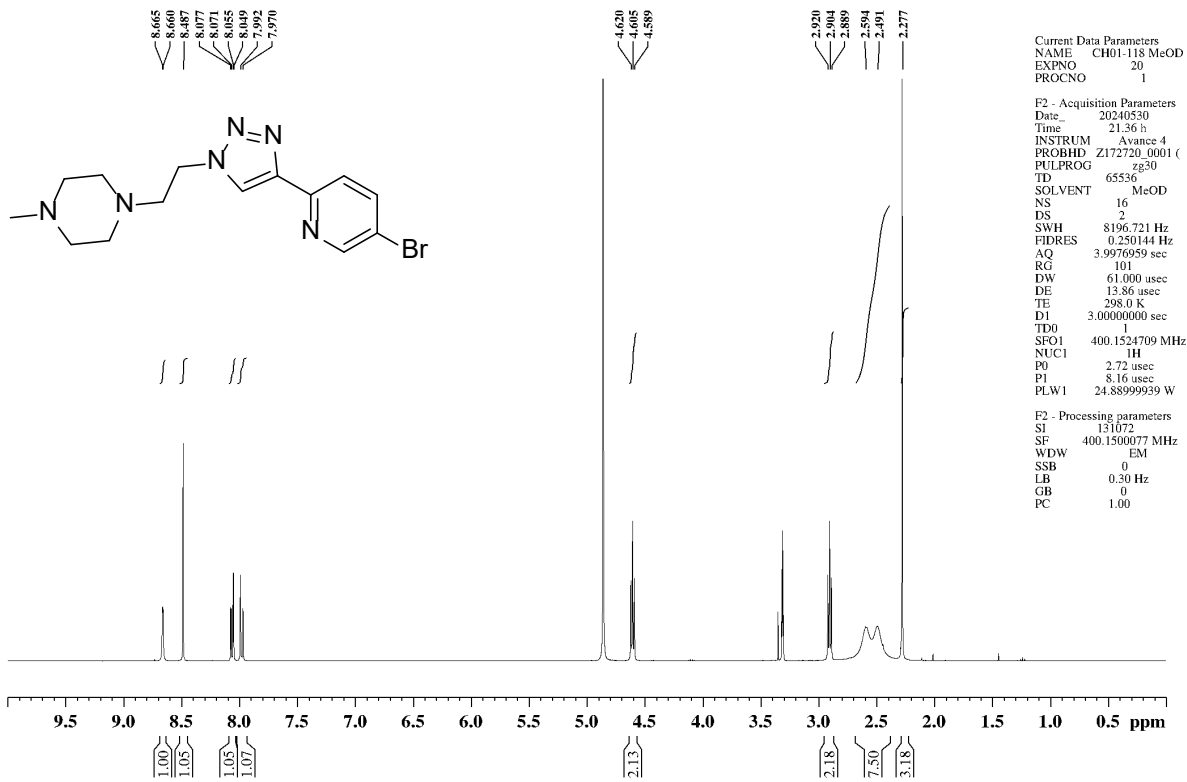
F2 - Acquisition Parameters
 Date_ 20240510
 Time 0.30 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT Acetone
 NS 3072
 DS 4
 SWH 23809.524 Hz
 FIDRES 0.726609 Hz
 AQ 1.3762560 sec
 RG 64
 DW 21.000 usec
 DE 8.96 usec
 TE 297.6 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 3
 SFO1 100.6278593 MHz
 NUC1 ¹³C
 P0 3.00 usec
 P1 9.00 usec
 PLW1 92.00000000 W
 SFO2 400.1516006 MHz
 NUC2 ¹H
 CPDPRG2 A000
 PCPD2 90.00 usec
 PLW2 24.88999939 W
 PLW12 0.20461001 W
 PLW13 0.10292000 W

F2 - Processing parameters
 SI 131072
 SF 100.6177107 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

¹H and ¹³C NMR of 36 (600 MHz, CD₃OD):



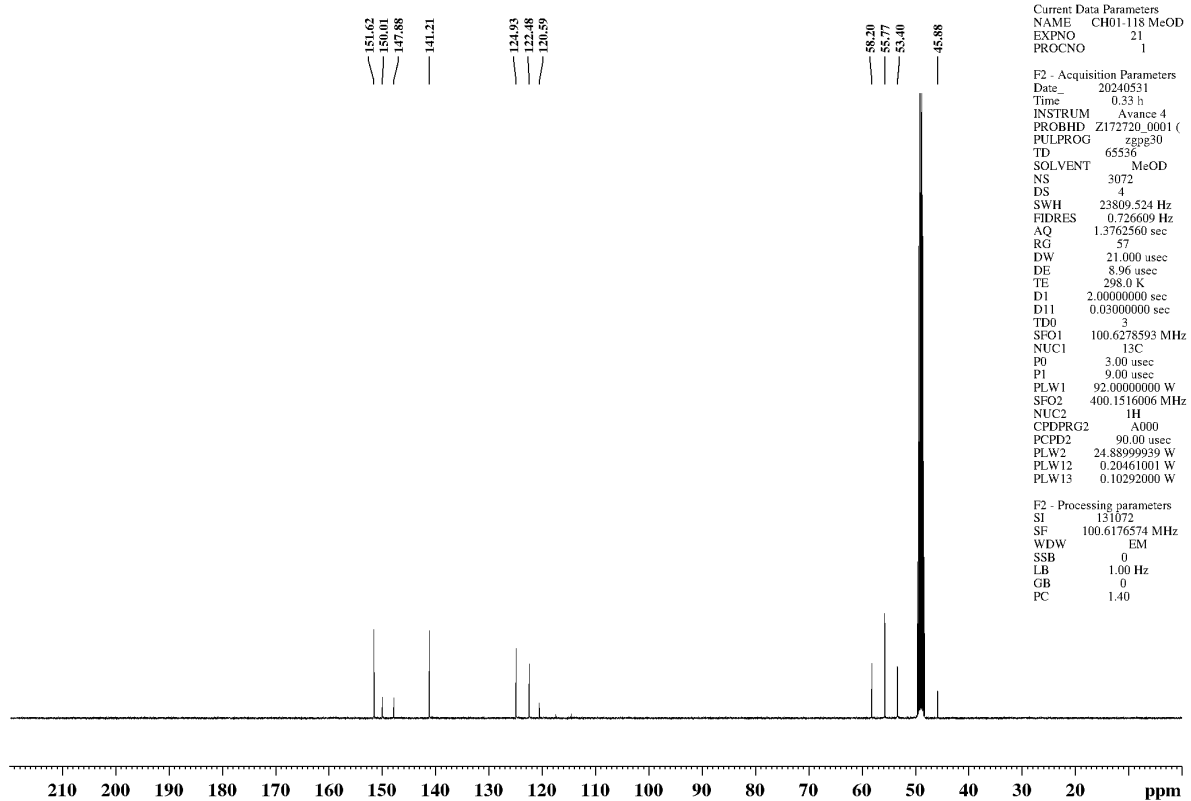
¹H and ¹³C NMR of 37 (400 MHz, CD₃OD):



Current Data Parameters
 NAME CH01-118 MeOD
 EXPNO 20
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240530
 Time 21.36 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (Z172720_0001)
 PULPROG zg30
 TD 65536
 SOLVENT MeOD
 NS 16
 DS 2
 SWH 8196.721 Hz
 FIDRES 0.250144 Hz
 AQ 3.9976959 sec
 RG 101
 DW 61.000 usec
 DE 13.86 usec
 TE 298.0 K
 D1 3.00000000 sec
 TD0 1
 SFO1 400.1524709 MHz
 NUC1 1H
 P0 2.72 usec
 P1 8.16 usec
 PLW1 24.88999939 W

F2 - Processing parameters
 SI 131072
 SF 400.1500077 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

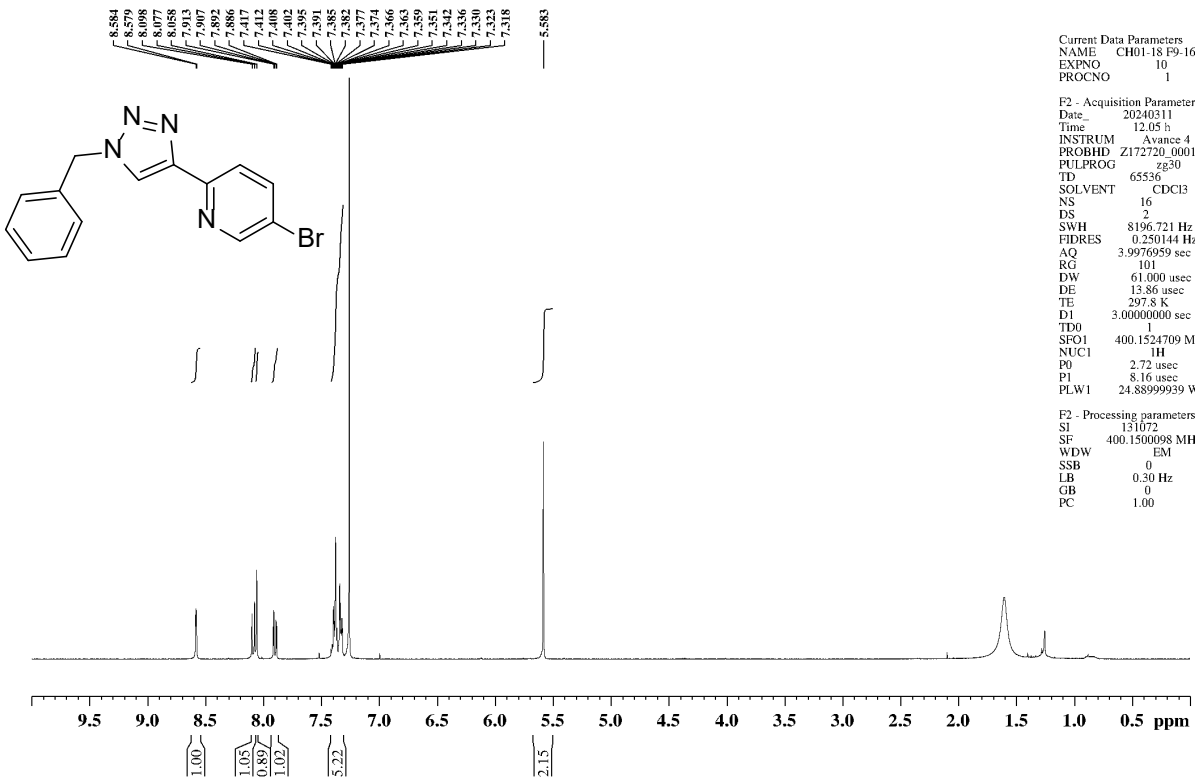


Current Data Parameters
 NAME CH01-118 MeOD
 EXPNO 21
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240531
 Time 0.33 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (Z172720_0001)
 PULPROG zgpg30
 TD 65536
 SOLVENT MeOD
 NS 3072
 DS 4
 SWH 23809.524 Hz
 FIDRES 0.726609 Hz
 AQ 1.3762560 sec
 RG 57
 DW 21.000 usec
 DE 8.96 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 3
 SFO1 100.6278593 MHz
 NUC1 13C
 P0 3.00 usec
 P1 9.00 usec
 PLW1 92.00000000 W
 SFO2 400.1516006 MHz
 NUC2 1H
 CPDPRG2 A000
 PCPD2 90.00 usec
 PLW2 24.88999939 W
 PLW12 0.20461001 W
 PLW13 0.10292000 W

F2 - Processing parameters
 SI 131072
 SF 100.6176574 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

¹H NMR of 39 (400 MHz, CDCl₃):

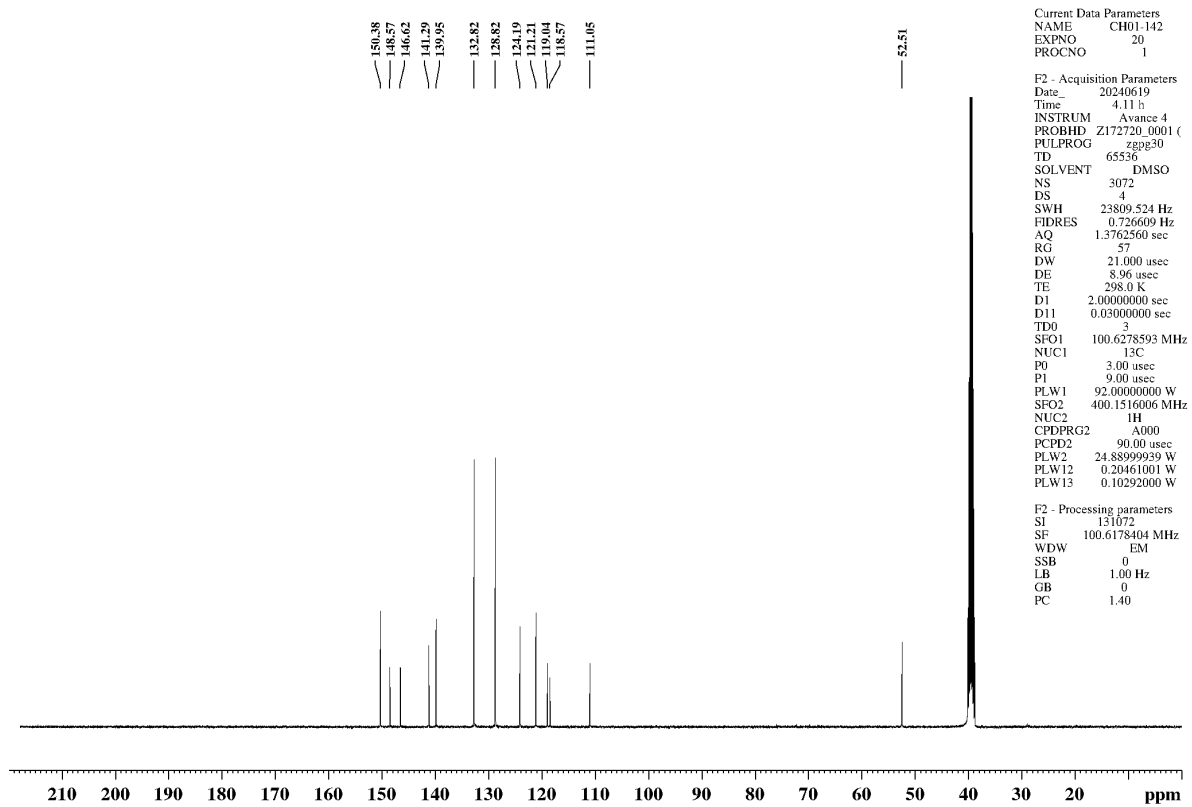
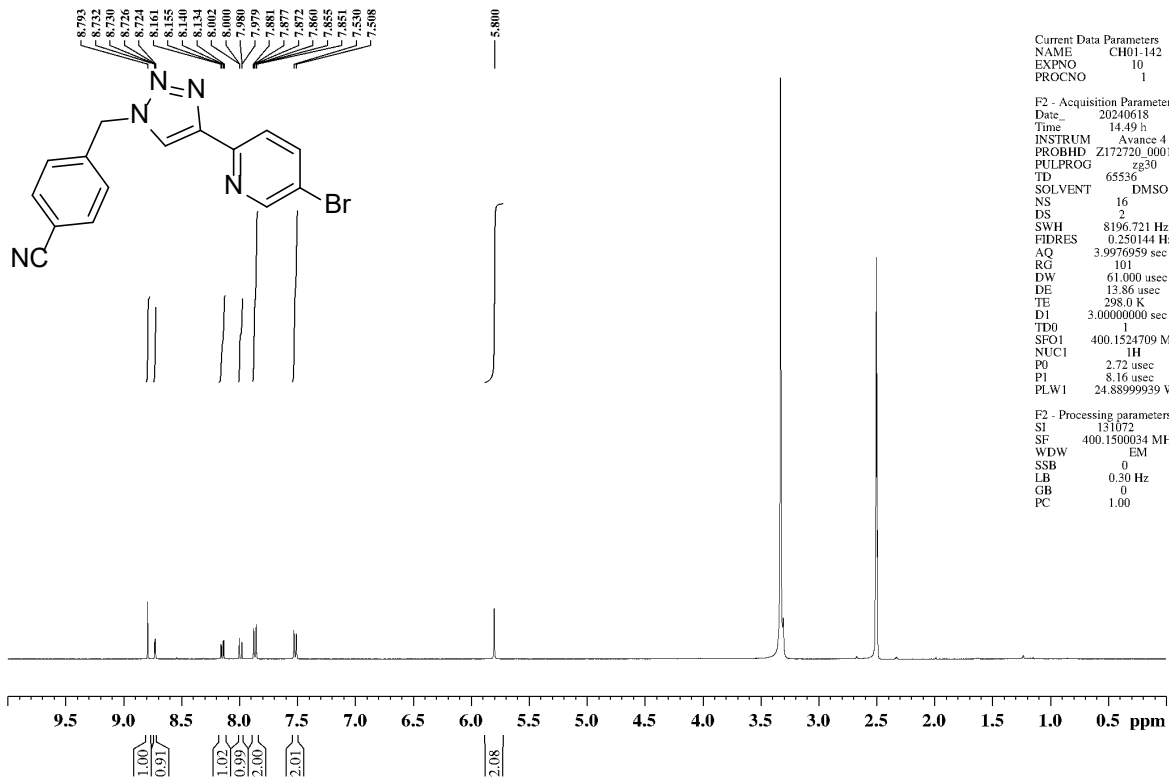


Current Data Parameters
 NAME CH01-18 F9-16
 EXPNO 10
 PROCNO 1

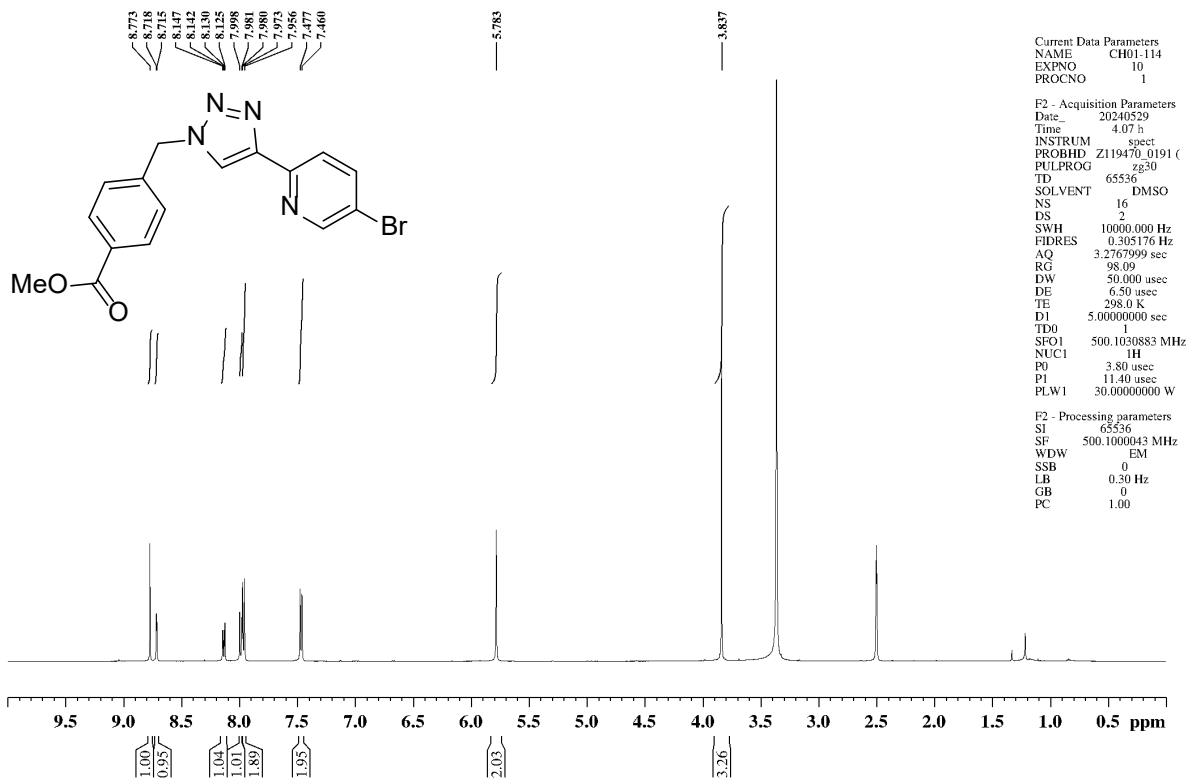
F2 - Acquisition Parameters
 Date 20240311
 Time 12.05 h
 INSTRUM Avance-4
 PROBHD Z172720_0001 (Z
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8196.721 Hz
 FIDRES 0.250144 Hz
 AQ 3.9976959 sec
 RG 101
 DW 61.000 usec
 DE 13.86 usec
 TE 297.8 K
 DI 3.00000000 sec
 TDO 1
 SFO1 400.1524709 MHz
 NUC1 1H
 P0 2.72 usec
 P1 8.16 usec
 PLW1 24.88999999 W

F2 - Processing parameters
 SI 131072
 SF 400.1500098 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

¹H and ¹³C NMR of 40 (400 MHz, DMSO-d₆):



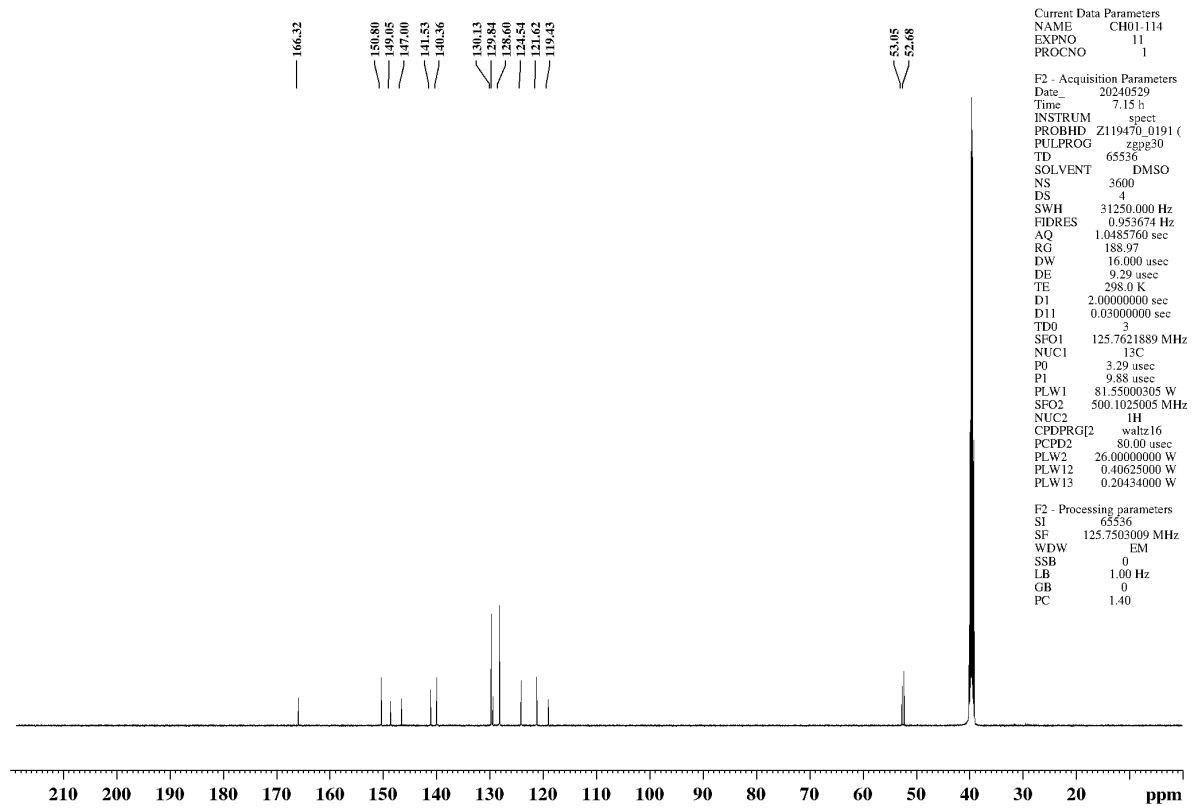
¹H and ¹³C NMR of 41 (500 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-114
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240529
 Time 4.07 h
 INSTRUM spect
 PROBHD Z119470_0191 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.305176 Hz
 AQ 3.2767999 sec
 RG 98.09
 DW 50.000 usec
 DE 6.50 usec
 TE 298.0 K
 D1 5.0000000 sec
 TD0 1
 SFO1 500.1030883 MHz
 NUC1 1H
 P0 3.80 usec
 P1 11.40 usec
 PLW1 30.00000000 W

F2 - Processing parameters
 SI 65536
 SF 500.1000043 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

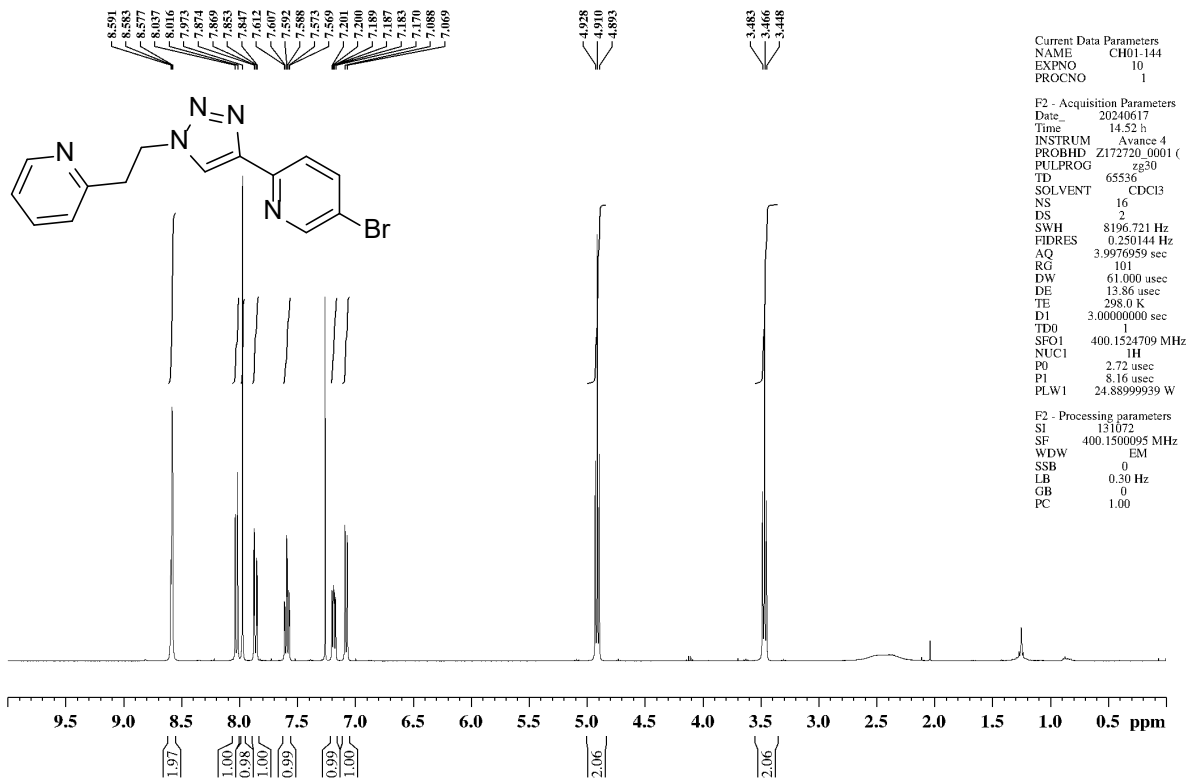


Current Data Parameters
 NAME CH01-114
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240529
 Time 7.15 h
 INSTRUM spect
 PROBHD Z119470_0191 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 3600
 DS 4
 SWH 31250.000 Hz
 FIDRES 0.953674 Hz
 AQ 1.0485760 sec
 RG 188.97
 DW 16.000 usec
 DE 9.29 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 TD0 3
 SFO1 125.7621889 MHz
 NUC1 13C
 P0 3.29 usec
 P1 9.88 usec
 PLW1 81.55000005 W
 SFO2 500.1025005 MHz
 NUC2 1H
 CPDPRG2 walz16
 PCPD2 80.00 usec
 PLW2 26.00000000 W
 PLW12 0.40625000 W
 PLW13 0.20434000 W

F2 - Processing parameters
 SI 65536
 SF 125.7503009 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

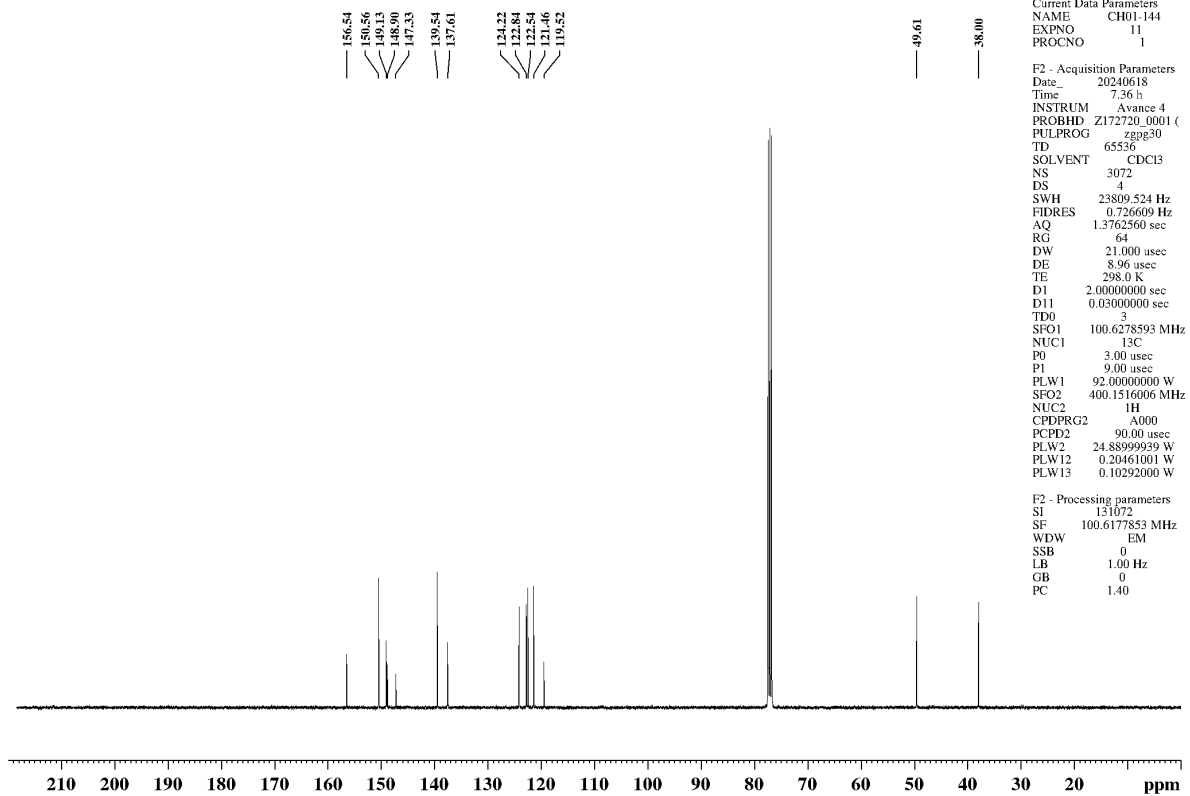
¹H and ¹³C NMR of 42 (400 MHz, CDCl₃):



Current Data Parameters
 NAME CH01-144
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240617
 Time 14.52 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 ()
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8196.721 Hz
 FIDRES 0.250144 Hz
 AQ 3.9976959 sec
 RG 101
 DW 61.000 usec
 DE 13.86 usec
 TE 298.0 K
 D1 3.00000000 sec
 TD0
 SFO1 400.1524709 MHz
 NUC1 ¹H
 P0 2.72 usec
 PL 8.16 usec
 PLW1 24.88999939 W

F2 - Processing parameters
 SI 131072
 SF 400.1500095 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 9
 PC 1.00

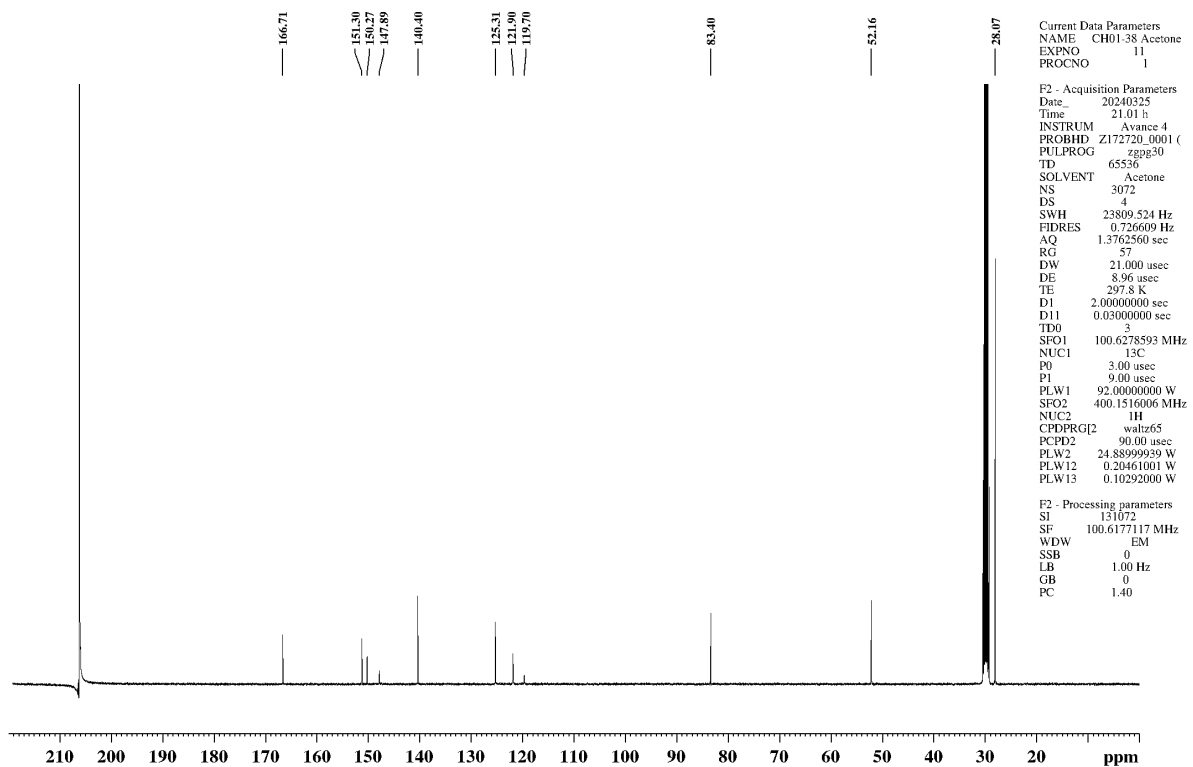
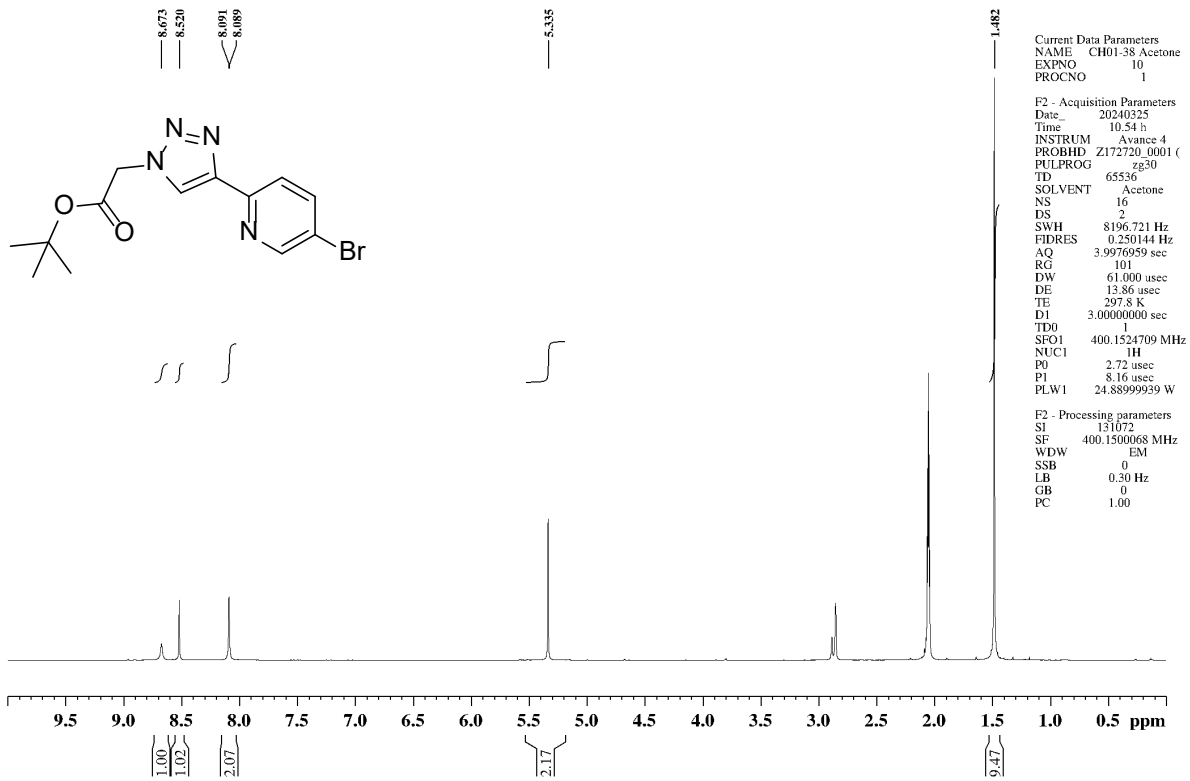


Current Data Parameters
 NAME CH01-144
 EXPNO 11
 PROCNO 1

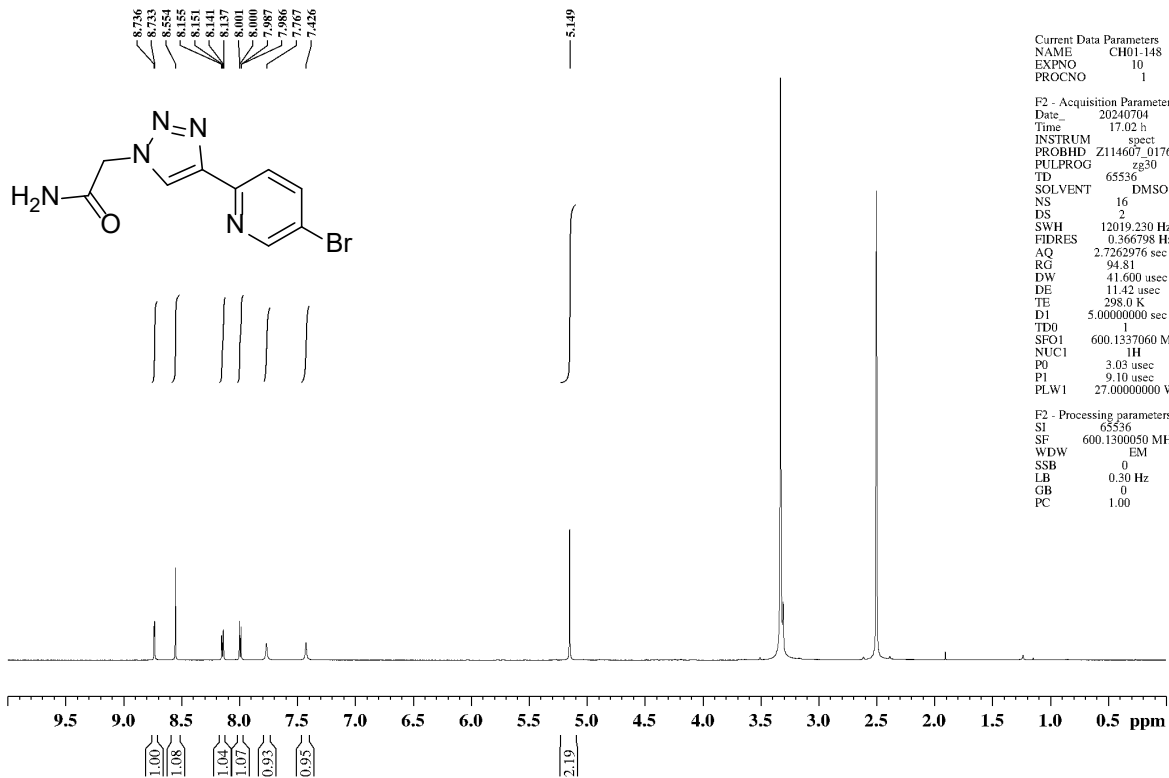
F2 - Acquisition Parameters
 Date_ 20240618
 Time 7.26 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 3072
 DS 4
 SWH 23809.524 Hz
 FIDRES 0.726609 Hz
 AQ 1.3762560 sec
 RG 64
 DW 21.000 usec
 DE 8.96 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0
 SFO1 100.6278593 MHz
 NUC1 ¹³C
 P0 3.00 usec
 PL 9.00 usec
 PLW1 92.00000000 W
 SFO2 400.1516006 MHz
 NUC2 ¹H
 CPDPRG2 A000
 PCPD2 90.00 usec
 PLW2 24.88999939 W
 PLW12 0.20461001 W
 PLW13 0.10292000 W

F2 - Processing parameters
 SI 131072
 SF 100.6177853 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

¹H and ¹³C NMR of 43 (400 MHz, (CD₃)₂CO):



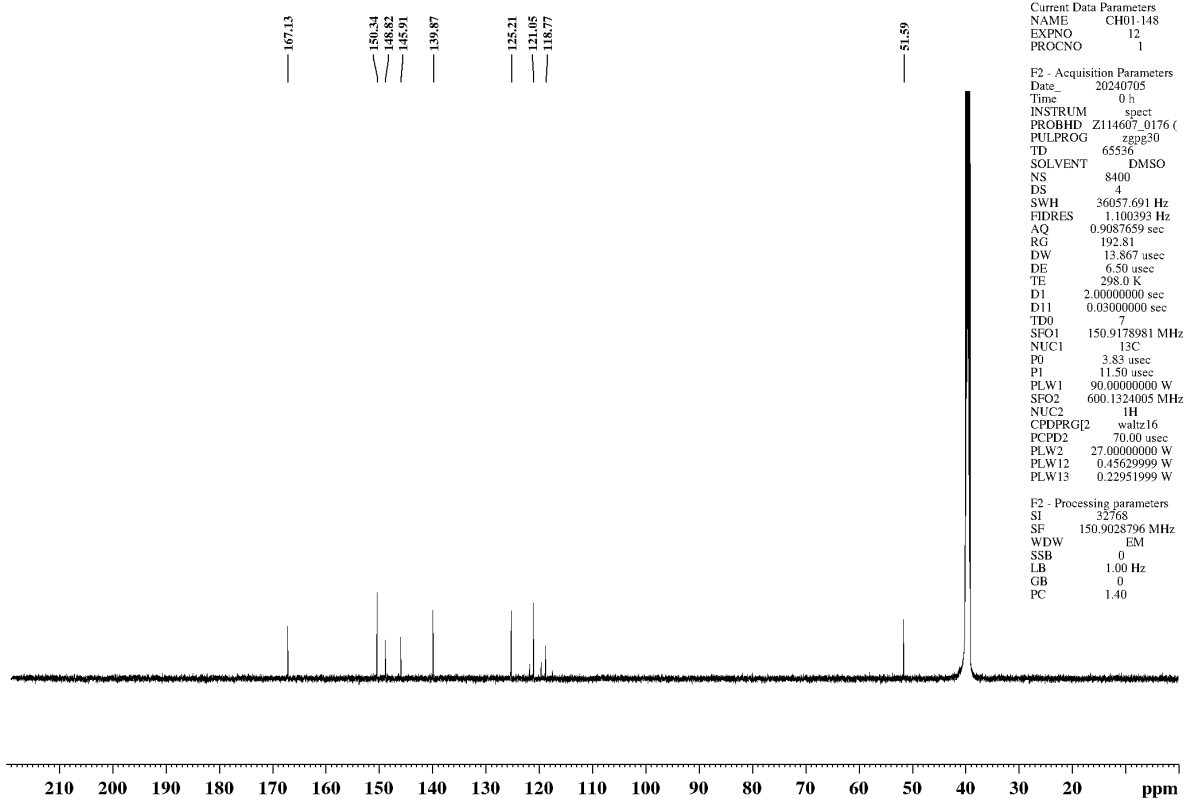
¹H and ¹³C NMR of 44 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-148
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240704
 Time 17.02 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 94.81
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.00000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 ¹H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1330050 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

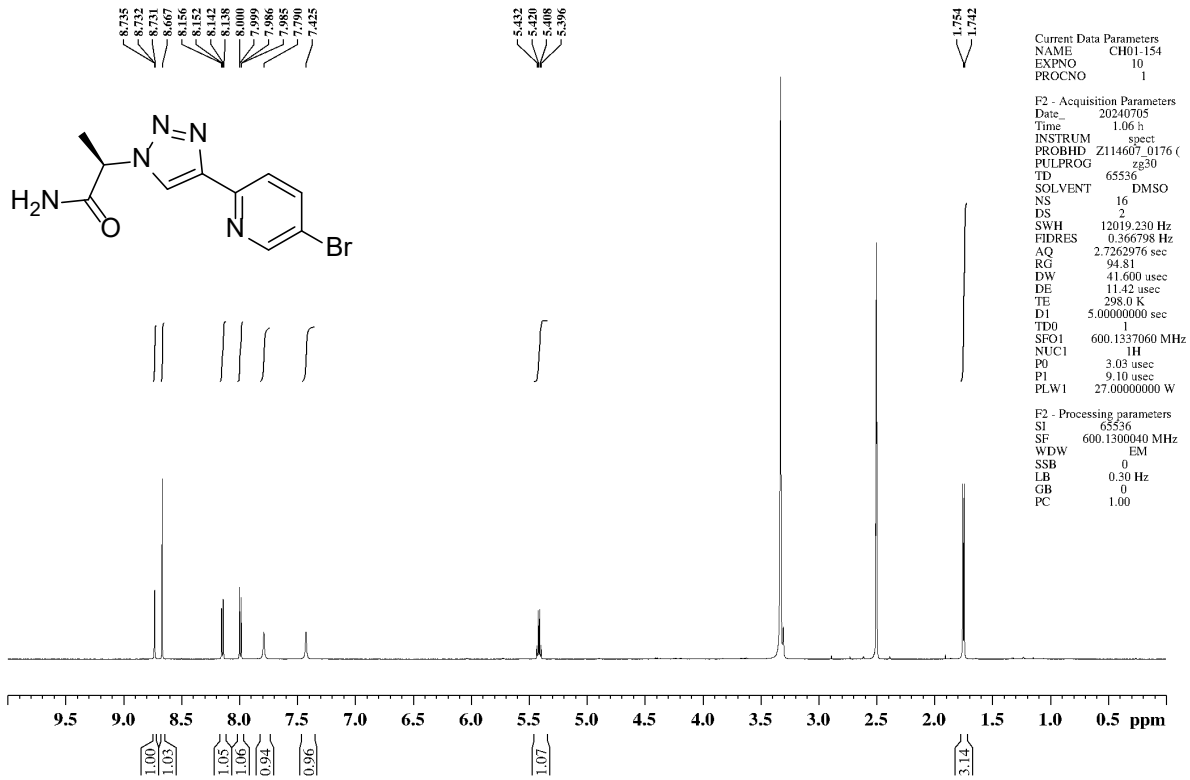


Current Data Parameters
 NAME CH01-148
 EXPNO 12
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240705
 Time 0 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 8400
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 7
 SFO1 150.9178981 MHz
 NUC1 ¹³C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 ¹H
 CPDPRG2 walz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028796 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

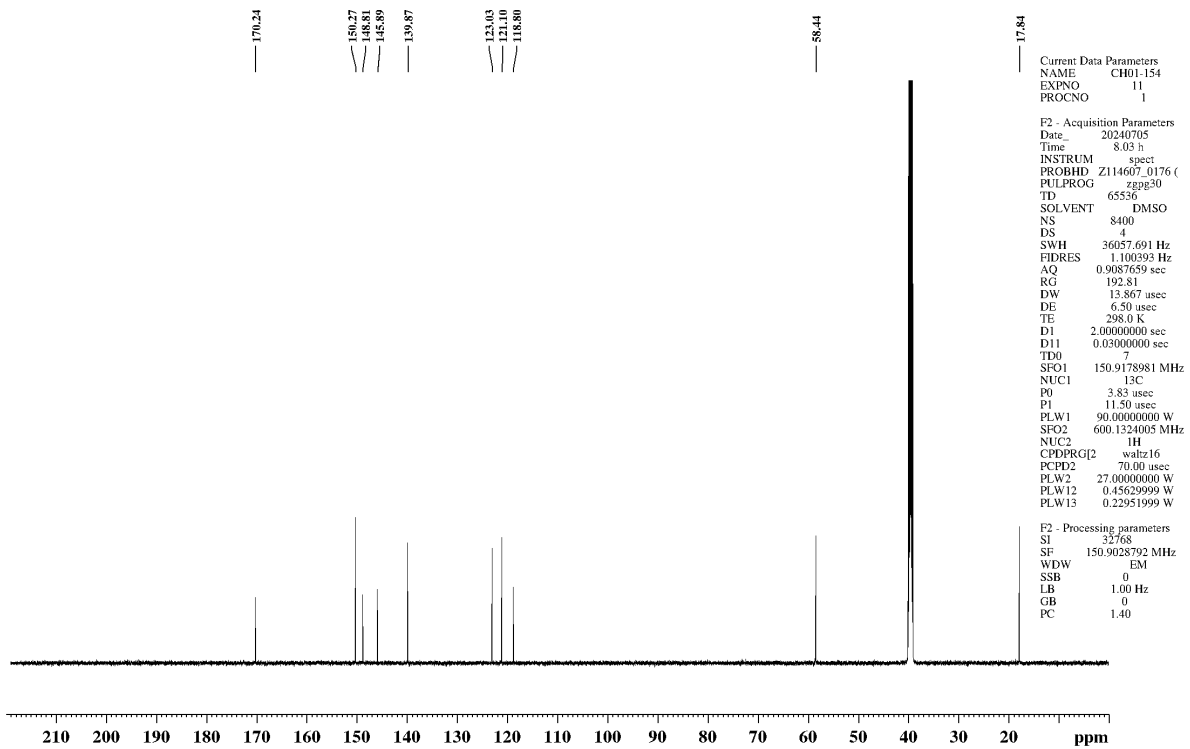
¹H and ¹³C NMR of 45 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-154
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240705
 Time 1.06 h
 INSTRUM spect
 PROBHD Z114607.0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 94.81
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.00000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 ¹H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300040 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

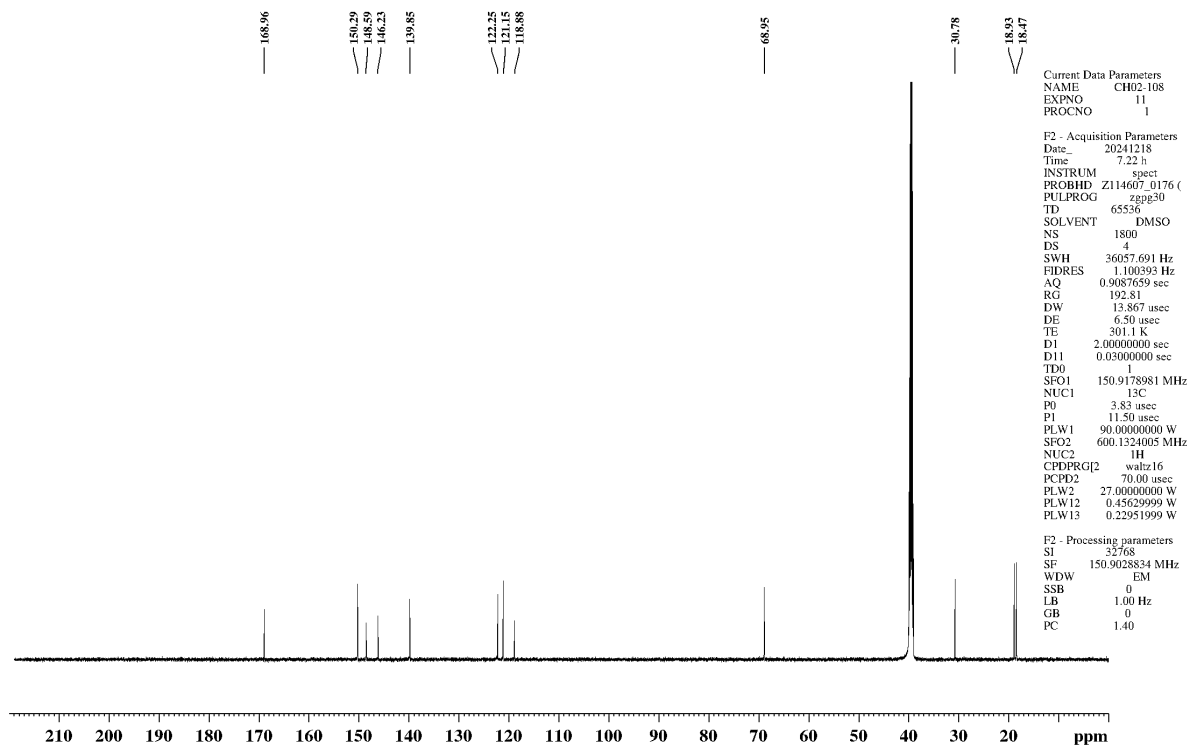
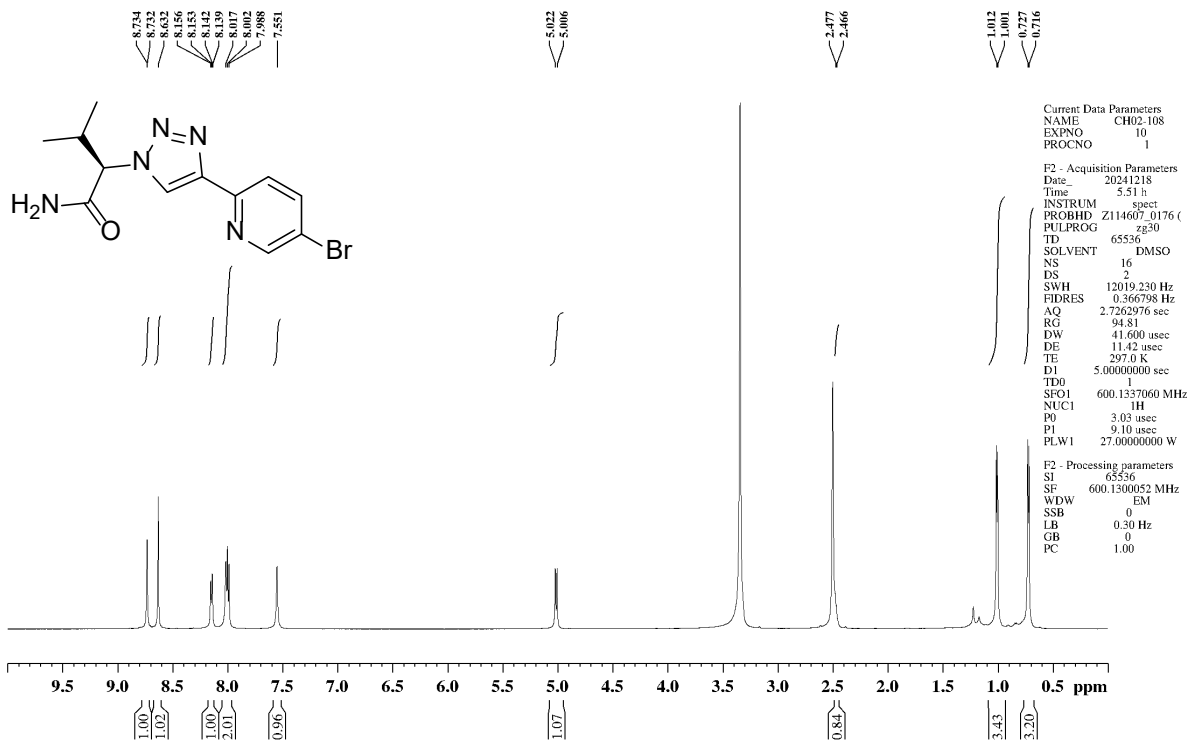


Current Data Parameters
 NAME CH01-154
 EXPNO 11
 PROCNO 1

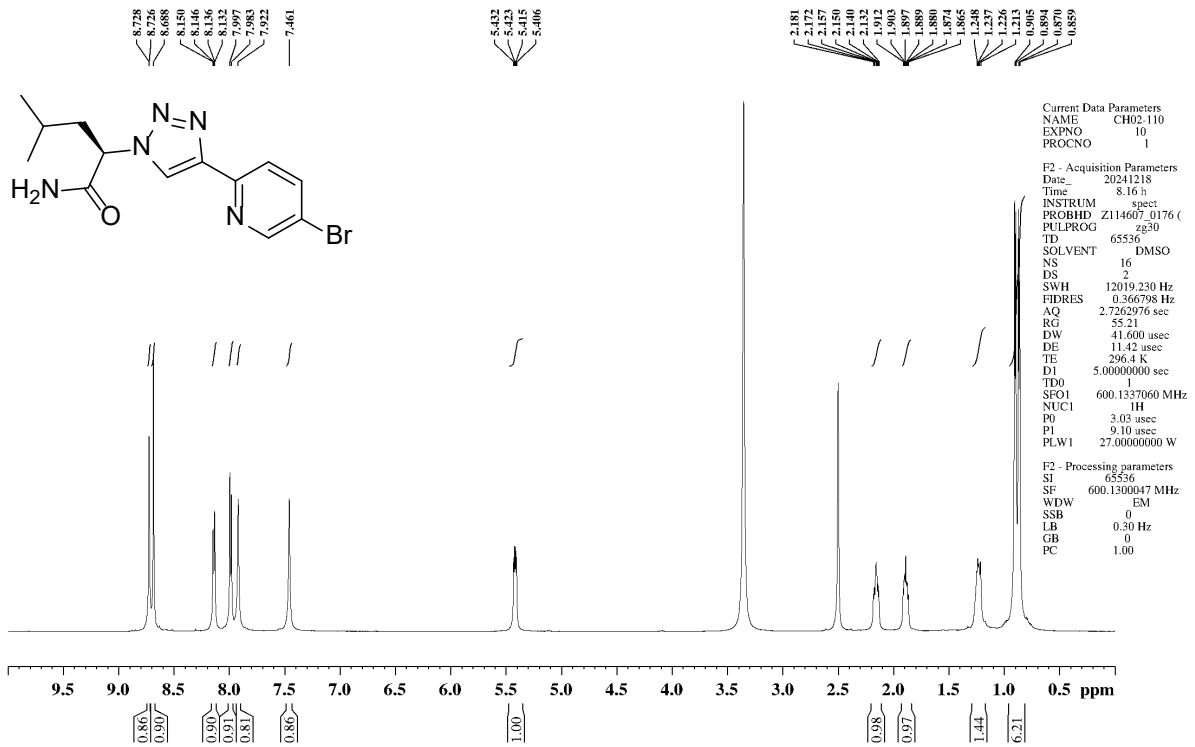
F2 - Acquisition Parameters
 Date_ 20240705
 Time 8.03 h
 INSTRUM spect
 PROBHD Z114607.0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 8400
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 7
 SFO1 150.9178981 MHz
 NUC1 ¹³C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 ¹H
 CPDPRG2 waltz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 33768
 SF 150.9028792 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

¹H and ¹³C NMR of 46 (600 MHz, DMSO-d₆):



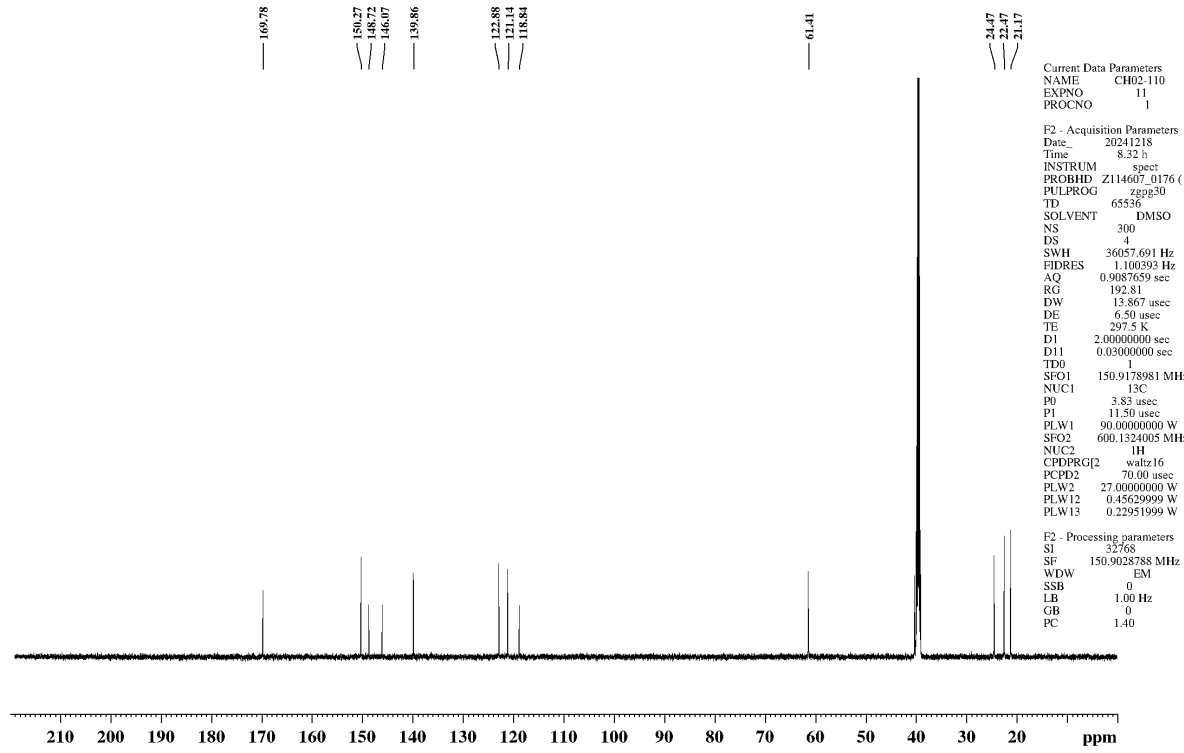
¹H and ¹³C NMR of 47 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH02-110
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20241218
 Time 8.16 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 55.21
 DW 41.600 usec
 DE 11.42 usec
 TE 296.4 K
 D1 5.00000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 ¹H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300047 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

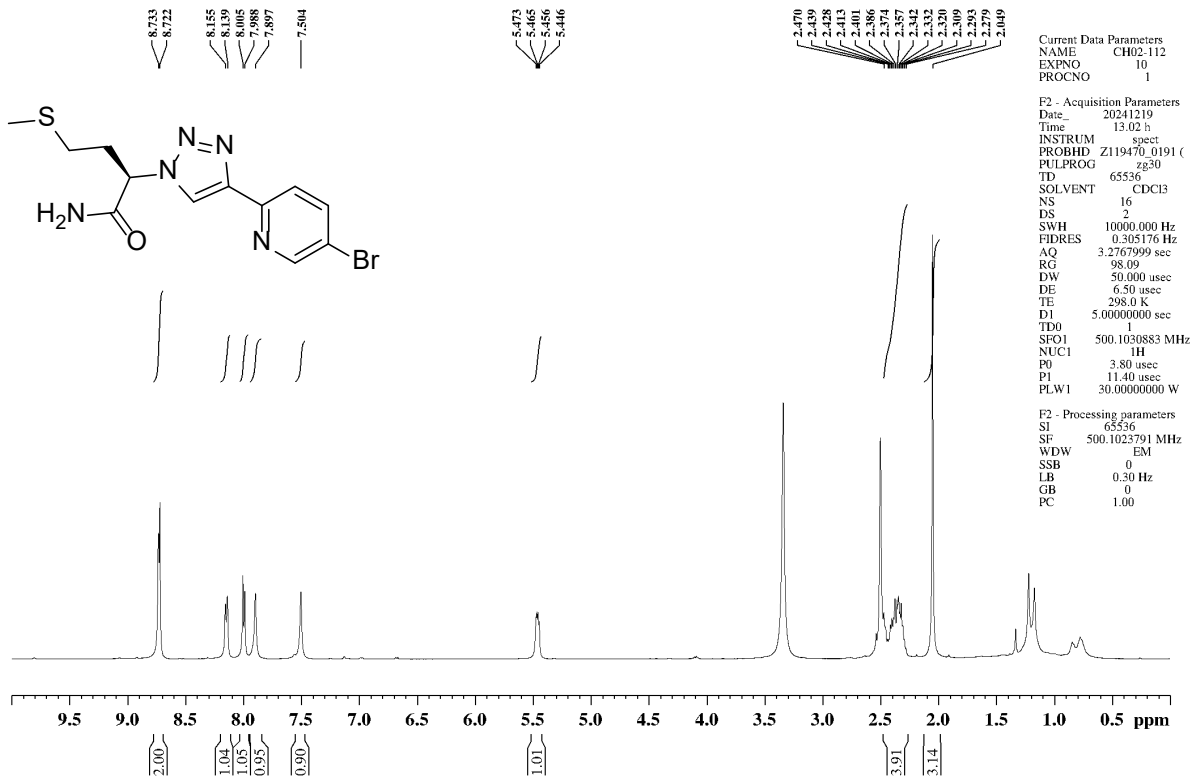


Current Data Parameters
 NAME CH02-110
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20241218
 Time 8.52 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 300
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 297.5 K
 D1 2.00000000 sec
 D11 0.05000000 sec
 TD0 1
 SFO1 150.9178981 MHz
 NUC1 ¹³C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 ¹H
 CPDPRG2 waltz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028788 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

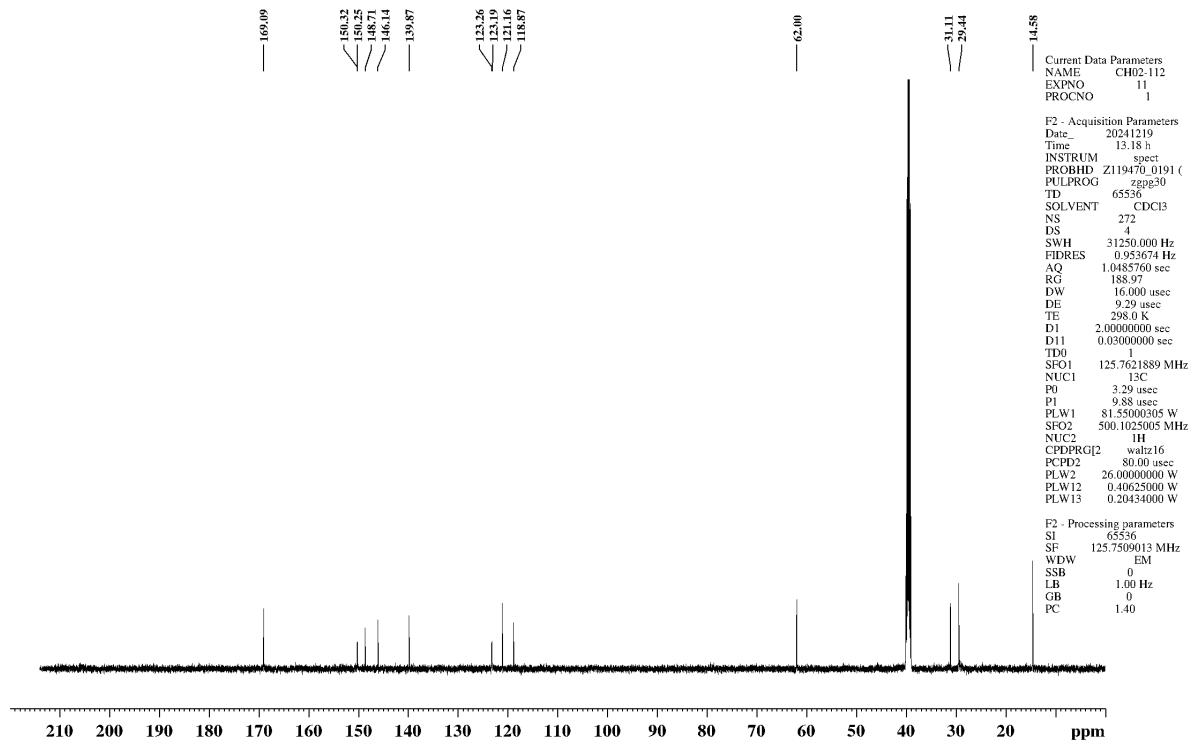
¹H and ¹³C NMR of 48 (500 MHz, DMSO-d₆):



Current Data Parameters
 NAME: CH02-112
 EXPNO: 10
 PROCNO: 1

F2 - Acquisition Parameters
 Date_: 20241219
 Time: 13.02 h
 INSTRUM: spect
 PROBHD: Z119470_0191 ()
 PULPROG: zg30
 TD: 65536
 SOLVENT: CDCl3
 NS: 16
 DS: 2
 SWH: 10000.000 Hz
 FIDRES: 0.305176 Hz
 AQ: 3.2767999 sec
 RG: 98.09
 DW: 50.000 usec
 DE: 6.50 usec
 TE: 298.0 K
 D1: 5.0000000 sec
 TD0: 1
 SFO1: 500.1030883 MHz
 NUC1: ¹H
 P0: 3.80 usec
 P1: 11.40 usec
 PLW1: 30.0000000 W

F2 - Processing parameters
 SI: 65536
 SF: 500.1023791 MHz
 WDW: EM
 SSB: 0
 LB: 0.30 Hz
 GB: 0
 PC: 1.00

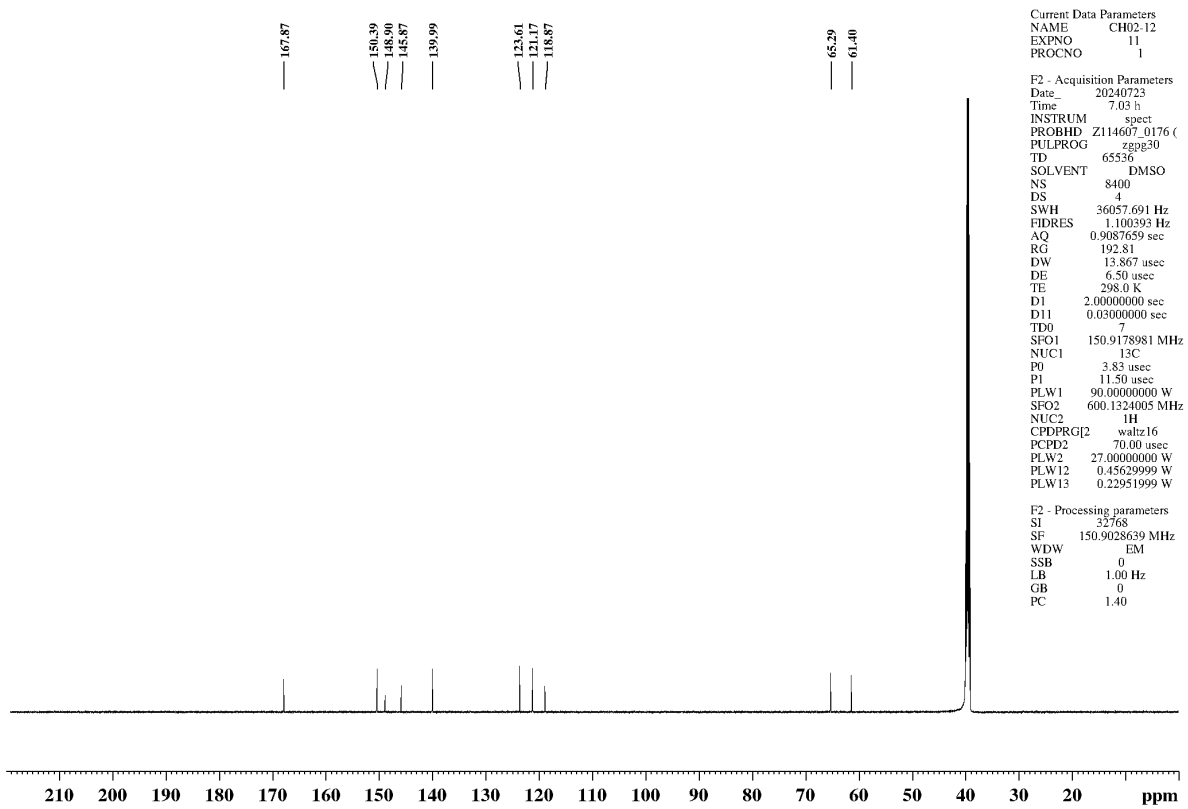
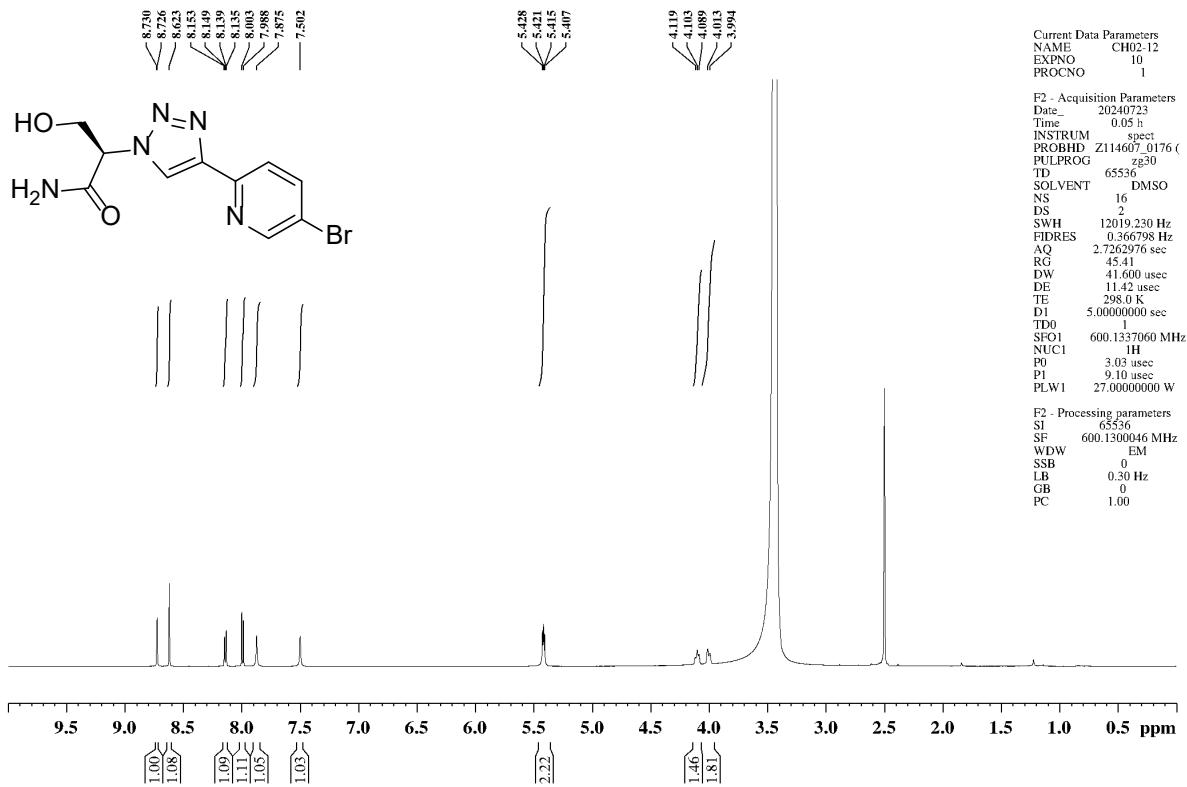


Current Data Parameters
 NAME: CH02-112
 EXPNO: 11
 PROCNO: 1

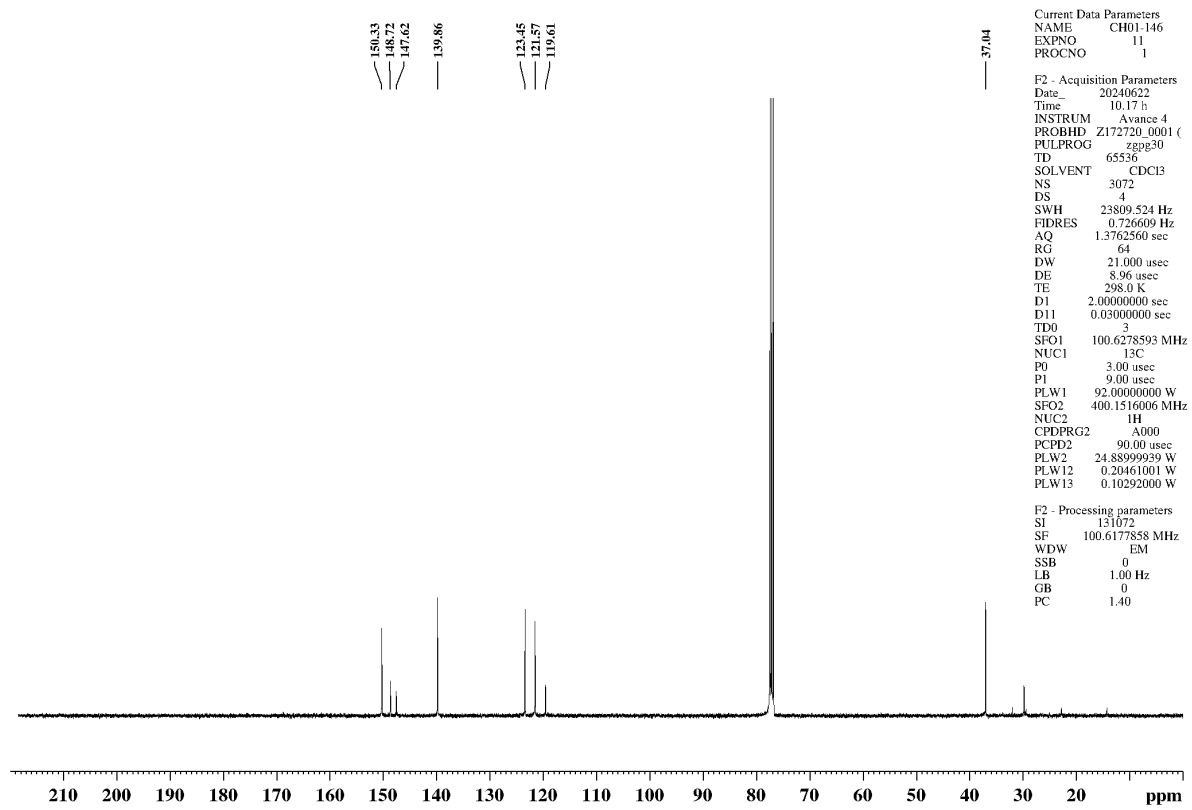
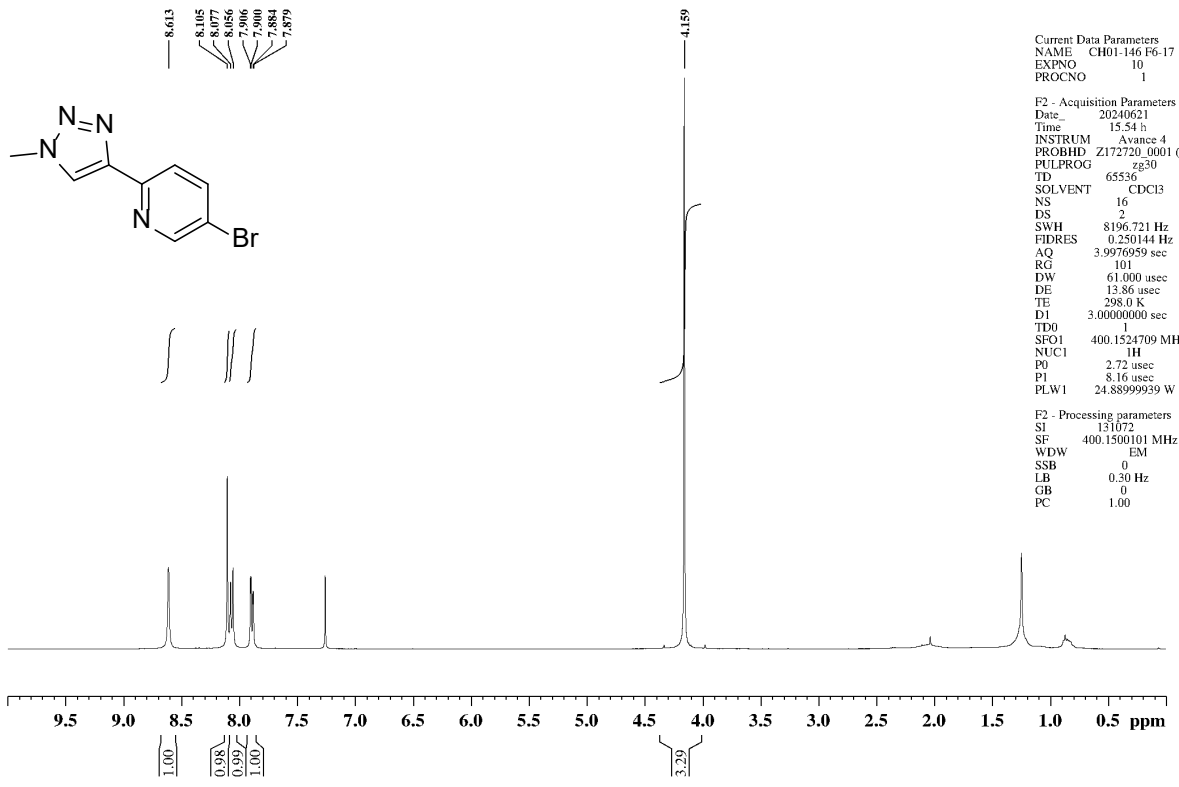
F2 - Acquisition Parameters
 Date_: 20241219
 Time: 13.18 h
 INSTRUM: spect
 PROBHD: Z119470_0191 ()
 PULPROG: zgpg30
 TD: 65536
 SOLVENT: CDCl3
 NS: 272
 DS: 4
 SWH: 31250.000 Hz
 FIDRES: 0.953674 Hz
 AQ: 1.0485760 sec
 RG: 188.97
 DW: 16.000 usec
 DE: 9.29 usec
 TE: 298.0 K
 D1: 2.0000000 sec
 D11: 0.0300000 sec
 TD0: 1
 SFO1: 125.7621889 MHz
 NUC1: ¹³C
 P0: 3.29 usec
 P1: 9.88 usec
 PLW1: 81.55000305 W
 SFO2: 500.1025005 MHz
 NUC2: ¹H
 CPDPRG2: waltz16
 PCPD2: 80.00 usec
 PLW2: 26.00000000 W
 PLW12: 0.40625000 W
 PLW13: 0.20434000 W

F2 - Processing parameters
 SI: 65536
 SF: 125.7309013 MHz
 WDW: EM
 SSB: 0
 LB: 1.00 Hz
 GB: 0
 PC: 1.40

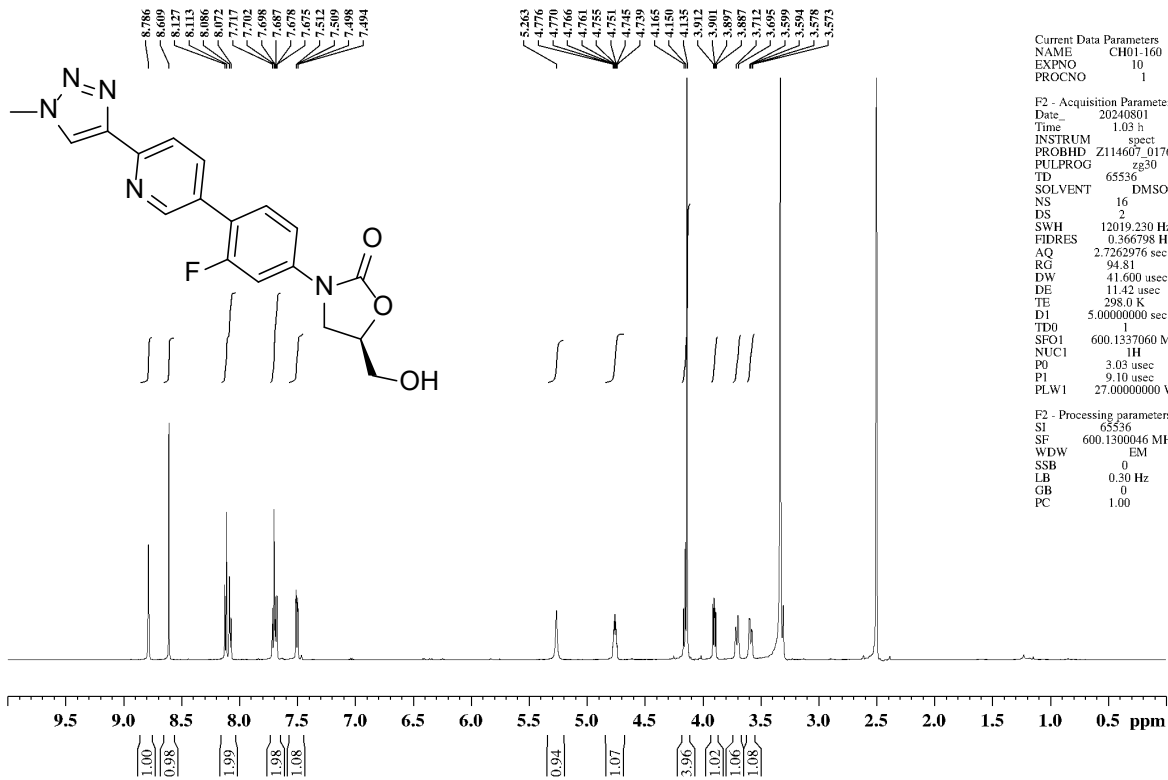
¹H and ¹³C NMR of 49 (600 MHz, DMSO-d₆):



¹H and ¹³C NMR of 50 (400 MHz, CDCl₃):



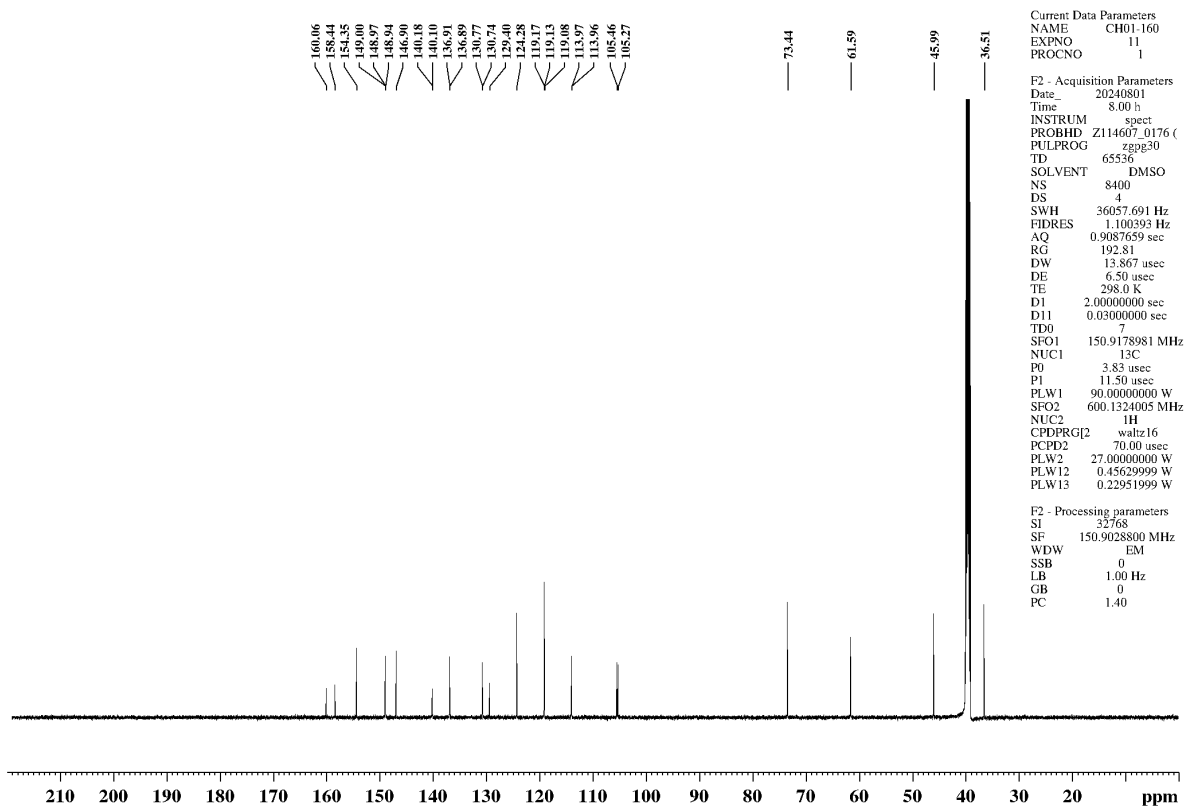
¹H and ¹³C NMR of 3 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-160
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240801
 Time 1.03 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 94.81
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.00000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 ¹H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300046 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

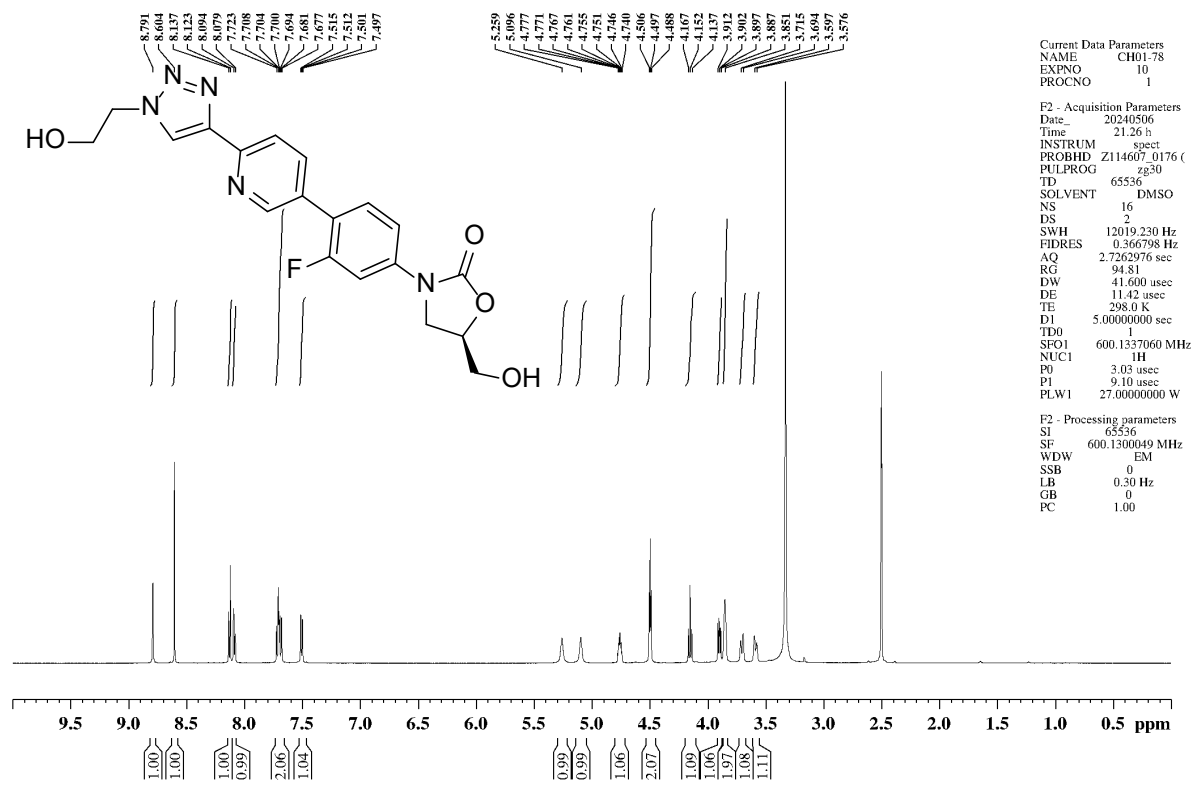


Current Data Parameters
 NAME CH01-160
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240801
 Time 8.00 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 8400
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 7
 SFO1 150.9178981 MHz
 NUC1 ¹³C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 ¹H
 CPDPRG2 waltz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028800 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

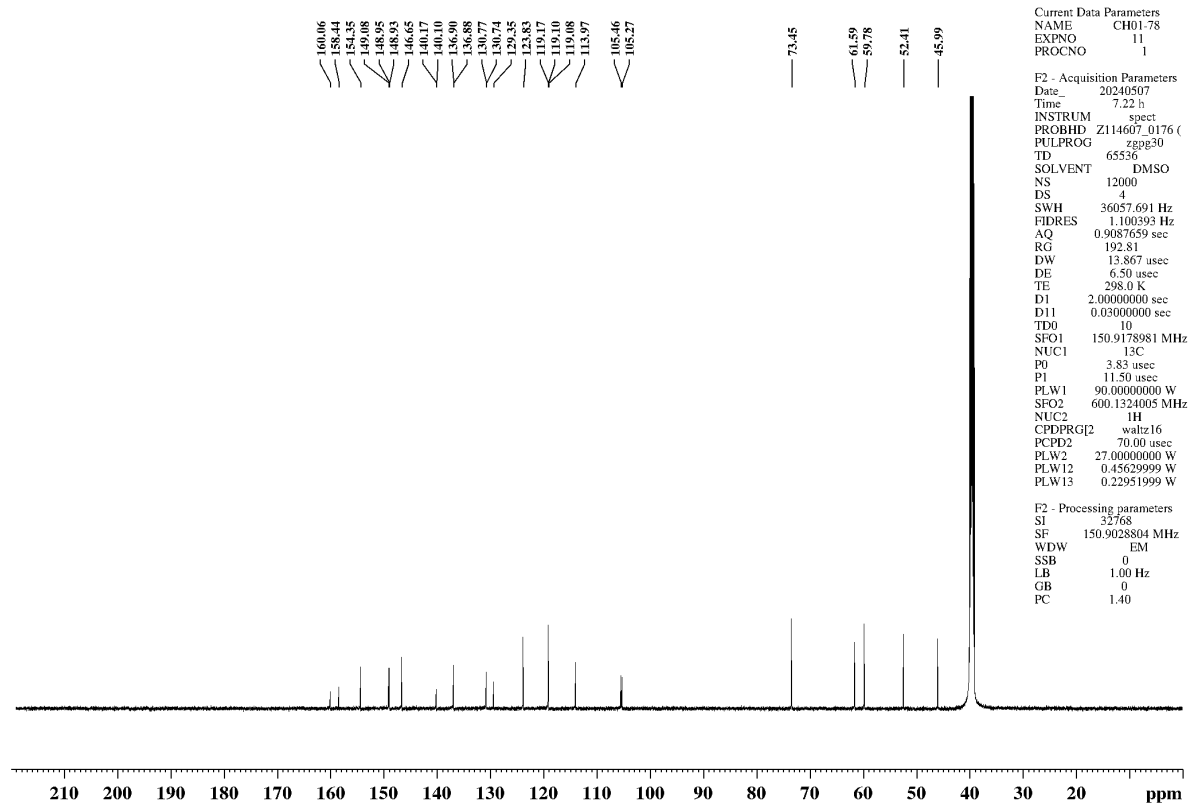
¹H and ¹³C NMR of 4 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-78
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240506
 Time 21.26 h
 INSTRUM spect
 PROBHD Z114607_0176 (Z
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 94.81
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.0000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 ¹H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300049 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

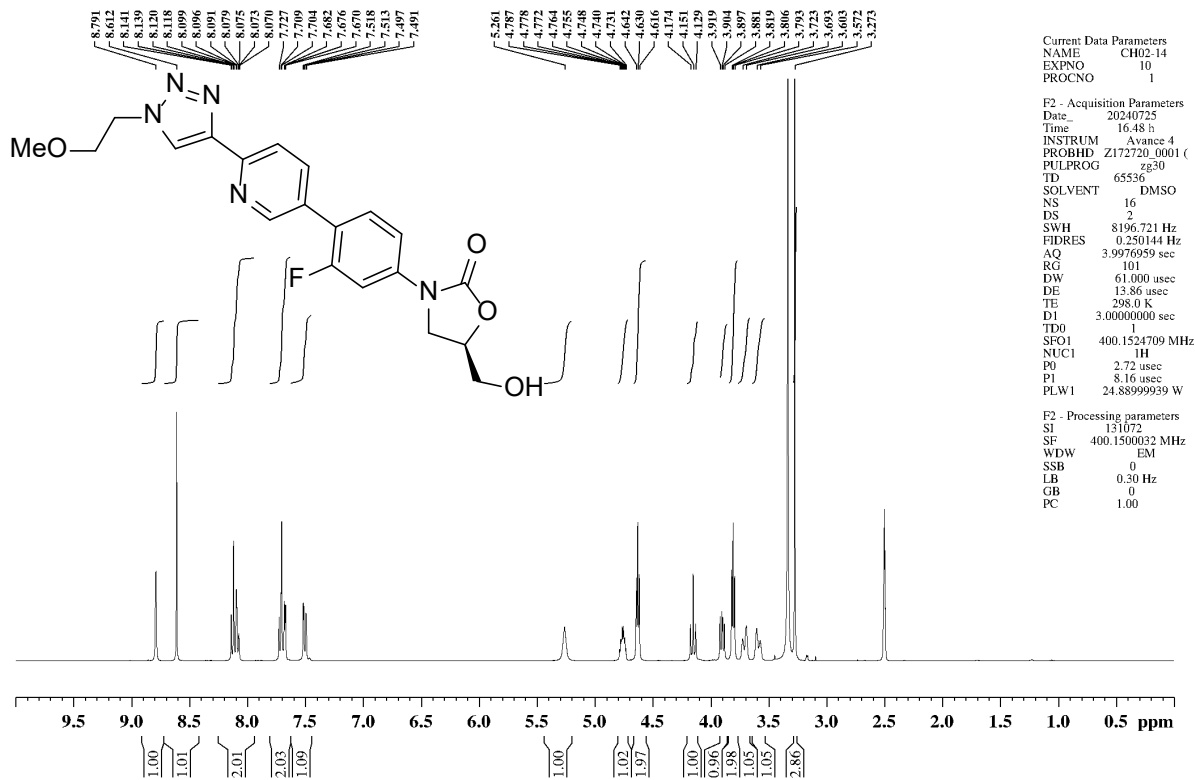


Current Data Parameters
 NAME CH01-78
 EXPNO 11
 PROCNO 1

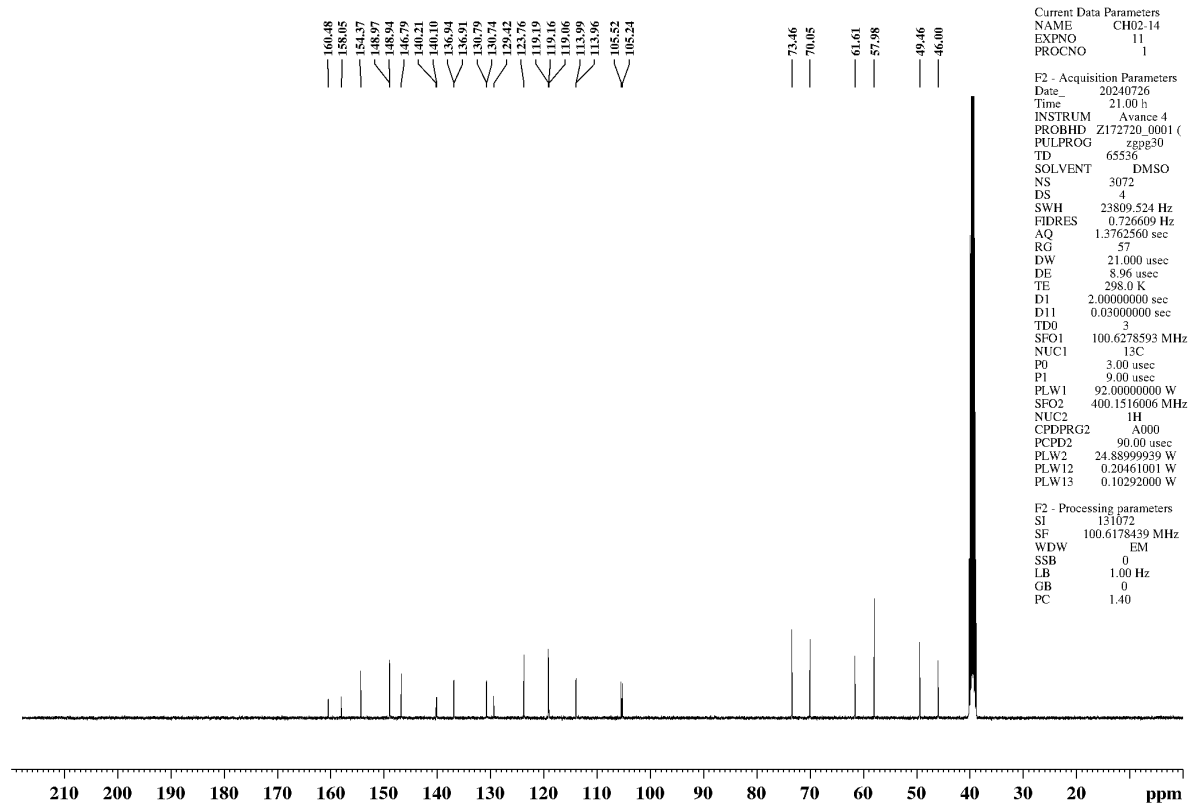
F2 - Acquisition Parameters
 Date_ 20240507
 Time 7.22 h
 INSTRUM spect
 PROBHD Z114607_0176 (Z
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 12000
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 10
 SFO1 150.9178981 MHz
 NUC1 ¹³C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 ¹H
 CPDPRG2 waltz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028804 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

¹H and ¹³C NMR of 5 (400 MHz, DMSO-d₆):

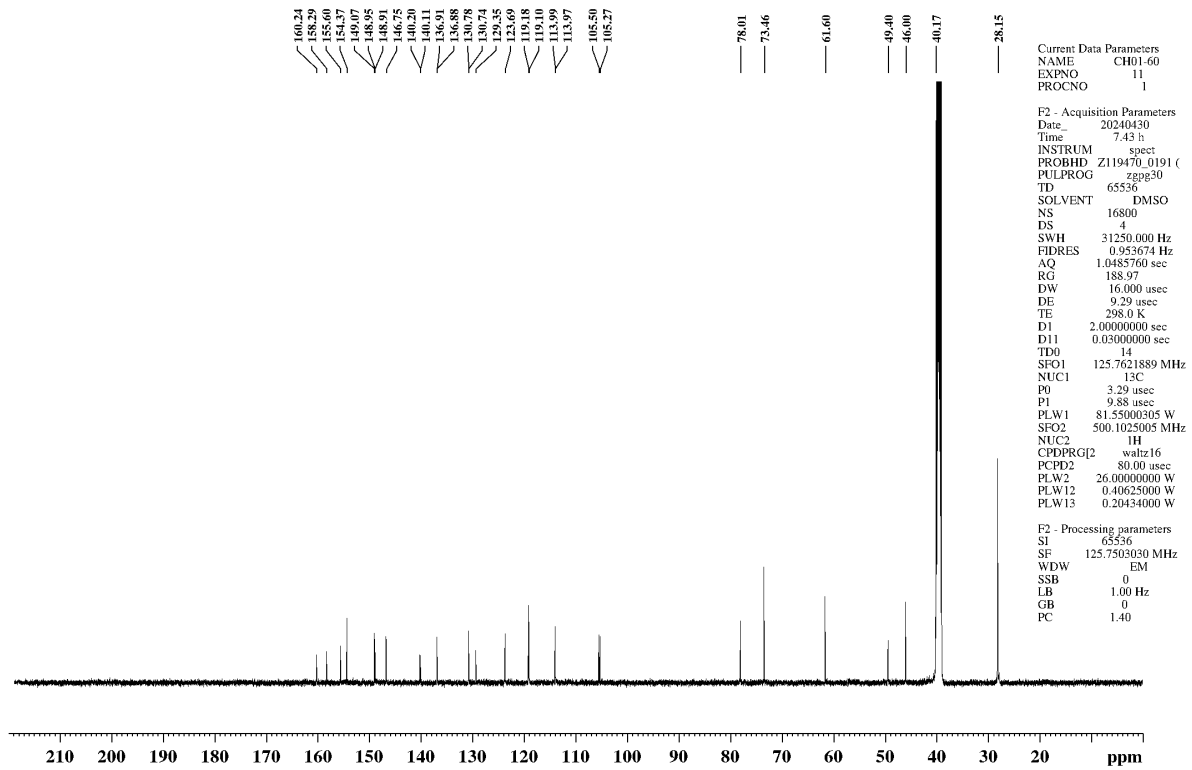
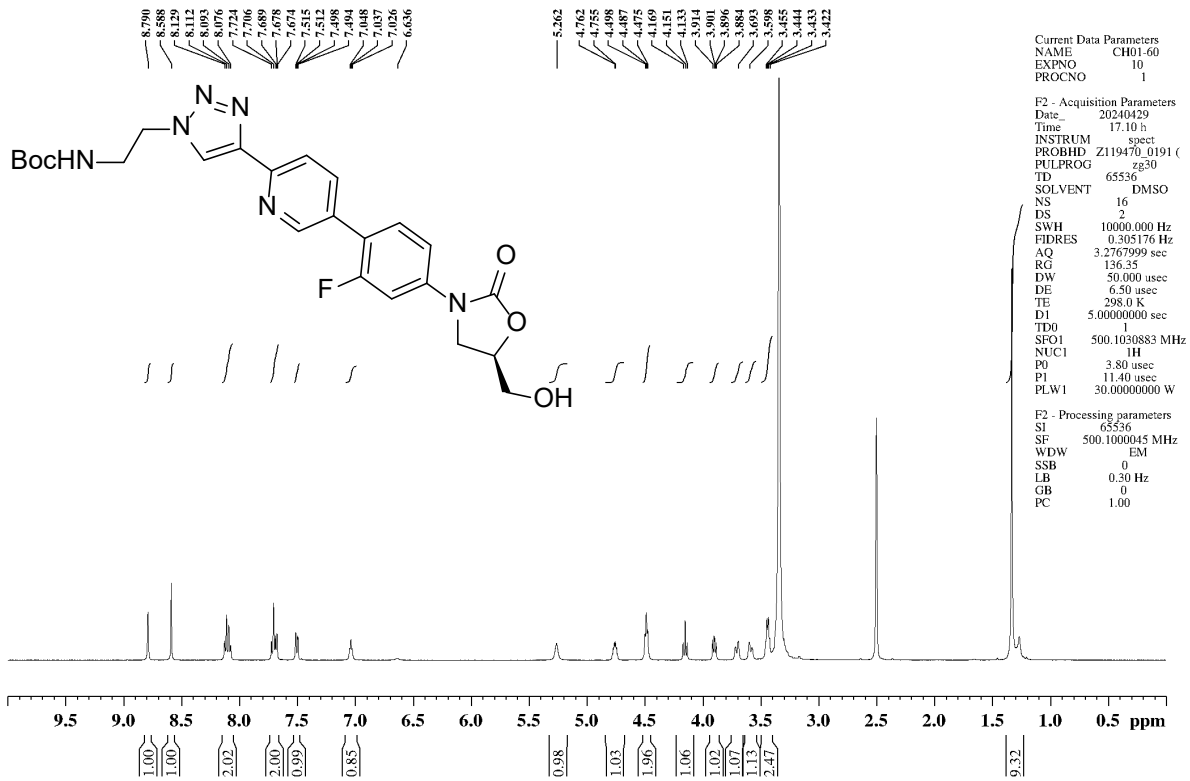


Current Data Parameters
 NAME CH02-14
 EXPNO 10
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20240725
 Time 16.48 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (Z)
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 8196.721 Hz
 FIDRES 0.250144 Hz
 AQ 3.9976959 sec
 RG 101
 DW 61.000 usec
 DE 13.86 usec
 TE 298.0 K
 D1 3.0000000 sec
 TD0 1
 SFO1 400.1524709 MHz
 NUC1 1H
 P0 2.72 usec
 P1 8.16 usec
 PLW1 24.88999939 W
 F2 - Processing parameters
 SI 131072
 SF 400.1500032 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

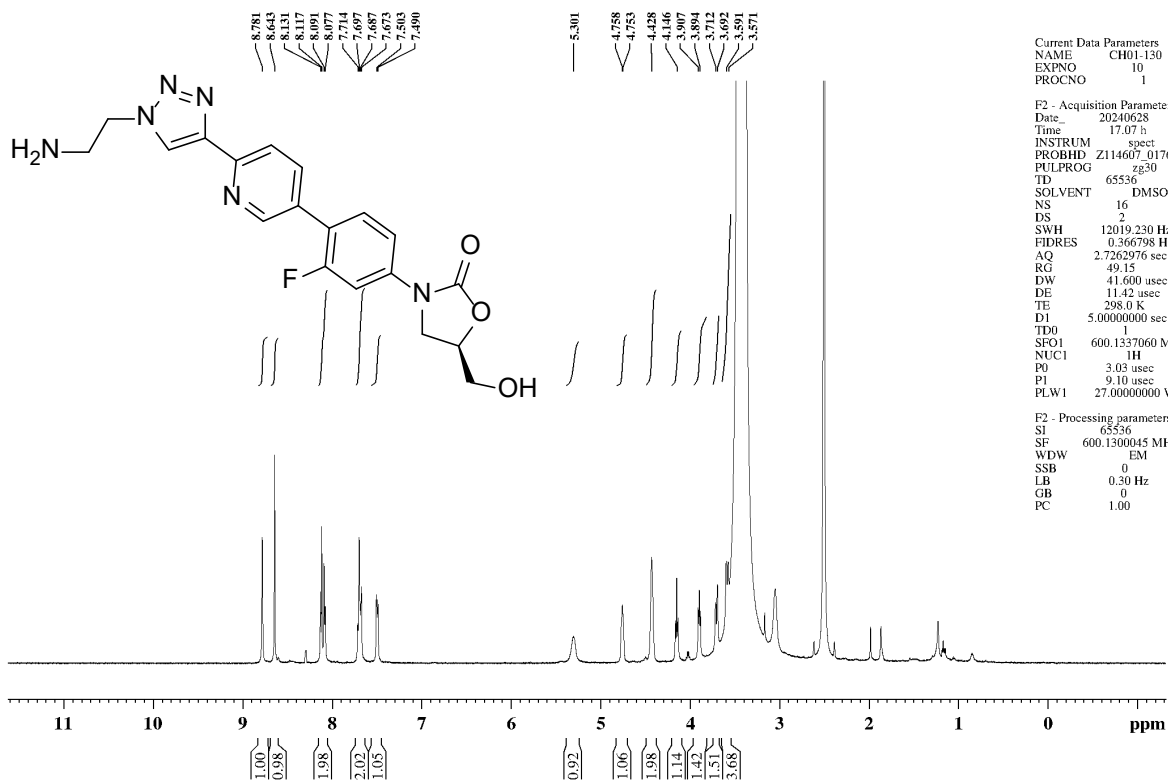


Current Data Parameters
 NAME CH02-14
 EXPNO 11
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20240726
 Time 21.00 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (Z)
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 3072
 DS 4
 SWH 23809.524 Hz
 FIDRES 0.726609 Hz
 AQ 1.3762560 sec
 RG 57
 DW 21.000 usec
 DE 8.96 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 3
 SFO1 100.6278593 MHz
 NUC1 13C
 P0 3.00 usec
 P1 9.00 usec
 PLW1 92.0000000 W
 SFO2 400.1516006 MHz
 NUC2 1H
 CPDPRG2 A000
 PCPD2 90.00 usec
 PLW2 24.88999939 W
 PLW12 0.20461001 W
 PLW13 0.10292000 W
 F2 - Processing parameters
 SI 131072
 SF 100.6178439 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

¹H and ¹³C NMR of Boc-protected 6 (500 MHz, DMSO-d₆):



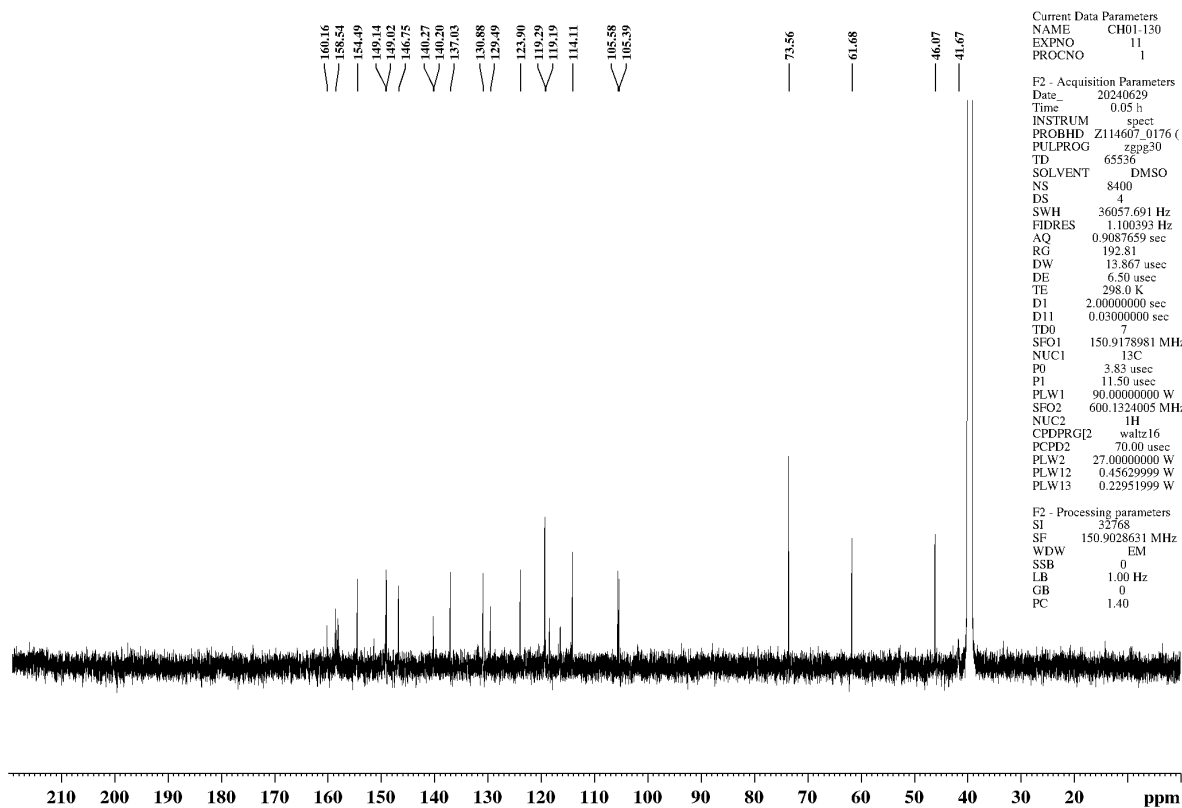
¹H and ¹³C (as TFA salt) NMR of 6 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-130
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240628
 Time 17.07 h
 INSTRUM spect
 PROBHD Z114607_0176 (Z)
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 49.15
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.00000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 1H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.0000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300045 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 9
 PC 1.00

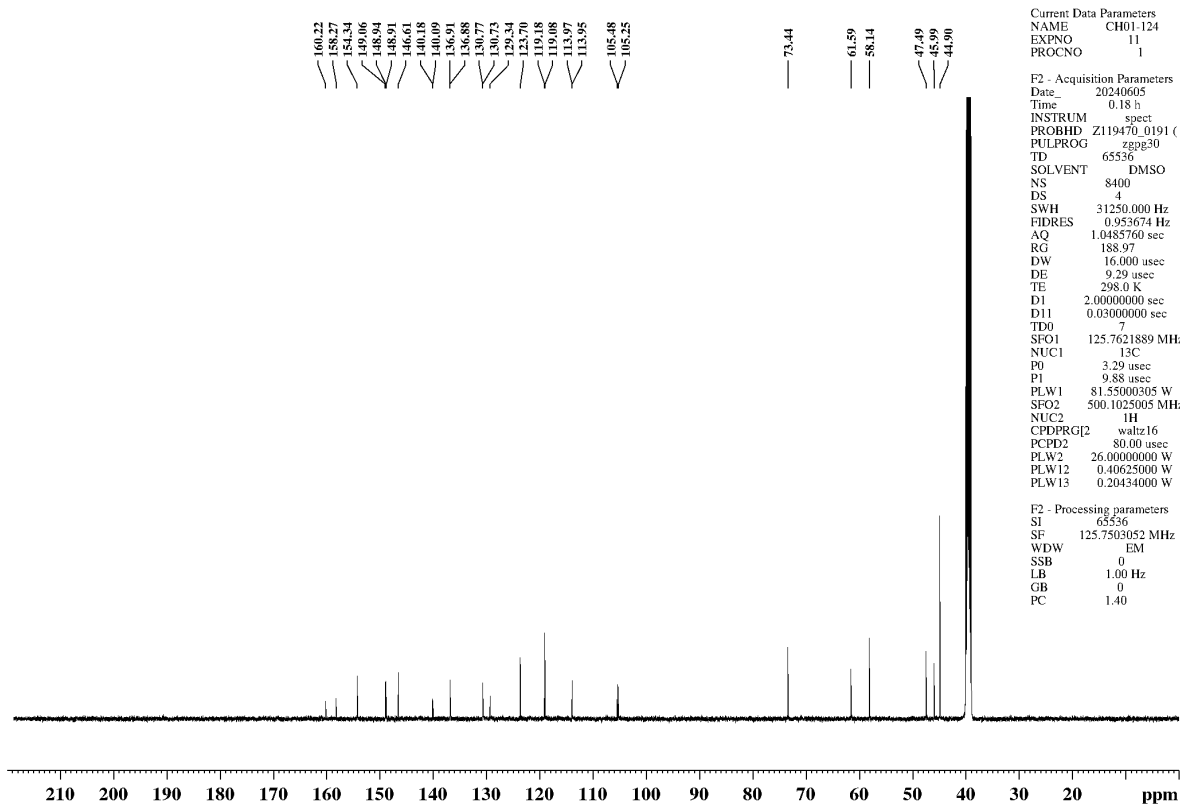
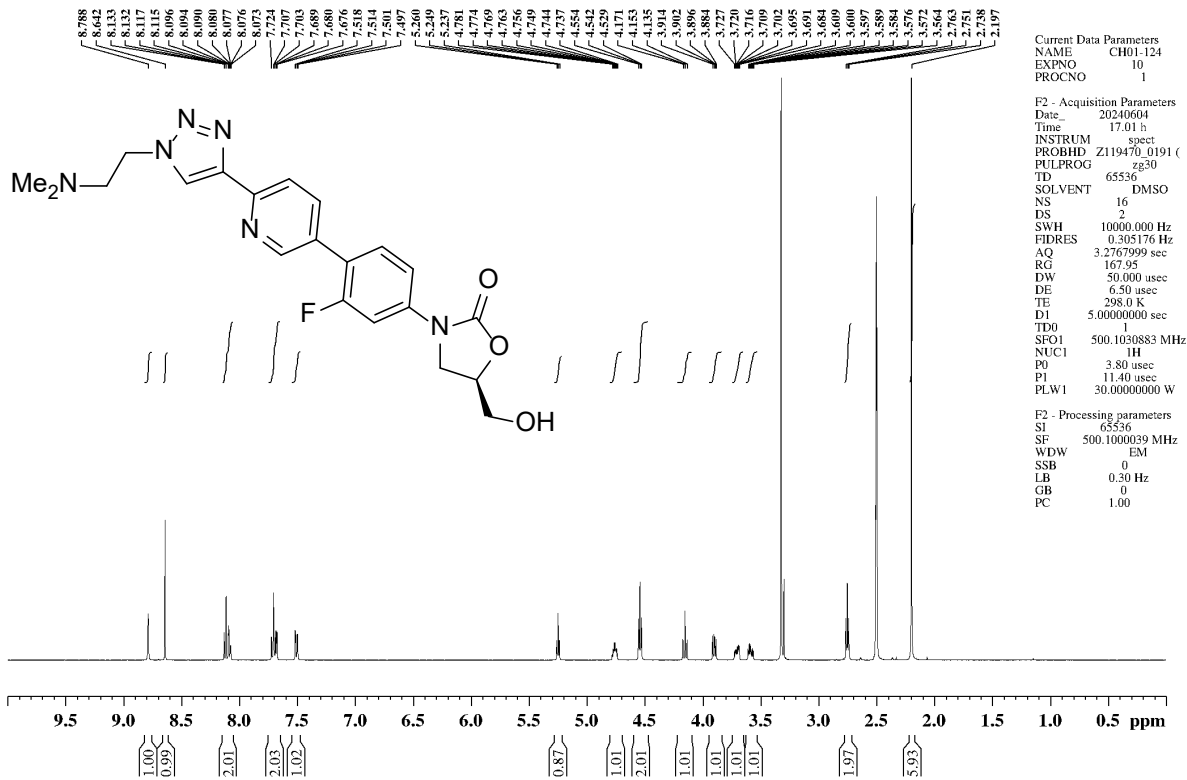


Current Data Parameters
 NAME CH01-130
 EXPNO 11
 PROCNO 1

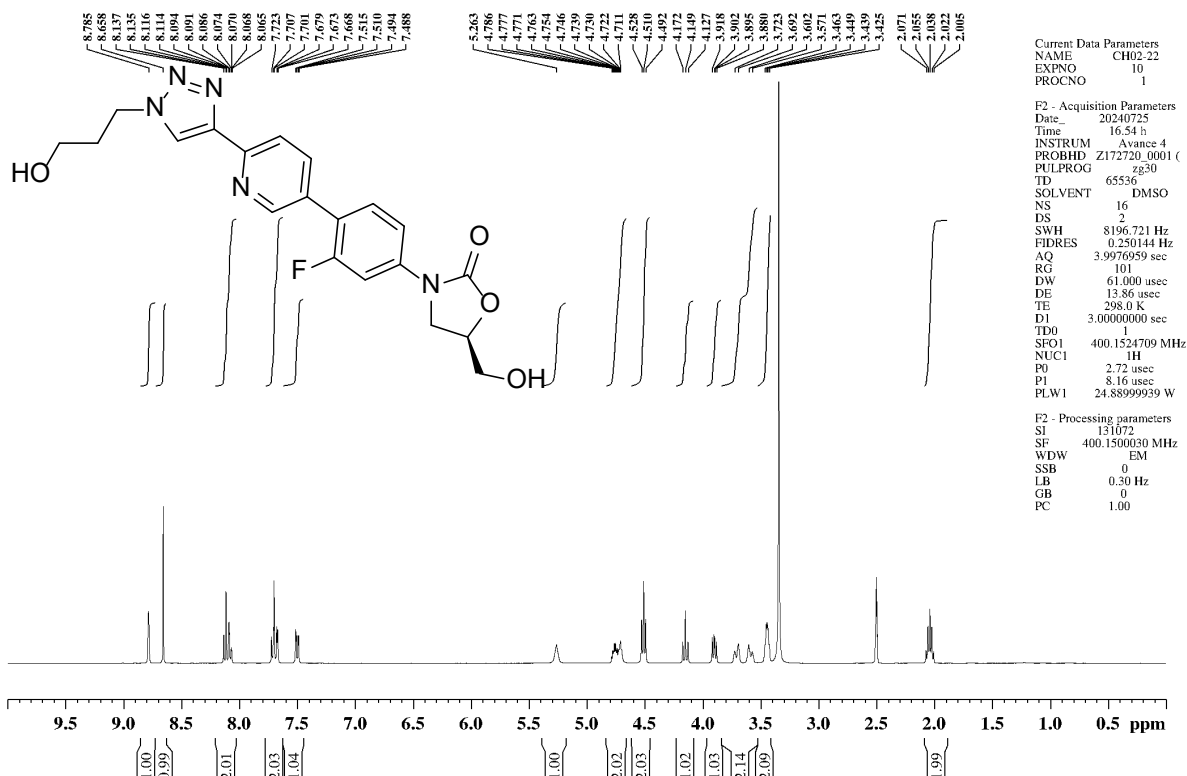
F2 - Acquisition Parameters
 Date_ 20240629
 Time 0.05 h
 INSTRUM spect
 PROBHD Z114607_0176 (Z)
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 8400
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 7
 SFO1 150.9178981 MHz
 NUC1 13C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.0000000 W
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 walz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028631 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

¹H and ¹³C NMR of 7 (500 MHz, DMSO-d₆):



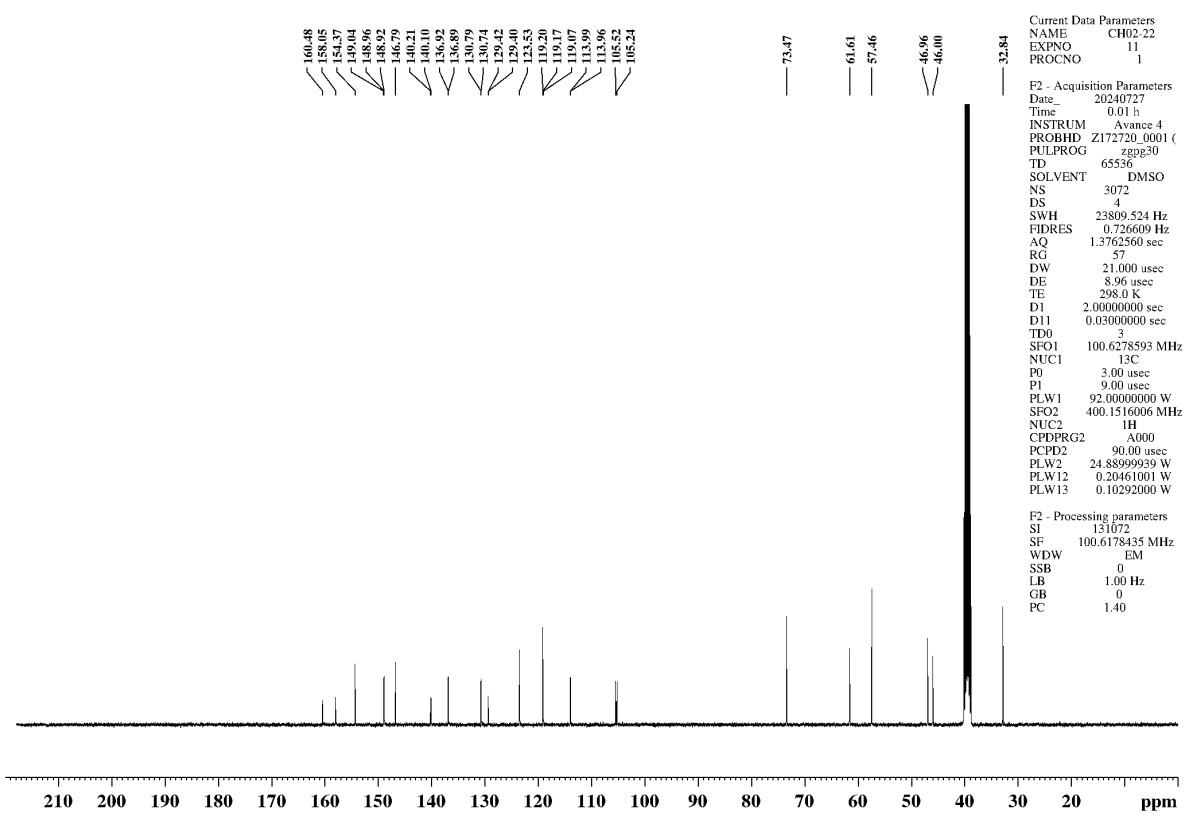
¹H and ¹³C NMR of 8 (400 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH02-22
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240725
 Time 16.54 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (C
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 8196.721 Hz
 FIDRES 0.250144 Hz
 AQ 3.9976959 sec
 RG 101
 DW 61.000 usec
 DE 13.86 usec
 TE 298.0 K
 D1 3.00000000 sec
 TD0
 SFO1 400.1524709 MHz
 NUC1 ¹H
 P0 2.72 usec
 P1 8.16 usec
 PLW1 24.88999939 W

F2 - Processing parameters
 SI 131072
 SF 400.1500030 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

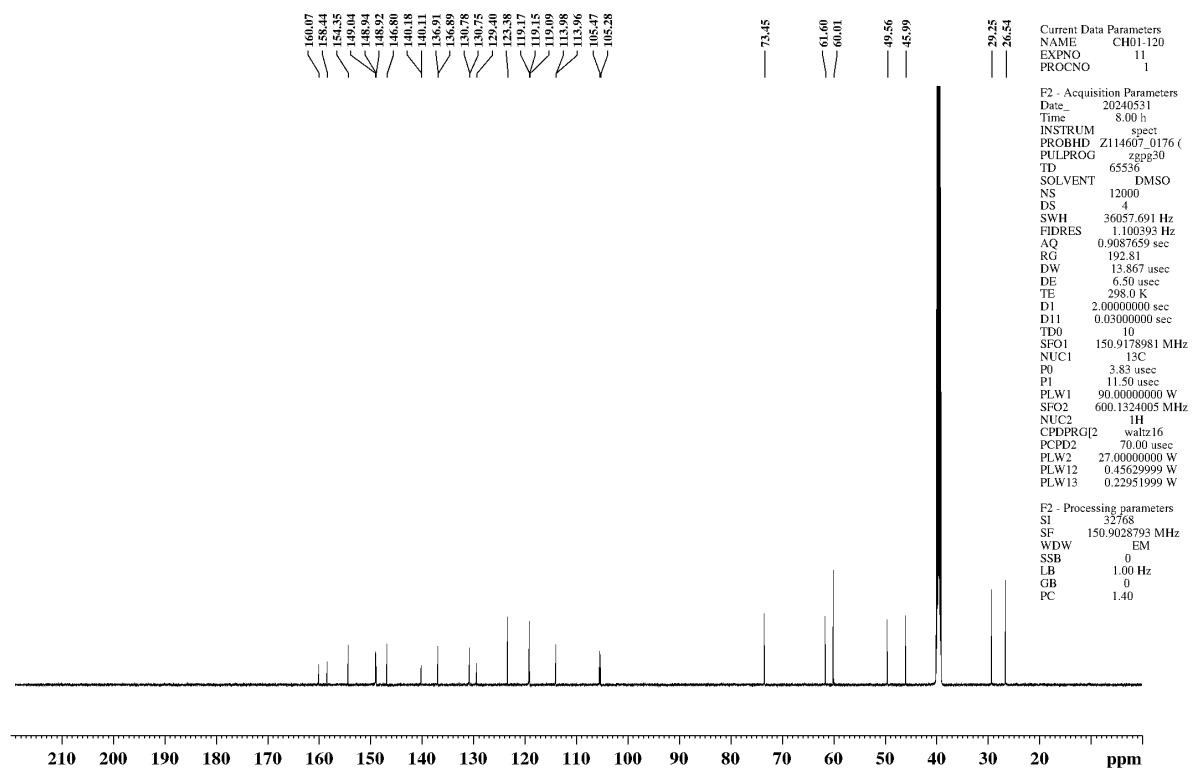
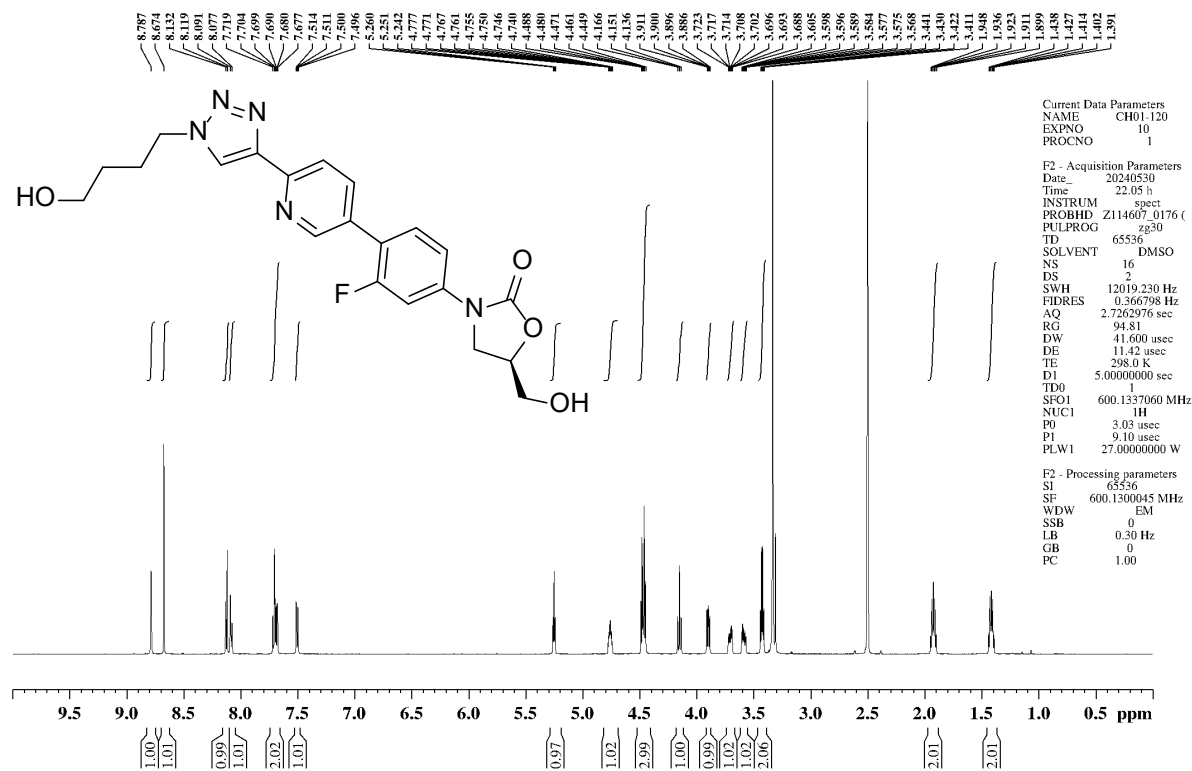


Current Data Parameters
 NAME CH02-22
 EXPNO 11
 PROCNO 1

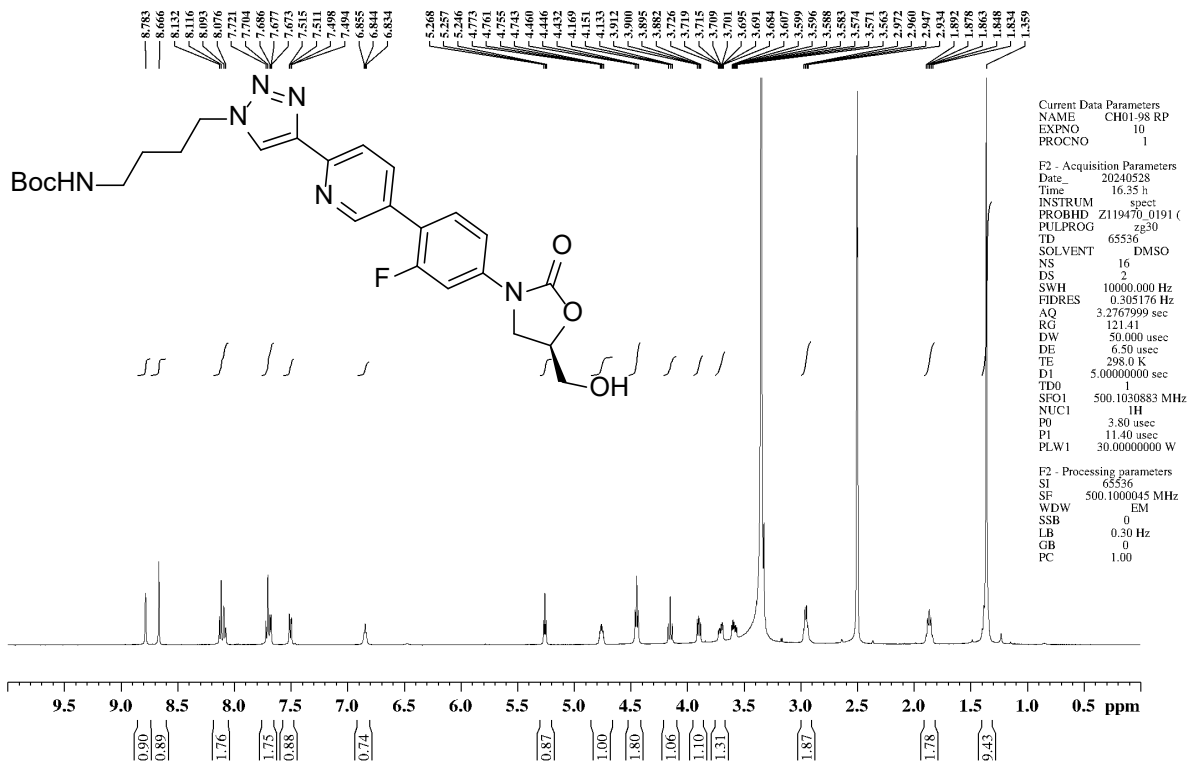
F2 - Acquisition Parameters
 Date_ 20240727
 Time 0.01 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (C
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 3072
 DS 4
 SWH 23809.524 Hz
 FIDRES 0.726609 Hz
 AQ 1.3762560 sec
 RG 57
 DW 21.000 usec
 DE 8.96 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 3
 SFO1 100.6278593 MHz
 NUC1 ¹³C
 P0 3.00 usec
 P1 9.00 usec
 PLW1 92.0000000 W
 SFO2 400.1516006 MHz
 NUC2 ¹H
 CPDPRG2 A000
 PCPD2 90.00 usec
 PLW2 24.88999939 W
 PLW12 0.20461001 W
 PLW13 0.10292000 W

F2 - Processing parameters
 SI 131072
 SF 100.6178435 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

¹H and ¹³C NMR of 9 (600 MHz, DMSO-d₆):



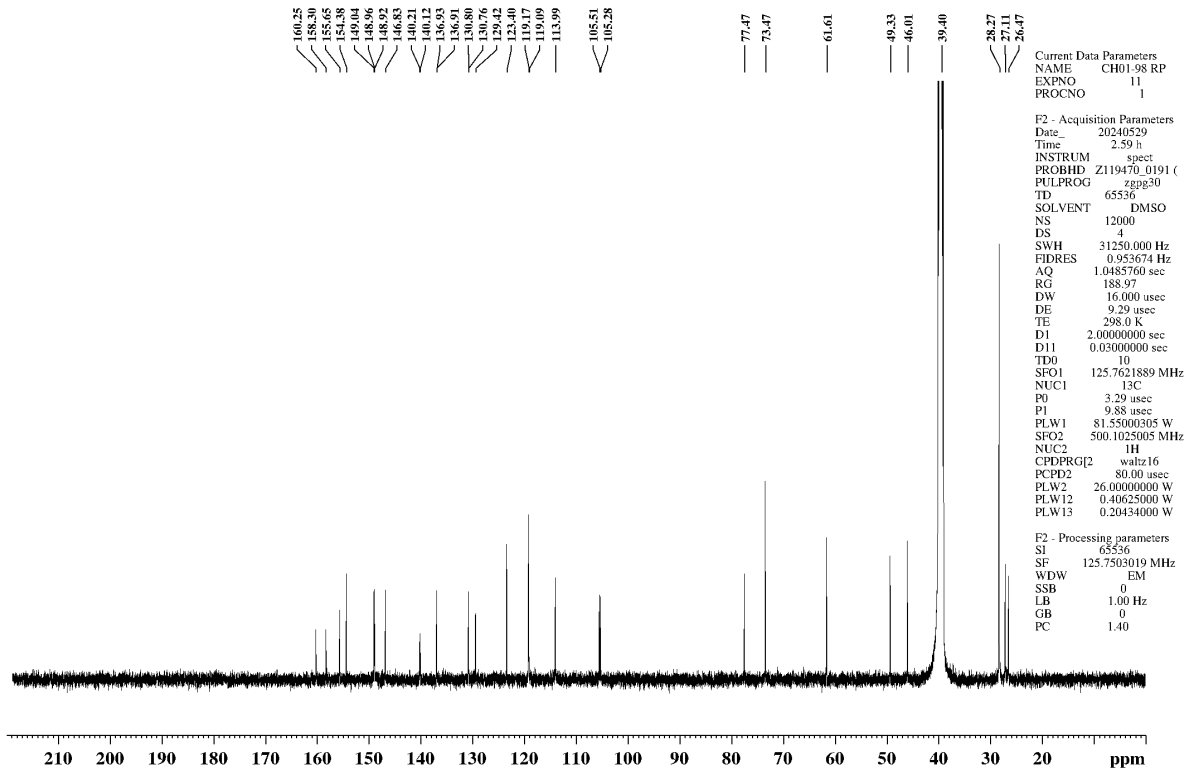
¹H and ¹³C NMR of Boc-protected 10 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-98 RP
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240528
 Time 16.35 h
 INSTRUM spect
 PROBHD Z119470_0191 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.305176 Hz
 AQ 3.2767999 sec
 RG 121.41
 DW 50.000 usec
 DE 6.50 usec
 TE 298.0 K
 D1 5.0000000 sec
 TD0 1
 SFO1 500.1030883 MHz
 NUC1 ¹H
 P0 3.80 usec
 PL1 11.40 usec
 PLW1 30.0000000 W

F2 - Processing parameters
 SI 65536
 SF 500.1000045 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

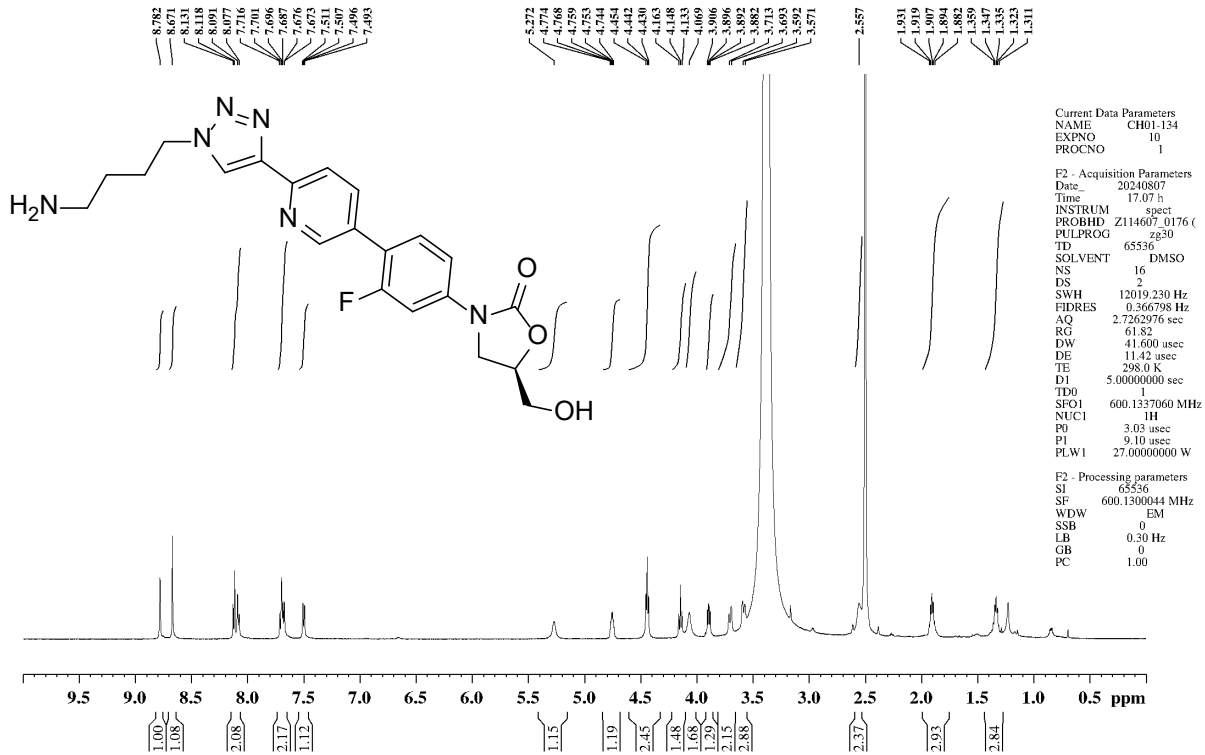


Current Data Parameters
 NAME CH01-98 RP
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240529
 Time 2.59 h
 INSTRUM spect
 PROBHD Z119470_0191 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 12000
 DS 4
 SWH 31250.000 Hz
 FIDRES 0.953674 Hz
 AQ 1.0485760 sec
 RG 188.97
 DW 16.000 usec
 DE 9.29 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 10
 SFO1 125.7621889 MHz
 NUC1 ¹³C
 P0 3.29 usec
 P1 9.88 usec
 PLW1 81.55000305 W
 SFO2 500.1025005 MHz
 NUC2 ¹H
 CPMRG[2] waltz16
 PCPD2 80.00 usec
 PLW2 26.0000000 W
 PLW12 0.40625000 W
 PLW13 0.20434000 W

F2 - Processing parameters
 SI 65536
 SF 125.7503019 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

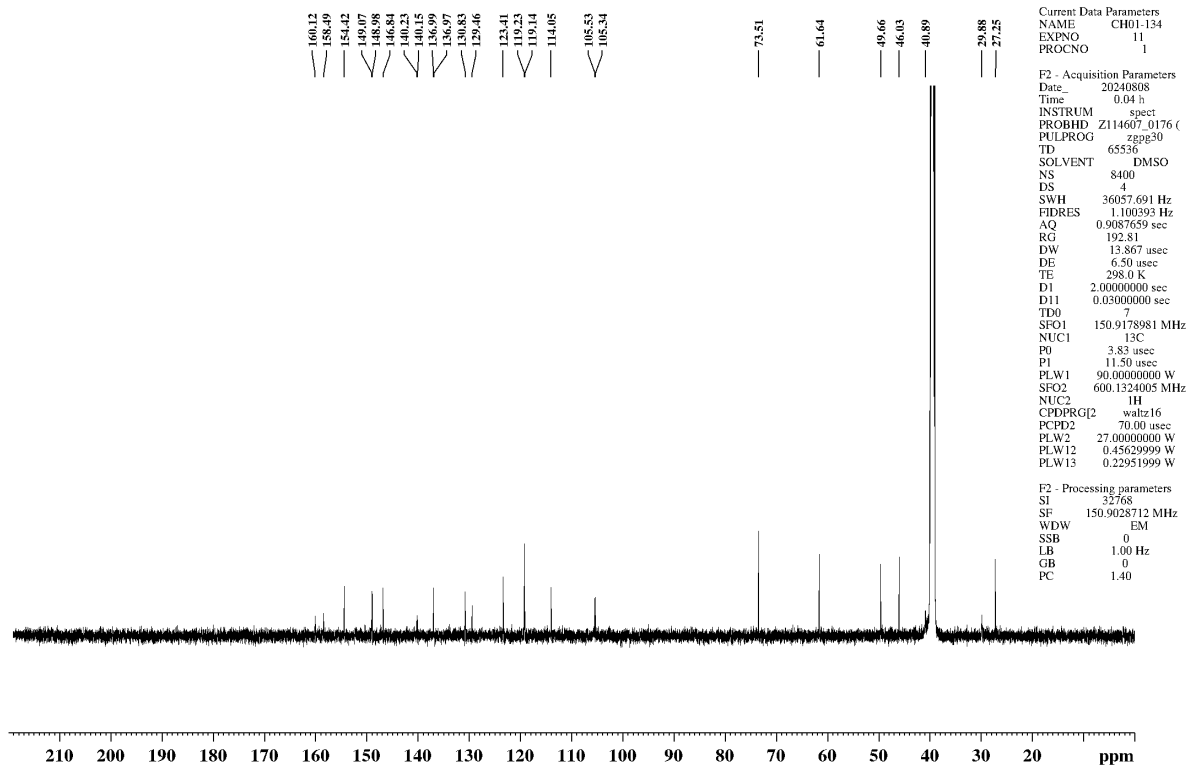
¹H and ¹³C NMR of 10 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-134
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240807
 Time 17.07 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 61.82
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.00000000 sec
 TD0
 SFO1 600.1337060 MHz
 NUC1 ¹H
 PU 3.03 usec
 PI 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300044 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

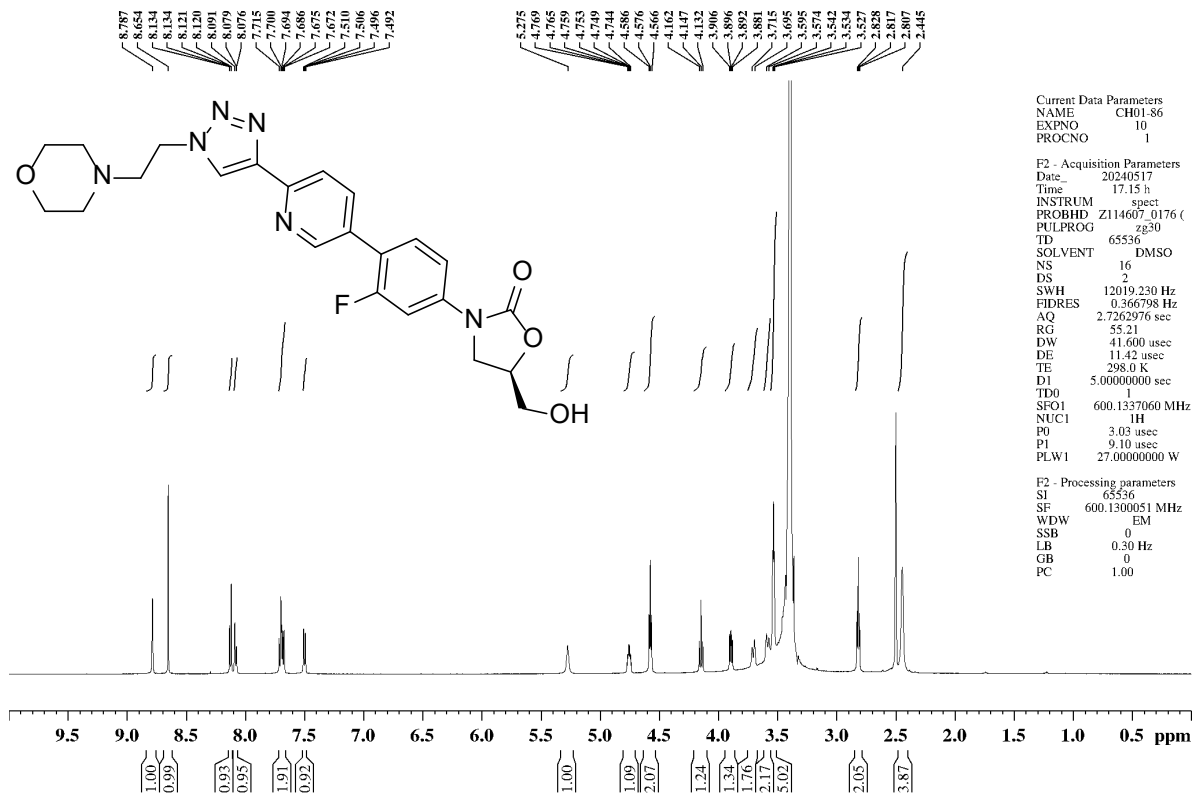


Current Data Parameters
 NAME CH01-134
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240808
 Time 0.04 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 8400
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 7
 SFO1 150.9178981 MHz
 NUC1 ¹³C
 PU 3.83 usec
 PI 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 ¹H
 CPDPRG2 waltz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 25768
 SF 150.9028712 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

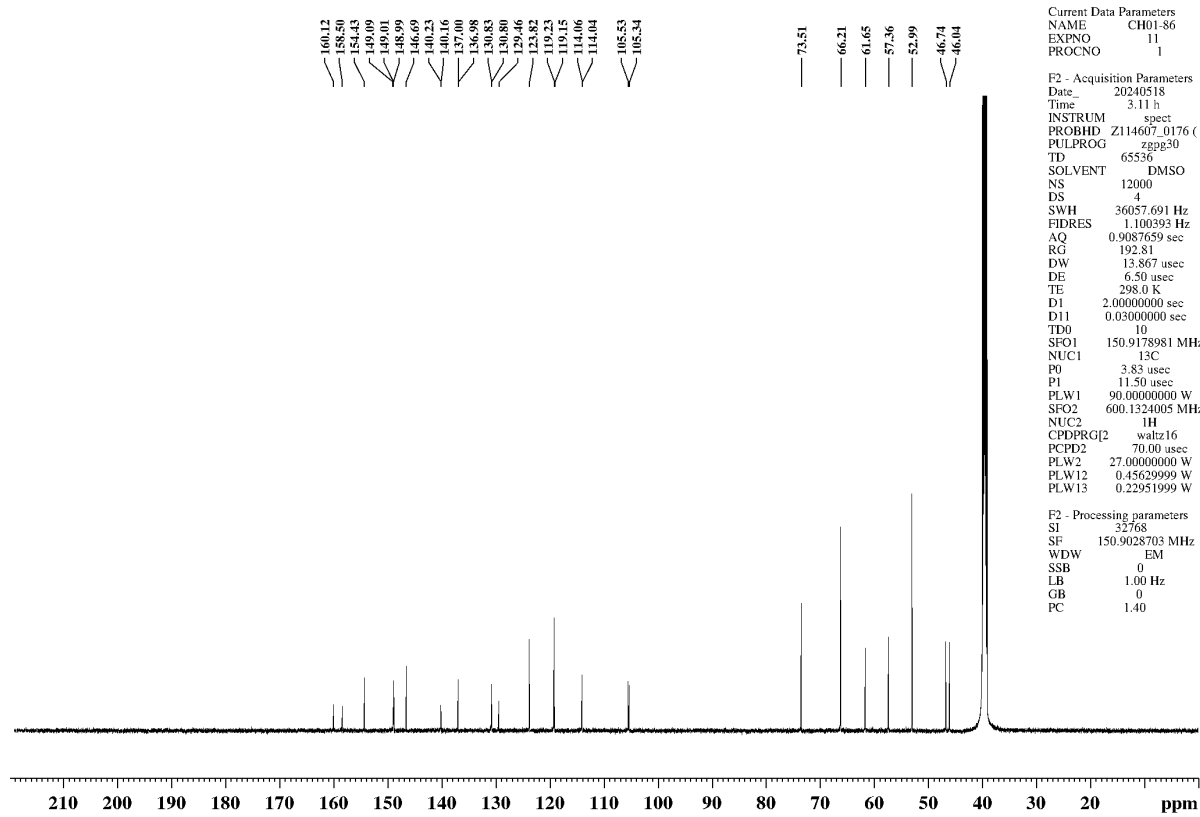
¹H and ¹³C NMR of 11 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-86
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240517
 Time 17.15 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 55.21
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.00000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 1H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300051 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

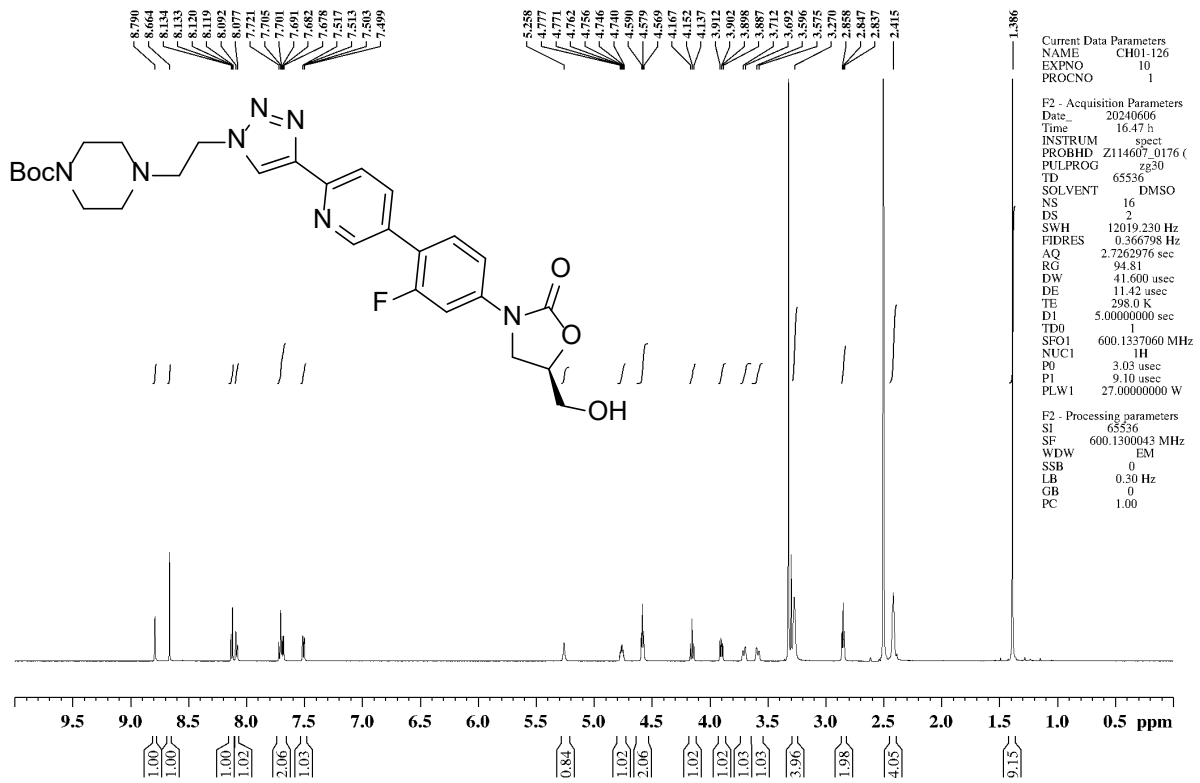


Current Data Parameters
 NAME CH01-86
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240518
 Time 3.11 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 12000
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 10
 SFO1 150.9178981 MHz
 NUC1 13C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028703 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

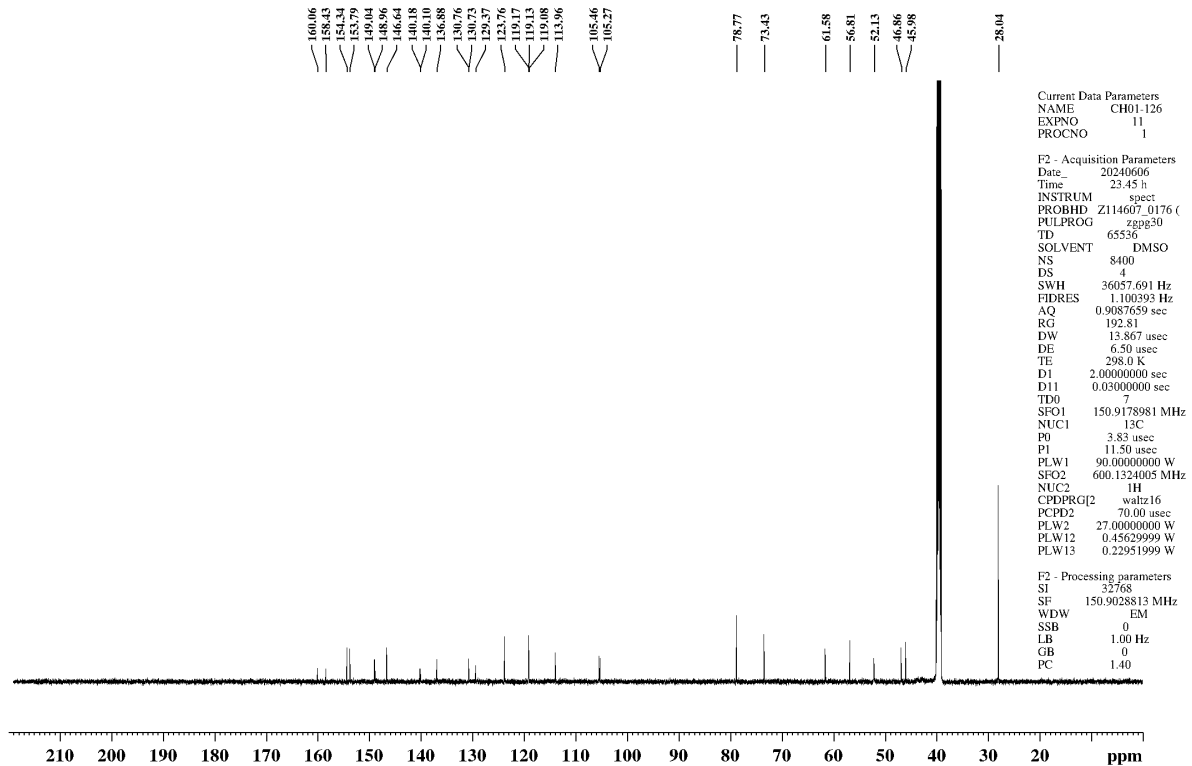
¹H and ¹³C NMR of Boc-protected 12 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-126
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240606
 Time 16.47 h
 INSTRUM spect
 PROBHD Z114607_0176 (C
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 94.81
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.00000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 1H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300043 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

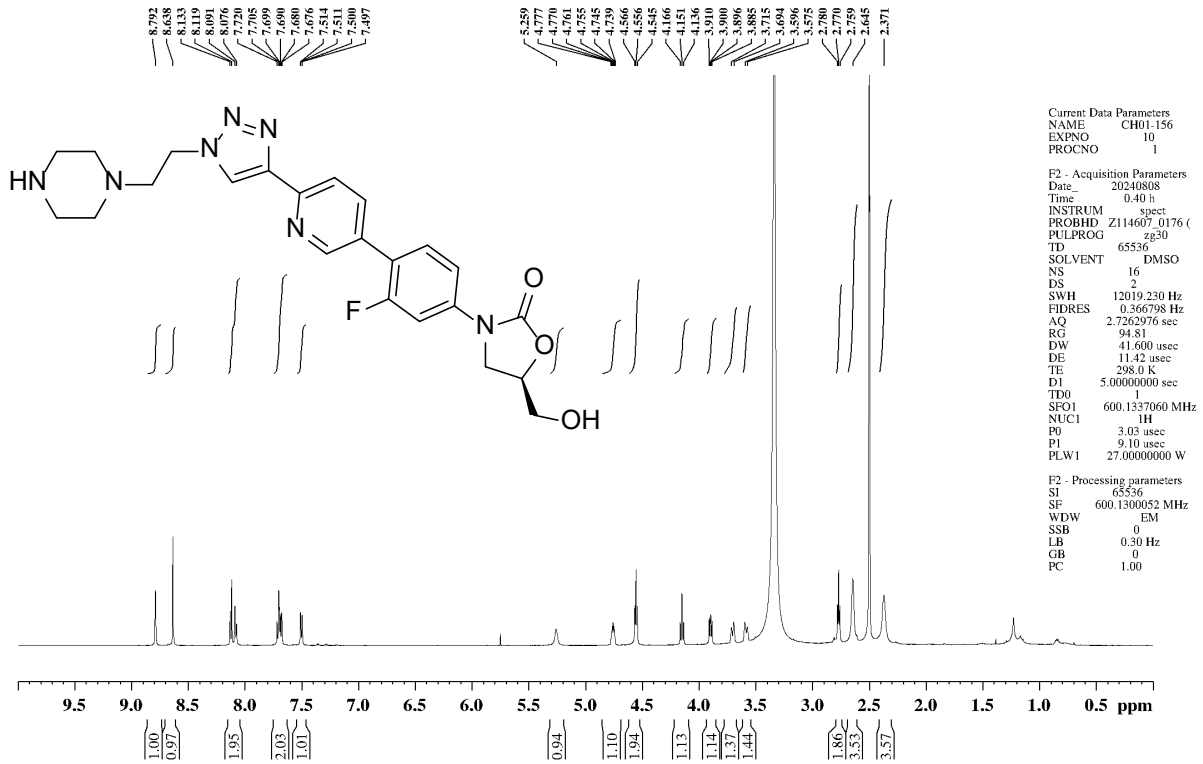


Current Data Parameters
 NAME CH01-126
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240606
 Time 23.45 h
 INSTRUM spect
 PROBHD Z114607_0176 (C
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 8400
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 7
 SFO1 150.9178981 MHz
 NUC1 13C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 1H
 CPMPRG2 waltz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028813 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

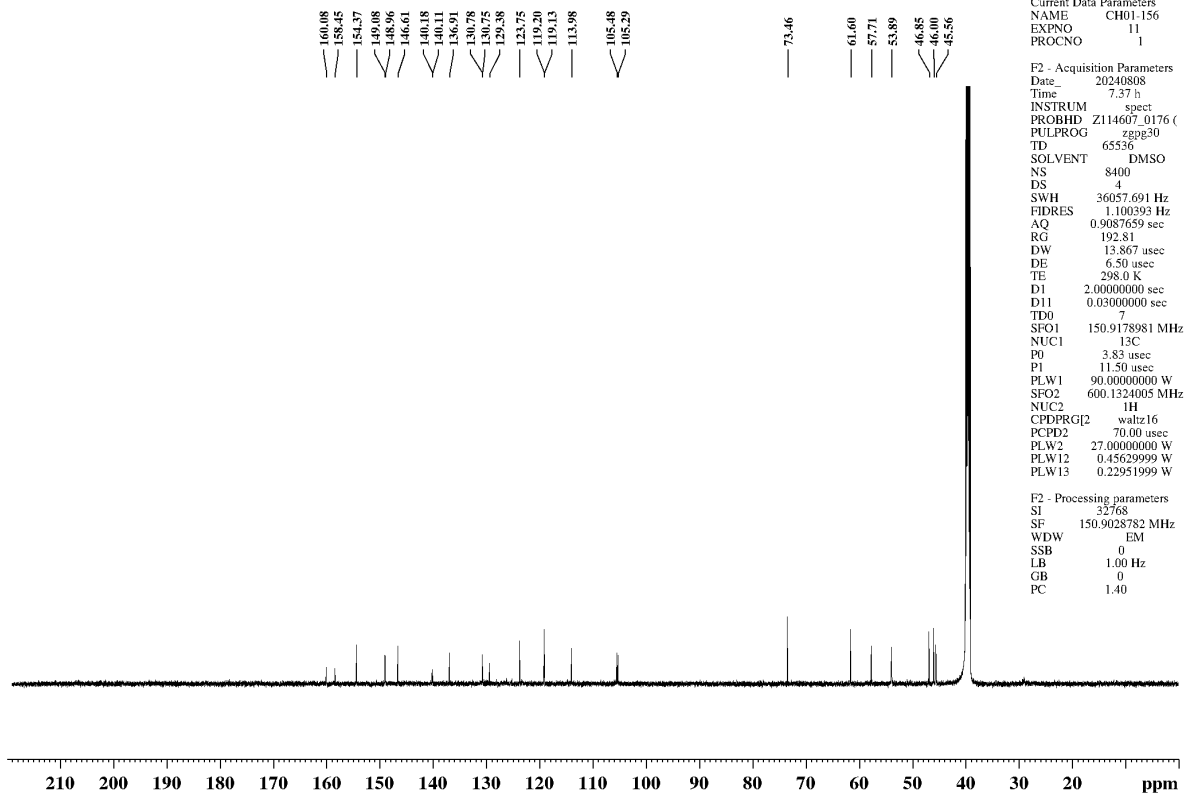
¹H and ¹³C NMR of 12 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-156
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240808
 Time 0.40 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 94.81
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.0000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 1H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300052 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

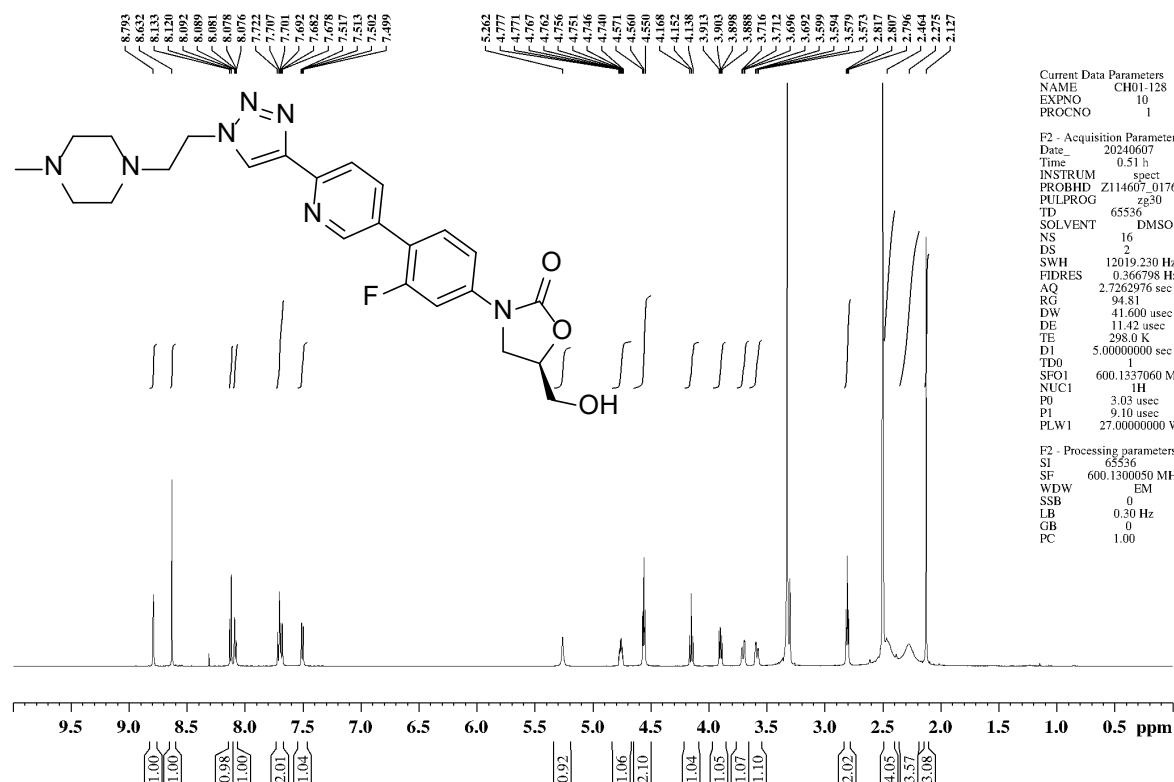


Current Data Parameters
 NAME CH01-156
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240808
 Time 7.37 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 8400
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 7
 SFO1 150.9178981 MHz
 NUC1 13C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028782 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

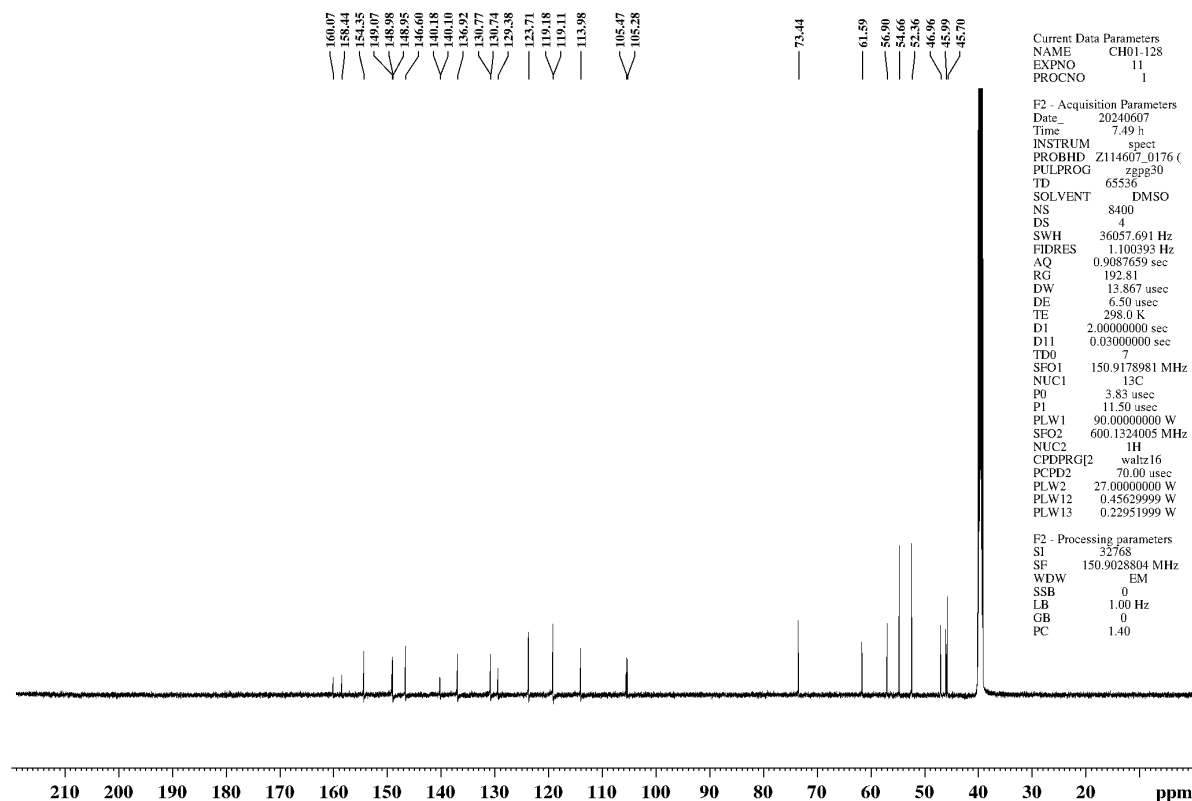
¹H and ¹³C NMR of 13 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-128
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240607
 Time 0.51 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 2
 DS 16
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 94.81
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.00000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 ¹H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300050 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

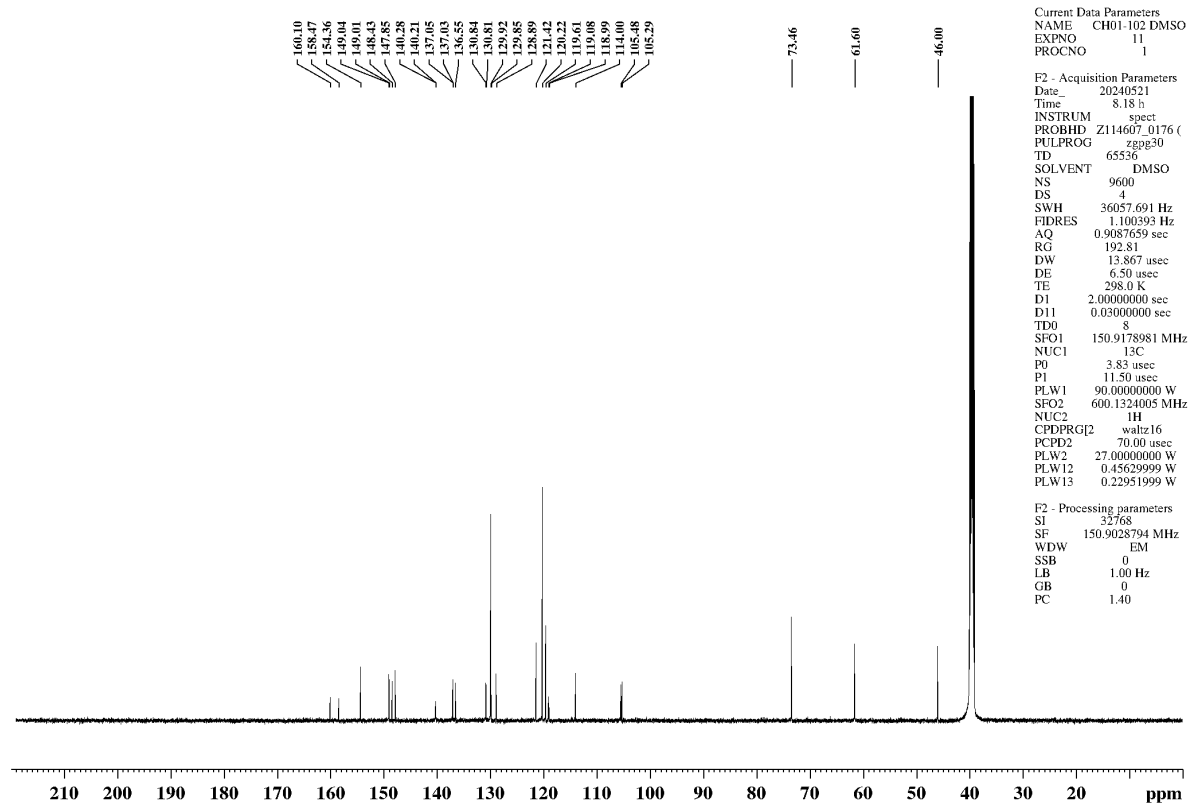
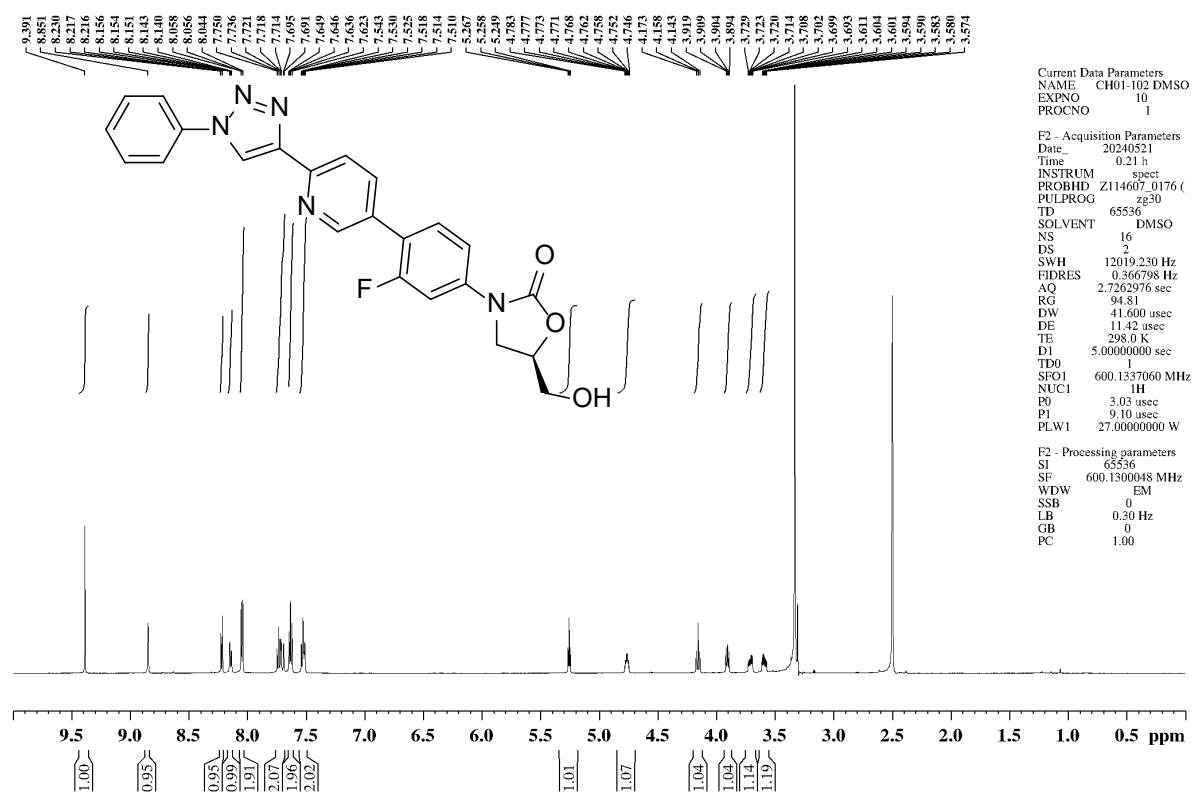


Current Data Parameters
 NAME CH01-128
 EXPNO 11
 PROCNO 1

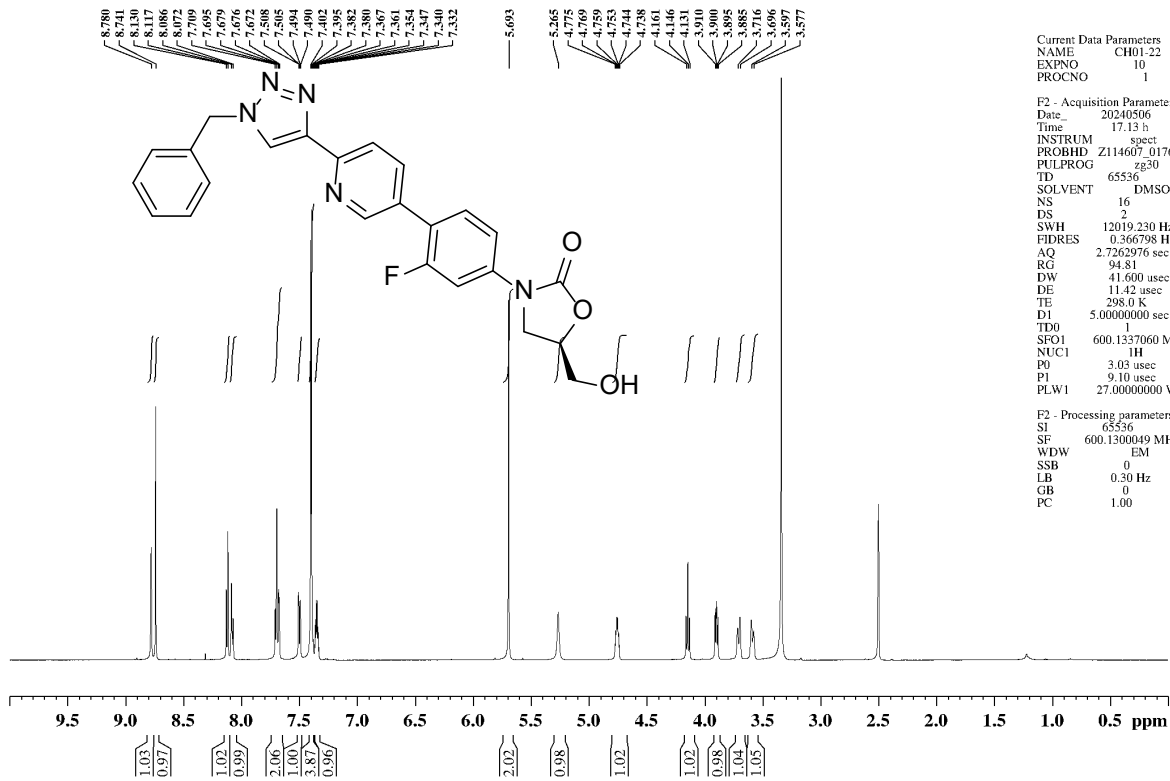
F2 - Acquisition Parameters
 Date_ 20240607
 Time 7.49 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 8400
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100593 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 7
 SFO1 150.9178981 MHz
 NUC1 ¹³C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 ¹H
 CPDPRG2 walz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 3758
 SF 150.9028804 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

¹H and ¹³C NMR of 14 (600 MHz, DMSO-d₆):



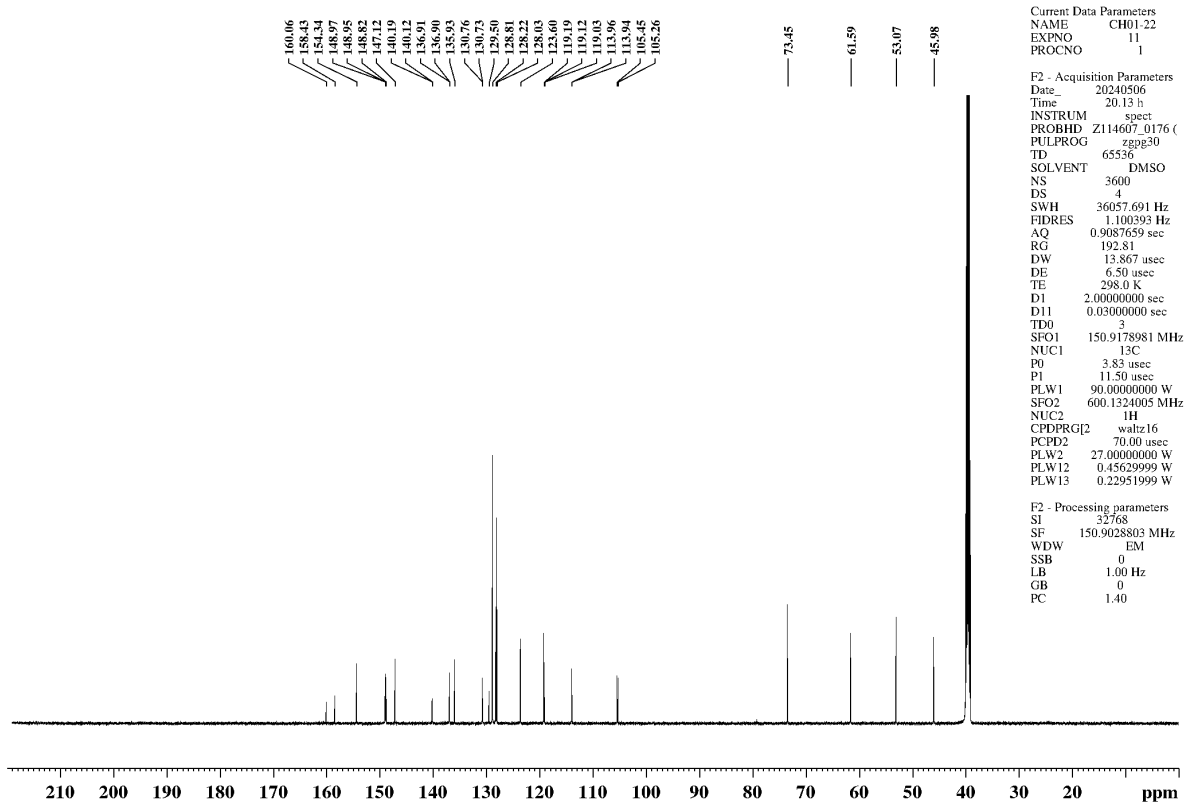
¹H and ¹³C NMR of 15 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-22
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240506
 Time 17.13 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 94.81
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.0000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 1H
 PO 3.03 usec
 PI 9.10 usec
 PLW1 27.0000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300049 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

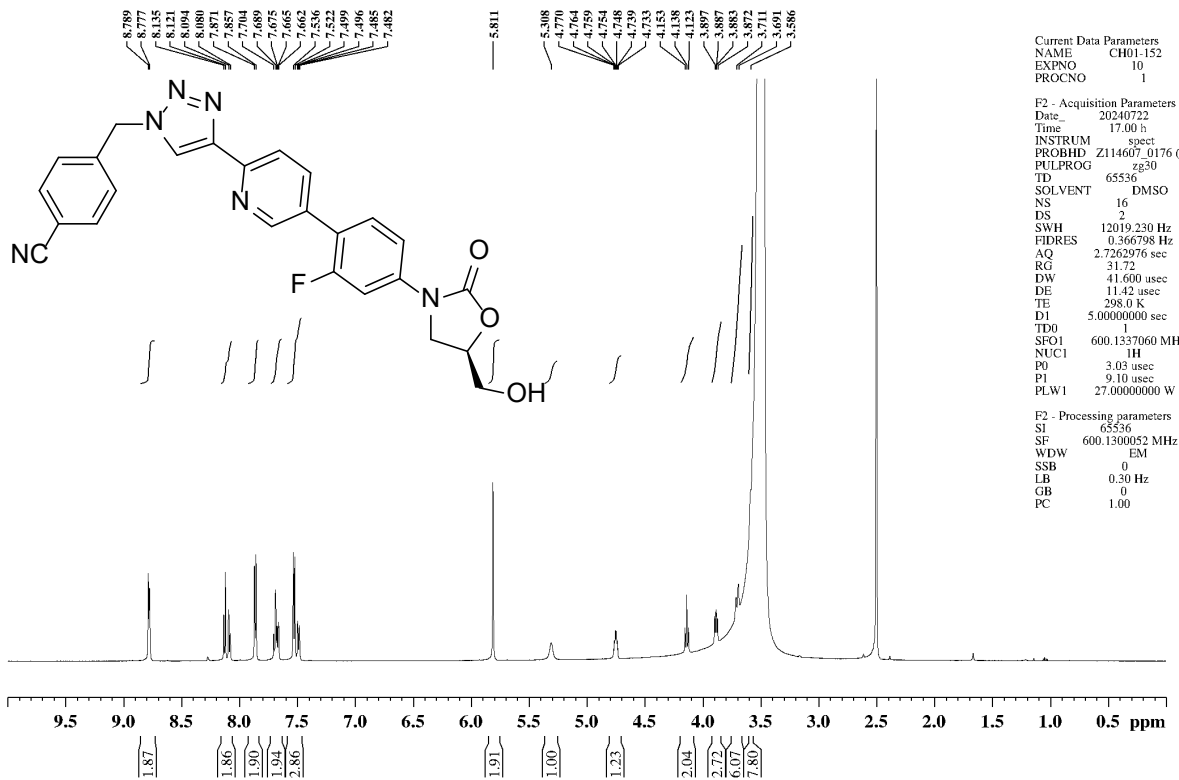


Current Data Parameters
 NAME CH01-22
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240506
 Time 20.13 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 3600
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 3
 SFO1 150.9178981 MHz
 NUC1 13C
 PO 3.83 usec
 PI 11.50 usec
 PLW1 90.0000000 W
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 walz16
 PCPD2 70.00 usec
 PLW2 27.0000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 2768
 SF 150.9028803 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

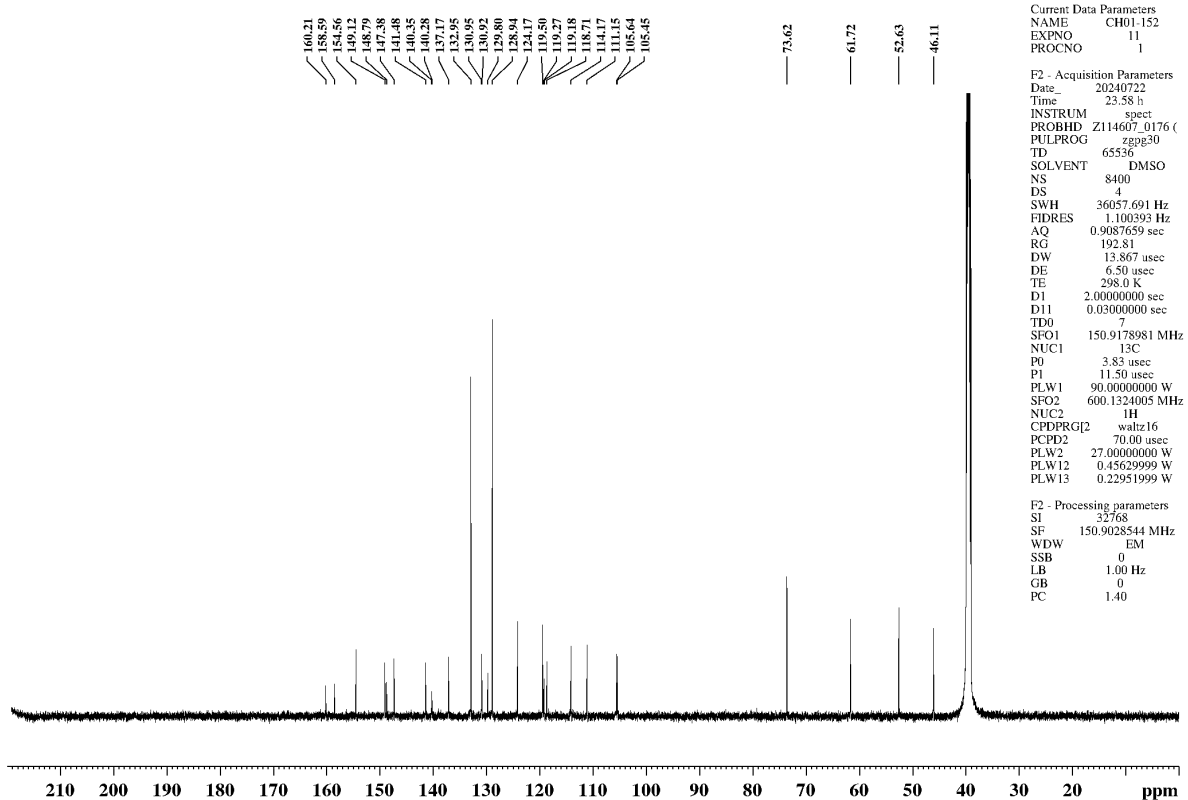
¹H and ¹³C NMR of 16 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-152
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240722
 Time 17.00 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 31.72
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.0000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 ¹H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300052 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

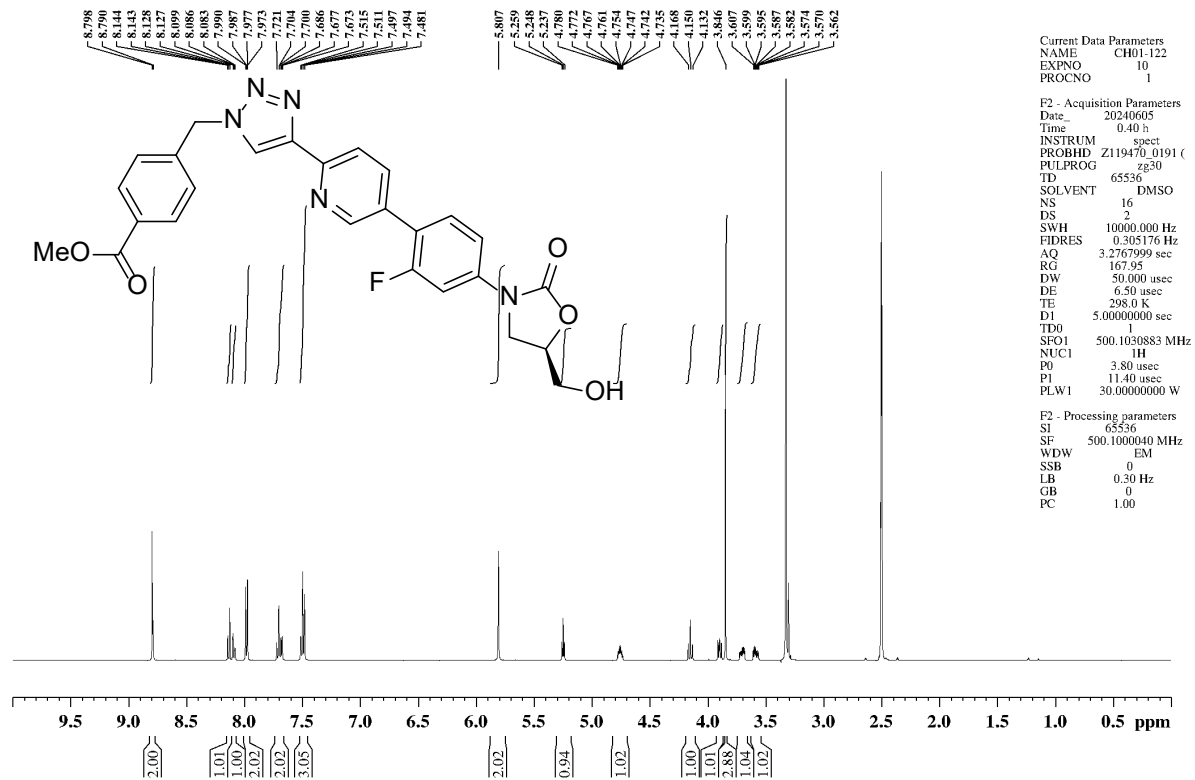


Current Data Parameters
 NAME CH01-152
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240722
 Time 23.58 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 8400
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 TD0 7
 SFO1 150.9178981 MHz
 NUC1 ¹³C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 ¹H
 CPDPRG2 waltz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028544 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

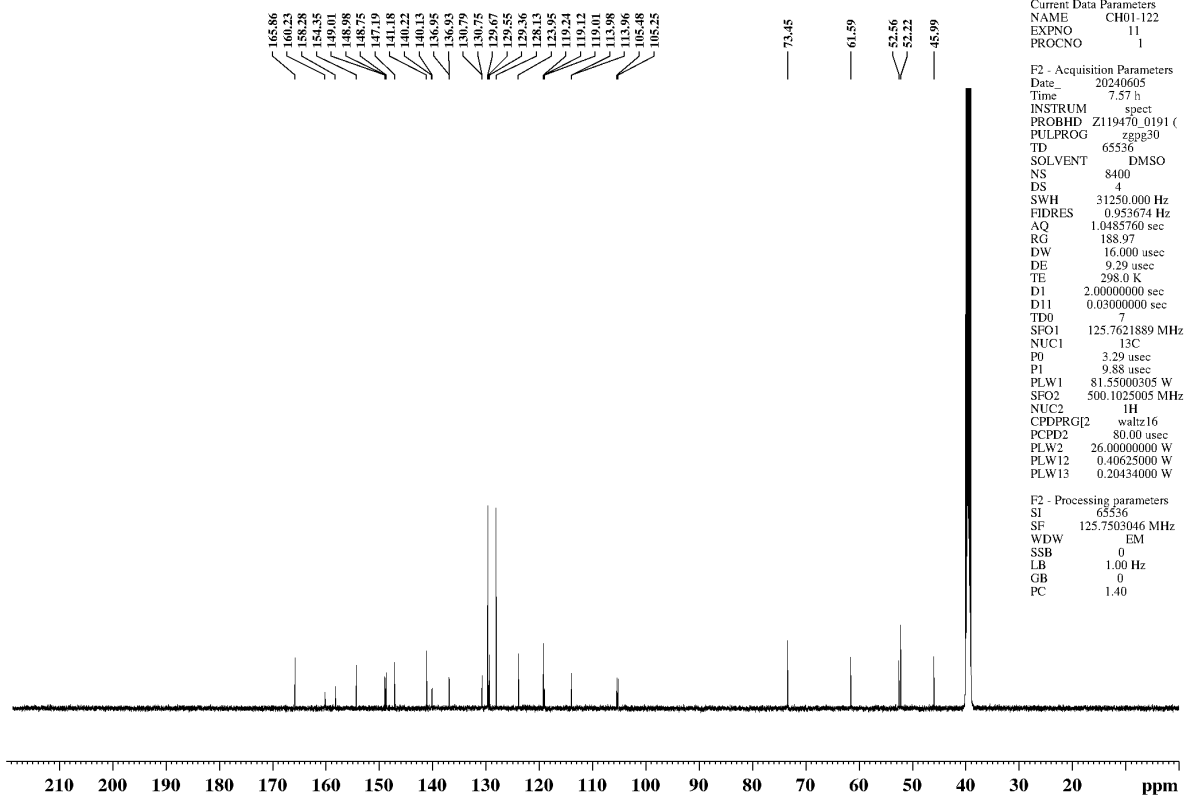
¹H and ¹³C NMR of 17 (500 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-122
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240605
 Time 0.40 h
 INSTRUM spect
 PROBHD Z119470_0191 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.305176 Hz
 AQ 3.2767999 sec
 RG 167.95
 DW 50.000 usec
 DE 6.50 usec
 TE 298.0 K
 D1 5.00000000 sec
 TD0 1
 SFO1 500.1030883 MHz
 NUC1 ¹H
 P0 3.80 usec
 P1 11.40 usec
 PLW1 30.00000000 W

F2 - Processing parameters
 SI 65536
 SF 500.1000040 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

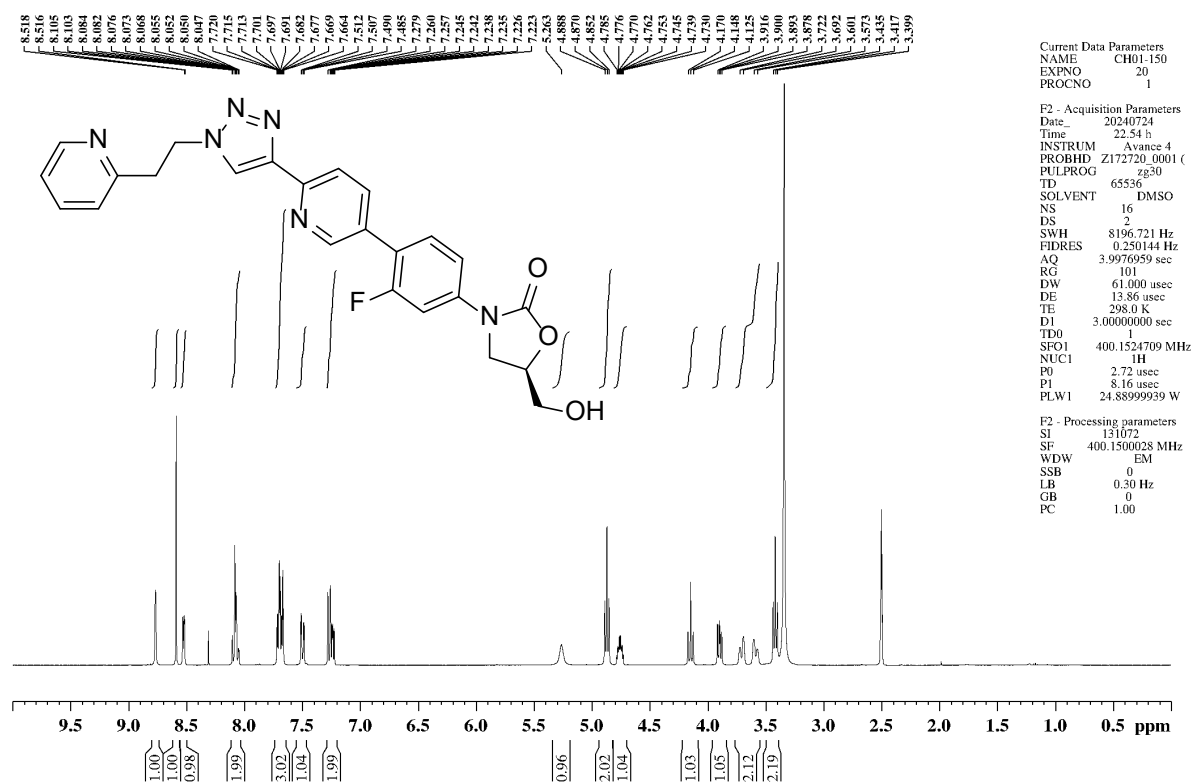


Current Data Parameters
 NAME CH01-122
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240605
 Time 7.57 h
 INSTRUM spect
 PROBHD Z119470_0191 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 8400
 DS 4
 SWH 31250.000 Hz
 FIDRES 0.953674 Hz
 AQ 1.0485760 sec
 RG 188.97
 DW 16.000 usec
 DE 9.29 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 7
 SFO1 125.7621889 MHz
 NUC1 ¹³C
 P0 3.29 usec
 P1 9.88 usec
 PLW1 81.55000305 W
 SFO2 500.1025005 MHz
 NUC2 ¹H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 26.00000000 W
 PLW12 0.40625000 W
 PLW13 0.20434000 W

F2 - Processing parameters
 SI 65536
 SF 125.7503046 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

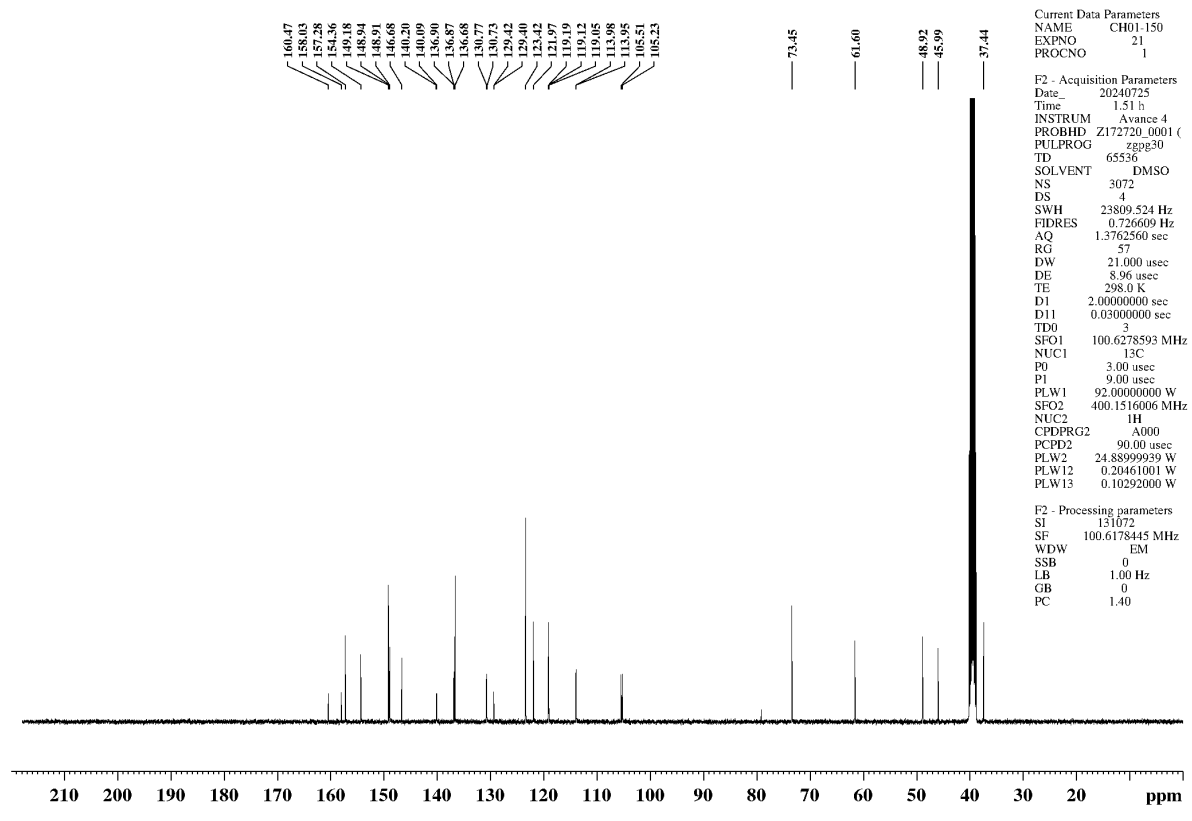
¹H and ¹³C NMR of 18 (400 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-150
 EXPNO 20
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240724
 Time 22.54 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (Zg30)
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 8196.721 Hz
 FIDRES 0.250144 Hz
 AQ 3.9976959 sec
 RG 101
 DW 61.000 usec
 DE 13.86 usec
 TE 298.0 K
 D1 3.0000000 sec
 TD0 1
 SFO1 400.1524709 MHz
 NUC1 1H
 P0 2.72 usec
 P1 8.16 usec
 PLW1 24.88999939 W

F2 - Processing parameters
 SI 131072
 SF 400.1500028 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

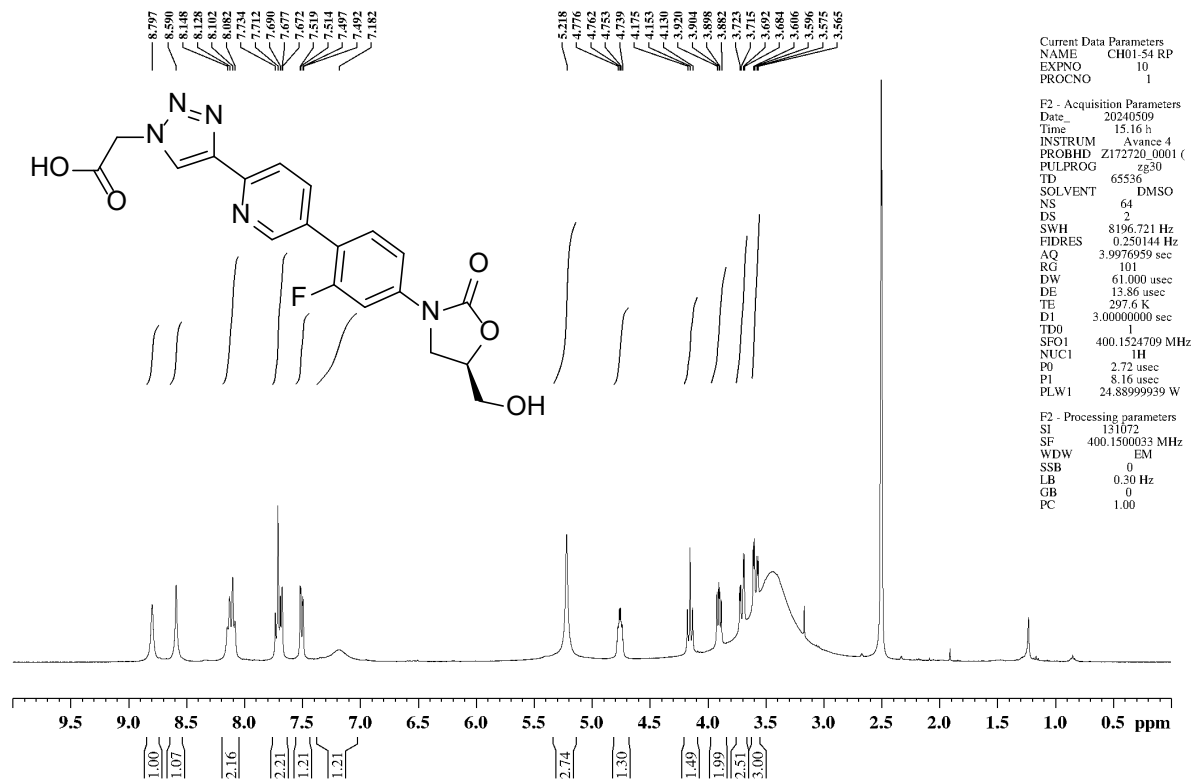


Current Data Parameters
 NAME CH01-150
 EXPNO 21
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240725
 Time 1.51 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (Zg30)
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 3072
 DS 4
 SWH 23809.524 Hz
 FIDRES 0.726609 Hz
 AQ 1.3762560 sec
 RG 57
 DW 21.000 usec
 DE 8.96 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 3
 SFO1 100.6278593 MHz
 NUC1 13C
 P0 3.00 usec
 P1 9.00 usec
 PLW1 92.00000000 W
 SFO2 400.1516006 MHz
 NUC2 1H
 CPDPRG2 A000
 PCPD2 90.00 usec
 PLW2 24.88999939 W
 PLW12 0.20461001 W
 PLW13 0.10292000 W

F2 - Processing parameters
 SI 131072
 SF 100.6178445 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

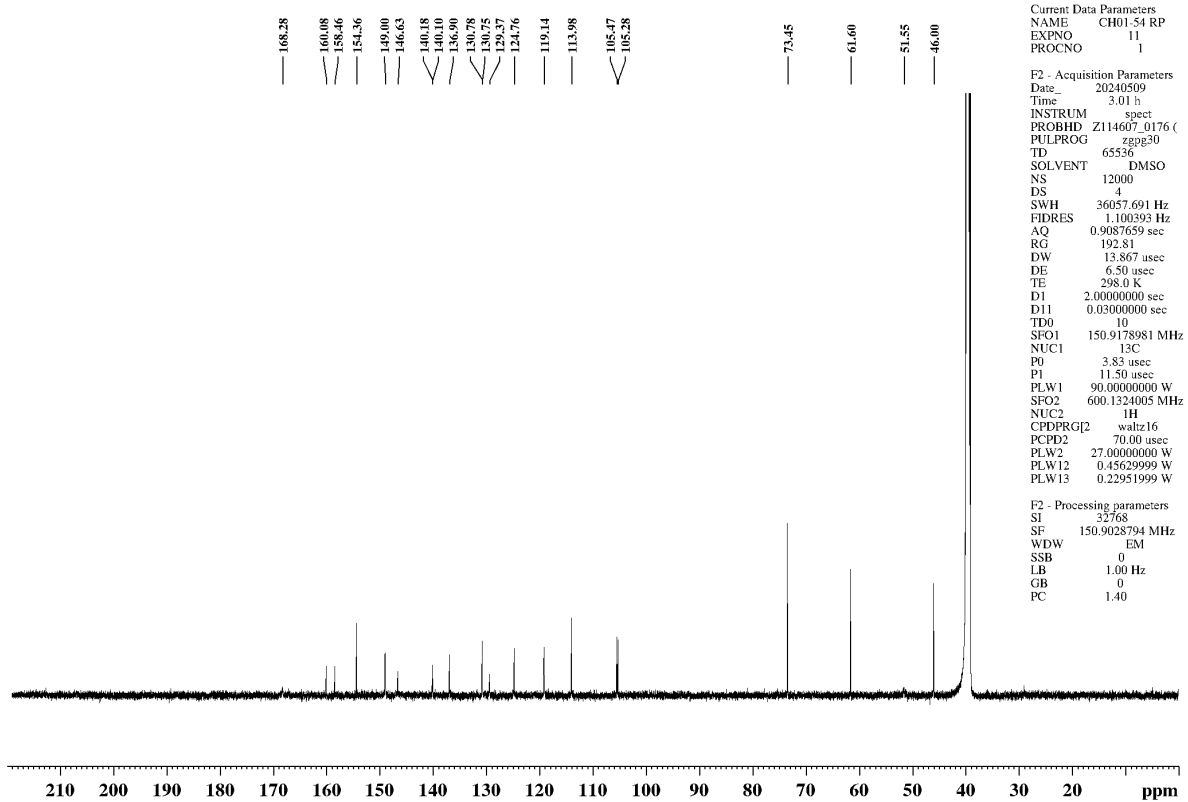
¹H and ¹³C NMR of 19 (400 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH01-54 RP
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240509
 Time 15.16 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (Z
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 64
 DS 2
 SWH 8196.721 Hz
 FIDRES 0.250144 Hz
 AQ 3.9976959 sec
 RG 101
 DW 61.000 usec
 DE 13.86 usec
 TE 297.6 K
 D1 3.00000000 sec
 TD0 1
 SFO1 400.1524709 MHz
 NUC1 ¹H
 P0 2.72 usec
 P1 8.16 usec
 PLW1 24.88999939 W

F2 - Processing parameters
 SI 131072
 SF 400.1500033 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

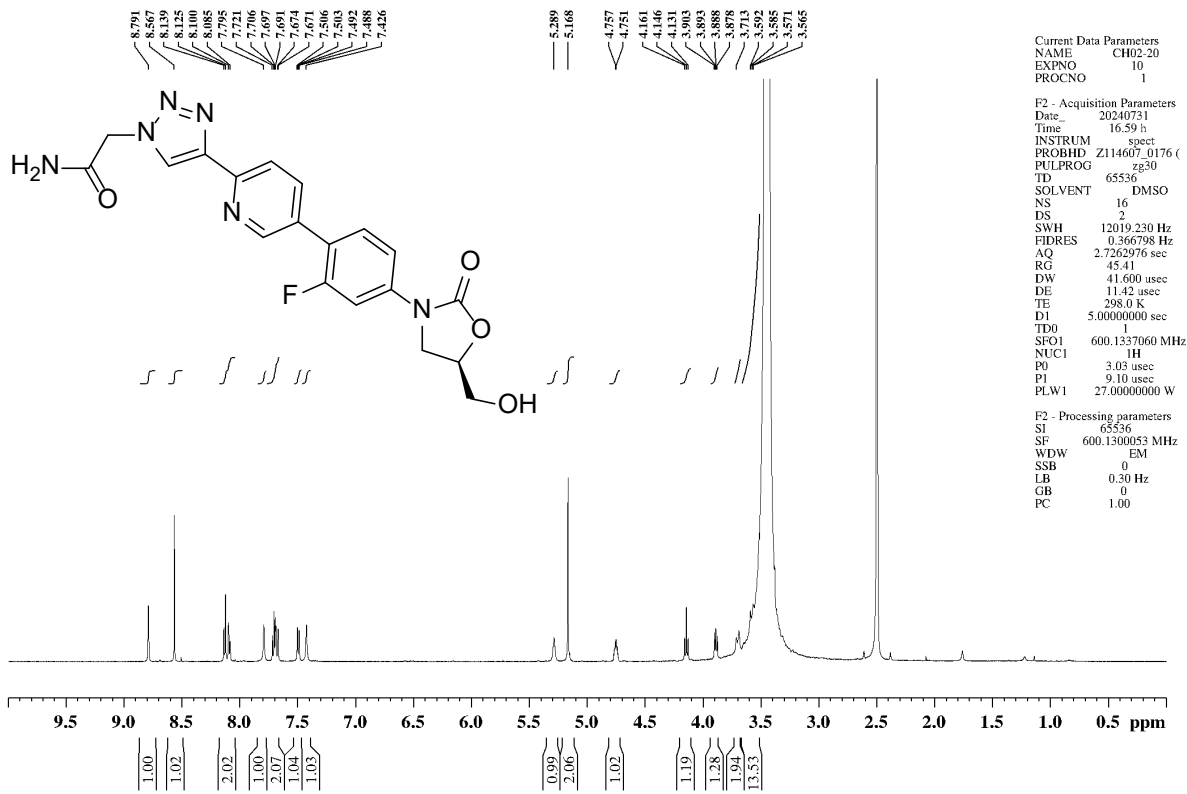


Current Data Parameters
 NAME CH01-54 RP
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240509
 Time 3.01 h
 INSTRUM spect
 PROBHD Z114607_0176 (Z
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 12000
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 10
 SFO1 150.9178981 MHz
 NUC1 ¹³C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 ¹H
 CPDPRG2 waltz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028794 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

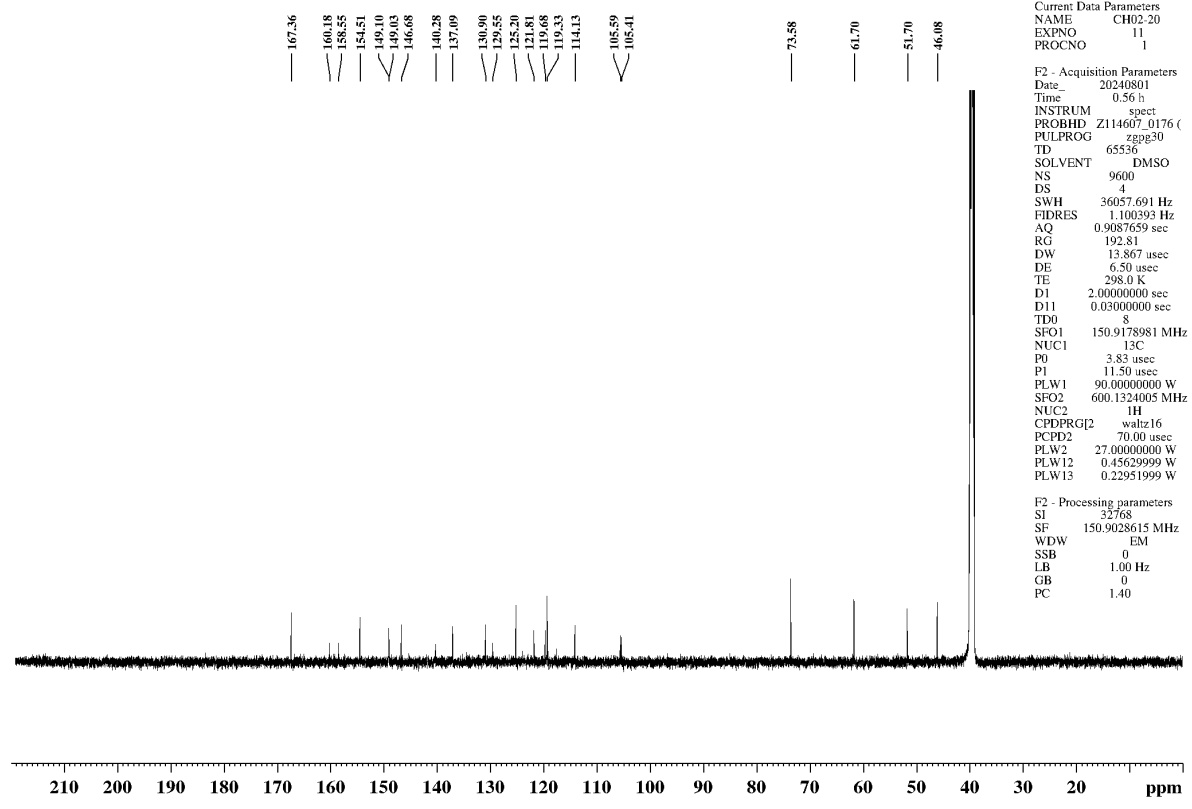
¹H and ¹³C NMR of 20 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH02-20
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240731
 Time 16.59 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 45.41
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.0000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 ¹H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300053 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

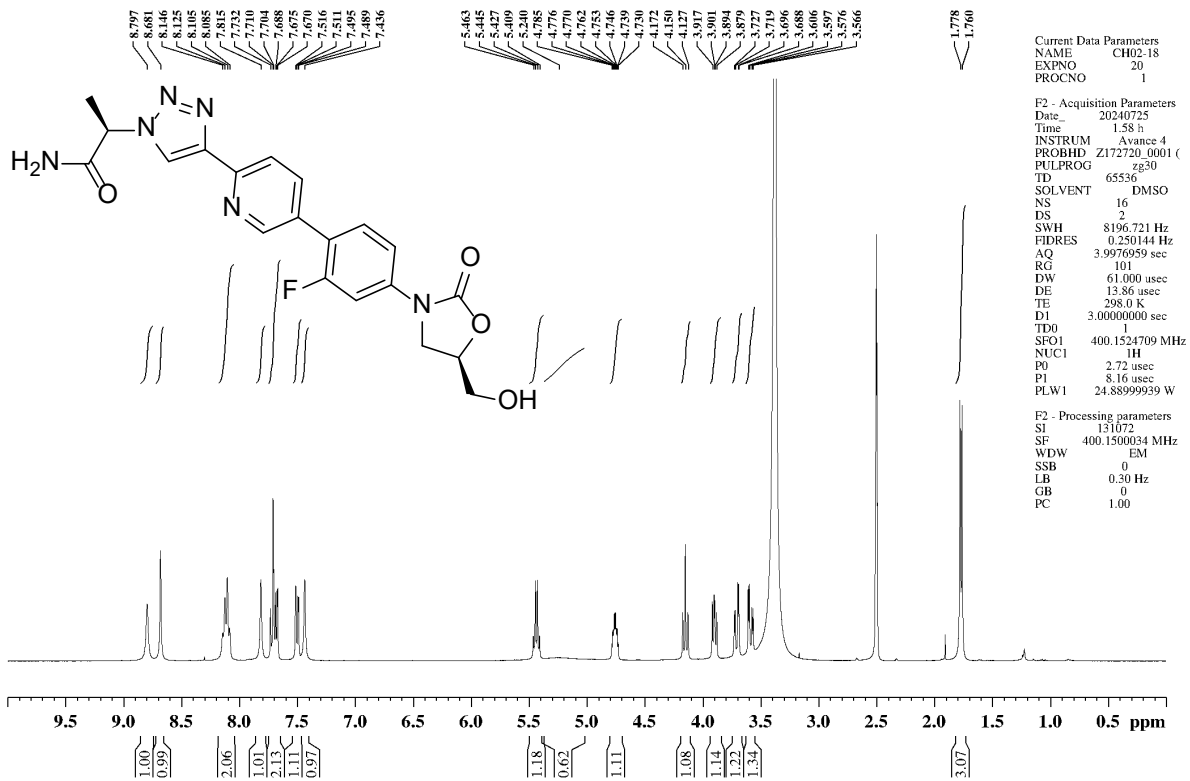


Current Data Parameters
 NAME CH02-20
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240801
 Time 0.56 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 9600
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100893 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 TD0 8
 SFO1 150.9178981 MHz
 NUC1 ¹³C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 ¹H
 CPDPRG2 walz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028615 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

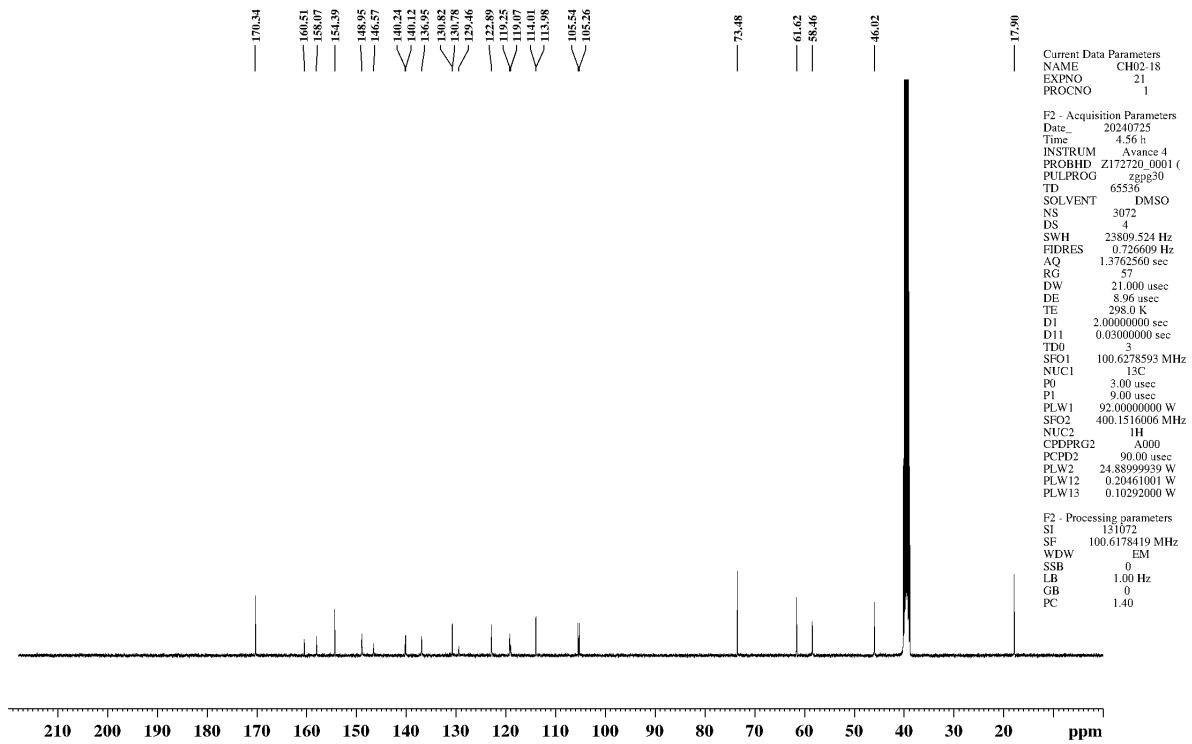
¹H and ¹³C NMR of 21 (400 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH02-18
 EXPNO 20
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20240725
 Time 1.58 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (Z)
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 8196.721 Hz
 FIDRES 0.250144 Hz
 AQ 3.9976959 sec
 RG 101
 DW 61.000 usec
 DE 13.86 usec
 TE 298.0 K
 D1 3.00000000 sec
 TD0 1
 SFO1 400.1524709 MHz
 NUC1 1H
 P0 2.72 usec
 P1 8.16 usec
 PLW1 24.88999939 W

F2 - Processing parameters
 SI 131072
 SF 400.1500034 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

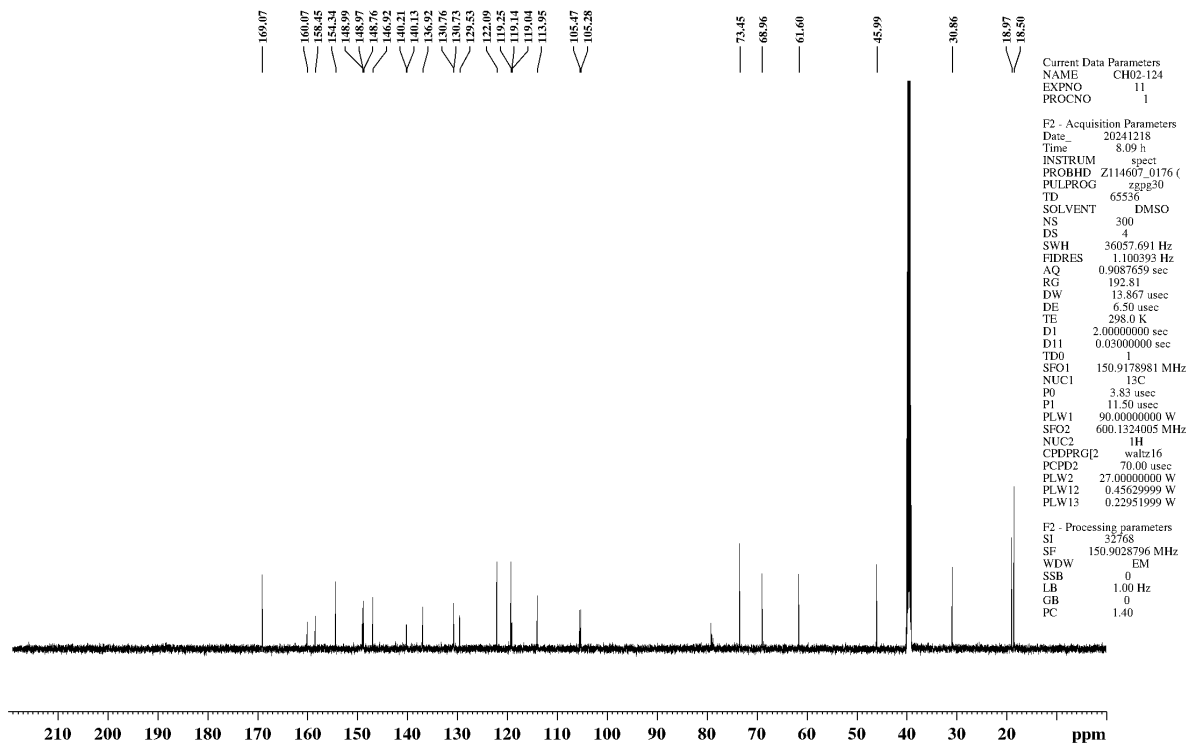
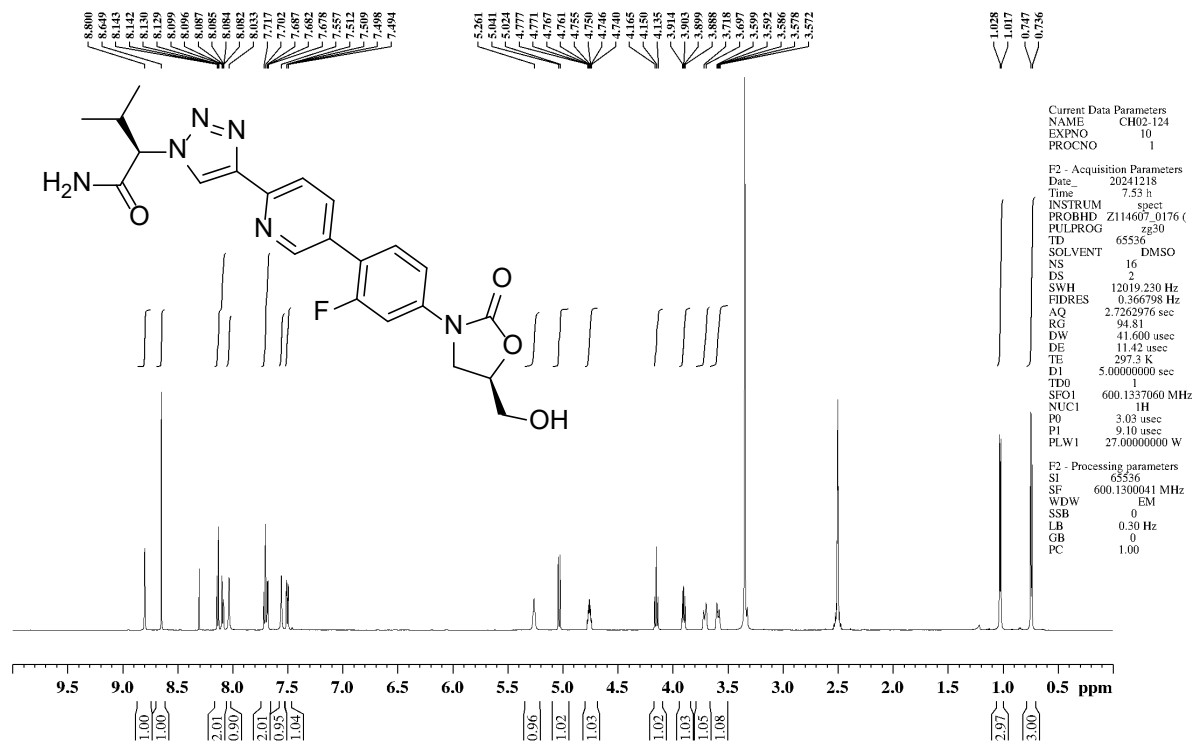


Current Data Parameters
 NAME CH02-18
 EXPNO 21
 PROCNO 1

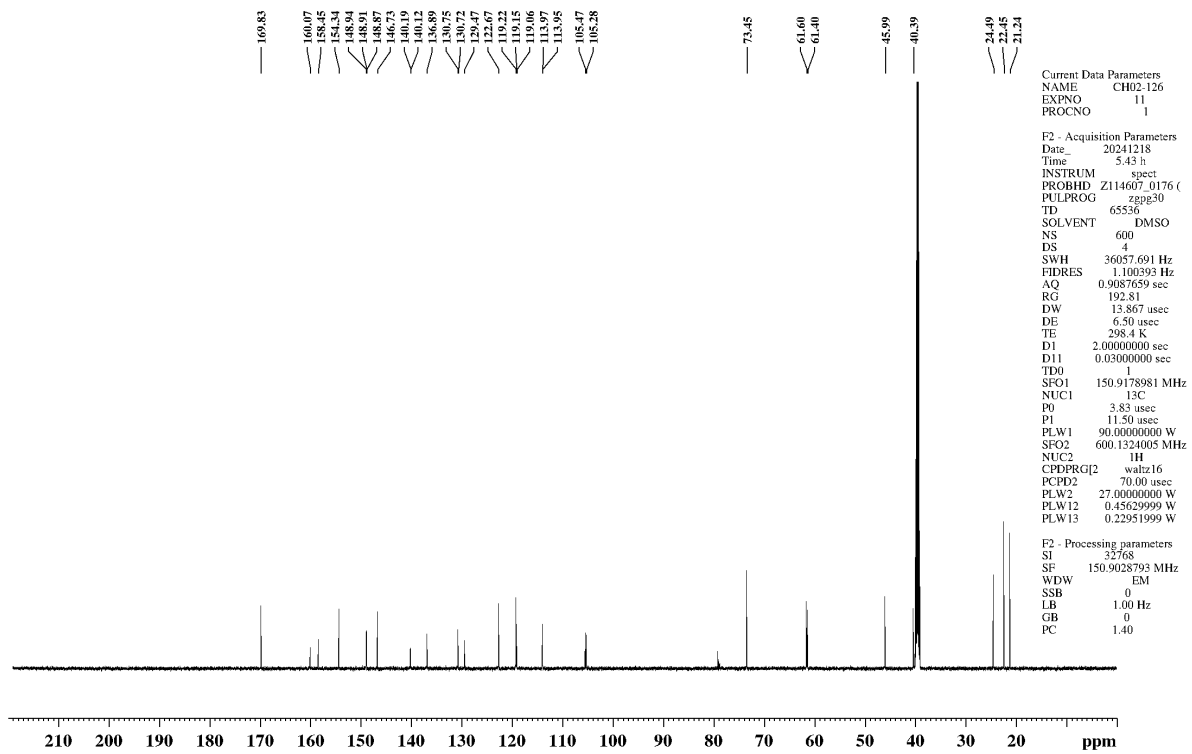
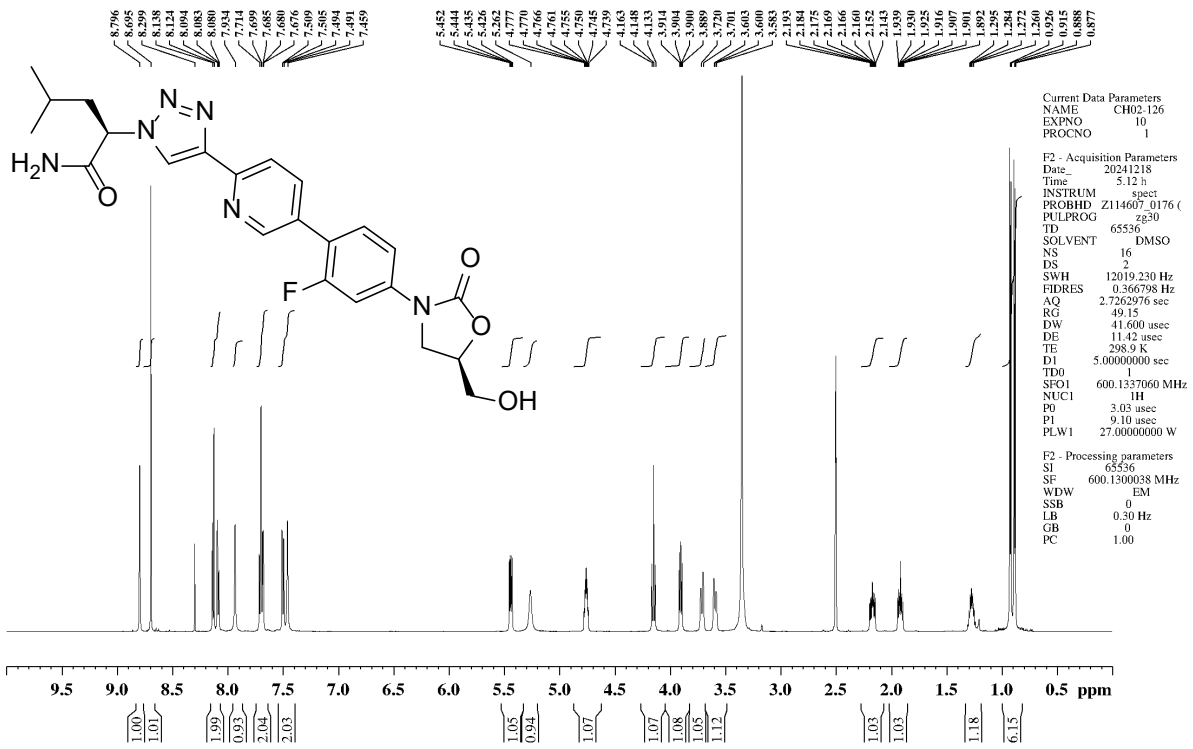
F2 - Acquisition Parameters
 Date_ 20240725
 Time 4.56 h
 INSTRUM Avance 4
 PROBHD Z172720_0001 (Z)
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 3072
 DS 4
 SWH 23809.524 Hz
 FIDRES 0.726609 Hz
 AQ 1.3762500 sec
 RG 57
 DW 21.000 usec
 DE 8.96 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 3
 SFO1 100.6278593 MHz
 NUC1 13C
 P0 3.00 usec
 P1 9.00 usec
 PLW1 92.00000000 W
 SFO2 400.1516006 MHz
 NUC2 1H
 CPDPRG2 A000
 PCPD2 90.00 usec
 PLW2 24.88999939 W
 PLW12 0.20461001 W
 PLW13 0.10292000 W

F2 - Processing parameters
 SI 131072
 SF 100.6178419 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

¹H and ¹³C NMR of 22 (600 MHz, DMSO-d₆):



¹H and ¹³C NMR of 23 (600 MHz, DMSO-d₆):



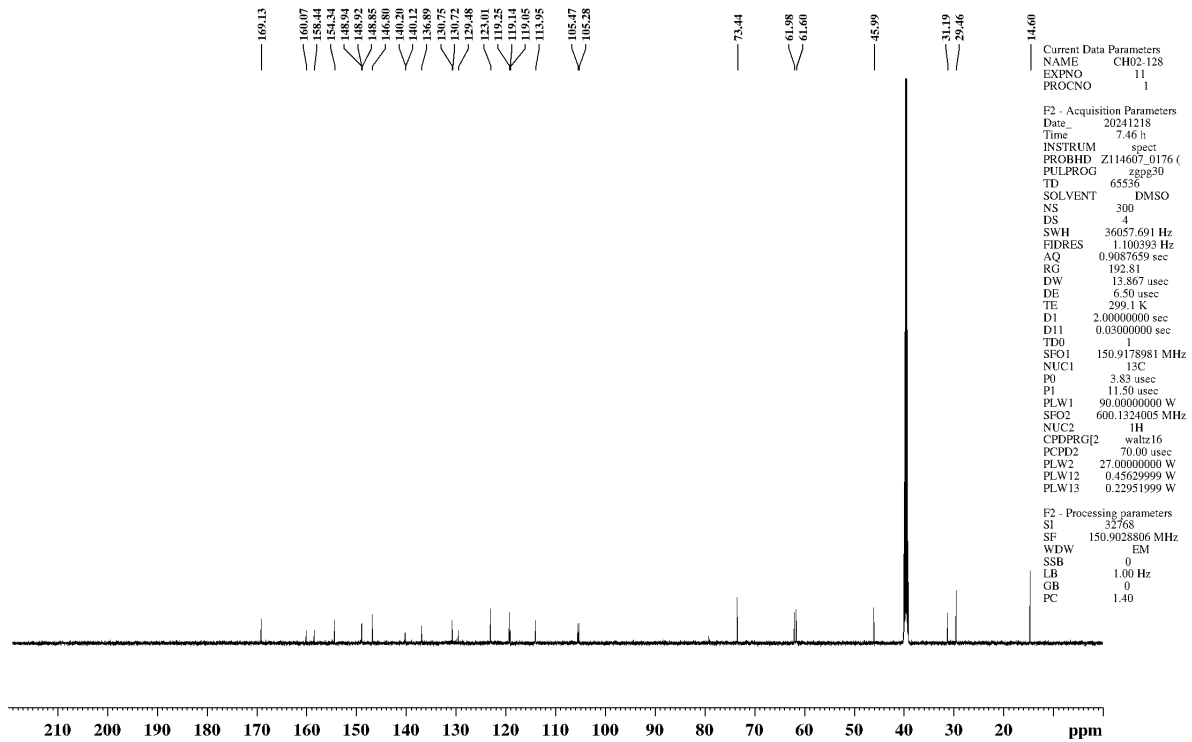
¹H and ¹³C NMR of 24 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH02-128
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20241218
 Time 7.50 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 61.82
 DW 41.600 usec
 DE 11.42 usec
 TE 299.3 K
 D1 5.00000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 1H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300040 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

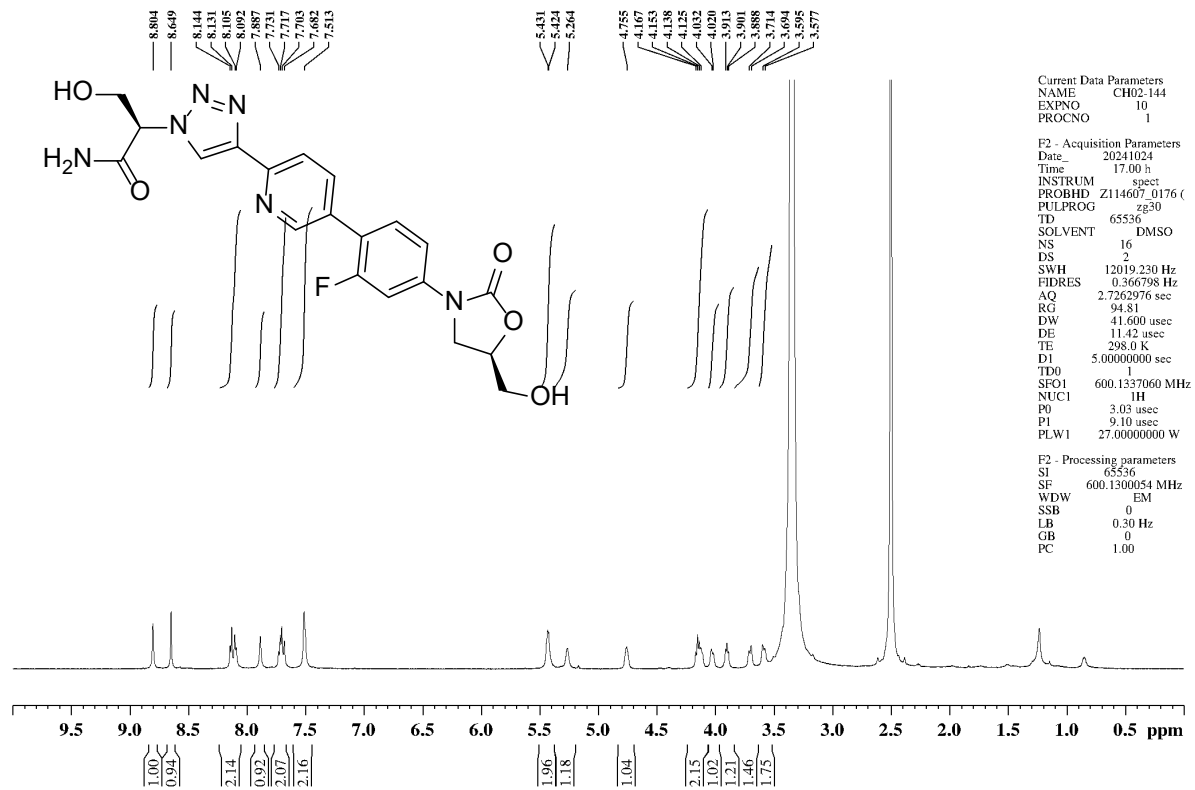


Current Data Parameters
 NAME CH02-128
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20241218
 Time 7.46 h
 INSTRUM spect
 PROBHD Z114607_0176 ()
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 300
 DS 4
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 299.1 K
 D1 2.00000000 sec
 D11 0.02000000 sec
 TD0 1
 SFO1 150.9178981 MHz
 NUC1 13C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028806 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

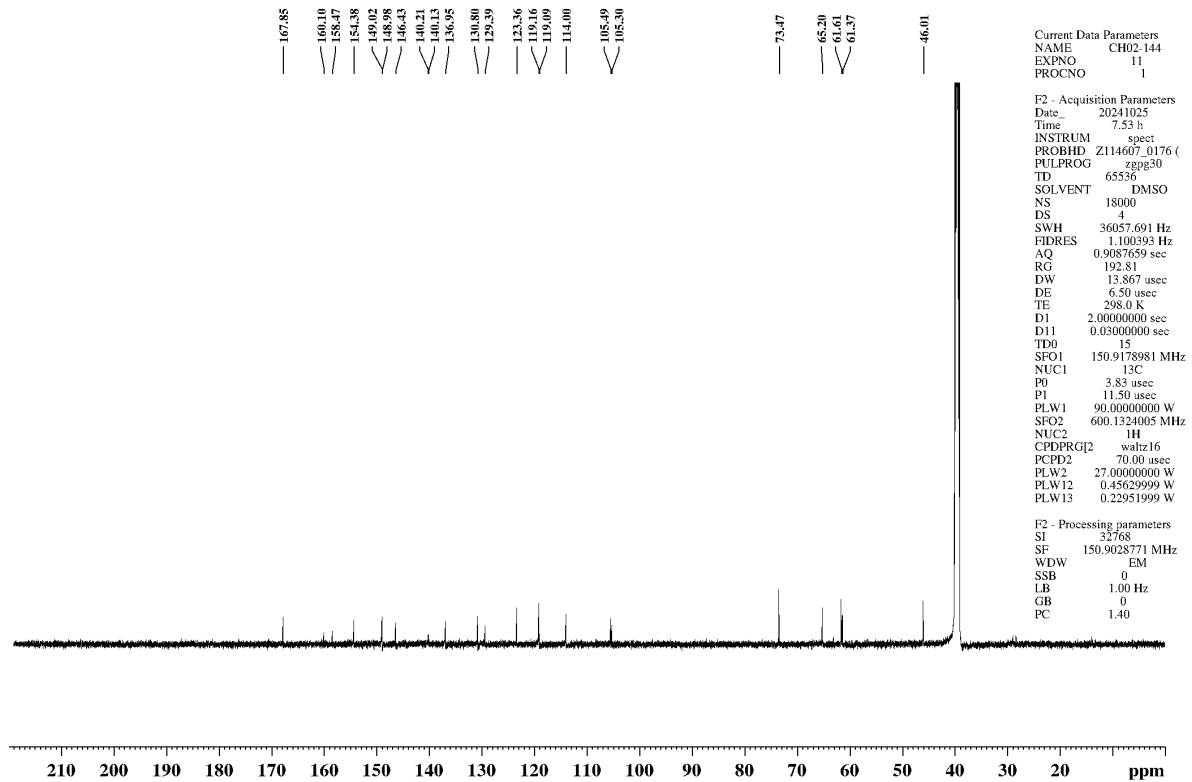
¹H and ¹³C NMR of 25 (600 MHz, DMSO-d₆):



Current Data Parameters
 NAME CH02-144
 EXPNO 10
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20241024
 Time 17.00 h
 INSTRUM spect
 PROBH0 Z114607_0176 (Z114607_0176)
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.366798 Hz
 AQ 2.7262976 sec
 RG 94.81
 DW 41.600 usec
 DE 11.42 usec
 TE 298.0 K
 D1 5.00000000 sec
 TD0 1
 SFO1 600.1337060 MHz
 NUC1 ¹H
 P0 3.03 usec
 P1 9.10 usec
 PLW1 27.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300054 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



Current Data Parameters
 NAME CH02-144
 EXPNO 11
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20241025
 Time 7.53 h
 INSTRUM spect
 PROBH0 Z114607_0176 (Z114607_0176)
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 18000
 DS +
 SWH 36057.691 Hz
 FIDRES 1.100393 Hz
 AQ 0.9087659 sec
 RG 192.81
 DW 13.867 usec
 DE 6.50 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 15
 SFO1 150.9173981 MHz
 NUC1 ¹³C
 P0 3.83 usec
 P1 11.50 usec
 PLW1 90.00000000 W
 SFO2 600.1324005 MHz
 NUC2 ¹H
 CPDPRG2 waltz16
 PCPD2 70.00 usec
 PLW2 27.00000000 W
 PLW12 0.45629999 W
 PLW13 0.22951999 W

F2 - Processing parameters
 SI 32768
 SF 150.9028771 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

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