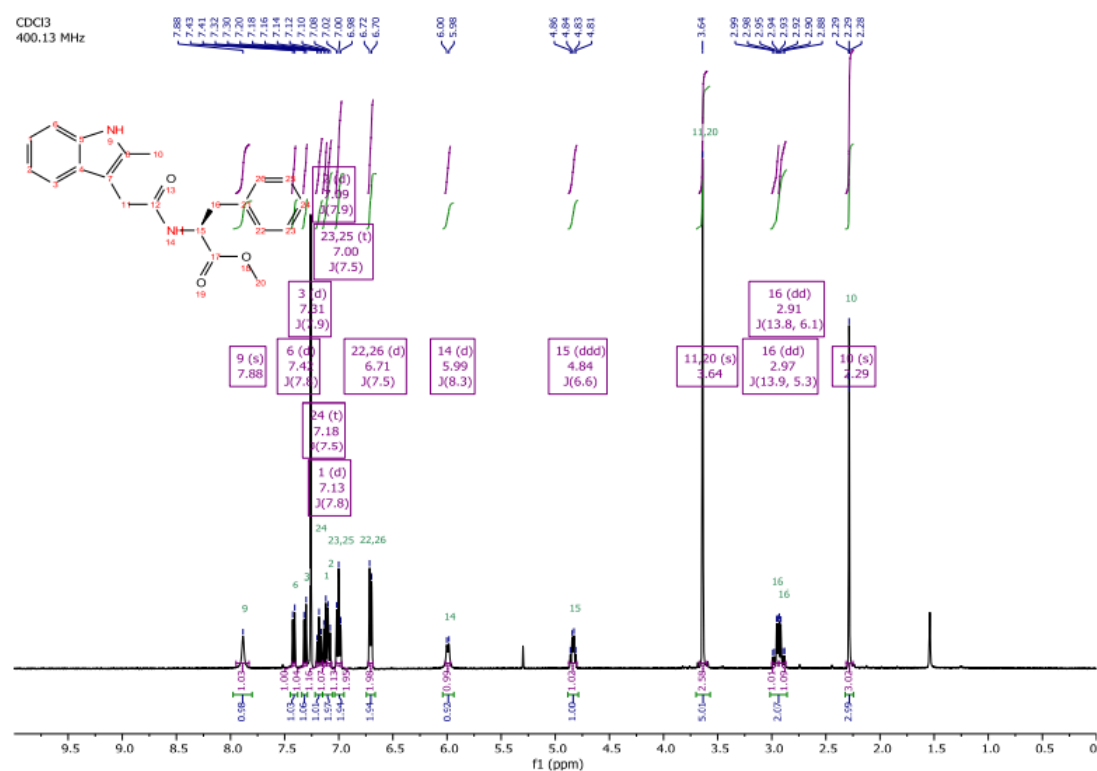


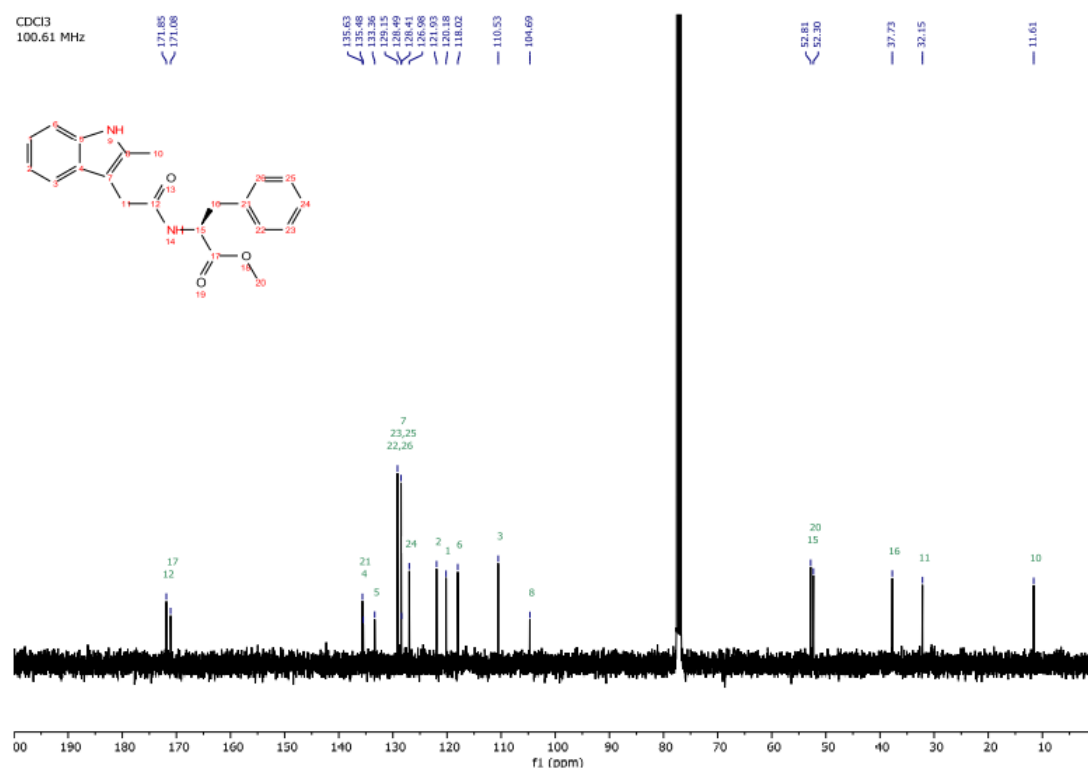
Supplementary Material

**Synthesis, Enantiomeric Resolution and Biological Evaluation of
HIV Capsid Inhibition Activity for Racemic, (*S*)- and (*R*)-PF74.**

¹H NMR Spectra of methyl ester **3a**



¹³C NMR Spectra of methyl ester **3a**



Chemical Structure of Compound 10:

O=C1C(=O)Nc2cc3ccccc3cc2N1C(=O)O

¹H NMR Spectrum (CDCl₃):

Peak Label	Chemical Shift (ppm)	Integration
9 (s)	7.92	1.00
20 (t)	7.18	1.00
18,22 (d)	6.70	1.00
24 (d)	6.00	1.00
14 (m)	4.84	1.00
11',26 (s)	3.64	1.00
15' (m)	2.93	1.00
19 (s)	2.28	1.00

CDCl₃
100.62 MHz

171.85
171.09

135.61
135.47
129.15
128.49
128.39
128.00
121.91
120.17
118.00

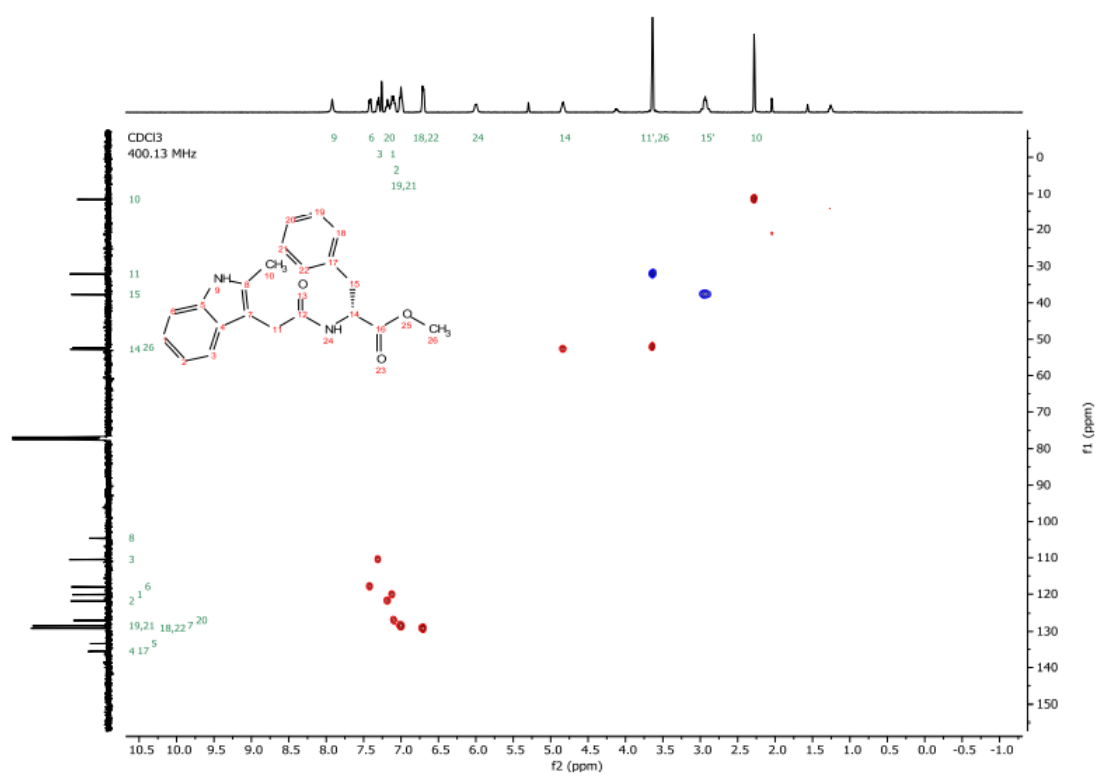
110.54
104.65

52.81
52.31

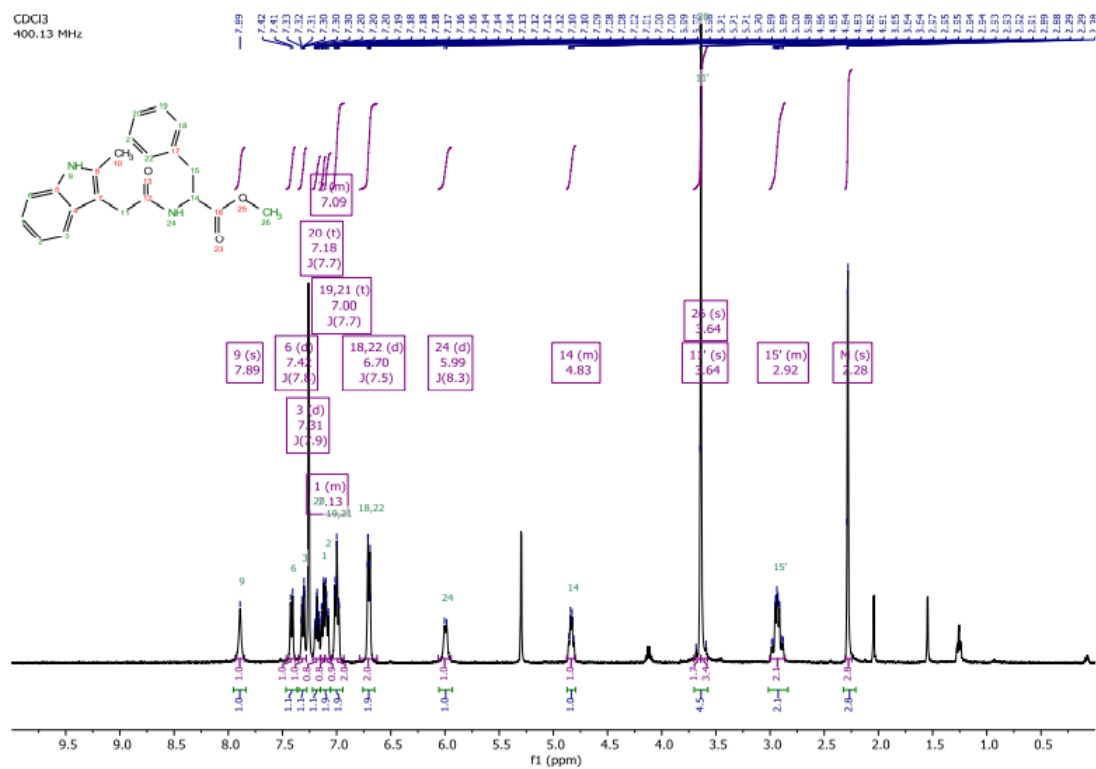
37.72
32.14

11.60

The figure displays the ¹³C NMR spectrum of compound 10 in CDCl₃. The chemical structure of compound 10 is shown in the upper left, with carbon atoms numbered 1 through 26. The spectrum shows peaks corresponding to these carbons, with the following assignments: 12, 16 (aromatic); 17, 4, 5 (aliphatic); 7, 19, 21, 18, 22 (carbonyl); 20, 2, 1, 6 (aliphatic); 3, 8 (aliphatic); 14, 26 (aliphatic); 15, 11 (aliphatic); and 10 (aliphatic). The x-axis represents the chemical shift in ppm, ranging from 0 to 200. The solvent peak for CDCl₃ is visible at 77.0 ppm.

HSQC NMR Spectra of methyl ester **3b**

¹H NMR Spectra of methyl ester **3c**



1H NMR spectrum of compound 10 in CDCl₃.

Chemical structure of compound 10: O=C1C(=O)N(C1)c2cc3ccccc3nc2

Peak list (ppm, integration, multiplicity):

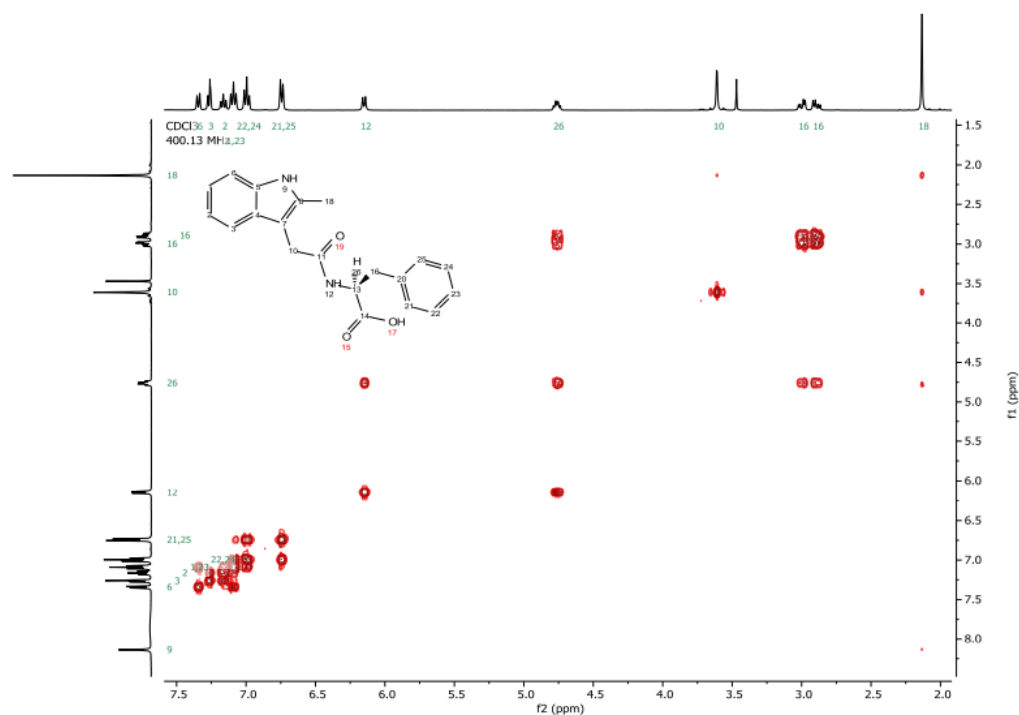
Chemical Shift (ppm)	Integration	Multiplicity
8.14	1.10	s
7.34	1.00	d
7.26	1.00	d
7.25	1.00	d
7.15	1.00	d
7.11	1.00	d
7.07	1.00	d
7.01	1.00	d
6.98	1.00	d
6.96	1.00	d
6.75	1.00	d
6.16	1.00	d
4.76	1.00	dd
3.61	1.00	m
3.00	1.00	dd
2.89	1.00	dd
2.13	3.00	s

Chemical structure of compound **1** is shown with atom numbering. The ¹³C NMR spectrum (CDCl₃, 100.62 MHz) displays the following peak assignments (ppm):

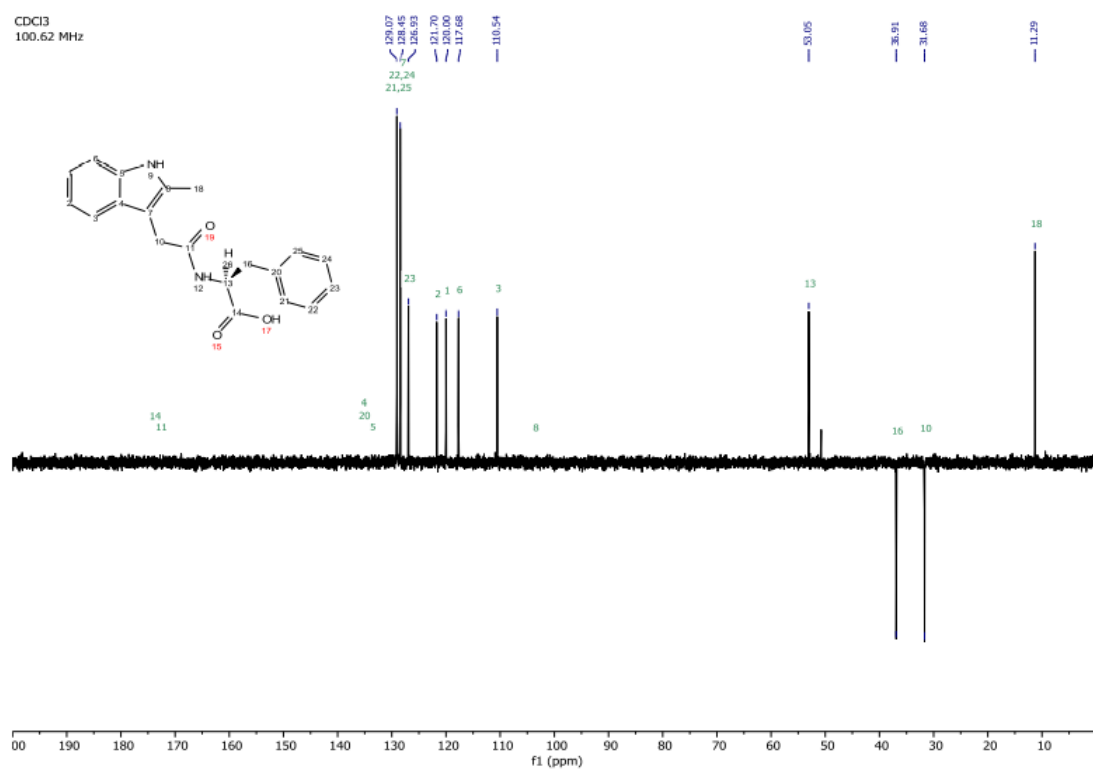
- 14, 11, 4, 5, 20, 23, 2, 1, 6, 3, 8, 13, 16, 10, 18

The x-axis represents the chemical shift in ppm (f1), ranging from 0 to 200.

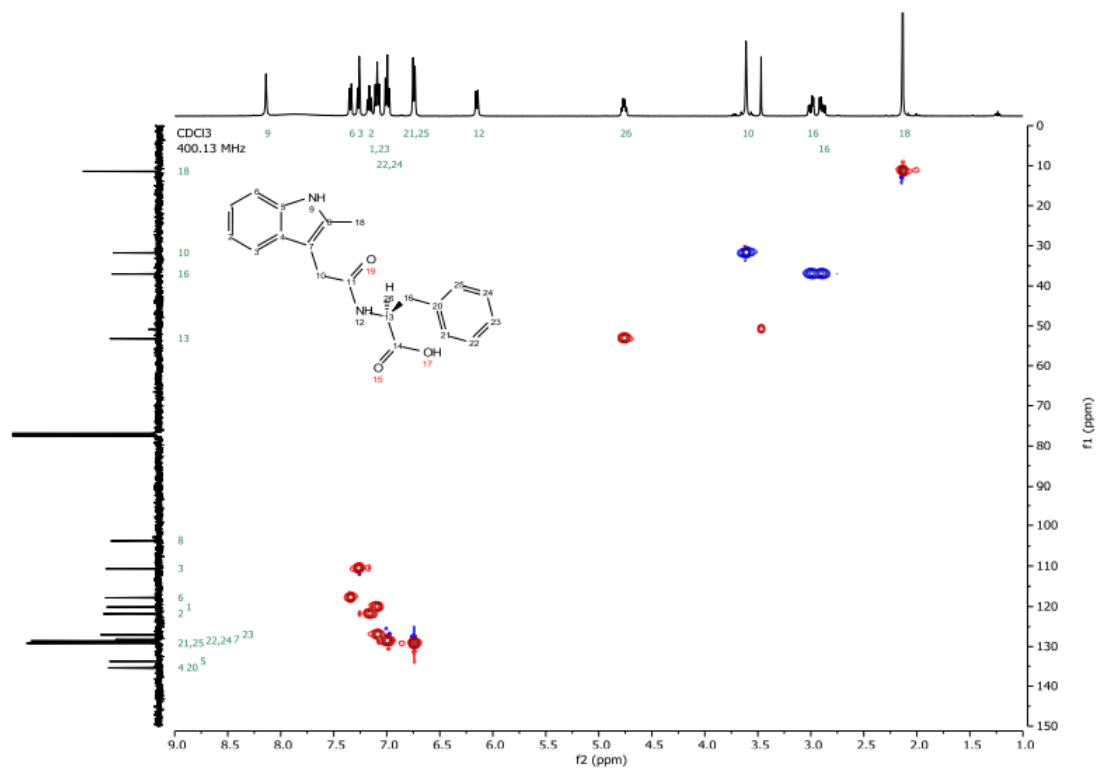
COSY NMR Spectra of acid **4a**



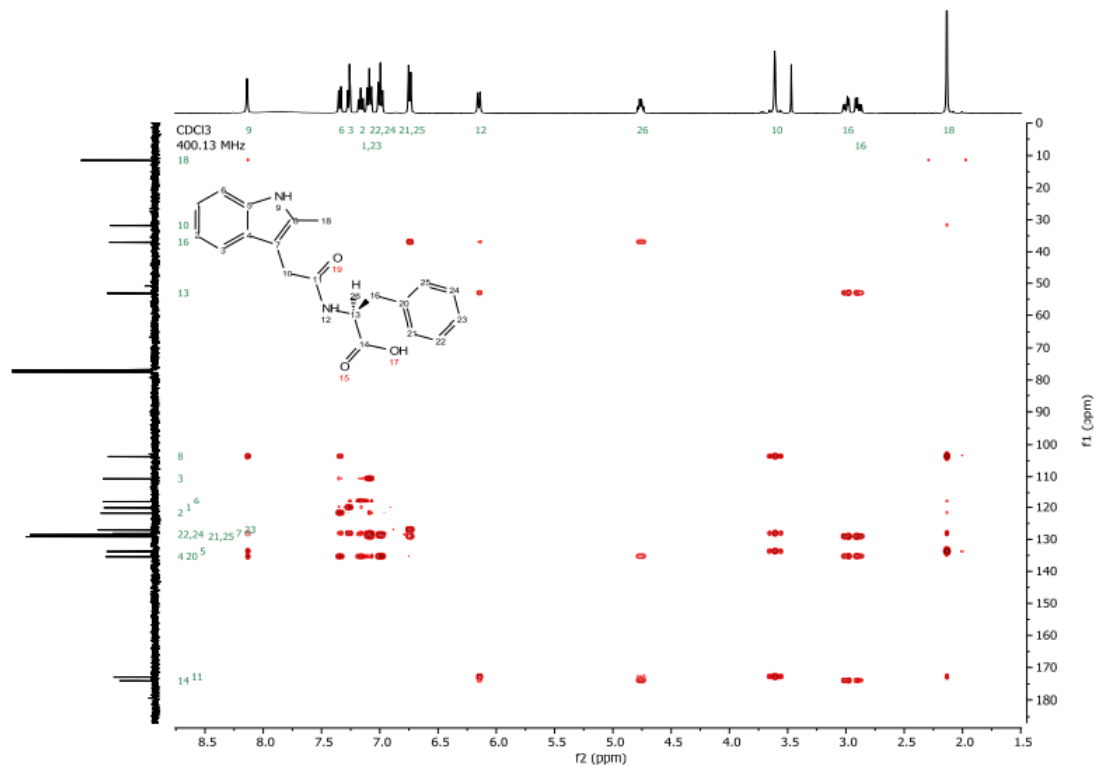
DEPT-135 NMR Spectra of acid **4a**



HSQC NMR Spectra of acid **4a**



HMBC NMR Spectra of acid **4a**

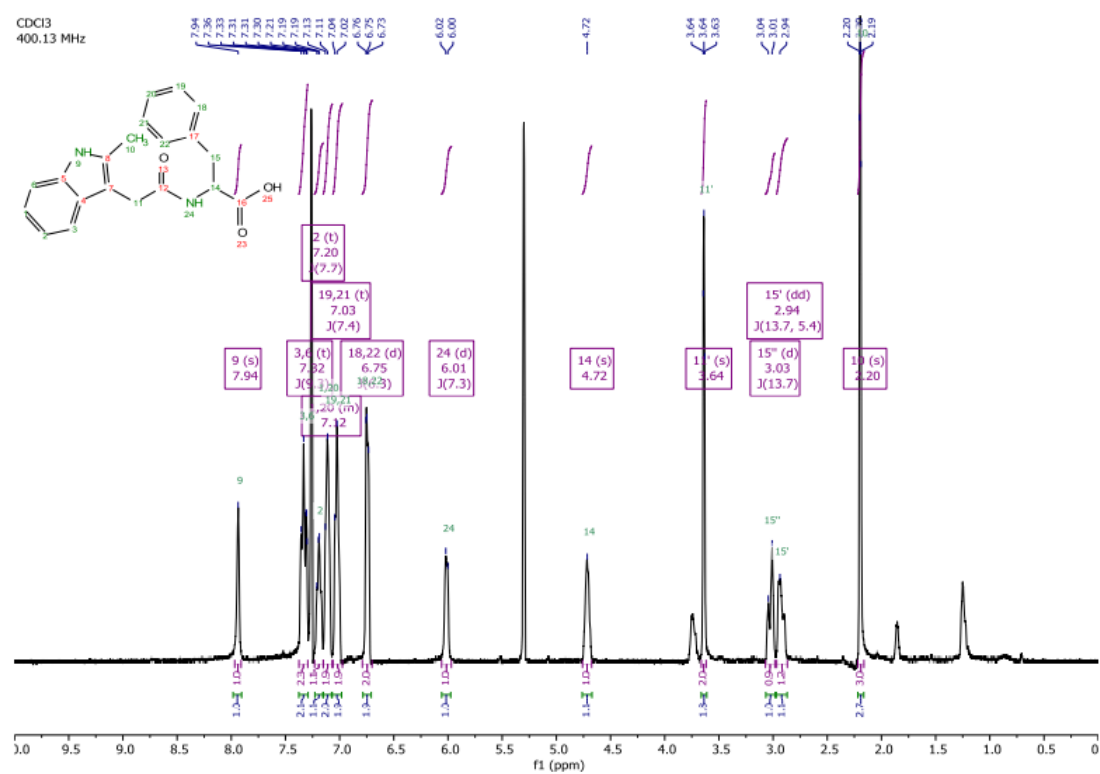


Chemical Structure of Compound 14: CC1=C(C(=O)N1C2=CC=CC=C2)C(=O)N1C2=CC=CC=C2

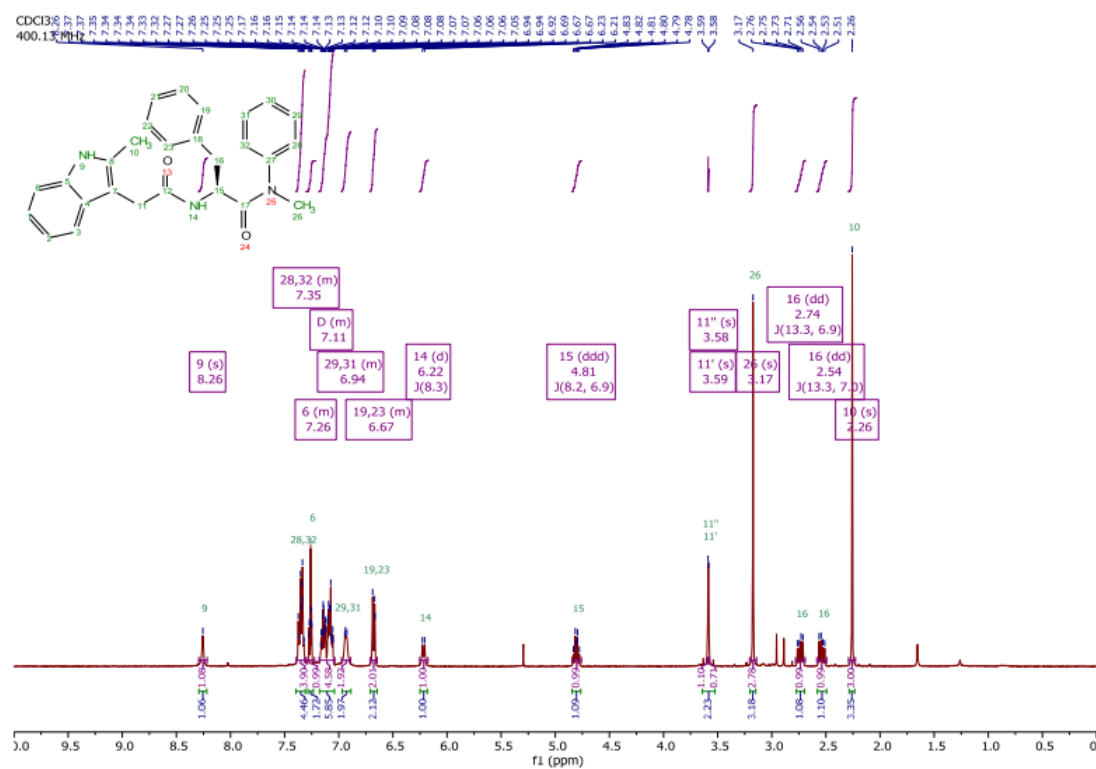
¹H NMR Spectrum (CDCl₃):

Chemical Shift (ppm)	Multiplicity	Integration
9.81	s	1.00
7.89	s	1.00
7.33	m	3.00
7.11	m	1.00
6.74	m	1.00
5.99	s	1.00
4.69	s	1.00
3.64	s	1.00
3.04	dd	1.00
2.95	dd	1.00
2.20	s	1.00

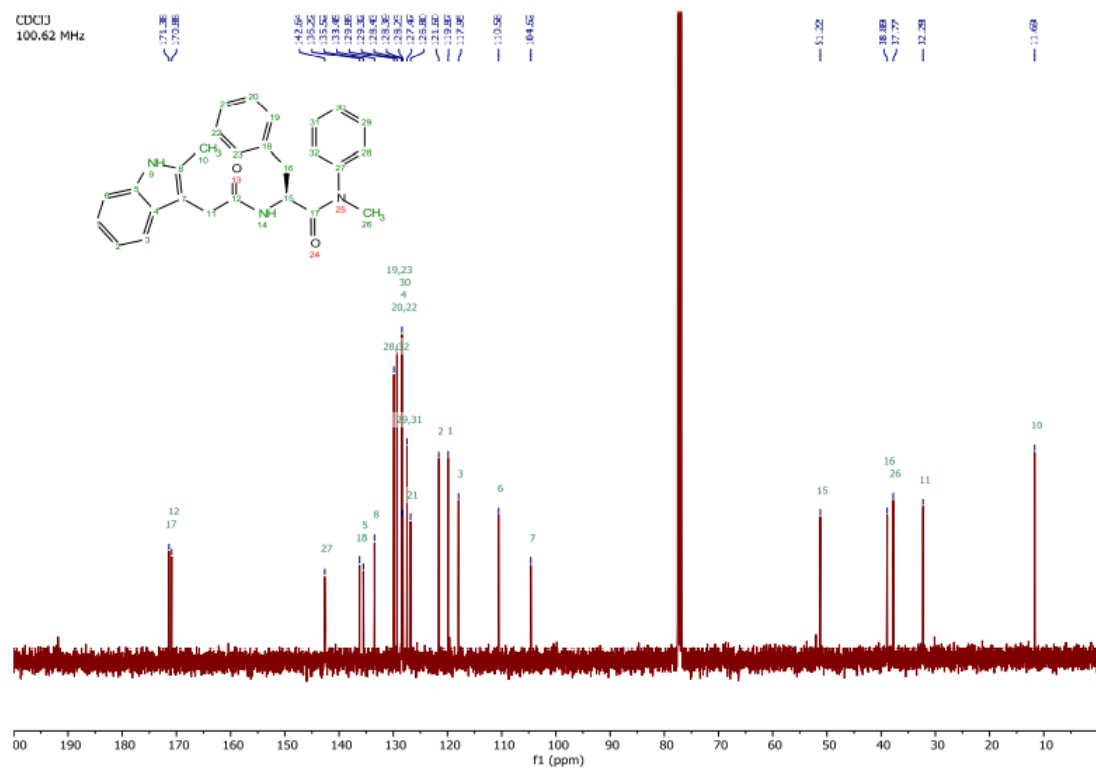
¹H NMR Spectra of acid **4c**



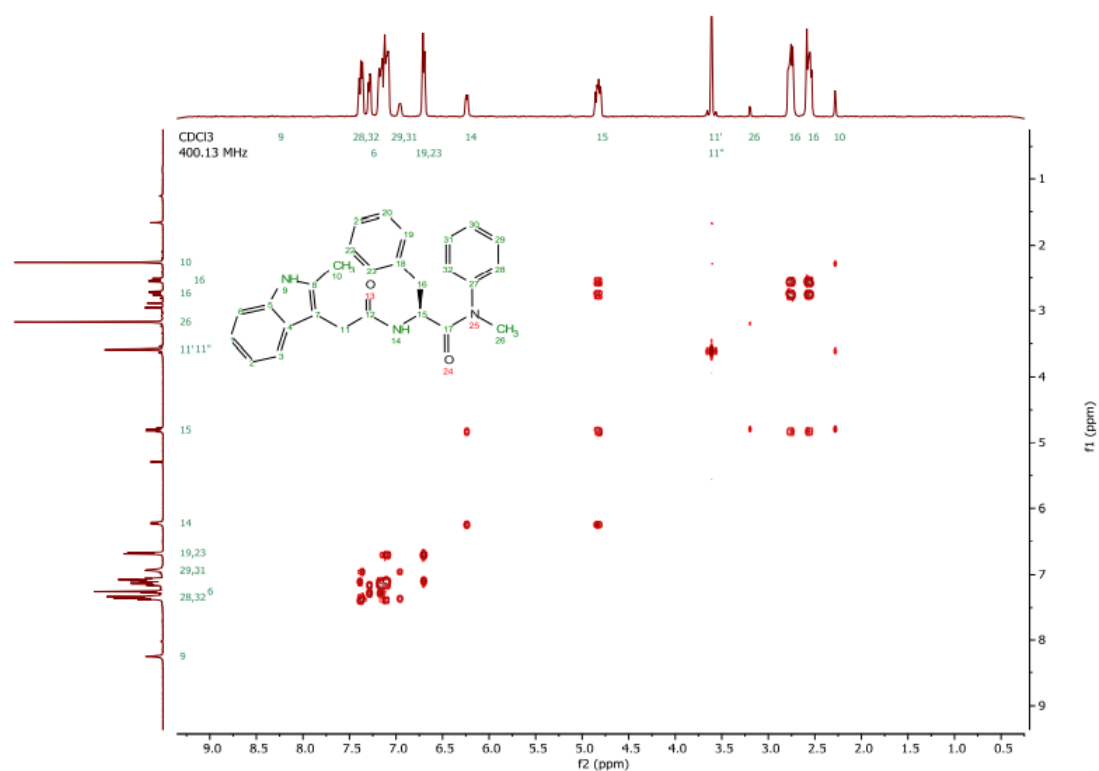
¹H NMR Spectra of natural PF74 **5a**



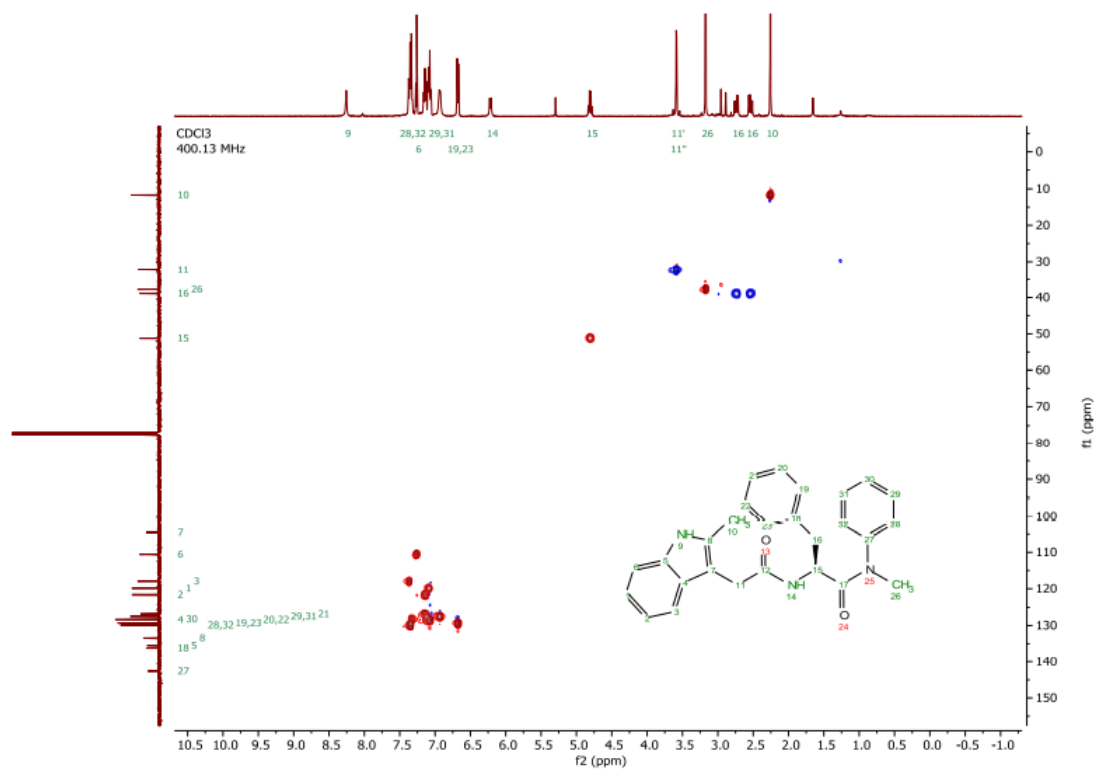
¹³C NMR Spectra of natural PF74 **5a**



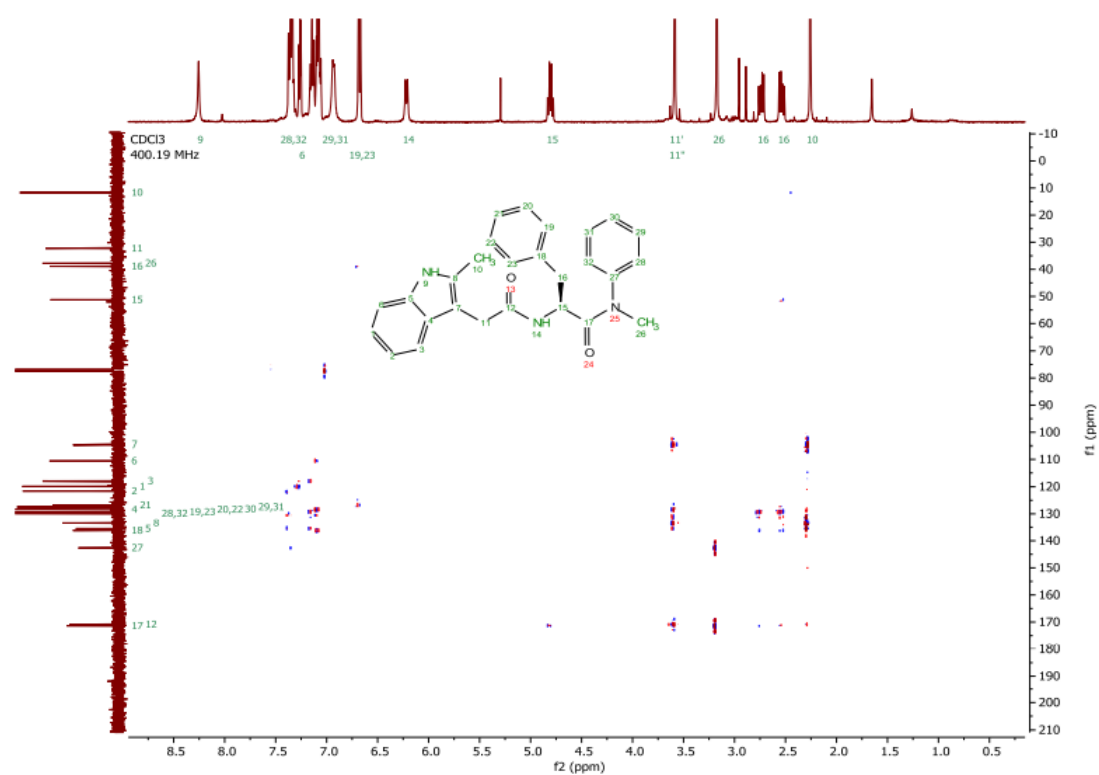
COSY Spectra of natural PF74 **5a**



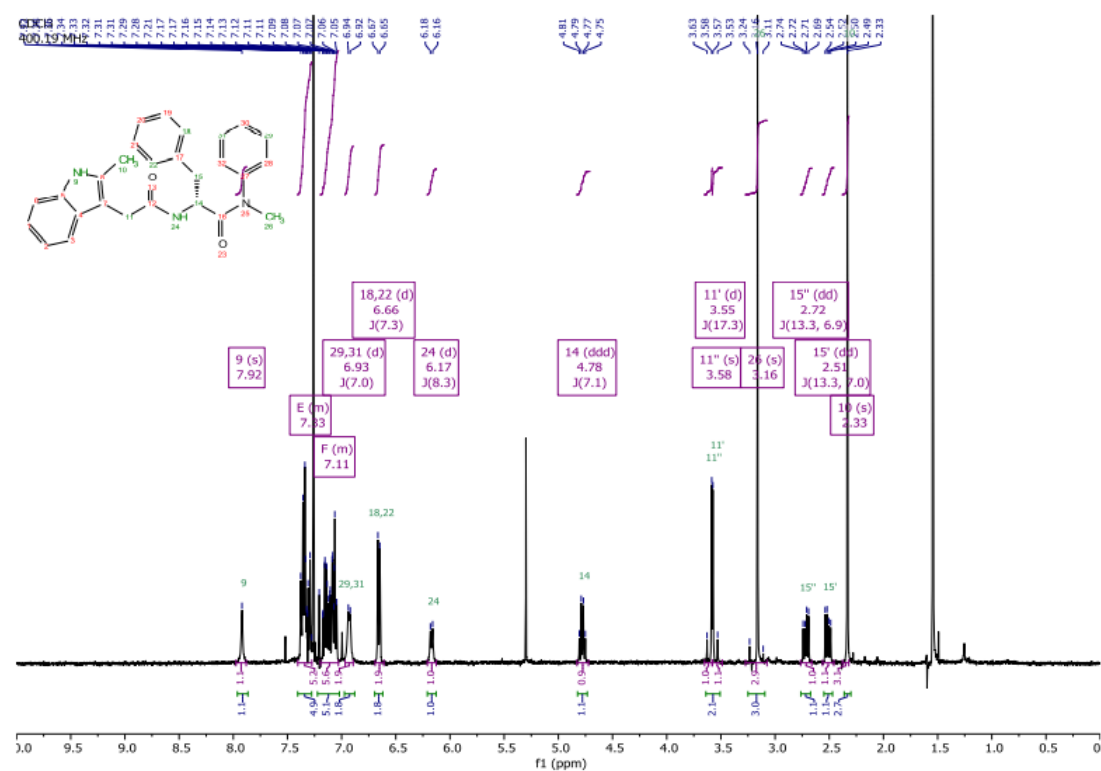
HSQC Spectra of natural PF74 **5a**



HMBC Spectra of natural PF74 **5a**



¹H NMR Spectra of unnatural PF74 **5b**



¹H NMR Spectra of racemic PF74 **5c**

