High-throughput synthesis of catechol derivatives as covalent inhibitors of SARS-CoV-2 3CL^{pro} using modular click chemistry

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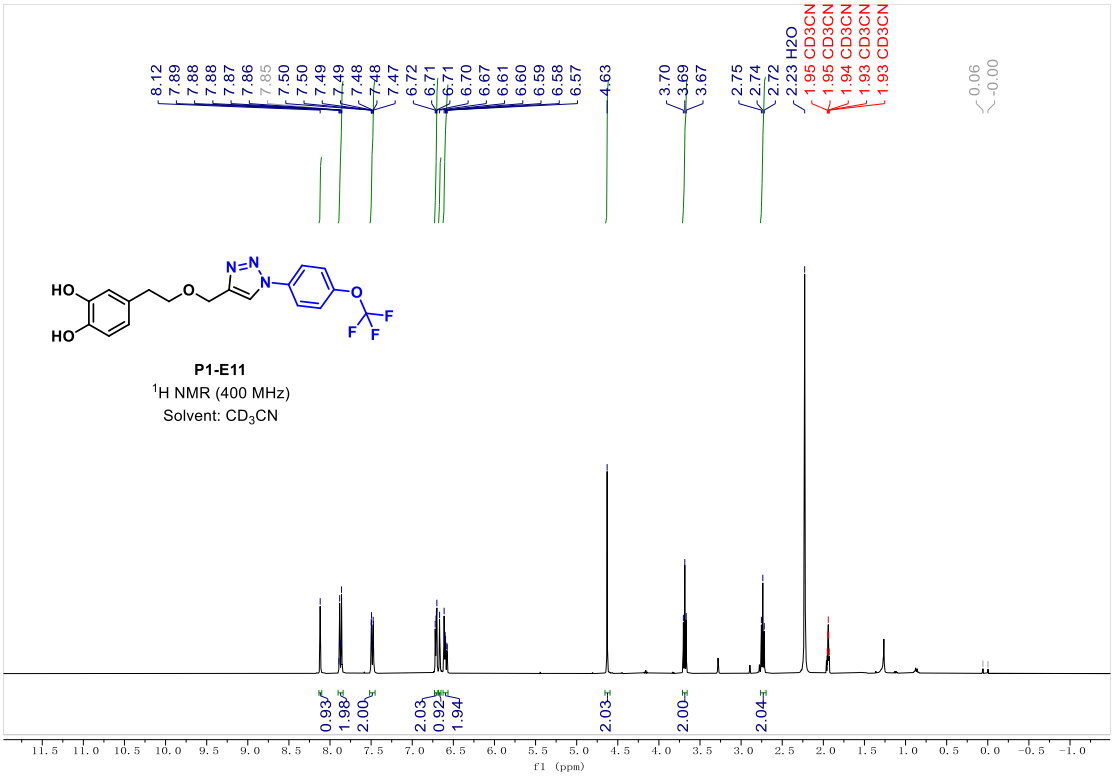
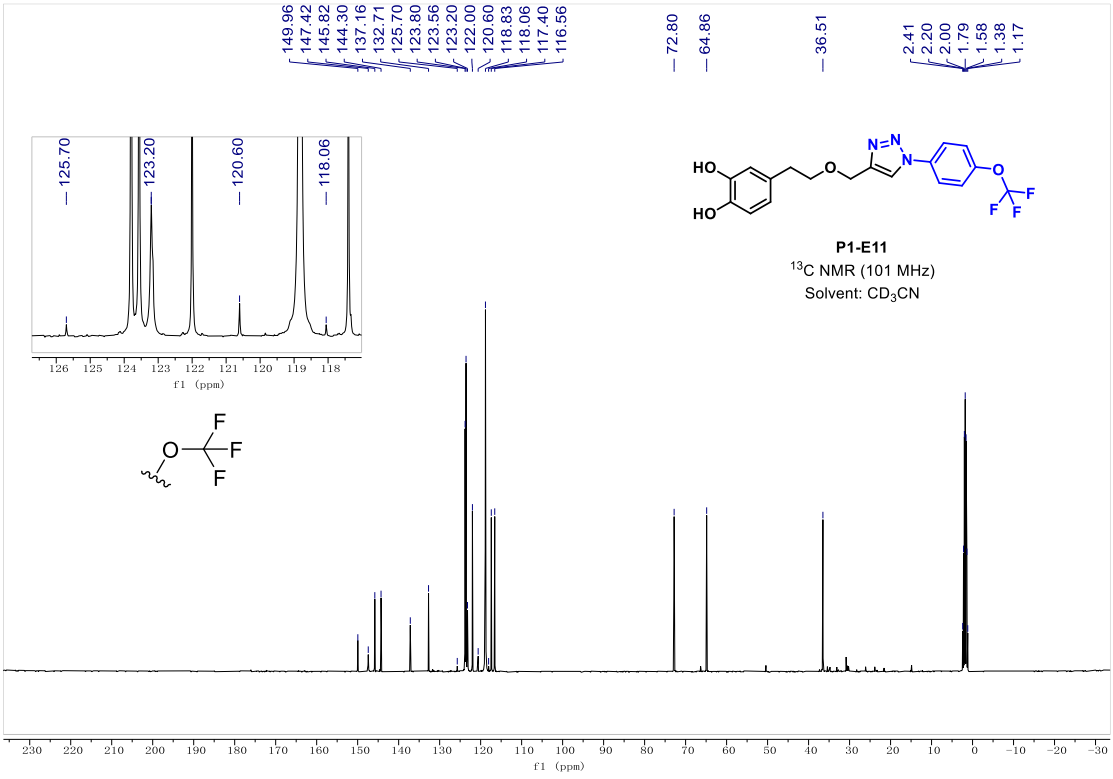
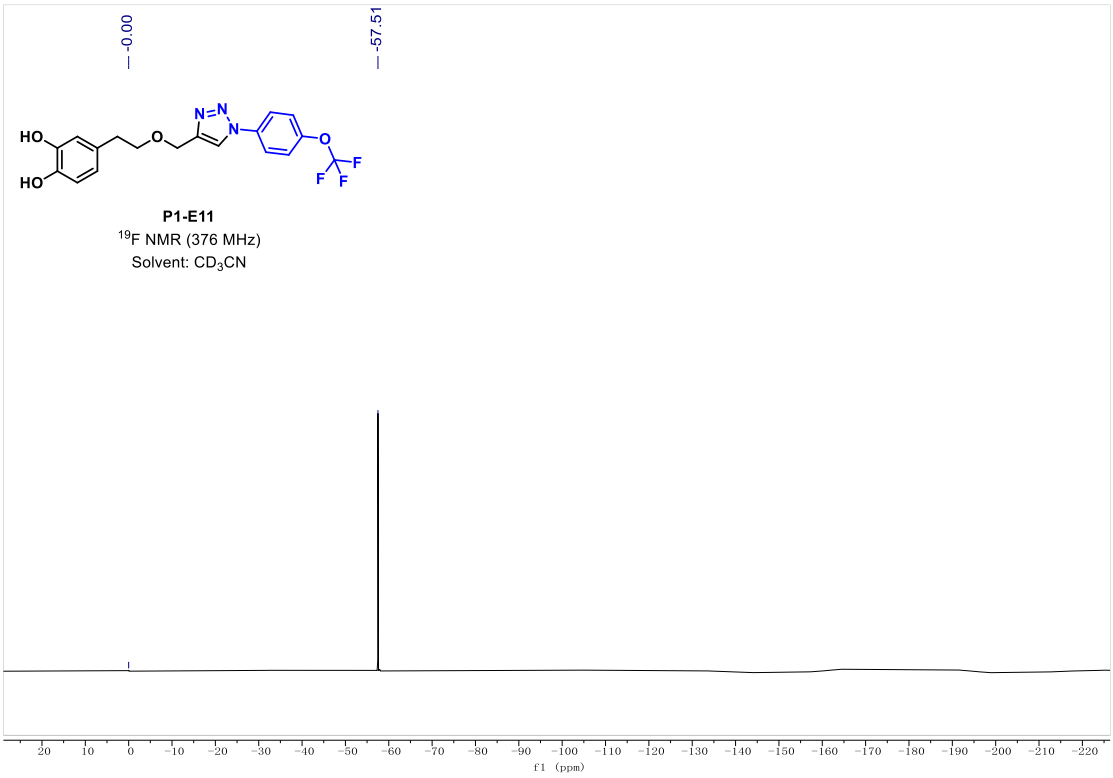
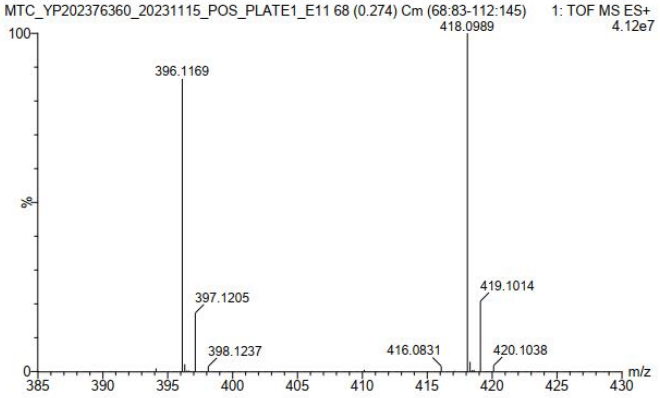
Table of contents

1. ^{1}H-NMR, ^{13}C-NMR, ^{19}F NMR spectrums and HRMS reports of target compounds.

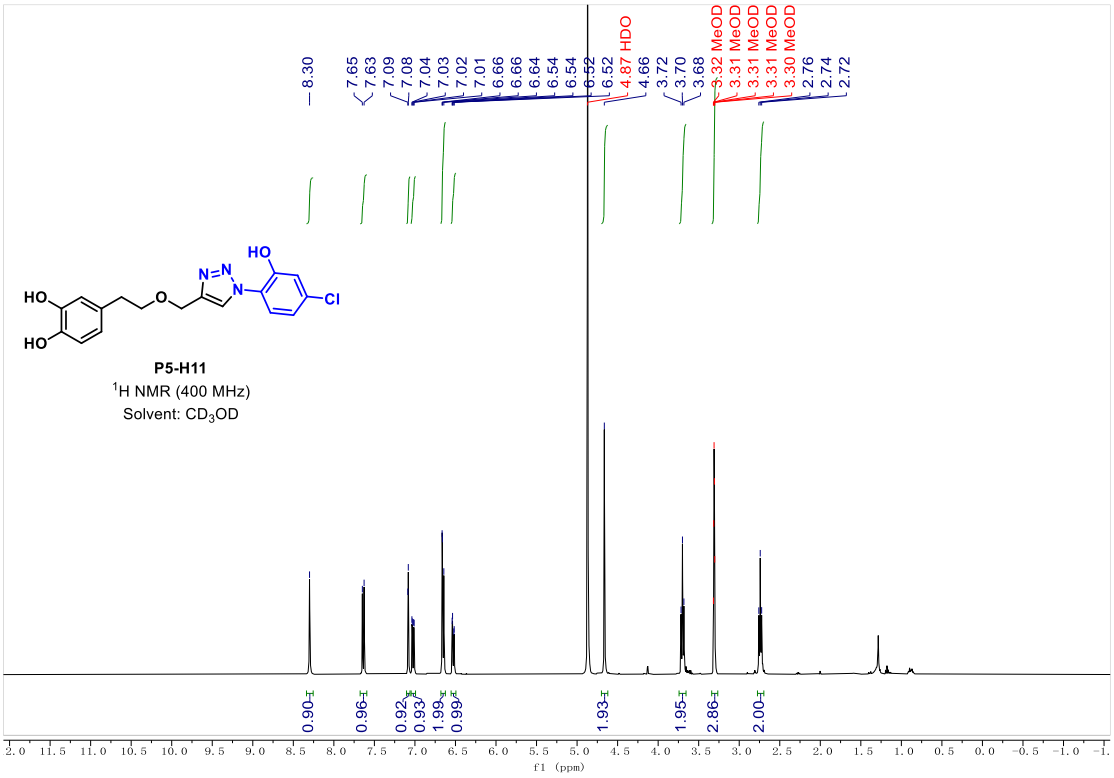








Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
396.1169	396.1171	-0.2	-0.5	10.5	468.5	n/a	n/a	C18 H17 N3 O4 F3
418.0989	418.0991	-0.2	-0.5	10.5	488.0	n/a	n/a	C18 H16 N3 O4 Na F3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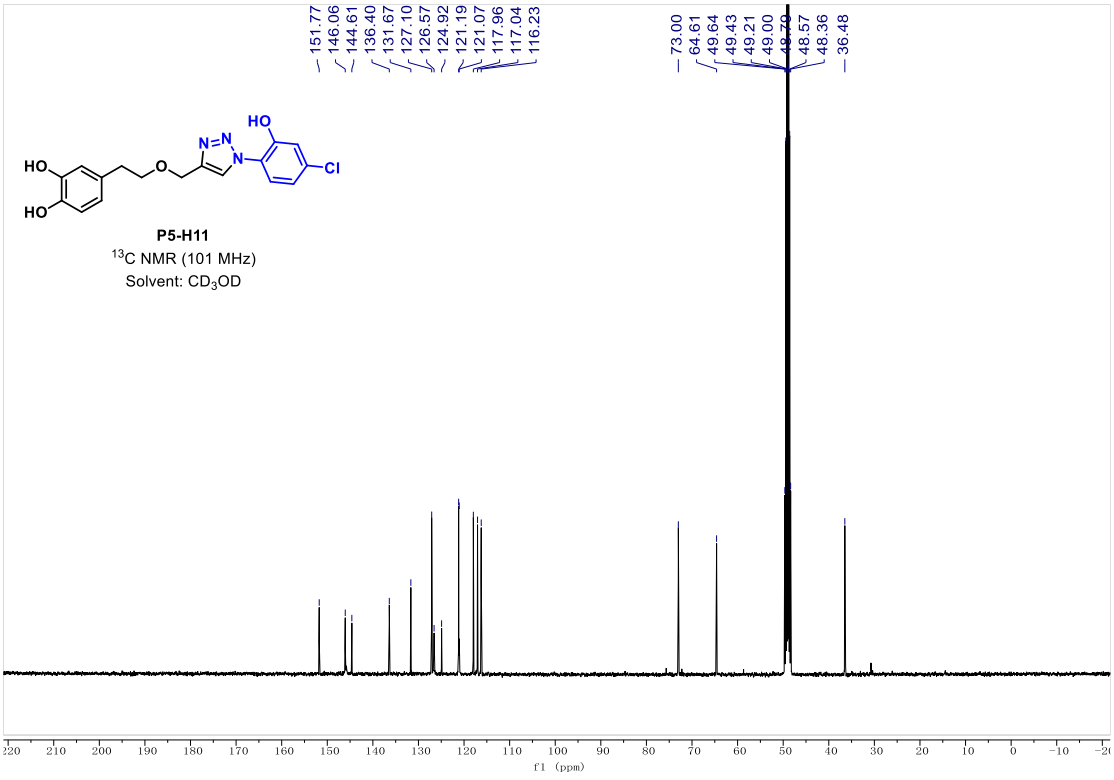
7.65
7.63
7.09
7.08
7.04
7.03
7.02
7.01
6.66
6.64
6.54
6.54
6.52
6.52
4.87 HDO
4.66
3.72
3.70
3.68
3.32 MeOD
3.31 MeOD
3.31 MeOD
3.31 MeOD
3.30 MeOD
2.76
2.74
2.72
HO
HO
HO
N=N
N
O
Cl
P5-H11
1H NMR (400 MHz)
Solvent: CD3OD
0.90
0.96
0.92
0.93
1.99
0.99
1.93
1.95
2.86
2.00
f1 (ppm)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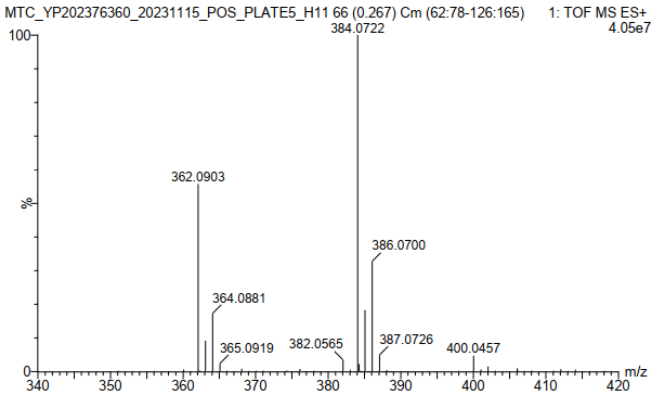
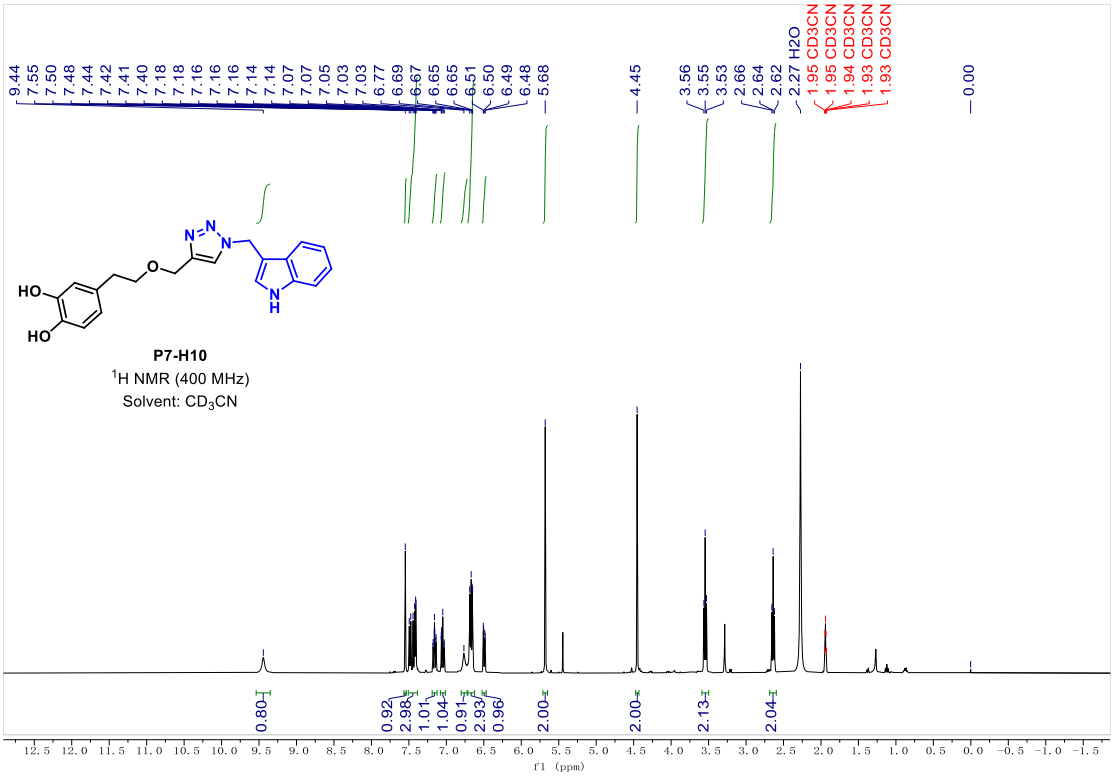
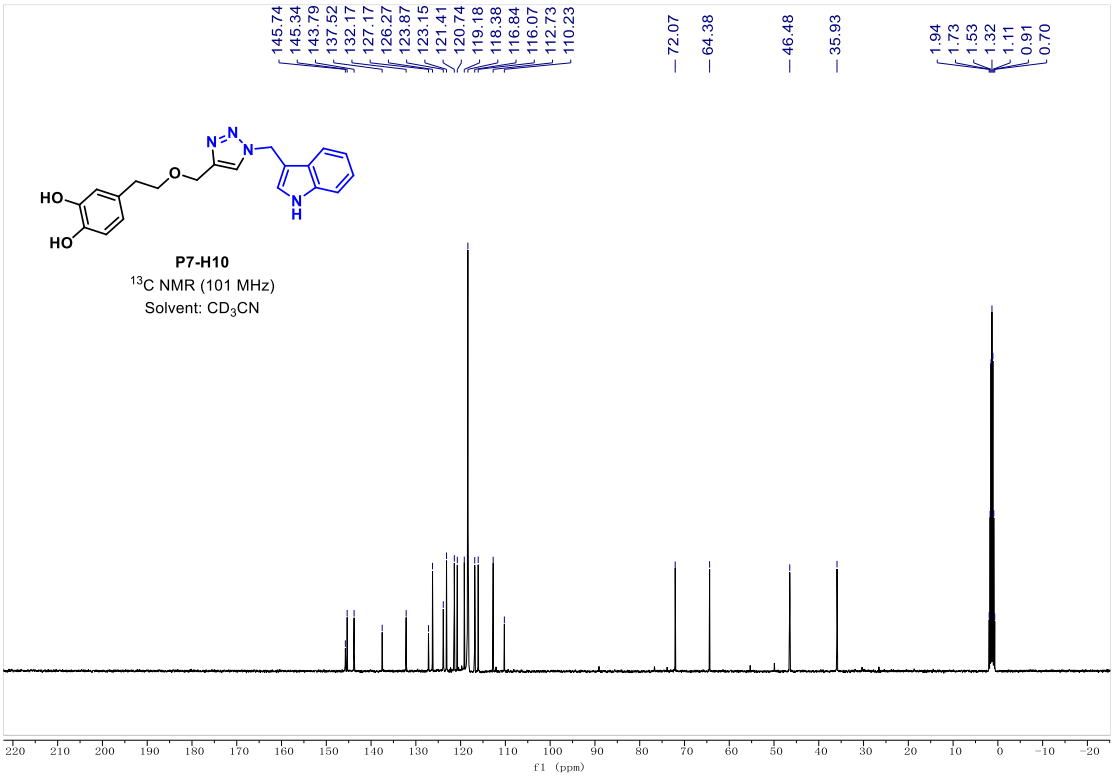
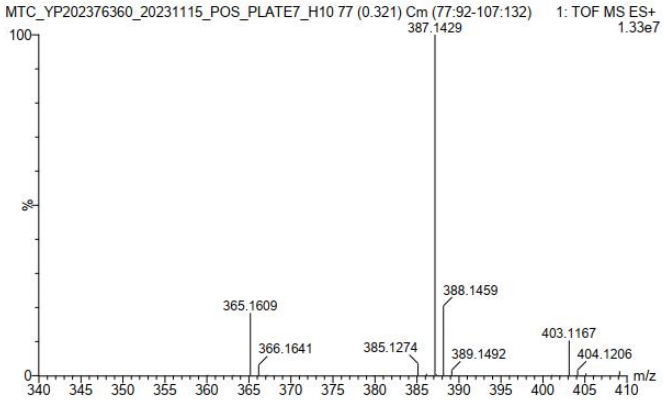
73.00
64.61
49.64
49.43
49.21
49.00
48.79
48.57
48.36
36.48
HO
HO
HO
N=N
N
O
Cl
P5-H11
13C NMR (101 MHz)
Solvent: CD3OD
f1 (ppm)



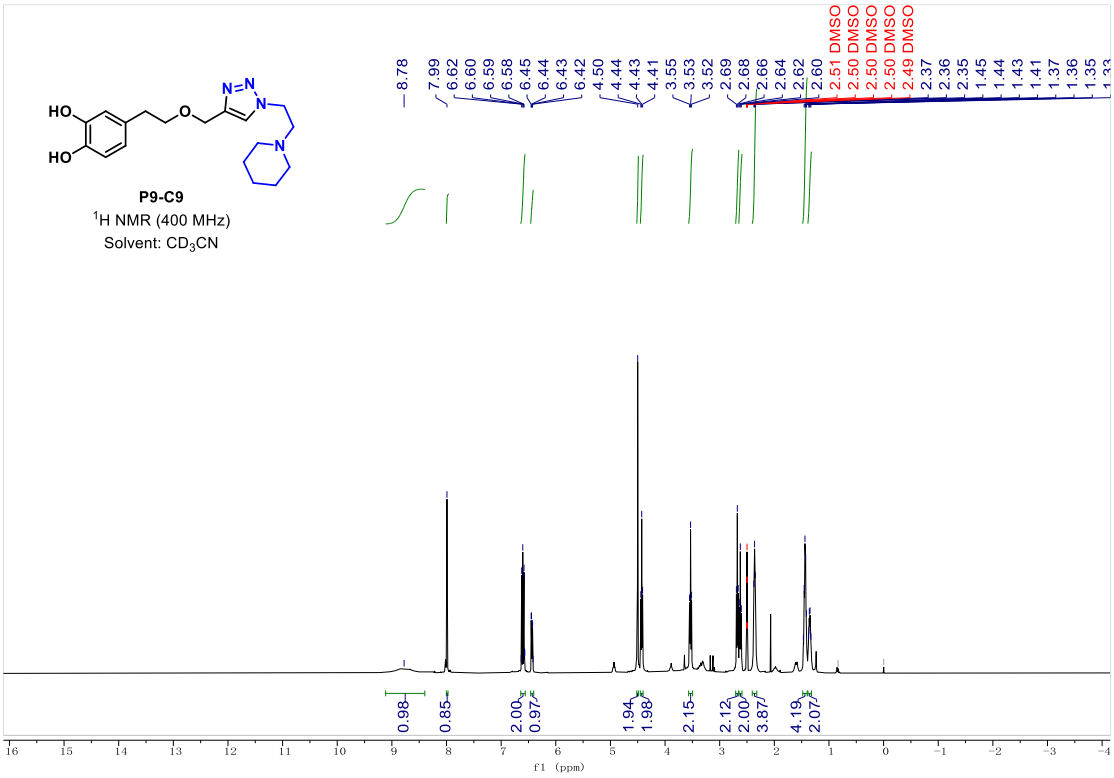
Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
362.0903	362.0908	-0.5	-1.4	10.5	352.0	n/a	n/a	C17 H17 N3 O4 Cl
384.0722	384.0727	-0.5	-1.3	10.5	519.5	n/a	n/a	C17 H16 N3 O4 Na Cl

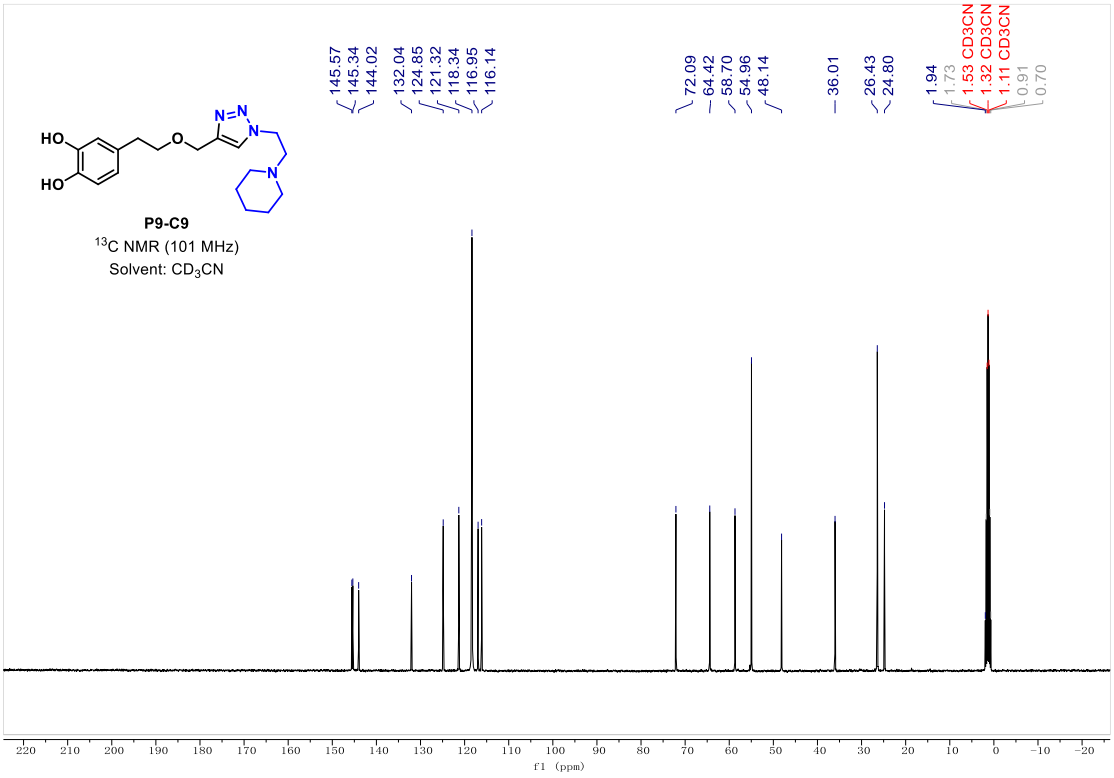






Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
365.1609	365.1614	-0.5	-1.4	12.5	94.3	n/a	n/a	C20 H21 N4 O3
387.1429	387.1433	-0.4	-1.0	12.5	342.6	n/a	n/a	C20 H20 N4 O3 Na


P9-C9
1H NMR (400 MHz)
Solvent: CD3CN
8.78
7.99
6.62
6.60
6.59
6.58
6.45
6.44
6.43
6.42
4.50
4.44
4.43
4.41
3.55
3.53
3.52
2.69
2.68
2.66
2.64
2.62
2.60
2.51 DMSO
2.50 DMSO
2.50 DMSO
2.50 DMSO
2.49 DMSO
2.37
2.36
2.35
1.45
1.44
1.43
1.41
1.37
1.36
1.35
0.98
0.85
2.00
0.97
1.94
1.98
2.15
2.12
2.00
3.87
4.19
2.07
f1 (ppm)


P9-C9
13C NMR (101 MHz)
Solvent: CD3CN
145.57
145.34
144.02
132.04
124.85
121.32
118.34
116.95
116.14
72.09
64.42
58.70
54.96
48.14
36.01
26.43
24.80
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1.73
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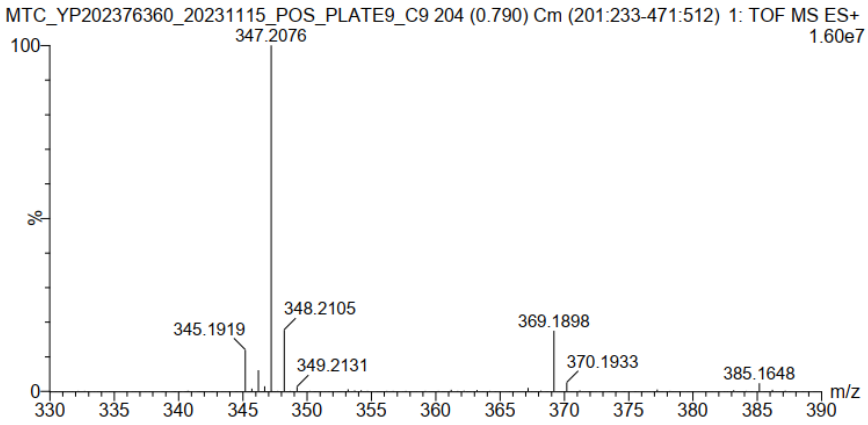
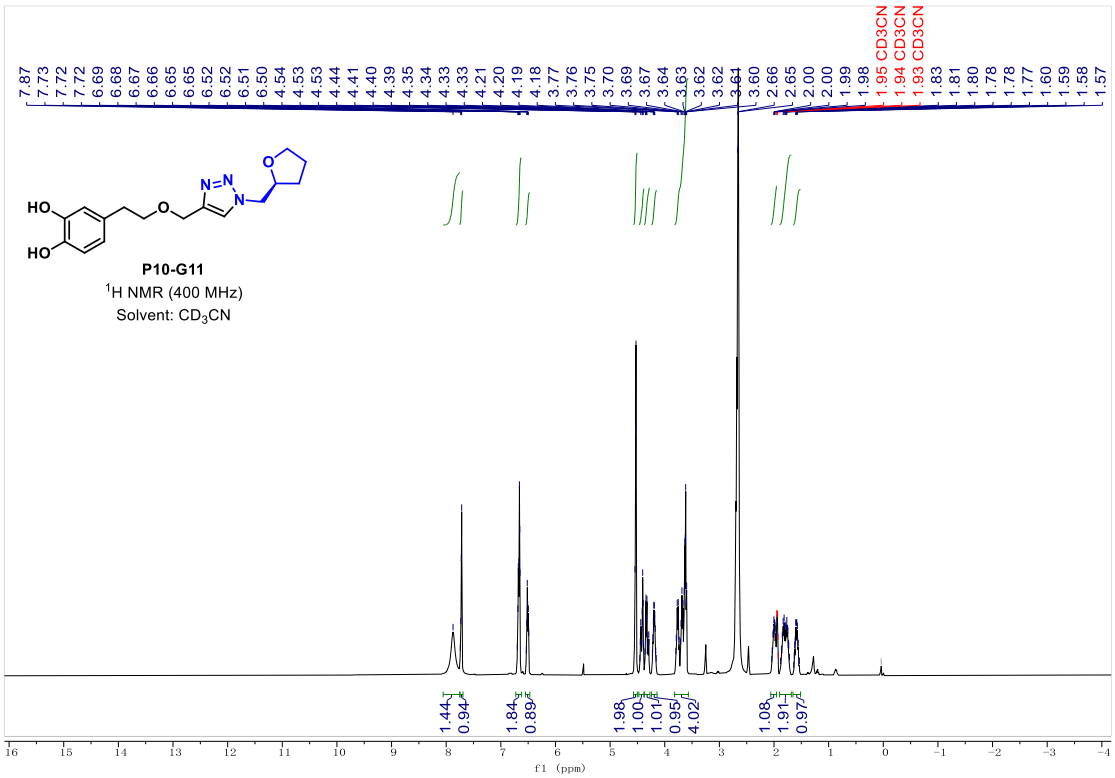
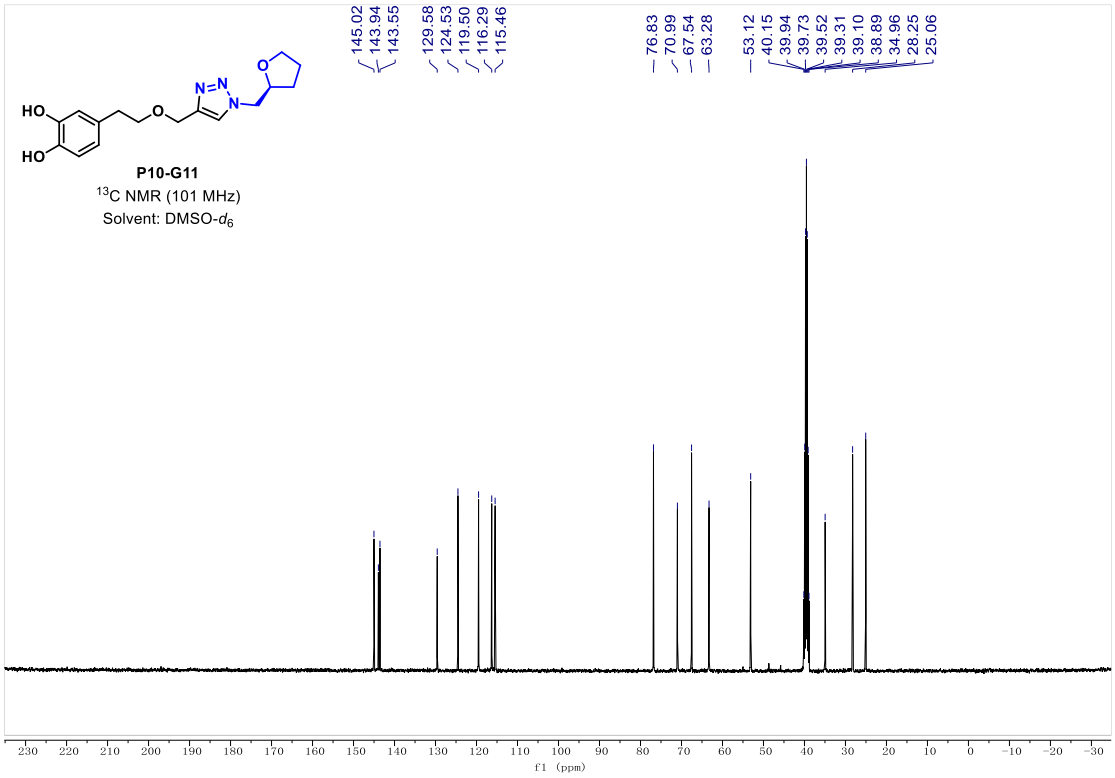
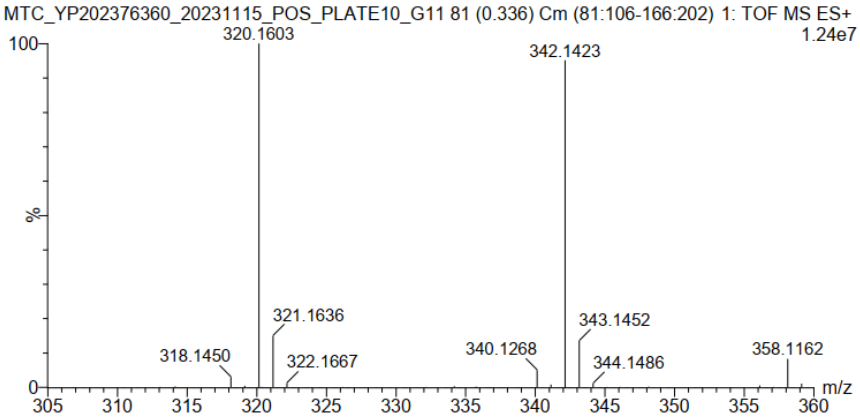
0.91
0.70
f1 (ppm)



Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
347.2076	347.2083	-0.7	-2.0	7.5	550.9	n/a	n/a	C18 H27 N4 O3
369.1898	369.1903	-0.5	-1.4	7.5	204.9	n/a	n/a	C18 H26 N4 O3 Na

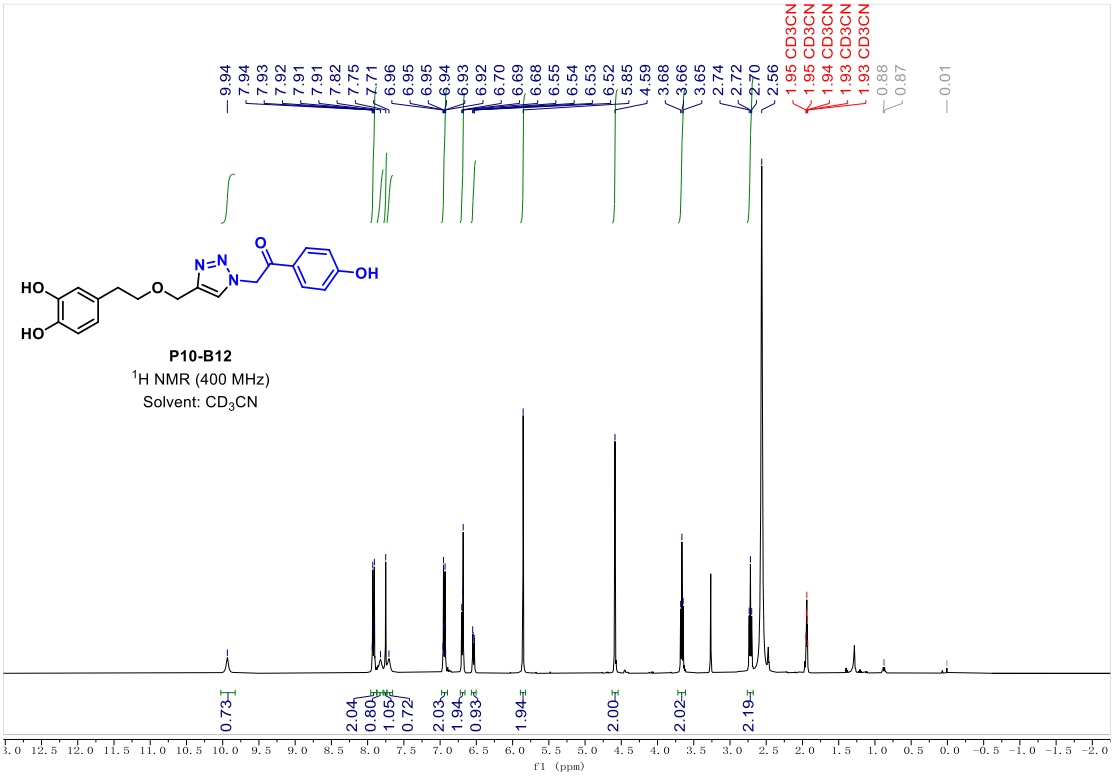






Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
320.1603	320.1610	-0.7	-2.2	7.5	402.6	n/a	n/a	C16 H22 N3 O4
342.1423	342.1430	-0.7	-2.0	7.5	355.9	n/a	n/a	C16 H21 N3 O4 Na

P10-B12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7.94
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7.92
7.91
7.91
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7.75
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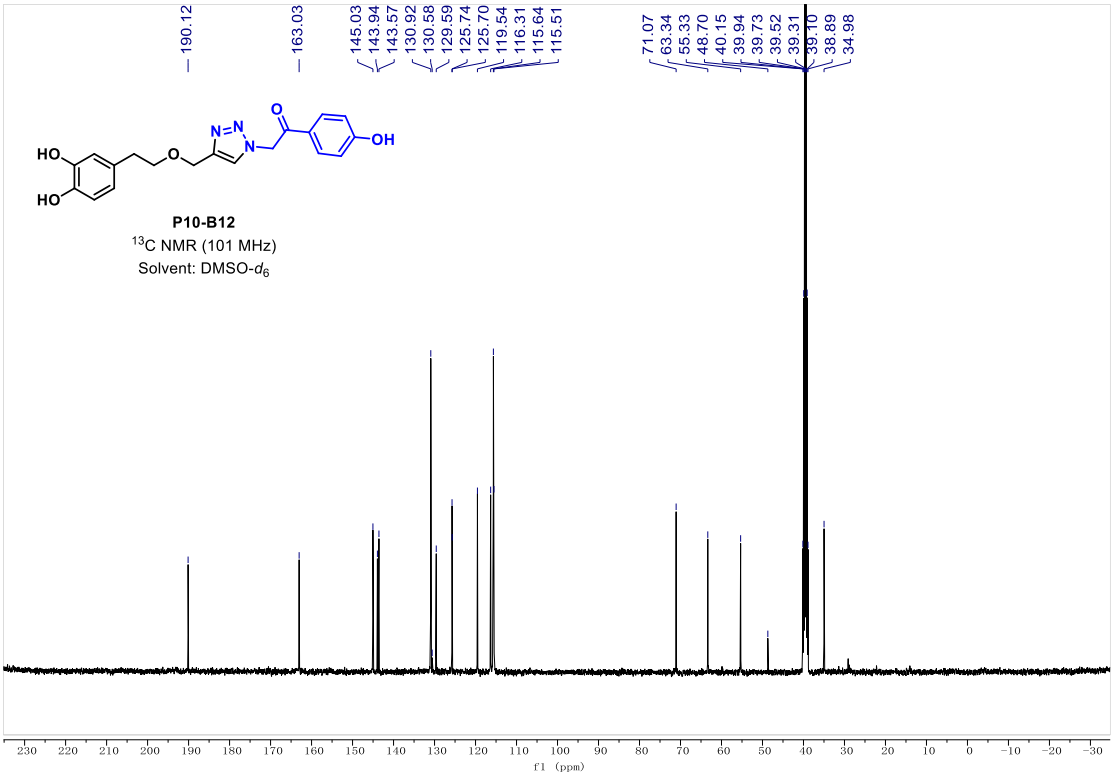
6.96
6.95
6.95
6.94
6.93
6.92
6.70
6.69
6.68
6.55
6.54
6.53
6.52
5.85
4.59
3.68
3.66
3.65
2.74
2.72
2.70
2.56
1.95 CD3CN
1.95 CD3CN
1.94 CD3CN
1.93 CD3CN
1.93 CD3CN
0.88
0.87
0.01
HO
HO
O
N=N
N
O
OH
P10-B12
1H NMR (400 MHz)
Solvent: CD3CN
0.73
2.04
0.80
1.05
0.72
2.03
1.94
0.93
1.94
2.00
2.02
2.19
f1 (ppm)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143.94
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125.70
119.54
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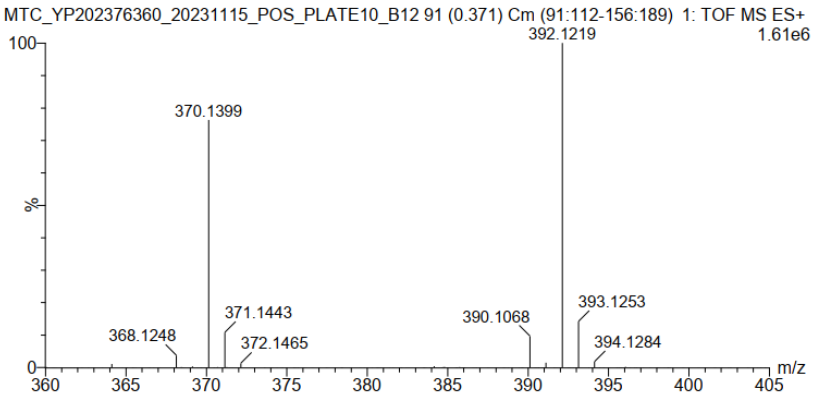
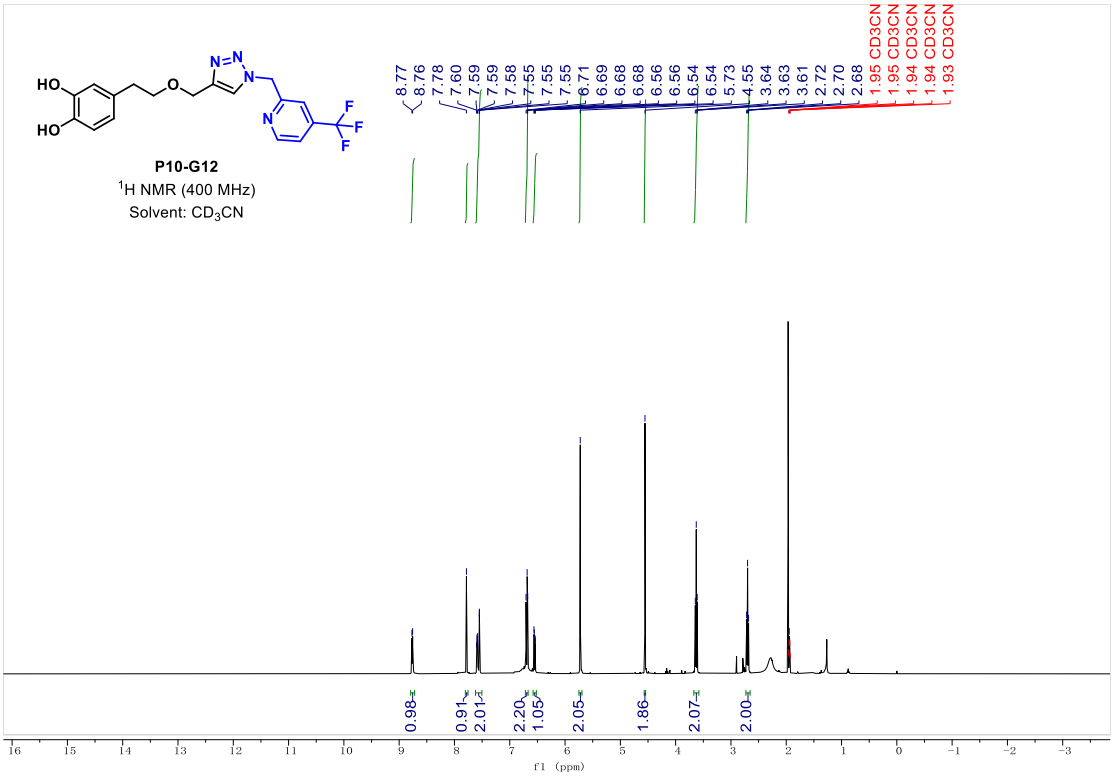
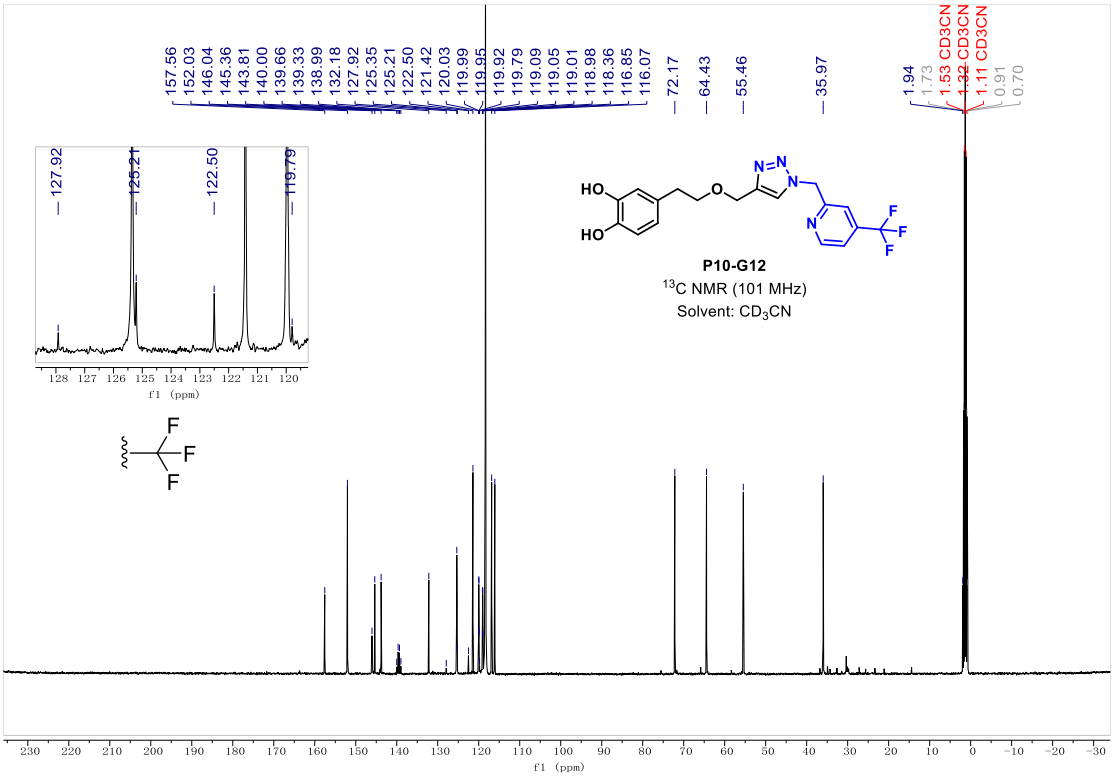
115.64
115.51
71.07
63.34
55.33
48.70
40.15
39.94
39.73
39.52
39.31
39.10
38.89
34.98
HO
HO
O
N=N
N
O
OH
P10-B12
13C NMR (101 MHz)
Solvent: DMSO-d6
f1 (ppm)



Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
370.1399	370.1403	-0.4	-1.1	11.5	116.4	n/a	n/a	C19 H20 N3 O5
392.1219	392.1222	-0.3	-0.8	11.5	96.6	n/a	n/a	C19 H19 N3 O5 Na

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146.04
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143.81
140.00
139.66
139.33
138.99
132.18
127.92
125.35
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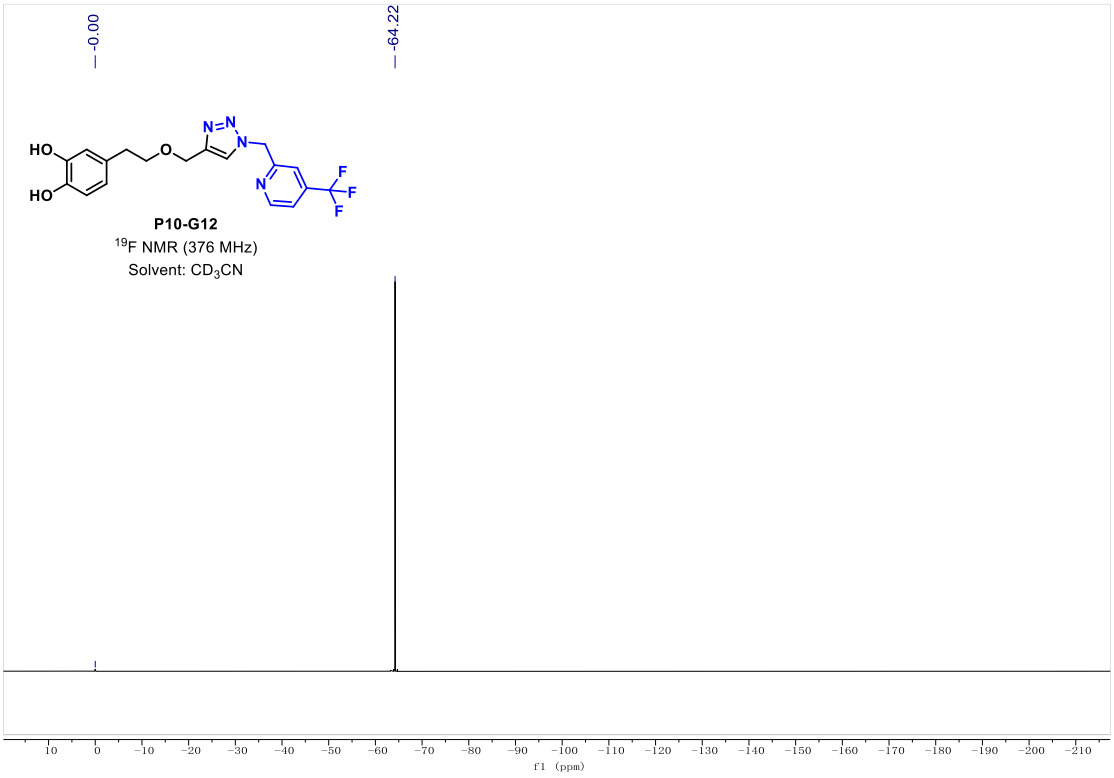
122.50
121.42
120.03
119.99
119.95
119.92
119.79
119.09
119.05
119.01
118.98
118.36
116.85
116.07
72.17
64.43
55.46
35.97
1.94
1.73
1.53 CD3CN
1.32 CD3CN
1.11 CD3CN
0.91
0.70
127.92
125.21
122.50
119.79
HO
HO
O
N
N
N
F
F
F
P10-G12
13C NMR (101 MHz)
Solvent: CD3CN
f1 (ppm)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-64.22
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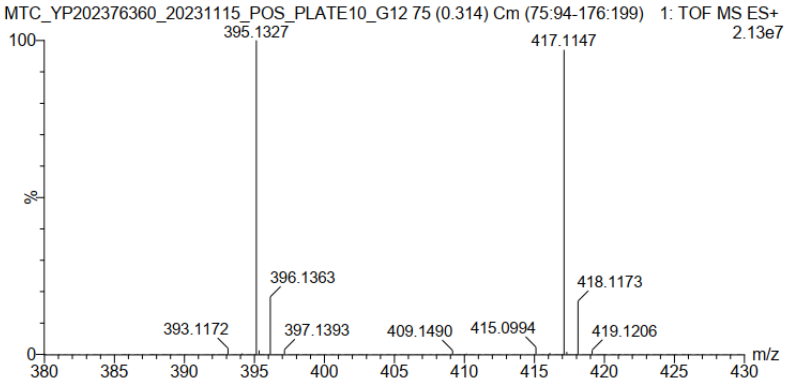
HO
O
N
N
N
F
F
F
P10-G12
19F NMR (376 MHz)
Solvent: CD3CN
f1 (ppm)



Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
395.1327	395.1331	-0.4	-1.0	10.5	536.4	n/a	n/a	C18 H18 N4 O3 F3
417.1147	417.1150	-0.3	-0.7	10.5	579.8	n/a	n/a	C18 H17 N4 O3 Na F3

2. Alignment of protomer **P1-E11** complex and chain A of homodimer.

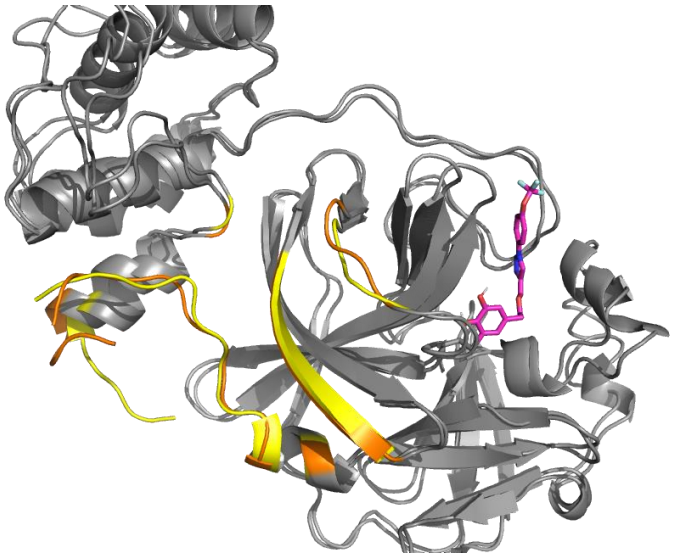


Fig. S2. Alignment of protomer·**P1-E11** complex and chain A of homodimer. Dimerization interface is colored orange and yellow respectively.