Supporting Information

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Synthesis and evaluation of antiproliferative and mPGES-1 inhibitory activities of novel carvacrol-triazole-acetanilide conjugates

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Table of Contents	Page
Figure S1: FTIR Spectrum of 5	5
Figure S2: ¹ H-NMR (300 MHz, DMSO) Spectrum of 5	5
Figure S3: FTIR Spectrum of 8	6
Figure S4: ¹ H-NMR (500 MHz, DMSO) Spectrum of 8	6
Figure S5: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 8	7
Figure S6: HPLC chromatogram of 8	7
Figure S7: ESI(-)-MS Spectrum of 8	8
Figure S8: FTIR Spectrum of 9	9
Figure S9: ¹ H-NMR (500 MHz, DMSO) Spectrum of 9	9
Figure S10: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 9	10
Figure S11: ESI(+)-MS Spectrum of 9	11
Figure S12: ESI(-)-MS Spectrum of 9	12
Figure S13: HPLC chromatogram of 9	12
Figure S14: FTIR Spectrum of 10	13
Figure S15: ¹ H-NMR (500 MHz, DMSO) Spectrum of 10	13
Figure S16: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 10	14
Figure S17: ESI(+)-MS Spectrum of 10	15

Figure S18: ESI(-)-MS Spectrum of 10	16
Figure S19: HPLC chromatogram of 10	16
Figure S20: FTIR Spectrum of 11	17
Figure S21: ¹ H-NMR (500 MHz, DMSO) Spectrum of 11	17
Figure S22: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 11	18
Figure S23: ESI(+)-MS Spectrum of 11	19
Figure S24: ESI(-)-MS Spectrum of 11	20
Figure S25: HPLC chromatogram of 11	20
Figure S26: FTIR Spectrum of 12	21
Figure S27: ¹ H-NMR (500 MHz, DMSO) Spectrum of 12	21
Figure S28: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 12	22
Figure S29: ESI(+)-MS Spectrum of 12	23
Figure S30: ESI(-)-MS Spectrum of 12	24
Figure S31: HPLC chromatogram of 12	24
Figure S32: FTIR Spectrum of 13	25
Figure S33: ¹ H-NMR (500 MHz, DMSO) Spectrum of 13	25
Figure S34: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 13	26
Figure S35: ESI(+)-MS Spectrum of 13	27
Figure S36: ESI(-)-MS Spectrum of 13	28
Figure S37: HPLC chromatogram of 13	28
Figure S38: FTIR Spectrum of 14	29
Figure S39: ¹ H-NMR (500 MHz, DMSO) Spectrum of 14	29
Figure S40: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 14	30
Figure S41: ESI(+)-MS Spectrum of 14	31
Figure S42: ESI(-)-MS Spectrum of 14	31
Figure S43: HPLC chromatogram of 14	32
Figure S44: FTIR Spectrum of 15	32
Figure S45: ¹ H-NMR (500 MHz, DMSO) Spectrum of 15	33
Figure S46: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 15	33
Figure S47: ESI(+)-MS Spectrum of 15	35
Figure S48: ESI(-)-MS Spectrum of 15	36
Figure S49: HPLC chromatogram of 15	36
Figure S49: HPLC chromatogram of 15 Figure S50: FTIR Spectrum of 16	
	37
Figure S51: ¹ H-NMR (500 MHz, DMSO) Spectrum of 16	37
Figure S52: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 16	38
Figure S53: ESI(+)-MS Spectrum of 16	39
Figure S54: ESI(-)-MS Spectrum of 16	40
Figure S55: HPLC chromatogram of 16	40
Figure S56: FTIR Spectrum of 17	41
Figure S57: ¹ H-NMR (500 MHz, DMSO) Spectrum of 17	41
Figure S58: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 17	42
Figure S59: ESI(+)-MS Spectrum of 17	43
Figure S60: ESI(-)-MS Spectrum of 17	44
Figure S61: HPLC chromatogram of 17	44
Figure S62: FTIR Spectrum of 19	45
Figure S63: ¹ H-NMR (500 MHz, DMSO) Spectrum of 18	45

Figure S64: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 18	46
Figure S65: ESI(+)-MS Spectrum of 18	47
Figure S66: ESI(-)-MS Spectrum of 18	48
Figure S67: HPLC chromatogram of 18	48
Figure S68: FTIR Spectrum of 19	49
Figure S69: ¹ H-NMR (500 MHz, DMSO) Spectrum of 19	49
Figure S70: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 19	50
Figure S71: ESI(+)-MS Spectrum of 19	51
Figure S72: ESI(-)-MS Spectrum of 19	52
Figure S73: HPLC chromatogram of 19	52
Figure S74: FTIR Spectrum of 20	53
Figure S75: ¹ H-NMR (500 MHz, DMSO) Spectrum of 20	53
Figure S76: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 20	54
Figure S77: ESI(+)-MS Spectrum of 20	55
Figure S78: ESI(-)-MS Spectrum of 20	56
Figure S70: HPLC chromatogram of 20	56
Figure S80: FTIR Spectrum of 21	57
Figure S81: ¹ H-NMR (500 MHz, DMSO) Spectrum of 21	57
Figure S82: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 21	58
Figure S83: ESI(+)-MS Spectrum of 21	59
Figure S84: ESI(-)-MS Spectrum of 21	60
Figure S85: HPLC chromatogram of 21	60
Figure S86: FTIR Spectrum of 22	61
Figure S87: ¹ H-NMR (500 MHz, DMSO) Spectrum of 22	62
Figure S88: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 22	63
Figure S99: ESI(+)-MS Spectrum of 22	63
Figure S90: ESI(-)-MS Spectrum of 22	64
Figure S91: HPLC chromatogram of 22	64
Figure S92: FTIR Spectrum of 23	65
Figure S93: ¹ H-NMR (500 MHz, DMSO) Spectrum of 23	66
Figure S94: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 23	67
Figure S95: ESI(+)-MS Spectrum of 23	67
Figure S96: ESI(-)-MS Spectrum of 23	68
Figure S97: HPLC chromatogram of 23	68
Figure S98: FTIR Spectrum of 24	69
Figure S99: ¹ H-NMR (500 MHz, DMSO) Spectrum of 24	69
Figure S100: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 24	70
Figure S101: ESI(+)-MS Spectrum of 24	71
Figure S102: ESI(-)-MS Spectrum of 24	72
Figure S103: HPLC chromatogram of 24	72
Figure S104: FTIR Spectrum of 25	73
Figure S105: ¹ H-NMR (500 MHz, DMSO) Spectrum of 25	73
Figure S106: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 25	74
Figure S107: ESI(+)-MS Spectrum of 25	75
Figure S108: ESI(-)-MS Spectrum of 25	76
Figure S109: HPLC chromatogram of 25	76
o	.0

Figure S110: FTIR Spectrum of 26	77
Figure S111: ¹ H-NMR (500 MHz, DMSO) Spectrum of 26	77
Figure S112: ¹³ C-NMR (125 MHz, DMSO) Spectrum of 26	78
Figure S113: ESI(+)-MS Spectrum of 26	79
Figure S114: ESI(-)-MS Spectrum of 26	80
Figure S115: HPLC chromatogram of 26	80
Table S1. ADMET profiles of compounds 9-26.	81

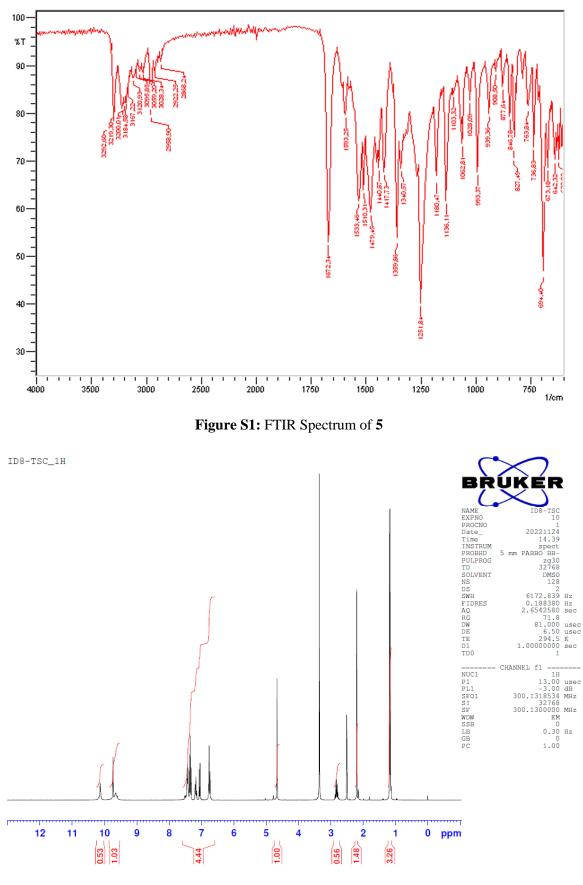


Figure S2: ¹H-NMR (300 MHz, DMSO) Spectrum of 5

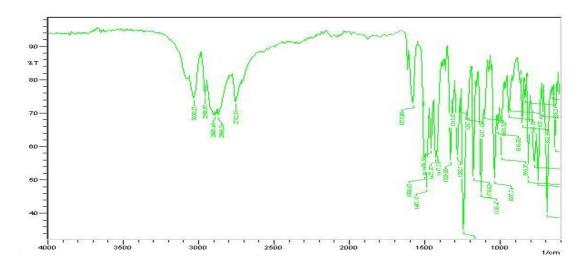


Figure S3: FTIR Spectrum of 8

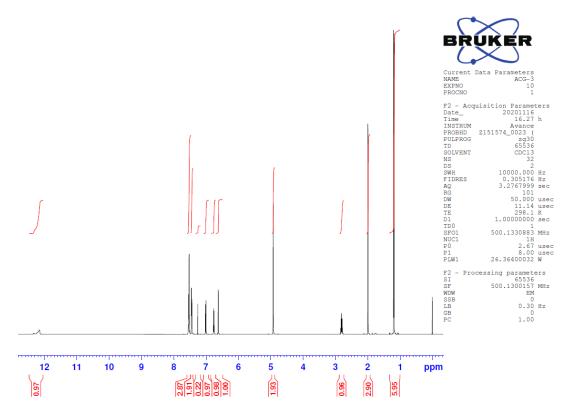


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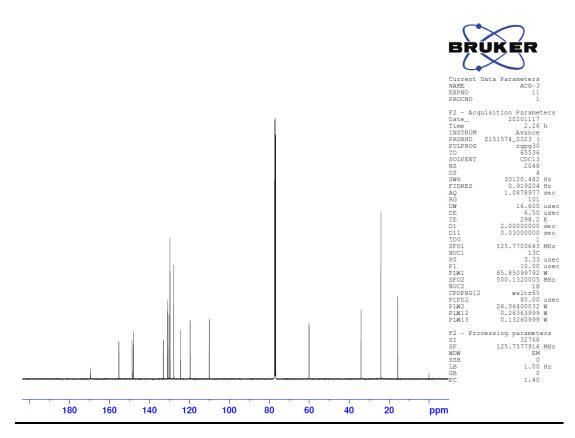


Figure S5: ¹³C-NMR (125 MHz, DMSO) Spectrum of 8

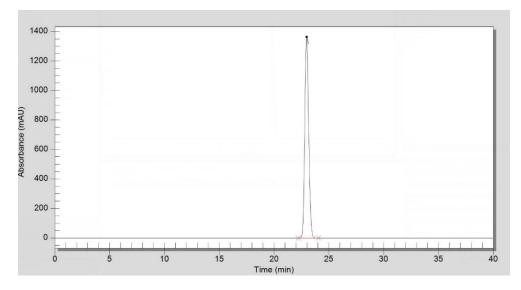
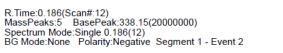
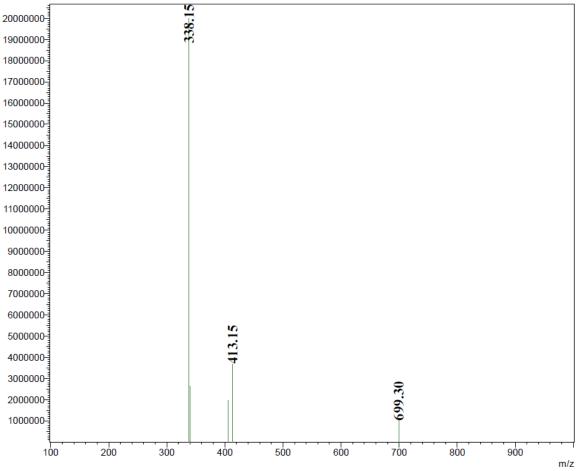
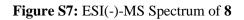


Figure S6: HPLC chromatogram of 8







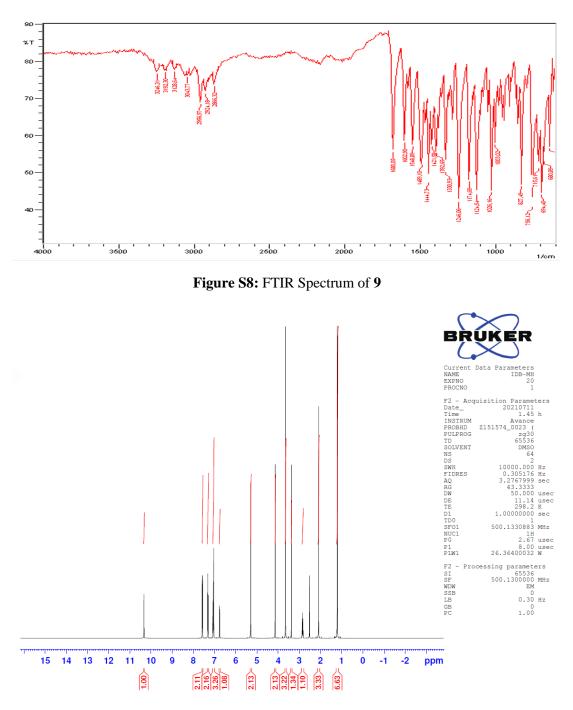


Figure S9: ¹H-NMR (500 MHz, DMSO) Spectrum of 9

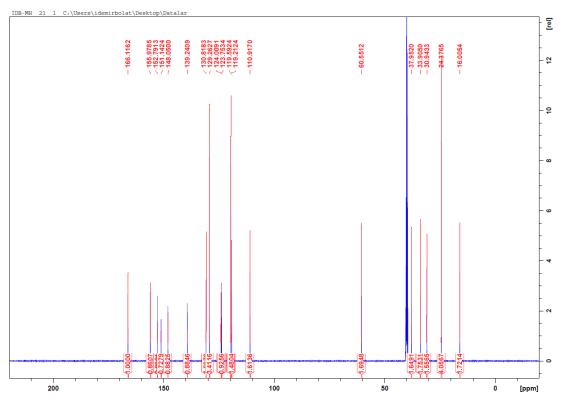


Figure S10: ¹³C-NMR (125 MHz, DMSO) Spectrum of 9

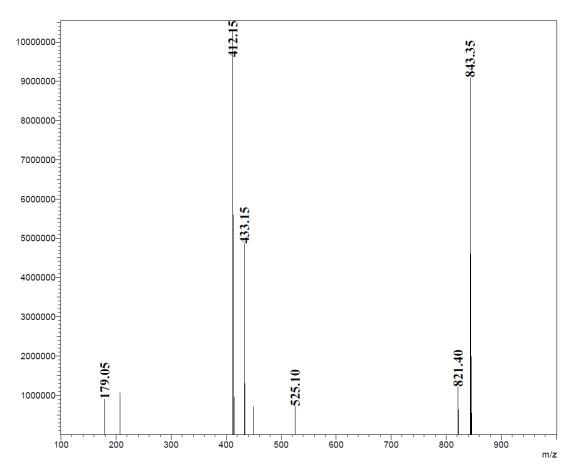
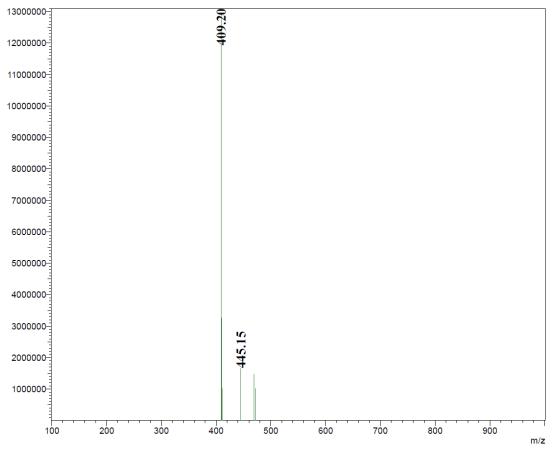
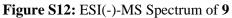
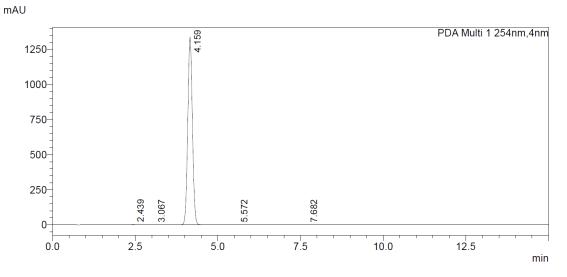
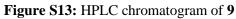


Figure S11: ESI(+)-MS Spectrum of 9









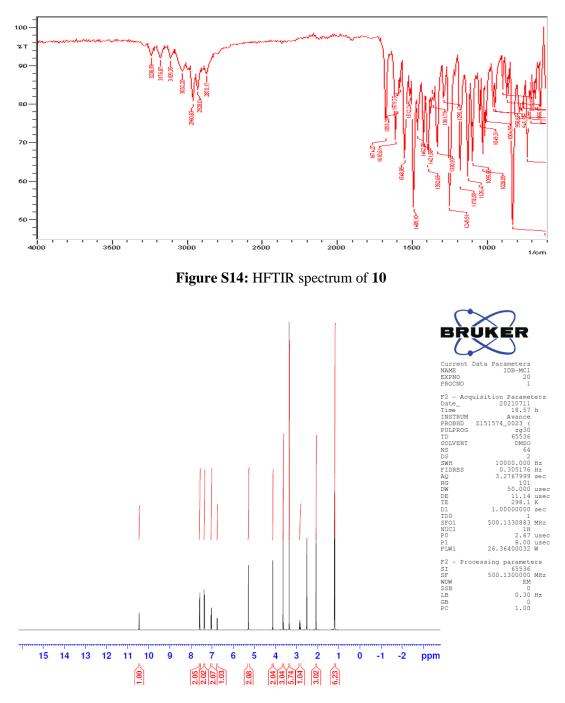


Figure S15: ¹H-NMR (500 MHz, DMSO) Spectrum of 10

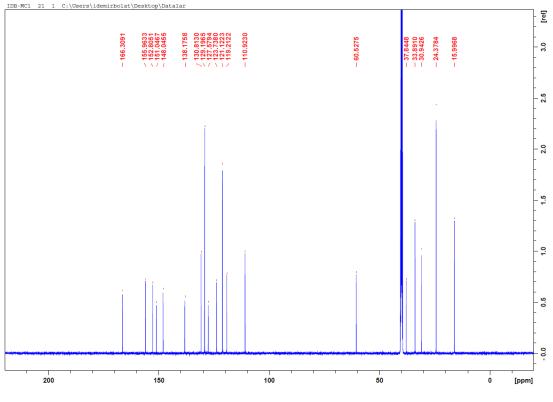


Figure S16: ¹³C-NMR (125 MHz, DMSO) Spectrum of 10

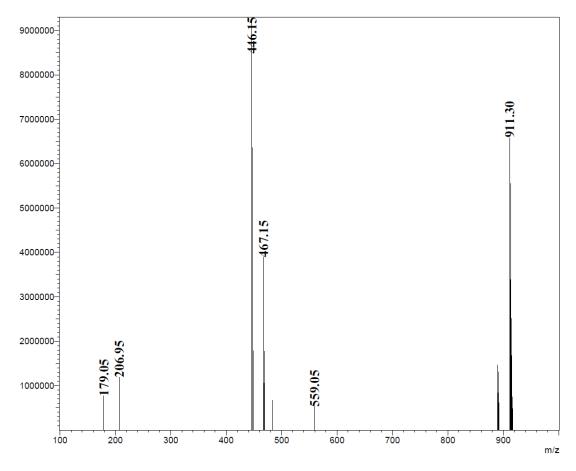
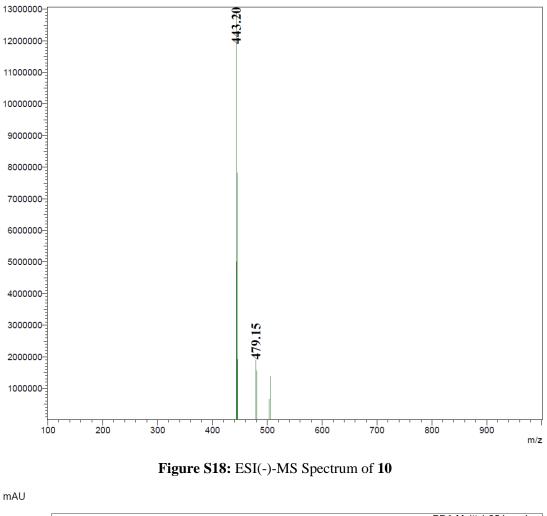
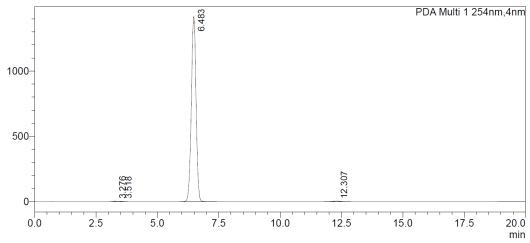
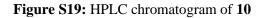


Figure S17: ESI(+)-MS Spectrum of 10







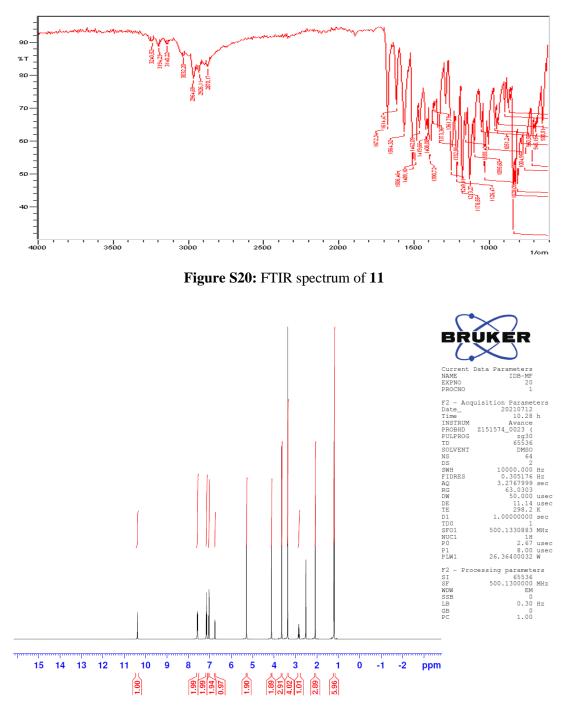


Figure S21: ¹H-NMR (500 MHz, DMSO) Spectrum of 11

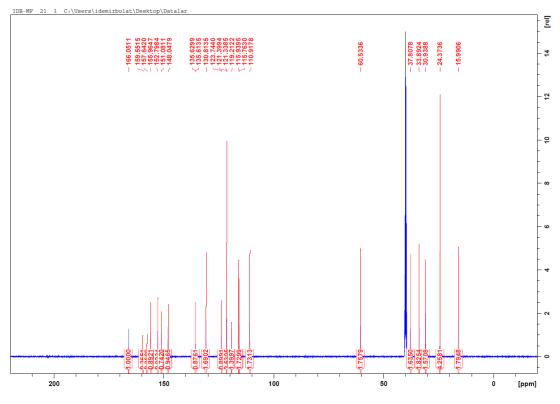


Figure S22: ¹³C-NMR (125 MHz, DMSO) Spectrum of 11

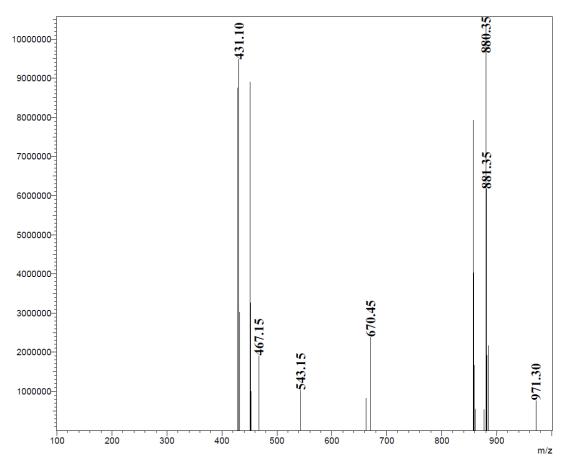
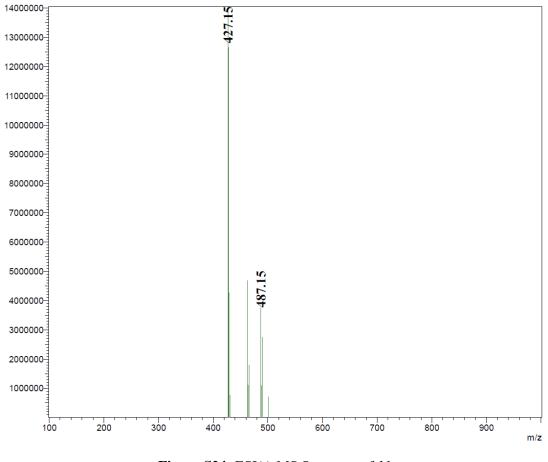
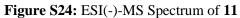


Figure S23: ESI(+)-MS Spectrum of 11





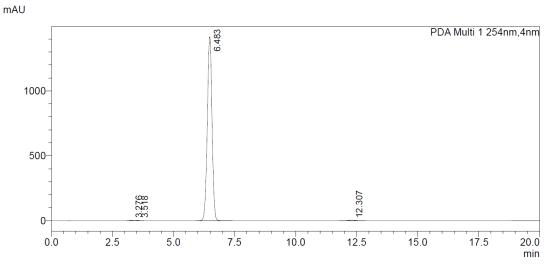


Figure S25: HPLC chromatogram of 11

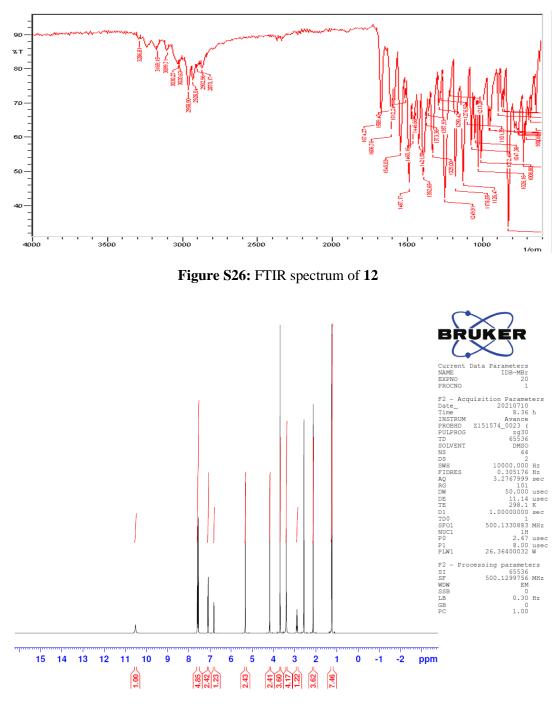


Figure S27: ¹H-NMR (500 MHz, DMSO) Spectrum of 12

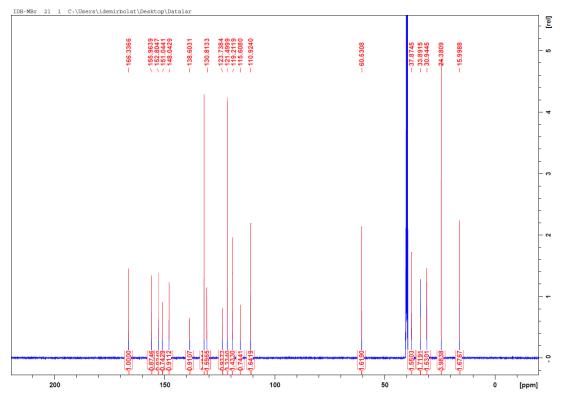


Figure S28: ¹³C-NMR (125 MHz, DMSO) Spectrum of 12

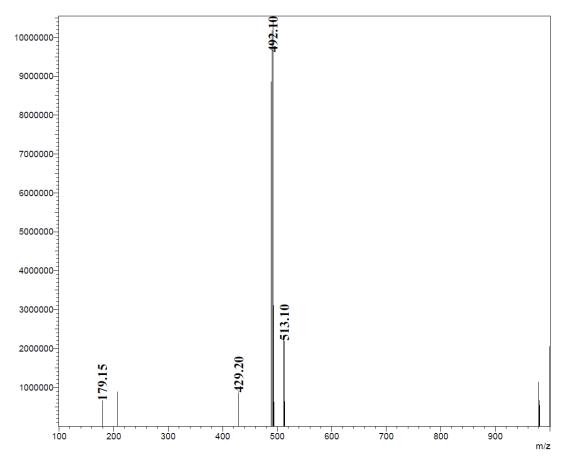
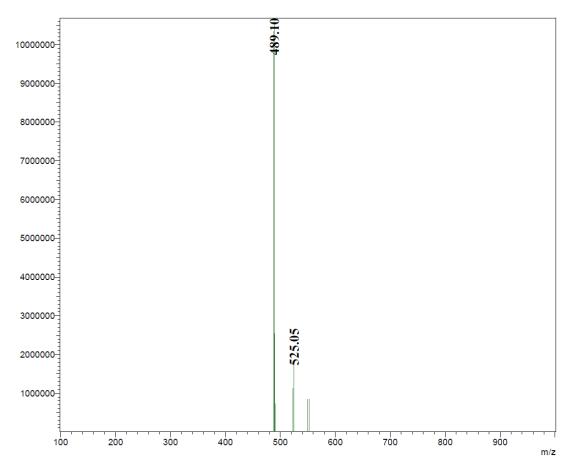
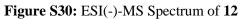
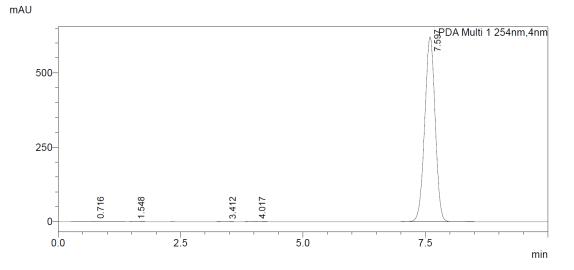
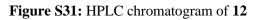


Figure S29: ESI(+)-MS Spectrum of 12









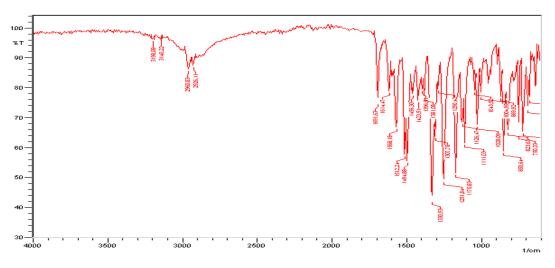


Figure S32: FTIR spectrum of 13

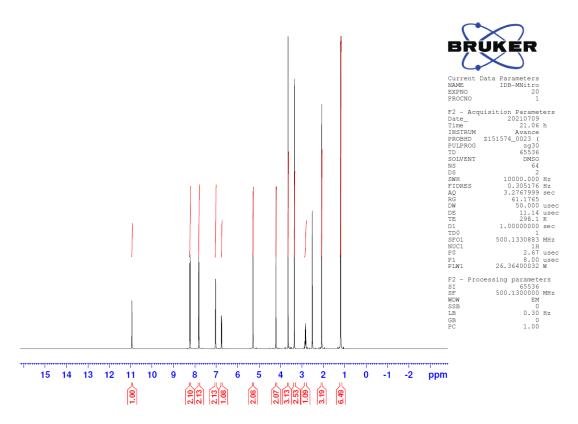


Figure S33: ¹H-NMR (500 MHz, DMSO) Spectrum of 13

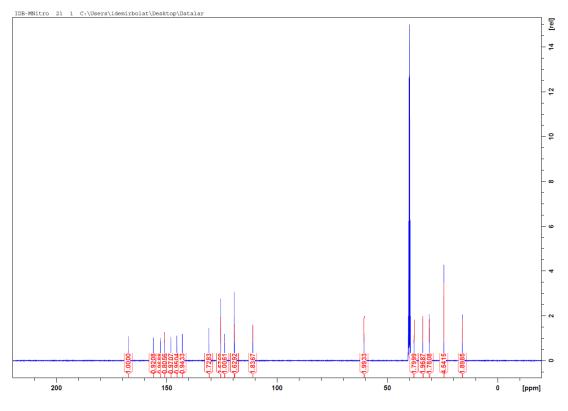


Figure S34: ¹³C-NMR (125 MHz, DMSO) Spectrum of 13

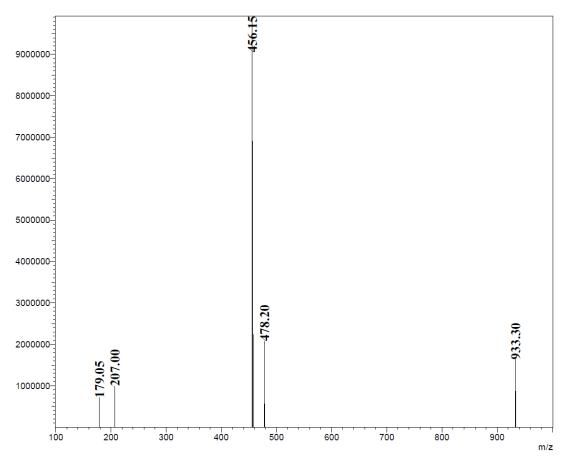
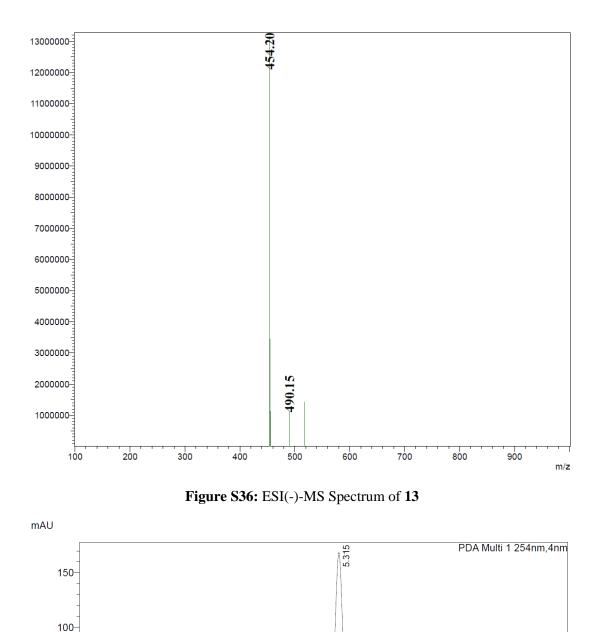
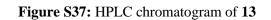


Figure S35: ESI(+)-MS Spectrum of 13





5.0

7.5

2.932

2.5

3.413 3.755 4.182

50-

0

0.0

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min

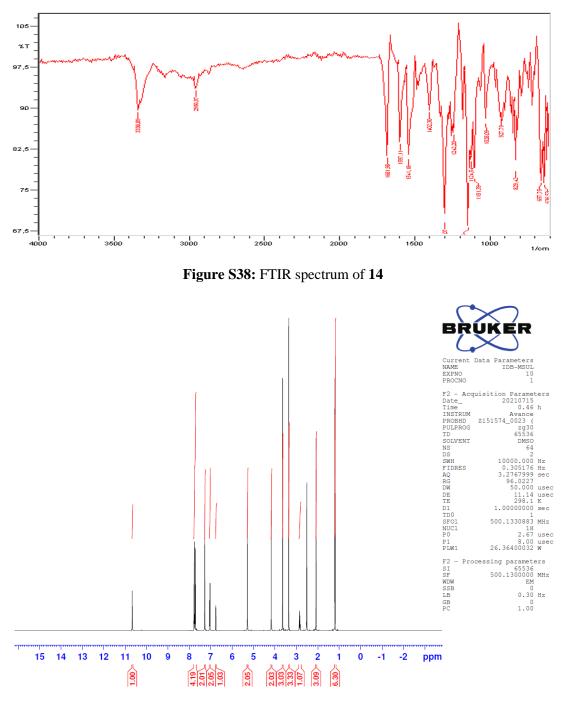


Figure S39: ¹H-NMR (500 MHz, DMSO) Spectrum of 14

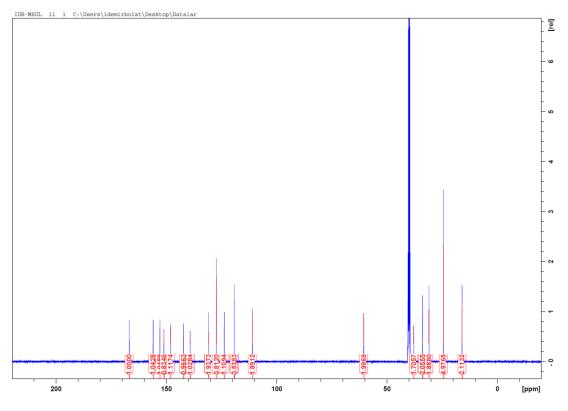


Figure S40: ¹³C-NMR (125 MHz, DMSO) Spectrum of 14

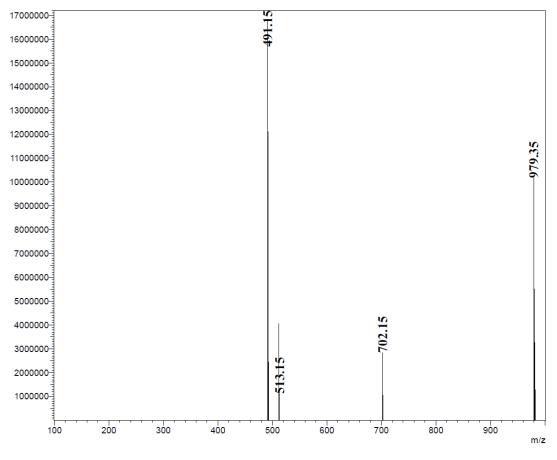
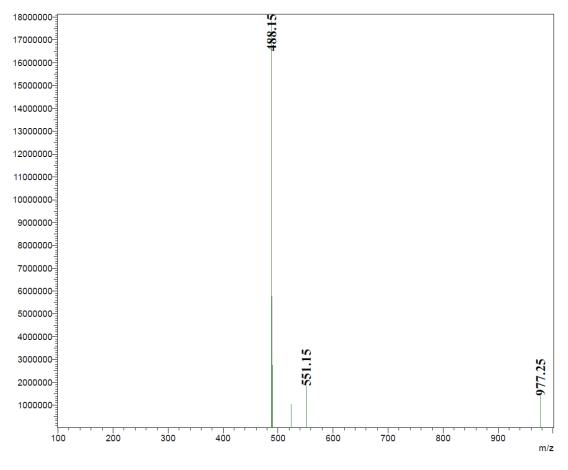
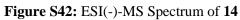


Figure S41: ESI(+)-MS Spectrum of 14





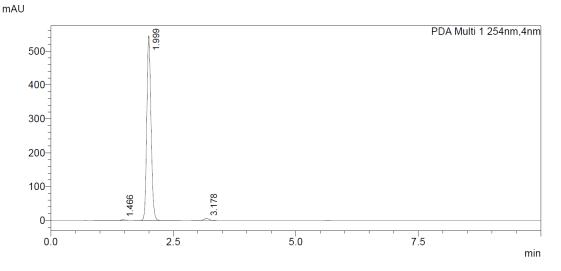


Figure S43: HPLC chromatogram of 14

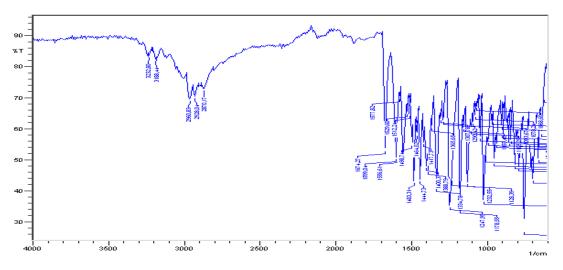


Figure S44: HPLC chromatogram of 15

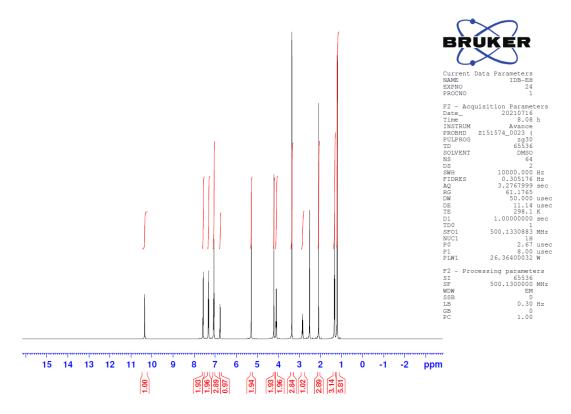


Figure S45: ¹H-NMR (500 MHz, DMSO) Spectrum of 15

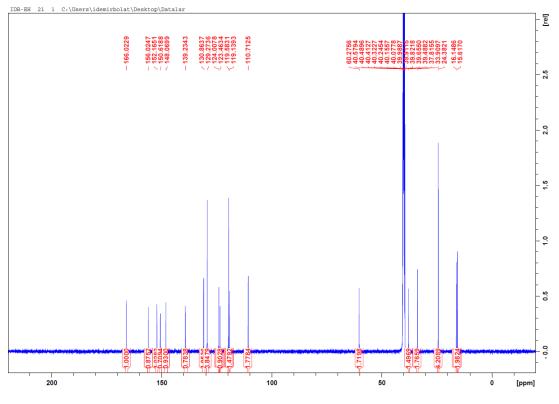


Figure S46: ¹³C-NMR (125 MHz, DMSO) Spectrum of 15

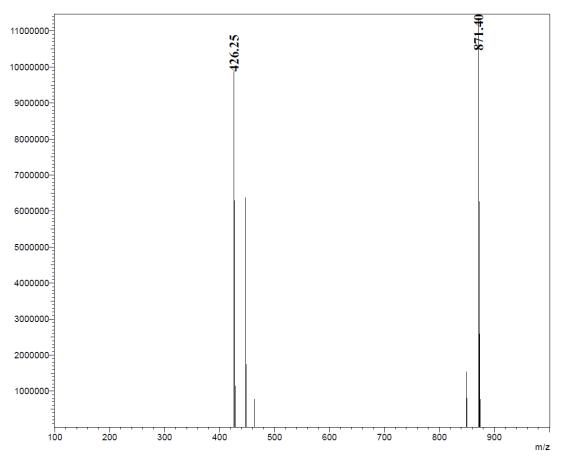
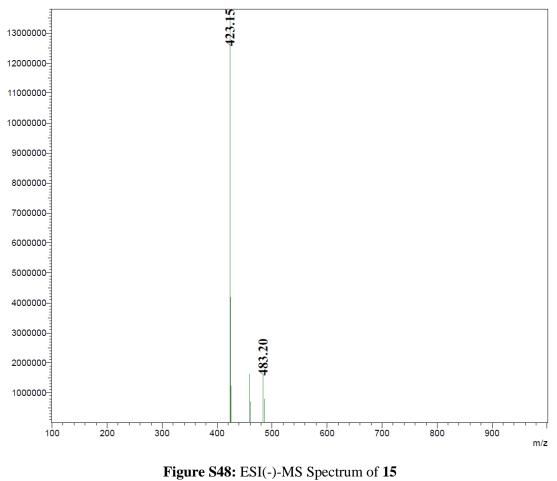
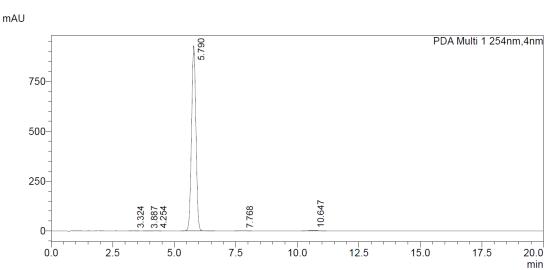
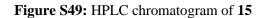


Figure S47: ESI(+)-MS Spectrum of 15







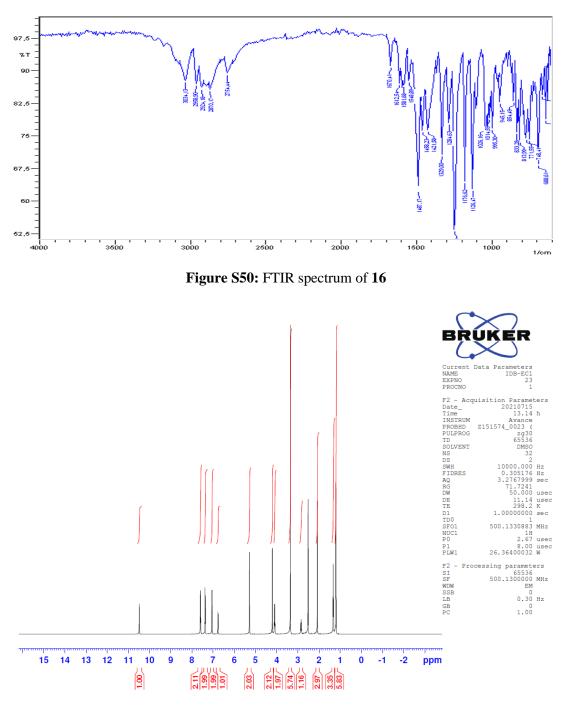


Figure S51: ¹H-NMR (500 MHz, DMSO) Spectrum of 16

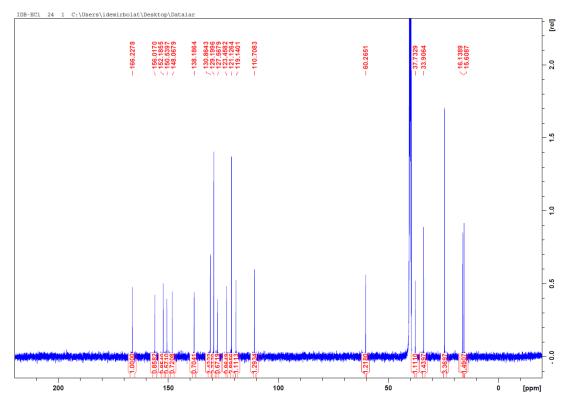


Figure S52: ¹³C-NMR (125 MHz, DMSO) Spectrum of 16

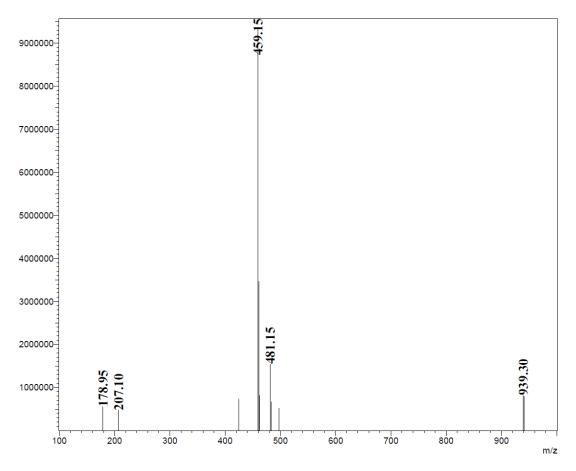
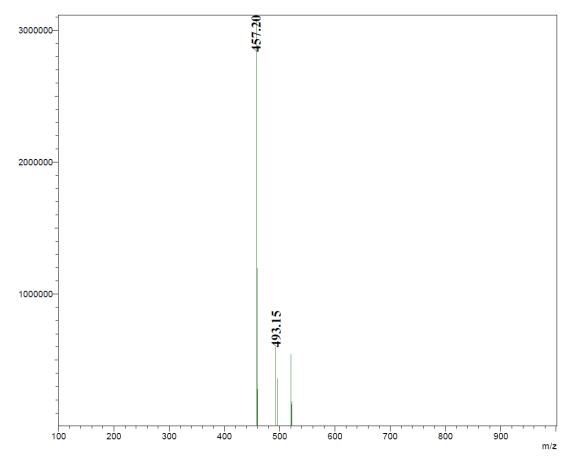
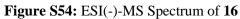


Figure S53: ESI(+)-MS Spectrum of 16





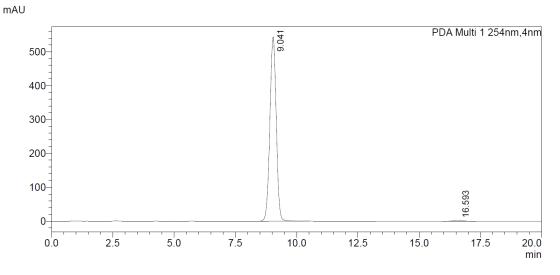


Figure S55: HPLC chromatogram of 16

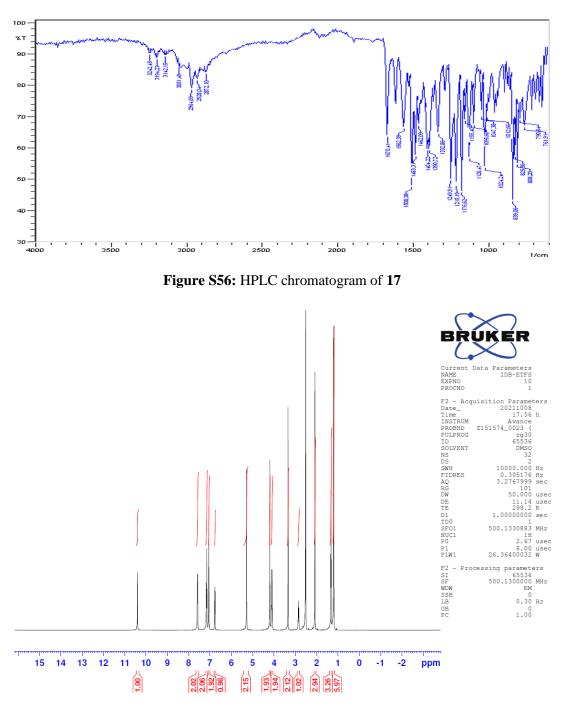


Figure S57: ¹H-NMR (500 MHz, DMSO) Spectrum of 17

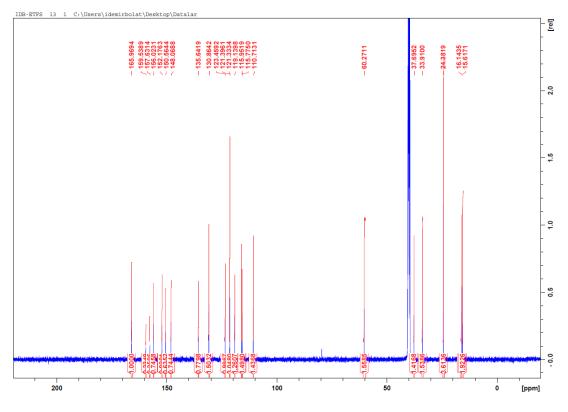


Figure S58: ¹³C-NMR (125 MHz, DMSO) Spectrum of 17

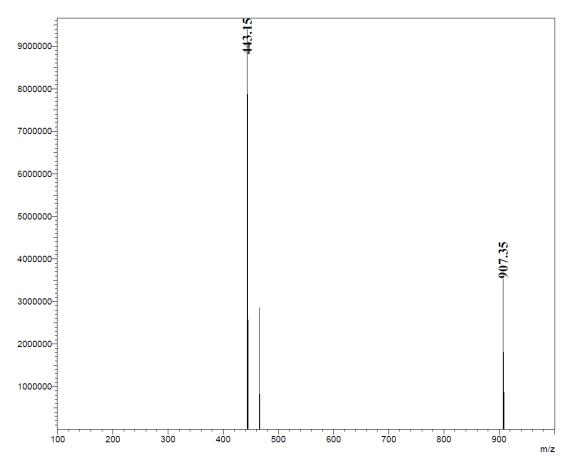
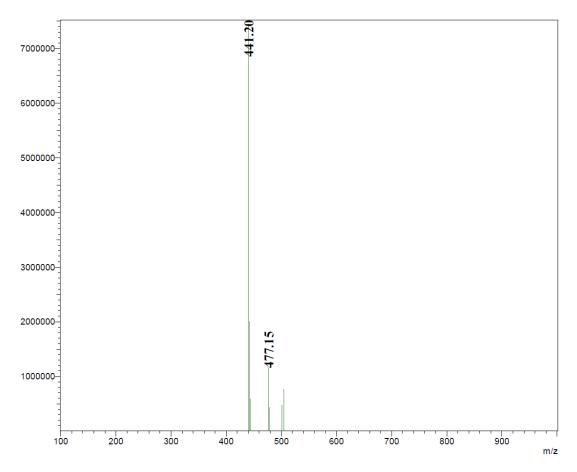
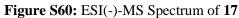
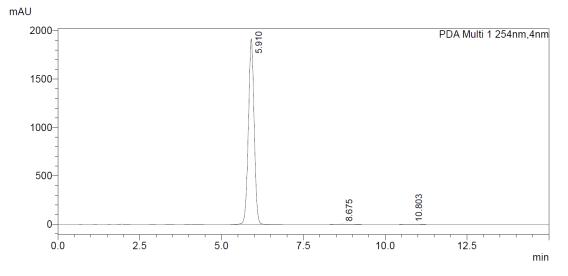
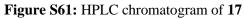


Figure S59: ESI(+)-MS Spectrum of 17









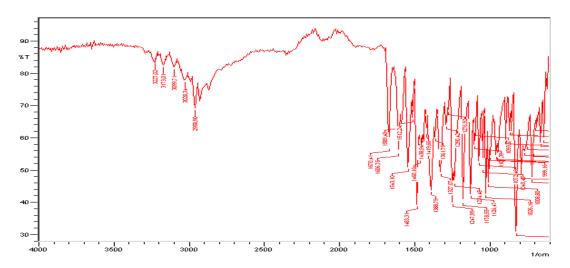


Figure S62: HPLC chromatogram of 18

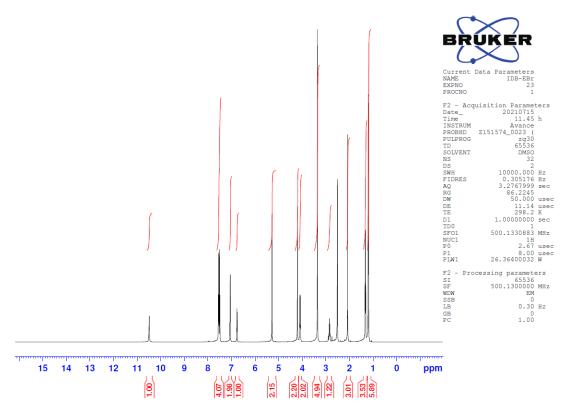


Figure S63: ¹H-NMR (500 MHz, DMSO) Spectrum of 18

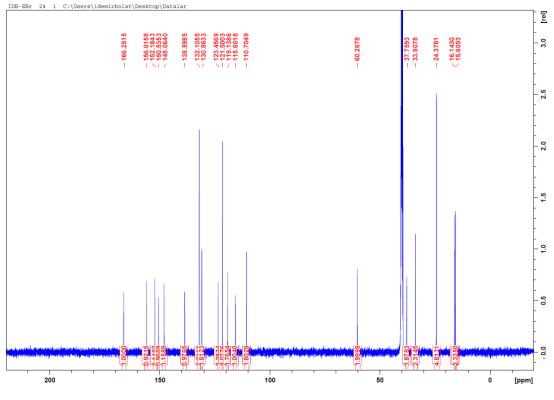


Figure S64: ¹³C-NMR (125 MHz, DMSO) Spectrum of 18

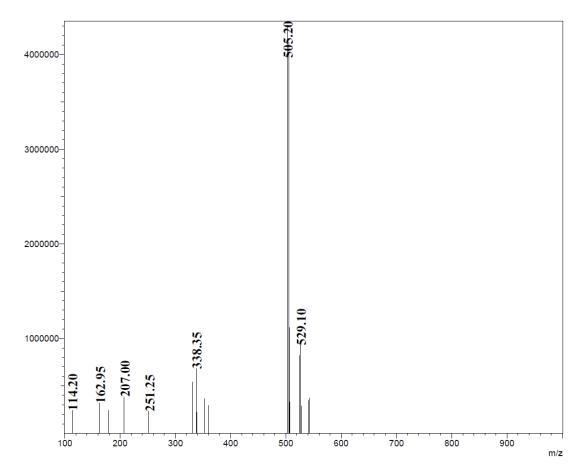
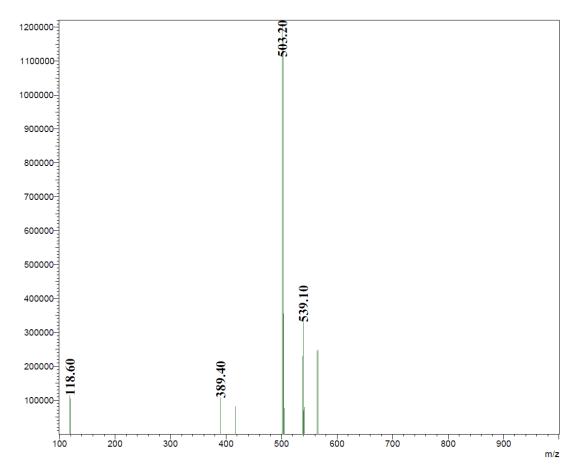
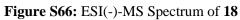


Figure S65: ESI(+)-MS Spectrum of 18





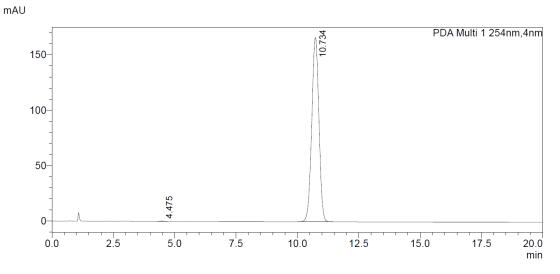


Figure S67: HPLC chromatogram of 18

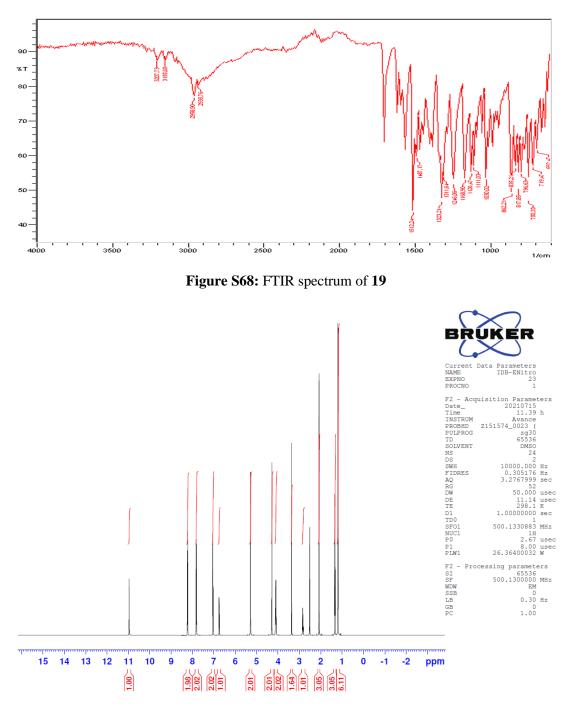


Figure S69: ¹H-NMR (500 MHz, DMSO) Spectrum of 19

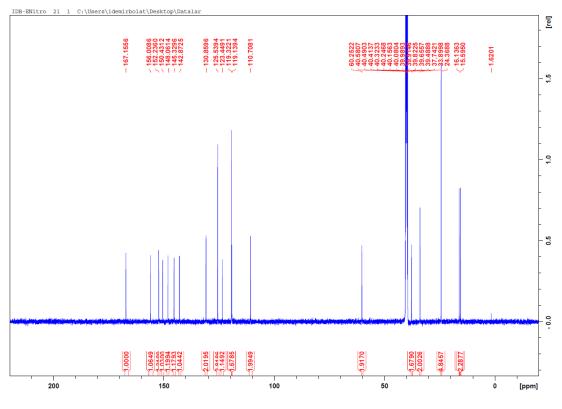


Figure S70: ¹³C-NMR (125 MHz, DMSO) Spectrum of 19

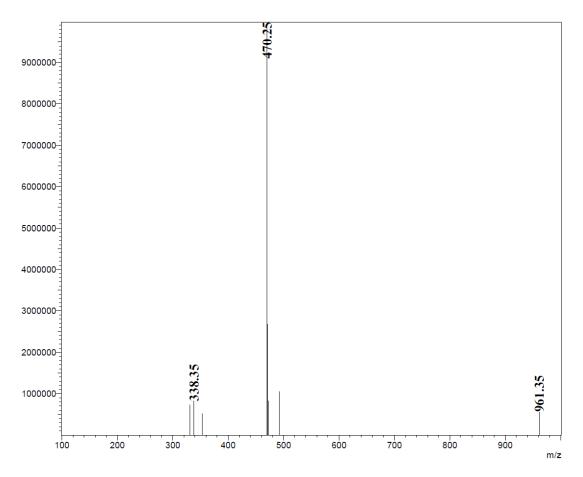
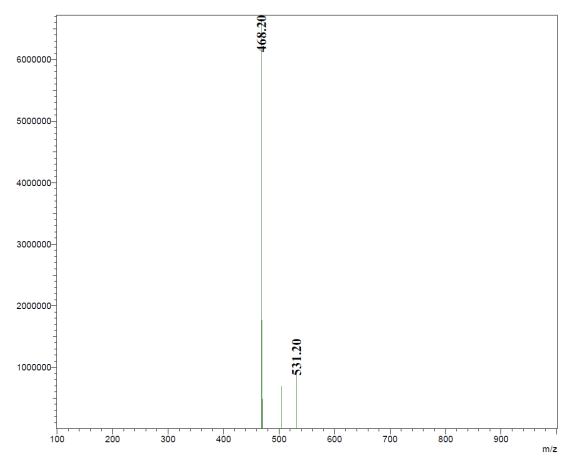
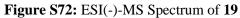


Figure S71: ESI(+)-MS Spectrum of 19





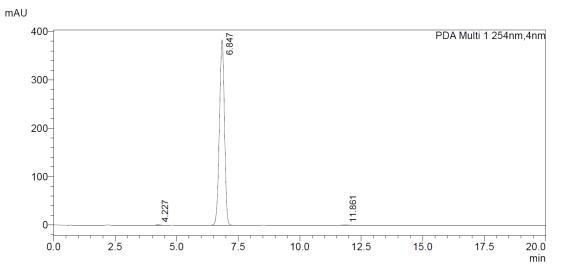


Figure S73: HPLC chromatogram of 19

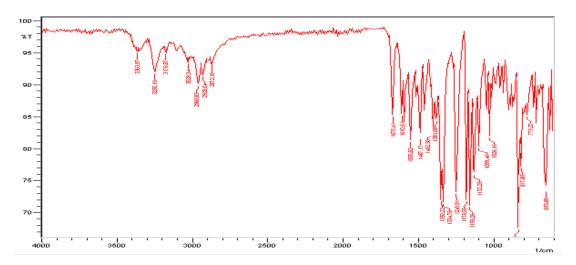


Figure S74 HPLC chromatogram of 20

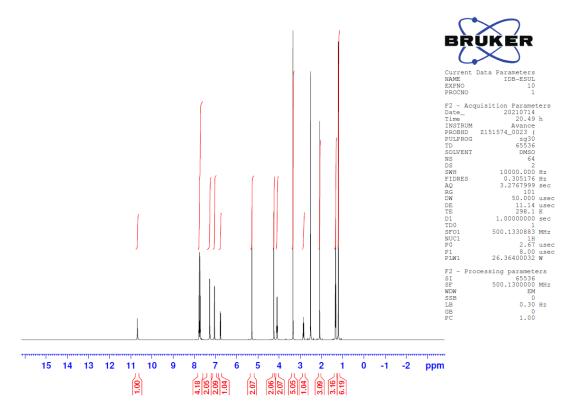


Figure S75: ¹H-NMR (500 MHz, DMSO) Spectrum of 20

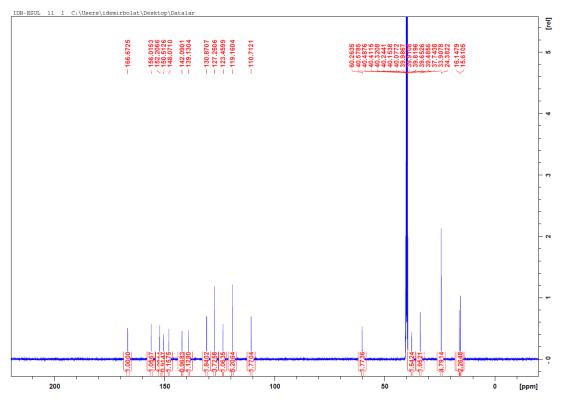


Figure S76: ¹³C-NMR (125 MHz, DMSO) Spectrum of 20

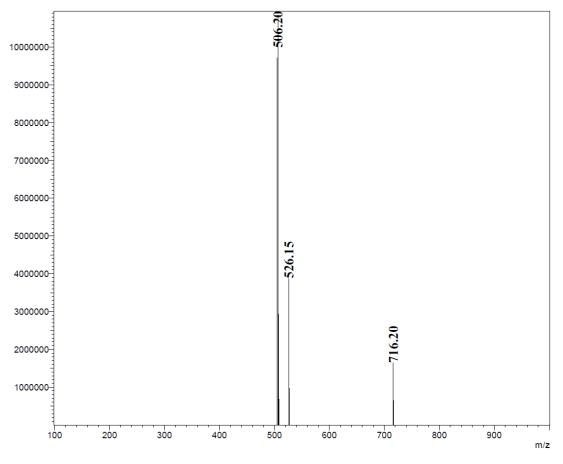
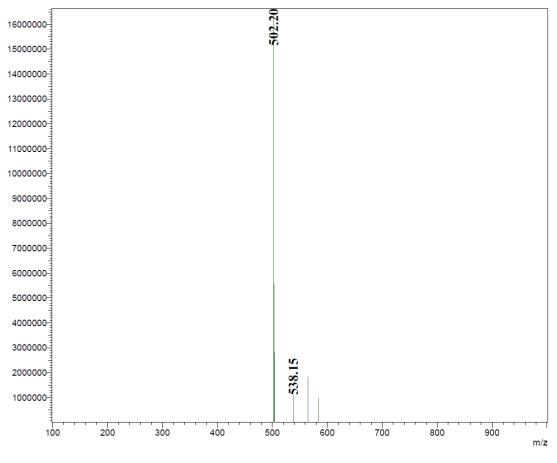
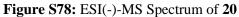


Figure S77: ESI(+)-MS Spectrum of 20





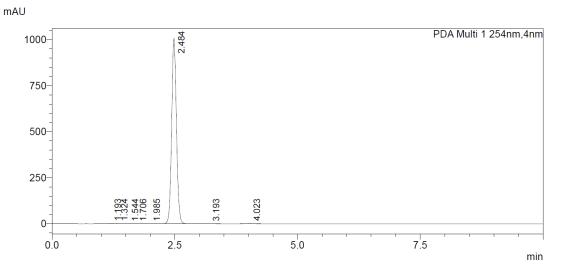


Figure S79: HPLC chromatogram of 20

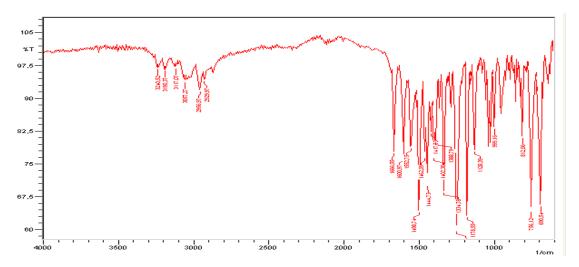


Figure S80: HPLC chromatogram of 21

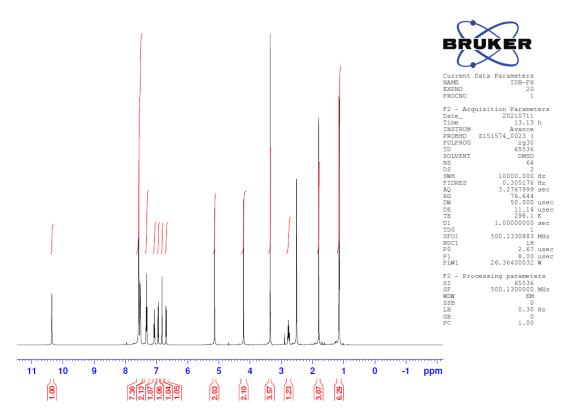


Figure S81: ¹H-NMR (500 MHz, DMSO) Spectrum of 21

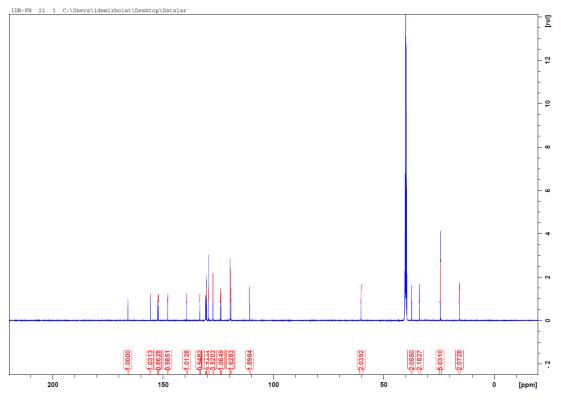


Figure S82: ¹³C-NMR (125 MHz, DMSO) Spectrum of 21

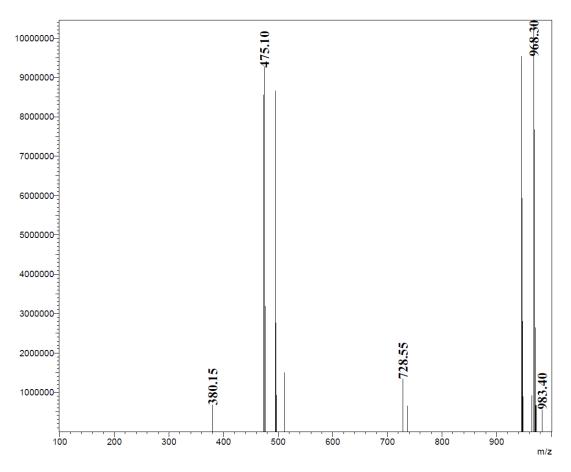
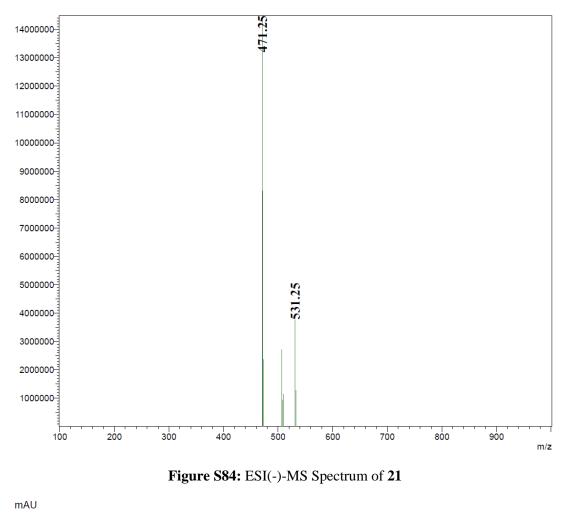


Figure S83: ESI(+)-MS Spectrum of 21



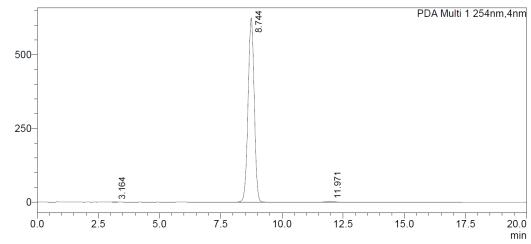


Figure S85: HPLC chromatogram of 21

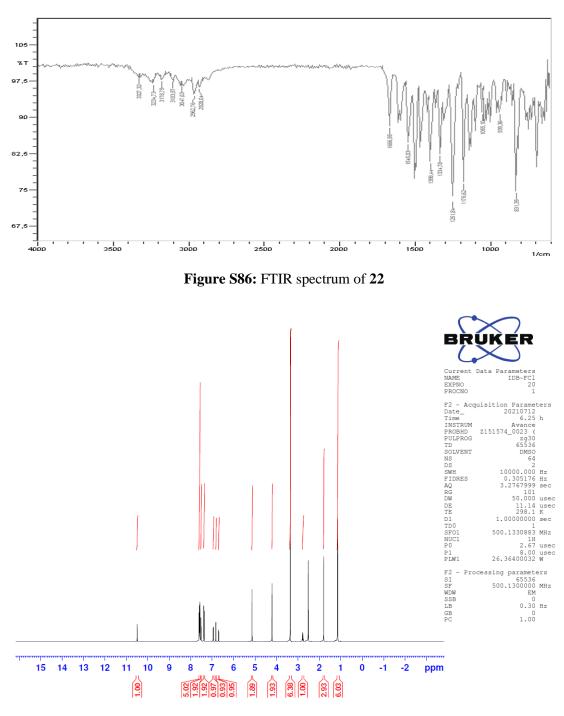


Figure S87: ¹H-NMR (500 MHz, DMSO) Spectrum of 22

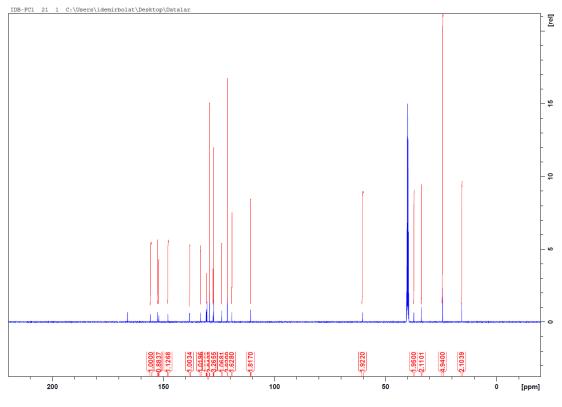


Figure S88: ¹³C-NMR (125 MHz, DMSO) Spectrum of 22

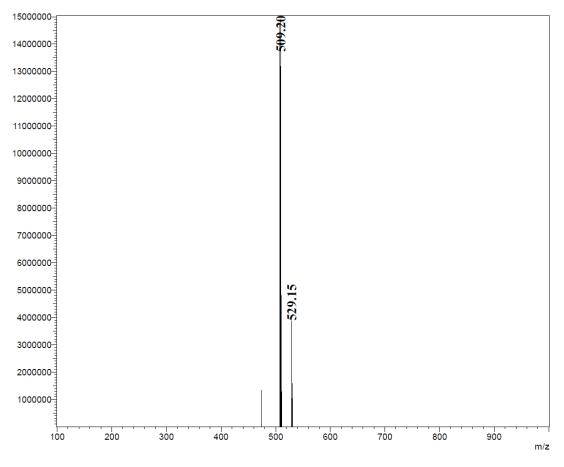
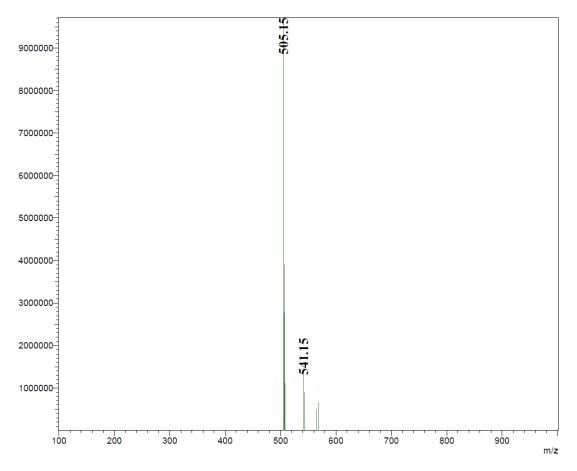
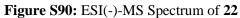
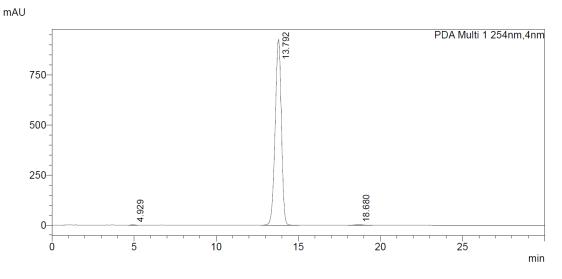
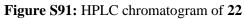


Figure S89: ESI(+)-MS Spectrum of 22









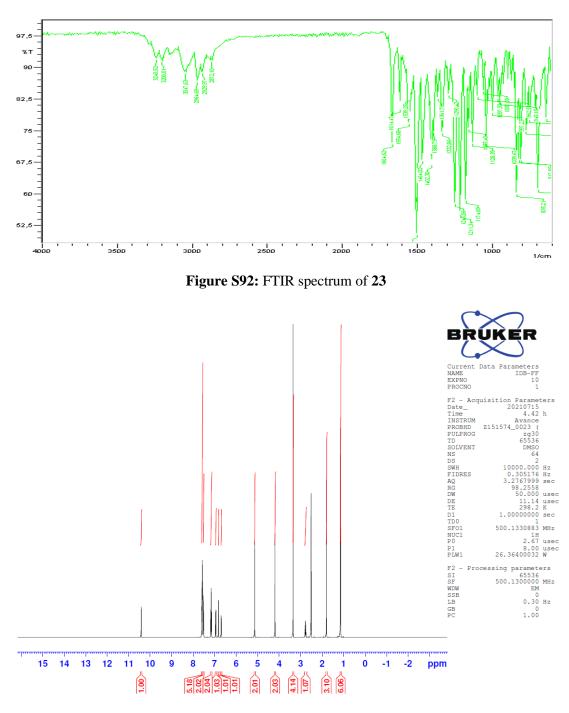


Figure S93: ¹H-NMR (500 MHz, DMSO) Spectrum of 23

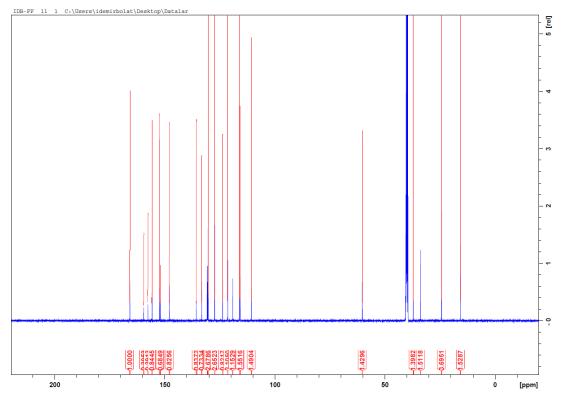


Figure S94: ¹³C-NMR (125 MHz, DMSO) Spectrum of 23

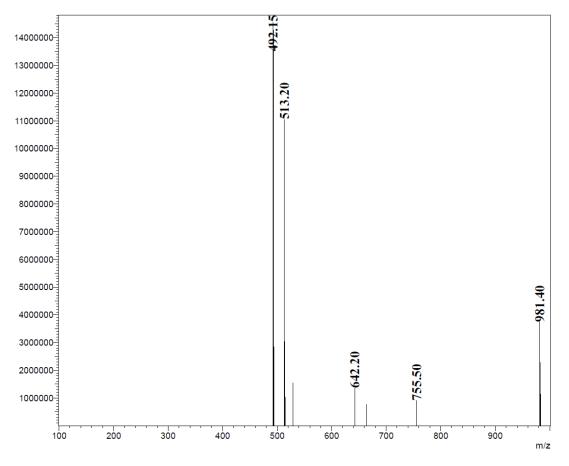
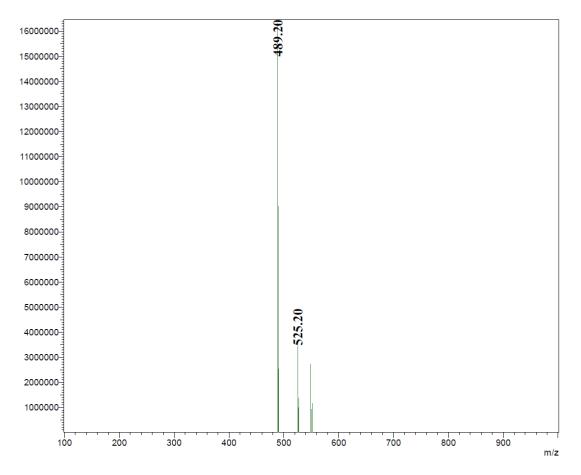
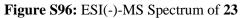


Figure S95: ESI(+)-MS Spectrum of 23





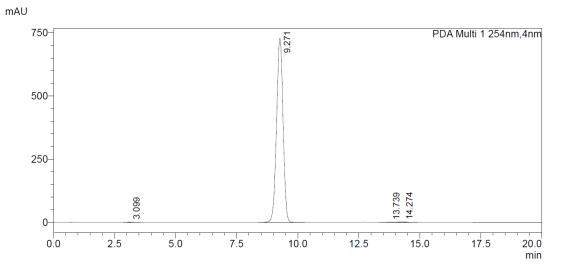


Figure S97: HPLC chromatogram of 23

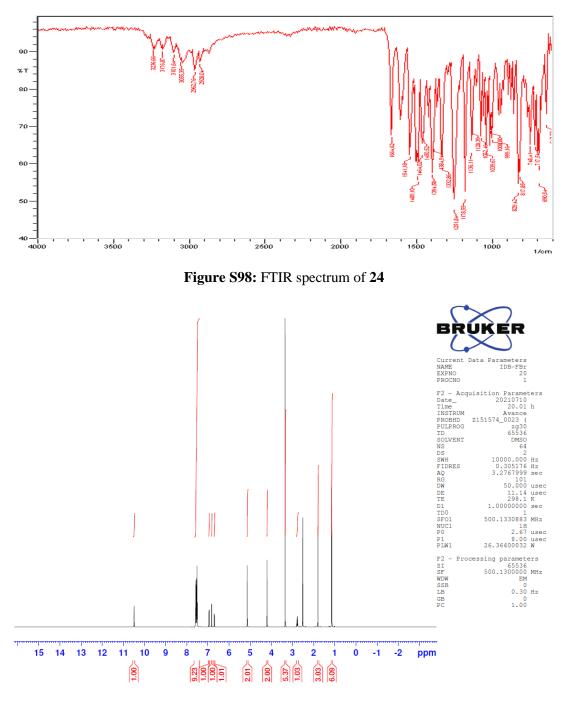
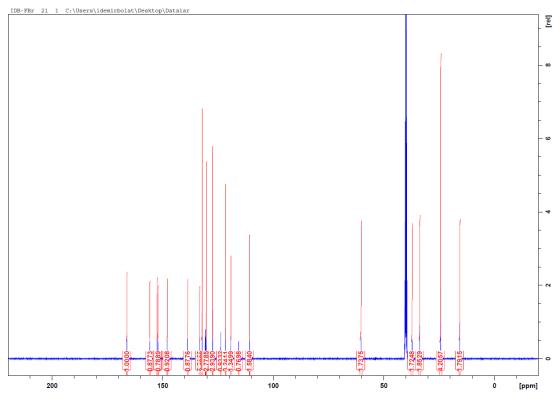
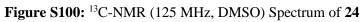


Figure S99: ¹H-NMR (500 MHz, DMSO) Spectrum of 24





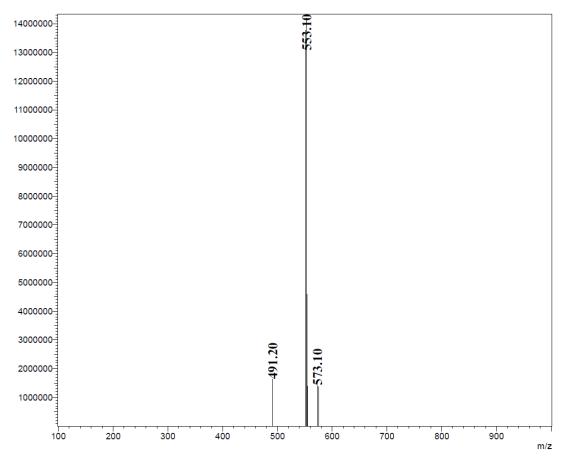
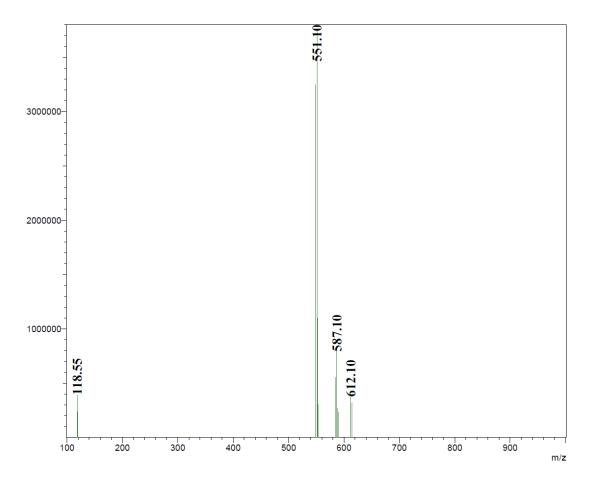
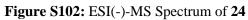
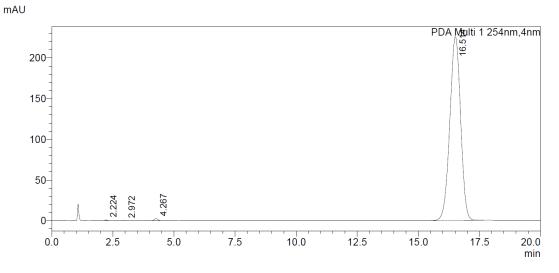
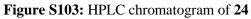


Figure S101: ESI(+)-MS Spectrum of 24









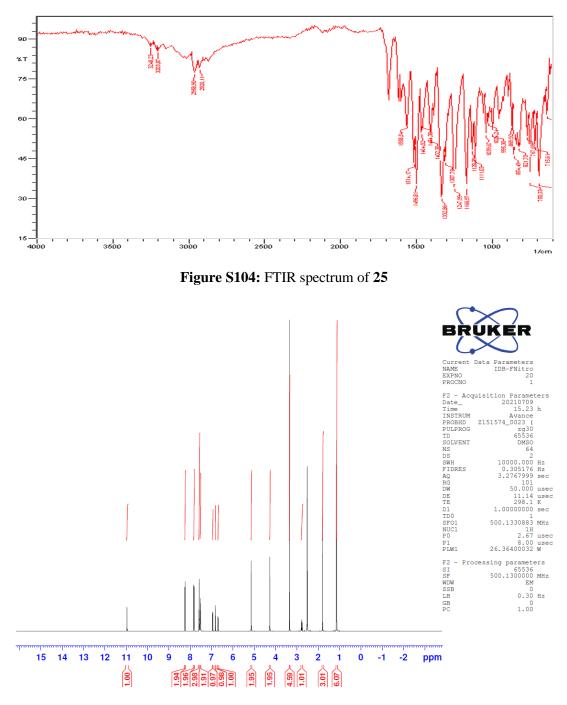


Figure S105: ¹H-NMR (500 MHz, DMSO) Spectrum of 25

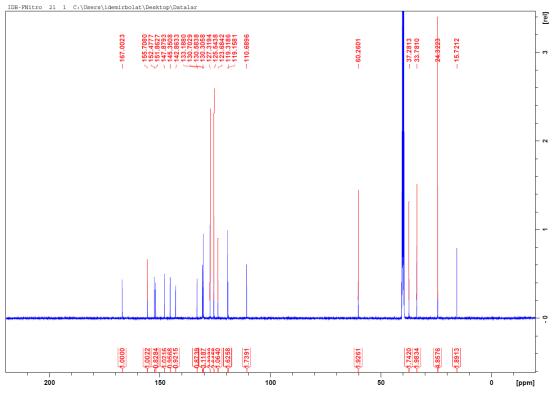


Figure S106: ¹³C-NMR (125 MHz, DMSO) Spectrum of 25

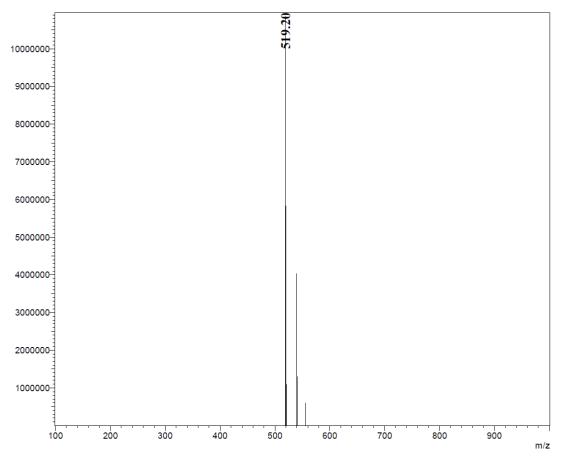
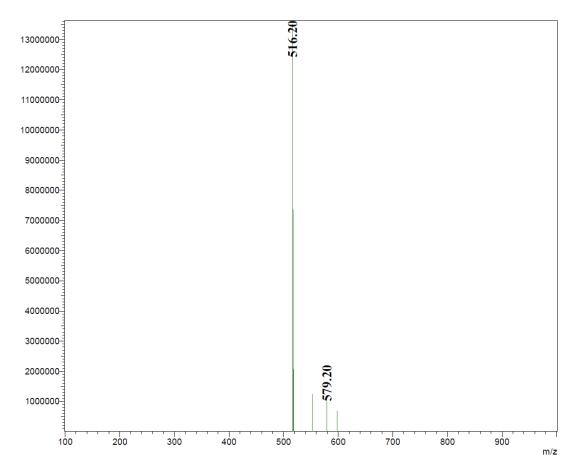
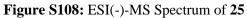


Figure S107: ESI(+)-MS Spectrum of 25





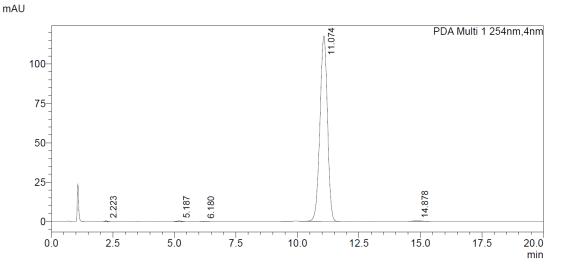


Figure S109: HPLC chromatogram of 25

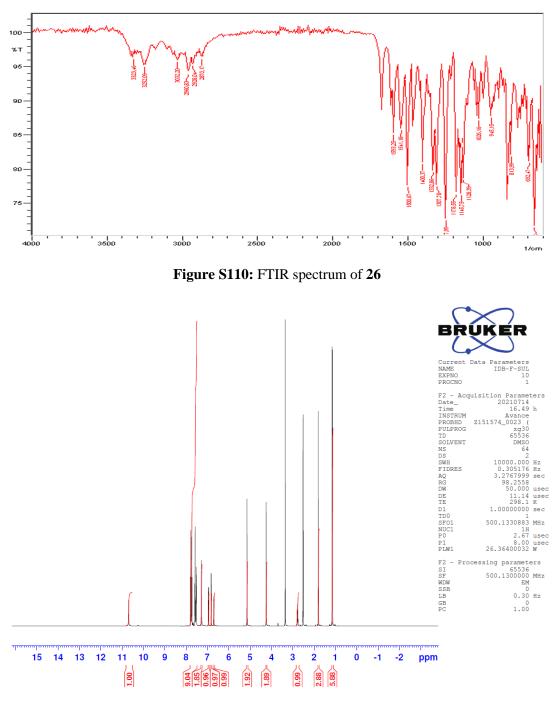


Figure S111: ¹H-NMR (500 MHz, DMSO) Spectrum of 26

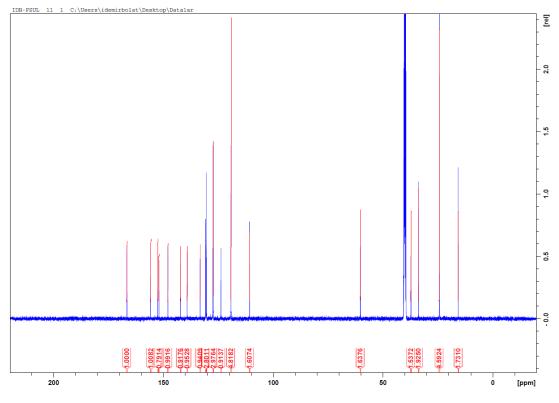


Figure S112: ¹³C-NMR (125 MHz, DMSO) Spectrum of 26

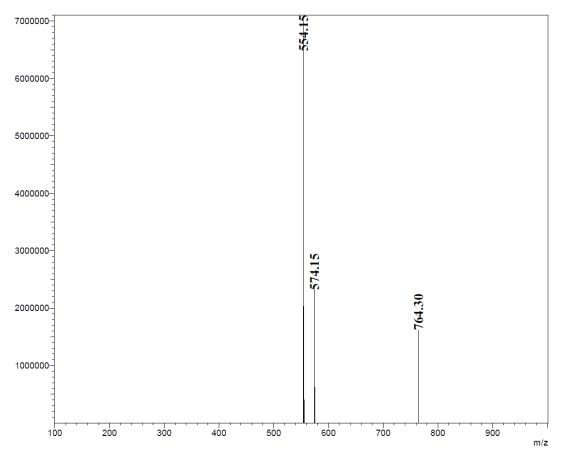
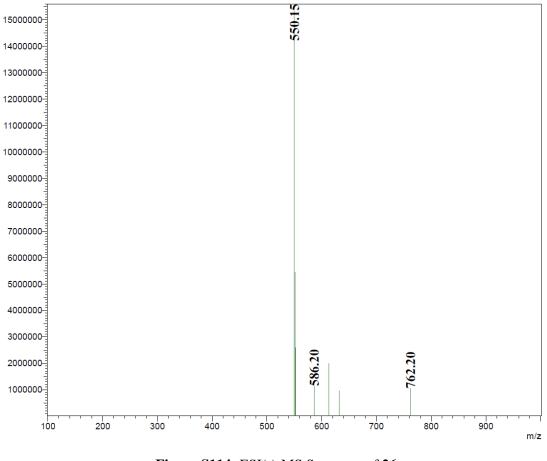
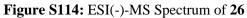
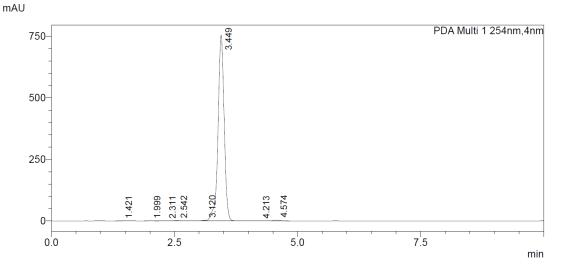
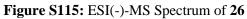


Figure S113: ESI(+)-MS Spectrum of 26









Comp.	MW (g/mol)	LogP _{o/w}	LogS (ESOL)	n-ON	n-OHNH	n-ROTB	TPSA (Ų)	%ABS*	Lipinski's rule n-violation	Mutagenic	Tumorigenic
9	410.53	3.76	-4.85	4	1	9	94.34	76.45	-	none	none
10	444.98	4.14	-5.44	4	1	9	94.34	76.45	-	none	none
11	428.52	3.95	-5.01	5	1	9	94.34	76.45	-	none	none
12	489.43	4.28	-5.76	4	1	9	94.34	76.45	-	none	high
13	455.53	3.04	-4.91	6	1	10	140.16	60.65	-	none	none
14	489.61	2.34	-4.32	7	2	10	162.88	52.81	-	none	none
15	424.56	3.99	-5.05	4	1	10	94.34	76.45	-	none	none
16	459.00	4.53	-5.64	4	1	10	94.34	76.45	-	none	none
17	442.55	4.32	-5.21	5	1	10	94.34	76.45	-	none	none
18	503.46	4.58	-5.96	4	1	10	94.34	76.45	1 (MW>500)	none	high
19	469.56	3.27	-5.12	6	1	11	140.16	60.65	-	none	none
20	503.64	2.87	-4.52	7	2	11	162.88	52.81	1 (MW>500)	none	none
21	472.60	4.95	-6.28	4	1	10	94.34	76.45	-	none	none
22	507.05	5.52	-6.87	4	1	10	94.34	76.45	2 (MW>500; logP>5)	none	none
23	490.59	5.26	-6.44	5	1	10	94.34	76.45	1 (logP>5)	none	none
24	551.50	5.61	-7.19	4	1	10	94.34	76.45	2 (MW>500; logP>5)	none	high
25	517.60	4.41	-6.34	6	1	11	140.16	60.65	1 (MW>500)	none	none
26	551.68	3.77	-5.75	7	2	11	162.88	52.81	1 (MW>500)	none	none

 Table S1: ADMET profiles of compounds 9-26.