BEILSTEIN JOURNAL OF ORGANIC CHEMISTRY

Supporting Information

for

Skeletocutins M–Q: biologically active compounds from the fruiting bodies of the basidiomycete *Skeletocutis* sp. collected in Africa

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HRESIMS data, NMR spectra of metabolites, media composition for incubation of microorganisms, and ITS sequences of the producing strain

Content

1 and 2D NMR data for skeletocutin M (1)

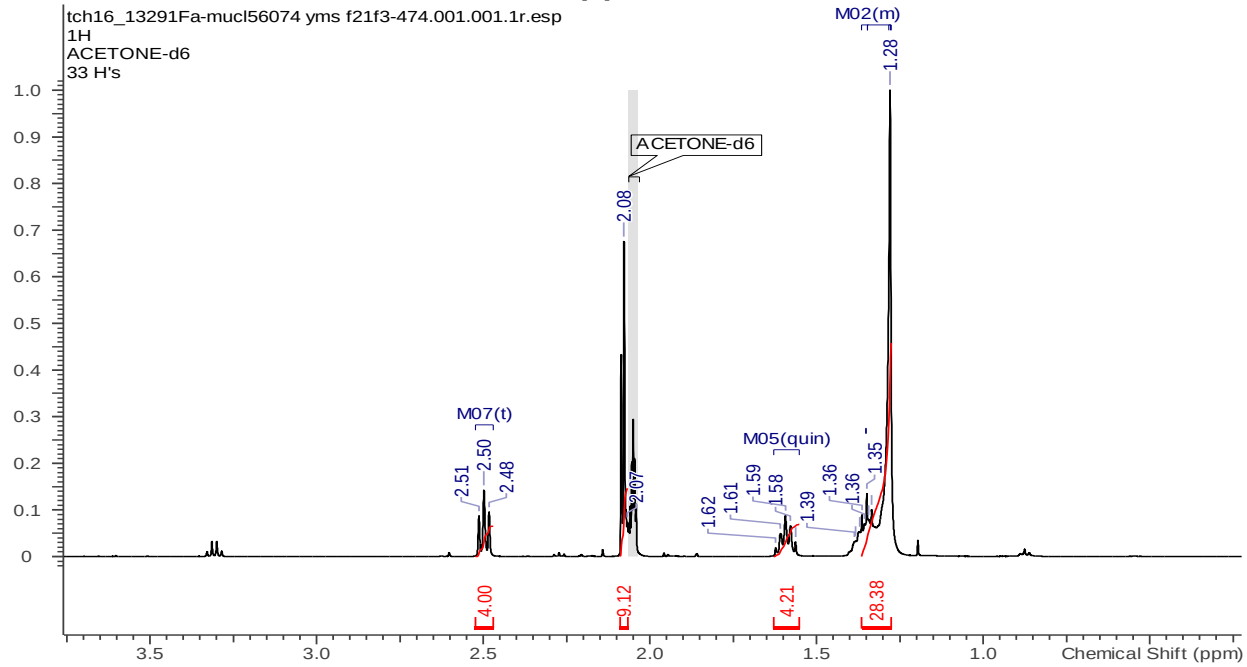

Figure S1: ^{1}H NMR spectrum of skeletocutin M (**1**) in acetone-d_6 (500 MHz)

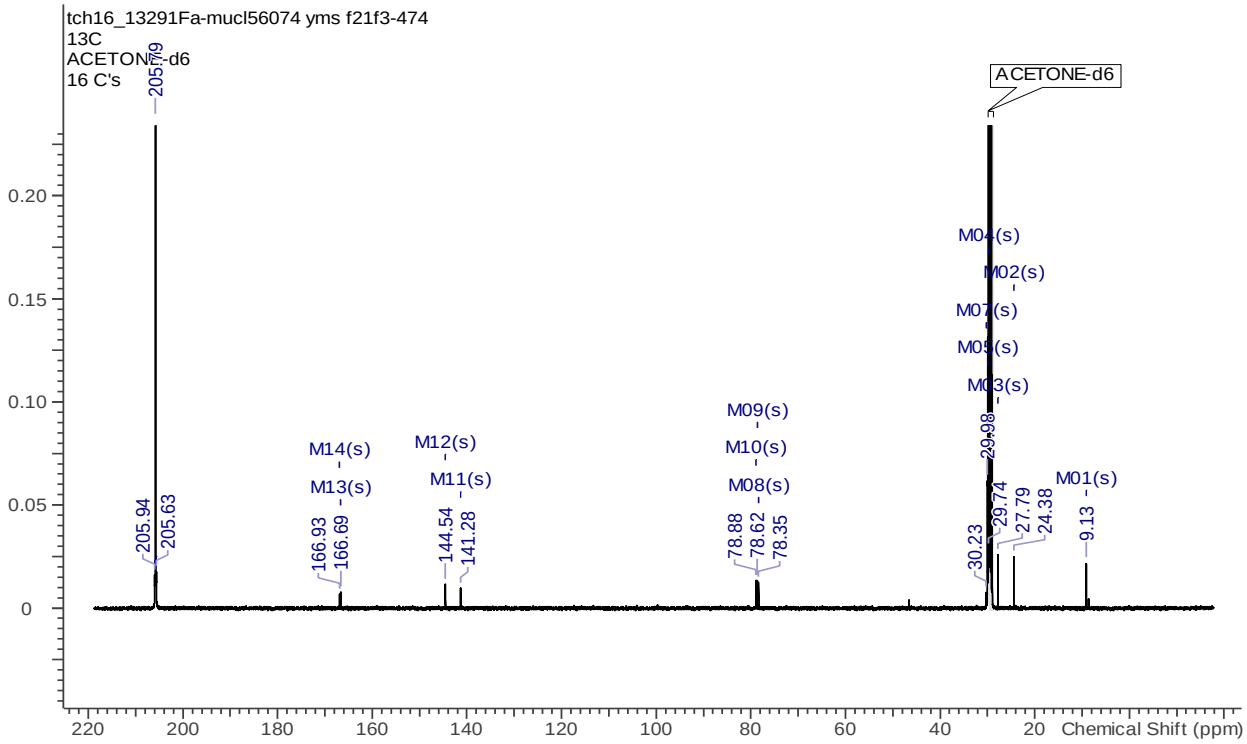

Figure S2: ^{13}C NMR spectrum of skeletocutin M (**1**) in acetone-d_6 (125 MHz)

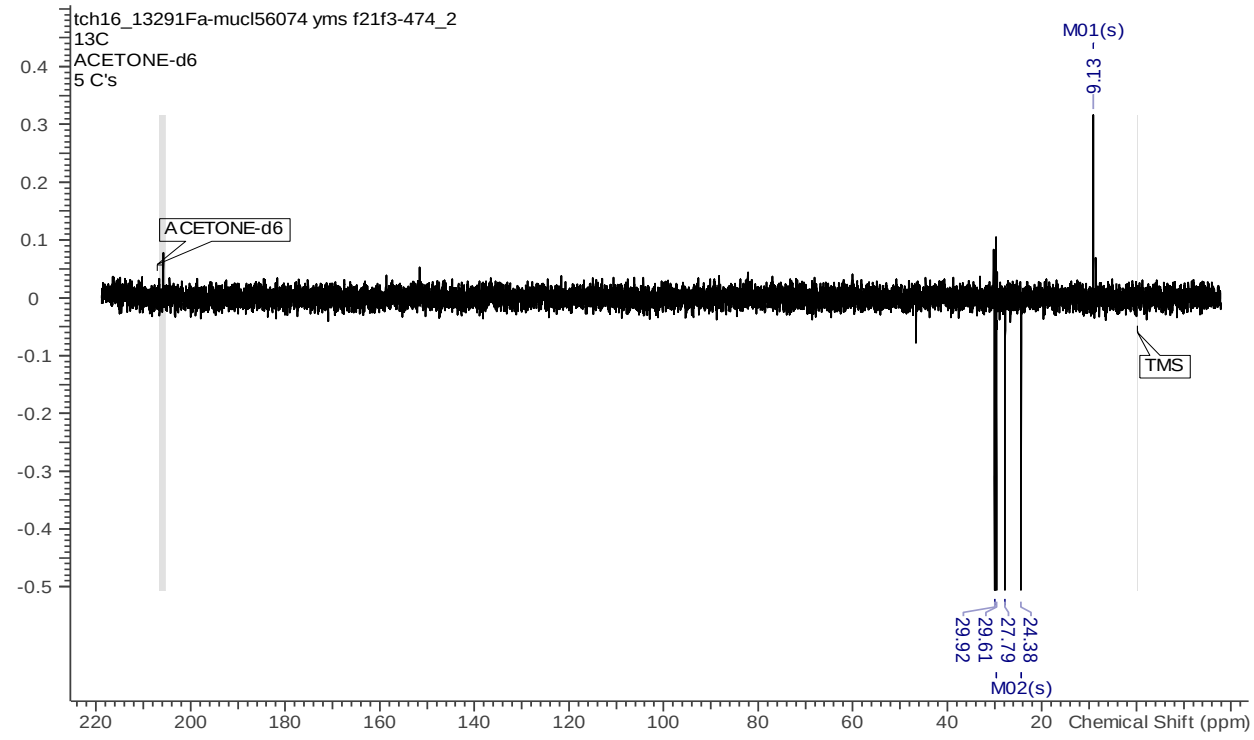

Figure S3: DEPT NMR spectrum of skeletocutin M (**1**) in acetone-d_6 (125 MHz)

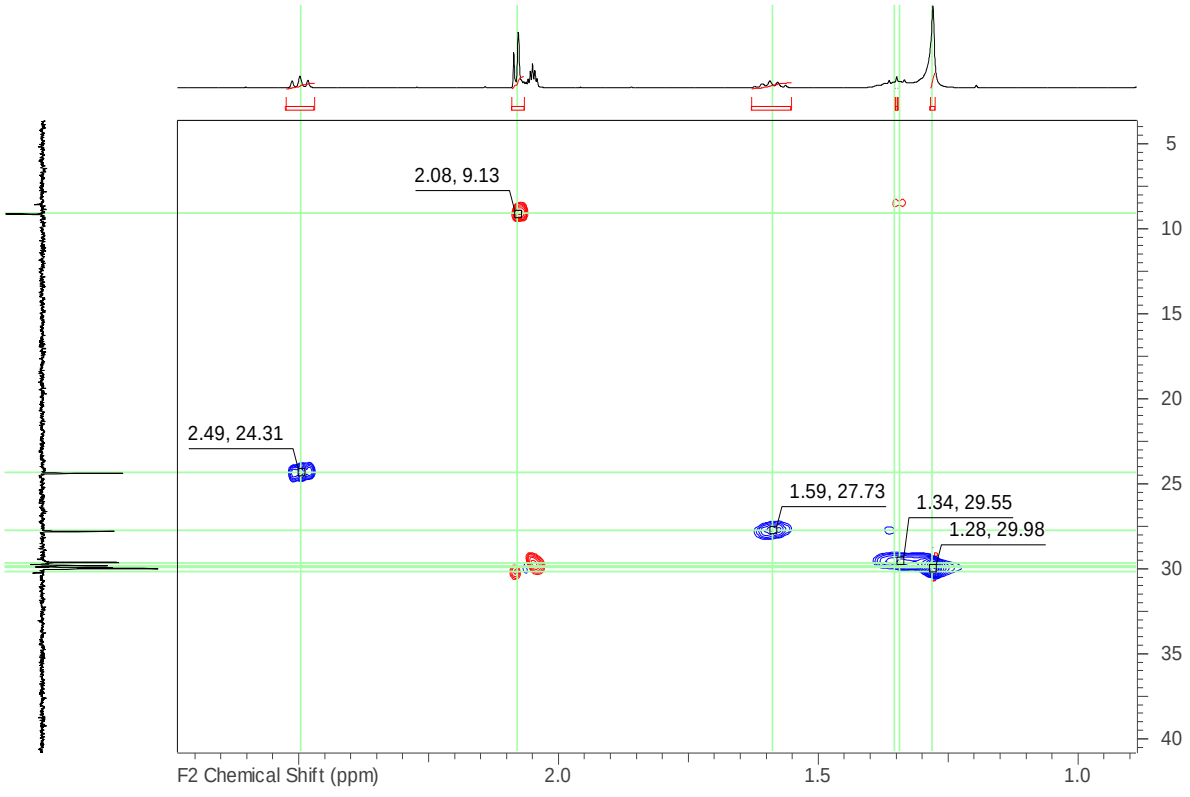

Figure S4: ^{1}H, ^{13}C HSQC spectrum of skeletocutin M (**1**) in acetone-d_6 (500 MHz, 125 MHz)

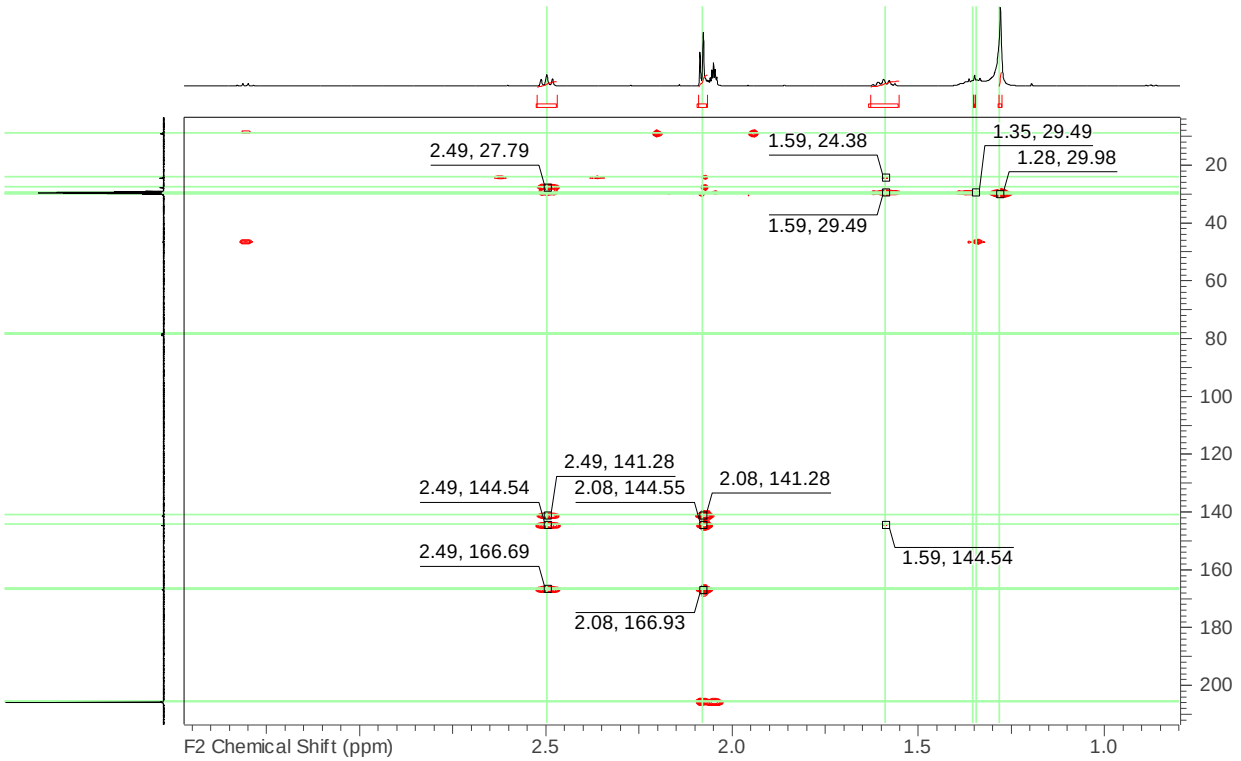

Figure S5: ^{1}H, ^{13}C HMBC spectrum of skeletocutin M (**1**) in acetone-d_6 (500 MHz, 125MHz)

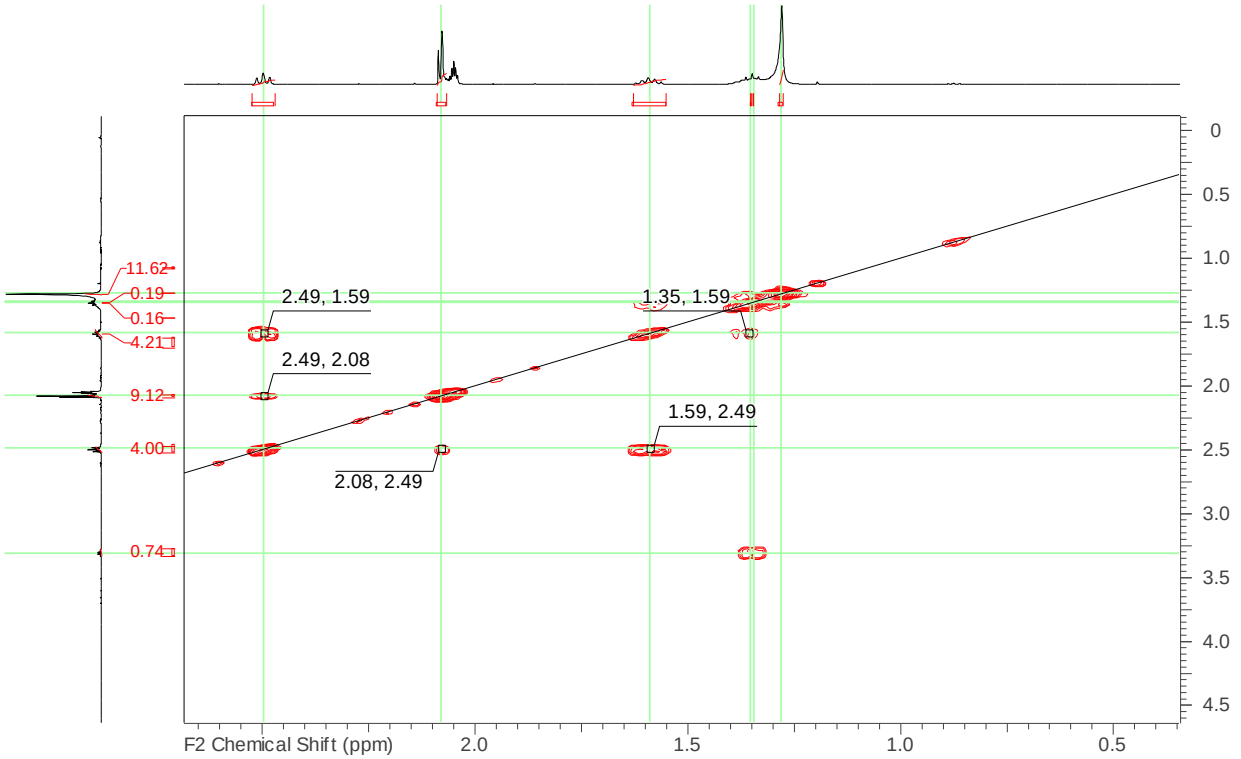

Figure S6: ^{1}H, ^{1}H COSY spectrum of skeletocutin M (**1**) in acetone-d_6 (500 MHz)

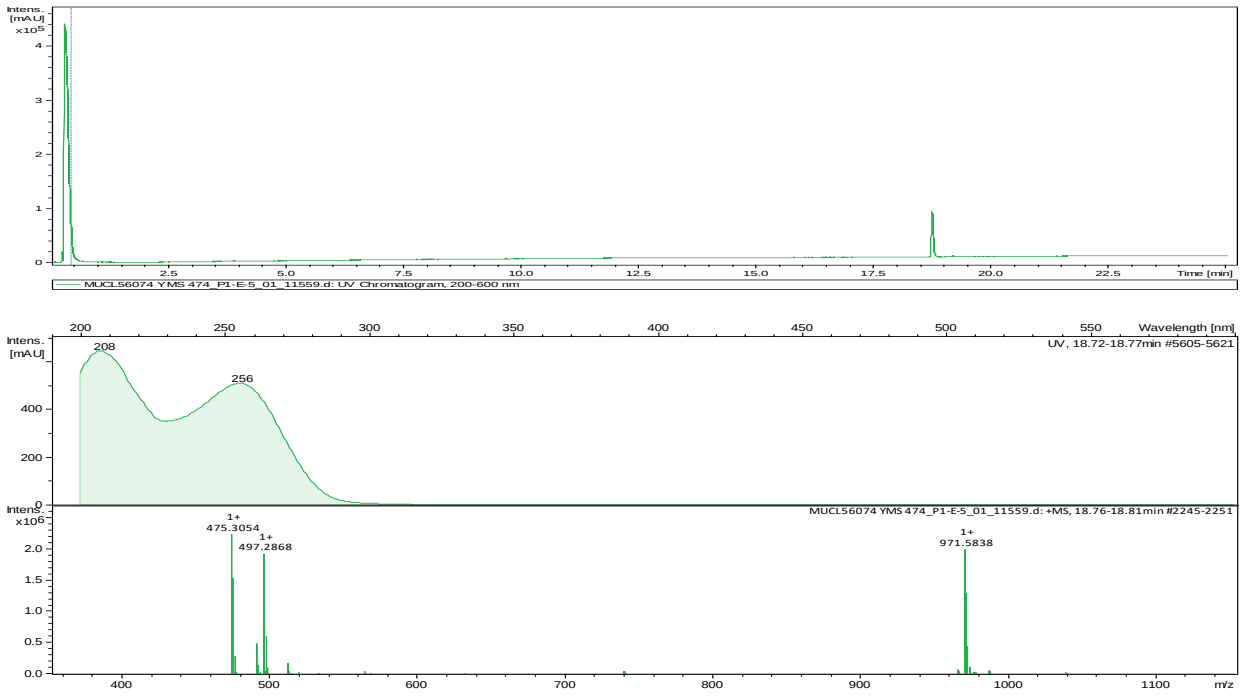

Figure S7: HRESIMS spectrum of skeletocutin M (**1**)

1 and 2D NMR data for skeletocutin N (2)

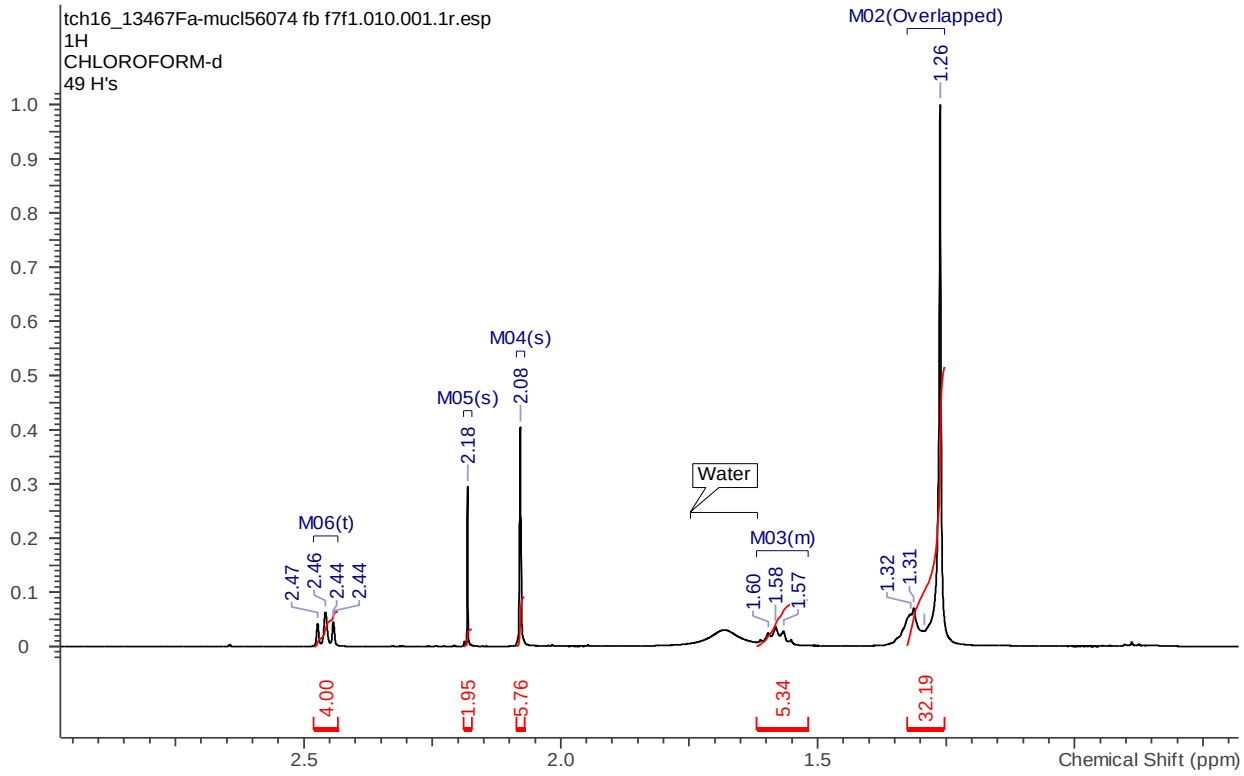

Figure S8: ^{1}H NMR spectrum of skeletocutin N (**2**) in $CDCl_3$ (500 MHz)

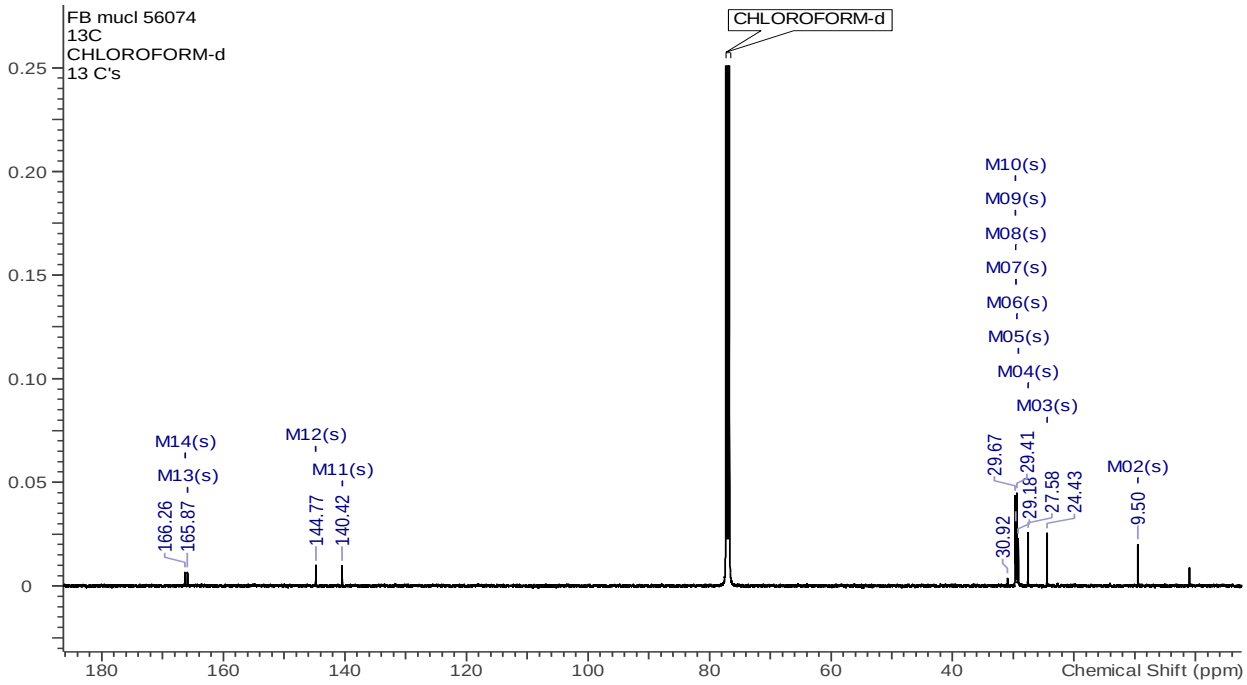

Figure S9: ^{13}C NMR spectrum of skeletocutin N (**2**) in $CDCl_3$ (125 MHz)

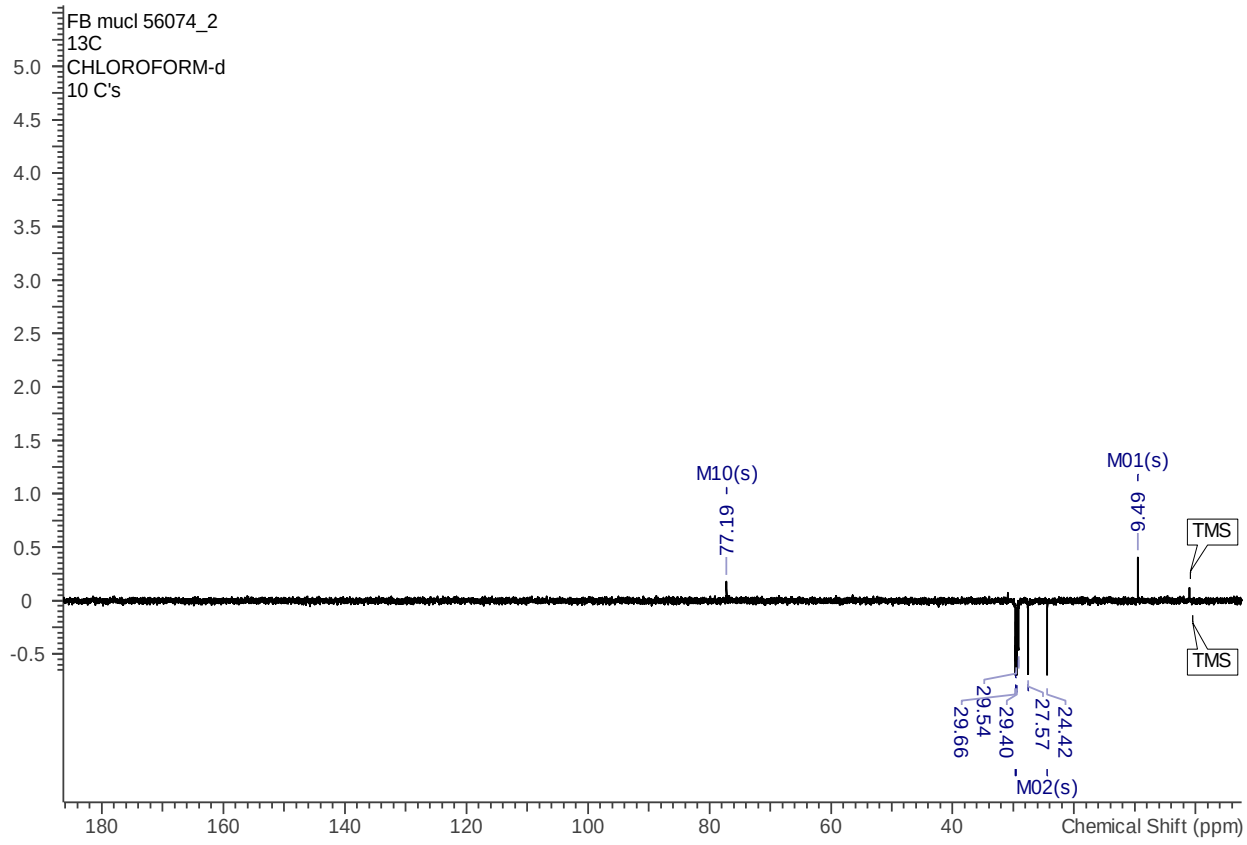

Figure S10: DEPT NMR spectrum of skeletocutin N (**2**) in $CDCl_3$ (125 MHz)

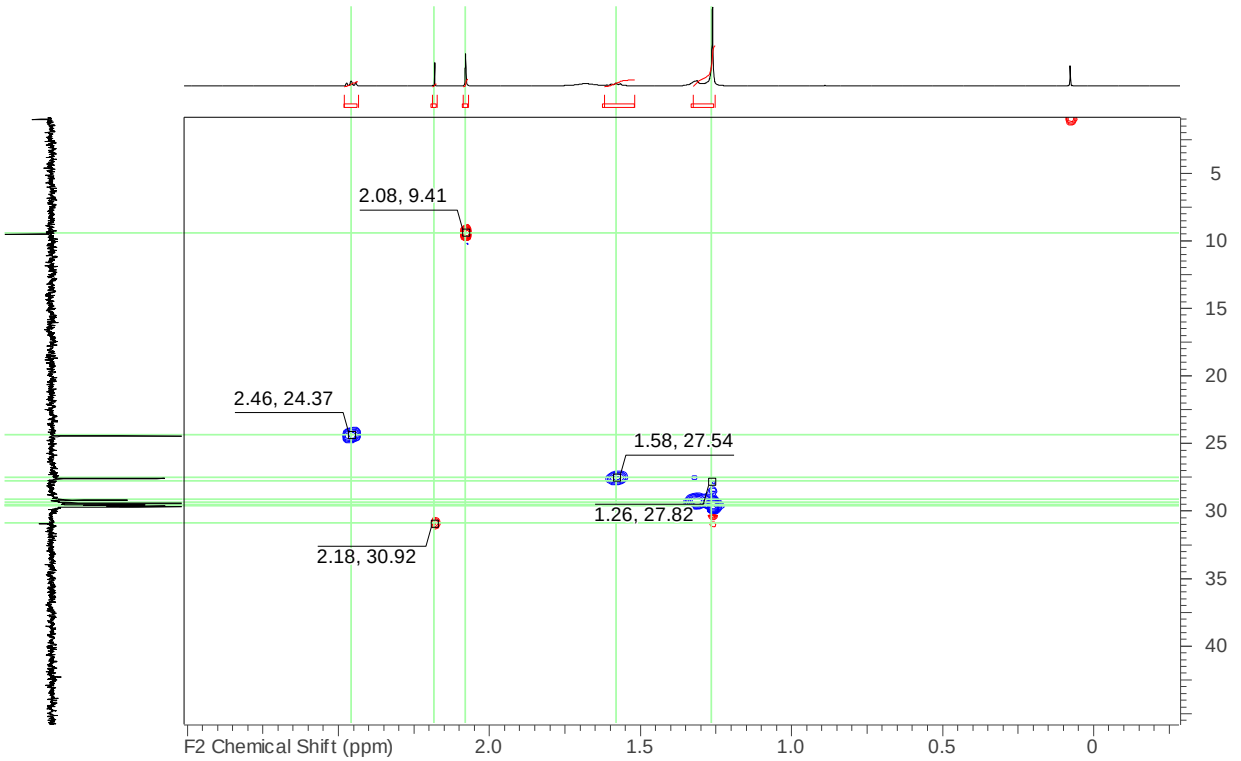

Figure S11: ^{1}H, ^{13}C HSQC spectrum of skeletocutin N (**2**) in $CDCl_3$ (500 MHz, 125 MHz)

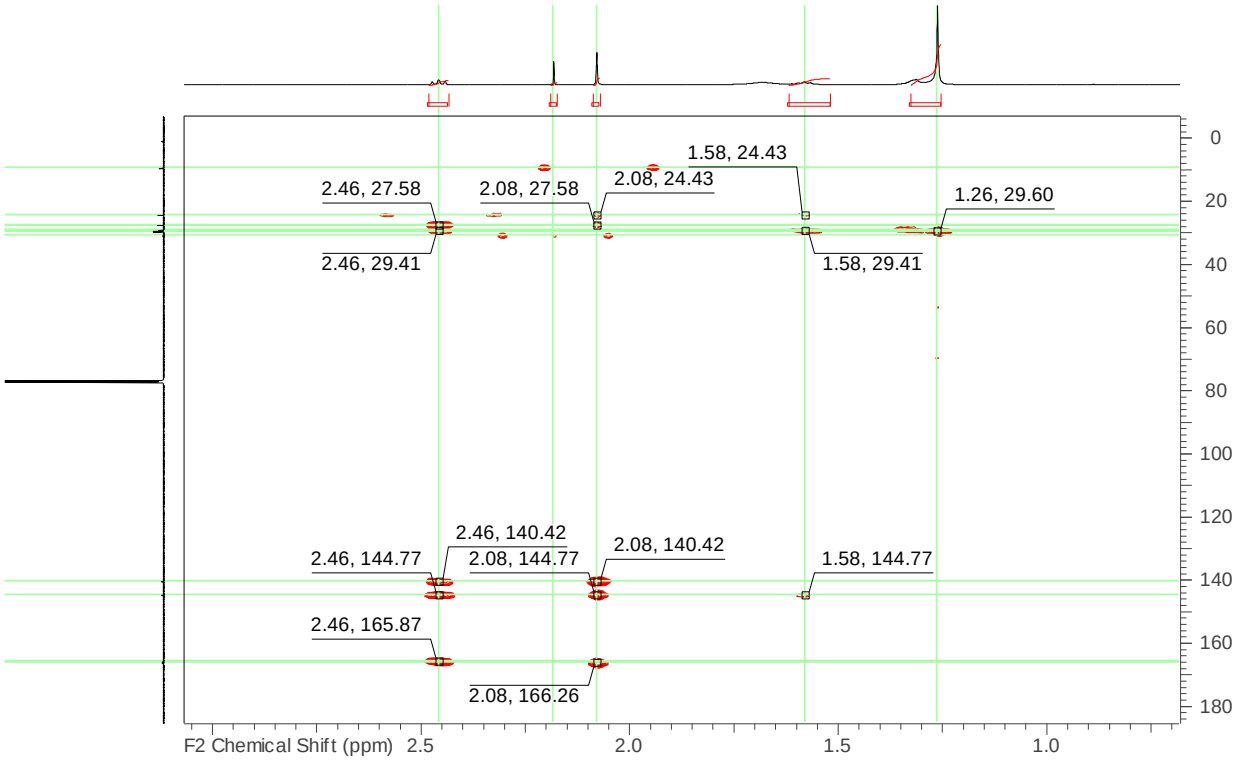

Figure S12: ^{1}H, ^{13}C HMBC spectrum of skeletocutin N (**2**) in $CDCl_3$ (500 MHz, 125 MHz)

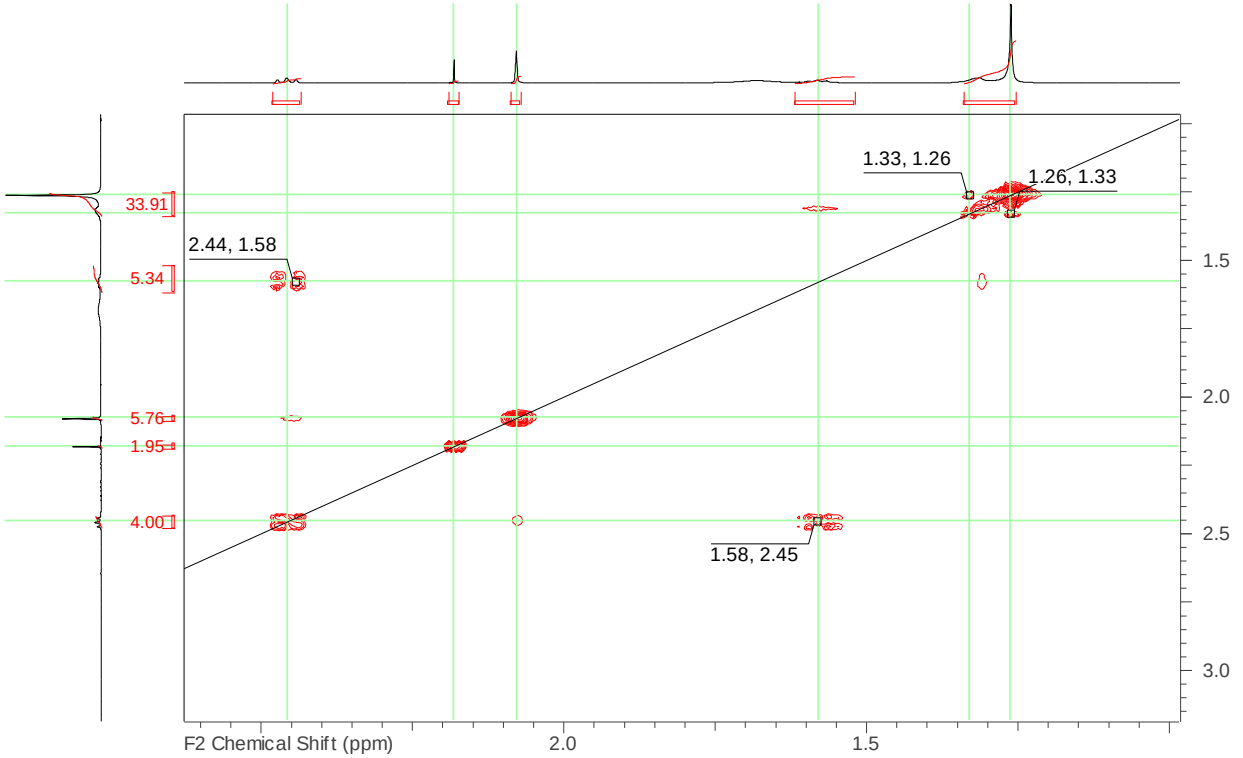

Figure S13: ^{1}H, ^{1}H COSY spectrum of skeletocutin N (**2**) $CDCl_3$ (500 MHz)

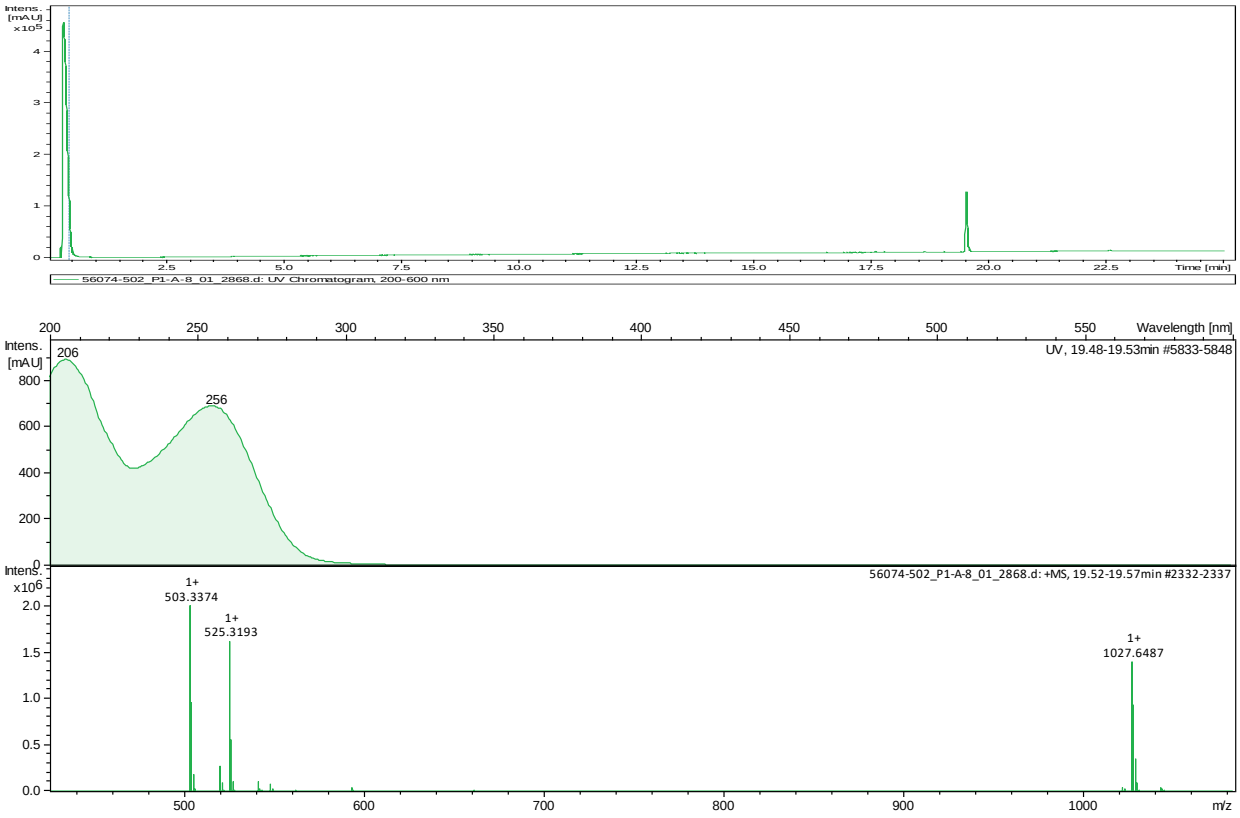

Figure S14: HRESIMS spectrum of skeletocutin N (**2**)

1 and 2D NMR data for skeletocutin O (3)

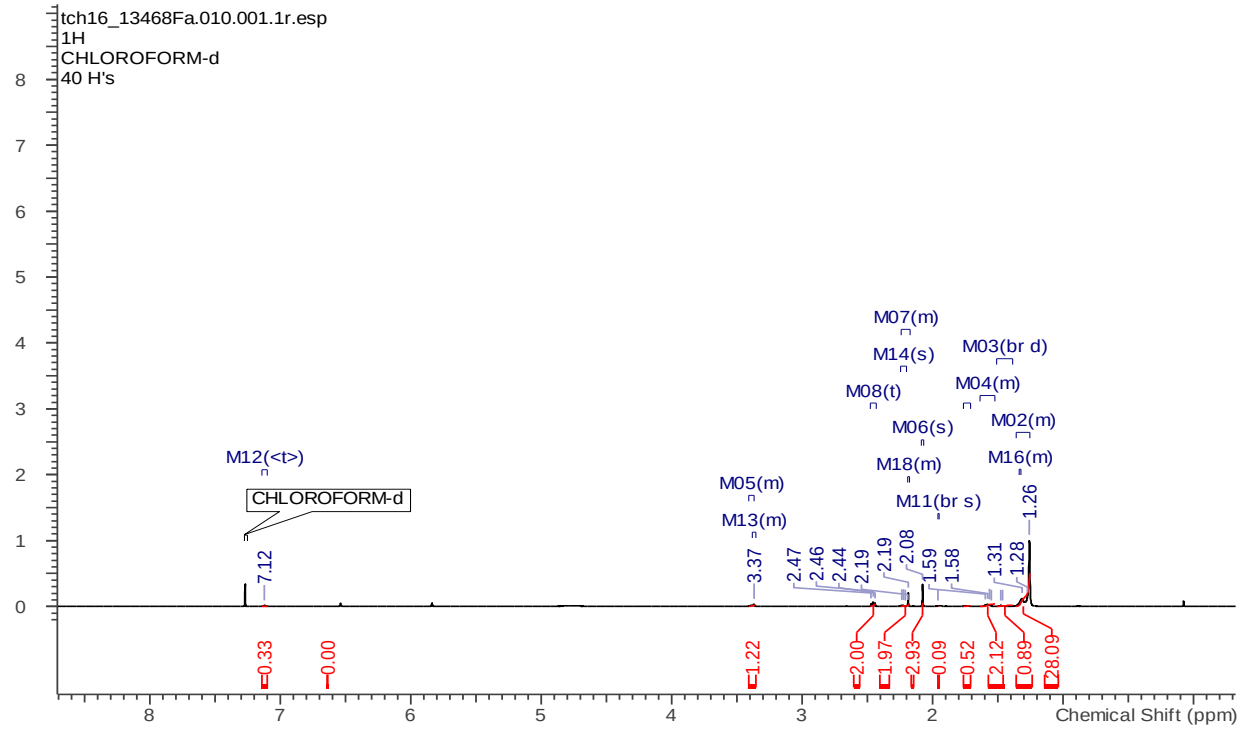

Figure S15: ^{1}H NMR spectrum of skeletocutin O (3) in $CDCl_3$ (500 MHz)

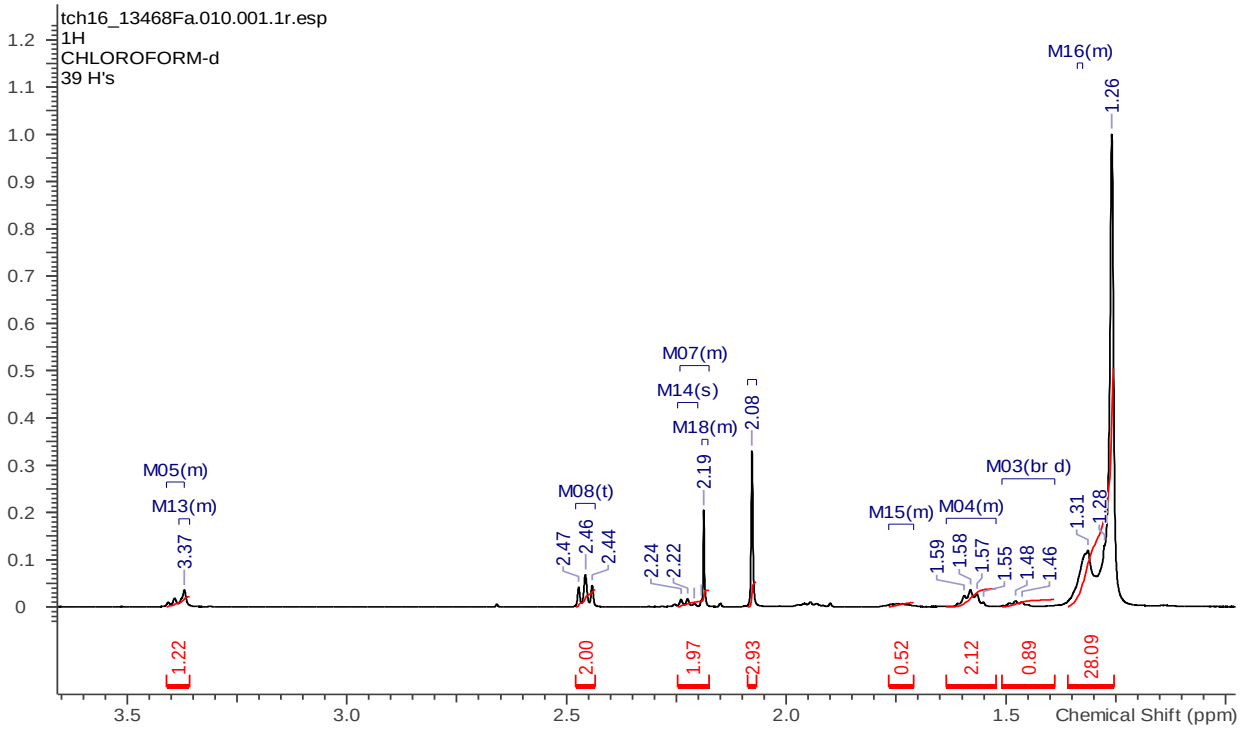

Figure S16: Expanded ^{1}H NMR spectrum of skeletocutin O (**3**) in $CDCl_3$ (500 MHz)

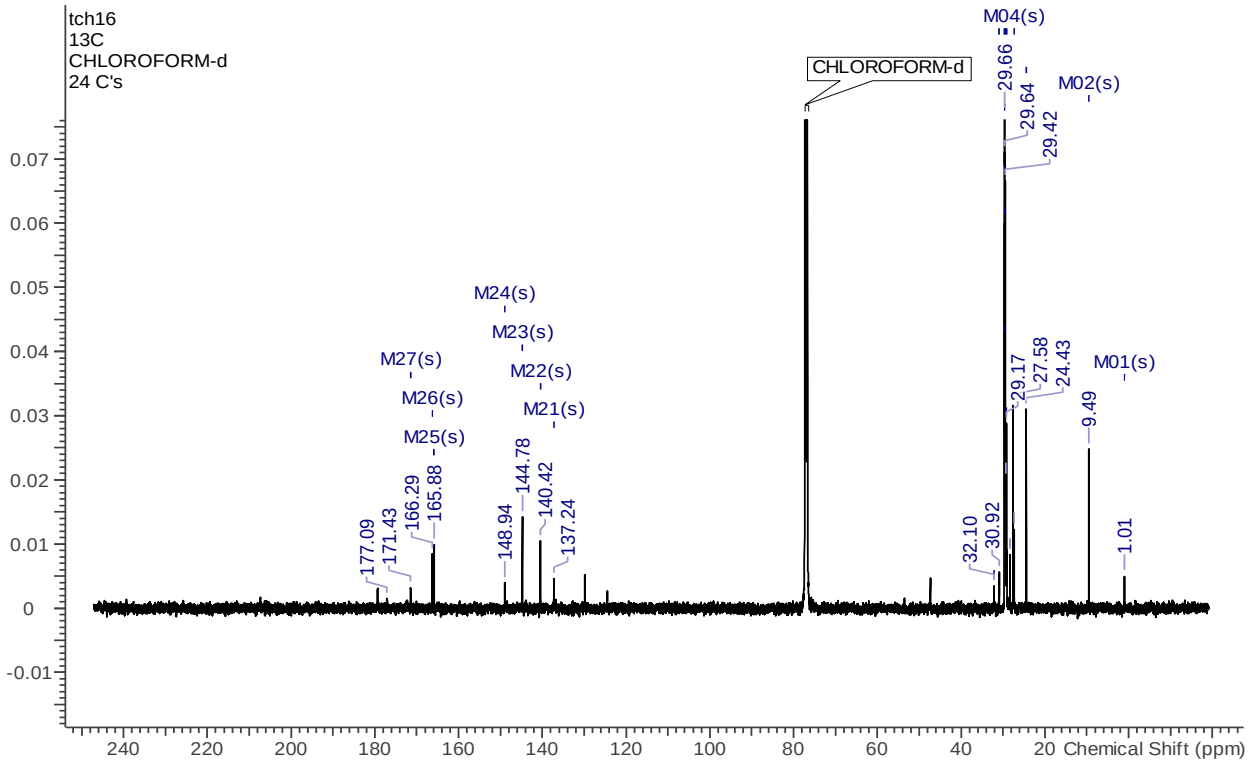

Figure S17: ^{13}C NMR spectrum of skeletocutin O (**3**) in $CDCl_3$ (125 MHz)

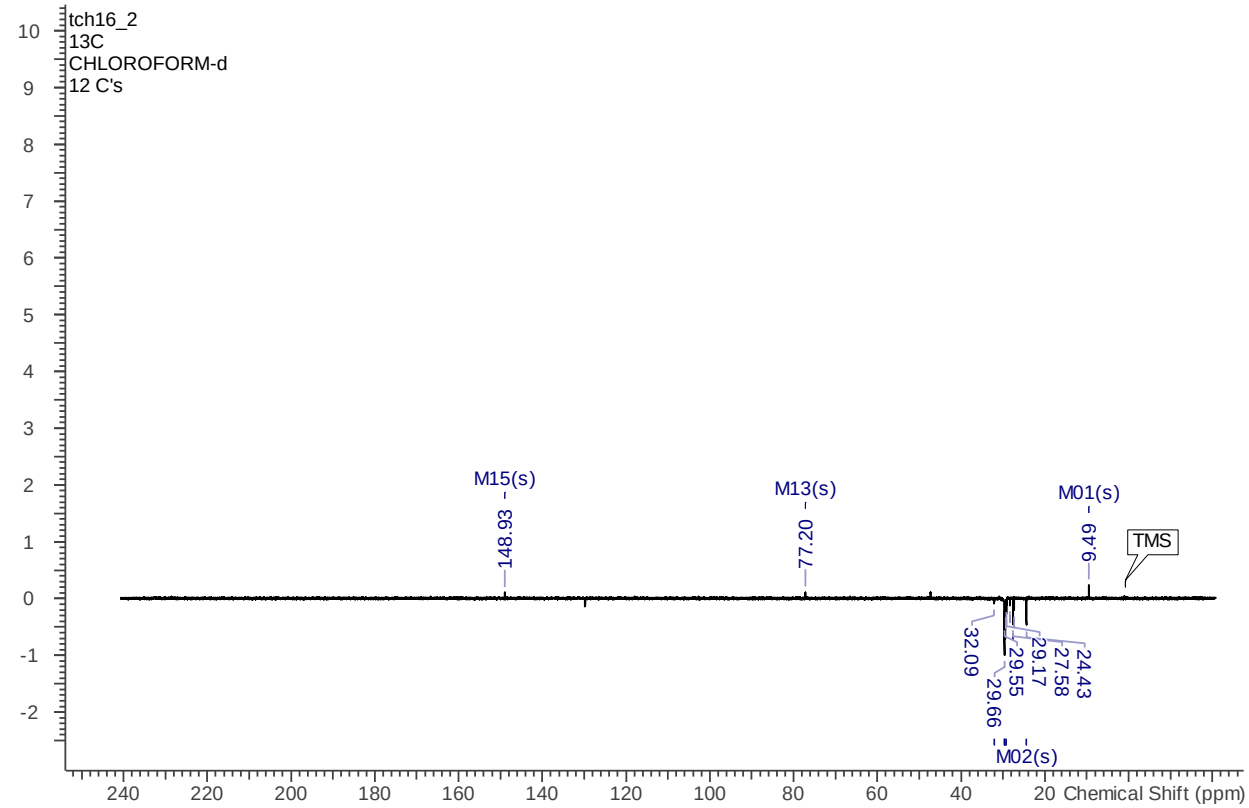

Figure S18: DEPT NMR spectrum of skeletocutin O (**3**) in $CDCl_3$ 125 MHz)

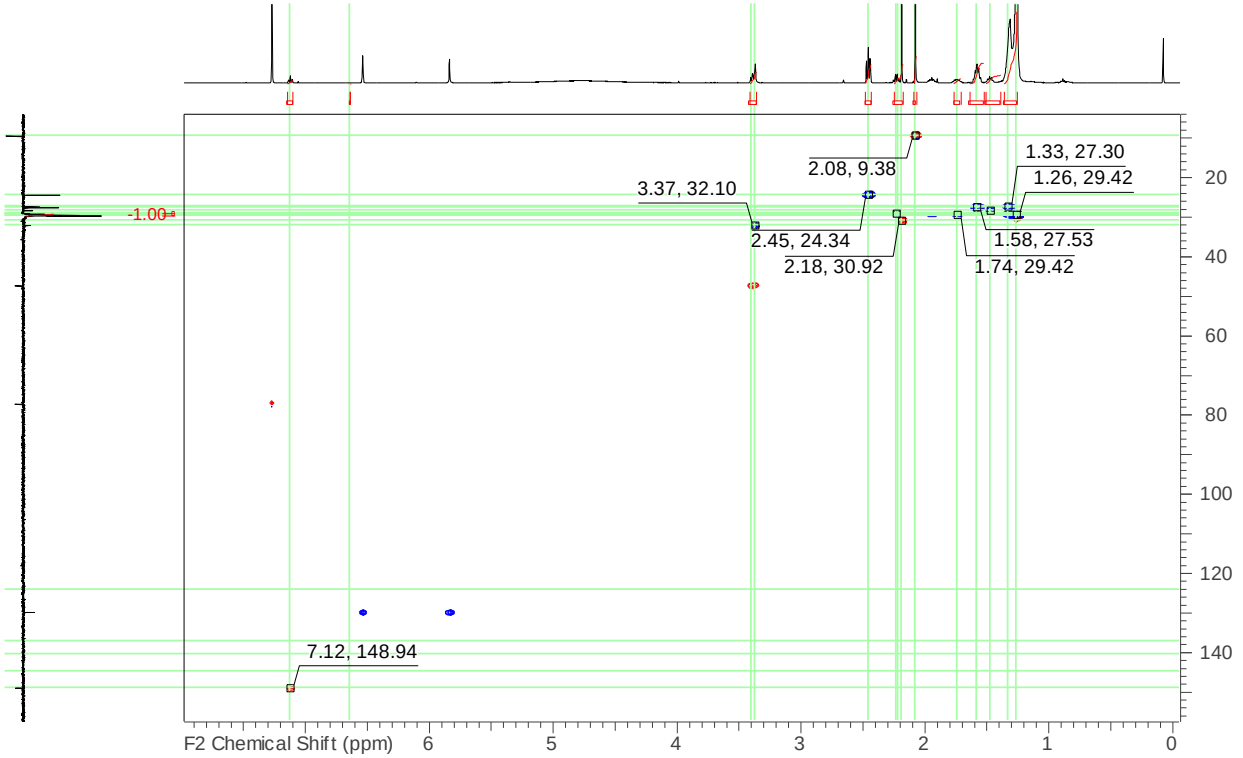

Figure S19: ^{1}H, ^{13}C HSQC spectrum of skeletocutin O (**3**) in $CDCl_3$ (500 MHz, 125 MHz)

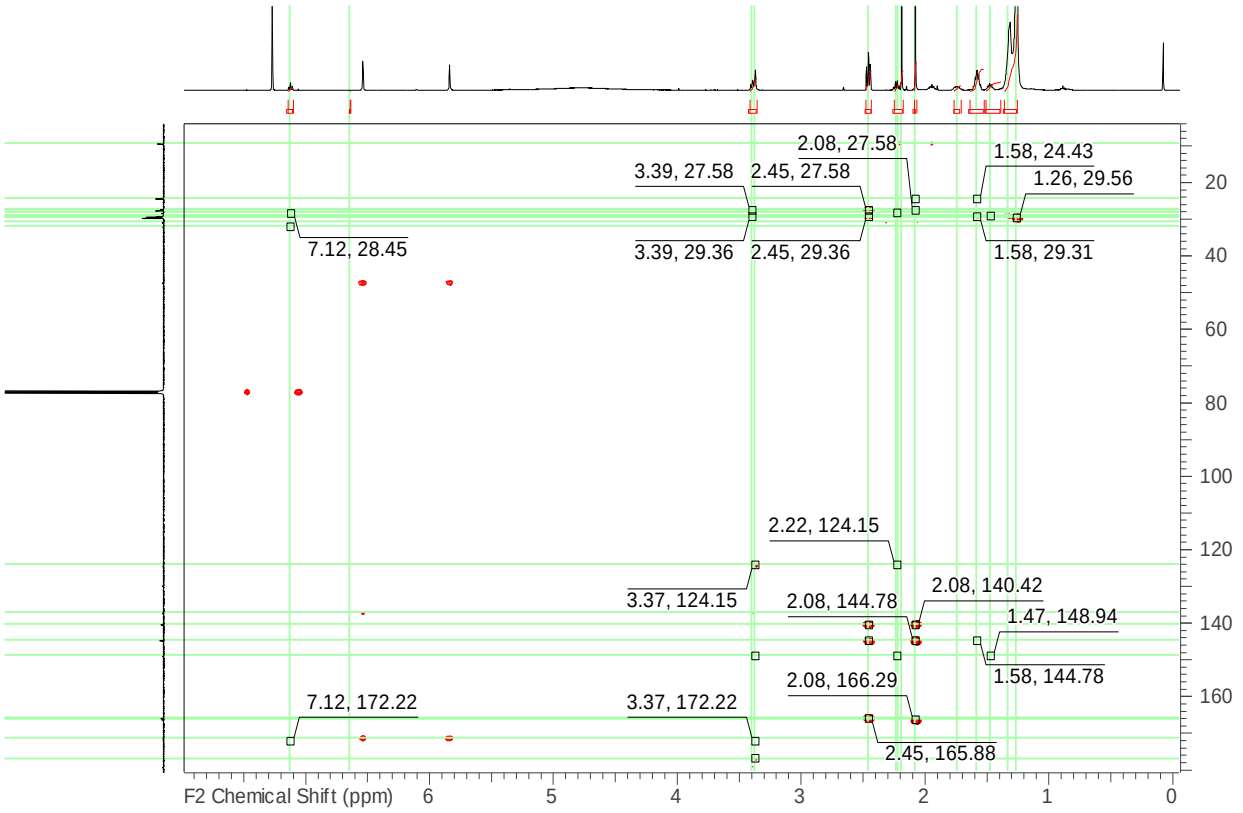

Figure S20: ^{1}H, ^{13}C HMBC spectrum of skeletocutin O (**3**) in $CDCl_3$ (500 MHz, 125 MHz)

Figure S21: ^{1}H, ^{1}H COSY spectrum of skeletocutin O (**3**) $CDCl_3$ (500 MHz)

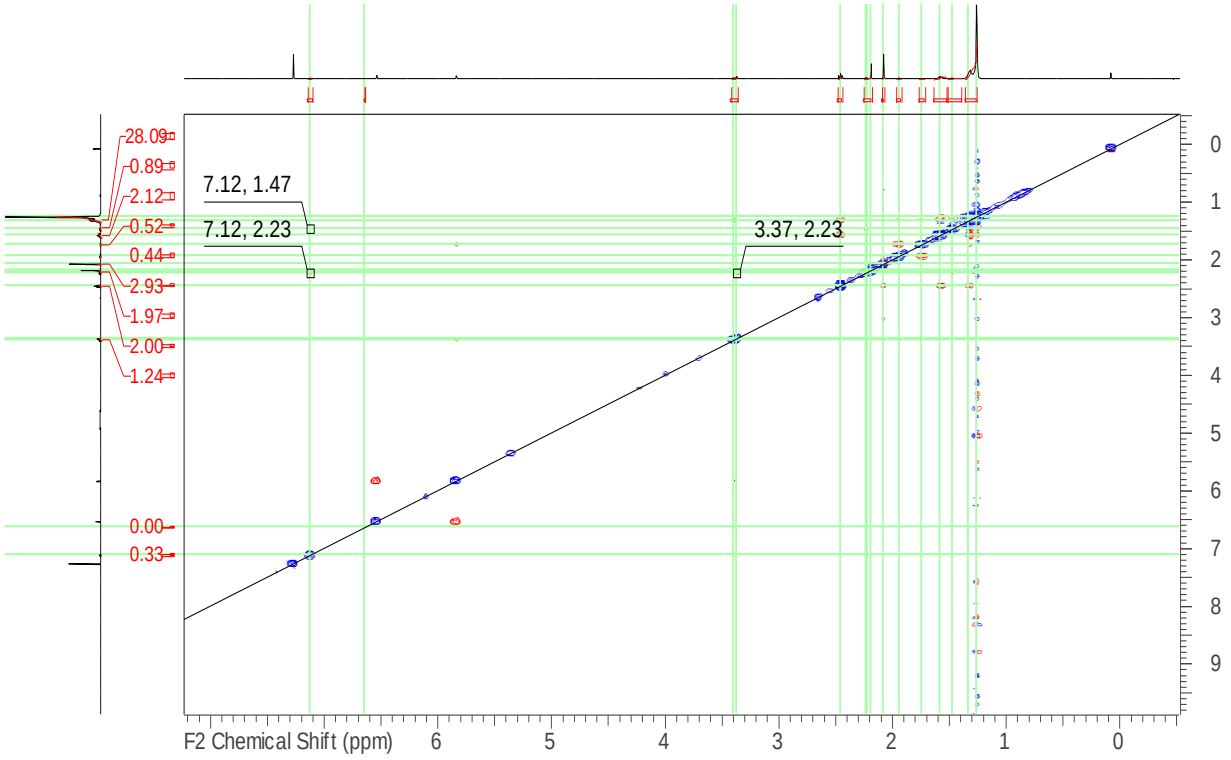

Figure S22: ^{1}H, ^{1}H ROESY spectrum of skeletocutin O (**3**) $CDCl_3$ (500 MHz)

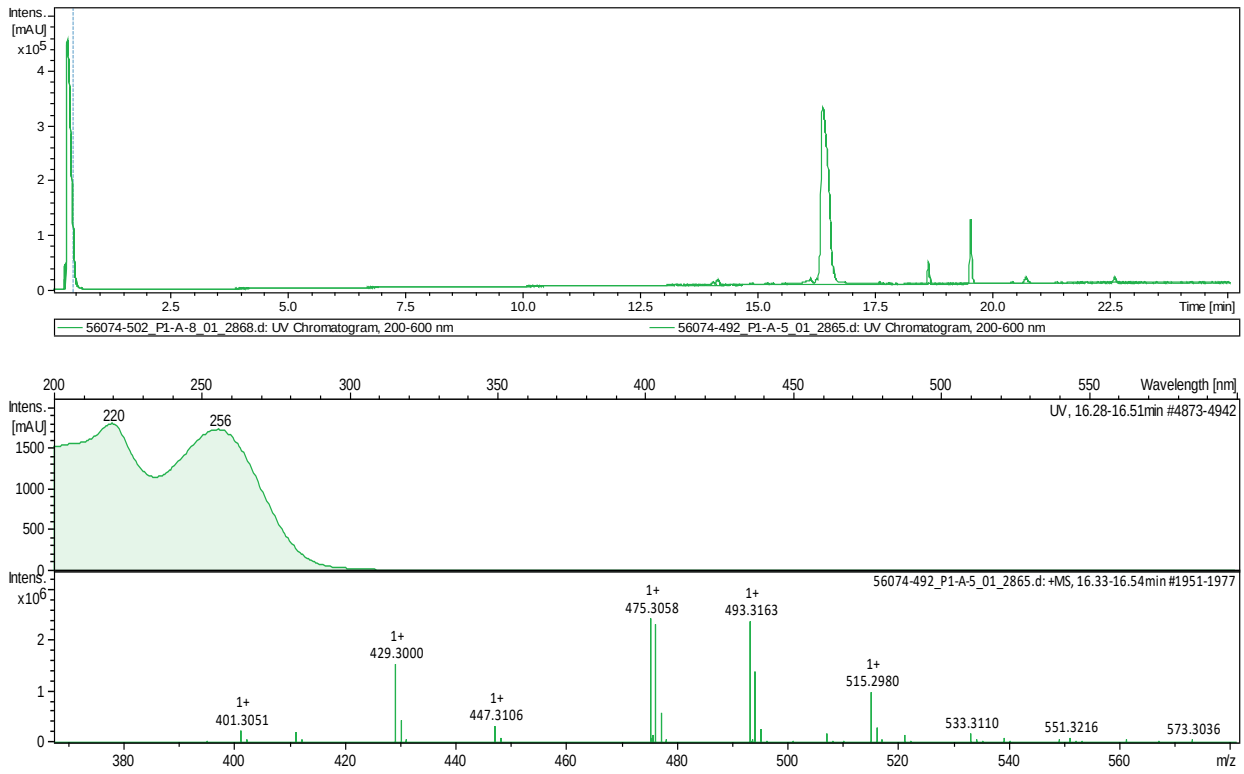

Figure S23: HRESIMS spectrum of skeletocutin O (**3**)

1 and 2D NMR data for skeletocutin P (4)

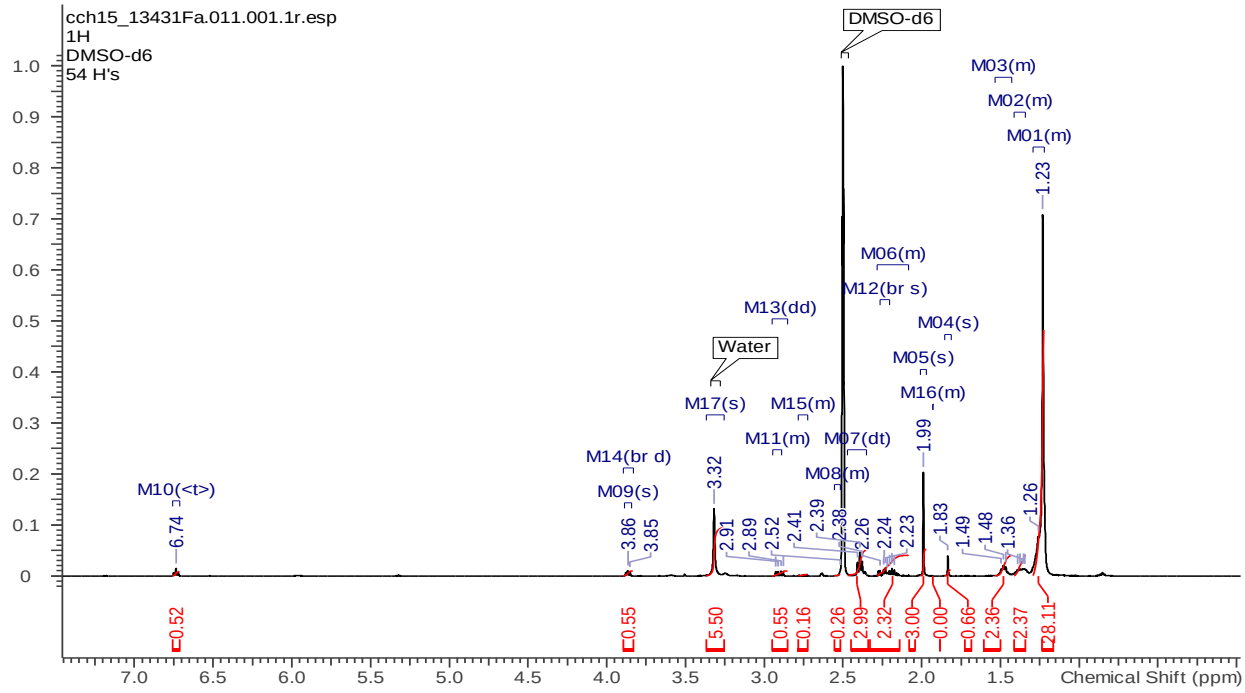

Figure S24: ^{1}H NMR spectrum of skeletocutin P (**4**) in DMSO (500 MHz)

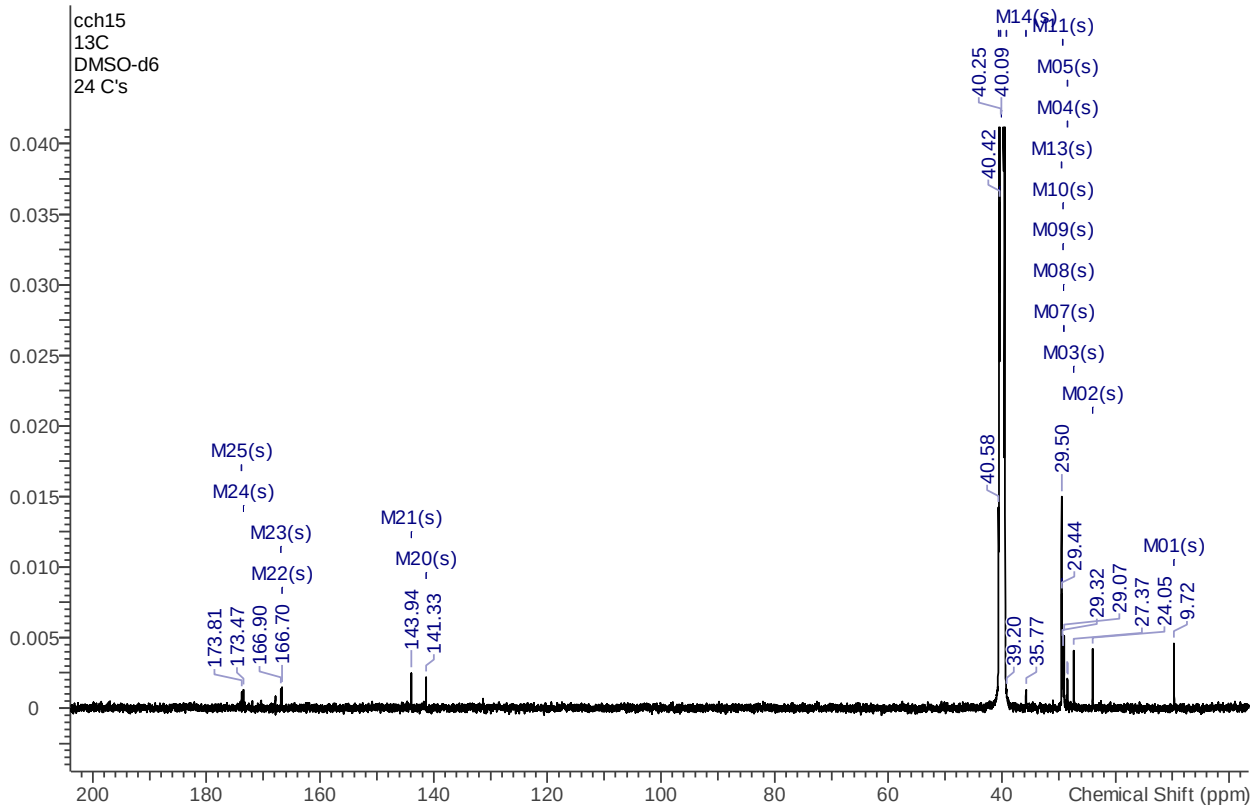

Figure S25: ^{13}C NMR spectrum of skeletocutin P (**4**) in DMSO (125 MHz)

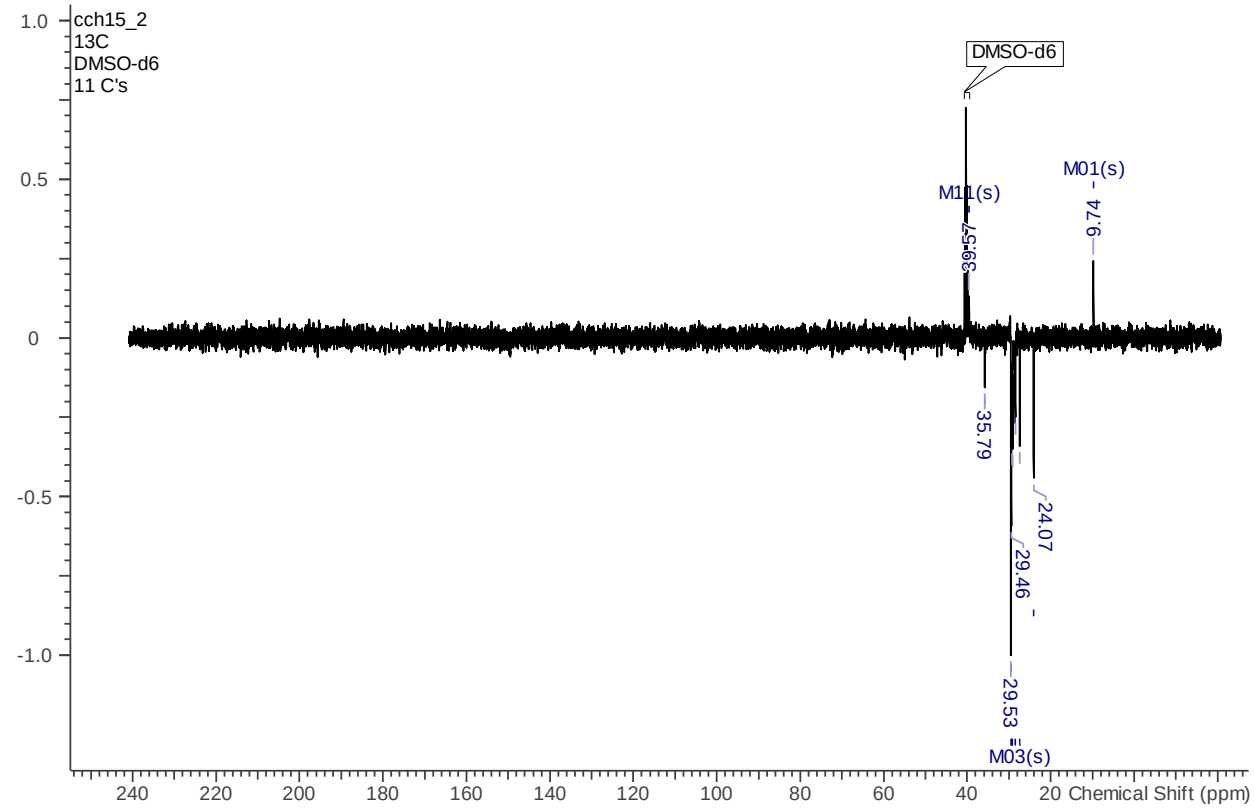

Figure S26: DEPT NMR spectrum of skeletocutin P (4) in DMSO (125 MHz)

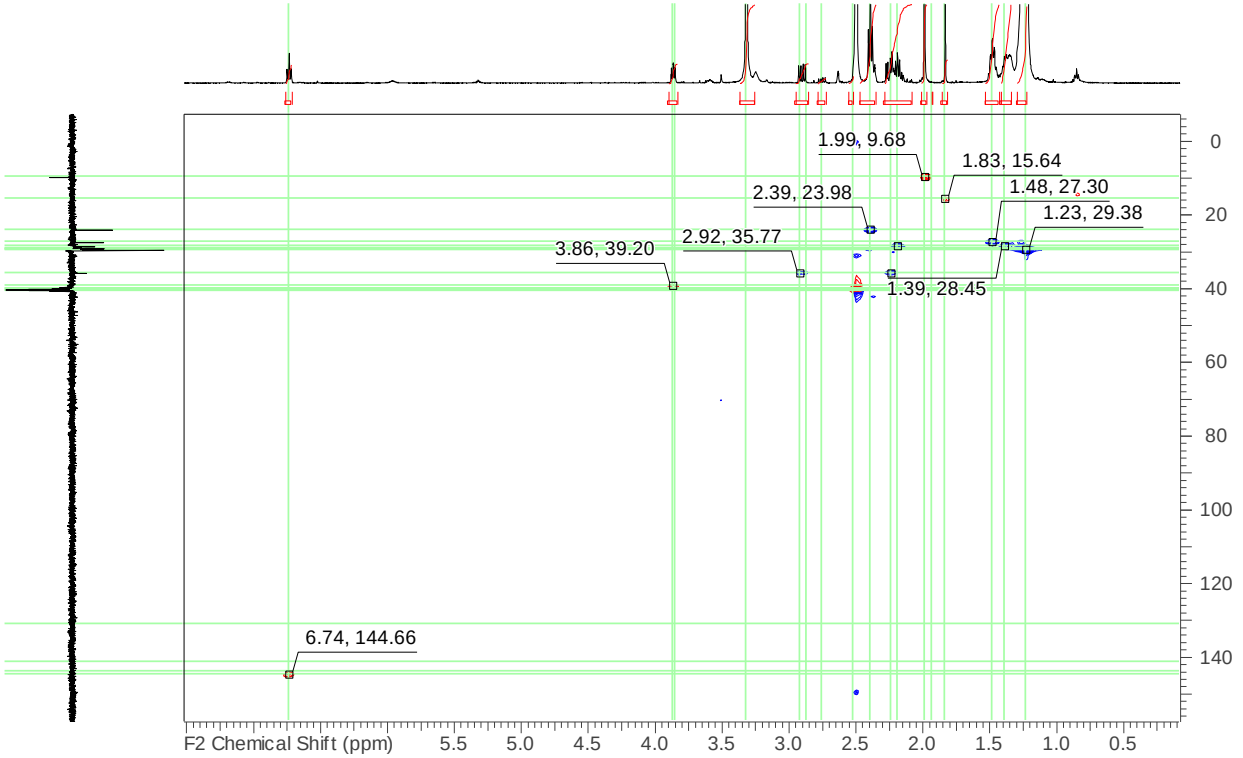

Figure S27: ^{1}H, ^{13}C HSQC spectrum of skeletocutin P (**4**) in DMSO (500 MHz, 125 MHz)

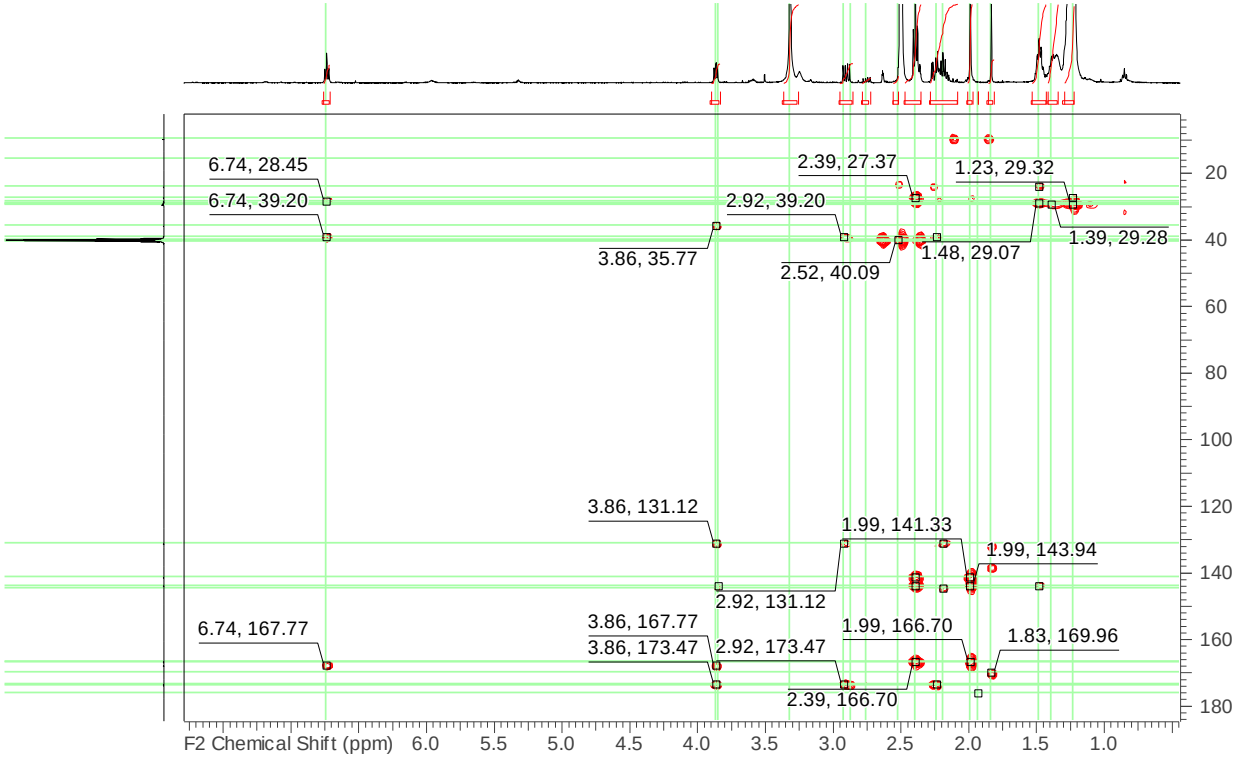

Figure S28: ^{1}H, ^{13}C HMBC spectrum of skeletocutin P (**4**) in DMSO (500 MHz, 125 MHz)

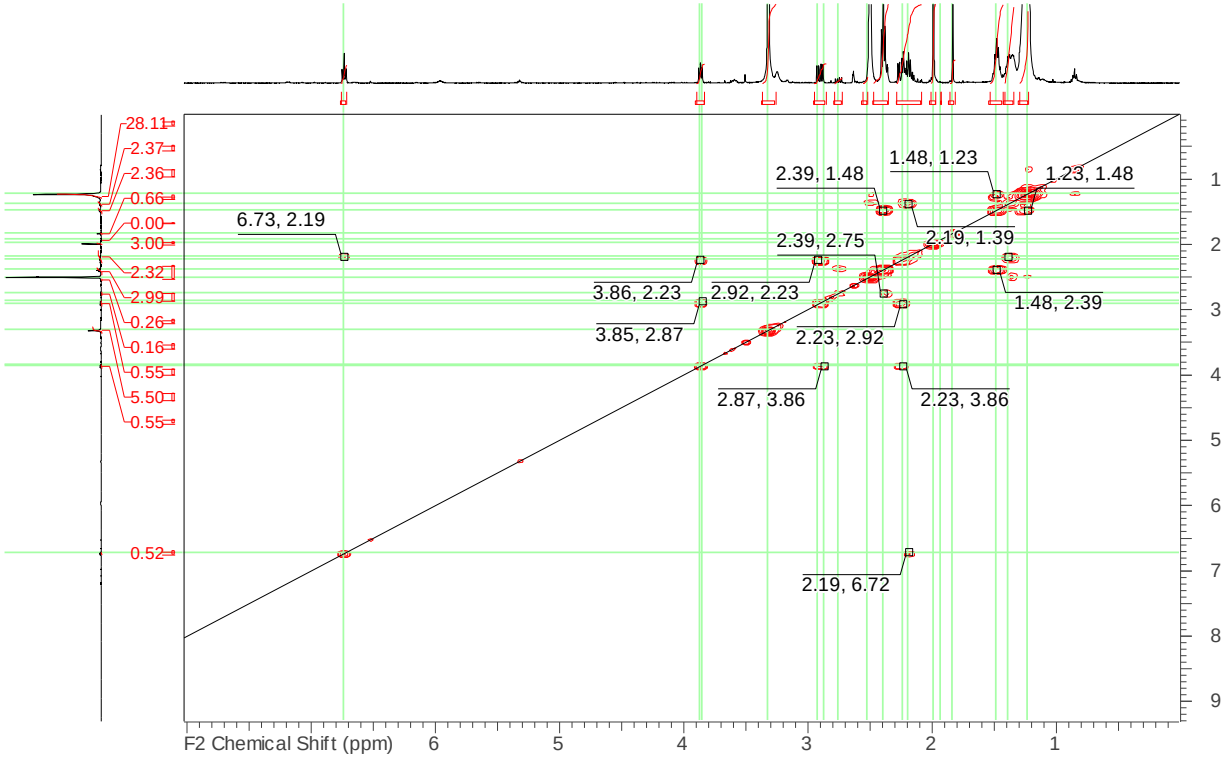

Figure S29: ^{1}H, ^{1}H COSY spectrum of skeletocutin O (**4**) in DMSO (500 MHz)

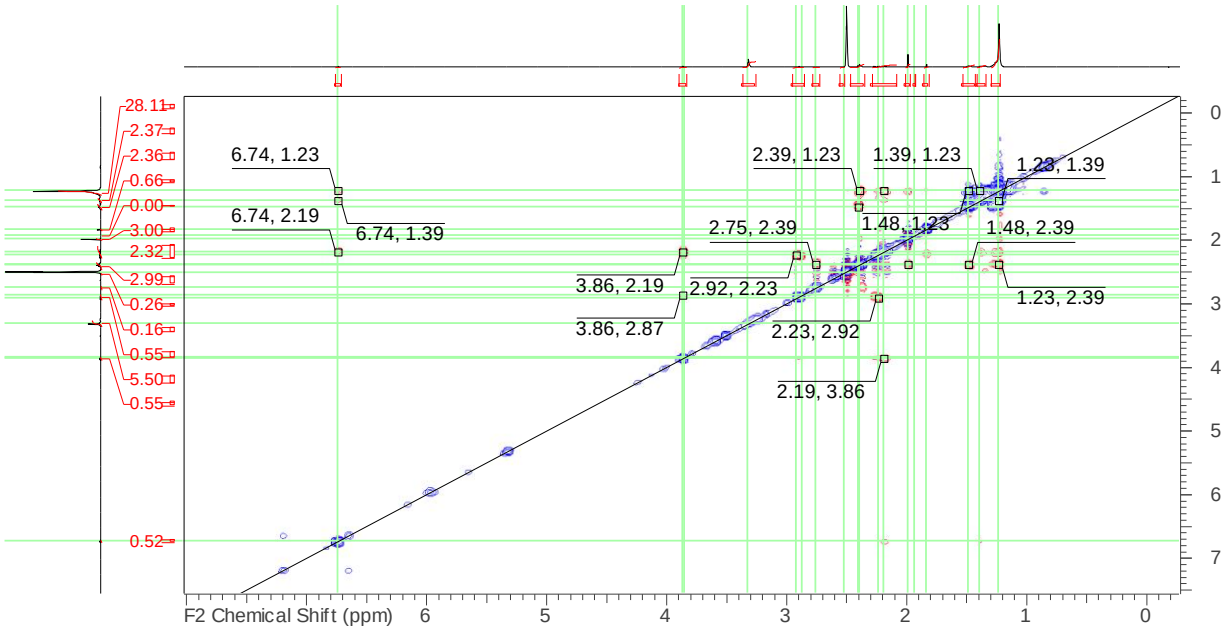

Figure S30: ^{1}H, ^{1}H ROESY spectrum of skeletocutin O (**4**) in DMSO (500 MHz)

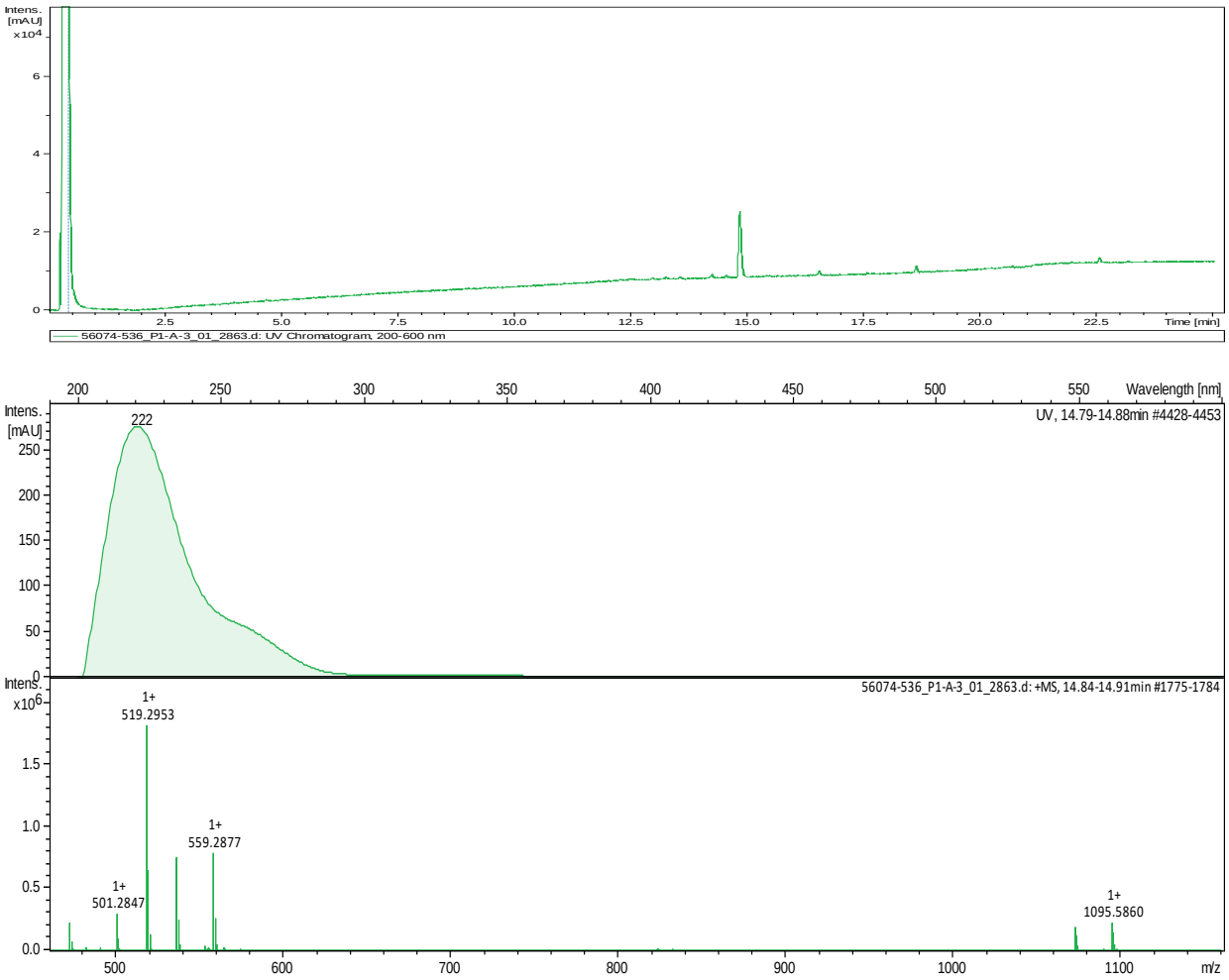

Figure S31: HRESIMS spectrum of skeletocutin P (**4**)

1 and 2D NMR data for skeletocutin Q (5)

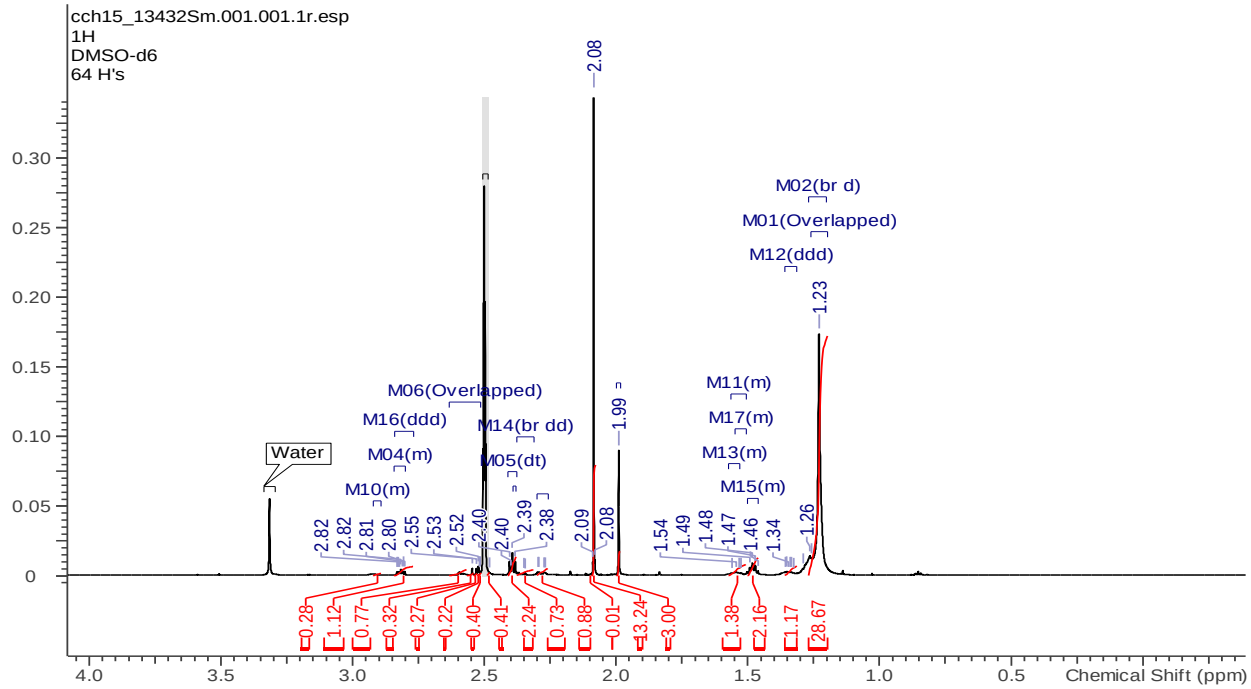

Figure S32: ^{1}H NMR spectrum of skeletocutin Q (**5**) in DMSO (500 MHz)

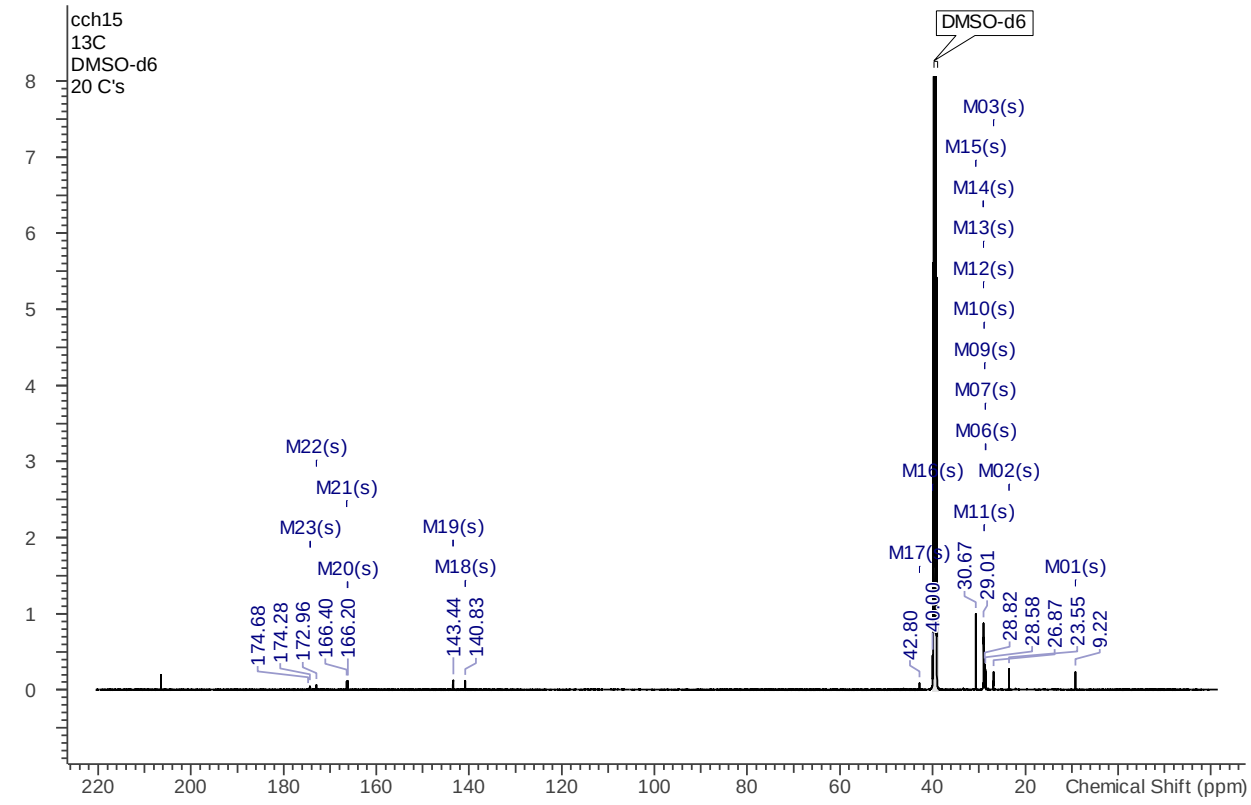

Figure S33: ^{13}C NMR spectrum of skeletocutin Q (5) in DMSO (125 MHz)

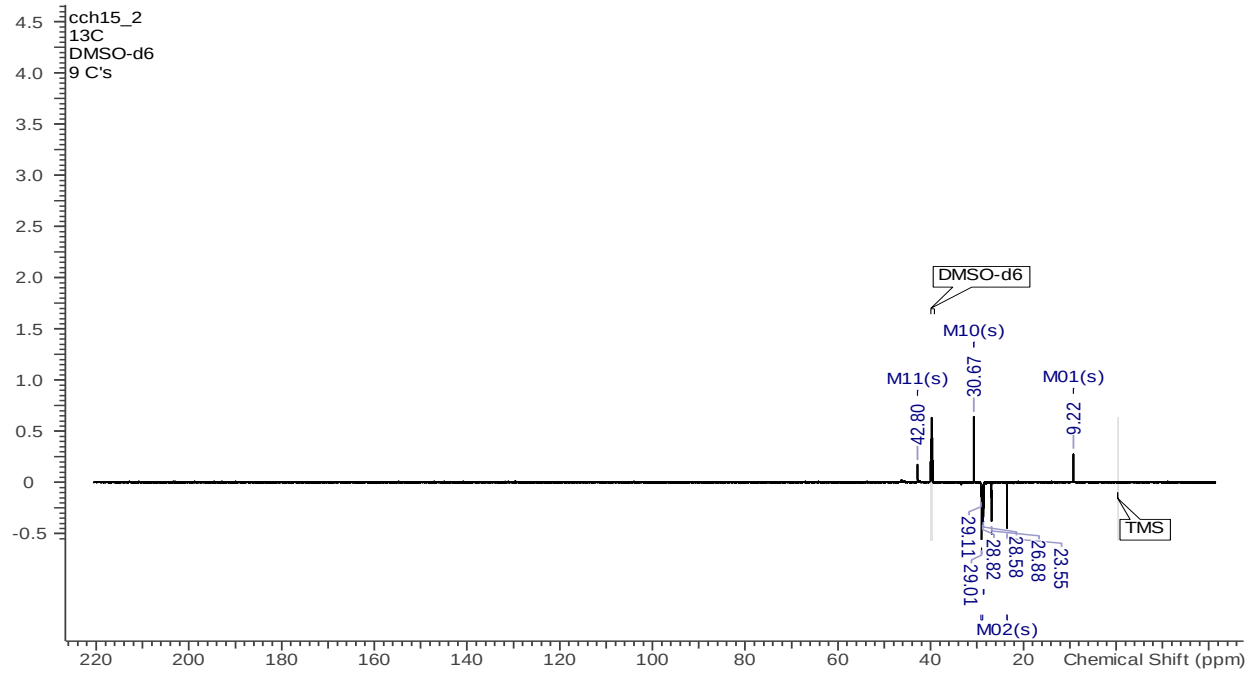

Figure S34: DEPT NMR spectrum of skeletocutin Q (**5**) in DMSO (125 MHz)

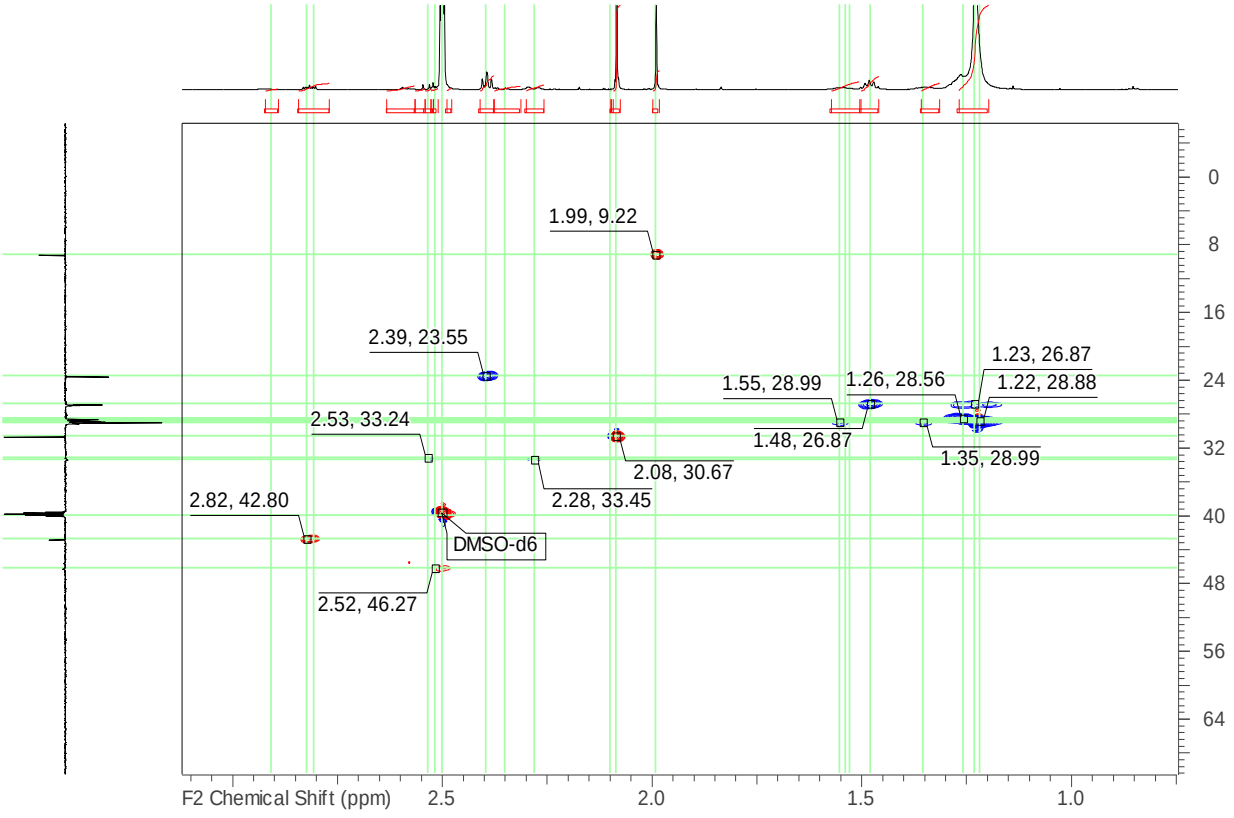

Figure S35: ^{1}H, ^{13}C HSQC spectrum of skeletocutin Q (**5**) in DMSO (500 MHz, 125 MHz)

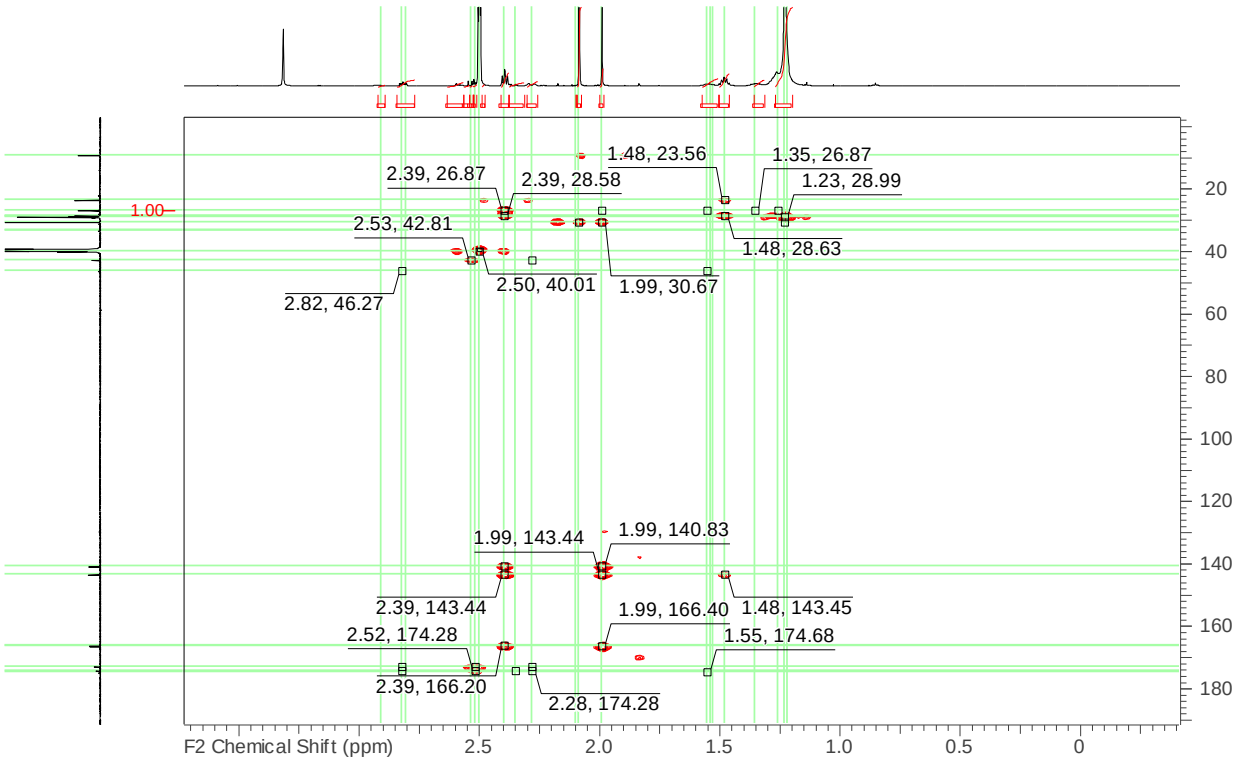

Figure S36: ^{1}H, ^{13}C HMBC spectrum of skeletocutin Q (**5**) in DMSO (500 MHz, 125 MHz)

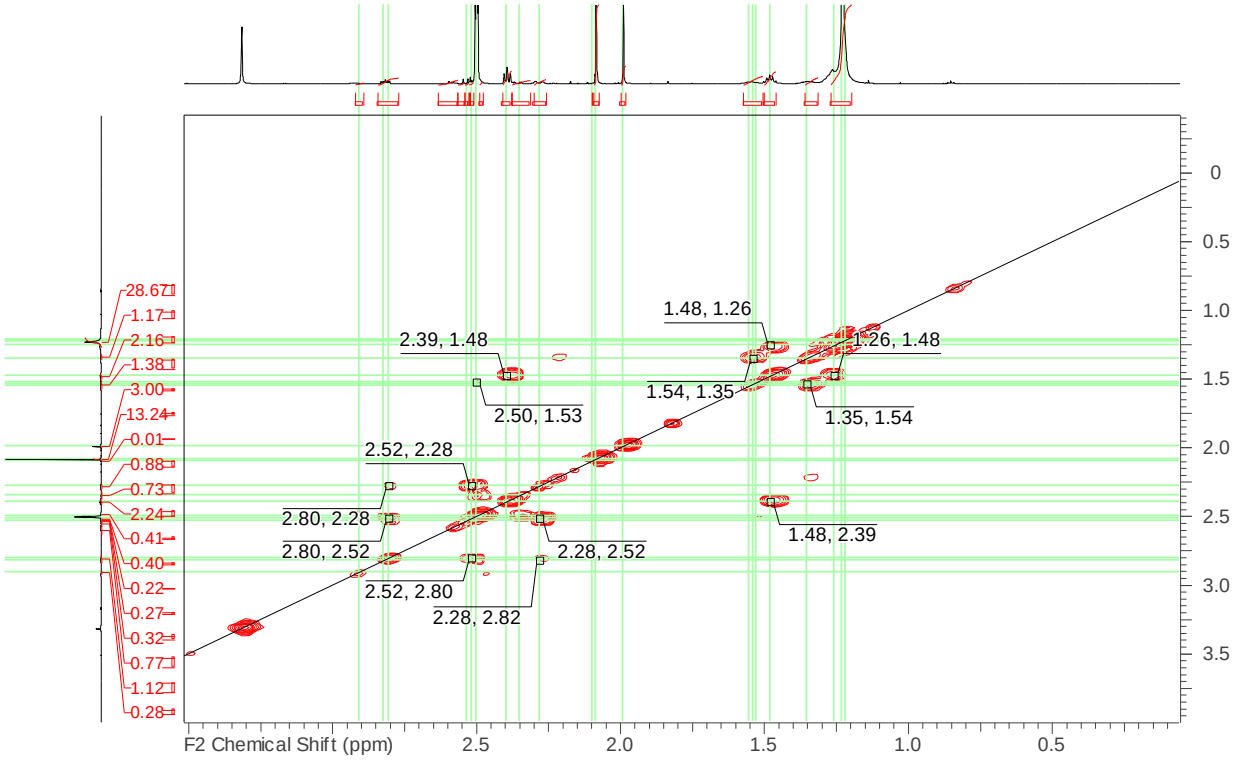

Figure S37: ^{1}H, ^{1}H COSY spectrum of skeletocutin Q (**5**) in DMSO (500 MHz)

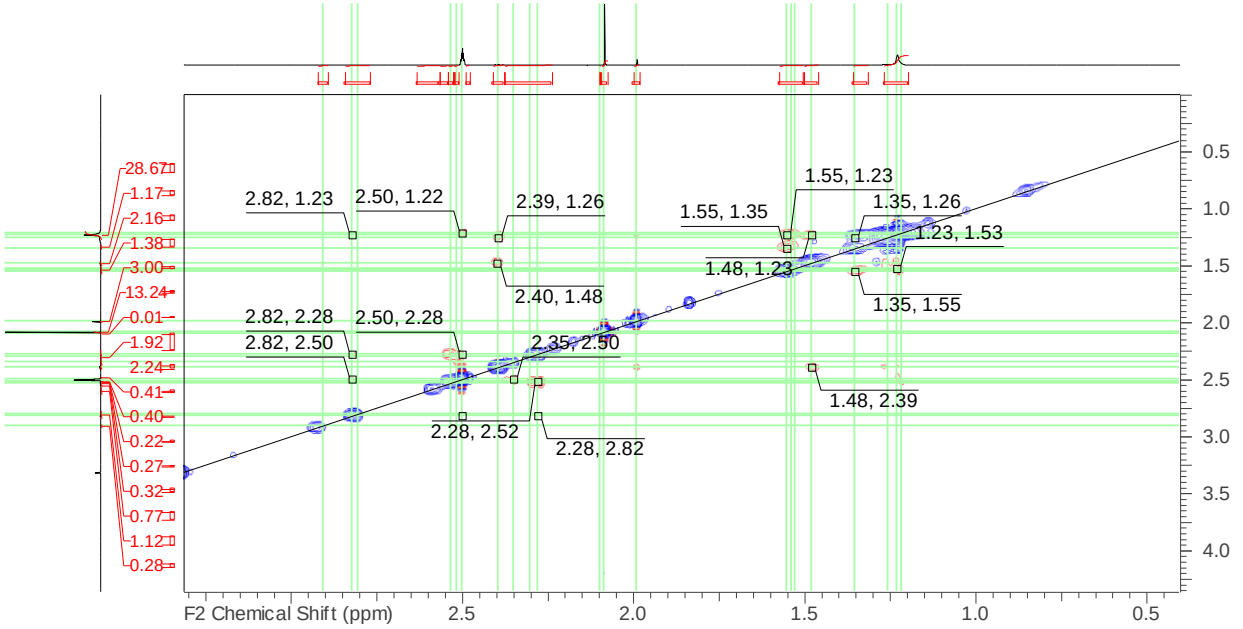

Figure S38: ^{1}H, ^{1}H ROESY spectrum of skeletocutin Q (**5**) in DMSO (500 MHz)

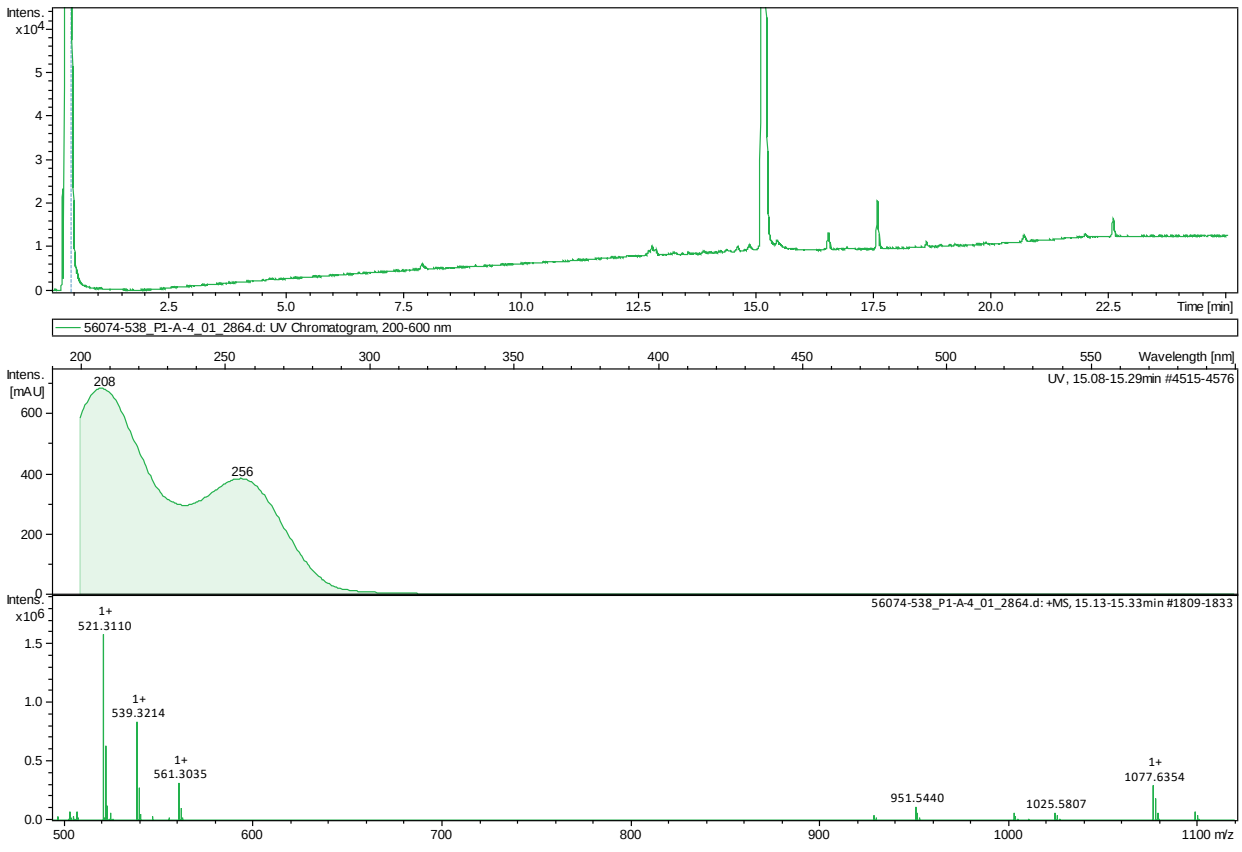

Figure S39: HRESIMS spectrum of skeletocutin Q (**5**)

Media

YMG: 10 g/L malt extract, 4 g/L yeast extract, 4 g/L D-glucose and PH=6.3;

MHB: Mueller Hinton Broth (comprising beef infusion solids, 2.0 g/L; casein hydrolysate, 17.5 g/L; starch, 1.5 g/L).

ITS sequence

>MUCL56074
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GCGAAGCGTGCACATGCCCCGAAAGGCCAGCTACAACTTCTTTCAAAGACTCGATAATGATCCT
TCCGCAGGTTCACCTACGGAAACCTTGTTACGACTTTTACTTCC

Biofilm Inhibition

Table S1: biofilm inhibition results from plate reader

concentration (μg/ml) / compound		256	128	64	32	16	8
1	replication 1	4.909	3.804	4.69	3.38	3.059	2.758
	replication 2	4.54	3.615	3.419	3.45	3.706	3.282
	replication 3	5.651	3.365	3.207	3.219	3.472	3.031
	negative control (MEOH)	4.373	3.631	4.202	3.617	3.224	3.538
		4.205	4.216	3.215	3.357	3.421	3.643
		4.569	4.594	3.798	3.462	4.358	4.125
	positive control (Tetracycline)	0.462	0.622	0.885	1.107	1.682	3.003
2	replication 1	4.44	4.381	3.791	3.016	2.995	2.718
	replication 2	4.364	3.14	2.979	3.176	2.916	3.048
	replication 3	4.077	3.623	2.823	3.059	2.987	2.841
	negative control (MEOH)	3.958	3.476	3.269	3.055	3.192	3.003
		3.818	3.113	3.222	3.538	3.349	2.896

		4.795	3.576	3.266	3.384	3.755	3.142
	positive control (Tetracycline)	0.414	0.478	0.627	0.791	0.866	1.694
3	replication 1	1.742	3.854	3.63	3.458	3.2	3.132
	replication 2	2.26	3.496	3.041	2.875	2.837	2.88
	replication 3	2.419	3.752	3.373	3.534	3.385	3.631
	negative control (MEOH)	6	4.205	3.706	3.401	3.513	3.95
		4.457	4.265	3.583	3.446	2.956	3.677
		4.196	3.562	3.427	3.183	2.892	3.137
	positive control (Tetracycline)	0.498	0.765	0.95	1.315	1.912	2.162
4	replication 1	6	4.115	3.887	4.271	4.114	3.554
	replication 2	4.841	4.224	3.524	4.702	4.47	4.243
	replication 3	5.066	4.03	3.957	3.439	3.878	3.452
	negative control (MEOH)	3.116	4.203	4.277	4.279	3.787	4
		3.732	3.278	3.656	3.817	3.901	3.565
		4.3	3.534	4.155	4.417	4.138	4.731
	positive control (Tetracycline)	0.487	0.527	0.917	1.404	1.333	3.5
5	replication 1	3.822	3.836	3.627	3.757	3.879	3.704
	replication 2	3.988	3.597	3.623	4.452	3.633	3.444
	replication 3	3.87	3.871	3.708	3.838	3.438	2.956
	negative control (MEOH)	4.884	3.244	3.509	4.237	3.885	3.846
		4.562	6	3.695	3.348	3.258	3.626
		5.044	5.319	3.951	4.112	4.127	6
	positive control (Tetracycline)	0.644	0.693	0.836	1.155	1.748	3.311
6	replication 1	4.54	2.858	3.723	3.188	4.007	3.586
	replication 2	6	2.819	3.478	3.328	3.612	3.766
	replication 3	3.949	3.861	3.105	3.954	3.954	3.772
	negative control (MEOH)	3.045	3.272	4.255	3.937	4.245	4.124
		3.147	3.757	4.497	3.871	4.101	3.952
		3.079	4.935	4.338	4.485	4.872	3.874
	positive control (Tetracycline)	0.444	0.655	0.83	0.918	1.362	1.846