

## Supplementary Materials

### **Erubescensoic Acid, a New Polyketide and a Xanthonopyrone from the Culture of the Marine Sponge-Associated Fungus *Penicillium erubescens* KUFA 0220 and Antibacterial Activity Evaluation of some of its Constituents**

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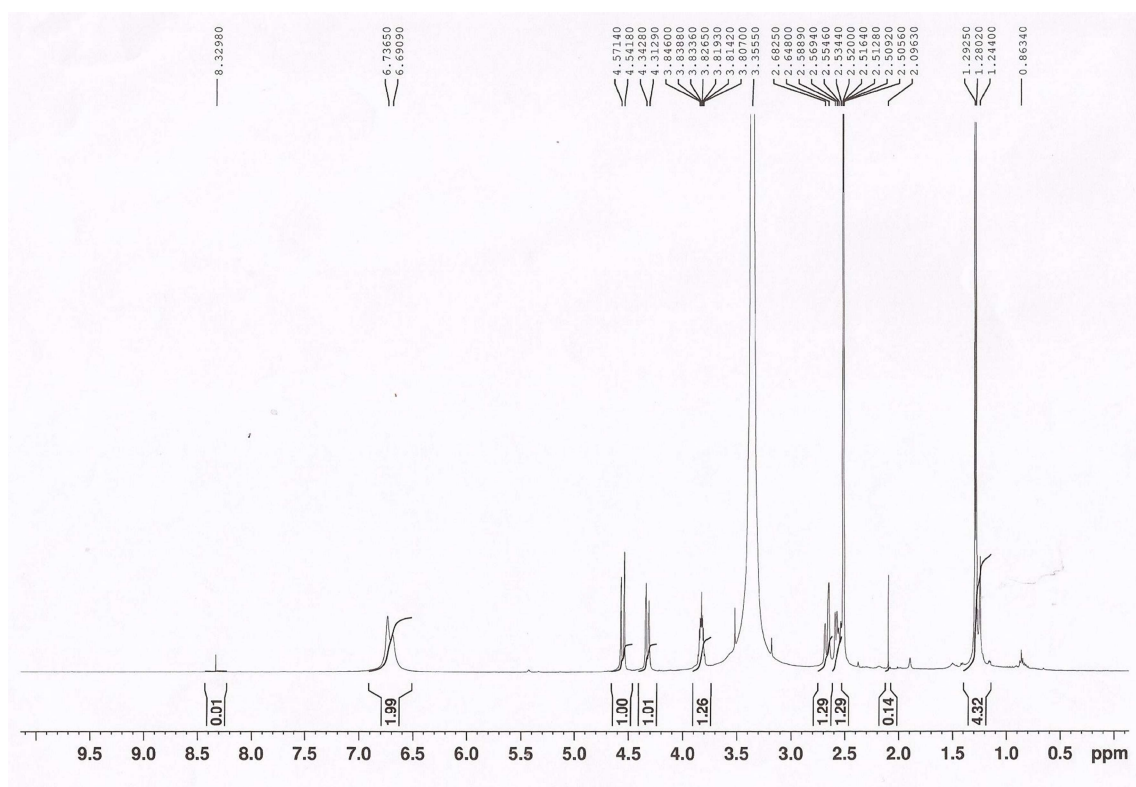
<sup>4</sup> Instituto de Biologia Molecular e Celular (i3S-IBMC), Universidade do Porto, Rua de Jorge Viterbo Ferreira, 228, 4050-313 Porto, Portugal.

<sup>5</sup> Departamento de Química & QOPNA, Universidade de Aveiro, 3810-193 Aveiro, Portugal. E-mail: [artur.silva@ua.pt](mailto:artur.silva@ua.pt).

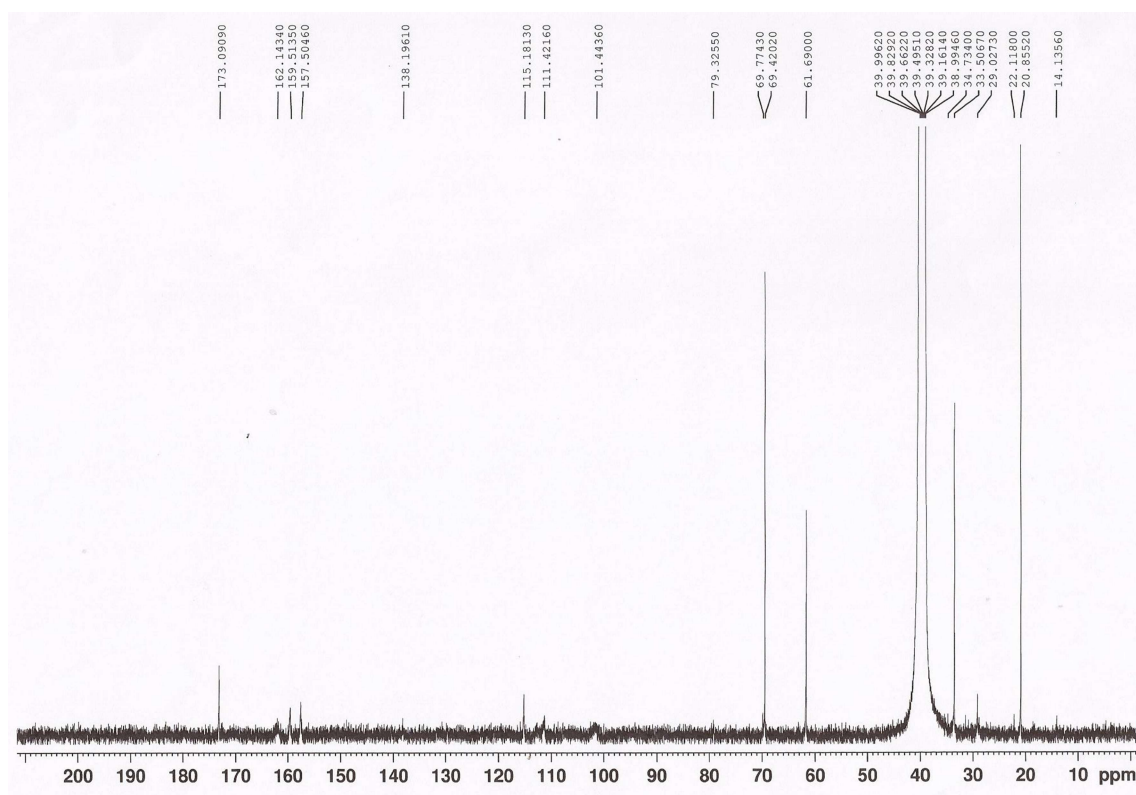
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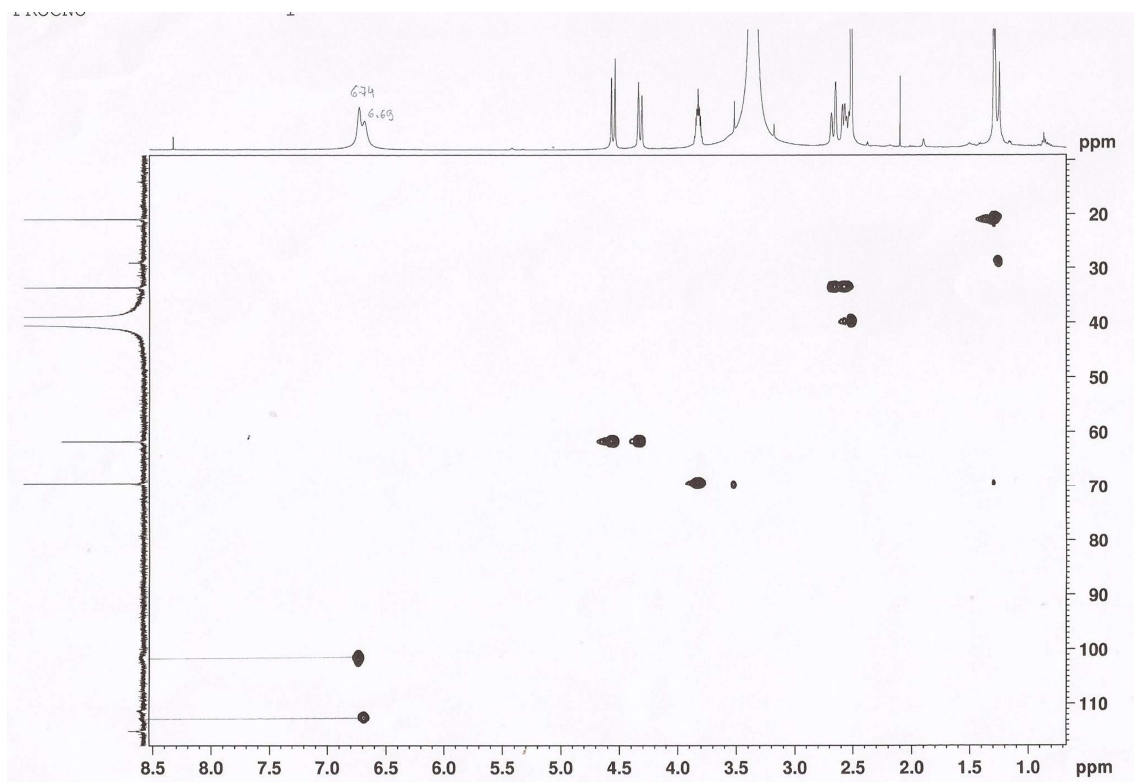
**Figure S1.**  $^1\text{H}$ NMR spectrum of erubescenzoic acid (**1**) (DMSO- $d_6$ , 500 MHz).



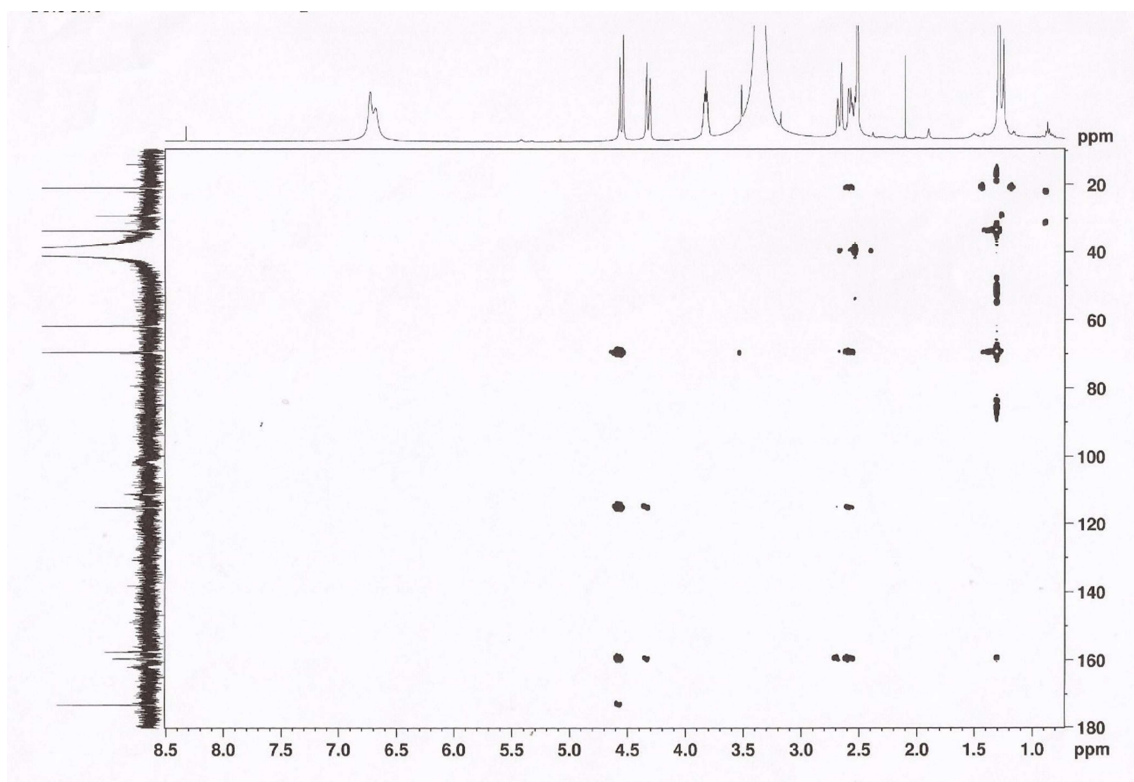
**Figure S2.**  $^{13}\text{C}$ NMR spectrum of erubescenzoic acid (**1**) (DMSO- $d_6$ , 125 MHz).



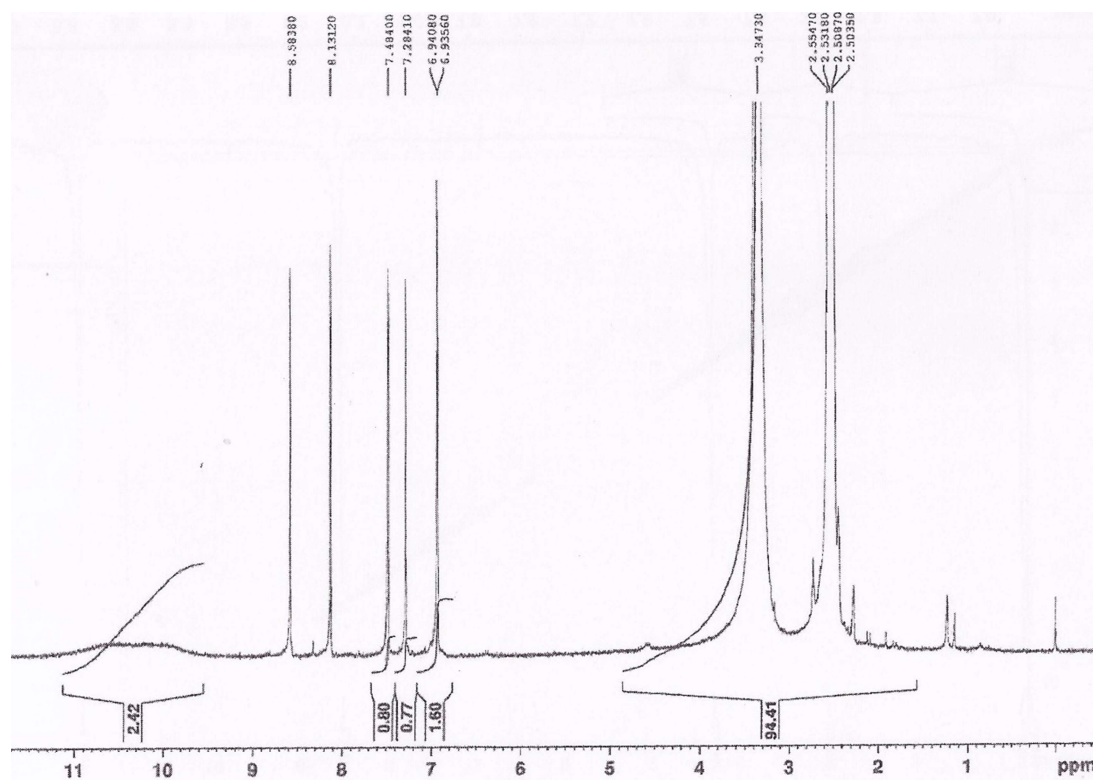
**Figure S3.** HSQC spectrum of erubescensoic acid (**1**) (DMSO-d<sub>6</sub>, 500 MHz).



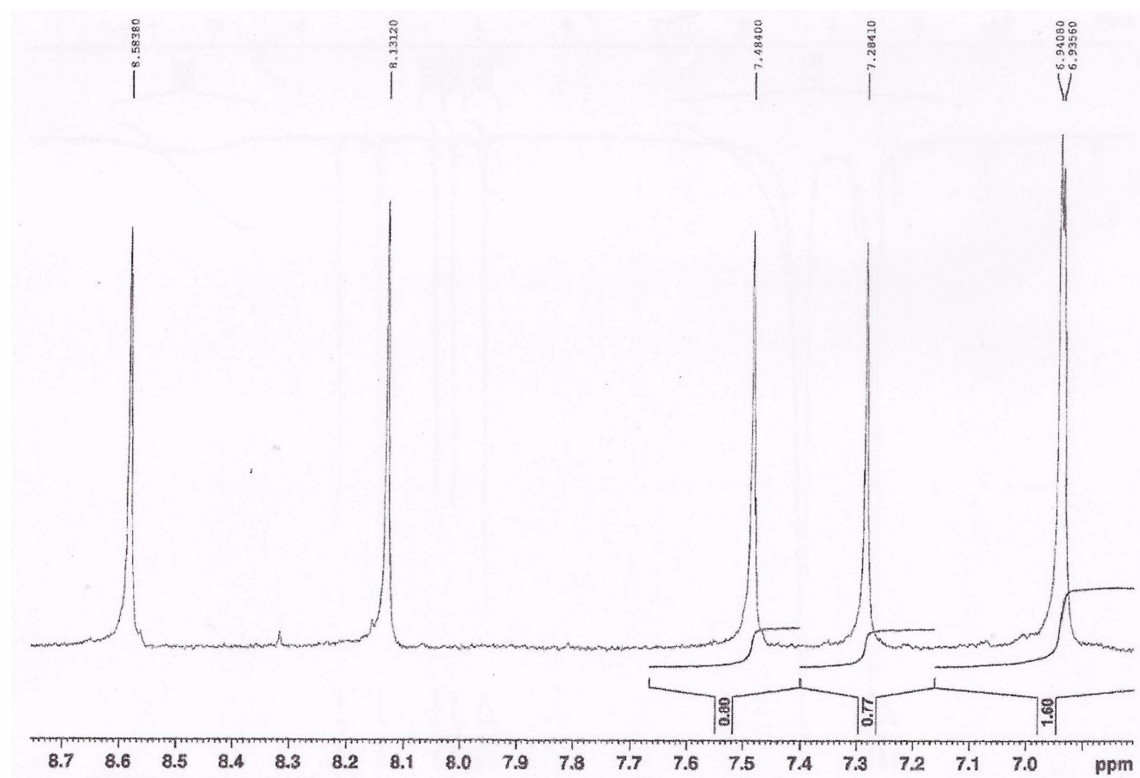
**Figure S4.** HMBC spectrum of erubescensoic acid (**1**) (DMSO-d<sub>6</sub>, 500 MHz).



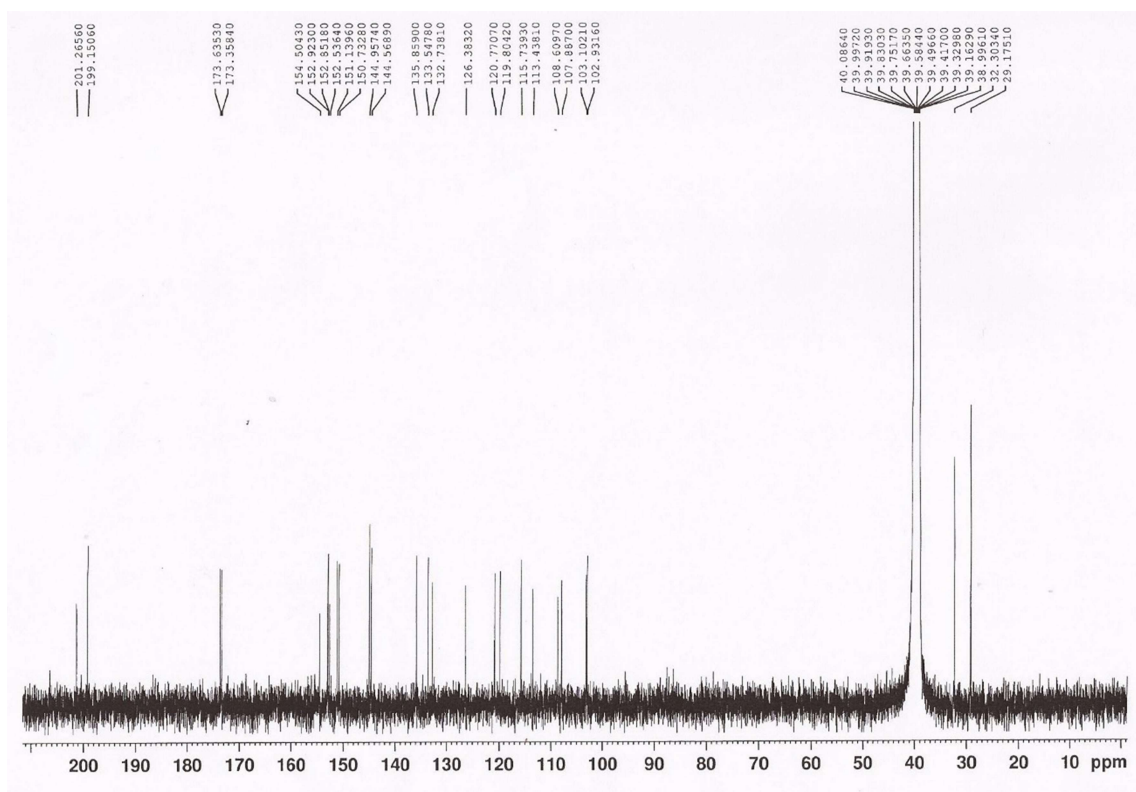
**Figure S5.**  $^1\text{H}$  NMR spectrum of SPF-3059-26 (**2**), (DMSO- $d_6$ , 500 MHz).



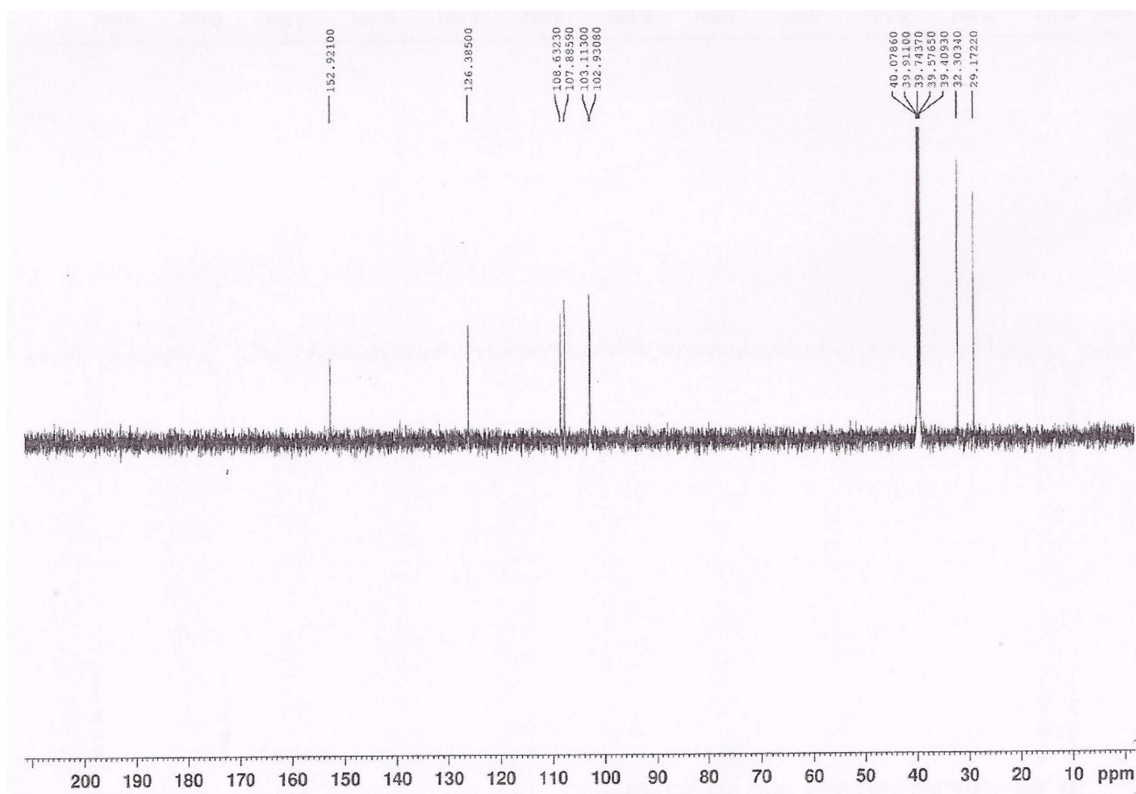
**Figure S6.** Expansion of the  $^1\text{H}$  NMR spectrum of SPF-3059-26 (**2**), (DMSO- $d_6$ , 500 MHz).



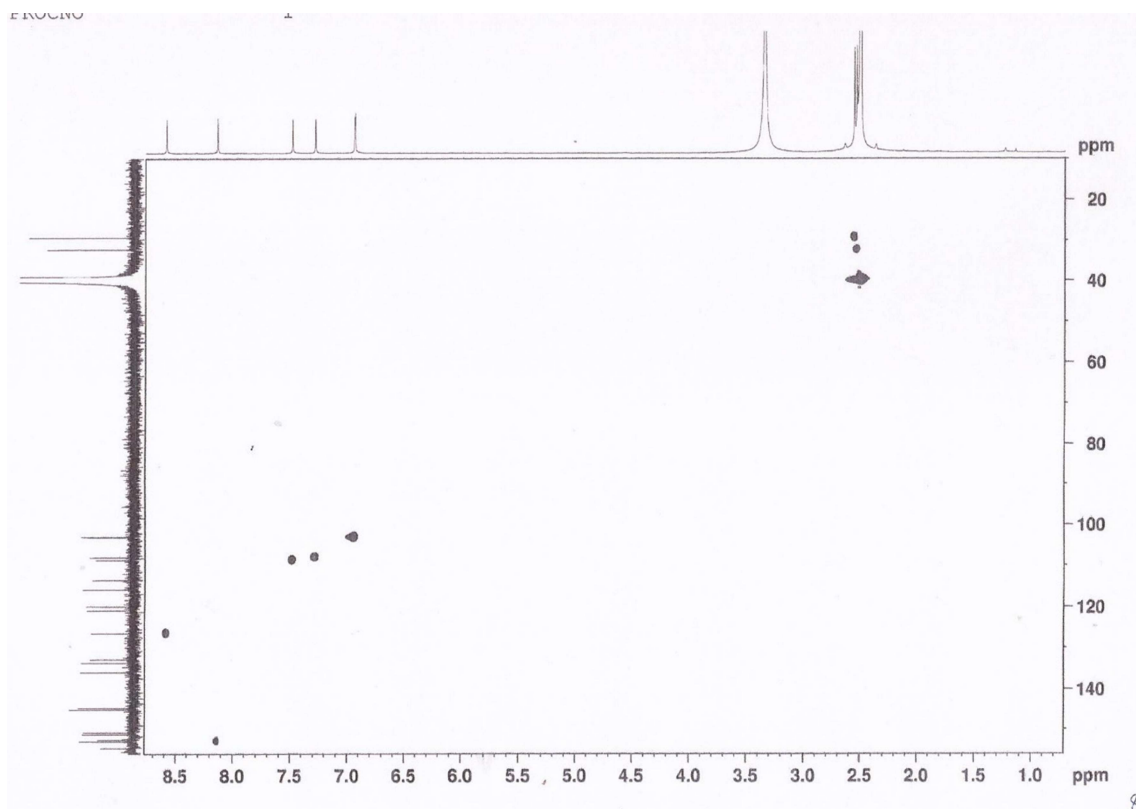
**Figure S7.**  $^{13}\text{C}$  NMR spectrum of SPF-3059-26 (**2**) (DMSO- $d_6$ , 125 MHz).



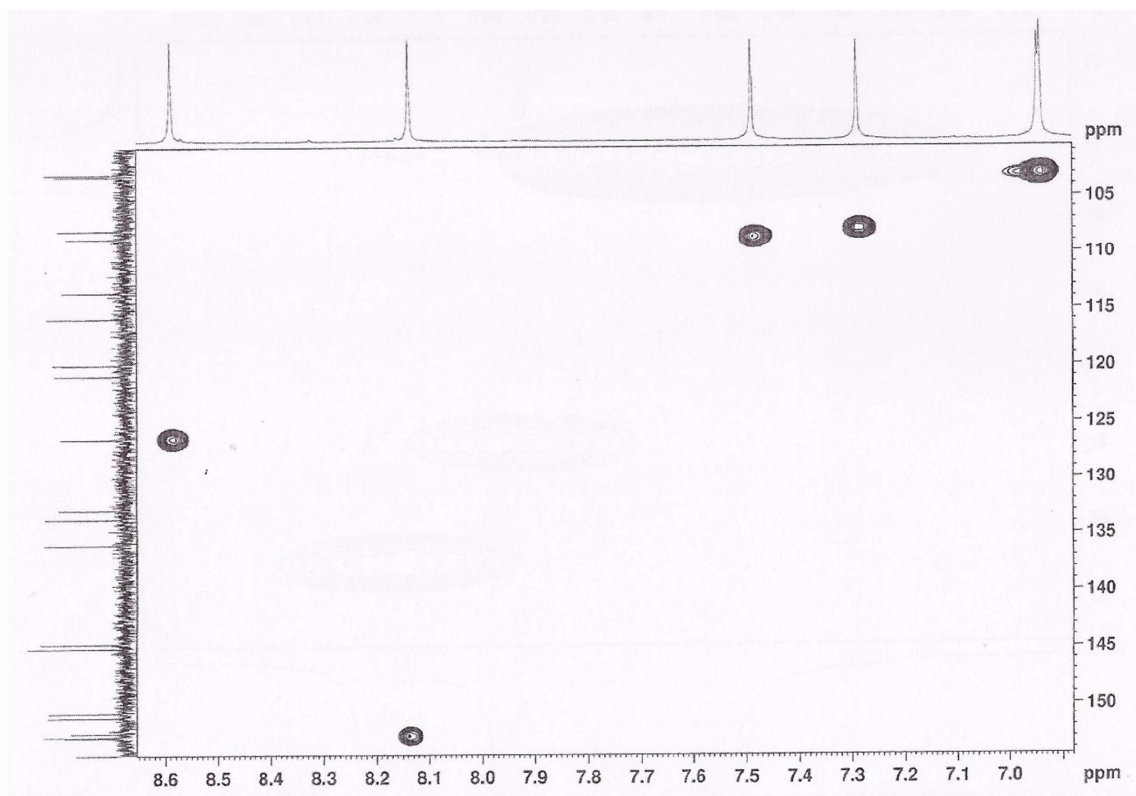
**Figure S8.**  $^{13}\text{C}$  DEPT 135 spectrum of SPF-3059-26 (**2**) (DMSO- $d_6$ , 125 MHz).



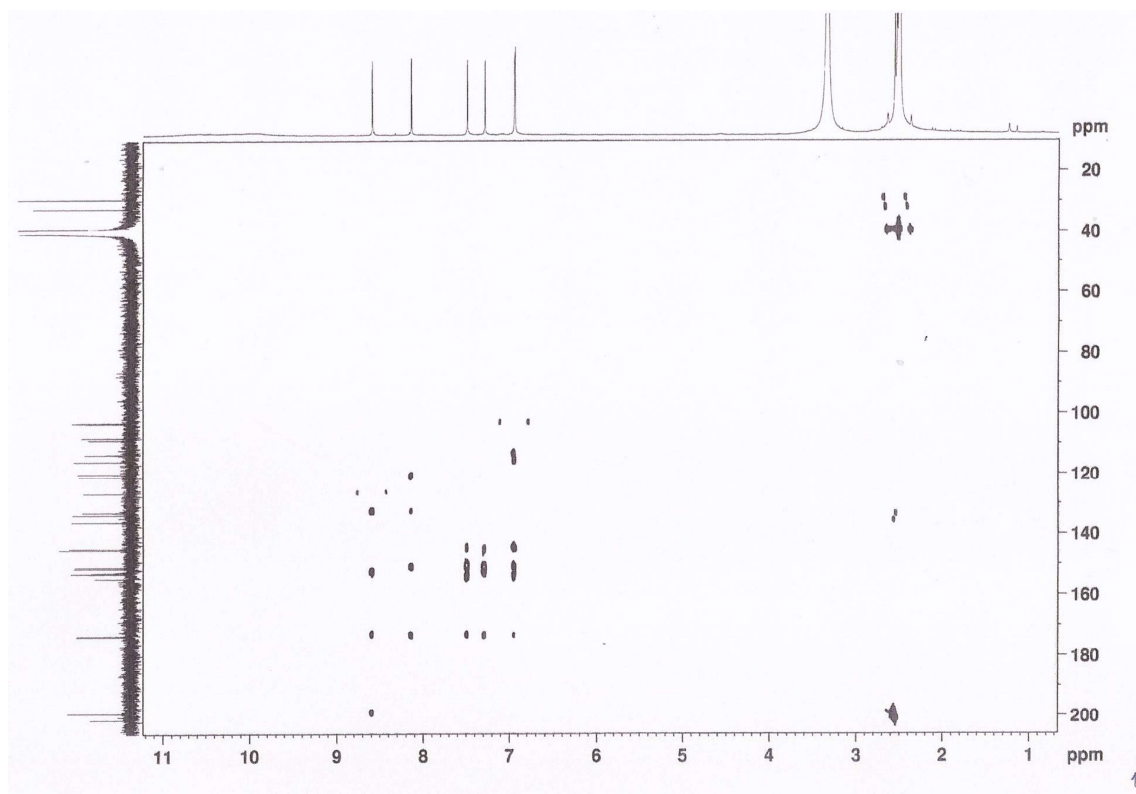
**Figure S9.** HSQC spectrum of SPF-3059-26 (**2**) (DMSO-d<sub>6</sub>, 500 MHz).



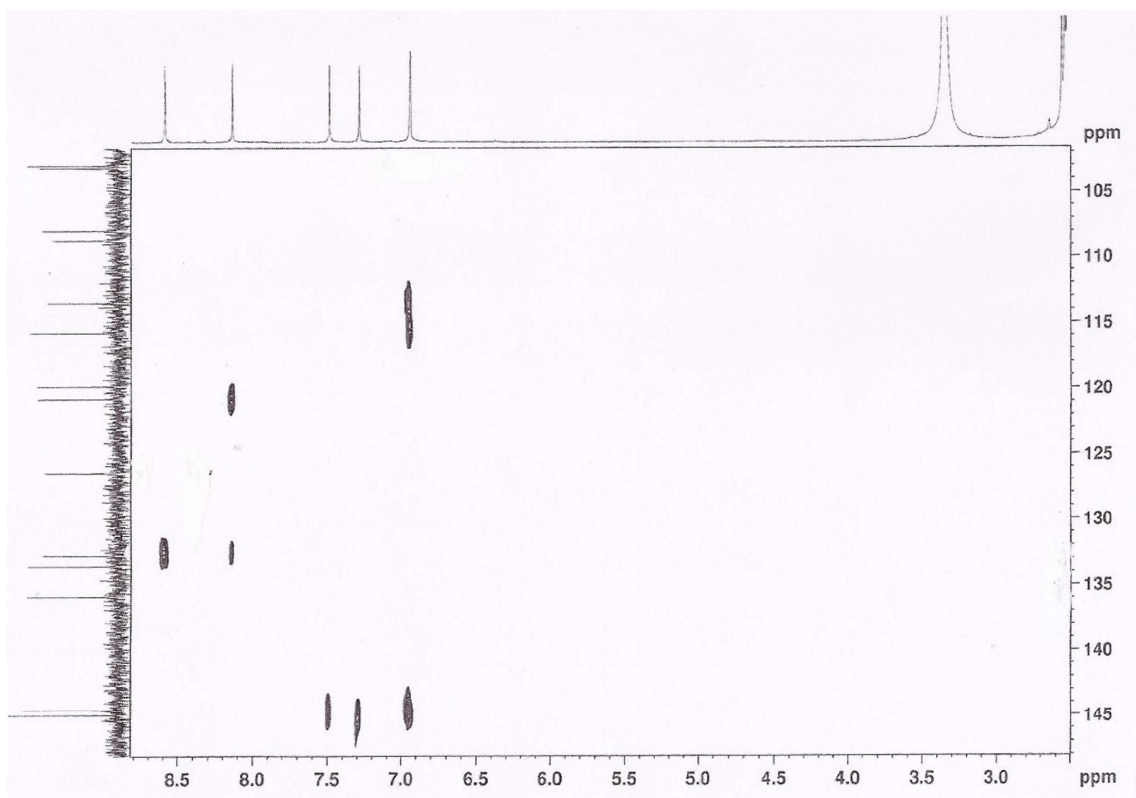
**Figure S10.** Expansion of the HSQC spectrum of SPF-3059-26 (**2**) (DMSO-d<sub>6</sub>, 500 MHz).



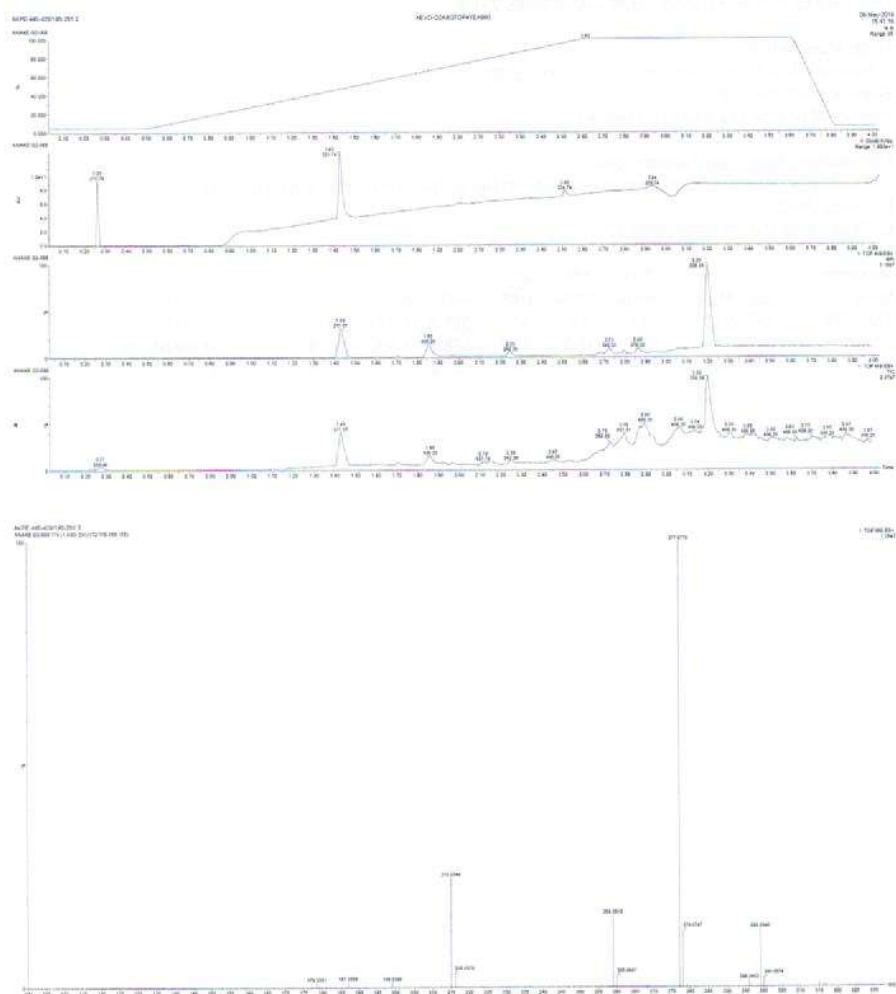
**Figure S11.** HMBC spectrum of SPF-3059-26 (**2**) (DMSO-d<sub>6</sub>, 500 MHz).



**Figure S12.** Expansion of the HMBC spectrum of SPF-3059-26 (**2**) (DMSO-d<sub>6</sub>, 500 MHz).



**Figure S13.** HRMS spectrum of erubescenzoic acid (1)



**Elemental Composition Report: AKPE 445-429/185-251.2**

**Single Mass Analysis**

Tolerance = 10.0 PPM / DBE: min = -1.5, max = 100.0

Element prediction: Off

Number of isotope peaks used for I-FIT = 3

**Monoisotopic Mass, Even Electron Ions**

299 formula(e) evaluated with 3 results within limits (up to 20 closest results for each mass)

Elements Used:

C: 10-18 H: 0-150 N: 0-30 O: 0-30

Minimum:

-1.5

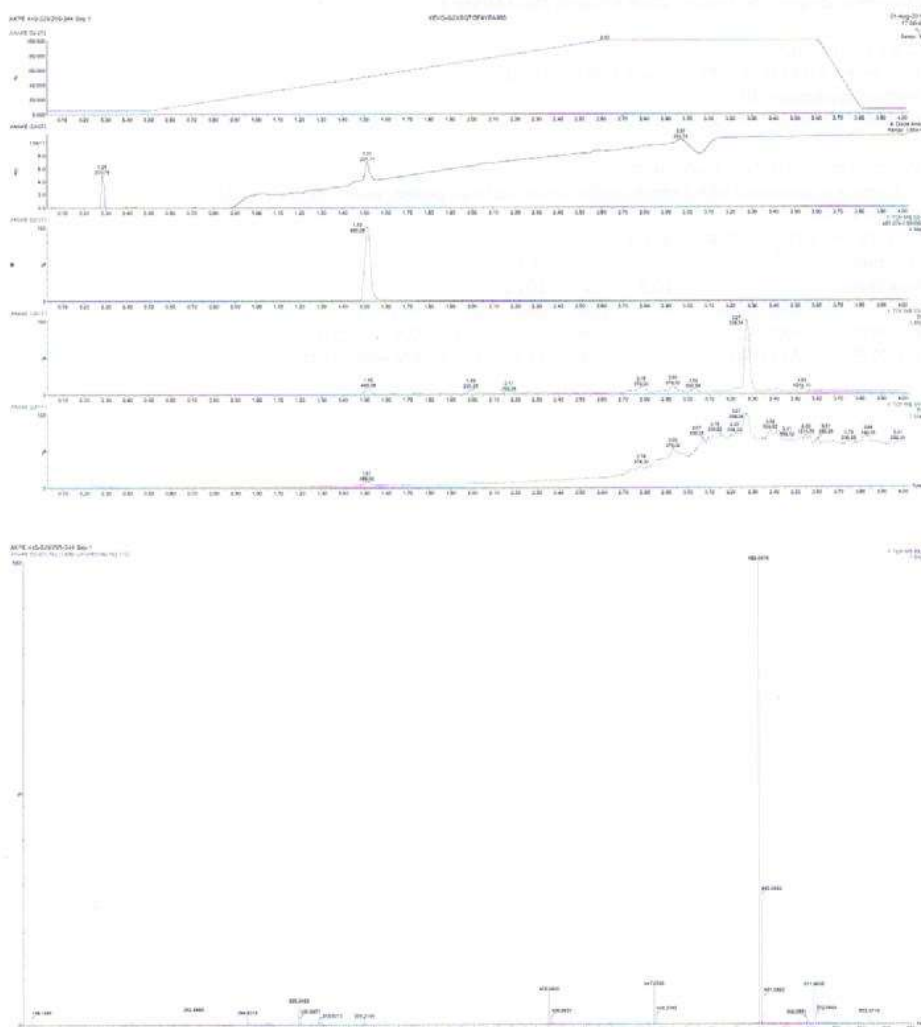
Maximum:

10.0 10.0 100.0

Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Norm	Conf(%)	Formula
277.0719	277.0712	0.7	2.5	8.5	519.3	2.373	9.32	C14 H13 O6
	277.0726	-0.7	-2.5	13.5	518.6	1.680	18.64	C15 H9 N4 O2
	277.0699	2.0	7.2	14.5	517.2	0.328	72.04	C11 H5 N10



**Figure S14.** HRMS spectrum of SPF-3059-26 (2)



**Elemental Composition Report: AKPE 445-529/295-344 Sep 1**

**Single Mass Analysis**

Tolerance = 5.0 PPM / DBE: min = -1.5, max = 100.0

Element prediction: Off

Number of isotope peaks used for i-FIT = 3

**Monoisotopic Mass, Even Electron Ions**

31 formula(e) evaluated with 1 results within limits (up to 20 closest results for each mass)

Elements Used:

C: 26-26 H: 0-150 O: 0-30 Na: 1-1

Minimum:

-1.5

Maximum:

10.0 5.0 100.0

Mass	Calc. Mass	mDa	PPM	DBE	i-FIT	Formula
489.0818	489.0822	-0.4	-0.8	18.5	560.2	C <sub>26</sub> H <sub>17</sub> O <sub>10</sub>
511.0635	511.0641	-0.6	-1.2	18.5	199.3	C <sub>26</sub> H <sub>16</sub> O <sub>10</sub> Na