

# Talarodiolide, the new 12-membered macrodiolide, and GC/MS investigation of mycelial and culture filtrate extracts of *Talaromyces pinophilus*

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Figure S1. <sup>1</sup>H NMR spectrum of talarodiolide (**1**) recorded in CDCl<sub>3</sub> at 400 MHz

Figure S2. COSY spectrum of talarodiolide (**1**) recorded in CDCl<sub>3</sub> at 400 MHz

Figure S3. HSQC spectrum of talarodiolide (**1**) recorded in CDCl<sub>3</sub> at 400 MHz

Figure S4. HMBC spectrum of talarodiolide (**1**) recorded in CDCl<sub>3</sub> at 400 MHz

Figure S5. <sup>13</sup>C NMR spectrum of talarodiolide (**1**) recorded in CDCl<sub>3</sub> at 100 MHz

Figure S6. NOESY spectrum of talarodiolide (**1**) recorded in CDCl<sub>3</sub> at 400 MHz

Table S1. EI mass spectra at 70eV of identified metabolites.

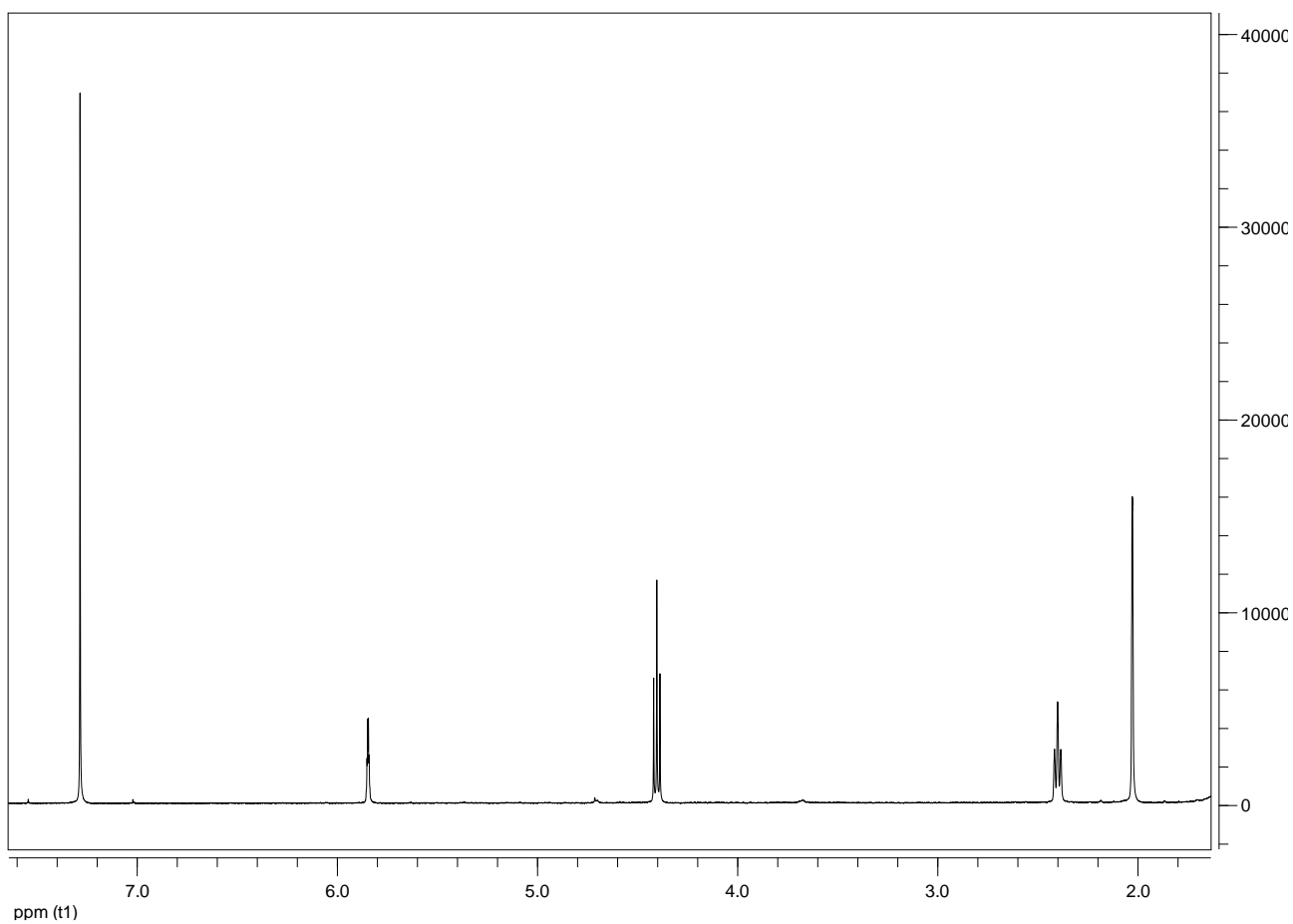


Figure S1. <sup>1</sup>H NMR spectrum of talarodiolide (**1**) recorded in CDCl<sub>3</sub> at 400 MHz

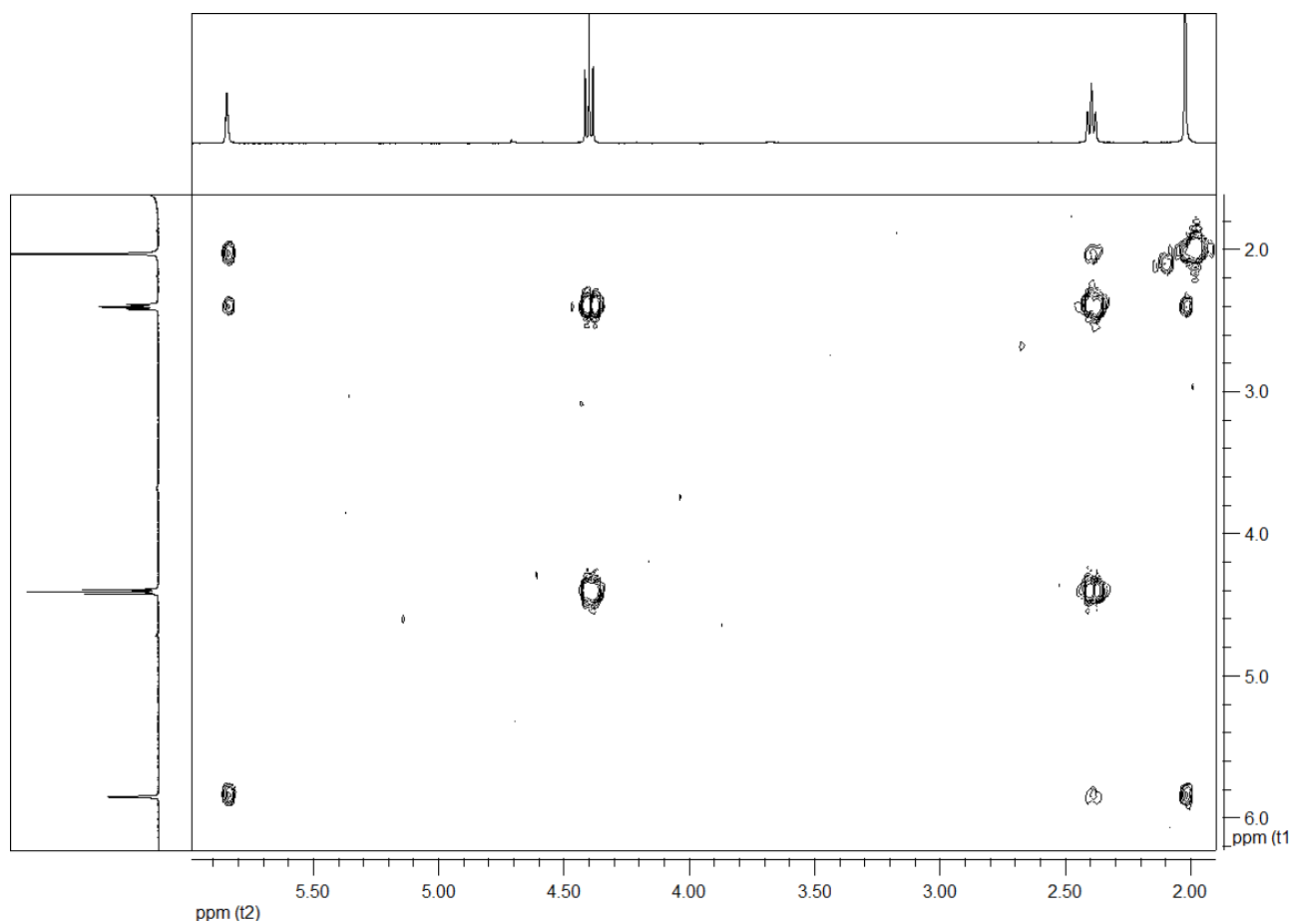


Figure S2. COSY spectrum of talarodiolide (1) recorded in CDCl<sub>3</sub> at 400 MHz

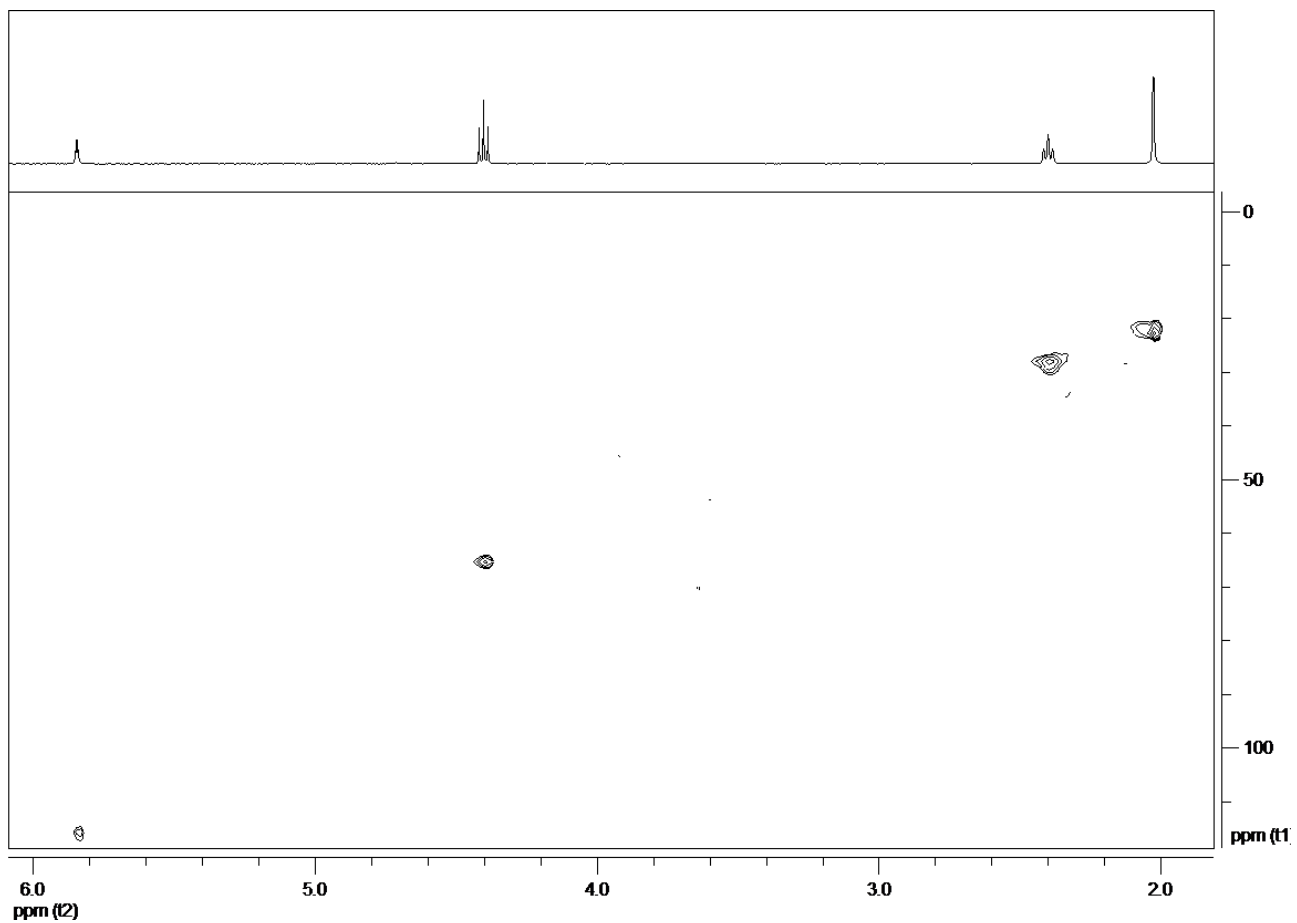


Figure S3. HSQC spectrum of talarodiolide (1) recorded in CDCl<sub>3</sub> at 400 MHz

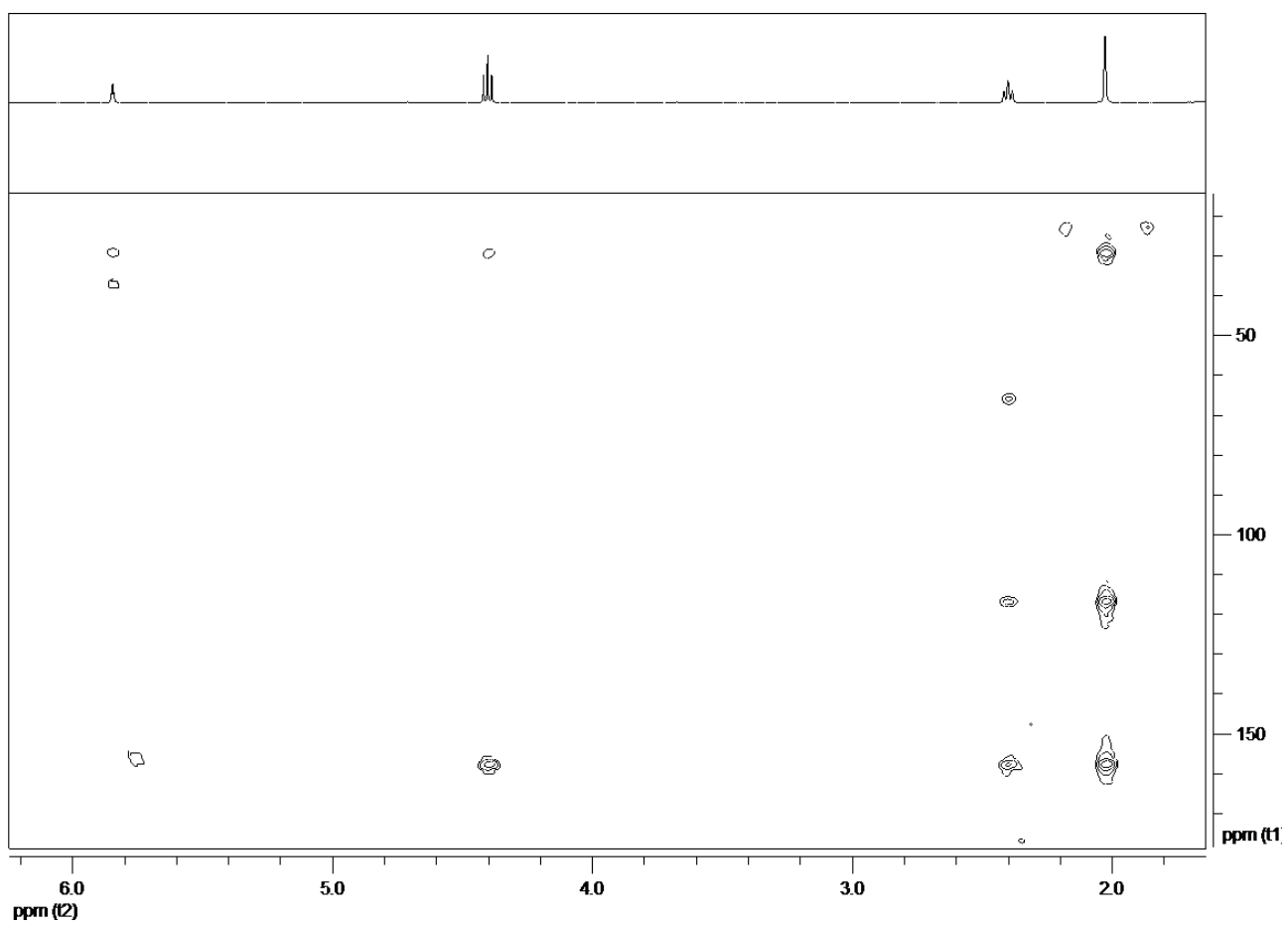


Figure S4. HMBC spectrum of talarodiolide (**1**) recorded in CDCl<sub>3</sub> at 400 MHz

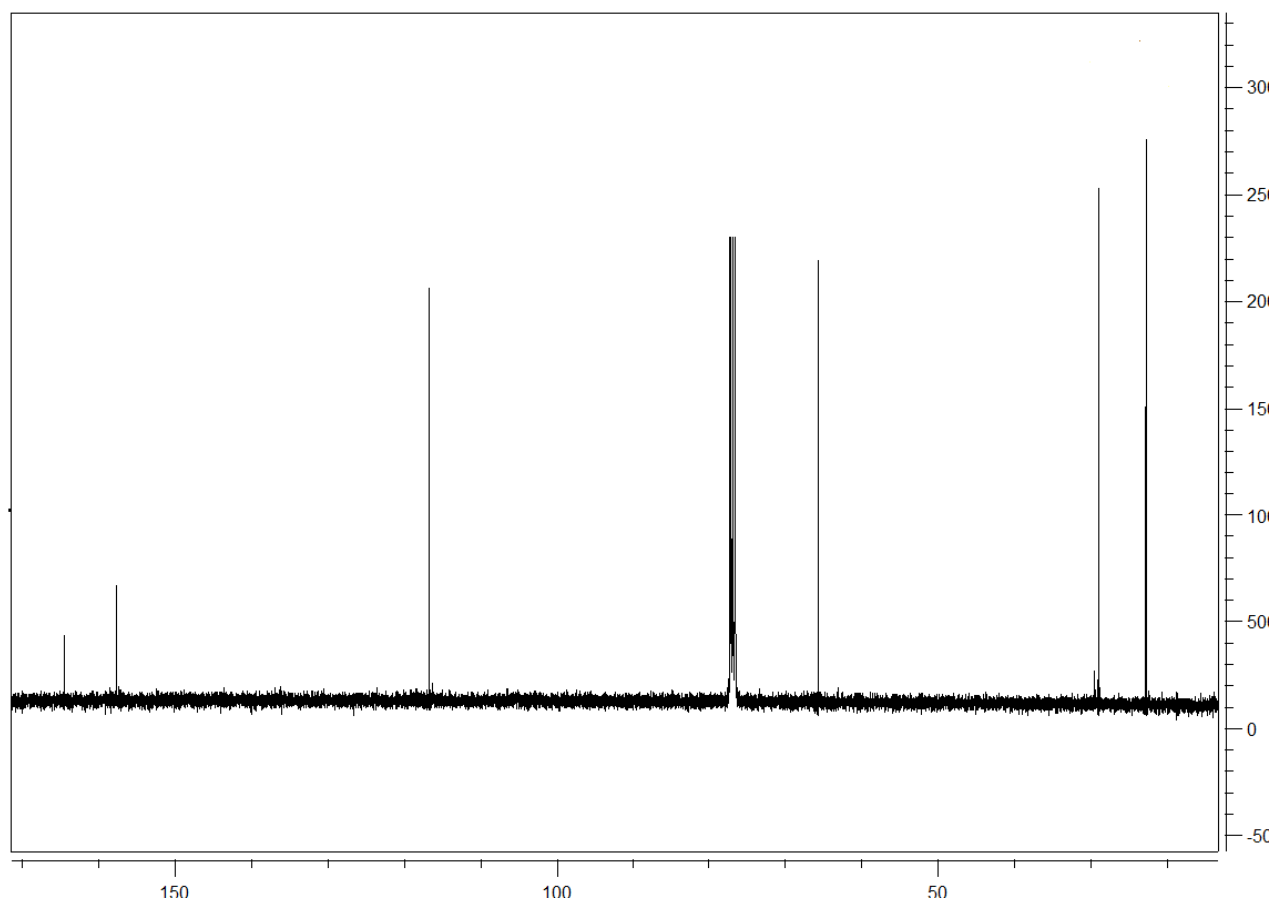


Figure S5.  $^{13}\text{C}$  NMR spectrum of talarodiolide (1) recorded in  $\text{CDCl}_3$  at 100 MHz

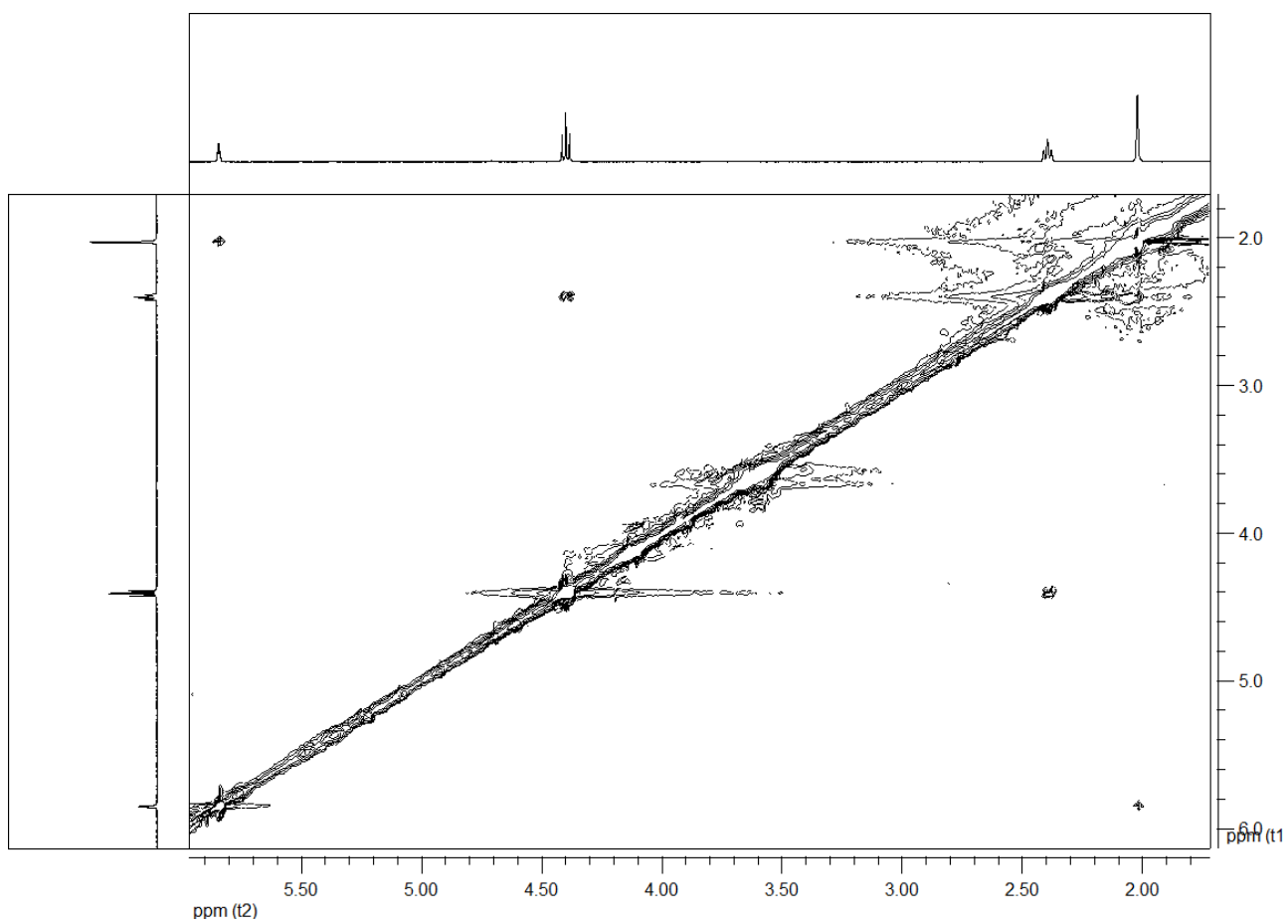
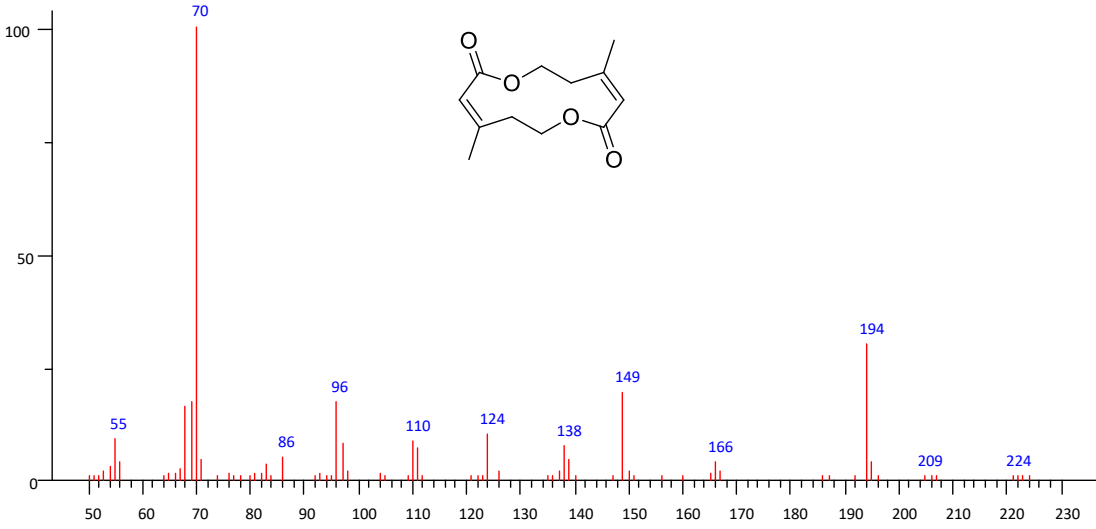
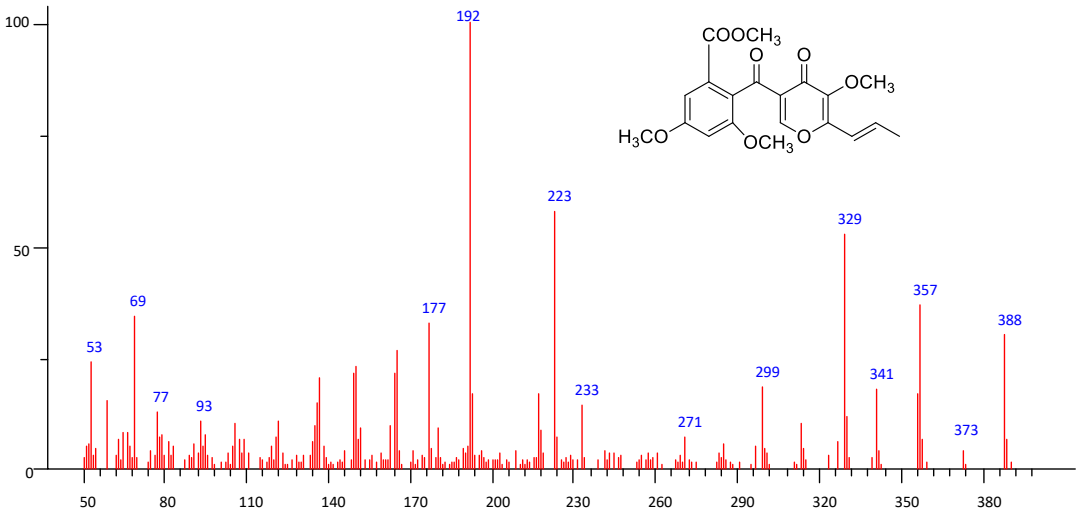
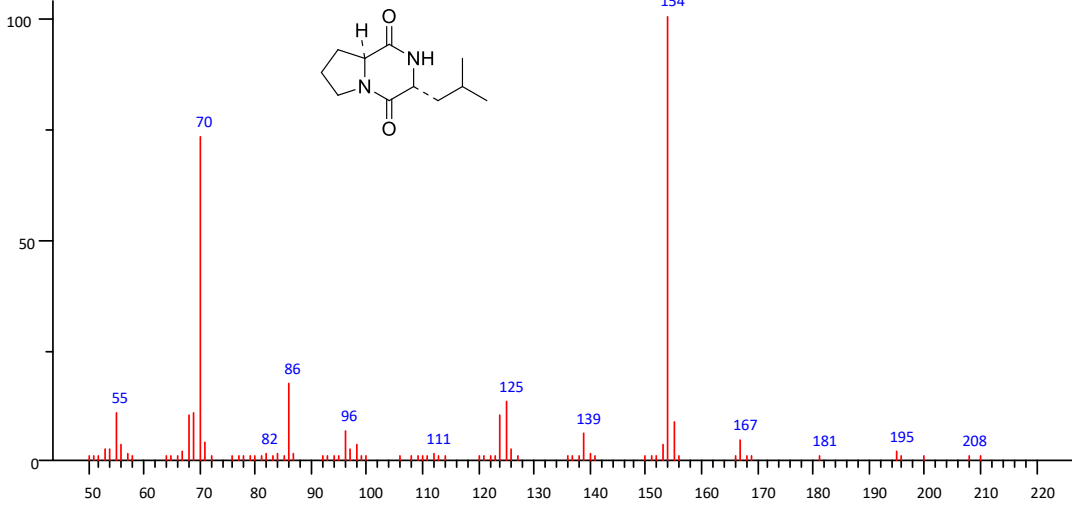
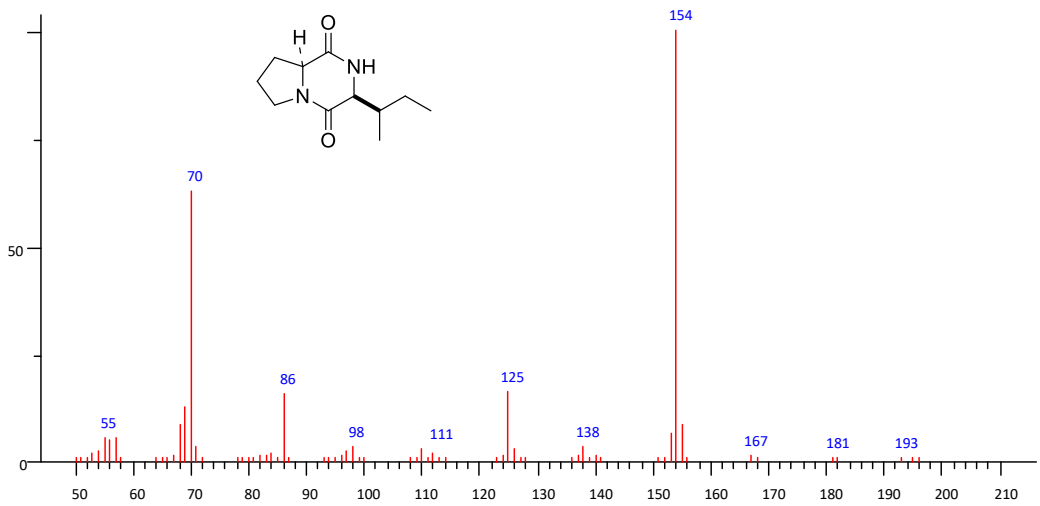


Figure S6. NOESY spectrum of talarodiolide (1) recorded in CDCl<sub>3</sub> at 400 MHz

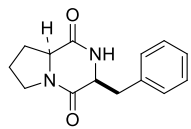
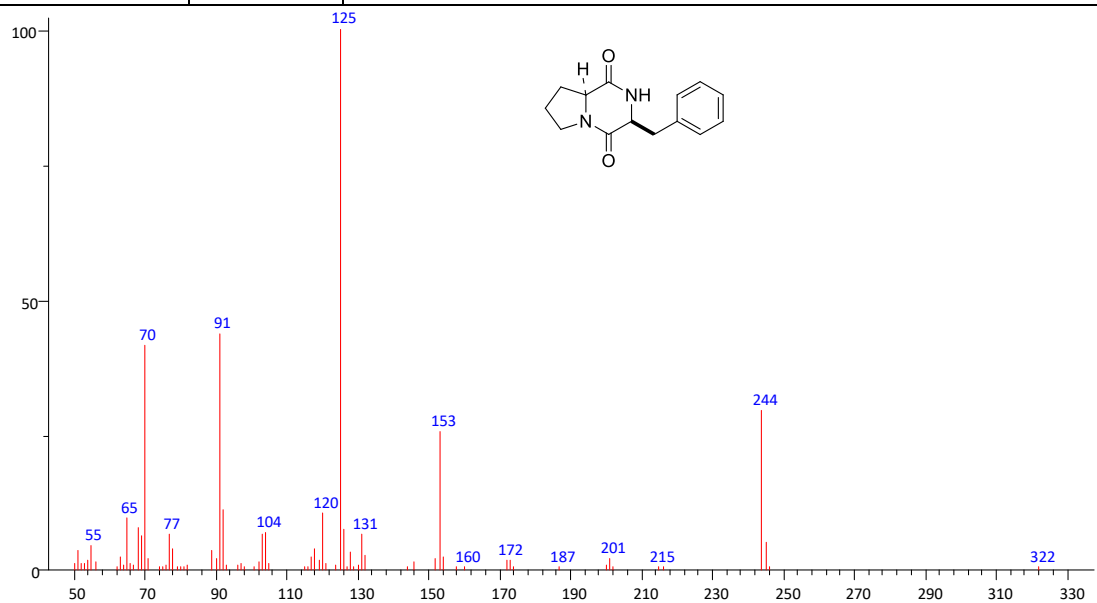
**Table S1:** Mass spectra of identified metabolites. RI represents the Kovats non isothermal retention index on HP5MS 30 m capillary column. Panel "MS peaks annotations" reports mass, formula (in square brackets) and normalized abundance (in round brackets) of identified fragments in mass spectra; the molecular ion is always represented by M; Me indicates methyl (-CH<sub>3</sub>). Abundance is normalized taking abundance of base peak equal 100; for instance array 224 [M]<sup>+</sup> (5) represents a molecular ion with integer mass of 224 Dalton present in a mass spectrum at an abundance 5% the abundance of base peak; analogously array 209 [M-Me]<sup>+</sup> (4) represents ion of mass 209 Dalton and abundance 4% which has been formed from the molecular ion by loss of a methyl fragment (15 Dalton).

Talarodiolide (1)	RI: 2064	MS peaks annotations: 224 [M] <sup>++</sup> (5), 209 [M-Me] <sup>+</sup> (4), 194 [M-2Me] <sup>+</sup> (35), 149 [M-2Me-CO <sub>2</sub> -O] <sup>+</sup> (60), 70 [M-C <sub>8</sub> H <sub>9</sub> O <sub>3</sub> ] <sup>+</sup> (100)
		
3-O-methylfunicone (2)	RI: 3006	MS peaks annotations: 388 [M] <sup>++</sup> (40), 373 [M-Me] <sup>+</sup> (15), 357 [M-2Me] <sup>+</sup> , 223 [M-C <sub>9</sub> O <sub>3</sub> H <sub>9</sub> ] <sup>+</sup> (65), 192 [M-2Me-C <sub>9</sub> O <sub>3</sub> H <sub>9</sub> ] <sup>+</sup> (100)
		

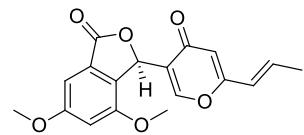
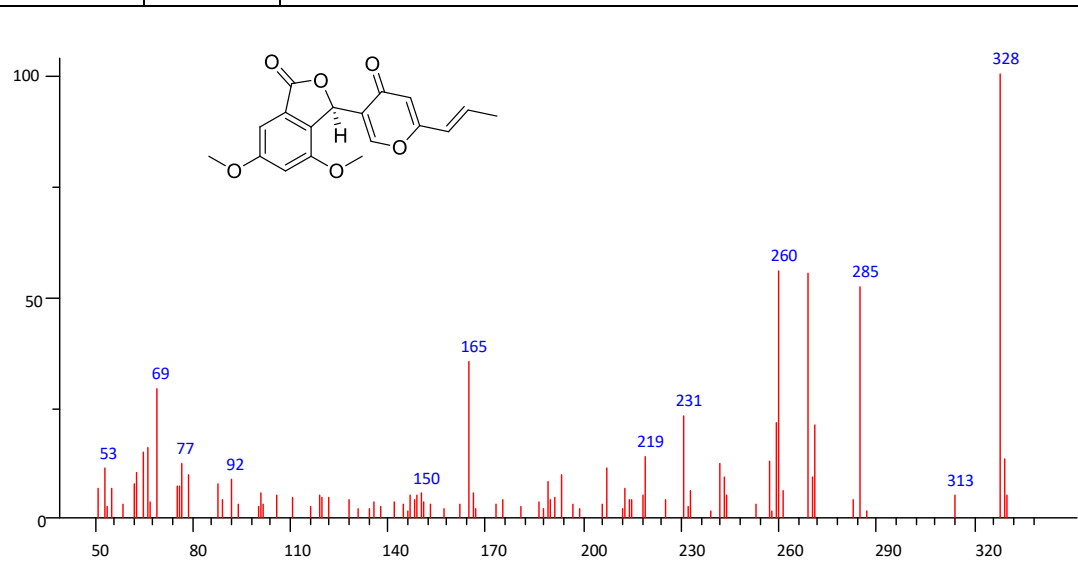


<p><i>Cyclo</i>-(Pro-Leu) (3)</p>	<p>RI: 2068</p>	<p>MS peaks annotations:  195 [M-Me]<sup>+</sup> (5), 154 [M-C<sub>4</sub>H<sub>9</sub>]<sup>+</sup> (100), 125 [M-C<sub>6</sub>H<sub>13</sub>]<sup>+</sup> (15), 111 [M-C<sub>7</sub>H<sub>15</sub>]<sup>+</sup> (3),  70 [M-C<sub>7</sub>NO<sub>2</sub>H<sub>11</sub>]<sup>+</sup> (75)</p>
<div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 20px;"> <chem>CC(C)C[C@@H]1C(=O)NC(=O)N1C</chem> </div> </div>		
<p><i>Cyclo</i>-(Pro-Ile) (4)</p>	<p>RI: 2039</p>	<p>MS peaks annotations:  154 [M-C<sub>4</sub>H<sub>9</sub>]<sup>+</sup> (100), 125 [M-C<sub>6</sub>H<sub>13</sub>]<sup>+</sup> (120), 111 [M-C<sub>7</sub>H<sub>15</sub>]<sup>+</sup> (5), 70 [M-C<sub>7</sub>NO<sub>2</sub>H<sub>11</sub>]<sup>+</sup> (65)</p>
<div style="display: flex; align-items: center; justify-content: center;">  <div style="margin-left: 20px;"> <chem>CC(C)C[C@H]1C(=O)NC(=O)N1C</chem> </div> </div>		

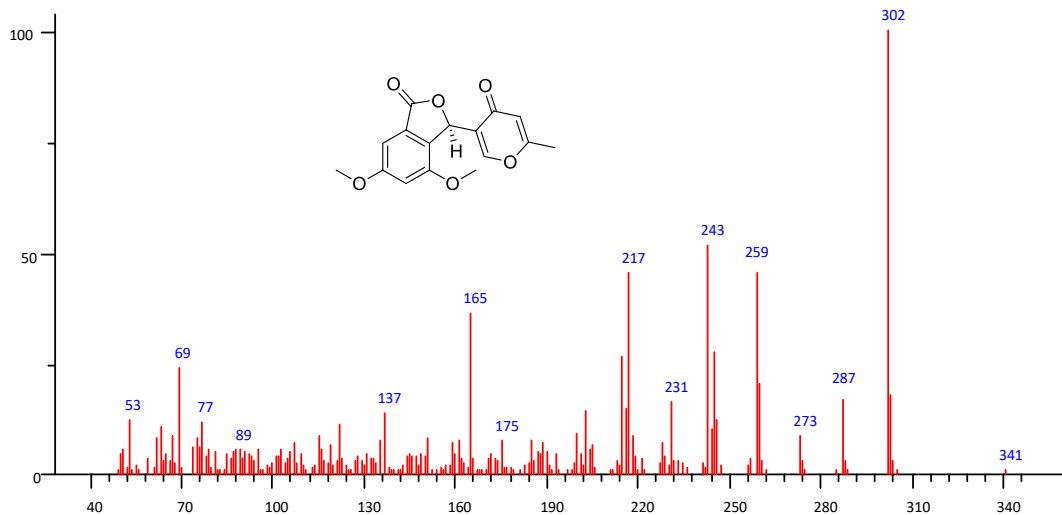
Cyclo (Pro-Phe) (5)	RI: 2443	MS peaks annotations: 244 [M] <sup>++</sup> (32), 215 [M-C <sub>2</sub> H <sub>4</sub> ] <sup>+</sup> (3), 153 [M- C <sub>7</sub> H <sub>7</sub> ] (28), 125 [M-C <sub>3</sub> H <sub>6</sub> -C <sub>6</sub> H <sub>5</sub> ] (100)
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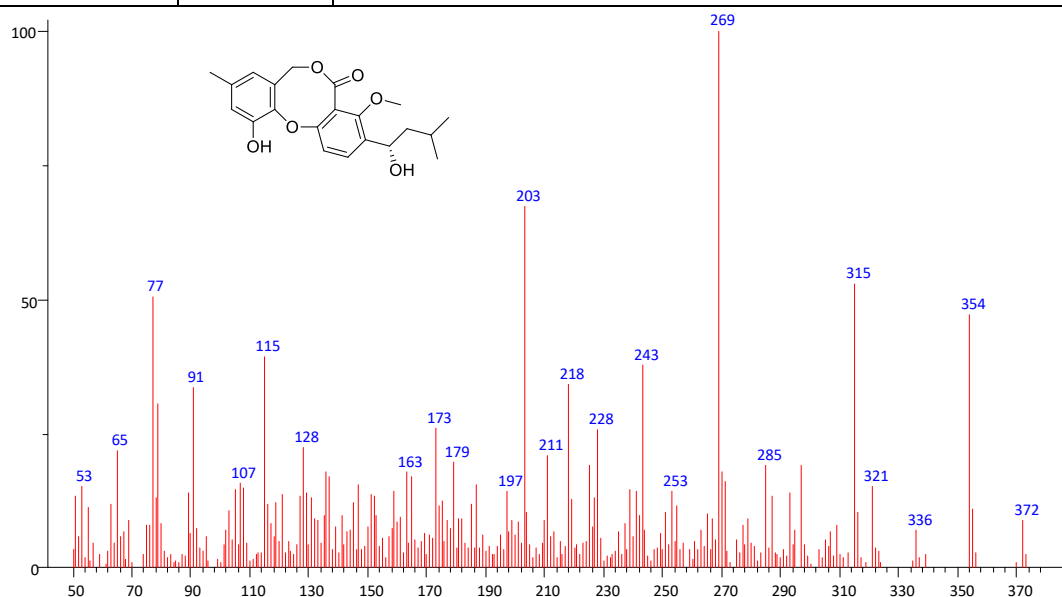
Vermistatin (6)	RI: 3105	MS peaks annotations: 328 [M] <sup>++</sup> (100), 313 [M-Me] <sup>+</sup> (10), 285 [M-Me-C <sub>2</sub> H <sub>4</sub> ] <sup>+</sup> (48), 165 [M-C <sub>2</sub> H <sub>4</sub> -C <sub>8</sub> O <sub>2</sub> H <sub>8</sub> ] <sup>+</sup> (43)
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Penisimplicissin (7)	RI: 2835	MS peaks annotations: 302 [M] <sup>++</sup> (100), 287 [M-Me] <sup>+</sup> , 273 [M-2Me] <sup>+</sup> (17), 175 [M-Me-C <sub>6</sub> H <sub>7</sub> O <sub>2</sub> ] (14), 165 [M-C <sub>8</sub> O <sub>2</sub> H <sub>8</sub> ] <sup>+</sup> (47)
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Penicillide (8)	RI: 3103	MS peaks annotations: 372 [M-Me] <sup>+</sup> (16), 269 [M-2Me-C <sub>5</sub> OH <sub>10</sub> ] (100), 253 [M-Me-OCH <sub>3</sub> -C <sub>5</sub> OH <sub>10</sub> ] (20)
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1-glycerol-linoleate (9)

RI: 2076

MS peaks annotations:

354 [M]<sup>++</sup> (4), 336 [M-OH]<sup>+</sup>, 262 [M-C<sub>3</sub>O<sub>3</sub>H<sub>7</sub>]<sup>+</sup> (63), 234 [M-C<sub>4</sub>O<sub>4</sub>H<sub>7</sub>]<sup>+</sup> (12)

