

# **Anti-inflammatory and Anti-apoptotic Effects of Stybenpropol A Isolated from Benzoinum on Human Umbilical Vein Endothelial Cells**

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### Extraction and isolation of **1**

Benzoinum (5 kg) was extracted by maceration in EtOH/H<sub>2</sub>O (95:5, 3 × 40 L) at room temperature, giving a crude extract (4.2 kg). The crude extract was suspended in water and extracted with petroleum ether and EtOAc, sequentially, and afforded an EtOAc-soluble extract (3.8 kg). The EtOAc-soluble fraction (2.0 kg) was subjected to a silica gel column using a petroleum ether/EtOAc gradient solvent system (50:1 to 0:100) to give seven fractions (B1–B7). Fraction B2 (598 g) was chromatographed over a silica gel column with petroleum ether/EtOAc mixtures (40:1 to 0:100) to yield fractions B2.1–B2.7. Fraction B2.2 (21.2 g) was fractionated into six parts (B2.2.1–B2.2.6) via MCI gel CHP 20P (MeOH/H<sub>2</sub>O, 30:70 to 100% MeOH). Fraction B2.2.4 (4.0 g) was separated by low and medium pressure ODS column eluted with MeOH/H<sub>2</sub>O followed by semi-preparative HPLC (MeOH/H<sub>2</sub>O, 80%) to yield **1** (6 mg).

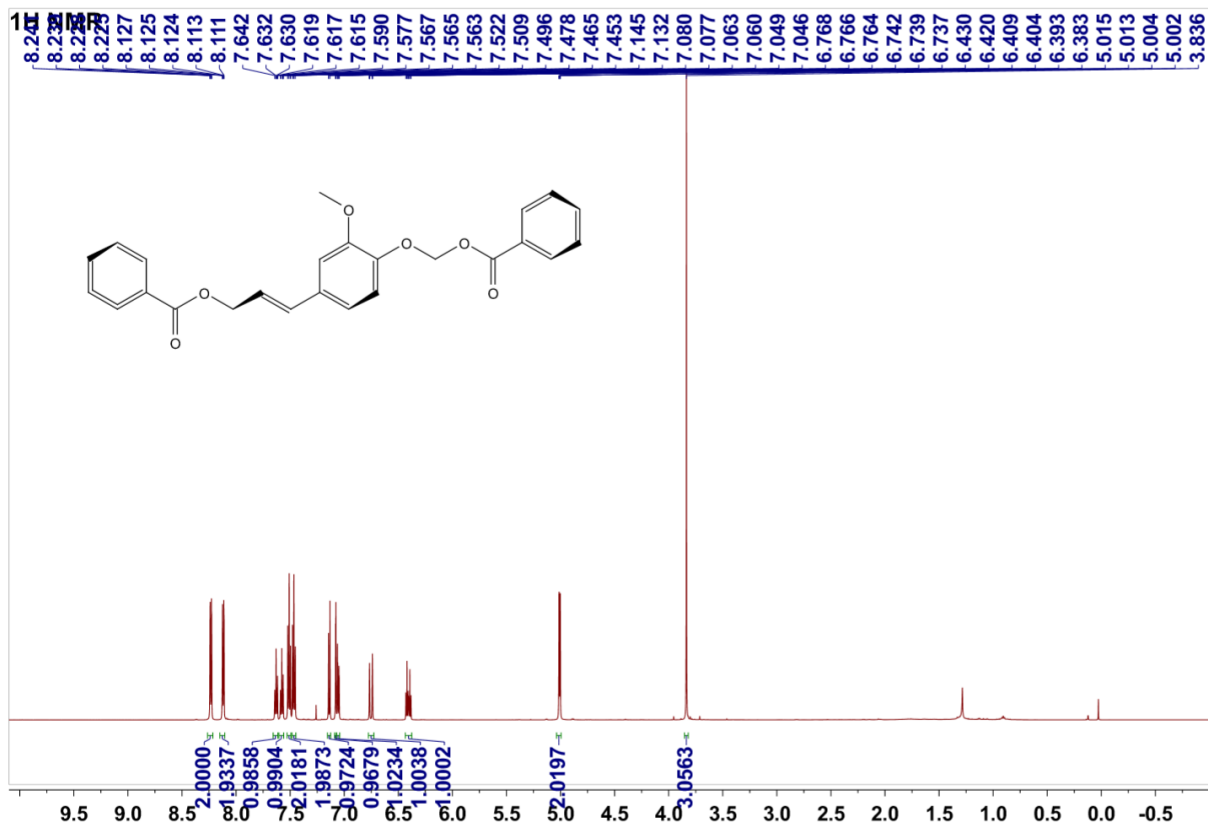


Figure S1. <sup>1</sup>H NMR spectrum of **1**

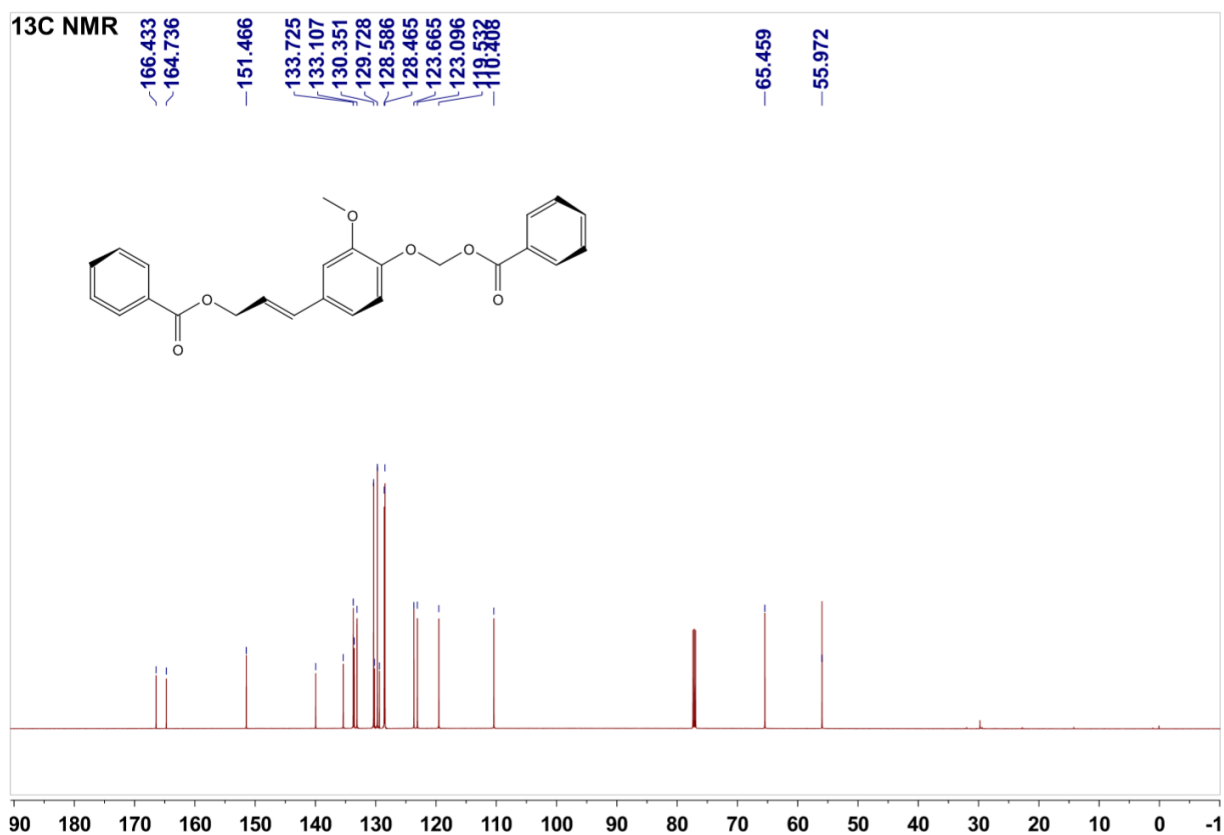
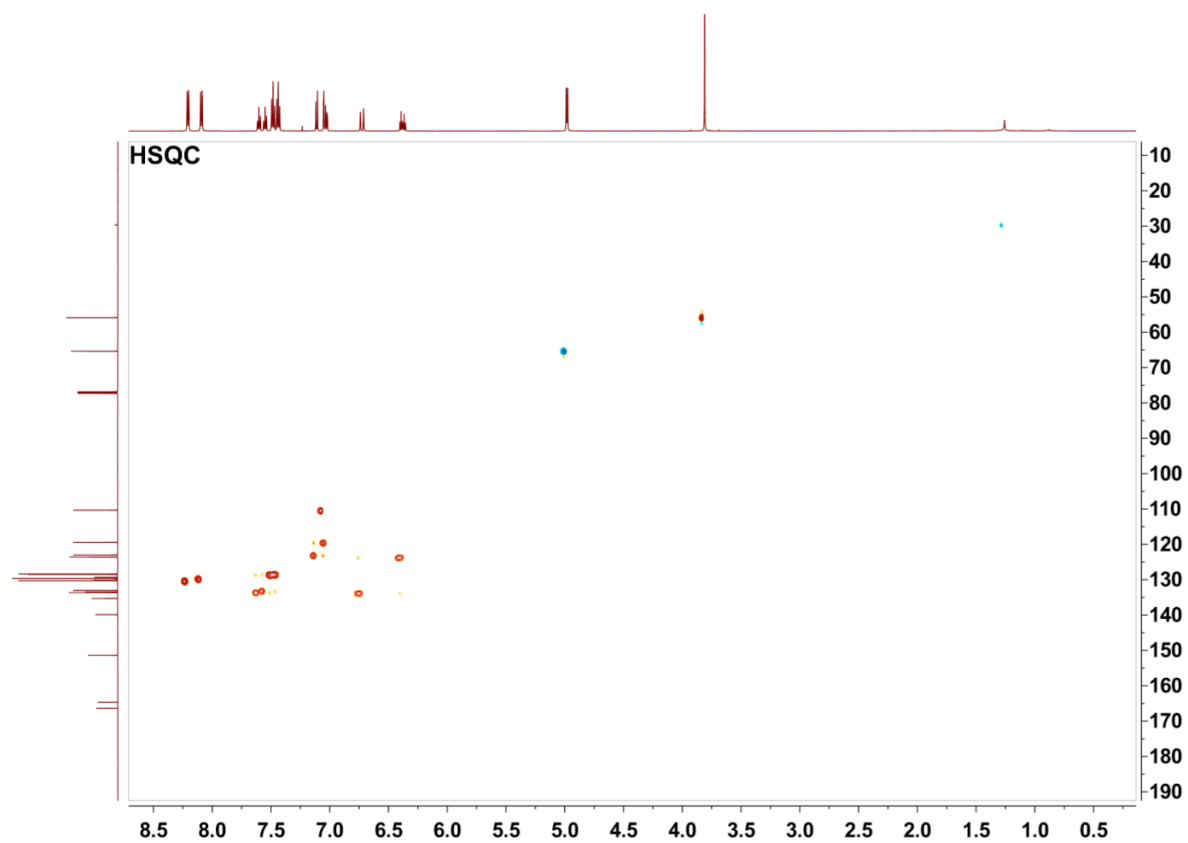
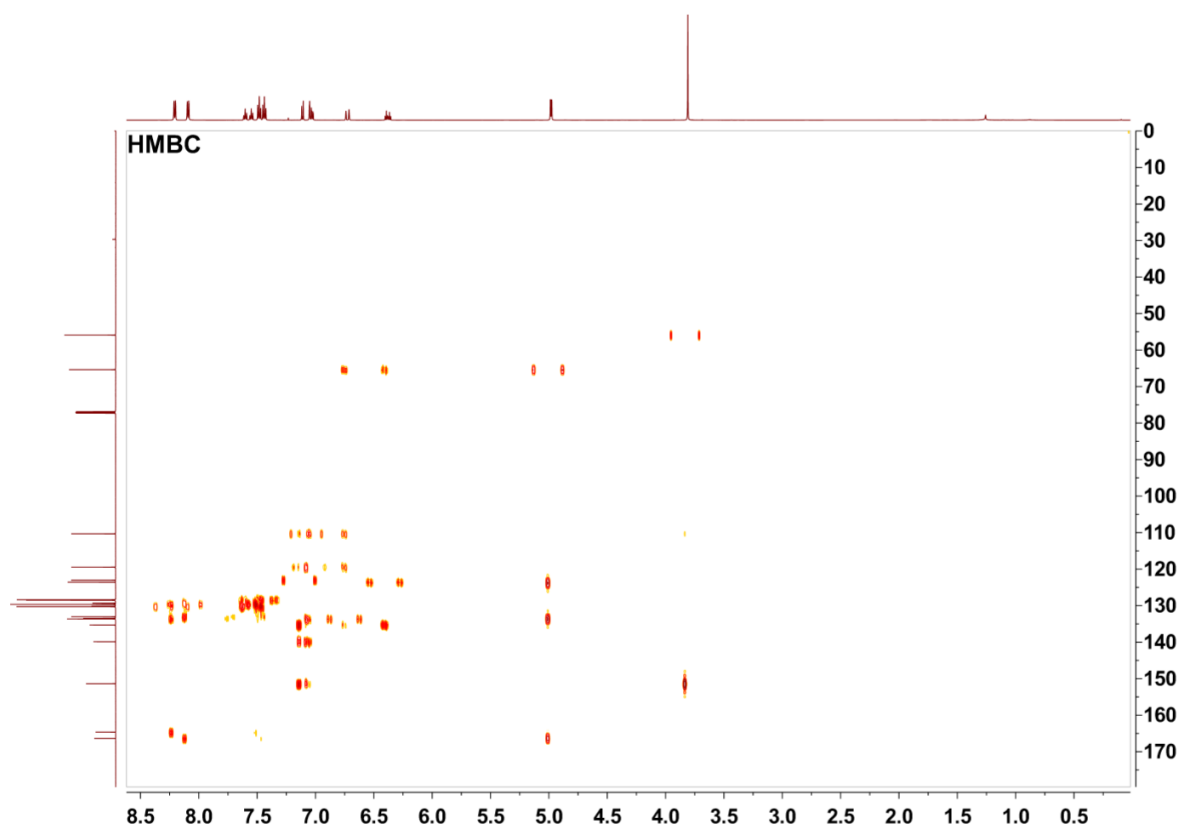


Figure S2. <sup>13</sup>C NMR spectrum of **1**



**Figure S3.** HSQC spectrum of **1** in MeOD.

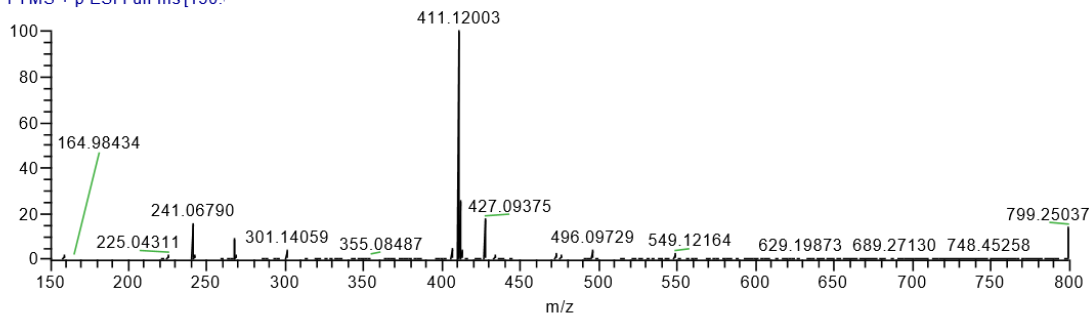


**Figure S4.** HMBC spectrum of **1** in MeOD.

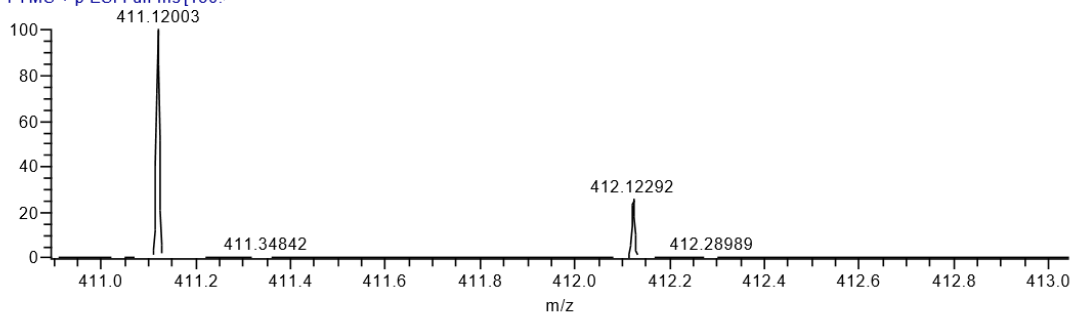
## Mass Analysis Report

<b>Sample Name</b> S2-3-2-2	<b>Operator</b> Q Exactive	<b>Acquisition Date</b> 11/22/2018	<b>Method</b> C:\Xcalibur\methods\fs_sim_ESI
<b>Scan Mode</b> Full MS Targeted-SIM	<b>Scan polarity</b> Negative	<b>Resolution</b> 70000	<b>Isolation window (m/z)</b> 2

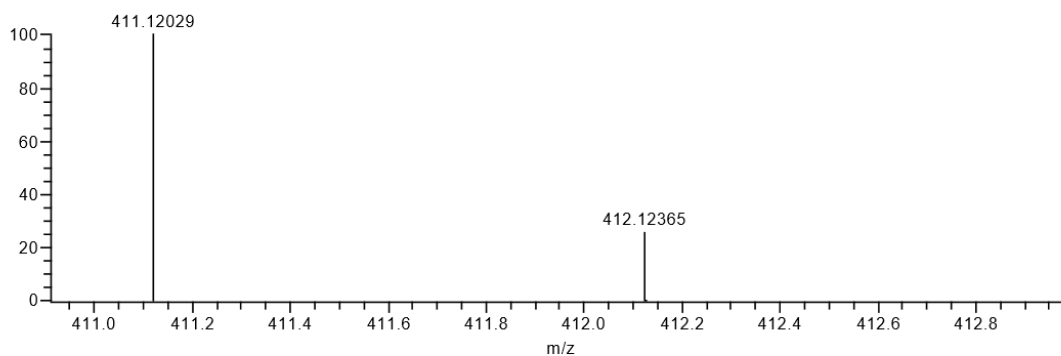
S232-2 #25 RT: 0.25 AV: 1 M<sup>+</sup>: 42058  
T: FTMS + p ESI Full ms [150.0]



S232-2 #25 RT: 0.25 AV: 1 M<sup>+</sup>: 42058  
T: FTMS + p ESI Full ms [150.0]



c24h20o5 +Na: C24 H20 O5 Na1 -- Chm 1



Formula	Species	Expected m/z	Measured m/z	Delta [ppm]
C24H20O5	+ Na	411.12029	411.12003	-0.63

**Figure S5. HRESIMS of 1.**

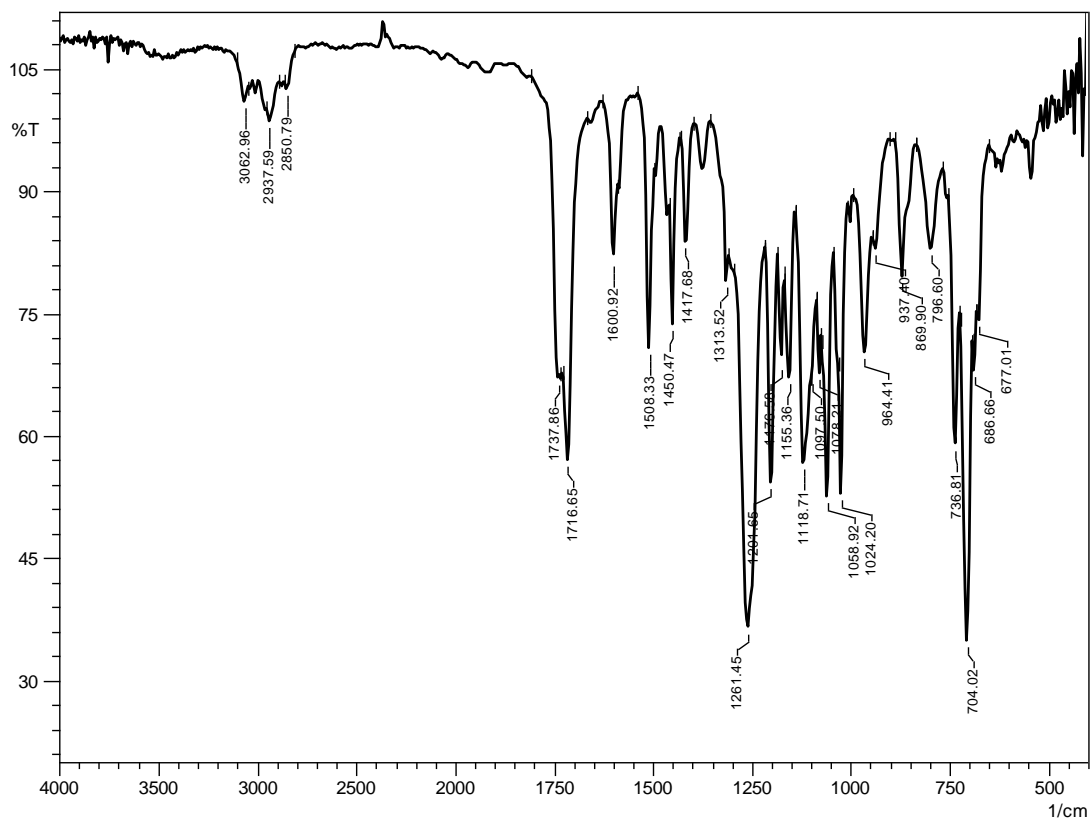


Figure S6. IR spectrum of **1**.