# **Supporting Information**

# Antibiotic and antimalarial quinones from fungusgrowing ant-associated *Pseudonocardia* sp.

Gavin Carr, Emily R. Derbyshire, Eric Caldera, Cameron R. Currie, and Jon Clardy, \*,†

Department of Biological Chemistry and Molecular Pharmacology, Harvard Medical School,

Boston, Massachusetts 02115, Department of Bacteriology, University of Wisconsin-Madison,

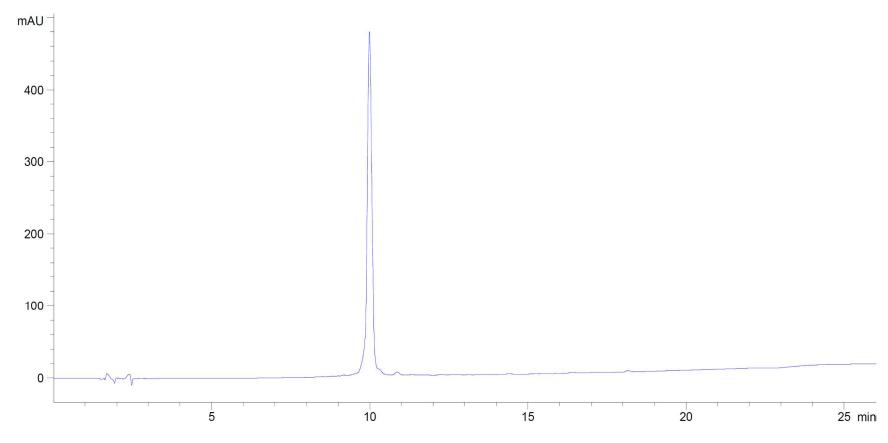
Madison, Wisconsin 53706

#### Index:

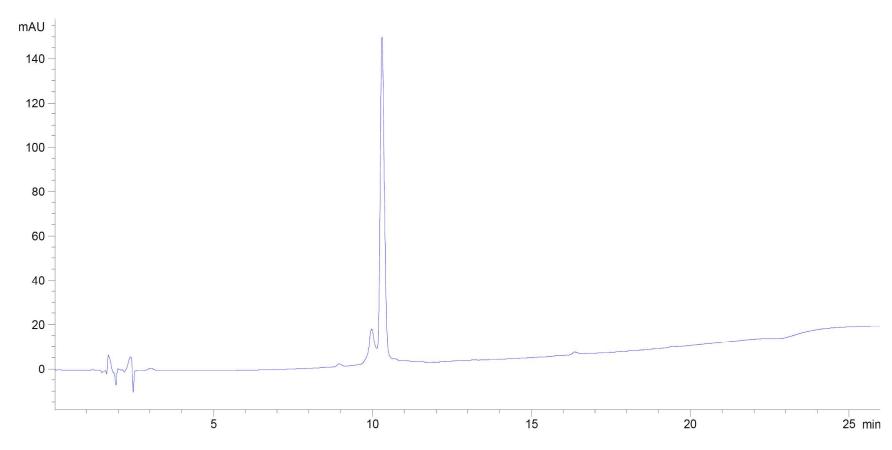
Page SI-2: Figure S1, HPLC-MS trace (254 nm) of 1 Page SI-3: Figure S2, HPLC-MS trace (254 nm) of 2 Page SI-4: Figure S3, HPLC-MS trace (254 nm) of 3 Page SI-5: <sup>1</sup>H NMR spectrum of 1 recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-6: <sup>13</sup>C NMR spectrum of 1 recorded in CD<sub>3</sub>OD at 150 MHz. Page SI-7: COSY spectrum of 1 recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-8: HSQC spectrum of 1 recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-9: HMBC spectrum of 1 recorded in CD<sub>3</sub>OD at 600 MHz Page SI-10: NOESY spectrum of 1 recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-11: <sup>1</sup>H NMR spectrum of 2 recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-12: COSY spectrum of 2 recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-13: HSQC spectrum of 2 recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-14: HMBC spectrum of 2 recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-15: <sup>1</sup>H NMR spectrum of **3** recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-16: COSY spectrum of 3 recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-17: HSQC spectrum of 3 recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-18: HMBC spectrum of 3 recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-19: <sup>1</sup>H NMR spectrum of 4 recorded in CD<sub>3</sub>OD at 600 MHz. Page SI-20: <sup>13</sup>C NMR spectrum of 4 recorded in CD<sub>3</sub>OD at 150 MHz. Page SI-21: <sup>1</sup>H NMR spectrum of **5** recorded in CD<sub>2</sub>Cl<sub>2</sub> at 600 MHz. Page SI-22: <sup>13</sup>C NMR spectrum of **5** recorded in CD<sub>2</sub>Cl<sub>2</sub> at 150 MHz.

<sup>†</sup> Harvard Medical School

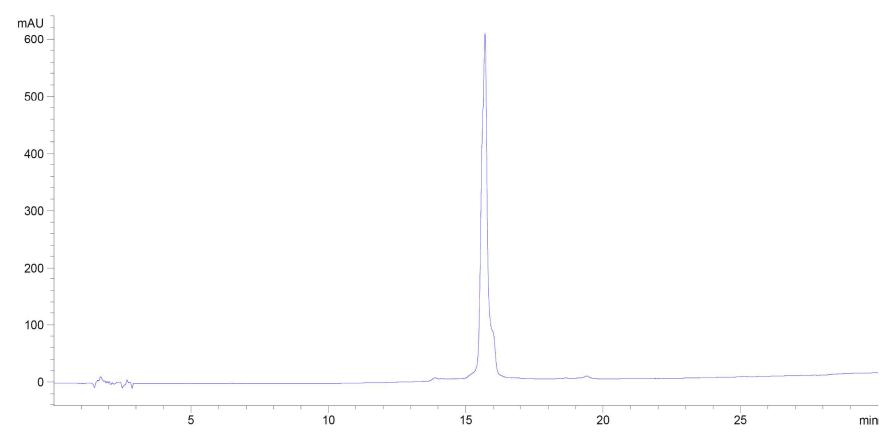
<sup>&</sup>lt;sup>‡</sup> University of Wisconsin-Madison



**Figure S1.** HPLC-MS trace (254 nm) of **1**.

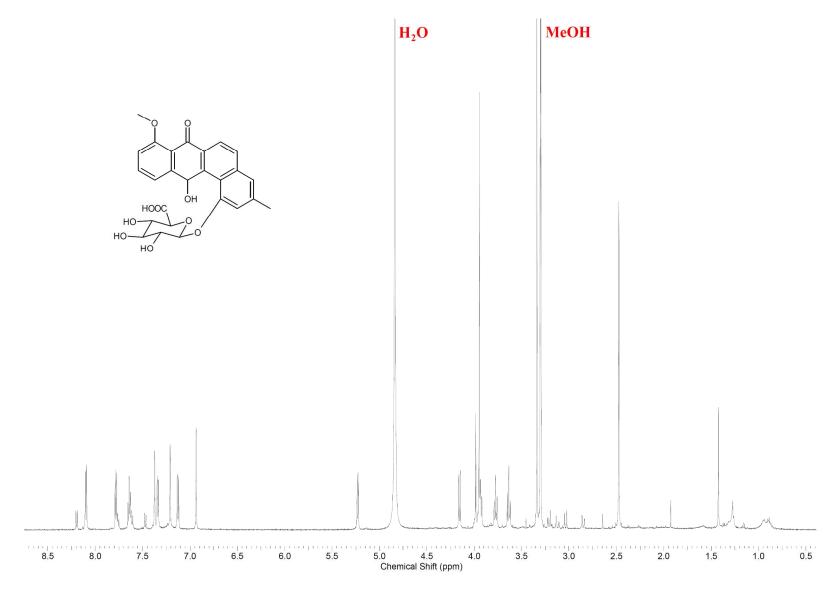


**Figure S2.** HPLC-MS trace (254 nm) of **2**.

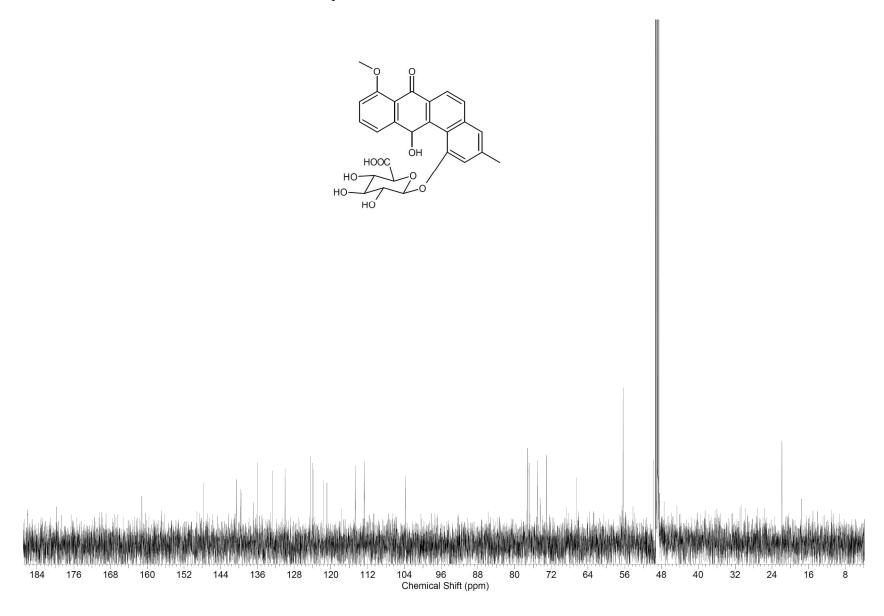


**Figure S3.** HPLC-MS trace (254 nm) of **3**.

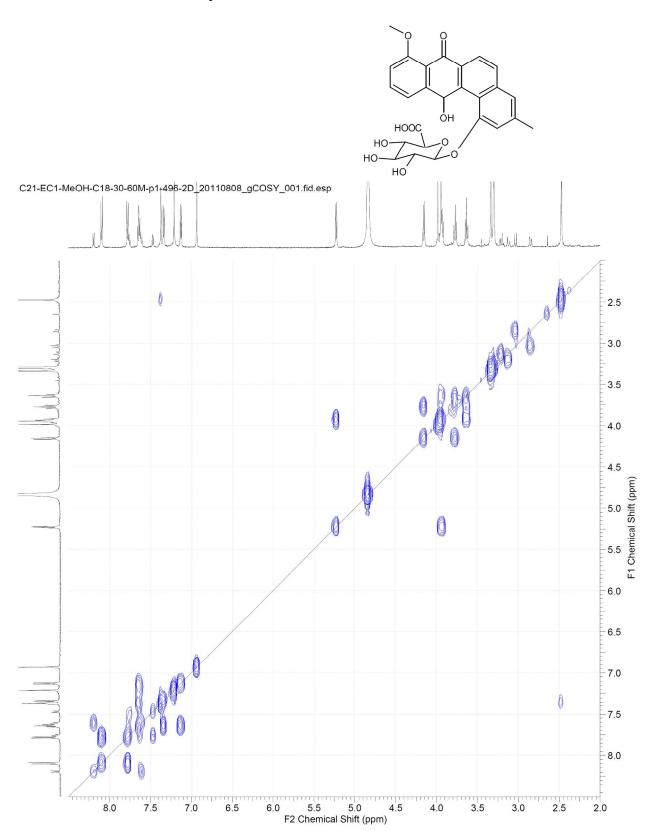
# $^{1}\text{H NMR}$ spectrum of 1 recorded in CD<sub>3</sub>OD at 600 MHz



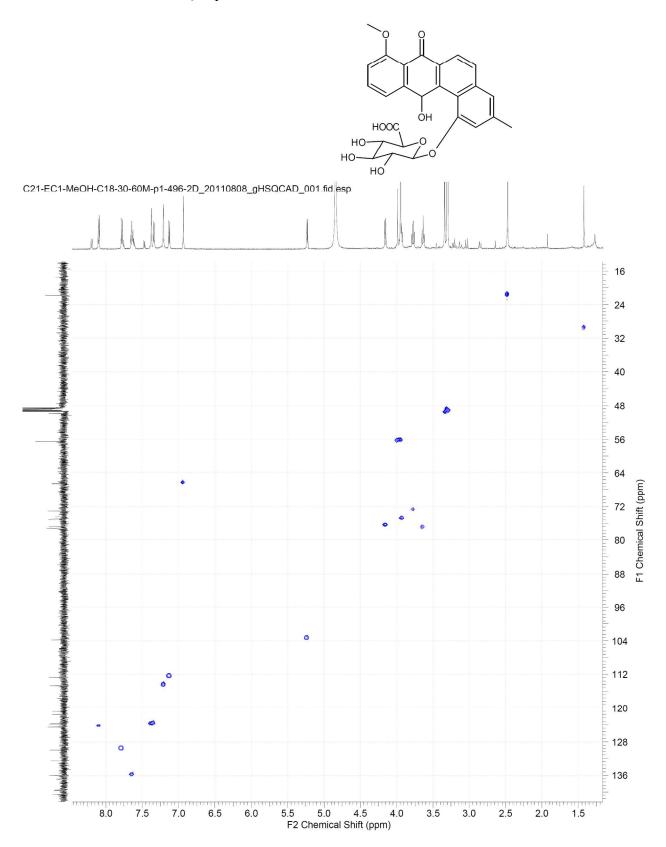
<sup>13</sup>C NMR spectrum of **1** recorded in CD<sub>3</sub>OD at 150 MHz



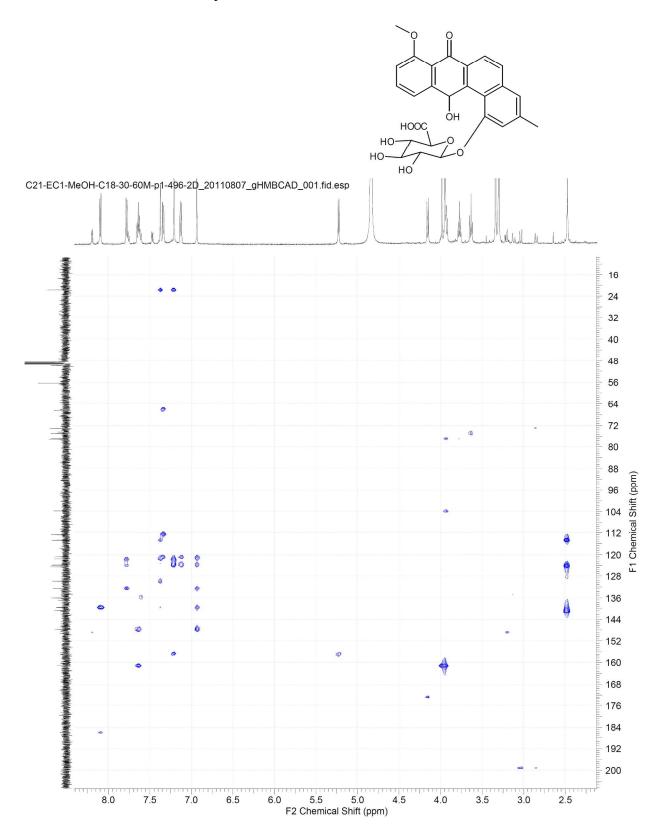
#### COSY spectrum of 1 recorded in CD<sub>3</sub>OD at 600 MHz



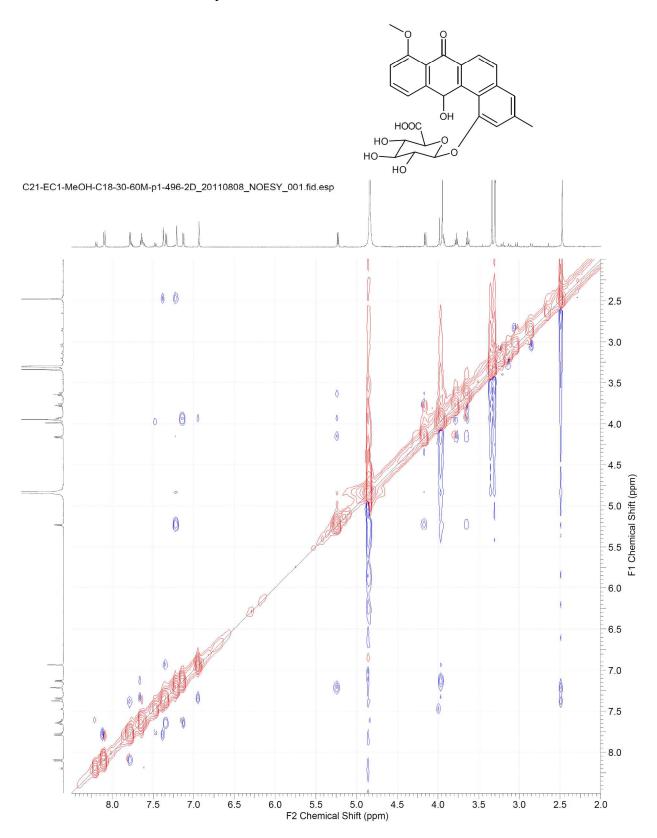
# HSQC spectrum of 1 recorded in CD<sub>3</sub>OD at 600 MHz



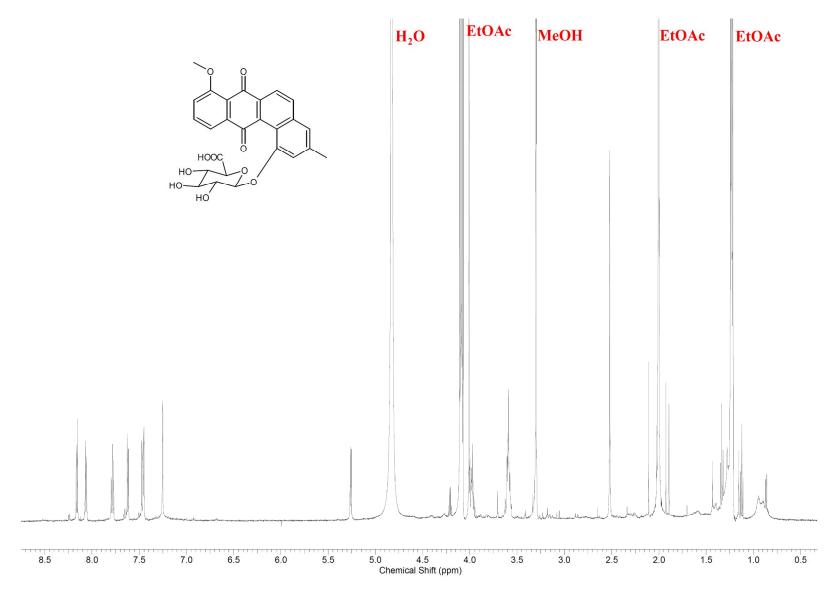
#### HMBC spectrum of 1 recorded in CD<sub>3</sub>OD at 600 MHz



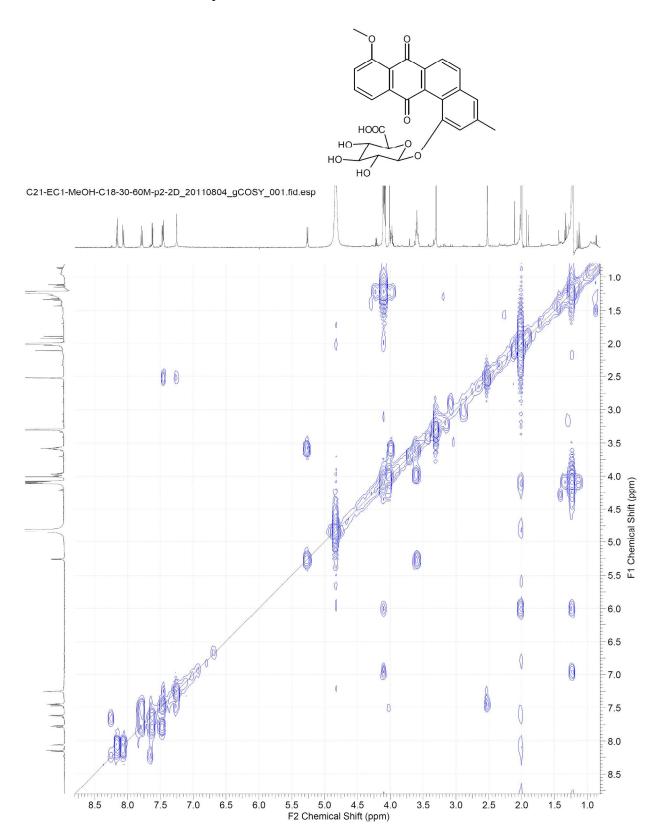
# NOESY spectrum of 1 recorded in CD<sub>3</sub>OD at 600 MHz



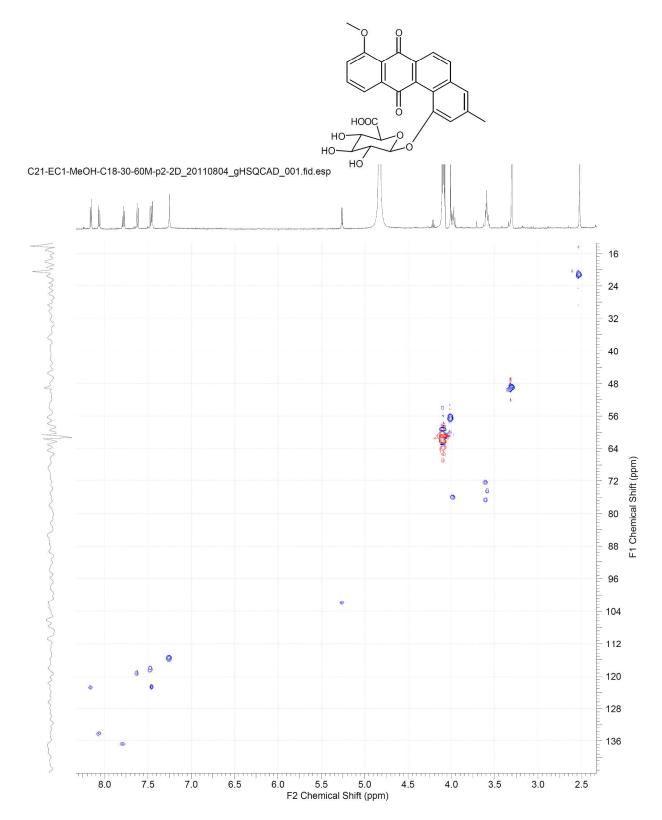
 $^{1}\text{H}$  NMR spectrum of **2** recorded in CD<sub>3</sub>OD at 600 MHz



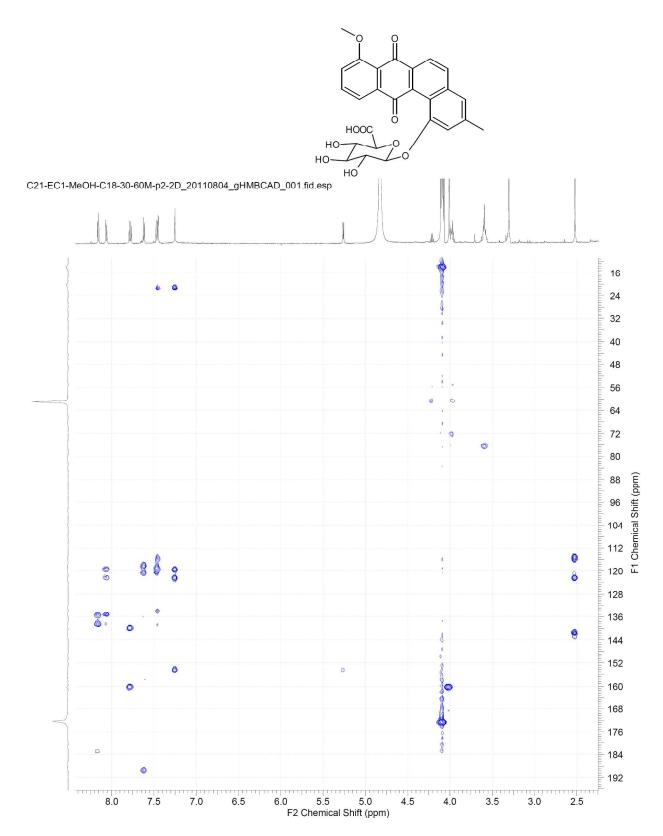
#### COSY spectrum of 2 recorded in CD<sub>3</sub>OD at 600 MHz



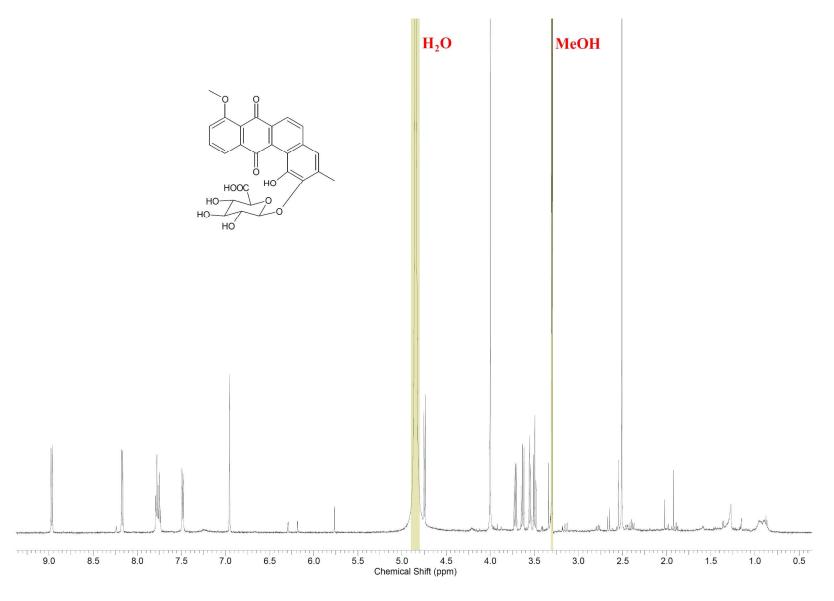
# HSQC spectrum of 2 recorded in CD<sub>3</sub>OD at 600 MHz



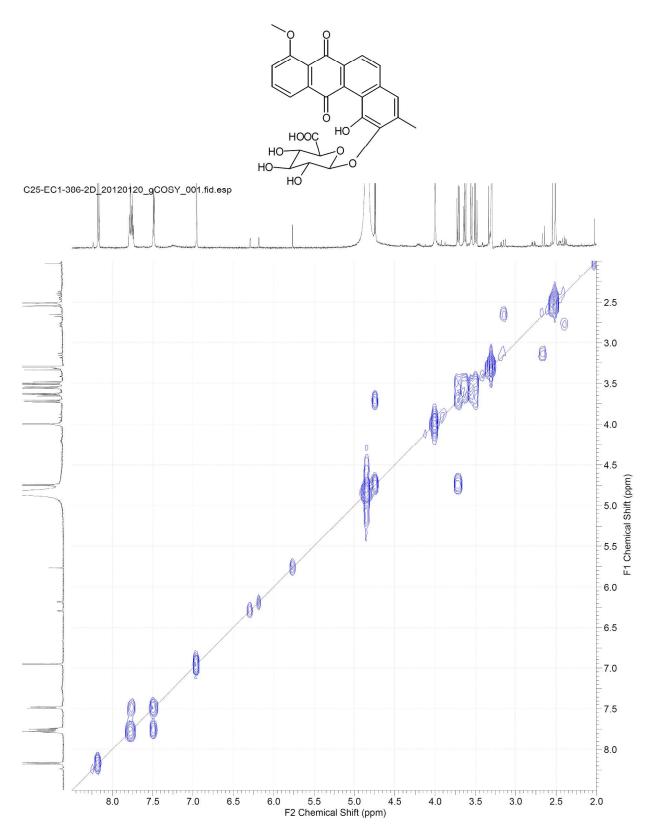
# HMBC spectrum of 2 recorded in CD<sub>3</sub>OD at 600 MHz



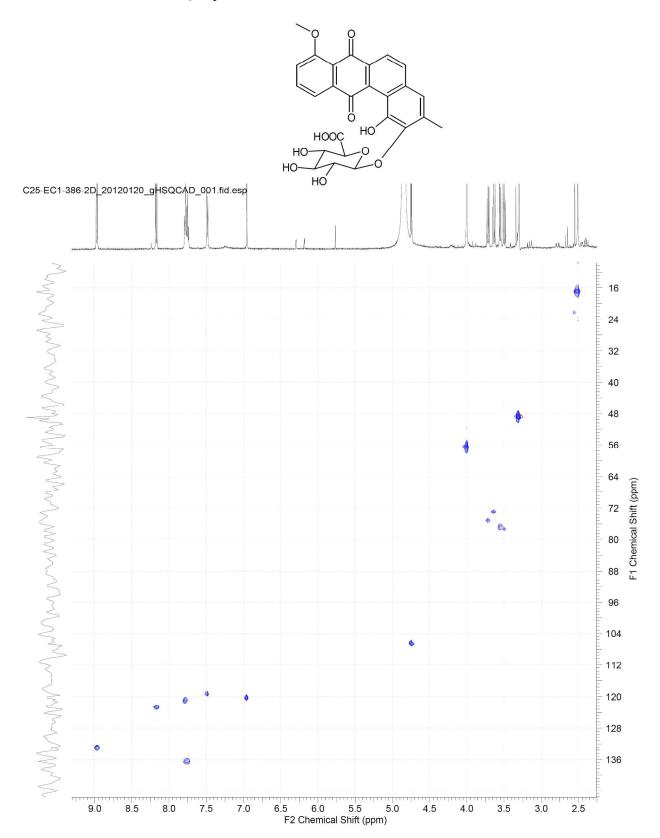
 $^{1}\text{H}$  NMR spectrum of **3** recorded in CD<sub>3</sub>OD at 600 MHz



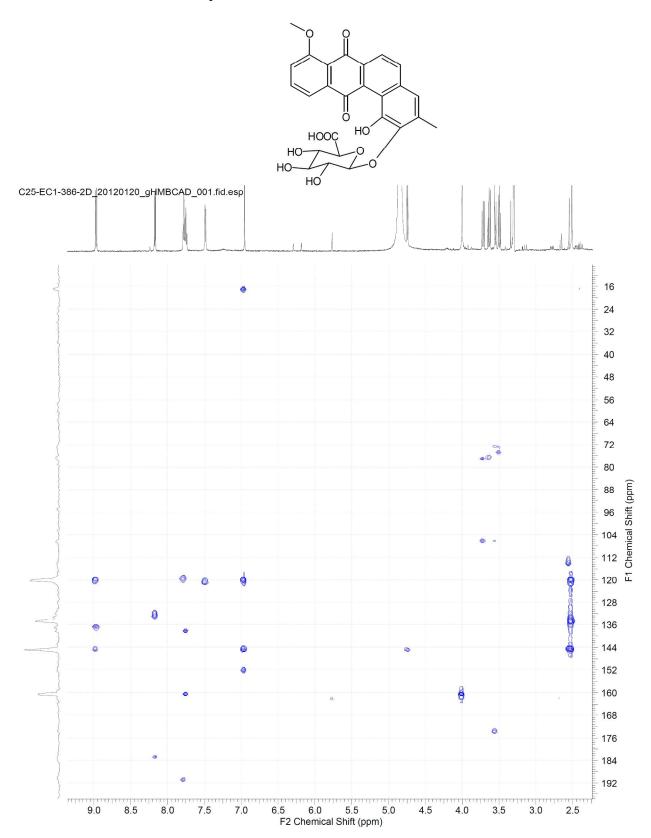
# COSY spectrum of 3 recorded in CD<sub>3</sub>OD at 600 MHz



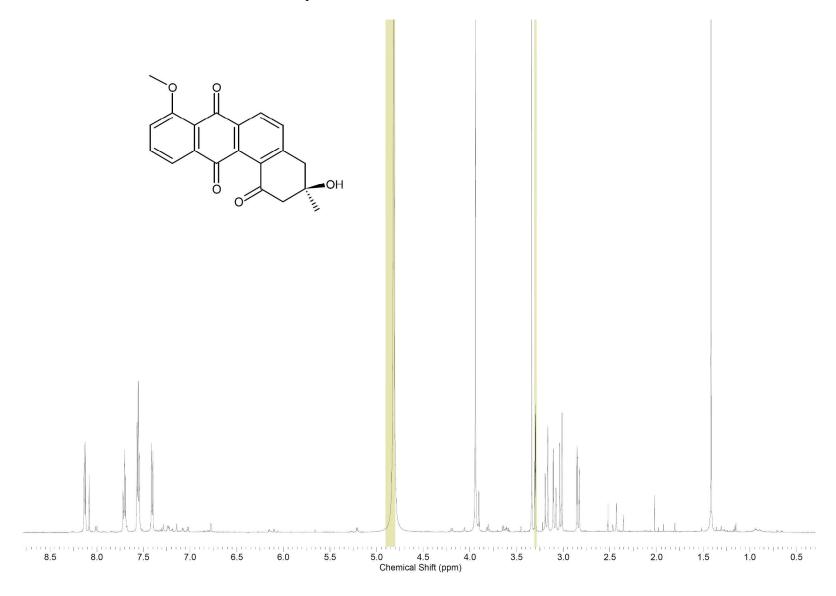
#### HSQC spectrum of 3 recorded in CD<sub>3</sub>OD at 600 MHz



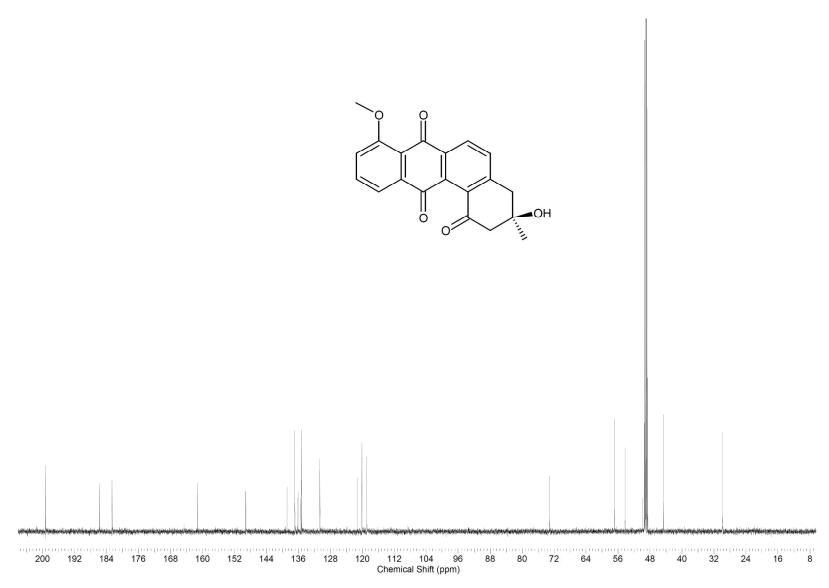
#### HMBC spectrum of 3 recorded in CD<sub>3</sub>OD at 600 MHz



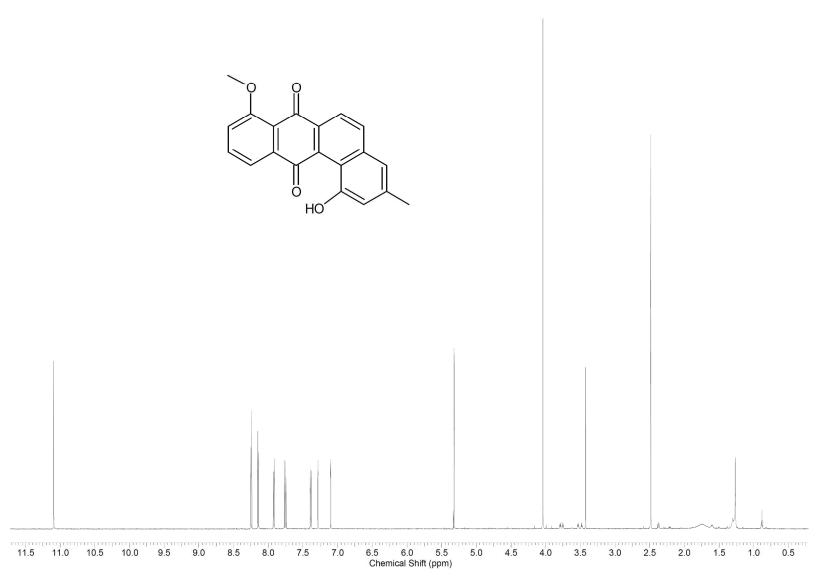
 $^{1}\text{H NMR}$  spectrum of **4** recorded in CD<sub>3</sub>OD at 600 MHz



 $^{13}$ C NMR spectrum of 4 recorded in CD<sub>3</sub>OD at 600 MHz



<sup>1</sup>H NMR spectrum of **5** recorded in CD<sub>2</sub>Cl<sub>2</sub> at 600 MHz



 $^{13}$ C NMR spectrum of **5** recorded in CD<sub>2</sub>Cl<sub>2</sub> at 600 MHz

