Supporting Information

Cordyceps Sinensis-mediated biotransformation of notoginsenoside R1 into 25-OH-20(S/R)-R2 with elevated cardioprotective effect against DOX-induced cell injury

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Purity analysis of compound 1 and 2

The purity of compound 1 and 2 was evaluated via HPLC-MS analysis. Separation of the products on HPLC was accomplished by an Agilent SB-Aq C18 column (250 mm×4.6 mm, 5 μm) with a flow rate of 1.0 mL/min. The mobile phase consisted of A (0.1% formic acid in H_2O) and B (0.1% formic acid in acetonitrile). The gradient elution procedure was operated as below: 0-30 min 20% B, 30-35 min 20%-95% B, 35-40 min 95% and 40-50 min 95%-20%B. The column temperature was set to 30 °C. The injection volume was 10 μL for either qualification or quantification experiments. Relative quantification was performed on a triple quadrupole mass spectrometer (Shimadzu LC-MS 8040, Japan) and the settings are identical to what described in the main text.

The purity of both compound 1 and 2 was greater than 95%, calculated by area normalization (Fig. S1 and S2).

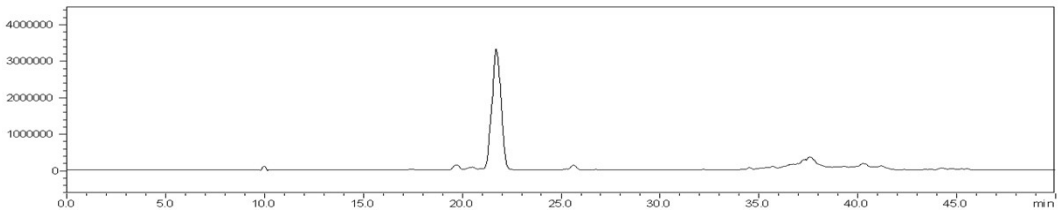

Fig. 1S. HPLC-MS chromatogram of compound **1**.

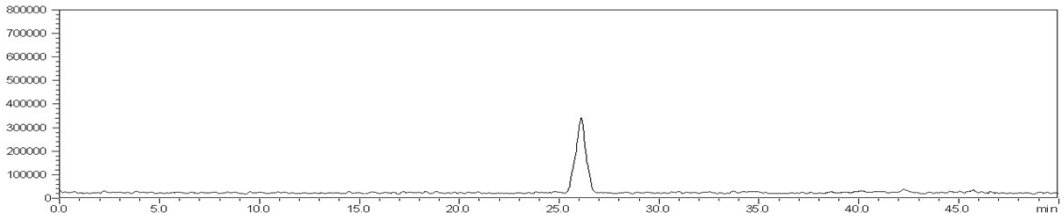

Fig. 2S. HPLC-MS chromatogram of compound **2**.

NMR analysis of compound 1 and 2

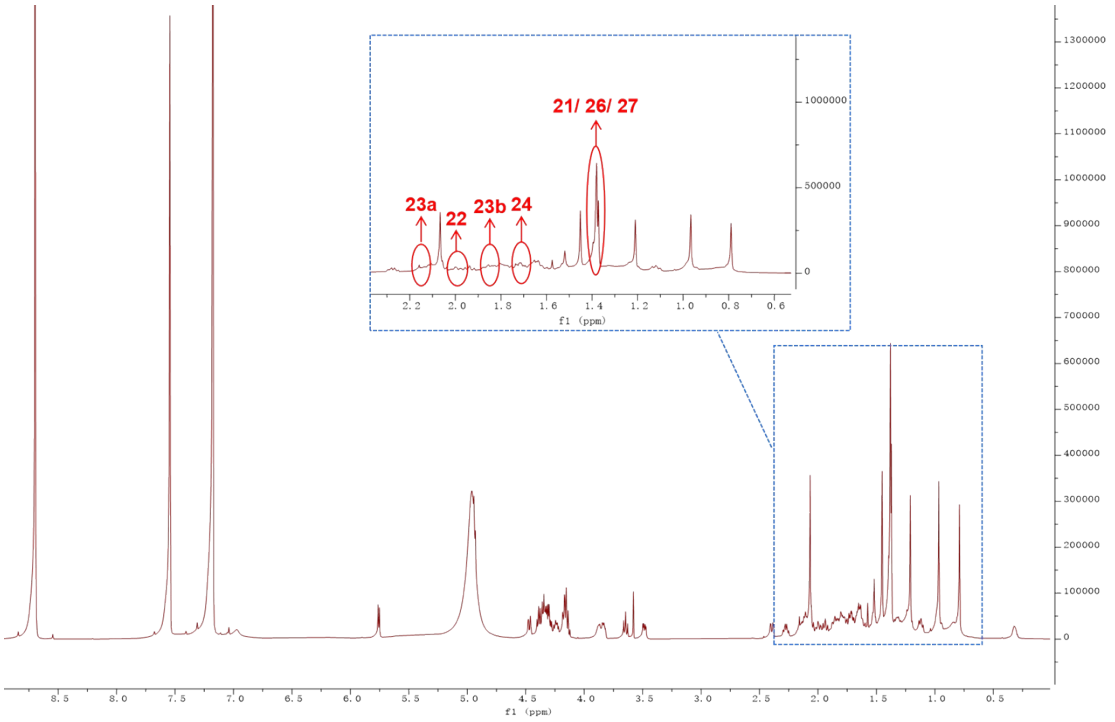

Fig. 3S. ^{1}H-NMR spectrum of compound **1** (500 MHz, Pyridine-d_5).

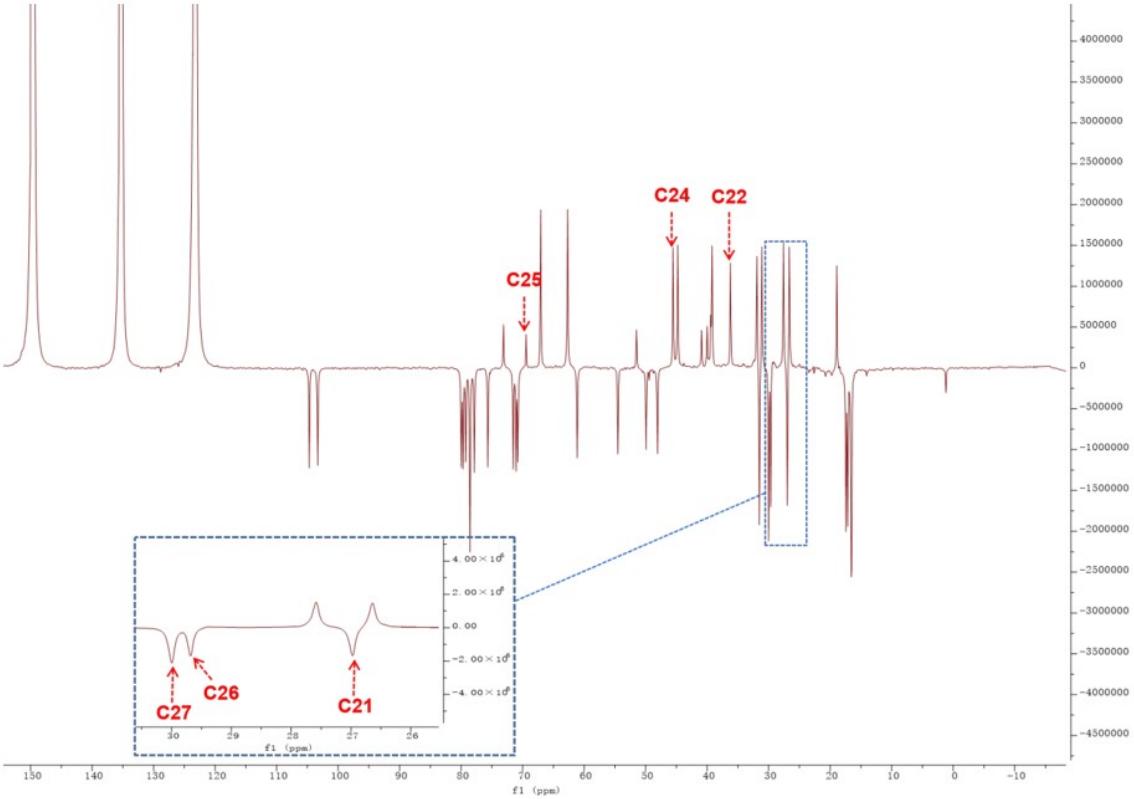

Fig. 4S. ^{13}C-NMR spectrum of compound **1** (125 MHz, Pyridine-d_5).

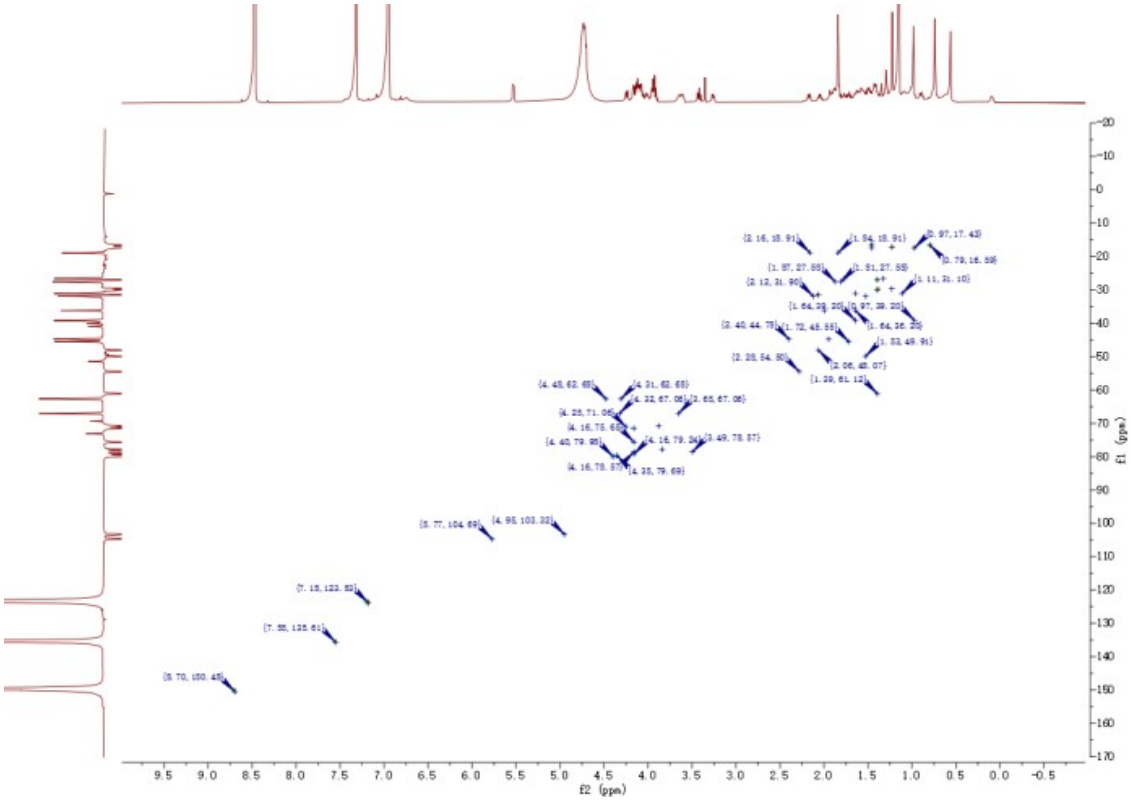

Fig. 5S. HSQC spectrum of compound **1**.

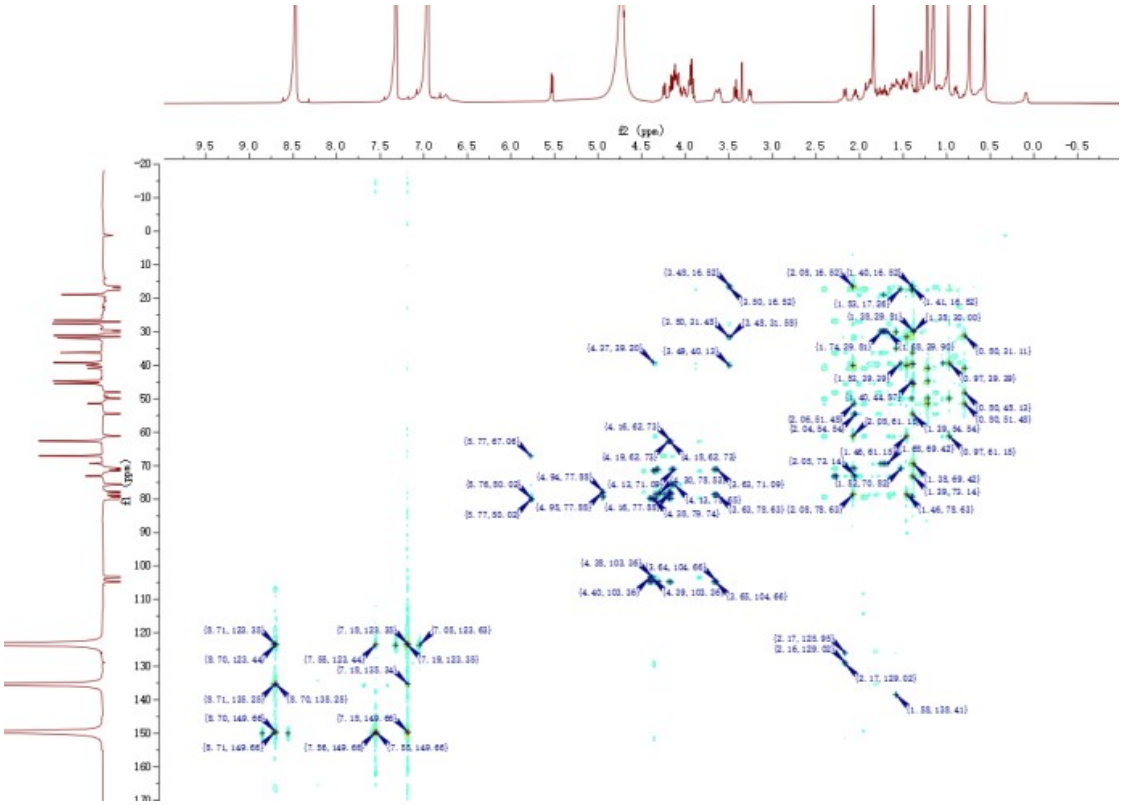

Fig. 6S. HMBC spectrum of compound **1**.

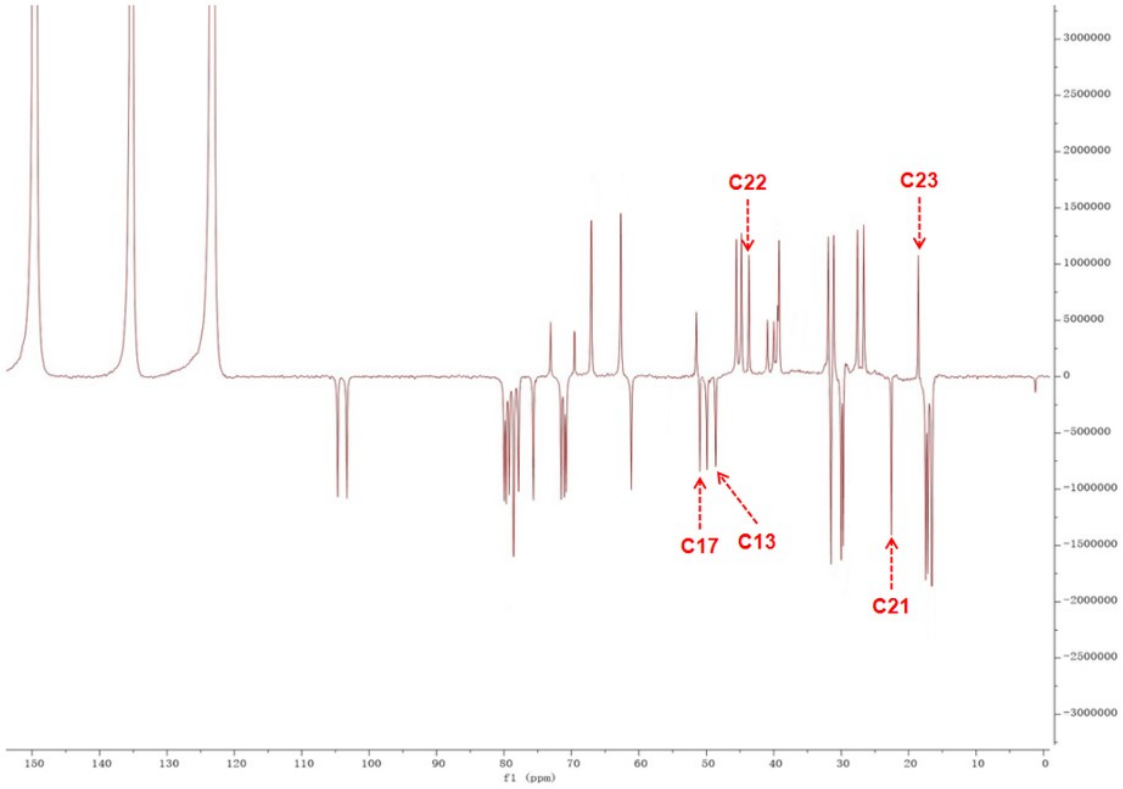

Fig. 7S. ^{13}C-NMR spectrum of compound **2** (125 MHz, Pyridine-d_5).