

Supporting Information

A new coumarin derivative from the stems of the endangered plant *Ulmus elongate*

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ABSTRACT

A preliminary phytochemical investigation of the stems of the endangered plant *Ulmus elongata* led to the isolation of a new coumarin derivative (named ulmuselactone A, **1**) and eight known compounds (**2-9**). The new structure was elucidated by detailed analysis of comprehensive spectroscopic methods, and its absolute configuration was established by comparing experimental and calculated electronic circular dichroism (ECD) spectra. The isolated compounds were evaluated for their antibacterial activities.

KEYWORDS

Ulmus elongata; Ulmaceae; coumarin derivative; ulmuselactone A; antibacterial activities

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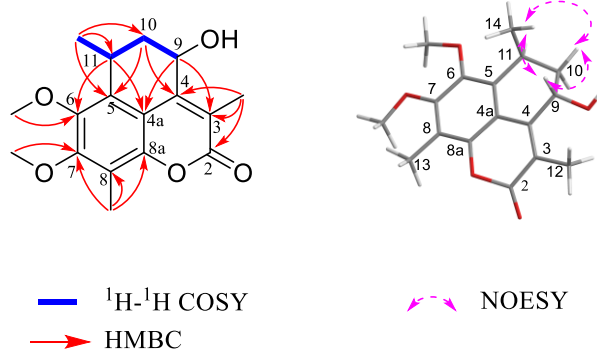


Figure S1. Selected 2D NMR correlations for ulmuselactone A (1).

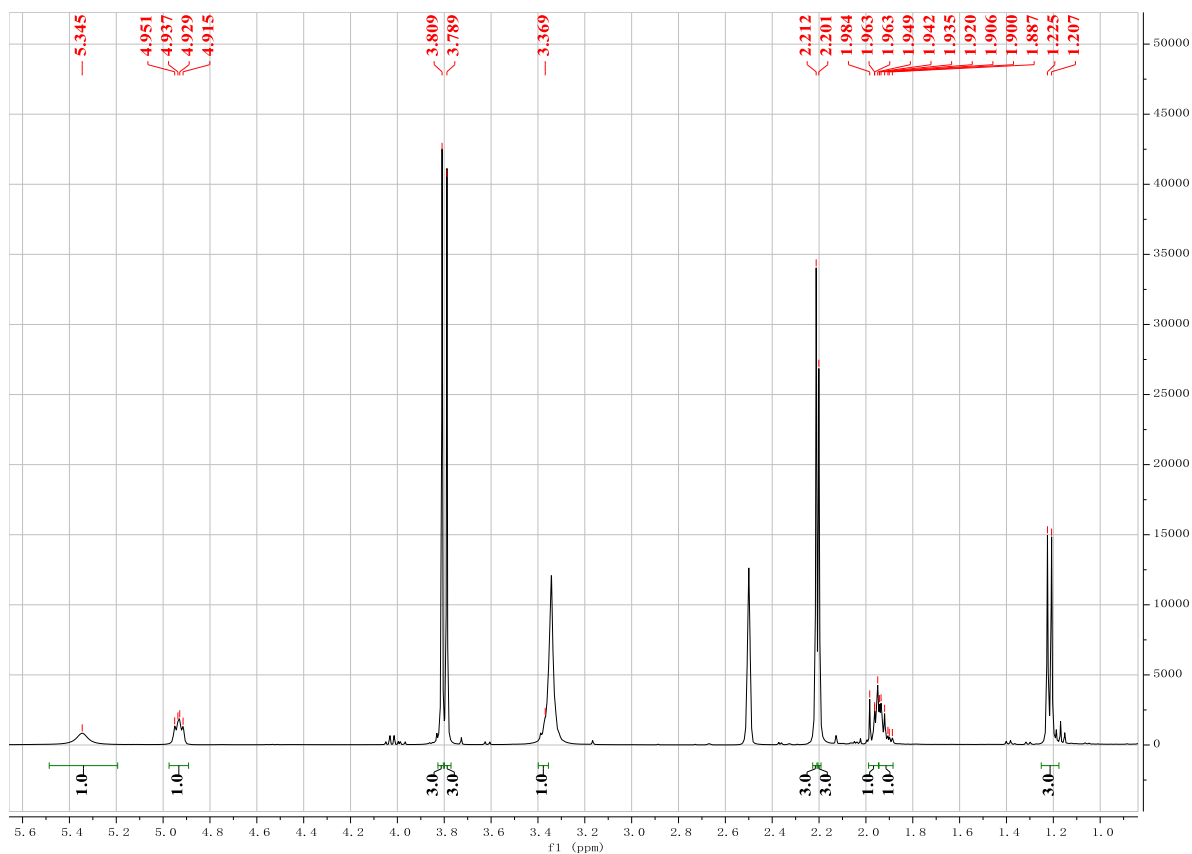


Figure S2. ^1H NMR spectrum of ulmuselactone A (1) in $\text{DMSO}-d_6$.

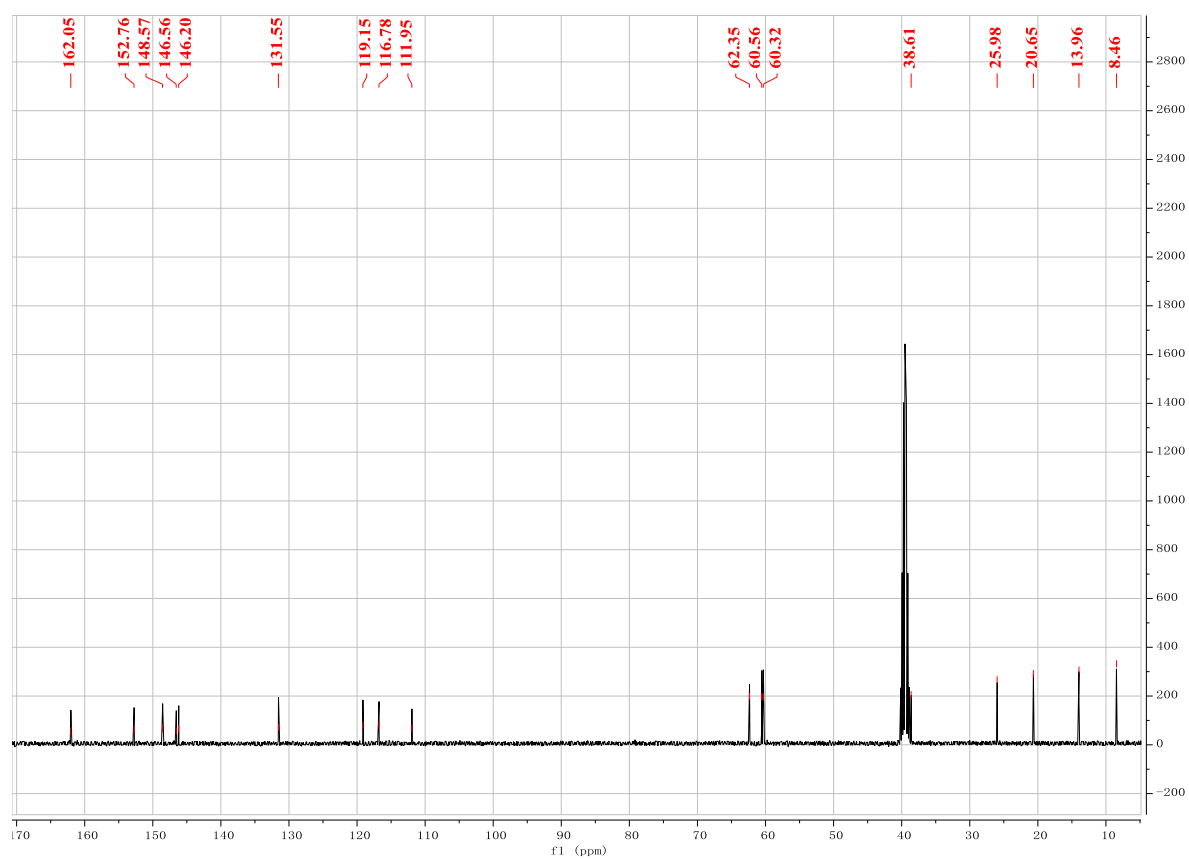


Figure S3. ^{13}C NMR spectrum of ulmuselactone A (1) in $\text{DMSO}-d_6$.

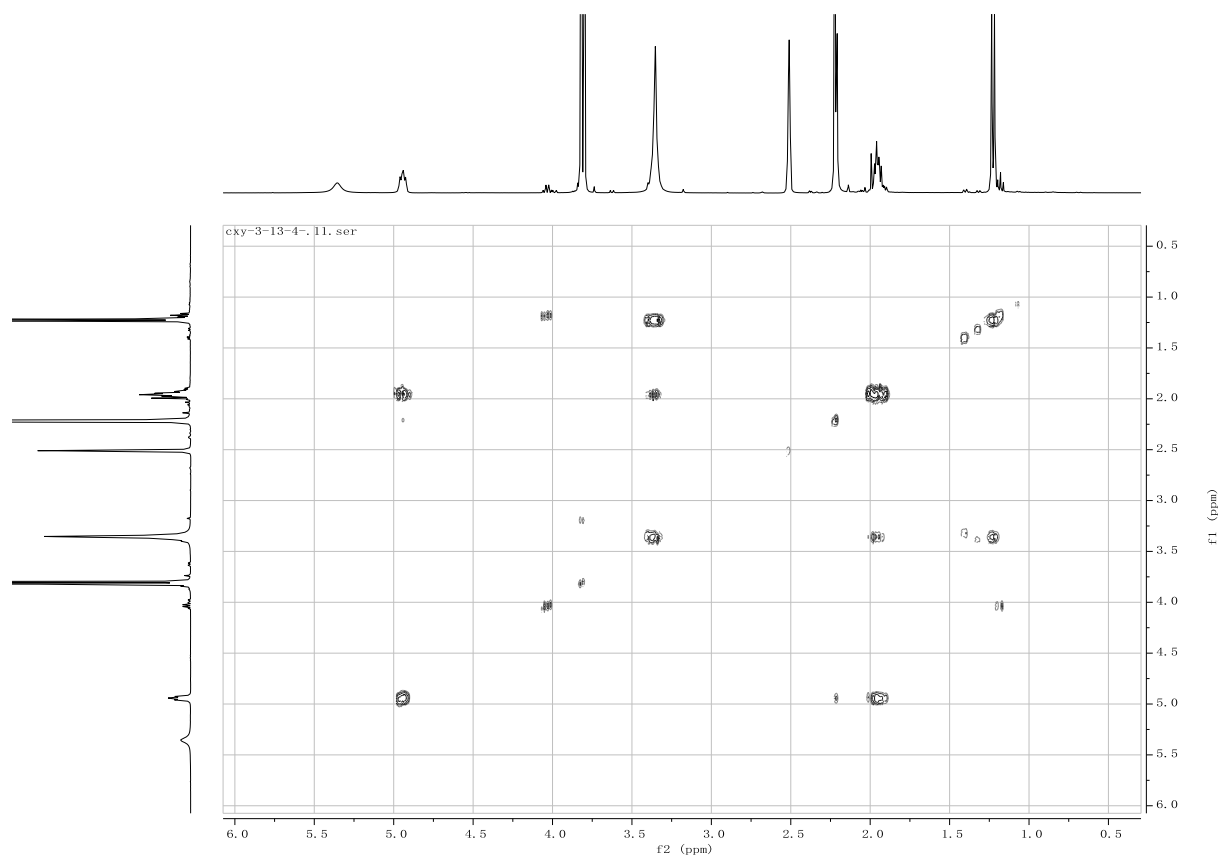


Figure S4. ^1H - ^1H COSY spectrum of ulmuselactone A (1) in $\text{DMSO}-d_6$.

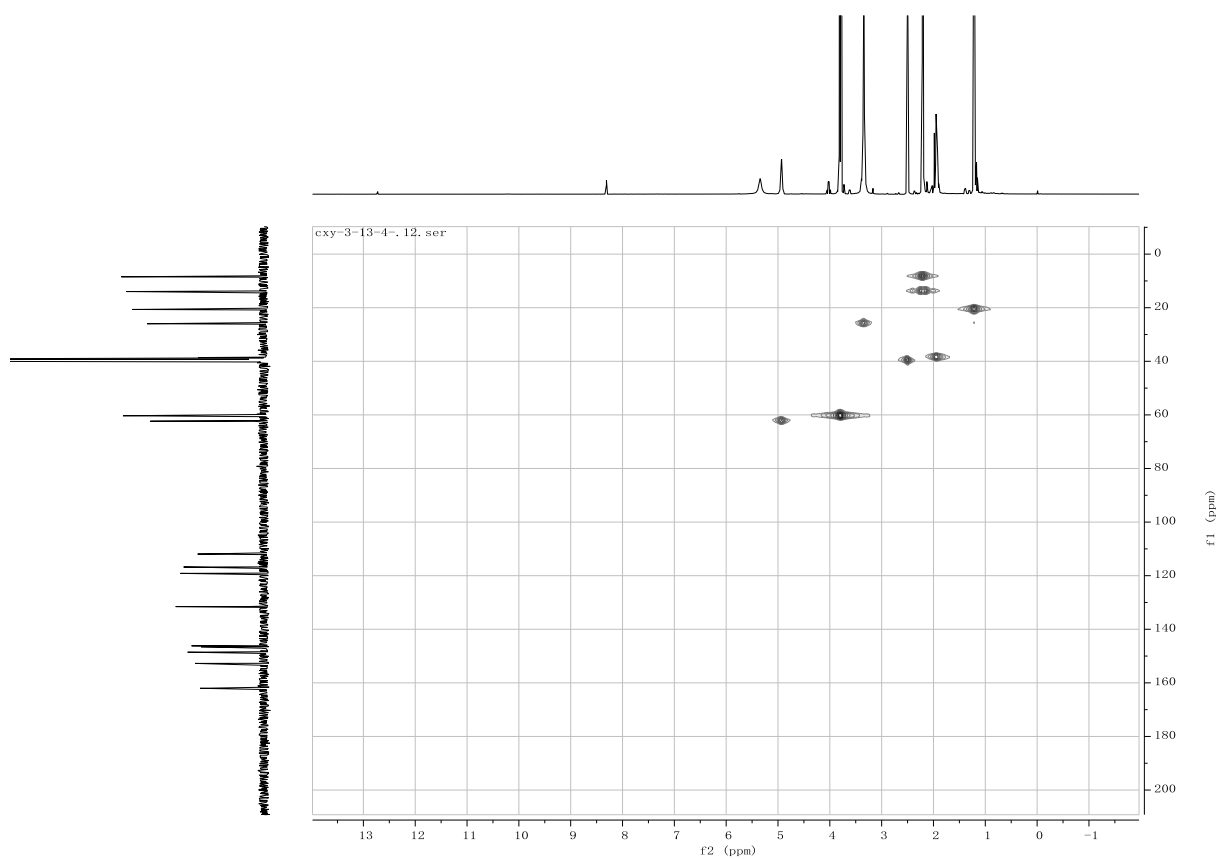


Figure S5. HSQC spectrum of ulmuselactone A (1) in DMSO- d_6 .

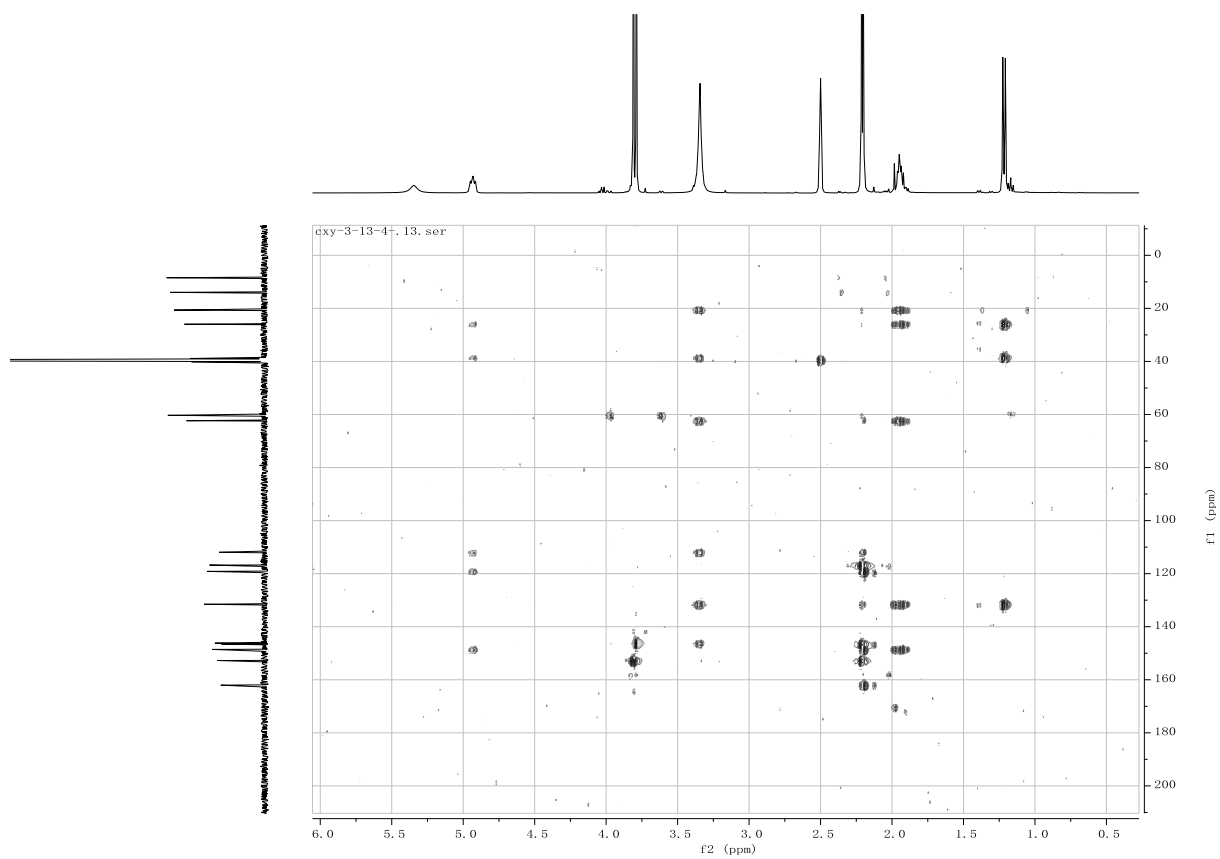


Figure S6. HMBC spectrum of ulmuselactone A (1) in DMSO- d_6 .

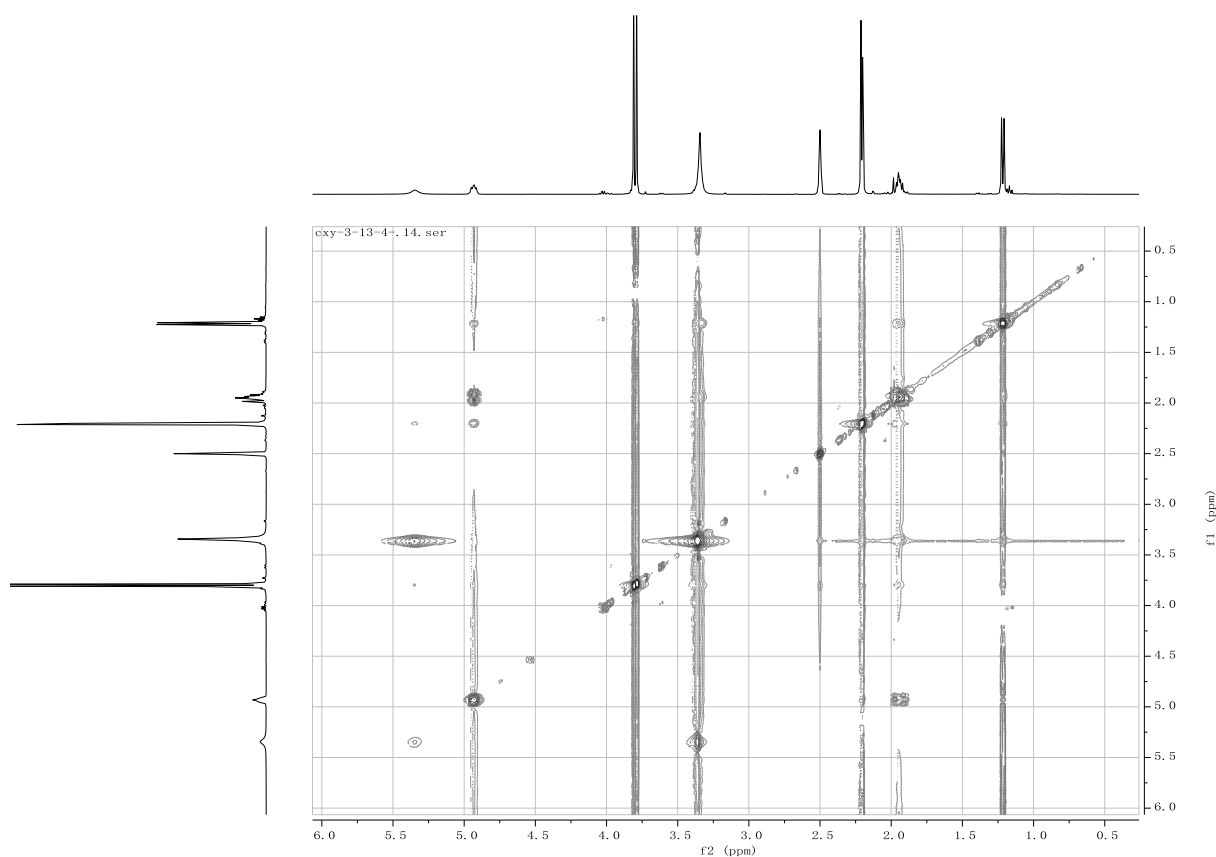


Figure S7. NOESY spectrum of ulmuselactone A (1) in DMSO- d_6 .

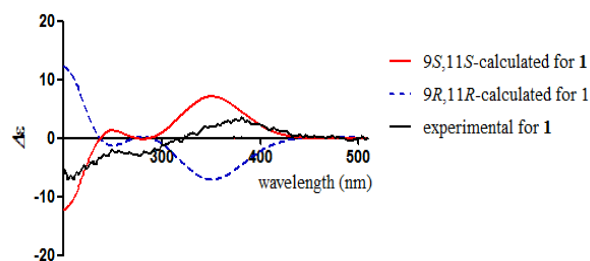


Figure.S8 The comparison of the calculation ECD spectrum for (9S,11S)-1 and (9R, 11R)-1 with the experimentation ECD spectrum.

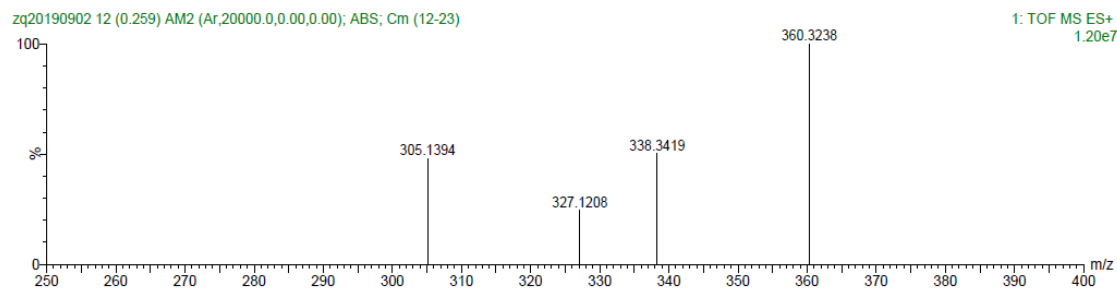


Figure S9. HRESI (+) MS spectrum of ulmuselactone A (1).