SUPPLEMENTARY MATERIAL

A New Triterpenoid Compound From stems and leaves of American ginseng

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Abstract A new dammarane-type triterpenoid compound was isolated from stems and leaves of American ginseng. The structure of the new sapogenin was elucidated by the combined analysis of NMR and HR-ESI-MS as dammar-20S, 25S-epoxy-3 β , 12 β , 26-triol (1). Compound 1 showed cytotoxic effect on human SM772 and human Hela cell in vitro.

Keywords: stems and leaves of American ginseng; dammarane-type triterpene; dammar-20S, 25S-epoxy-3 β , 12 β , 26-triol; cytotoxic effect

Supporting information

Figure S1. Key HMBC correlations of compound **1**

Figure S2. NOE correlations of compound **1**

Figure S3. Crystal structure of compound **1**

Figure S4. Inhibition of the growth of four cell lines by compound **1**

Figure S5. Comparison of the biological activity of compound **1** and cisplatin

Figure S6. HR- ESI- MS of compound **1**.

Figure S7. IR of compound **1**.

Figure S8. ¹H NMR spectrum (500MHz, pyridine-*d*₅) of compound **1**.

Figure S9. ¹³C NMR spectrum (500MHz, pyridine-*d*₅) of compound **1**.

Figure S10. HSQC spectrum of compound **1**.

Figure S11. HMBC spectrum of compound **1**.

Figure S12. ¹H-¹H-COSY spectrum of compound **1**.

Figure S13. NOESY spectrum of compound **1**.

Figure S14. Key HMBC correlations of compound **1**.

Figure S15. NOE correlations of compound **1**.

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Figure S4. Inhibition of the growth of four cell lines by compound 1

Figure S5. Comparison of the biological activity of compound 1 and cisplatin

Figure S6. HR- ESI- MS of compound **1**.

Figure S7. IR of compound **1**.

Figure S8. ^1H NMR spectrum (500MHz, pyridine- d_5) of compound **1**.

(1) ^1H NMR of compound **1**

(2) Partial enlargement of ¹H NMR of compound **1**

Figure S9. ¹³C NMR spectrum (500MHz, pyridine-*d*₅) of compound **1**.

(1) ¹³C NMR of compound **1**

(2) Partial enlargement of ^{13}C NMR of compound **1**

Figure S10. HSQC spectrum of compound **1**.

(1) HSQC of compound **1**

(2) Partial enlargement of HSQC of compound **1**

Figure S11. HMBC spectrum of compound **1**.

(1) HMBC of compound **1**

(2) Partial enlargement of HMBC of compound **1**

Figure S12. ^1H - ^1H -COSY spectrum of compound **1**.

(1) ^1H - ^1H -COSY of compound **1**

(2) Partial enlargement of ^1H - ^1H -COSY of compound **1**

Figure S13. NOESY spectrum of compound **1**.

(1) 1D NOESY of compound **1**. (H_{26} - H_{21} -NOE)

(3) Partial enlargement of 1D NOESY of compound **1**. (H₂₆-H₂₁-NOE)

Figure S14. Key HMBC correlations of compound **1**.

Figure S15. NOE correlations of compound **1**.

↔ NOE