SUPPLEMENTARY MATERIAL

A new furanosteroid from *Talaromyces* sp. lgt-4, a fungal endophyte isolated from *Tripterygiun wilfordii*

Kang-Kang Zhi\(^a\)\(^b\), Zhong-Duo Yang\(*\)\(^a\)\(^b\), Shuang-Yan Zhou\(^c\), Xiao-Jun Yao\(*\)\(^c\)\(^*\), Shuo Li\(^d\), Fei Zhang\(^a\)

\(^a\)School of Life Science and Engineering, Lanzhou University of Technology, Lanzhou 730050, PR China
\(^b\)The Provincial Education Key Laboratory of Screening, Evaluation and Advanced Processing of Traditional Chinese Medicine and Tibetan Medicine, School of Life Science and Engineering, Lanzhou University of Technology, Lanzhou, 730050, PR China
\(^c\)Department of Chemistry, Lanzhou University, Lanzhou, 730000, PR China
\(^d\)School of Chemical Biology and Biotechnology, Peking University Shenzhen Graduate School, Shenzhen 518055, PR China

Wortmannolol (1), a new furanosteroid, along with five known compounds, wortmannolone (2), ergosterol (3), \(p\)-hydroxyphenyl ethanol (4), trans-6-dodecene (5), (2\(Z\), 4\(E\)) \(-5\)-(8-hydroxy-1,5-dimethyl-3-oxo-6-oxabicyclo [3.2.1] octan-8-yl) -3-methylpenta-2,4-dienoic acid (6) were isolated from a fungal endophyte *Talaromyces* sp. lgt-4. Their structures were elucidated by IR, MS, 1D- and 2D-NMR spectra. Compound 1 show weak monoamine oxidase inhibitory activity.

**Keywords:** Furanosteroid; *Tripterygiun wilfordii*; Endophyte; *Talaromyces*
Contents:

Table S1. $^1$H- (600 M) and $^{13}$C-NMR (150M) data of compound 1-2

Figure S1. Key HMBC, $^1$H - $^1$HCOSY and NOESY correlations of 1

Figure S2. Calculated and experimental ECD spectra of 1

Figure S3. HRESI MS spectrum of compound 1

Figure S4. IR spectrum of compound 1

Figure S5. $^1$H-NMR of compound 1

Figure S6. $^{13}$C-NMR of compound 1

Figure S7. HMQC of compound 1

Figure S8. HMBC of compound 1

Figure S9. $^1$H-$^1$HCOSY of compound 1

Figure S10. NOESY of compound 1
Table S1. $^1$H- (600 M) and $^{13}$C-NMR (150M) data of compound 1-2* ($J$ in Herz)

|   | $^1$H | $^{13}$C |   | $^1$H | $^{13}$C |
|---|-------|----------|---|-------|----------|
| 1 | 3.70 (d, $J = 3.8$) | 55.94 | 3.70 (d, 4.0) | 55.7 |
| 2 | 3.45 (dd, $J = 3.7$, 2.7) | 54.88 | 3.47 (dd, 4.0, 2.4) | 54.7 |
| 3 | 5.21 (d, $J = 2.7$) | 61.10 | 5.23 (d, 2.4) | 60.9 |
| 4 | - | 121.95 | - | 121.8 |
| 5 | - | 143.22 | - | 143.0 |
| 6 | - | 146.76 | - | 146.2 |
| 7 | - | 176.43 | - | 175.8 |
| 8 | - | 136.63 | - | 135.1 |
| 9 | - | 161.74 | - | 162.0 |
| 10 | - | 42.48 | - | 42.4 |
| 11α | 2.81 (m) | 25.78 | 3.05 (m) | 25.3 |
| 11β | 2.83 (m) | 2.85 (m) | | |
| 12α | 1.45 (m) | 33.31 | 1.95 (m) | 28.7 |
| 12β | 2.04 (dd, $J = 12.8$, 7.2, 1.6) | 2.57 (m) | | |
| 13 | - | 44.48 | - | 48.9 |
| 14 | 2.31 (ddd, $J = 12.3$, 7.2, 3.5) | 44.86 | 2.71 (dd, 10.0, 2.8) | 45.0 |
| 15α | 2.64 (m) | 25.50 | 2.85 (m) | 23.9 |
| 15β | 1.67 (m) | 1.61 (m) | | |
| 16α | 2.15 (ddd, $J = 13.1$, 9.7, 5.4) | 31.56 | 2.25 (m) | 37.5 |
| 16β | 1.62 (m) | 2.01 (m) | | |
| 17 | 3.74 (dd, $J = 9.1$, 7.8) | 80.03 | - | 221.5 |
| 18 | 0.79 (s) | 11.27 | 0.91 (s) | 14.1 |
| 19 | 1.69 (s) | 28.97 | 1.67 (s) | 28.7 |
| 22 | 7.79 (s) | 147.10 | 7.81 (s) | 147.1 |

* NMR data were obtained in CD$_3$OD solutions. Assignments were aided by a combination of $^1$H-$^1$H COSY, HMQC and HMBC and NOESY experiments (Fig. 2).
Figure S1. Key HMBC, $^1$H-$^1$H COSY and NOESY correlations of 1.

Figure S2. Calculated and experimental ECD spectra of 1.
Figure S3. HRESI MS spectrum of compound 1.

NL: 7.95E5
C_{20} H_{22} O_{5} +H:
C_{20} H_{23} O_{5} 

RT: 0.01  AV: 1  T: FTMS + c ESI Full
ms
[100.00-2000.00]

Error=3.5 ppm
Figure S4. IR spectrum of compound 1
Figure S5. $^1$H-NMR of compound 1
Figure S6. $^{13}$C-NMR of compound 1
Figure S7. HMQC of compound 1
Figure S8. HMBC of compound 1
Figure S9. $^1$H-$^1$HCOSY of compound 1
Figure S10. NOESY of compound 1