SUPPLEMENTARY MATERIAL

A new lignan glycoside from the stems of *Zanthoxylum armatum* DC

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Abstract

A new lignan glycoside, (7*S*,8*R*)-guaiacylglycerol-ferulic acid ether-7-*O*- β -D-glucopyranoside (**1**), along with five known phenylpropanoids (**2-6**) and seven phenylpropanoid glycosides (**7-13**), were isolated from the stems of *Zanthoxylum armatum* DC. Their structures were elucidated by spectroscopic analysis. Compounds **2-8** and **11-13** were first isolated from Rutaceae and the others were isolated for the first time from *Z. armatum*.

Keywords *Zanthoxylum armatum*; Rutaceae; lignan glycoside; phenylpropanoid; phenylpropanoid glycoside

Supplementary material

Supplementary material relating to this article is available online, alongside Tables S1 and Figure S1-S5.

Table S1 ^1H - and ^{13}C -NMR spectral data of compound **1**

position	$^1\text{H}^{\text{a}}$	$^{13}\text{C}^{\text{b}}$	HMBC (C $\rightarrow$ H)
1		129.2 s	H-5, H-7
2	7.01 d (1.7)	111.0 d	H-6, H-7
3		146.2 s	H-2, H-5, H-10
4		144.3 s	H-2, H-5, H-6
5	6.82 d (8.8)	113.7 d	
6	6.91 dd (8.8, 1.7)	119.4 d	H-2, H-7
7	5.03 d (4.5)	79.7 d	H-1''
8	3.86 m	81.2 d	H-9
9a	3.68 m	59.8 t	H-7
9b	3.68 m		
10	3.73 s	55.0 q	
1'		127.8 s	H-5', H-7', H-8'
2'	7.17 d (1.7)	110.0 d	H-6', H-7'
3'		147.9 s	H-2', H-5', H-10'
4'		147.5 s	H-2', H-6', H-8
5'	6.81 d (8.8)	114.3 d	
6'	6.99 dd (8.8, 1.7)	120.4 d	H-2', H-5'
7'	7.25 d (16.0)	139.8 d	H-2'
8'	6.35 d (16.0)	121.6 d	H-7'
9'		175.2 s	H-7', H-8'
10'	3.86 s	54.7 q	
1''	4.61 d (7.6)	102.3 d	H-7, H-2''
2''	3.30 m	72.7 d	H-3''
3''	3.41 t (8.9)	74.8 d	H-4'', H-5''
4''	3.33 m	68.7 d	H-3''
5''	3.33 m	75.0 d	H-4''
6''a	3.68 m	59.7 t	
6''b	3.54 dd (12.3, 5.2)

Figure S1 Key HMBC (C→H) correlations of compound **1**

Figure S2 HR-ESI-MS of compound 1

Figure S3 ^1H spectrum of compound 1

Figure S4 ^{13}C spectrum of compound 1

Figure S5 Dept spectrum of compound 1