SUPPLEMENTARY MATERIAL

A new phenolic glycoside from *Saprosma merrillii*

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Abstract:

A new phenolic glycoside derivative, saproglucoside (**1**), along with five known phenolic glycoside derivatives (**2–6**) were isolated from the stems of *Saprosma merrillii*. The structure of the new compound **1** was determined by 1D and 2D NMR as well as by HRESIMS and hydrolysis. The inhibitory activities of all compounds against seven pathogenic bacteria and two cancer cell lines were evaluated.

Keywords: antibacterial activity; *Saprosma merrillii*; phenolic glycoside derivatives

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Figure S2. ^1H NMR spectrum of saproglucoside **1**

Figure S3. ^{13}C NMR spectrum of saproglucoside **1**

Figure S4. DEPT spectrum of saproglucoside **1**

Figure S5. HSQC spectrum of saproglucoside **1**

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Figure S7. ^1H - ^1H COSY spectrum of saproglucoside **1**

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Figure S9. ^1H NMR spectrum of (2S)-6- methoxyl-7-hydroxytropic acid (**1a**)

Figure S10. ^{13}C NMR spectrum of (2S)-6- methoxyl-7-hydroxytropic acid (**1a**)

Table S1. ^1H - and ^{13}C -NMR data (400 MHz, CD_3OD) for compounds **1** and **1a**
spectrum

position	1 (in CD_3OD)		1a (in CD_3OD)	
	δ_{H}	δ_{C}	δ_{H}	δ_{C}
1	4.04 (1H, dd, $J = 9.2, 8.0$ Hz, H-1 α)	65.4	4.06 (1H, dd, $J = 11.6, 9.2$ Hz, H-1 α)	64.9
	3.67 (1H, d, $J = 9.2$ Hz, H-1 β)		3.72 (1H, dd, $J = 11.6, 3.6$ Hz, H-1 β)	
2	3.63 (1H, d, $J = 8.0$ Hz)	55.5	3.58 (1H, dd, $J = 9.2, 3.6$ Hz)	54.8
3		176.8		177.2
4		129.3		129.1
5	6.90 (1H, br s)	112.8	7.05 (1H, d, $J = 1.2$ Hz)	112.6
6		149.0		147.9
6-OMe	3.84 (3H, s)	56.4	3.85 (3H, s)	56.5
7		147.0		147.2
8	6.74 (1H, d, $J = 8.0$ Hz)	116.3	6.70 (1H, d, $J = 8.0$ Hz)	116.5
9	6.76 (1H, d, $J = 8.0$ Hz)	121.9	6.79 (1H, dd, $J = 8.0, 1.2$ Hz)	122.6
1'	4.45 (1H, d, $J = 7.6$ Hz)	104.4		
2'	3.29 (1H, m)	74.7		
3'	3.37 (1H, m)	77.8		
4'	3.35 (1H, m)	71.2		
5'	3.30 (1H, m)	78.3		
6'	3.70 (1H, dd, $J = 5.6,$ 3.6Hz, H-6' α)	62.6		
	3.87 (1H, dd, $J = 5.6, 3.2,$ H-6' β)			
1''		105.2		
2''	4.58 (1H, s)	75.5		
3''		178.0		
4''	4.02 (1H, d, $J = 10.4,$ H-4''a)	41.9		
	4.00 (1H, d, $J = 10.4,$ H-4''b)			
5''	1.25 (3H, s)	23.0		
6''	1.13 (3H, s)	19.6

Figure S1. Key partial structures of Compound **1** from HMBC data and ^1H - ^1H COSY

Figure S2. ¹H NMR spectrum of saproglucoside **1**

Figure S3. ¹³C NMR spectrum of saproglucoside **1**

Figure S4. DEPT spectrum of saproglucoside 1

Figure S5. HSQC spectrum of saproglucoside 1

Figure S6. HMBC spectrum of saproglucoside **1**

Figure S7. ¹H-¹H COSY spectrum of saproglucoside **1**

Figure S8. HRESIMS of saproglucoside **1**

Figure S9. ^1H NMR spectrum of (2S)-6-methoxyl-7-hydroxytropic acid (**1a**)

Figure S10. ^{13}C NMR spectrum of (2S)-6-methoxy-7-hydroxytryptophan (**1a**)