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CHEMICAL CONSTITUENTS OF THE TWIGS AND LEAVES OF *Glycosmis montana*

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Glycosmis montana, a common shrub or small tree of the genus *Glycosmis*, is distributed mainly over Hainan and SE Yunnan. However, literature reports on the chemical constituents and pharmacological effects of *G. montana* are scarce. As part of our ongoing search for secondary metabolites from tropical plants, a careful investigation of the twigs and leaves of *G. montana* led to the isolation and identification of 31 compounds.

The structures of the isolates were determined by analysis of their spectroscopic data in comparison with reported values, and they were identified as 31 compounds: hortiamide (**1**) [1], dihydroalatamide (**2**) [2], dictamnine (**3**) [3], fagarine (**4**) [4], glycofoline (**5**) [5], *N*-*p*-coumaroyltyramine (**6**) [6], methyldambullin (**7**) [7], methylgerambullin (**8**) [7], methylgerambullone (**9**) [7], methylisogerambullone (**10**) [7], *N*-methylflindersine (**11**) [8], 2-hydroxy-2-(4-hydroxyphenyl)ethyl(trimethyl)ammonium (**12**) [9], kaempferol (**13**) [10], vitexin (**14**) [11], kaempferol-3,7-dirhamnoside (**15**) [12], rutin (**16**) [13], epifriedelanol (**17**) [14], friedelin (**18**) [15], isoarborinol (**19**) [16], cylindrin (**20**) [17], ursolic acid (**21**) [18], cholesterol (**22**) [19], β-sitosterol (**23**), β-daucosterol (**24**), phenylacetic acid (**25**) [20], 3,4-dihydroxybenzoic acid (**26**) [21], methyl-*p*-hydroxybenzoate (**27**) [22], isovanillin (**28**) [23], tetracosanoic acid (**29**) [24], glyceryl-1-tetracosanoate (**30**) [25], and bis(2-ethylhexyl)benzene-1,2-dicarboxylate (**31**) [26]. Compounds **1**, **2**, **6**, **11–13**, **17–20**, **22–26**, and **31** were obtained from the genus *Glycosmis* for the first time.

The air-dried and powdered stem bark of *G. montana* (6.5 kg) was extracted with 95% aqueous ethanol and filtered at room temperature for 12 h. The filtrate was concentrated under vacuum to give 655 g of crude residue. The filtrate was concentrated and extracted with petroleum ether, $CHCl_3$, ethyl acetate, and BuOH. The petroleum ether extract (127 g) was subjected to silica gel column chromatography eluted with a petroleum ether–acetone (100:0, 90:10, 80:20, 60:40, 50:50, 0:100) gradient system to furnish six fractions, (G1–G6). All fractions were collected and combined by monitoring with TLC. Compounds **17** (23 mg), **18** (300 mg), **19** (23 mg), **20** (23 mg), and **23** (100 mg) have been obtained from G2 by silica gel column chromatography and Sephadex column chromatograph. Similarly, we obtained compounds **7** (12 mg), **8** (20 mg), **21** (60 mg), **22** (60 mg), **24** (50 mg), **29** (80 mg), and **30** (70 mg) from other fractions. The $CHCl_3$ extract (121 g) was subjected to silica gel column chromatography eluted with a petroleum ether–ethyl acetate (80:20, 70:30, 60:40, 50:50, 30:70, 10:90) gradient system to furnish six fractions, (F1–F6). All fractions were collected and combined by monitoring with TLC. Compounds **25** (10 mg), **26** (25 mg), and **27** (10 mg) have been obtained from F1 by silica gel column chromatography and Sephadex column chromatograph. Similarly, we obtained compounds **1** (10 mg), **2** (20 mg), **3** (10 mg), **4** (10 mg), **5** (25 mg), **6** (45 mg), **7** (10 mg), **8** (10 mg), **9** (50 mg), **10** (50 mg), **11** (10 mg), **28** (8 mg), and **31** (50 mg) from other fractions.

Similarly, we obtained compounds **12** (100 mg), **13** (10 mg), **14** (220 mg), **15** (150 mg), and **16** (10 mg) from the ethyl acetate and BuOH extracts.

Compound **5** showed weak cytotoxic activity against HL-60, SMMC-7721, A-549, MCF-7, and SW480 cell lines [27]. The antibacterial activity of compounds **1–12** against ATCC25923, ATCCY0109, ATCC25922, and ATCC27853 was studied [28–31]. Compounds **4** and **9** showed weak antibacterial activity against ATCC25923 microbial strains.

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