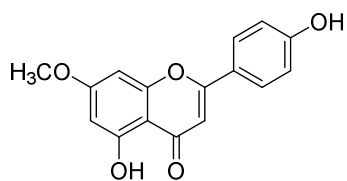


METHOXYLATED FLAVONES FROM *Moquiniastrum floribundum* (Asteraceae)

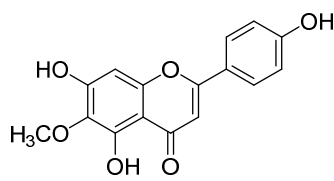
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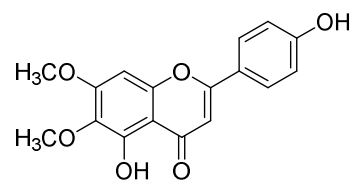
Abstract: The aim of this work is to report the first phytochemical study of *Moquiniastrum floribundum* (Cabrera) G.Sancho (Asteraceae). Aerial parts (421.68g) were collected in Licínio de Almeida, BA (A. Stadnik et al. 265, ALCB) and defatted with hexane and extracted exhaustively with MeOH at room temperature. The MeOH extract was resuspended in MeOH:H₂O (1:1 v/v) and then extracted successively with hexane, CH₂Cl₂, EtOAc e n-BuOH. The CH₂Cl₂ phase was subjected to CC over silica gel and eluted with hexane containing increasing amounts of EtOAc (up to 100%), then with EtOAc:MeOH (9:1→0:1) yielding 22 groups (D1- D22). The D9 and D11 groups were purified by preparative HPLC to give, respectively, compound **1** and compounds **2** and **3** with UV data characteristic of flavonoids. The ¹H NMR data of **1** furnished two doublets at δ 7.94 (2H, *J*=8.8Hz) and δ 6.96 (2H, *J*=8.8Hz) suggesting the presence of an aromatic ring B monosubstituted in C-4', as well as two doublets at δ 6.35 (1H, *J*=2.2Hz) e δ 6.75 (1H, *J*=2.2Hz) assigned, respectively, to H-6 and H-8. Additionally, two singlets at δ 6.80 (1H) and δ 3.85 (3H) were attributed to H-3 and a methoxy group, respectively. From the ¹³C NMR data and comparison with literature data¹, the compound **1** was identified as genkwanin. The ¹H NMR spectra of **2** and **3** showed signals at δ 7.89/7.94 (d, *J*=8.8Hz), δ 6.92/6.94 (d, *J*=8.8Hz), δ 6.73/6.80 (s), δ 6.58/6.80 (s) assigned, respectively, to H-2',6', H-3',5', H-3 and H-8 suggesting the presence of two flavones mono-substituted in ring B as **1**, as well as trisubstituted in ring A. Additionally on the ¹H NMR data of **2** were observed one other singlet at δ 3.75 (3H) assigned to methoxy group bonded to C-6 and confirmed through the ¹³C NMR data². Therefore, compound **2** was identified as hispidulin. In the ¹H NMR data of **3** still could be observed other two methoxyl groups at δ 3.72 and δ 3.90. From the ¹³C NMR data and comparison with literature data³, the structure of **3** was identified as cirsimaritin. Thus, three methoxylated flavones derived from apigenin were identified in the CH₂Cl₂ phase of *M. floribundum*. Due to its lipophilic nature, these compounds possibly are deposited on the leaf surface of the species forming a sunscreen barrier and/or preventing the loss of non-stomatal water.



Genkwanin (**1**)



Hispidulin (**2**)



Cirsimaritin (**3**)

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