Apigenin Di- and trirhamnoside from Asplenium normale in Malaysia

Abstract

Two new flavone rhamnosides, apigenin 7-O-a-L-rhamnopyranosyl- $(1\rightarrow 4)$ -O-a-Lrhamnopyranoside and apigenin 7-O-a-L- rhamnopyranosyl- $(1\rightarrow 4)$ -O-a-Lrhamnopyranoside-4'-O-a-L- rhamnopyranoside were isolated from the fronds of Asplenium normale D. Don, together with two known C-glycosylflavones, vicenin-2 and lucenin-2. The chemical structures of the isolated glycosides were established by UV, LC-MS, characterization of acid hydrolysates, and 1H and 13C NMR spectroscopy.