Supporting Information to:

Flavonol Glycosides from the South African Medicinal Plant

*Sutherlandia frutescens*

Xiang Fu¹, Xing-Cong Li², Yan-Hong Wang², Bharathi Avula², Troy J. Smillie², Wilfred Mabusela³, James Syce³, Quinton Johnson³, William Folk⁴, Ikhlas A. Khan¹,²

Affiliation

¹ Department of Pharmacognosy, the University of Mississippi, MS, USA
² National Center for Natural Products Research, the University of Mississippi, MS, USA
³ South African Herbal Sciences and Medicines Institute, University of the Western Cape, Bellville, South Africa
⁴ School of Medicine, University of Missouri-Columbia, Columbia, MO, USA

Correspondence

*Ikhlas A. Khan*

National Center for Natural Products Research
The University of Mississippi
38677 MS
USA
Tel.: +1-662-915-7821
Fax: +1-662-915-7989
ikhan@olemiss.edu
Fig. 1S 1H-NMR spectrum of compound 1.
Fig. 2S $^{13}$C-NMR spectrum of compound 1.
Fig. 3S DEPT spectrum of compound 1.
Fig. 4S HMQC spectrum of compound 1.
Fig. 5S HMBC spectrum of compound 1.
Fig. 6S COSY spectrum of compound 1.
Fig. 7S $^1$H-NMR spectrum of compound 2.
Fig. 8S 13C-NMR spectrum of compound 2.
Fig. 9S DEPT spectrum of compound 2.
Fig. 10S $^1$H-NMR spectrum of compound 3.
Fig. 11S $^{13}$C-NMR spectrum of compound 3.
Fig. 12S DEPT spectrum of compound 3.
Fig. 13S COSY spectrum of compound 3.
Fig. 14S 1H-NMR spectrum of compound 4.
Fig. 15S $^{13}$C-NMR spectrum of compound 4.
Fig. 16S DEPT spectrum of compound 4.
Fig. 17S COSY spectrum of compound 4.
Fig. 18S HMQC spectrum of compound 4.
Fig. 19S UV spectra of compounds 1–4.
Fig. 20S MS of compounds 1–4.
Fig. 21S HPLC sugar analysis for compounds 3 and 4. Injection volume: 10 μL; channel description: PDA 254.0 nm. Separation was achieved on a Gemini C18 110 Å column (150 × 4.6 mm i.d.; 5 μm particle size; Phenomenex Inc., Torrance, CA, USA) operated at 30 °C. The mobile phase consisted of water (A) and acetonitrile (B), both containing 0.1% acetic acid, which were applied in the following gradient elution: 0–20 min, 95% A/5% B to 60% A/40% B; 20–25 min, 60% A/40% B to 100% B. The flow rate was 1.0 mL/min. Minor characteristic peaks of sugar derivatives were also observed at 14.7 min, 14.9 min, 13.7 min, 14.2 min, and 15.2 min for D-xylose, L-xylose, D-glucose, L-glucose, and D-apiose, respectively.