Supporting information

New antidiabetic and free-radical scavenging potential of strictosamide in *Sarcocephalus pobeguinii* ground bark extract via effect-directed analysis

Imanuel Yüce^a, Huguette Agnaniet^b and Gertrud E. Morlock^{a*}

^aInstitute of Nutritional Science and Interdisciplinary Research Center (IFZ), Justus Liebig University Giessen, Heinrich-Buff-Ring 26-32, 35392 Giessen, Germany ^bLaboratory of Natural Substances and Organometallic Synthesis, University of Sciences and Techniques of Masuku, Faculty of Sciences BP. 943, Franceville, Gabon

*Corresponding author.

*E-mail: Imanuel.Yuece@chemie.uni-giessen.de (I.Y.).

*E-mail: ahuguette2001@yahoo.fr (H.A.).

*E-mail: Gertrud.Morlock@uni-giessen.de (G.E.M.).



Scheme S-1. Proposed fragmentation mechanism from ion 1 to 2.



Scheme S-2. Proposed fragmentation mechanisms from ion 2 to 3, 4 and 5.



Figure S-1. HPTLC-ESI⁺-HRMS spectrum of the standard strictosamide (I_{max} 9.3 x 10⁷) at hR_F 31.



Figure S-2. HPTLC-MS/MS spectra with a mass isolation at m/z 521.2 ± 0.4 recorded at a normalized collision energy (NCE) of 35, 50 and 65 of the standard strictosamide.



Figure S-3. HPTLC chromatograms at white light illumination (a) and UV 366 nm (b) of 100 μ g/band *SP* ground bark extract (1, 3) and 5 μ g/band strictosamide (2, 4) highlighted at $hR_{\rm F}$ 31 developed with mobile phase 9 on an HPTLC plate silica gel 60.



Figure S-4. HPTLC-UV/vis spectra of unknown zone from *SP* ground bark extract (red) and of strictosamide zone (black) both at $hR_{\rm F}$ 31.