

Supplementary Information

Isolation of Tiliroside from *Spiranthera odoratissima* as Inhibitor of *Trypanosoma cruzi* Glyceraldehyde-3-phosphate Dehydrogenase by Using Bioactivity-Guided Fractionation

Vivian E. Cornelio,^a Fernando V. Maluf,^b João B. Fernandes,^a Maria Fátima G. F. da Silva,^a Glaucius Oliva,^b Rafael V. C. Guido^b and Paulo C. Vieira^{*a}

^aLaboratório de Química de Produtos Naturais, Departamento de Química, Universidade Federal de São Carlos, 13565-905 São Carlos-SP, Brazil

^bInstituto de Física de São Carlos, Universidade de São Paulo, CP 369, 13560-970 São Carlos-SP, Brazil

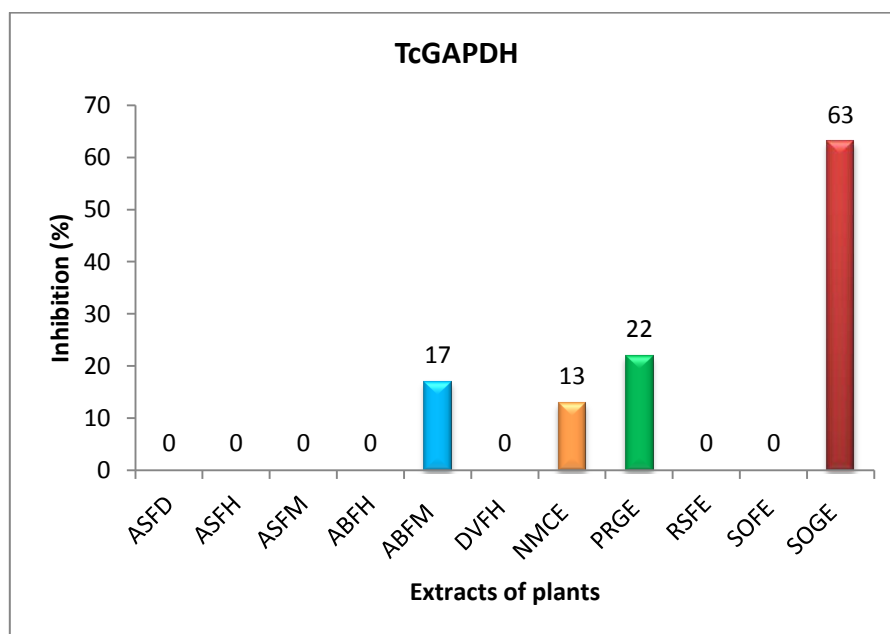


Figure S1. Inhibition of crude extracts of plants ($200 \mu\text{g mL}^{-1}$) against TcGAPDH. ASFD (dichloromethane extract of *Almeidea* sp. leaves), ASFH (hexane extract of *Almeidea* sp. leaves), ASFM (methanol extract of *Almeidea* sp. leaves), ABFH (hexane extract of *Angostura bracteata* flowers), ABFM (methanol extract of *Angostura bracteata* flowers), DVFH (hexane extract of *Dictyoloma vandellianum* leaves), NMGE (ethanol extract of *Neoraputia magnifica* steams), PRGE (ethanol extract of *Pilocarpus riedelianus* steams), RSFE (ethanol extract of *Rauia* sp. leaves), ethanol SOFE (extract of *Spiranthera odoratissima* leaves) and SOGE (extract of *Spiranthera odoratissima* steams).

*e-mail: dpcv@ufscar.br

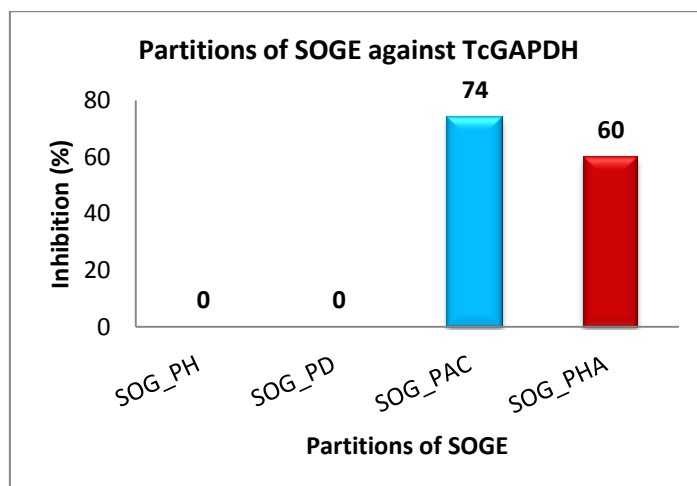


Figure S2. Inhibition of partitioned fractions from *S. odoratissima* ($200 \mu\text{g mL}^{-1}$) against TcGAPDH. SOG_PH (hexane partition of SOGE extract), SOG_PD (dichloromethane partition of SOGE extract), SOG_PAC (ethyl acetate partition of SOGE extract) and SOG_PHA (hydroalcoholic partition of SOGE extract).

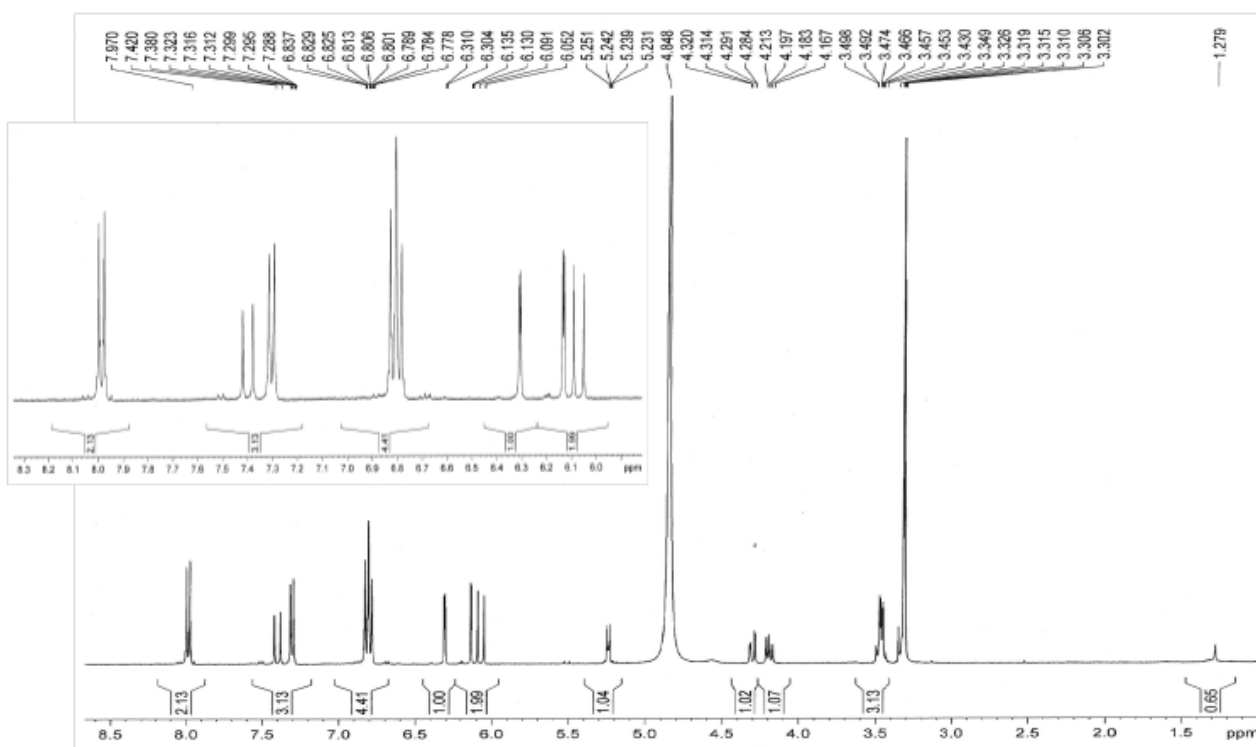


Figure S3. ^1H NMR spectrum (400 MHz, $\text{MeOH-}d_4$) of tiliroside.

Tiliroside

^1H NMR data obtained (400 MHz, $\text{MeOH-}d_4$) 6.13 (d, J 2.4 Hz, H-6), 6.30 (d, J 2.4 Hz, H-8), 7.98 (d, J 8.8 Hz, H-2''), 6.80 (t, J 8.8 Hz, H-3'''), 6.80 (t, J 8.8 Hz, H-5'), 7.98 (d, J 8.8 Hz, H-6'), 5.24 (d, J 8.0 Hz, H-1'''), 3.45 (m, H-2'''), 3.43 (m, H-3'''), 3.31 (m, H-4'''), 3.45 (m, H-5'''), 4.19 (dd, J 11.8, 2.6 Hz, H-6'''), 4.30 (dd, J 8.0, 6.4 Hz, H-6'''), 6.07 (d, J 15.8 Hz, H-2'''), 7.40 (d, J 15.8 Hz, H-3'''), 7.30 (d, J 8.8 Hz, H-5'''), 6.80 (t, J 8.8 Hz, H-6'''), 6.80 (t, J 8.8 Hz, H-8'''), 7.30 (d, J 8.8 Hz, H-9''').¹

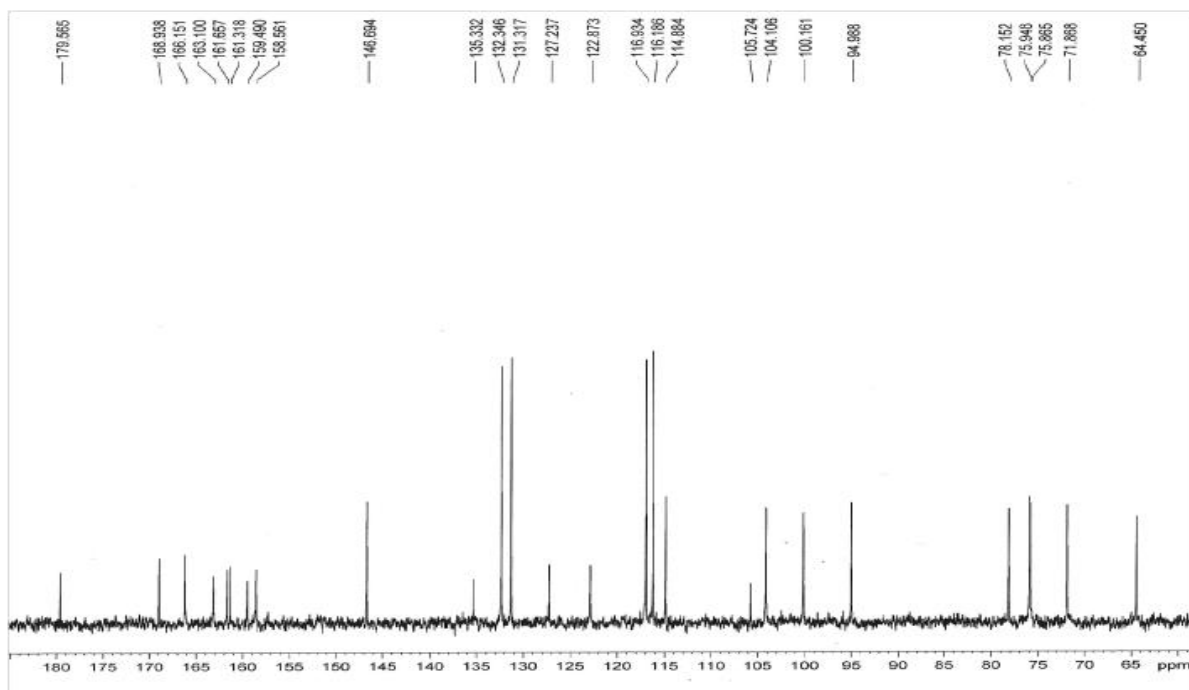


Figure S4. ^{13}C NMR spectrum (100 MHz, $\text{MeOH-}d_4$) of tiliroside.

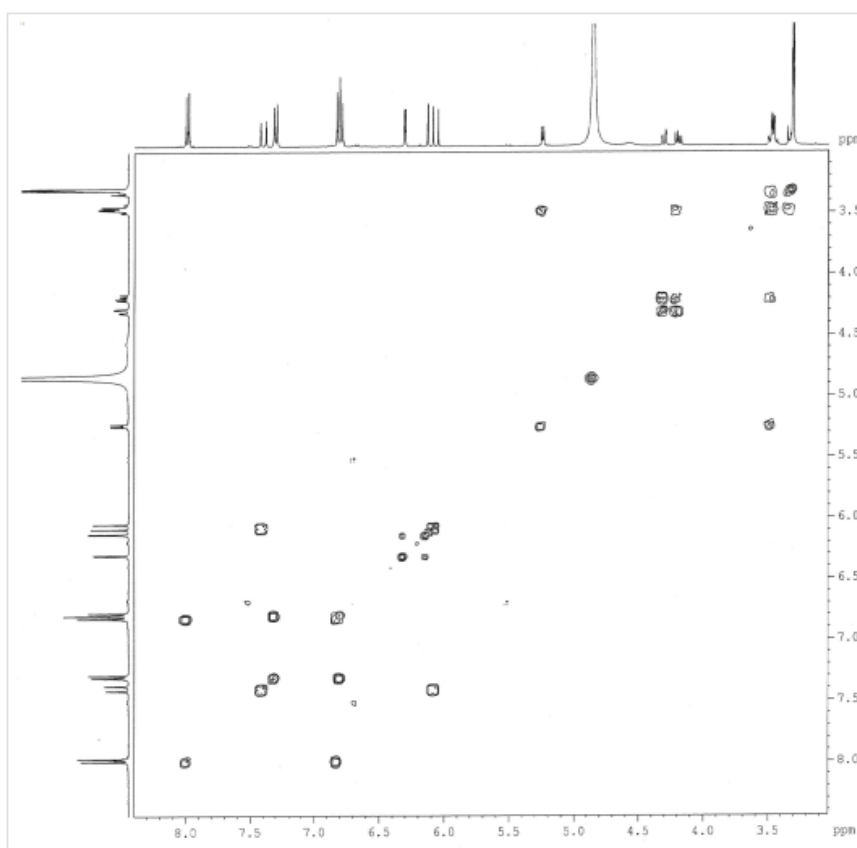


Figure S5. COSY spectrum (400 MHz, $\text{MeOH-}d_4$) of tiliroside.

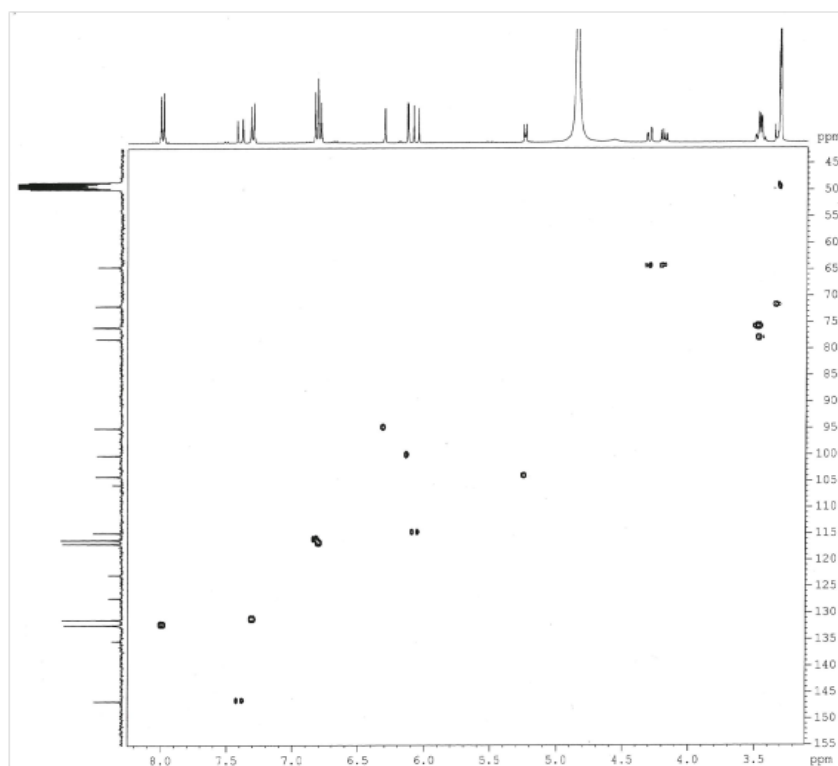


Figure S6. HSQC spectrum (400 MHz, MeOH-*d*₄) of tiliroside.

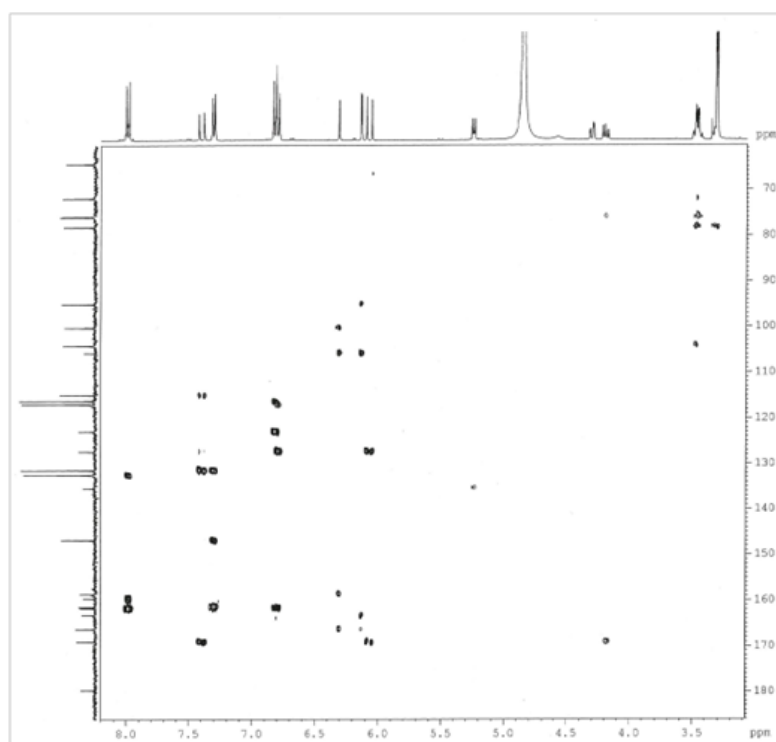


Figure S7. HMBC spectrum (400 MHz, MeOH-*d*₄) of tiliroside.

Reference

1. Tsukamoto, S.; Tomise, K.; Aburatani, M.; Onuki, H.; Hirorta, H.; Ishiharajima, E.; Ohta, T.; *J. Nat. Prod.* **2004**, *67*, 1839.