Supporting Information:

Cyclocurcumin, a Anti-Vasoconstrictive Constituent of Curcuma longa (Turmeric)

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Figure S1. Identification and quantification of compounds (C1 – C5) in C. longa extract.
Figure S1. Identification and quantification of major compounds (C1 – C5) in C. longa extract. (A) HPLC chromatogram of crude extract and C1 between 0 min and 10 min at 320 nm. (B) HPLC chromatogram of crude extract and C2 at 370 nm. (C) HPLC chromatogram of crude extract and (C3-C5). (D) Amount of C1 - C5 in crude extract (mg/g). C1: p-hydroxycinnamic acid, C2: cyclocurcumin, C3: bisdemethoxycurcumin, C4: demethoxycurcumin, C5: curcumin. Chromatographic analysis of crude extract was performed by using previous method (Jayaprakasha et al. 2002) with some modifications.
Briefly, Waters 2695 HPLC system equipped with C18 column (4.6 x 250 mm, Scinchrom) was used. Ten µL of sample was injected into column and run under a gradient elution of mobile phase as A= acetonitrile (0.1% formic acid), B= water (0.1% formic acid) for 0–20 minutes (A= 20–40%), 20–50 minutes (A= 40–80%) at a flow rate of 1 mL/min. The column eluate was monitored by PDA (2996) detector using three different wavelengths 320 nm for \( p \)-hydroxycinnamic acid (C1), 370 nm for cyclocurcumin (C2) and 425 nm for bisdemethoxycurcumin (C3), demethoxycurcumin (C4) and curcumin (C5). Compounds were quantified by constructing linear calibration curve with reference to standard compounds. Different concentrations of standard compounds were prepared in methanol as, \( p \)-hydroxycinnamic acid (0.031, 0.062, 0.125, 0.25 mg/mL), cyclocurcumin (0.062, 0.125, 0.25, 0.5 mg/mL), bisdemethoxycurcumin (0.5, 1, 2, 4 mg/mL), demethoxycurcumin (0.5, 1, 2, 4 mg/mL), and curcumin (0.5, 1, 2, 4 mg/mL). The amount of major ingredients present in 1 gram of crude extract was calculated as 0.17 mg (C1), 1.84 mg (C2), 36.26 mg (C3), 35.74 mg (C4) and 122.92 mg (C5).

Reference