

Supporting Information

Comparative Study of Chromatographic Medium-Associated Mass and Potential Antitumor Activity Loss with Bioactive Extracts

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Figure S4. HPLC analysis report of *Curcuma longa* powder EtOH extract (McCormick).

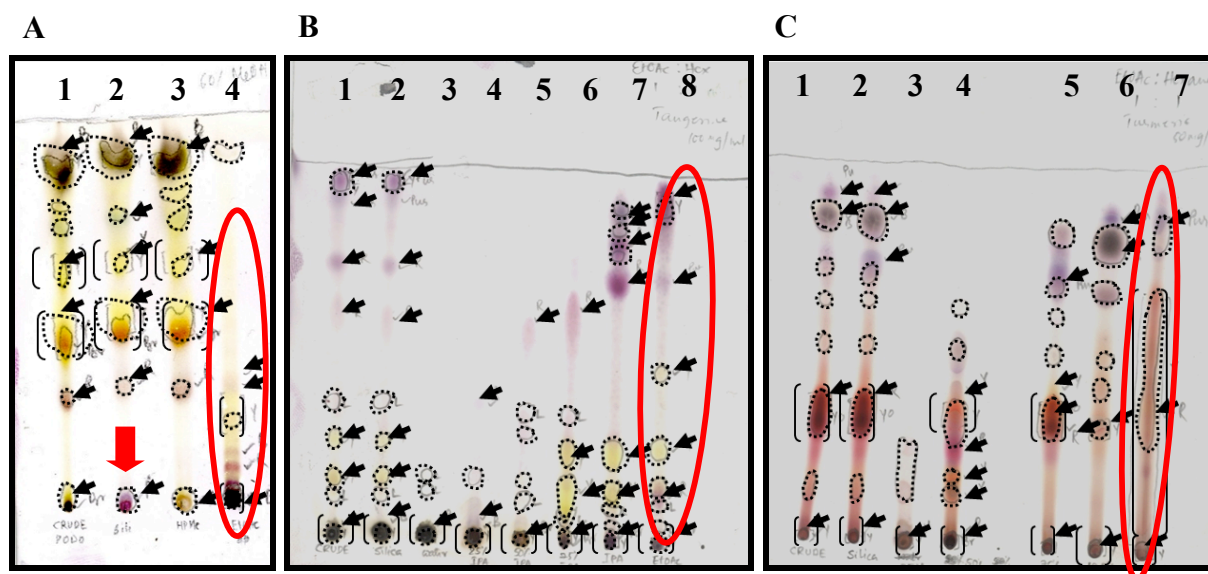


Figure S1. TLC analysis of the crude extracts and fractions exposed to elution with chromatographic media.

(A) TLC analysis of the *Podophyllum peltatum* crude extract exposed to elution with various chromatographic media. Notable chemical alterations in (Red arrow) and active phytochemicals retained in EtOAc eluent (solid circle); **1** – Crude *Po. peltatum* extract, **2** – Combined *Po. peltatum* fractions from a Si gel column, **3** – Combined water-MeOH fractions of *Po. peltatum* from a HP20SS column and **4** – EtOAc wash of *Po. peltatum* from a HP20SS columns after water-MeOH elution. C_{18} reversed-phase TLC eluted with 60% MeOH in water;

(B) TLC analysis of the *Citrus reticulata* crude extract and fractions exposed to elution with various chromatographic media. **1** – Crude *Ci. reticulata* extract, **2** – Combined *Ci. reticulata* fractions from a Si gel column, **3** – Water fraction of *Ci. reticulata* extract from a HP20SS column, **4** – Isopropanol-water (1:3) fraction of *Ci. reticulata* extract from a HP20SS column, **5** – Isopropanol-water (1:1) fraction of *Ci. reticulata* extract from a HP20SS column, **6** – Isopropanol-water fraction (3:1) of *Ci. reticulata* extract from a HP20SS column, **7** – Isopropanol fraction of *Ci. reticulata* extract from a HP20SS column and **8** – EtOAc wash after isopropanol-water elution of *Ci. reticulata* extract from a HP20SS column; active phytochemicals retained in EtOAc eluent (solid circle); Si gel normal phase TLC eluted with hexanes:EtOAc (1:1);

(C) TLC analysis of the *Curcuma longa* crude extract and fractions exposed to elution with various chromatographic media. **1** – Crude *Cu. longa* extract, **2** – Combined *Cu. longa* fractions from a Si gel column, **3** – Isopropanol-water (1:3) fraction of *Cu. longa* extract from a HP20SS column, **4** – Isopropanol-water (1:1) fraction of *Cu. longa* extract from a HP20SS column, **5** – Isopropanol-water (3:1) fraction of *Cu. longa* extract from a HP20SS column, **6** – Isopropanol fraction of *Cu. longa* extract and **7** – EtOAc wash of *Cu. longa* extract from a HP20SS column after isopropanol-water elution; active phytochemicals retained in EtOAc eluent (solid circle); Si gel normal-phased TLC eluted with hexanes:EtOAc (1:1).

Pigments = “bracketed” spots, UV_{254} -absorbing compounds = “dotted circles” and 10% ethanolic sulfuric acid-charred compounds = “arrows”.

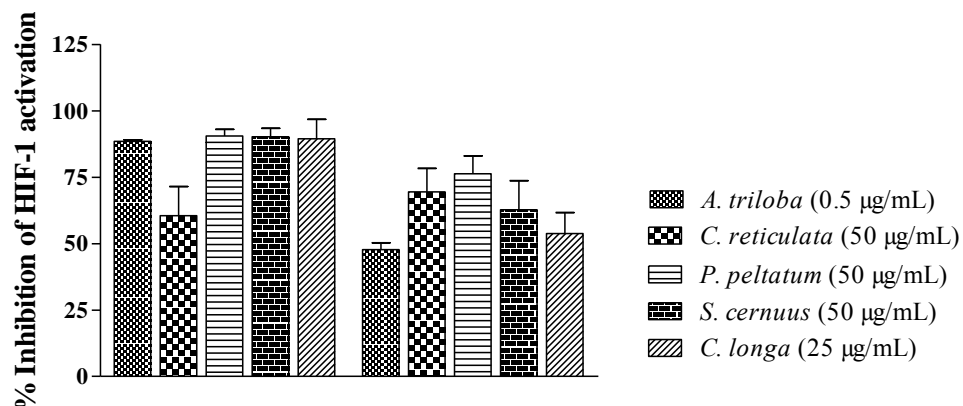


Figure S2. Inhibition of HIF-1 activation [hypoxia (1% O₂)-induced and 1,10-phenanthroline (1,10-phen)-induced] by extracts. Data shown are average + standard deviation ($n = 3$).

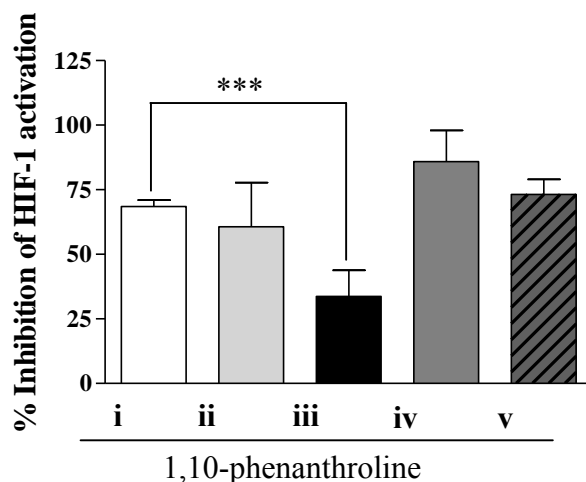


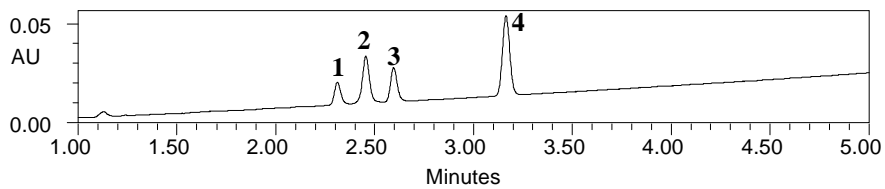
Figure S3. Inhibition of 1,10-phenanthroline-induced HIF-1 activation by recombined fractions obtained by passing *Citrus reticulata* extract over various media. [1 – Control, 2 – HP20SS, 3 – Si Gel, 4 – Diol, 5 – Sephadex LH-20]. Identical volumes of the stock solutions used to load the columns were placed in vials and dried ($n = 3$). The HIF-1 inhibitory activity of the dried materials served as controls. Data represent average + standard deviation ($n = 3$). Data was analyzed by one-way ANOVA with Bonferroni post hoc test; Differences between data sets were considered statistically significant when $p < 0.05$ (***) $p < 0.001$).

ANALYSIS REPORT

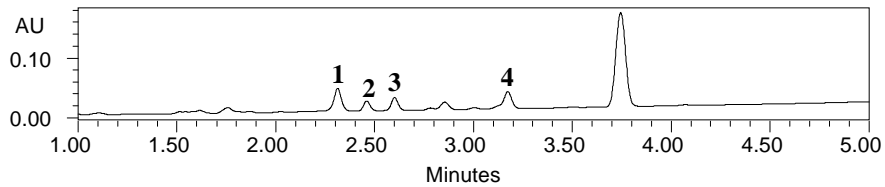
HPLC Chromatograms

UHPLC-UV analysis at 240 nm

Mixture of Standards [curcumin (1), desmethoxycurcumin (2), bisdesmethoxycurcumin (3) and ar-turmerone (4)]



***Curcuma longa* (MPG-A104)**



Nagle/Tumeric (01/2013)

