

**Supplementary Text 1** The MS conditions used to identify ginkgolic acids in the studied ginkgo kernels

Ginkgolic acids in ginkgo kernel juice were identified using a method described by Zhu et al.<sup>[1]</sup>, with some modifications. The identification of ginkgolic acid components was performed using a Waters Acquity UPLC system (Waters, Milford, MA, USA) coupled with a Triple-TOF-MS system (Triple-TOF 4600, AB SCIEX, USA) equipped with a DuoSpray™ ionisation source. The DuoSpray™ ionisation source incorporated Electrospray (ESI) and Atmospheric Pressure Chemical Ionization (APCI) inlets.

An ACQUITY UPLC BEH C18 column (2.1 × 100 mm I.D., 1.7 μm, Waters, Milford, USA) was used for the UHPLC separation system. The mobile phase consisted of a gradient of 0.1% acetic acid in A (0.1% formic acid, v/v) and B (acetonitrile), and the elution was performed using a gradient method. The UPLC linear gradient conditions were as follows: 0-7 min, 90-65% A; 7-11 min, 65-40% A; 11-14 min, 40-0% A; 14-16 min, 0-0% A. The flow rate was set at 0.4 mL/min, and the column oven was maintained at 30 °C. The injection volume was 1 μL. For MS/MS detection, mass spectrometry was performed using a Xevo Triple Quadrupole MS (Waters Corp., Milford, MA, USA) equipped with an electrospray ionization (ESI) source. The source parameters were configured as follows: the desolvation gas flow rate was set to 1,000 L/h at 550 °C, the cone gas flow rate was set at 50 L/h, and the source temperature was maintained at 150 °C. The capillary voltage was set to 3000 V. Data analysis was performed in PeakView 2.0™ (AB SCIEX, USA).

**Reference:**

[1] Zhu R, Shen J, Law CL, Ma X, Li D, et al. 2023. Combined calcium pretreatment and ultrasonic/microwave drying to dehydrate black chokeberry: Novel mass transfer modeling and metabolic pathways of polyphenols. *Innovative Food Science & Emerging Technologies* 83: 103215.