Supplementary materials for

Development of Caffeine-Free Kombucha Using Lotus Root Tea and Evaluation of Its Functional Properties

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Running title: Functional characterization of lotus root kombucha

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Table S1. β-glucuronidase inhibitory activity of lotus root kombucha fermented with varying concentrations of *Lactobacillus plantarum*.

	LK	LK-P0.5	LK-P1	LK-P3	LK-P5
β-glucuronidase inhibitory activity (%)	22.92 ± 3.79^{b}	35.56 ± 2.78^{ab}	39.92 ± 4.67^{a}	35.92 ± 5.94^{ab}	25.99 ± 7.87^{ab}

LK: Kombucha without *L. plantarum*; LK-P0.5, LK-P1, LK-P3, and LK-P5: Kombucha supplemented with 0.5, 1.0, 3.0, and 5.0 × 10^{9} CFU/mL of *L. plantarum*, respectively. All samples were fermented in a total volume of 3 mL.Different letters indicate significant differences among groups ($p < 0.05$) as determined by Tukey's test (SPSS, n = 3).

Table S2. pH of lotus root tea kombucha and *Lactobacillus*-fermented lotus root tea kombucha

	LK	LK-P1	LK-P3
pH	3.74 ± 0.02^{a}	3.43 ± 0.08^{b}	3.33 ± 0.15^{b}

LK: Kombucha without *L. plantarum*, LK-P1: Kombucha supplemented with 1.0×10^{9} CFU/mL of *L. plantarum*, LK-P3: Kombucha supplemented with 3.0×10^{9} CFU/mL of *L. plantarum*. Different letters indicate significant differences ($p < 0.05$) as determined by Tukey's test (SPSS, n =3).