SUPPLEMENTARY INFORMATION

Microfluidic spinning of fucoxanthin-loaded nanofibers for enhancing antioxidation and clarification of fruit juice

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Table S1. The binding energy and combination type of inclusion complex.

Target	Compound	Molar Ratio	Binding Energy (kcal/mol)	Combination Type
HP-γ-CD	Fucoxanthin	1:1	-8.46	Hydrogen bonds
HP-γ-CD	Fucoxanthin	1:2	-10.23	Hydrophobic interactive

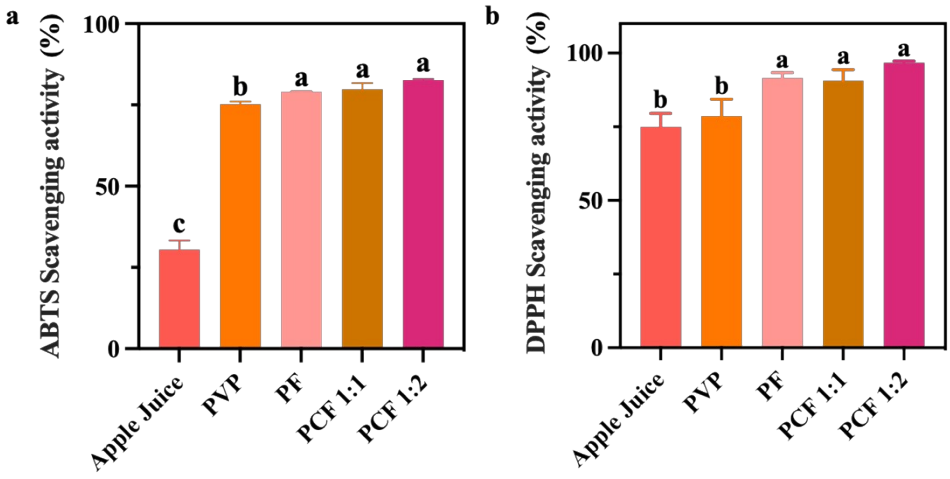

Figure S1. The (a) ABTS scavenging activity and (b) DPPH scavenging activity of apple juice treated with samples. Different letters represent significant differences ($p<0.05$).

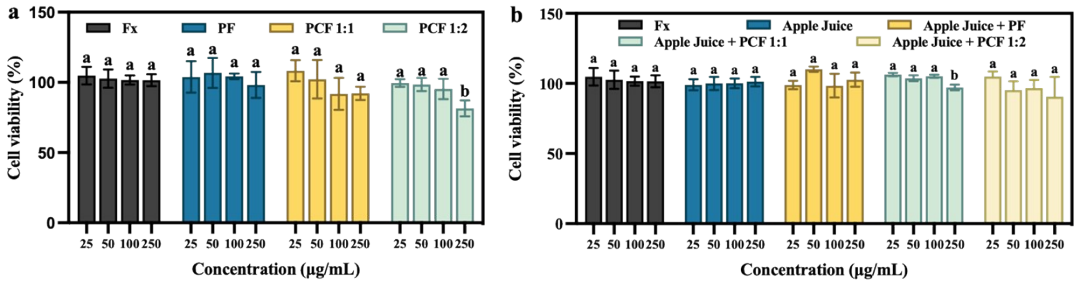

Figure S2. Cell viability of RAW264.7 cells incubated with (a) Fx, PF nanofibers, PCF 1:1 nanofibers and PCF 1:2 nanofibers. Cell viability of RAW264.7 cells after the treatment with Fx, apple juice, apple juice + PF nanofibers, apple juice + PCF 1:1 nanofibers and apple juice + PCF 1:2 nanofibers for 24 h at 37 °C. Data were represented as mean ± SD (n = 3).

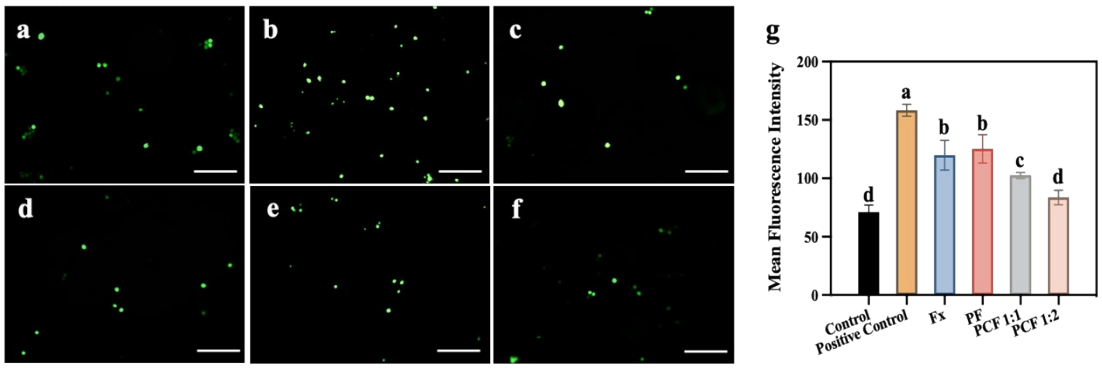

Figure S3. Fluorescent images of RAW264.7 cells stained with DCFH-DA after treatment of (a) DMEM medium (negative control), (b) H_2O_2 (positive control), (c) Fx+ H_2O_2, (d) PF nanofibers + H_2O_2, (e) PCF 1:1 nanofibers + H_2O_2, (f) PCF 1:2 nanofibers + H_2O_2. Relative fluorescence intensity of H_2O_2 after treatment of (g) samples. The scale bar stood for 130 μm.