

Figure S1. Characterization and purity analysis of the synthetic peptides. (A-E) HPLC chromatograms and corresponding mass spectra of peptides AHSVRF (A), HSVRF (B), SVRFY (C), SVRF (D), and FY (E). (F) Table summarizing the purity levels of all five peptides as determined by analytical HPLC. The purity of peptide AHSVRFY (> 99%) was confirmed in our previous study¹ and is not displayed here.

1. L. Hao, X. Gao, T. Zhou, J. Cao, Y. Sun, Y. Dang and D. Pan, Angiotensin I-converting enzyme (ACE) inhibitory and antioxidant activity of umami peptides after in vitro gastrointestinal digestion, *Journal of Agricultural and Food Chemistry*, 2020, **68**, 8232-8241.

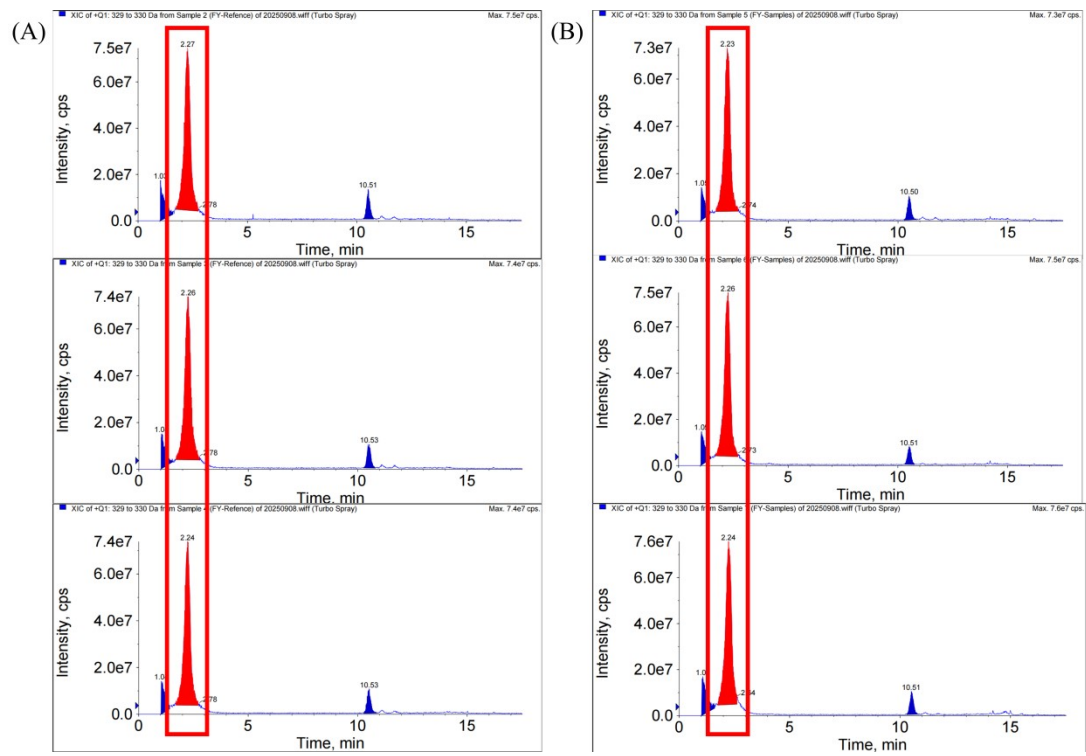


Figure S₂. Evaluation of FY stability under simulated gastrointestinal conditions. (A) Chromatogram of the control group. (B) Chromatograms of the FY samples after in vitro simulated digestion (n = 3).