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Supporting Information

## Modification of Natural Peptides and Their Hydroxyl Radical Quenching

## **Activities and Mechanism**

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**Fig. S1.** (a) ABTS scavenging capacity of glycine, aspartic acid, glutamine and tyrosine. (b) DPPH scavenging capacity of glycine, aspartic acid, glutamine and tyrosine



**Fig. S2.** The mass spectrum of Peptide, (a) P1 (YGDQY), (b) P2 (YYYGDQY), (c) P3 (YYGDQYY), (d) P4 (YYGPDQYY)



**Fig. S3.** (a) ABTS scavenging capacity of peptides (P0, P1, P2, P3, P4), (b) DPPH scavenging capacity of peptides (P0, P1, P2, P3, P4)



Fig. S4. Circular dichroic characterization of P1-P4.



**Fig. S5.** The effect of P1-P4 on cell morphology of UV-H<sub>2</sub>O<sub>2</sub> induced Caco-2 cells. (a) Caco-2 cells in normal control group. (b) Caco-2 cells model induced by UV-H<sub>2</sub>O<sub>2</sub>. (c) P1 group of Caco-2 cells

induced by UV-H<sub>2</sub>O<sub>2</sub>. (d) P2 group of Caco-2 cells induced by UV-H<sub>2</sub>O<sub>2</sub>. (e) P3 group of Caco-2 cells induced by UV-H<sub>2</sub>O<sub>2</sub>. (f) P4 group of UV-H<sub>2</sub>O<sub>2</sub> induced Caco-2 cells. The morphology of Caco-2 cells was observed by inverted phase contrast microscope.