

## Supporting Information

### Significantly enhanced antioxidant activity of chitosan through chemical modification with coumarins

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Table S1 Antioxidant activity<sup>a</sup> of chitosan and chitosan derivatives (**3A-3D**)

| Compound    | Lipid peroxidation | DPPH | •OH  | O <sub>2</sub> • <sup>−</sup> | Metal ion chelating |
|-------------|--------------------|------|------|-------------------------------|---------------------|
| Chitosan    | 0.37               | --   | --   | --                            | --                  |
| <b>3A</b>   | 0.14               | 0.14 | 0.11 | 0.48                          | 0.03                |
| <b>3B</b>   | 0.14               | 0.14 | 0.12 | 0.38                          | 0.04                |
| <b>3C</b>   | 0.13               | 0.13 | 0.09 | 0.37                          | 0.02                |
| <b>3D</b>   | 0.11               | 0.11 | 0.10 | 0.36                          | 0.02                |
| <b>Vc</b>   | 0.14               | <0.1 | --   | 0.02                          |                     |
| <b>EDTA</b> |                    |      |      |                               | 0.01                |

<sup>a</sup> The antioxidant activity was expressed as IC<sub>50</sub> (mg/mL).