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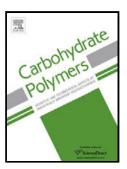
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## ACCEPTED MANUSCRIPT

Characterization, antioxidant and antiinflammation of mycelia selenium polysaccharides from *Hypsizygus marmoreus* SK-03

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### Highlights

- Mycelia selenium polysaccharides were obtained by *Hypsizygus marmoreus*.
- The structure characterizations of MSPS were analyzed.
- The antioxidation and antiinflammation of MSPS were investigated.
- Findings indicated that MSPS had potential protective effects on lung.

#### **ABSTRACT**

The synergistical action of inflammation response with oxidative stress has been reported to be response for the pathogenesis of lipopolysaccharide (LPS)-induced lung damage. In our present work, the antioxidative and anti-inflammatory efficacies of mycelia selenium polysaccharides (MSPS) from *Hypsizigus marmoreus* SK-03 in LPS-induced lung damaged mice, and its structure characterizations had been evaluated and analyzed. The animal investigations indicated that MSPS markedly ameliorated pulmonary injuries by the regulations of related inflammatory events via the observably antioxidant effects at the dose of 800 mg/kg. The characterizations showed that MSPS was a  $\alpha$ - and  $\beta$ -configurational semi-crystalline

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