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Structures, biological activities, and industrial applications of the polysaccharides from Hericium erinaceus (Lion's Mane) mushroom: A review

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Abstract

Hericium erinaceus (Bull.) Pers., also known as Yamabushitake, Houtou and Lion's Mane, is capable of fortifying the spleen and nourishing the stomach, tranquilizing the mind, and fighting cancer. Over the past decade, it has been demonstrated that H. erinaceus polysaccharides possess various promising bioactivities, including antitumor and immunomodulation, anti-gastric ulcer, neuroprotection and neuroregeneration, anti-oxidation and hepatoprotection, anti-hyperlipidemia, anti-hyperglycemia, anti-fatigue and anti-aging. The purpose of the present review is to provide systematically reorganized information on extraction and purification, structure characteristics, biological activities, and industrial applications of H. erinaceus polysaccharides to support their therapeutic potentials and sanitarian functions.

Keywords: Hericium erinaceus; Industrial applications; Polysaccharides.

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