



CHARACTERIZATION OF POLYSACCHAROPEPTIDES FROM *PLEUROTUS OSTREATUS* MYCELIUM: ASSESSMENT OF TOXICITY AND IMMUNOMODULATION *IN VIVO*

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ABSTRACT

Characterization of hot water polysaccharopeptides from the culture medium of *Pleurotus ostreatus* mycelium, as well as the assessment of its toxicity and immunomodulatory effects on mice, were carried out. Physicochemical studies revealed that the structure of crude polysaccharopeptides consisted mainly of β -D-glucans with (1 \rightarrow 3) (1 \rightarrow 6) glucosidic linkages, and they had a high molecular weight of 316.26 kDa. Acute toxicity studies showed that polysaccharopeptides were not lethal after 24 h, in mice given i.p. 854 mg/kg or less. Intraperitoneal administration of mice with polysaccharopeptides, at doubling doses (25, 50 and 100 mg/kg), thrice weekly for five consecutive weeks, has shown that although the lowest dose induced the maximum endogenous alpha-interferon production (213.2%), yet it reduced significantly the body weight gain of animals (39.56%) and exhibited a low mortality effect (12.50%) at the end of the experiment.

Key words: Physicochemical studies, *Pleurotus ostreatus*, polysaccharopeptides, serum interferon- α , toxicological studies.

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