Title: Protein-polysaccharides of Trametes versicolor: production and biological activities

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Abstract: Extracellular- (E-PPS) and intracellular-protein-polysaccharides (I-PPS) complexes were produced by Trametes versicolor in submerged cultures with different carbon sources. The highest extracellular-(EPS) and intracellular-polysaccharide (IPS) concentration in the complexes was obtained with tomato pomace culture. DPPH radical scavenging for E-PPS and I-PPS produced by liter of culture was equivallent to 2.115 +/- A 0.227 and 1.374 +/- A 0.364 g of ascorbic acid, respectively. These complexes showed a protector effect in the oxidation of erythrocyte membranes and had ability to inhibit the hemolysis and methemoglobin synthesis in stressed erythrocytes. These results suggest that extracellular- and intracellular- polysaccharides produced are important bioactive compounds with medicinal potential.

Author Keywords: Protein-Polysaccharides; Trametes Versicolor; Submerged Fermentation; Edible Mushrooms; Antioxidant Properties

KeyWords Plus: Submerged-Culture; Antioxidant Activity; Activity; Coriolus-Versicolor; Exopolysaccharide Production; Metabolite Production; Optimization; Morphology; Mushrooms

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