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Influence of Polysaccharide Krestin from *Coriolus versicolor* Extract on Nitrite and Malondialdehyde Concencentrations of *Mus musculus* Serum Exposed by *Mycobacterium tuberculosis*

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Abstract

Mycobacterium tuberculosis is a major infection agent of tuberculosis that is controlled by the response of cell-mediated immunity. It is macrophages and cytolytic T lymphocytes. Activated macrophages will produce free radicals. Excessive free radicals cause tissue damage. Polysaccharide krestin contains β-glucan. It is a scavenger of free radicals. This research aimed to identify the influence of polysaccharide krestin from *C. versicolor* on nitrite and malondialdehyde concentrations of mice serum exposed by *M. tuberculosis*. Nitrite concentration was determined by nitrite assay. Malondialdehyde concentration was determined by TBARS assay. The result showed that adding polysaccharide krestin before exposure (P1) and adding polysaccharide krestin before-after exposure (P3) had the best potential to decrease nitrite concentration. Nitrite concentrations of P1 and P3 were 1.364 ± 0.523 M and 1.456 ± 0.712 M respectively. Meanwhile, P1 group and adding polysaccharide krestin after exposure (P2) had the best potential to decrease malondialdehyde concentration. Malondialdehyde concentrations of P1 and P2 were 1125.86 ± 97.96 μM and 953.86 ± 328.16 μM respectively. Their nitrite and malondialdehyde concentrations decreased, compared to K and K- groups. The research conclusion was that adding polysaccharide krestin before exposure could decrease both nitrite and malondialdehyde concentrations.

How to Cite

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