Genotoxicity Analysis of Extracellular Polysaccharopeptide from Trametes versicolor LH1

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ABSTRACT

Coriolus versicolor (syn. Trametes versicolor) is a mushroom belonging to species of the Basidiomycetes class and the fungus can be grown in submerged fermentation as mycelia biomass. The best known commercial products of C. versicolor are polysaccharopeptide (PSP) and polysaccharopeptide Krestin (PSK) form China and Japan, respectively. The intracellular polysaccharopeptide of C. versicolor were found to have anticancer, antioxidative, antimetastatic and immunoregulatory activies. Recently, a strain of C. versicolor named LH1 was identified and has been reported that the extracellular polysaccharopeptides (ePSP) had different compositions in simple sugar, protein and beta-glucan compared to PSP and PSK. The polysaccharide-triterpepoids separated from the C. versicolor LH1 exhibited strong α-glucosidase inhibiton and potential antidiabetic activity. In this study, extracellular polysaccharopeptide (ePSP) from domestic Coriolus versicolor strain LH1 was subjected to genotoxicity analysis. Ames test, mouse lymphoma tk assay and micronuclei test were performed in genotoxicity analysis. The ePSP showed no genotoxicity effect on bacteria, animal cell or animal, even in the maximum concentration experiments.

Keywords: Coriolus versicolor

genotoxicity

REFERENCES

