雲芝胞外多醣?基因毒理及生物活性分析

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摘 要

雲芝(Trametst versicolor)為腐生真菌，屬於一種珍貴藥材，目前在中國及日本已有利用雲芝所萃取出的多醣?做為臨床用藥，其具有可以抑制腫瘤、增加免疫調節等功效。本研究為利用本土雲芝LH1所萃取出的雲芝胞外多醣?ePSP進行基因毒理及生物活性分析。基因毒理實驗包含安姆測試、鼷鼠淋巴瘤tk+/-分析法及嚙齒類周邊血液之微核測試法。生物活性分析則進行抗致突變試驗、抑癌測試及抗氧化功能評估。 在基因毒理試驗中，雲芝胞外多醣?ePSP不論是在細菌、動物細胞及動物的篩檢模式下，使用最高劑量後皆沒有導致基因突變或傷害的可能性；在抗致突變試驗中，ePSP可以使Salmonella typhimurium TA98及TA100在不含S9時，抑制率為71.9%及84.4%；而在含S9時，TA98及TA100的抑制率為50.9%及76.5%。在腫瘤抑制中，ePSP在 1.25 mg/ml濃度下，對偏正常細胞 (CHO-K1)沒有毒殺性，但對HepG2 (肝癌細胞)及MCF-7 (乳癌細胞)則分別有66%及48%的細胞生長抑制率。在抗氧化活性中，ePSP的濃度越高，對活性氧自由基(ROS)的抑制率會增加，同時可以讓細胞內的Glutathione (GSH)具有明顯上升的趨勢，已達清除氧化壓力的目的。

關鍵詞 : 雲芝、胞外多醣?、安姆測試、鼷鼠淋巴瘤tk+/-分析法、微核試驗、抗致突變、抗氧化、抗腫瘤

目錄

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