

虎杖萃取液的抗氧化與抑制酪氨酸酵素之研究

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摘要

本研究以 100% 純水、10% 與 70% 乙醇分別萃取傳統中草藥虎杖中有效成分-白藜蘆醇，並進行萃取液中白藜蘆醇的定量分析，及其抗氧化與抑制酪氨酸酵素之評估。實驗結果顯示，以 70% 乙醇萃取所得冷凍乾燥萃取物含量 (30% 萃取率) 與白藜蘆醇含量 (1.57% 乾重) 為最高。在 DPPH 抗氧化試驗中，除了最佳抗氧化之冷凍乾燥 70% 乙醇萃取液之外，其它萃取液之抗氧化活性隨其添加濃度或白藜蘆醇含量之增加而先行增加，而後隨其濃度或含量增加而漸降低其活性，冷凍乾燥 70% 乙醇萃取液隨其添加濃度或白藜蘆醇含量之增加而先行略降低其抗氧化活性，而後有漸增加其活性之趨勢。在抑制酪氨酸酵素活性方面，除了熱烘乾燥 100% 純水與 10% 乙醇萃取液可維持 80%~90% 酪氨酸酵素相對活性外，仍以冷凍乾燥 70% 乙醇萃取液的抑制酪氨酸酵素效果為最佳，但其添加濃度必須超過 1000?g/mL 或白藜蘆醇含量超過 15.7 ?g 時，其酪氨酸酵素相對活性將由原有 70% 逐漸下降，換言之，其抑制酪氨酸酵素效果則逐漸明顯而有效。由此可知，以 70% 乙醇萃取虎杖可得到最高冷凍乾燥萃取物含量與白藜蘆醇含量，其抗氧化活性與抑制酪氨酸?功效為最佳。

關鍵詞：虎杖、白藜蘆醇、抗氧化、酪氨酸酵素

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