

市售當歸之水相萃取：溫度與壓力對機能性成分之影響

林明丘、游銅錫；陳齊聖

E-mail: 9601091@mail.dyu.edu.tw

摘要

本研究以當歸為材料，分成常溫常壓與高溫高壓等二種不同處理之當歸樣品，以水萃取其抗氧化活性成份，並探討當歸樣品水萃取液之抗氧化活性。結果發現，在亞鐵離子螯合能力方面以高溫高壓處理的當歸樣品，在一定的固液比下，其亞鐵離子螯合能力都較常溫常壓處理為佳。在DPPH自由基之清除能力方面，高溫高壓下的當歸萃取液優於常溫常壓處理當歸萃取液，此外，不管是常溫常壓或高溫高壓處理下，皆在高固液比(16 mg/mL)時，有很強的DPPH自由基之清除能力。就抗氧化活性成分之定量分析而言，於總類黃酮素含量和總多酚類之含量分析上，不論是常溫常壓與高溫高壓下處理的當歸樣品含量均不高。不過，高溫高壓處理下的當歸樣品，其含量都比常溫常壓下處理較高。而在操作溫度為25、60、100及125下，在亞鐵離子螯合能力、總類黃酮素、DPPH清除能力及總多酚類方面抗氧化活性皆是隨著溫度上升，其抗氧化活性和機能成分也隨之增加。

關鍵詞：當歸；抗氧化性；溫度與壓力

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