省產青花菜之抗氧化性研究

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摘 要

本研究將省產青花菜（BRASSICA OLERACEA L VAR ITALICA PLENCK）分為花、莖、葉三部分，經由冷凍乾燥處理之後，利用甲醇、水、丙酮三種溶劑萃取，並測其萃取液之抗氧化性。抗氧化性測定項目包括還原力、亞鐵離子螯合能力及A,A-DIPHENYL-B-PICRYLHYDRAZYL（DPPH）自由基之清除能力、抗過氧化性、超氧陰離子清除能力，並與BHA及A-生育醇作比較。結果顯示，全部三個部位，以甲醇與水之萃取液有較高之還原力，而丙酮萃取液最低；在莖的部位，顯示出比BHA與A-生育醇高出1.3倍之還原力；而葉的萃取液和BHA與A-生育醇有相當之還原力；花的萃取液之還原力最低，只有BHA及A-生育醇之四分之三。青花菜之甲醇與水之萃取液也具有高螯合力；而丙酮萃取液為最低；在青花菜之三部位中，以莖的部位具有最高的螯合能力；莖的丙酮萃取液與BHA及A-生育醇一樣，幾乎沒有任何的螯合能力。花的甲醇萃取液在青花菜之三部位中，有最高之DPPH自由基清除能力（＞90%）；而它與BHA及A-生育醇之DPPH自由基清除能力相近；而水萃取液只有43%之DPPH自由基清除能力；丙酮萃取液幾乎沒有DPPH自由基清除能力。在青花菜甲醇萃取液之抗過氧化性方面，其活性大小依序為BHA　A-生育醇＞花　葉＞莖。在超氧陰離子清除能力方面，以莖的甲醇萃取液最高，其次是花，而葉的部位最低。在抗氧化活性成分分析方面，抗壞血酸含量之大小依序為莖＞花＞葉，類黃酮素含量之大小依序為葉＞花＞莖，類胡蘿蔔素含量之大小依序為葉＞花＞莖，多酚類化合物含量之大小依序為葉＞莖＞花。

關鍵詞 : 青花菜，抗氧化性，還原力，亞鐵離子螯合能力，DPPH自由基清除能力，抗過氧化性，超氧陰離子清除能力。

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