

大蒜功能性食品之抗氧化能力

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摘要

本研究採用市售四種大蒜功能性食品與新鮮大蒜樣品，進行抗氧化活性試驗及HPLC分析。抗氧化活性測試包含清除DPPH陰離子自由基能力、還原能力、亞鐵離子螯合能力及清除ABTS陽離子自由基能力的測試。結果顯示，市售大蒜功能性食品，清除DPPH陰離子自由基能力：以品項C較佳為30.6%，品項B較低5.17%；相對還原能力：品項A較佳為0.70，品項C較低為0.22；亞鐵離子螯合能力：品項A較佳為55.53%，品項D較低17.33%；清除ABTS陽離子自由基能力：品項C較佳為14.22%，品項D較低為9.64%。另討論功能性食品售價及HPLC分析：四種樣品單顆膠囊售價，最高5.00元，最低2.22元，價差差異達2.25倍；HPLC分析，以3 min出現之波峰計算大蒜成分面積比例，品項A 68.29%、品項B 20.06%、品項C 22.79%、品項D 58.08%、新鮮大蒜萃取液 74.38%、脫水大蒜萃取液 95.87%，四種食品以品項A比重最高；波型以品項A最接近新鮮大蒜成分分佈。整體研究以品項A在大蒜功能性食品中具有最佳的成本效益值(capacity/price)。

關鍵詞：大蒜、大蒜素、抗氧化活性、HPLC

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