

探討十字花科植物中的植化素萃取與分析

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摘要

研究顯示攝取植化素與預防糖尿病、癌症、心血管疾病等之間存有重要的關係，如今含植化素的功能性食品和營養補充品被用作許多疾病的預防措施或治療方法，其產量、純度和結構穩定性取決於萃取方法、所用溶劑、溫度和時間，基於以上所述進行研究分析。本次報告主要目的為探討各類植化素所應對的萃取方式及萃取參數，結果顯示各項植化素的含量在不同十字花科蔬菜之間有顯著差異，其中球芽甘藍中芥子油苷的含量 (>1 g/kg fw) 明顯高於綠花椰 (<0.3 g/kg fw) 或其他蔬菜，白花椰酚類化合物的含量是所有品種中最高的 (<6.7 mg/100 g dw)，而綠花椰的酚類化合物種類是所有品種中最多的，蘿蔔中的酚酸含量較其他樣品高，尤其是 4-HBA，蘿蔔根部的酚酸濃度 (1.32 - 4054 ng/g) 高於蘿蔔斑和蘿蔔葉 (0.78 - 1477 ng/g & 1.63 - 1663 ng/g)，我們可以將這些植化素應用在醫療或是保健品上，以促進健康和預防疾病等。

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