

白點症病毒結構性蛋白質VP38A(ORF314)之特性分析

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摘要

白點症病毒 (White spot syndrome virus, WSSV) 是一個大型的DNA病毒，其病毒顆粒由三個結構層環狀圍繞核心DNA所組成，此三個結構層分別為外套膜、中間層及核鞘蛋白。本實驗針對白點症病毒結構性蛋白質VP38A (WSSV-T1 ORF314, GenBank accession no. AF440570) 從事其特性分析。以不同鹽濃度之Triton X-100溶液處理病毒顆粒，將其結構剝離後以西方墨點法 (Western blot)及免疫電顯分析，證實VP38A為外套膜蛋白質；膜拓撲學分析顯示VP38A不具穿膜區且暴露在病毒顆粒外；免疫共沉澱分析顯示VP38A會與VP28及VP51A交互作用，但不會與VP19、VP24、VP26、VP32、VP37及其自身有交互作用。在先前以酵母菌雙雜交篩選白點症病毒基因庫的實驗中發現，VP38A具有自體激活之特性，在本研究中此現象也再度被確認，表示VP38A可能為一轉錄因子。以上結果顯示VP38A在白點症病毒感染與複製是重要甚至不可或缺的。

關鍵詞：白點症病毒、VP38A、結構性蛋白質、交互作用、自體激活

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