含硫率對磺酸幾丁聚醣與磺酸苯幾丁聚醣抑菌作用及水溶性之影響

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摘 要

利用來自蝦殼的幾丁聚醣產品，以化學法製造出不同去乙醯度（DD）的幾丁聚醣，分別在 PYRIDINE 及 METHANOL 相中，進行化學修飾，得磺酸幾丁聚醣（SC）和磺酸苯幾丁聚醣（SBC）。本研究選擇不同含硫率（1～5%）及不同去乙醯度的 SC 及 SBC 對 ESCHERICHIA COLI （CCRC 10674）、SALMONELLA TYPHIMURIUM （CCRC 10746）及 STAPHYLOCOCCUS AUREUS （CCRC 12652）做最低抑菌濃度（MIC）的測試，更進一步探討含硫率對 SC 及 SBC 水溶性之影響。研究結果顯示，溶解度隨著含硫率的增加而增加，然而含硫率的增加並不會有較好的抑菌效果，另一方面，不同的菌株對含硫率的敏感度不一，所以各種菌株對含硫率的要求也不盡相同。而去乙醯度也會影響 SC 及 SBC 的性質。SC 及 SBC 均比幾丁聚醣有較顯著的抑菌效果，且 SBC 富水溶之特性，可增加未來應用之潛力。

關鍵詞 : 去乙醯度、含硫率、幾丁聚醣、磺酸幾丁聚醣、磺酸苯幾丁聚醣、最低抑菌濃度

目錄

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