細菌 TKU008 所生產幾丁質?﹚帛J白?﹚妖瞻　崛w性

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摘 要

本實驗研究目的為篩選能發酵蝦蟹殼幾丁質，具胞外蛋白?◆P幾丁質?‘ 芠ヵ鄀O之本土菌株，探討其較適培養條件及酵素之純化分離及定性。所得發酵上清液胞經硫酸銨沉澱、透析去除鹽類，DEAE-Sepharose及Sephacryl S-100管柱層析之分離步驟，純化出經由SDS – PAGE測得分子量分別為40 kDa與57 kDa之蛋白?﹚帤X丁質?｛C 細菌TKU008篩自台灣南部土壤，以蝦蟹殼粉(SCSP)當作主要碳源；此菌較適培養條件為 1 % SCSP、0.05 % MgSO4 ． 7H2O、0.1 % K2HPO4於pH 7、100mL、30℃，150 rpm條件下，進行振盪培養4天後，可得最佳之蛋白?﹚帤X丁質?′ 〝吽CTKU008以酪蛋白為基質所得到蛋白?〇拇ApH、最適反應溫度、pH穩定性及熱穩定性分別為pH 7，50℃，pH 6 及 30℃；以懸浮態幾丁質為基質所得幾丁質?﹚妊拇ApH、最適反應溫度、pH穩定性及熱穩定性分別為pH 6, 50℃, pH 7及 30~40℃。蛋白質?﹚妞〝咨^收率為1%，純化倍數為2倍，比活性為0.36 U/mL，幾丁質?﹚妞〝咨^收率為50 %，純化倍數為134倍，比活性為7.56 U/mL。由於蛋白質?′〝吩i被EDTA完全抑制，而可歸類為金屬型蛋白質；蛋白質?◆P幾丁質?“ ” Cu2+ 、Mn2+抑制，蛋白質?◆P幾丁質?★鴿顝珒?晙伱惇〝尨祐′蛩篳酋w；其中蛋白?’b有機溶劑中儲存安定性又較幾丁質?”崽CTKU008蛋白質?★儮T蛋白、彈性蛋白、人類白蛋白、血紅蛋白具有不同程度的水解能力。

關鍵詞 : 幾丁質 ; 蛋白質? ; 幾丁質? ; 蝦蟹殼粉

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