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农产品辐照研究·食品科学

高产漆酶平菇的筛选及其在降解黄曲霉毒素B₁中的应用

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摘要: 通过选择培养基平板培养法和液体发酵培养法筛选得到2株高产漆酶平菇菌株P1和P2,并对平菇菌株产漆酶的培养基进行筛选,得到产漆酶的最适培养基为最低盐MSM培养基。菌株P1不仅产漆酶能力最高,而且降解黄曲霉毒素的能力也最好。在MSM培养基中培养10d时,产漆酶量高达769.44U/L,在800 μ l的反应体系中,790 μ l粗酶液可以将1000ng黄曲霉毒素B₁降解到222.62ng,降解率为77.74%,并且平菇粗酶液降解黄曲霉毒素B₁的能力与其中漆酶的含量呈一定的正相关性。

关键词: 平菇漆酶 筛选 降解黄曲霉毒素B₁

SCREENING HIGH-PRODUCTION LACCASE OF *PLEUROTUS OSTREATUS* AND DEGRADATION OF AFB₁ BY *PLEUROTUS OSTREATUS* LACCASE

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Abstract: Two high laccase-production strains *Pleurotus ostreatus* P1 and P2 were selected by selecting agar plates and liquid culture. MSM medium was the most suitable liquid medium for laccase-production. The best strain for laccase-producing and AFB₁-degradating was *Pleurotus ostreatus* strain P1. The laccase activity could be 769.44U/L when it was cultured 10 days. 1000ng AFB₁ could be degraded to 222.62ng by 790 μ l crude enzyme solution and the degradation rate of AFB₁ was 77.74%. There were positive correlations between AFB₁-degradating and laccase activity.

Keywords: *Pleurotus ostreatus* laccase Select AFB₁-degradating

收稿日期 2012-01-25 修回日期 2012-04-16 网络版发布日期

DOI:

基金项目:

公益性行业(农业)科研专项(201203037);中央级公益性科研院所基本科研业务费专项(2012ZL035)

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