

## 研究枯草杆菌孢子形成的新途径（英文）

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**摘要** 果用简单的选择技术，从枯草杆菌(*Bacillus subtilis*) 中选择到一类在代谢物阻遏的条件下，仍能形成孢子的突变体。用来进行研究的突变体在以硫钱为氮源、葡萄糖为碳源的最低培养基上能够正常生长。用这些突变体进行的研究表明：一种诱导酶— 3- 羚基丁酮脱氢酶的代谢物阻遏和孢子形成的代谢物阻遏之间，并无紧密的相关。其中有些突变体在加各种测试碳源的情况下，都能形成孢子；另外一些突变体却只对用来分离突变体的碳源有抗性。这就表明对于孢子形成的代谢物阻遏，是受几个代谢步骤的影响的。

关键词

分类号

## A NOVEL APPROACH FOR STUDYING SPORULATION OF BACILLUS SUBTILIS

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### Abstract

Mutants of *Bacillus subtilis* that are able to sporulate under the condition of eatabolite repression were isolated by a simple selection technique. The mutants used in the present study were able to grow normally on minimal medium with animonium sulphate as nitrogen source and glucose as carbon source. Studies carried out with these mutants show that there is no close relation between catabolite repression of an inducible enzyme, acetoin dehydrogenase and that of sporulation. Certain mutants are able to sporulate in the presence of all the carbon sources tested but some mutants are resistant—only to the carbon source used in isolation. It is suggested that several metabolic steps may be affected in catabolite repression of sporulation.

### Key words

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