**INTRODUCTION**

Fire blight, caused by the bacterium *Erwinia amylovora*, is a serious plant disease of apples and pears. Recently, Chen, X. H. et al. reported that bacilysin produced by *Bacillus amyloliquefaciens* is efficient in controlling fire blight disease (1).

Bacilysin is a dipeptide antibiotic which consists of an L-alanine and an unusual amino acid L-anticapsin (2). We previously reported that a polycistronic operon ywfB::CDEFG and a monocistronic gene ywfH are required for bacilysin production in *Bacillus subtilis* (3). The gene products of ywfB and ywfG are thought to participate in the L-anticapsin biosynthesis pathway, while the ywfE gene product has been assigned as an amino acid ligase involved in alanine-anticapsin ligation (4). The protein encoded by the ywfF gene is necessary for self-protection against bacilysin (5). Thus, the *ywfBCDEFG* operon has an obligate role in bacilysin production. Although the expression of the bacilysin operon ywfB::CDEFG was previously reported to be negatively regulated by transition state regulators CodY (3) and AbrB (6), we found that an additional transition state regulator also represses its transcription. Here, we report a novel regulatory mechanism involved in bacilysin production.

**Effect of disruption of the transition state regulators on P_ywfB-lacZ expression**

We next examined the effect of *scoC* disruption on the expression of the reporter gene P_ywfB-lacZ. A scoC gene was disrupted by replacing part of its coding region with the spectinomycin-resistance cassette (*spc*). Like the case of the spontaneous *scoC* mutations, the disruption of the *scoC* gene apparently enhanced the expression of P_ywfB-lacZ. The activity of ywfB promoter in a scoC disruptant was approximately 3-fold higher than that in its parent strain TI351. Double (*scoC*::spoC and *scoC*::codY) and triple (*scoC*::spoC and *scoC*::codY) mutations resulted in a further increase in the ywfB promoter activity in a stepwise manner. Thus, it is concluded that ScoC, together with CodY and AbrB, is a negative regulator of bacilysin production in *B. subtilis*.

**REFERENCES**