

## F329

### Comparison electrophoretic karyotype in *Fusarium* sections

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The electrophoretic karyotypes of 7 species of different *Fusarium* sections was examined by using contour-clamped homogeneous electric field(CHEF) gel electrophoresis. Intact chromosomal DNA was prepared from protoplasts and up to 7 distinct bands were separated on 0.7% or 0.8% agarose gels under the several different conditions. Putative chromosomal number varied from 5 to 7 and polymorphic karyotypes were observed in different sections of *Fusarium*. Using the *Schizosaccharomyces pombe* and *Saccharomyces cerevisiae* chromosomes as standards, the size of the *Fusarium* spp. chromosome was estimated. The higher molecular weight chromosomes(over 2.2Mb) were observed in all species, but lower molecular weight chromosomes varied both in number and size. Approximate genome size among the 7 species of *Fusarium* Section was estimated range from 17.2 to 22.6Mb.

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### Plasmid Clones which Restores the Antibiotic Synthesis Ability in *abs* Mutant

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*Streptomyces coelicolor* produces four known antibiotics. To define genetic elements that regulate antibiotic synthesis, we screened for mutations that blocked synthesis of the four antibiotics. We named one mutant strain *abs-8752*. Using this *abs* strain as a recipient, we isolated two complementing clones from wild type genomic library. The clones restore the *abs-8752* to produce all four antibiotics. Moreover, one such plasmid, namely  $\alpha 3$ , stimulated the production of large amounts of actinorhodin and undecylprodigiosin in the *abs-8752* mutant strain. We subcloned this  $\alpha 3$  into the *E.coli* vector pBluescript and constructed restriction map with several restriction enzymes.