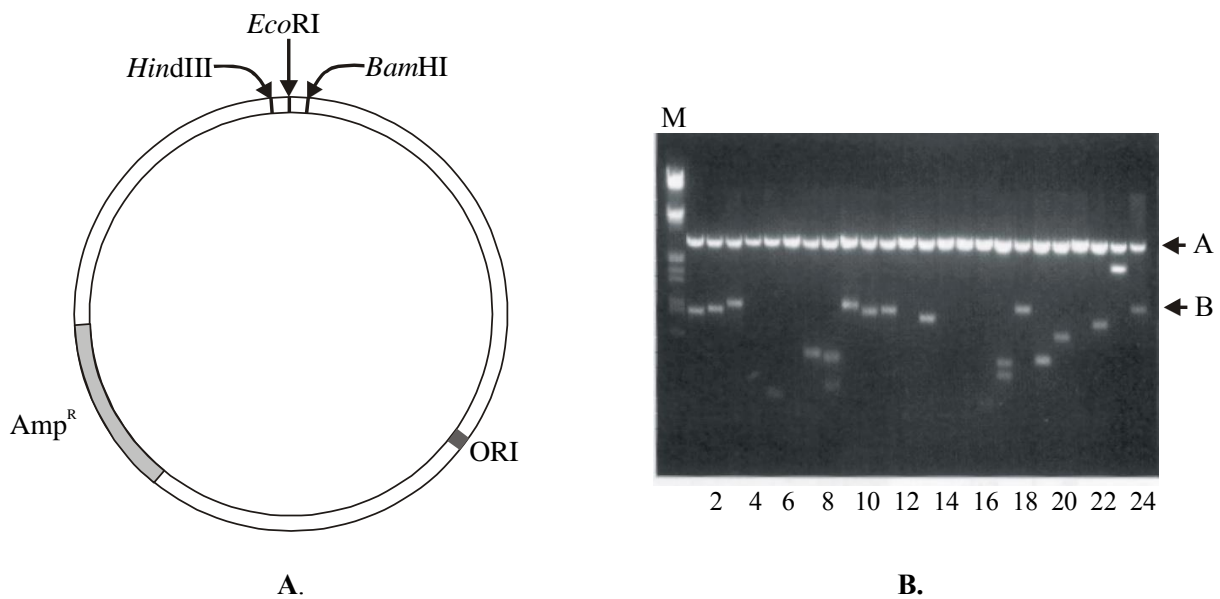


ANALYSIS OF THE CLONES OF A GENOMIC LIBRARY

Terms to be familiar with before you start to analyze the figure

*genomic library * vectors * restriction endonucleases * plasmid isolation * agarose gel electrophoresis*

The figure



Yeast genomic library was constructed using the *EcoRI* site of a plasmid vector (figure A.). Plasmid minipreps were prepared from 24 colonies of the library and the samples were digested with *BamHI* and *HindIII* restriction endonucleases and then subjected to agarose gel electrophoresis (figure B; M = *BamHI/HindIII*-digested λ phage DNA). Answer the following question!

1. Describe the process of genomic library construction!
2. Describe the main steps of the plasmid miniprep procedure!
3. Characterize the DNA molecules present in band A and B of figure B!
4. Give an explanation for the different images of sample 3 and 4!
5. Give an explanation for the different images of sample 17 and 18!
6. What method can be used to try to find out if any of the recombinant plasmids contains actin gene sequences?

The source of the figure

Quiagen Catalog, 2000, p164.

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