

Methods in Enzymology

Volume 154

Recombinant DNA

Part E

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Ray Wu

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Preface

Recombinant DNA methods are powerful, revolutionary techniques for at least two reasons. First, they allow the isolation of single genes in large amounts from a pool of thousands or millions of genes. Second, the isolated genes or their regulatory regions can be modified at will and reintroduced into cells for expression at the RNA or protein levels. These attributes allow us to solve complex biological problems and to produce new and better products in the areas of health, agriculture, and industry.

Volumes 153, 154, and 155 supplement Volumes 68, 100, and 101 of *Methods in Enzymology*. During the past few years, many new or improved recombinant DNA methods have appeared, and a number of them are included in these three new volumes. Volume 153 covers methods related to new vectors for cloning DNA and for expression of cloned genes. Volume 154 includes methods for cloning cDNA, identification of cloned genes and mapping of genes, chemical synthesis and analysis of oligodeoxynucleotides, site-specific mutagenesis, and protein engineering. Volume 155 includes the description of several useful new restriction enzymes, details of rapid methods for DNA sequence analysis, and a number of other useful methods.

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METHODS IN ENZYMOLOGY

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