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Nota di contenuto	Part I. What is cloning? -- Chapter 1.1 Definition of cloning -- Chapter 1.2 Discovering a new gene -- Chapter 1.3 Cloning in the past -- Chapter 1.4 Cloning in the present -- Part II. A prerequisite for cloning -- Chapter 2.1 Software useful for cloning design -- Chapter 2.2 Vector, plasmid, construct and the Kozak consensus sequence -- Chapter 2.3 Multiple cloning sites (MCS) -- Chapter 2.4 Restriction endonucleases and star activity -- Chapter 2.5 Agarose gel electrophoresis -- Chapter 2.6 Pouring LB agar plates -- Chapter 2.7 Competent cells -- Chapter 2.8 The conversion of DNA mass into molar concentration -- Chapter 2.9 Upon receiving new plasmids -- Chapter 2.10 cDNA library -- Part III. The first step in cloning -- Chapter 3.1 Cut & paste -- Chapter 3.2 DNA sequencing and direct sequencing -- Chapter 3.3 PCR and nested PCR -- Chapter 3.4 Fill-in (Full & Partial) -- Chapter 3.5 Compatible cohesive ends -- Chapter 3.6 Methylation -- Chapter 3.7 Three-piece ligation -- Chapter 3.8 Site-directed mutagenesis -- Chapter 3.9 Structure of plant transformation vectors

-- Chapter 3.10 Transformation of *R. radiobacter* -- Part IV. The next step of cloning -- Chapter 4.1 How to insert a DNA fragment into a gene -- Chapter 4.2 How to delete an internal region of a gene -- Chapter 4.3 How to insert an epitope tag into a gene -- Chapter 4.4 Translational fusion vs. transcriptional fusion -- Part V. The last steps of cloning -- Chapter 5.1 Method for cloning similar genes in different species -- Chapter 5.2 RACE (rapid amplification of cDNA ends) -- Chapter 5.3 BAC recombineering -- Chapter 5.4 Old trick: partial digestion -- Chapter 5.5 Modification of a vector -- Chapter 5.6 When you notice a frame shift mutation upon cloning -- Chapter 5.7 Reality of cloning: an extremely unlucky case -- Part VI. Methods that make your cloning life easier -- Chapter 6.1 TA cloning and production of a T-vector -- Chapter 6.2 TOPO TA cloning -- Chapter 6.3 Gateway cloning -- Chapter 6.4 Golden Gate Assembly for a modular cloning -- Chapter 6.5 In-Fusion Sequence and Ligation-Independent Cloning (In-Fusion SLIC) -- Chapter 6.6 T4 DNA Polymerase Sequence-and Ligation-Independent Cloning (T4 DNA Pol SLIC) -- Chapter 6.7 Non-template PCR cloning -- Part VII. Advice to cloners -- Chapter 7.1 When cloning is not going well -- Chapter 7.2 Keep your cloning data organized -- Appendix 1. Further readings -- Appendix 2. Abbreviations -- Appendix 3. Index.

Sommario/riassunto

This book offers step-by-step instruction on DNA cloning, defined as moving genes around plasmids, mutating genes, or mining new genes. The aim is to provide those new to the field with reliable and up-to-date practical guidance while at the same time conveying the scope for creativity. After a brief synopsis of the history of cloning, the fundamentals and prerequisites are explained, covering, for example, software, vectors commonly used in the lab, appropriate choice of restriction endonucleases, the preparation of agarose gels, competent cells, and LB agar plates, and procedures to be followed upon receipt of new plasmids. The remainder of the book is devoted to the clear description of methods and individual steps in cloning. Guidance is provided on the cut and paste method, DNA sequencing, direct sequencing, primer design, PCR-based gene insertion and deletion, epitope tag insertion, the use of RACE technology, BAC recombineering, and much, much more. Sources of error and a variety of techniques that make life considerably easier when cloning are also examined in detail. .
