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Nota di contenuto	Antisense and Ribozyme Methodology; Contents; CHAPTER 1. Antisense and Ribozyme Methodology; 1.1 The Potential; 1.2 Antisense Technology; 1.2.1 Problems; 1.2.2 Resistance to Nucleases; 1.2.3 Entry into Cells; 1.2.4 How Antisense Works; 1.2.5 Success; 1.3 Ribozymes; 1.3.1 What Are They?; 1.3.2 Problems; 1.3.3 Stable Ribozymes; 1.3.4 Designing Ribozymes; 1.4 Ribozymes or Antisense DNAs?; 1.5 The Choice Today!!; CHAPTER 2. Design and Synthesis of Antisense DNA Molecules; 2.1 Introduction; 2.2 Synthesis of Methylphosphonodiester- Phosphodiester Chimeric Oligodeoxynucleotides 2.2.1 Materials and Chemicals2.2.2 Solutions; 2.2.3 Maximizing Product Purity; 2.2.4 Deprotection of Chimeric Oligodeoxynucleotides; 2.2.5 Failed Sequences; 2.3 Primary Purification by Reversed-Phase, Solid-Phase Extraction on C18 SEP-PAK Cartridges; 2.3.1 Equipment; 2.3.2 Method; 2.3.3 Purification of the Oligodeoxynucleotide; 2.3.4 Further Purification; 2.4 Analysis and Purification by HPLC; 2.4.1 Analysis of Chimeric Oligodeoxynucleotides by HPLC; 2.4.3 Re-Use of Columns

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Sommario/riassunto	Antisense and ribozymes have a relatively short yet successful history as research tools in gene expression studies, and thus are considered as having high potential reagents in treating viral infections and cancer. This laboratory companion provides detailed information on the potential, advantages and limitations of this methodology. It critically discusses potential pitfalls, presents strategies for choosing targets and delivery systems, so as to allow the selection of the optimum methodology for achieving fast and reliable experimental success with any human or other biological system.