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PCR Primer: A Laboratory Manual

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From its first-published account in 1985, the polymerase chain reaction has become a standard research tool in a wide range of laboratories. Its impact has been felt in basic molecular biological research, clinical research, forensics, evolutionary studies, and the Human Genome Project. The PCR technique originally conceived by Nobel laureate Kary Mullis has proven to be exceptionally adaptable and has been transformed into a myriad array of methods, each with different applications.

PCR Primer: A Laboratory Manual introduces the complex world of PCR by beginning at an accessible level and then moving to more advanced levels of application. First, the practical requirements for performing PCR and other amplification techniques in the lab are introduced and then the basic aspects of the technique are explained by exploring important issues such as sample preparation, primer design, efficiency, detection of products, and quantitation. Protocols for a wide range of PCR and amplification techniques—each written by an expert investigator—are presented for cloning, sequencing, mutagenesis, library construction and screening, exon trapping, differential display, and expression, and these include RT-PCR, RNA PCR, LCR, multiplex PCR, panhandle PCR, capture PCR, expression PCR, 3' and 5' RACE, in situ PCR, and ligation-mediated PCR. Each protocol is augmented by analysis and troubleshooting sections and complete references.

CONTENTS

Introduction to PCR

Setting Up a PCR Laboratory (C.W. Dieffenbach et al.); A Standard PCR Protocol: Rapid Isolation of DNA and PCR Assay for β -Globin (M.T. Vahey et al.); Enzymatic Control of Carryover Contamination in PCR (J.L. Hartley, A. Rashtchian); Ultraviolet Irradiation of Surfaces to Reduce PCR Contamination (R.W. Cone, M.R. Fairfax); Specificity, Efficiency, and Fidelity of the PCR (R.S. Cha, W.G. Thilly); Optimization and Troubleshooting in PCR (K.H. Roux); Long-Distance PCR (O.S. Foord, E.A. Rose)

Sample Preparation

Rapid Preparation of DNA for PCR Amplification with Gene ReleaserTM (E.P. Dawson et al.); PCR Amplification from Paraffin-

embedded Tissues: Sample Preparation and the Effects of Fixation (C.E. Greer et al.); RNA Purification (J.J. Adamovicz, W.C. Gause)

Primer Design

General Concepts for PCR Primer Design (C.W. Dieffenbach et al.); Design and Use of Mismatched and Degenerate Primers (S. Kwok et al.); Multiplex PCR (M.C. Edwards, R.A. Gibbs)

Detection of PCR Products: Quantitation and Analysis

Immunological Detection of PCR Products (J.G. Lazar); Quantitative PCR Using the AmpliSensor[®] Assay (C.N. Wang); DNA Fingerprinting Using Arbitrarily Primed PCR (M. McClelland, J. Welsh); RNA Fingerprinting Using Arbitrarily Primed PCR (M. McClelland, J. Welsh); In Situ PCR (G.J. Nuovo); Single-strand Conformational Polymorphism (K. Fujita, J. Silver); Genetic Subtyping of Human Immunodeficiency Virus Using a Heteroduplex Mobility Assay (E.L. Delwart et al.); Sensitive and Fast Mutation Detection by Solid-phase Chemical Cleavage (L.L. Hansen et al.)

PCR Starting from RNA

Use of the PCR to Quantitate Relative Differences in Gene Expression (W.C. Gause, J.J. Adamovicz); Quantitative Liquid Hybridization PCR Method Employing Storage Phosphor Technology (M.T. Vahey, M.T. Wong); Use of the SNUPE Assay to Quantitate Allele-specific Sequences Differing by a Single Nucleotide (J. Singer-Sam); Trapping Internal and 3'-Terminal Exons (P.E. Nisson et al.); Expression-PCR (D.E. Lanar, K.C. Kain)

PCR-mediated Cloning

Rapid Amplification of cDNA Ends (M.A. Frohman); Panhandle PCR (D.H. Jones); Detection and Identification of Expressed Genes by Differential Display (P. Warthoe et al.); Construction of Subtractive cDNA Library Using Magnetic Beads and PCR (A. Lonneborg et al.); PCR-based Method for Screening DNA Libraries (D.I. Israel); Screening of YAC Libraries with Robotic Support (M.M. Blanchard, V. Nowotny); Phagemid Display Libraries Derived from PCR-immortalized Rearranged Immunoglobulin Genes (H.H. Hogrefe, B. Shope)

PCR Sequencing

Direct Sequencing of PCR-amplified DNA (V.B. Rao); Cycle Sequencing (K. Kretz et al.)

Cloning of PCR Products

Strategies for Cloning PCR Products (R. Levis); Cloning and Analysis of PCR-generated Fragments (G.L. Costa, M.P. Weiner)

Mutagenesis by PCR

Mutagenic PCR (R.C. Cadwell, G.F. Joyce); PCR Mutagenesis and Recombination In Vivo (D.H. Jones); Mutagenesis and Synthesis of Novel Recombinant Genes Using PCR (A.N. Vallejo et al.); Rapid PCR Site-directed Mutagenesis (M.P. Weiner, G.L. Costa)

Alternative Amplification Technologies

Ligase Chain Reaction (M. Weidmann et al.); Optimization and Characterization of 3SR-based Assays (T.R. Gingera et al.); One-tube Quantitative HIV-1 RNA NASBA (B. van Gemen et al.)

Appendices

Computer Software for Selecting Primers; Reagents and Equipment

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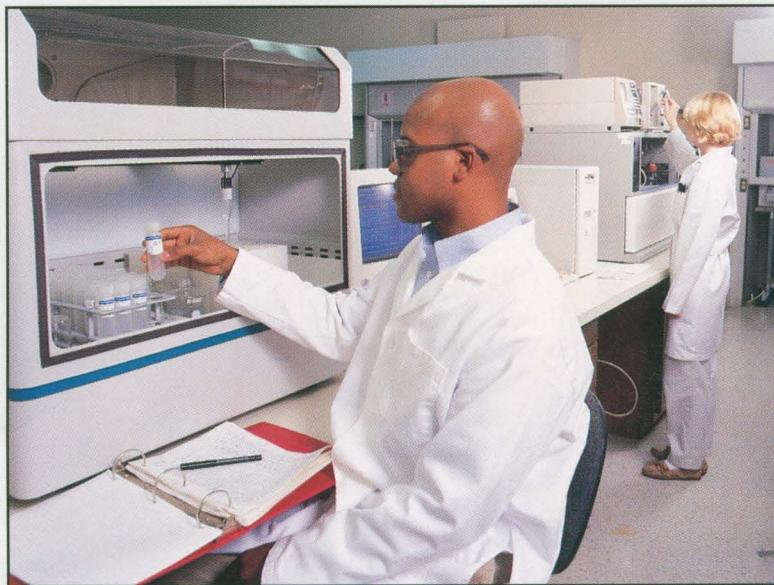


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