

Break Through... ..to Better Minipreps for Sequencing

New advances in sequencing technology allow longer reads and higher through-put, but poor quality template can hold you back. QIAGEN Anion-Exchange Resin gives you the template quality you want, in a format to suit your needs.

Unambiguous Results

QIAGEN anion-exchange technology provides the high quality template DNA essential for optimal automated sequencing — free of contaminants that can reduce accuracy, reproducibility (figure) and read length even at low levels.

Proven Performance

QIAGEN Plasmid Mini Kits offer consistently high yields of ultrapure DNA from convenient gravity flow columns. Each column is packed with QIAGEN Anion-Exchange Resin, the most widely used plasmid purification resin in the world.

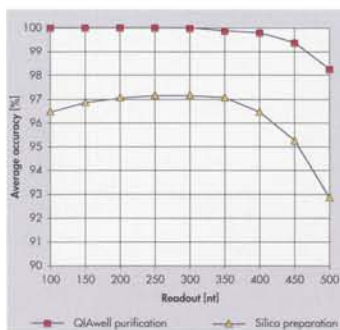
High Throughput

For larger sample numbers, the QIAwell system combines QIAGEN Anion-Exchange Resin with Empore® membrane from 3M. Convenient microtiter 8-well strips and 96-well plates provide in-line filtration, purification, desalting and concentration on the QIAvac Manifold.

Maximum Convenience

QIAwell Ultra Plasmid Kits purify up to 48 ultrapure minipreps in just 1 hour, and 96 in just 2 hours. For even greater convenience, the QIAwell system can be used on the QIAGEN BioRobot 9600 automated workstation.

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Enforcement Cloning System pKF3

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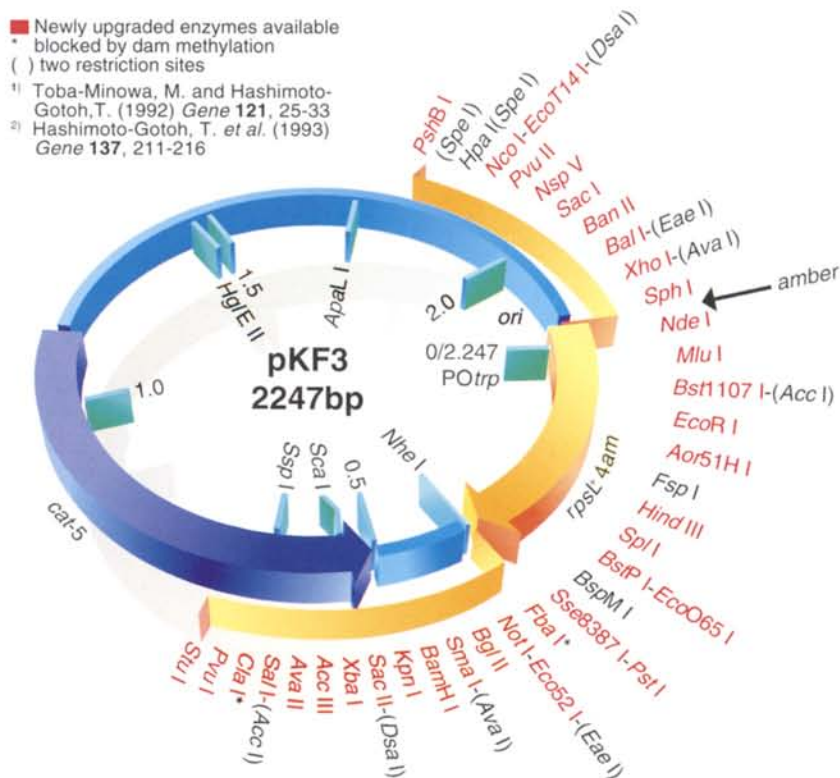
Comprised of pKF3 DNA and *E. coli* TH2 Competent Cells. This system has no cumbersome screening steps and is potent in a variety of applications such as library construction from shotgun cloning, subcloning of PCR products and colony hybridization.

pKF3 DNA:

A Cm^RSm^S -enforcement plasmid vector contains 44 multi restriction sites within the PO_{trp} -driven $\text{rpsL}^+4_{\text{am}}$ gene.

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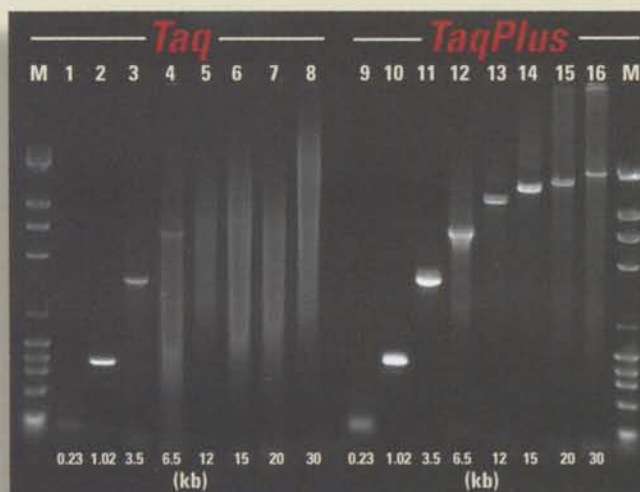
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REFERENCES:
1. Nelson, K.B., Scott, R., Bauer, J.C., and Kvietik, K. (1994) *Stratagene* 7: 64-65.
2. Nelson, K.B., Schmitt, W., Bauer, J.C., and Mathur, E. (1994) *Stratagene* 7: 27.

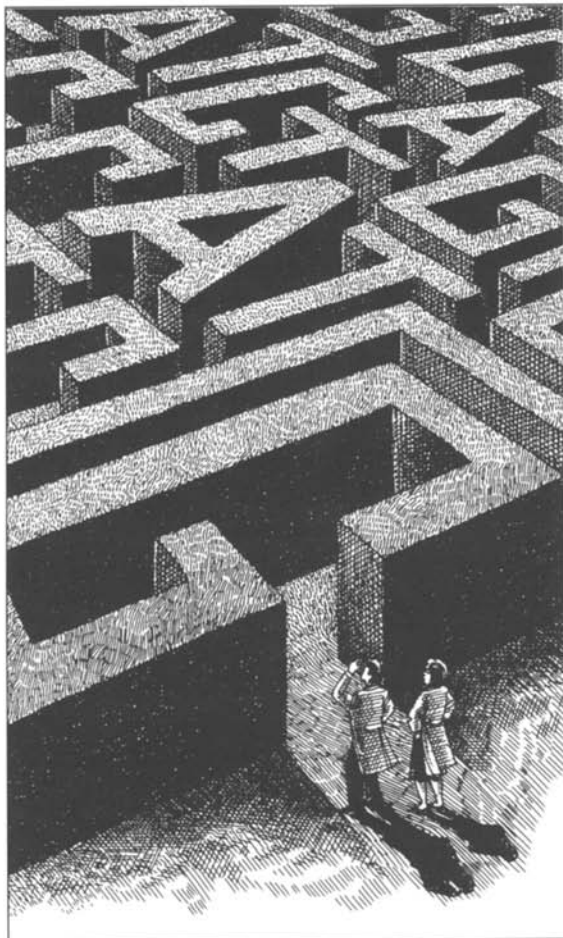
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PCR Primer: A Laboratory Manual

Edited by Carl Dieffenbach, *National Institute of Allergy and Infectious Diseases*, Gabriela Dveksler, *Uniformed Services University of the Health Sciences*

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.

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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)

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Appendices

Computer Software for Selecting Primers; Reagents and Equipment

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