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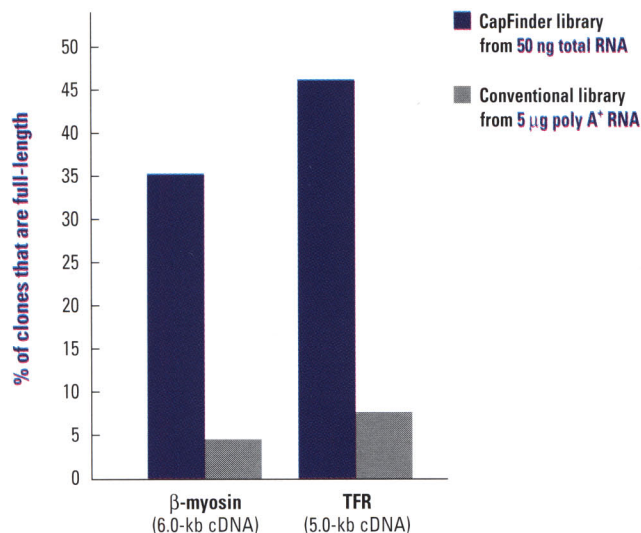


Figure 1. CapFinder cDNA libraries contain a higher percentage of full-length β-myosin and transferrin receptor (TFR) clones than are found in conventional cDNA libraries. CapFinder and conventional libraries were constructed in λgt11 using 50 ng of human skeletal muscle total RNA and 5 µg of poly A⁺ RNA, respectively. For both genes, the percentage of clones having the full-length sequence was inferred from the ratio of plaques that hybridized with the 5'-end cDNA probe to the number that hybridized with the 3'-end probe on duplicate filters.

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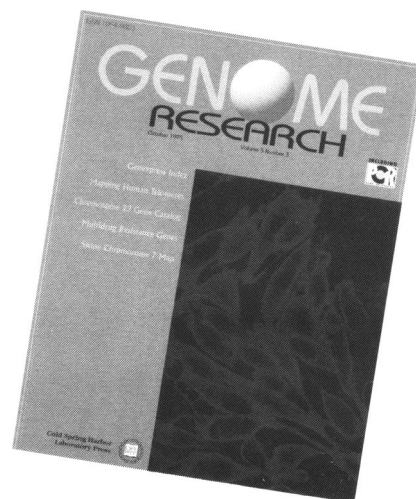
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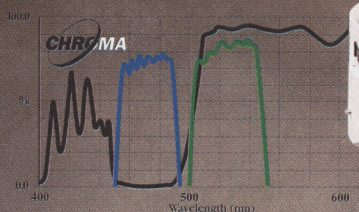
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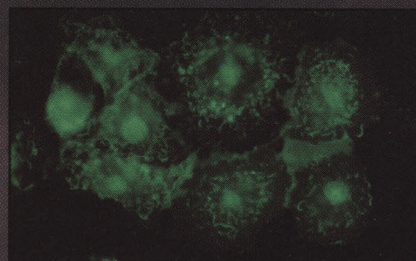
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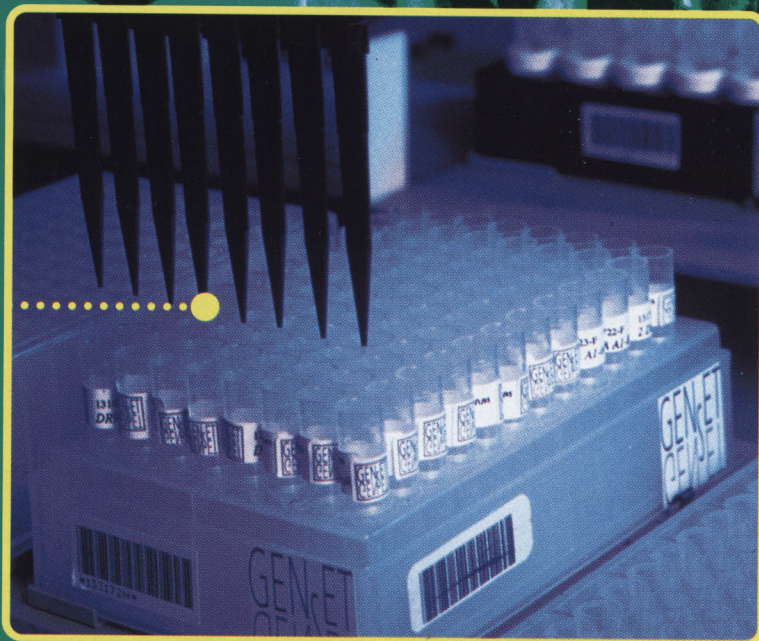
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Breakthrough in DNA Sequencing Technology

Precast Sequencing Gels Allow More Time for Valuable Research

La Jolla, California. After years of research, Stratagene has just released the most advanced DNA sequencing system available. The system's prepoured, polyacrylamide gels eliminate the need to manually pour sequencing gels.

Until now there was no alternative to pouring your own sequencing gels. It took up to 2 hours of preparation to clean the plates, mix the solutions, de-gas the acrylamide, pour the gels and wait for polymerization. Stratagene's scientists have changed all that with the new CastAway™ sequencing system.

Stratagene's new sequencing system cuts both electrophoresis and gel drying times in half, so researchers using the system have found they have more time available to meet their research goals. The system components have been designed to be used together. The system includes a novel vertical sequencing device and high-speed gel dryer designed to produce superior results when used with the quality-tested precast gels.

Precast Sequencing Gels Are Here

Superior Results in Less Time

CastAway precast gels are ready to load in less than 5 minutes with no mess. While conventional procedures can take up to 6.5 hours to sequence a gel, the CastAway system takes as little as 2 hours. The procedure is simple: open the bag, place the gel in the sequencing device, run the gel and dry.

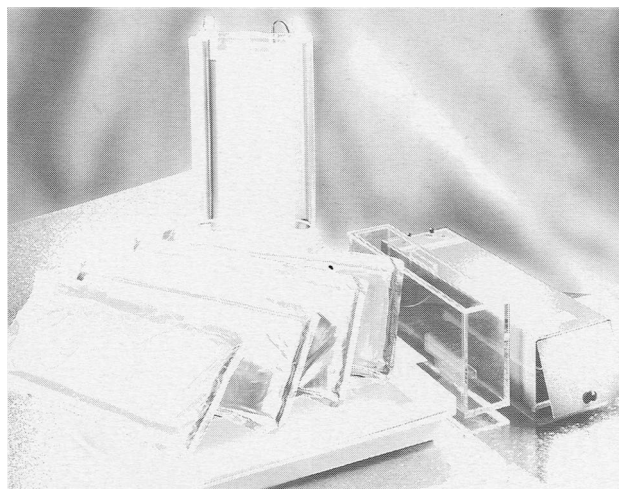
The precast sequencing gels are thinner than standard gels, so they can be run at higher temperatures. This not only shortens run times, but also reduces the possibility of band compressions. Since the CastAway gels are bound permanently to one of the glass plates, there's no need for filter paper and less risk of gel tearing. And two prepoured gels fit perfectly into a standard x-ray cassette.

Vacuum Pumps Have Become Obsolete

New High-Speed Gel Dryer Takes Over

Not only do the precast gels save run time, but the CastAway gel dryer works twice as fast as any commercially available gel dryer. The gel dryer is easy to load; the precast gels slide right in.

Researchers who currently use vacuum pumps to dry their gels will immediately notice the quiet operation of



the gel dryer. Not only are vacuum pumps loud and distracting, but they are expensive to purchase and maintain. In contrast, the CastAway gel dryer is quiet, cost-effective and requires no maintenance. The new gel dryer works with the CastAway system to bring the future of sequencing into your lab.

Easy Loading Sequencing Device

Simple and Safe

Stratagene engineers have developed a vertical sequencing device that is simple and safe to operate. The new CastAway vertical sequencing device is exclusively for use with CastAway precast gels and is optimized to provide high quality results. The CastAway sequencing device features a new easy-to-use gasket; the CastAway precast gels snap in and are ready to run. An advanced thermoplate evenly diffuses the heat during electrophoresis, ensuring less artifacts and crisper bands. The CastAway sequencing device works twice as fast as conventional vertical sequencing devices to save even more valuable research time.

The CastAway system also includes convenient, stackable fixing trays for soaking gels after removal from the sequencing device, and a radiation storage container to store radioactive gels until safe for disposal.

CastAway Sequencing System Sequencing device, Gel dryer, Radiation storage container, 2 fixing trays, High voltage leads, 9 shark-tooth combs, Gasket lubricant	401098 100/120V 401099 230V
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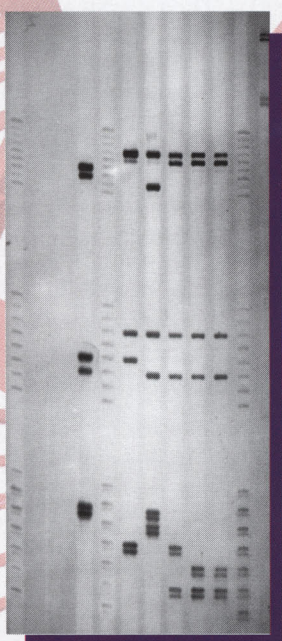
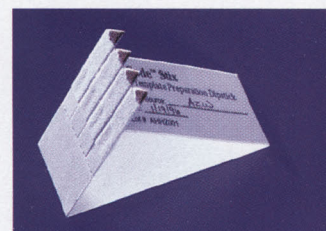
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PCR Primer: A Laboratory Manual

Edited by Carl W. Dieffenbach, *National Institute of Allergy and Infectious Diseases*, Gabriela S. 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

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Appendices

Computer Software for Selecting Primers; Reagents and Equipment

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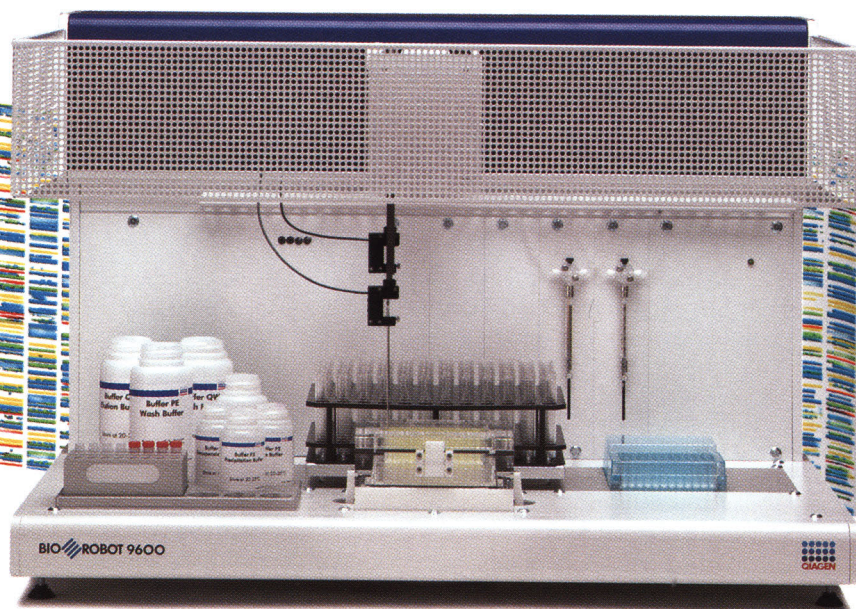
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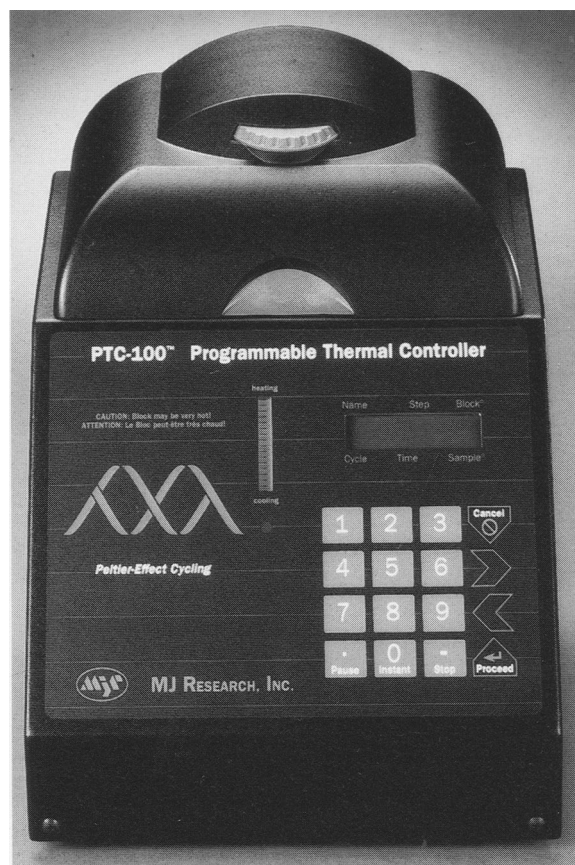
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1. Cells are lysed by DNA extraction buffer.
2. DNA is released and proteins denatured upon microwave treatment of sample. Proteins are removed by centrifugation.
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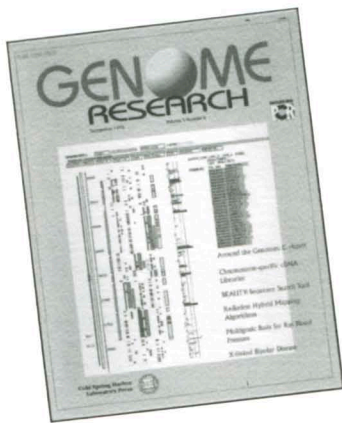
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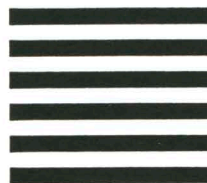
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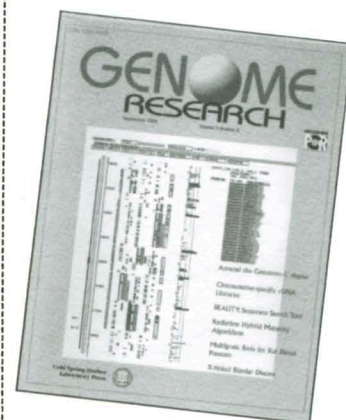


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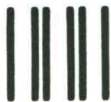
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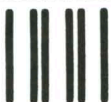
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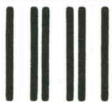
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