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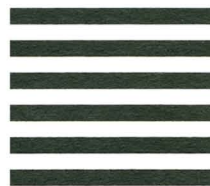
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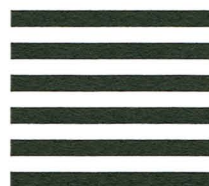
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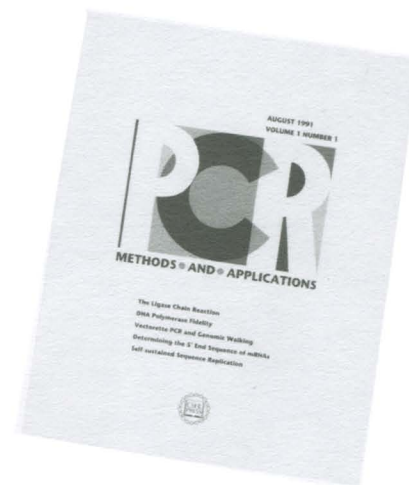
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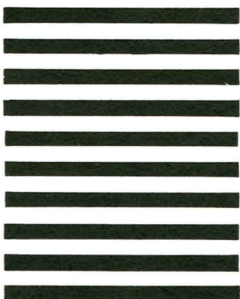
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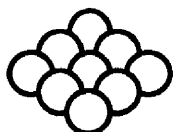
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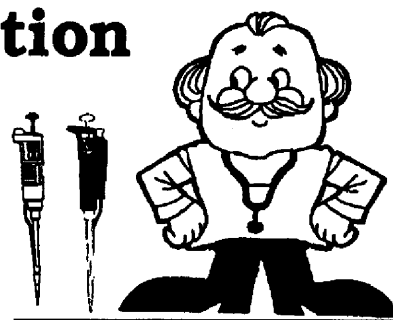
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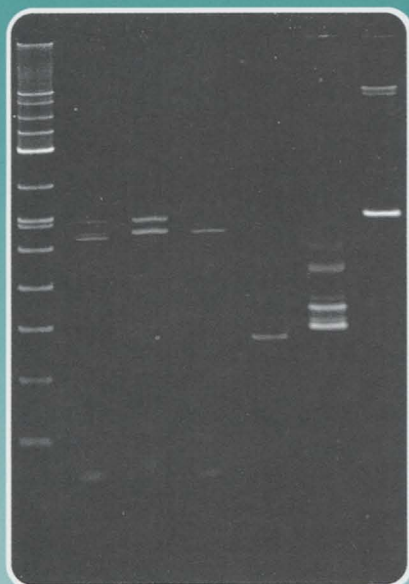
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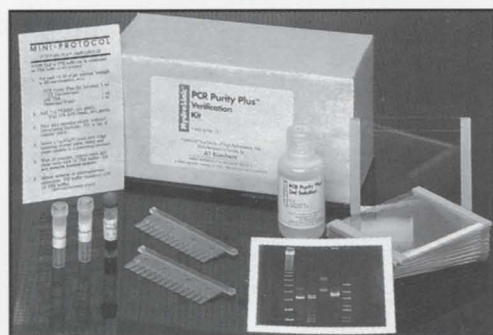
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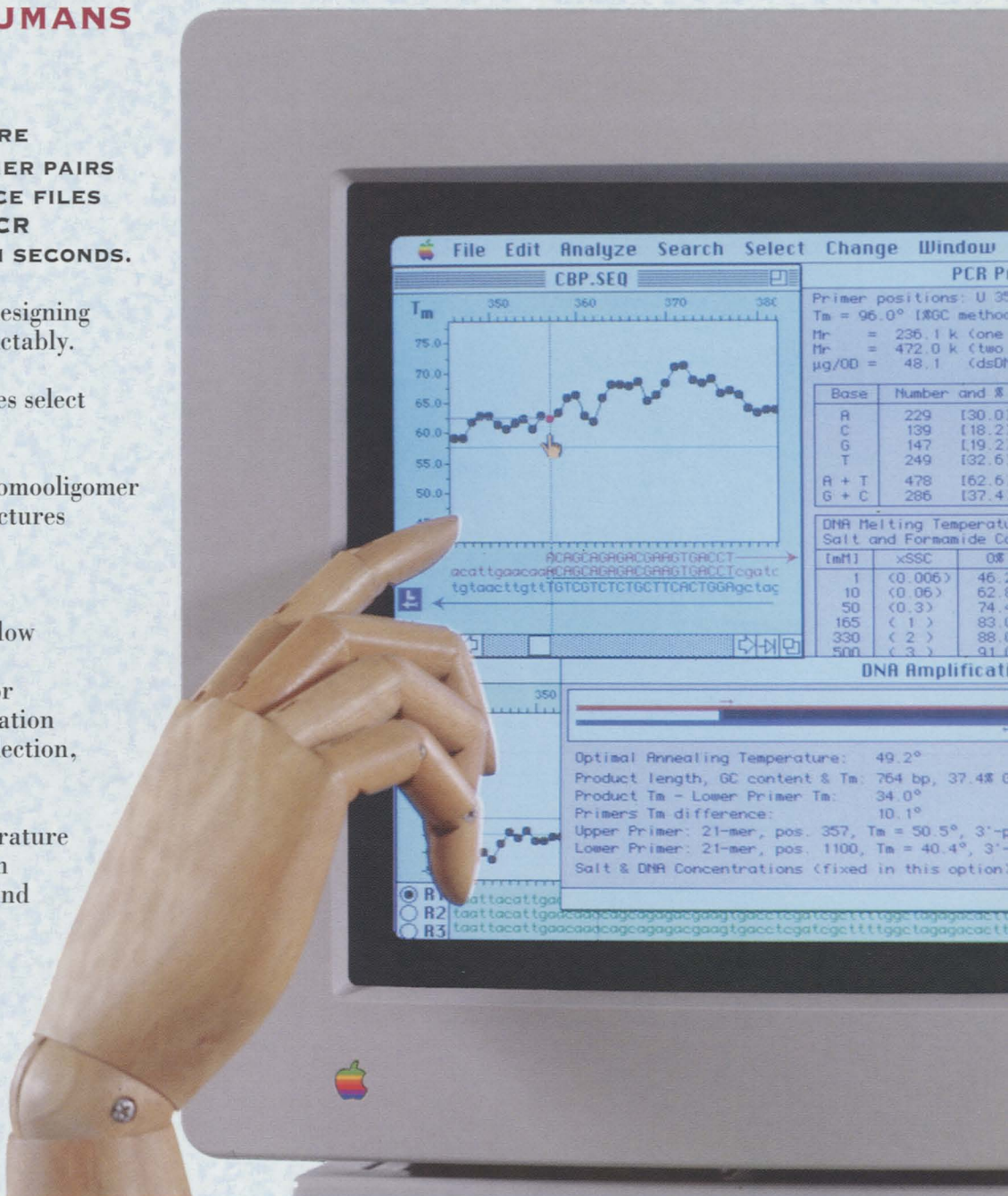
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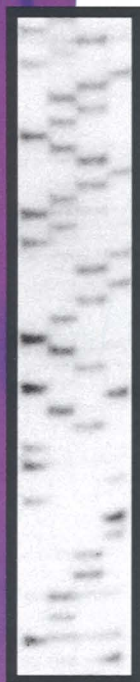
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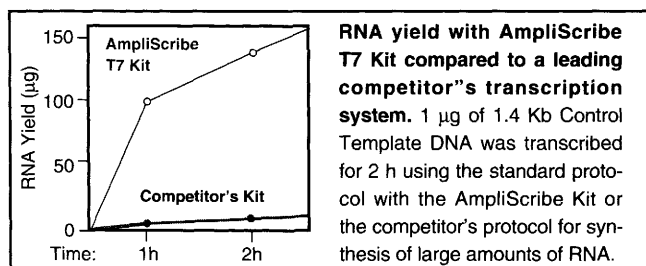
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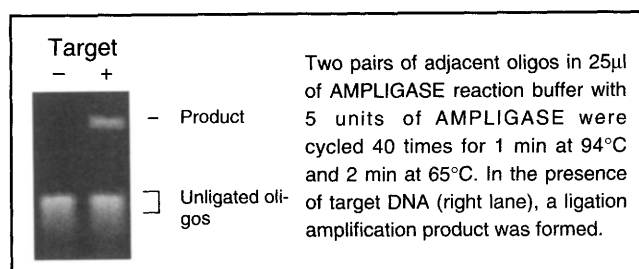
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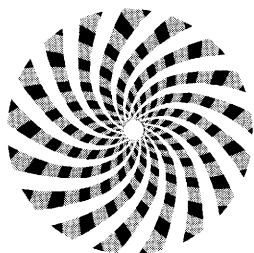
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AMPLIGASE is a thermostable DNA ligase derived from a thermophilic bacterium. The enzyme has a half-life of 48 hours at 65°C and greater than one hour at 95°C. Each kit contains enough reagents for 1000 amplification reactions and the enzyme is available at various concentrations.

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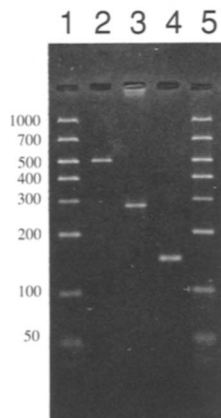
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The molecular weight standard specifically designed to accurately quantitate yields and determine the size of PCR<sup>†</sup> products separated by gel electrophoresis



5 µl of GelMarker<sup>™</sup> in lanes 1 and 5. 40 ng of a 500 bp, 80 ng of a 296 bp and 120 ng of a 138 bp PCR product in lanes 2, 3 and 4 respectively.

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Ideal range of coverage for PCR products

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No preheating required

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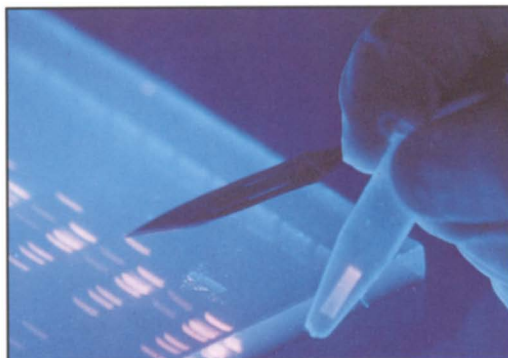
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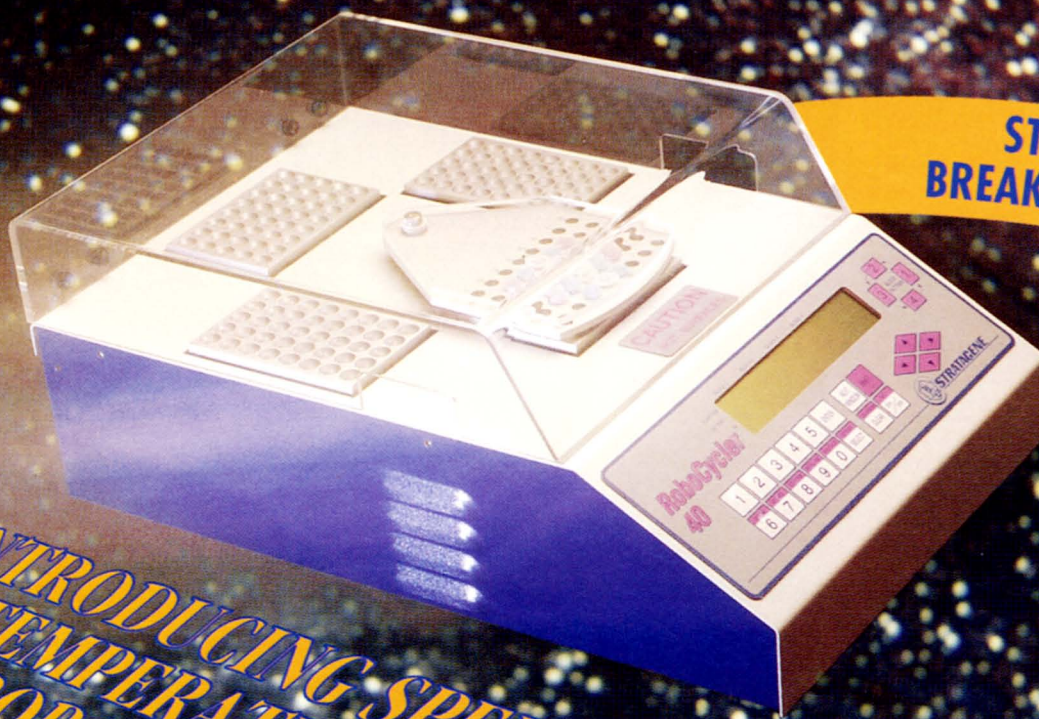
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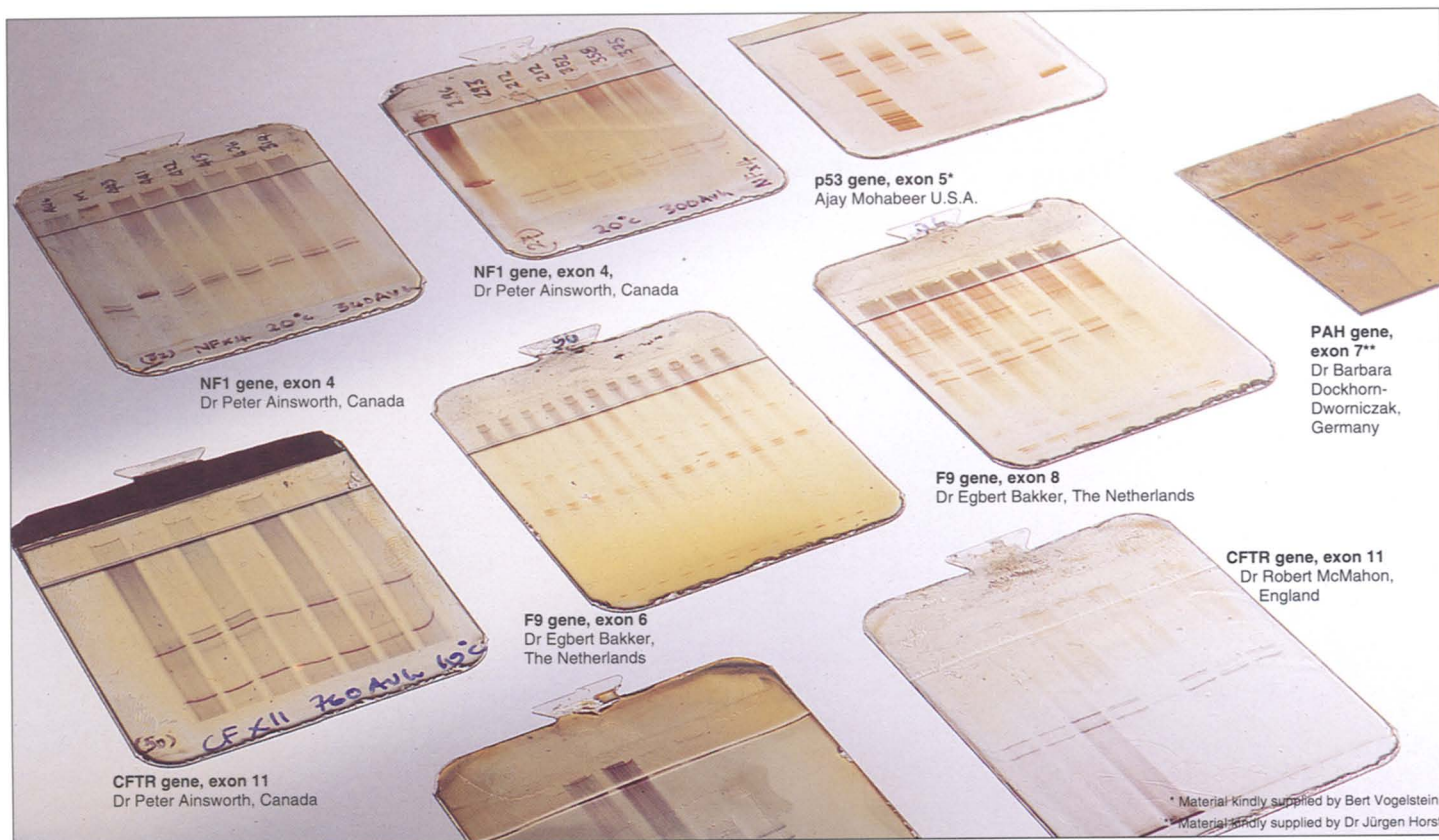
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## Rapid detection of point mutations by PCR-SSCP analysis on PhastSystem™

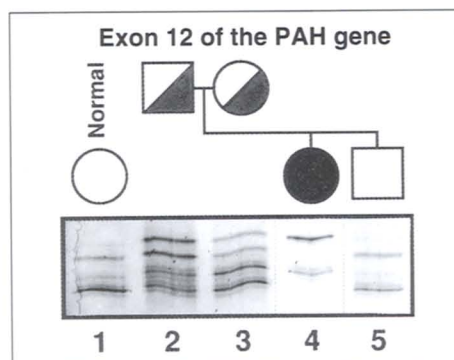
Clinical researchers and molecular geneticists around the world are using a rapid and sensitive method to detect point mutations and polymorphisms in certain human diseases.

The technique is single-strand conformational polymorphism (SSCP) analysis of products of the polymerase chain reaction (PCR\*\*). The instrument is PhastSystem™.

PhastSystem combines rapid, semi-automated electrophoresis on a wide range of small, precast PhastGel® media with fast, sensitive silver staining and accurate temperature control. It detects a large number of mutations with excellent reproducibility and hands you results in less than two hours.

The figure opposite shows a result from a Japanese family with a PKU patient. PCR was used to amplify DNA from exon 12 of the PAH gene. The silver stained PhastGel was ready for examination within two hours of completing PCR.

The SSCP pattern of the patient (Lane 4), who carries the R413P mutation in homozygous form, is clearly distinguished from that of the normal control (Lane 1). The parents are both heterozygous for the mutation, which is not carried by the brother.



Lanes: 1, Normal control. 2, Father. 3, Mother. 4, Patient (proband). 5, Brother.

Courtesy of Yao Yeqi, Yoichi Matsubara, and Kuniaki Narisawa of the Tohoku Univ. School of Medicine, Dept. of Biochemical Genetics, 1-1 Seiryomachi, Sendai 980, Japan.

\*\*\* PCR is covered by U.S. patents 4,683,195 and 4,683,202 owned by Hoffmann La-Roche Inc.



Carefully controlled electrophoresis at different temperatures on different electrophoretic gel media is essential for detecting the maximum number of mutations by PCR-SSCP analysis. PhastSystem™ and PhastGel® media combine these attributes in a cost efficient and easy-to-use format.

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