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EDVO-Kit #

PCR-based VNTR Human DNA Typing

Storage:

See page 2 for specific instructions.

Experiment Objective:

The objective of this experiment is to use PCR to amplify a specific VNTR region of human DNA and determine the number of repeats in that region. This is done by comparing the PCR products to a DNA ladder and measuring the size of the bands.

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BACKGROUND INFORMATION

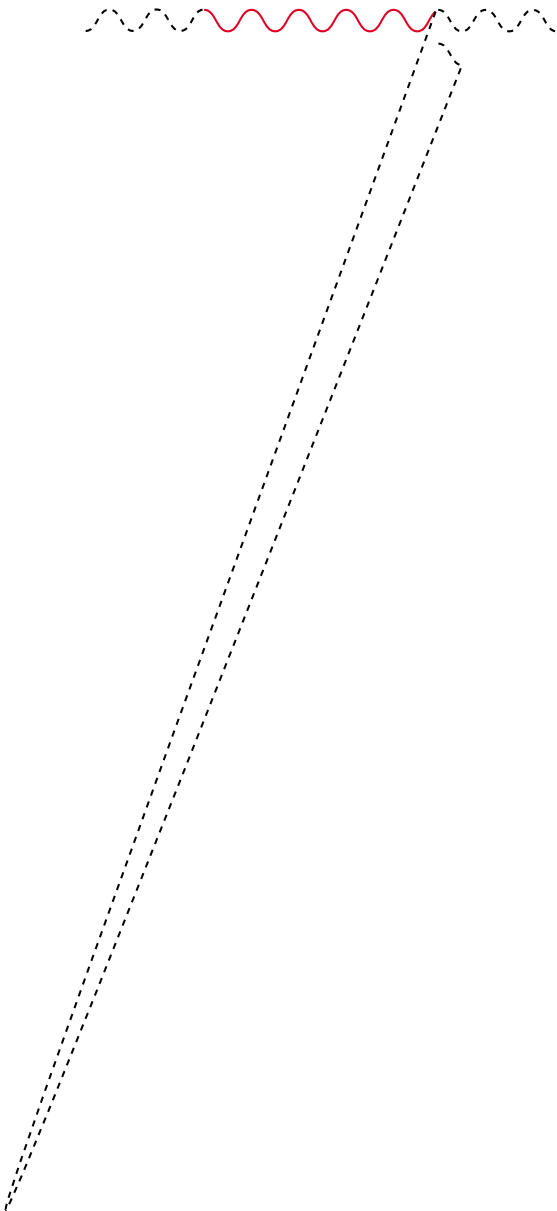
Background Information

PCR is a technique used to amplify a specific DNA sequence. It involves repeated cycles of heating and cooling to separate DNA strands and synthesize new strands. The process is highly specific and efficient, allowing for the detection of small amounts of DNA. In this kit, PCR is used to amplify a specific VNTR region of human DNA, which is then analyzed using RFLP to determine the genotype.

The amplified DNA is then digested with a restriction enzyme (RFLP). The resulting fragments are separated by gel electrophoresis. The size of the fragments is determined by comparing them to a DNA ladder. The pattern of bands is used to identify the individual's genotype. This method is highly accurate and is used in forensic science and paternity testing.

BACKGROUND INFORMATION

Background Information, continued



If the... PCR... DNA... RFLP... AMPFLP... Taq...

A... PCR... 1984... 1994... Taq... PCR...

I... PCR... DNA... Taq... 94°C... 65°C... 72°C... Taq... PCR...

I... PCR... DNA... 20-30... PCR... Taq...

Figure 2 - The Polymerase Chain Reaction (PCR)

