

Experiment (7)

Restriction Fragment Length Polymorphism (RFLP)

☒ **Materials:**

1X TBE buffer

1% agarose gel

Sterile, deionized water, restriction enzyme 10X buffer, Acetylated BSA, DNA sample, EcoRI restriction enzyme.

Protocol:

1. In a sterile tube, assemble the following components in the order listed below.

Component	Volume
Sterile, deionized water	16.3 μ l
Restriction Enzyme 10X Buffer	2.0 μ l
Acetylated BSA, 10μg/μl	0.2 μ l
DNA, 1μg/μl	1.0 μ l
Mix by pipetting, then add:	
Restriction Enzyme, 10u/μl	0.5 μ l
Final volume	20 μ l

2. Mix gently by pipetting, close the tube and centrifuge for a few seconds in a microcentrifuge. Incubate at the enzyme's optimum temperature (37°C) for 1–4 hours.
3. For sample loading, mix 3 μ l of 6X loading dye with 2 μ l of DNA sample.
4. Load 5 μ l of prepared samples into wells and in different well load 5 μ l of DNA marker
5. Put it onto the apparatus.
6. Apply a continuous voltage of 95V for 50 minutes.

According to: <https://worldwide.promega.com/-/media/files/resources/protocols/technical-manuals/101/restriction-enzymes-protocol.pdf?la=en>