Agarose gel ELECTROPHORESIS

Aim: To know the size of DNA fragments to check the efficiency of a digestion for instance.

Materials:

- Molecular biology equipment: 37 °C and 65 °C water baths, pipette set, ice bucket, electrophoresis tank, electrolyte buffer, imaging system.
- Buffer solution (Tris-Acetate 40 mM, EDTA 1 mM pH 8.3) TAE 1X
- Agarose powder (Seakem, Thermofisher)
- H_20
- Ethidium bromide EB (Eurobio 0.7 mg/ml)
- Electrophoresis power supply
- DNA ladder (Thermofisher Gene Ruler 1kb)

Protocol:

1. To have an 0.7% agarose gel, take 0.35 g of agarose and put in 50 ml of TAE 1X
2. Warm it in a microwave for 2 min (until we have no more lumps) and let cool a little under cold running water, swirling (avoiding that agar solidify itself)
3. Add 2 drops of EB
4. Mix it and transfer it on combs + caster
5. Let the agarose gel solidify
6. Fill the electrophoresis chamber with TAE 0.5X buffer
7. Perform the migration during about one hour
8. Observe the gel on a UV table, take a photo for your records with an imaging system (Geldoc, Biorad)