Pouring an Agarose Gel

Materials

The following protocol assumes a 1% agarose gel in the large gel box (box 1). If you use a different box, ensure that you adjust the volume appropriately.

- Agarose (0.5 g)
- 1x TAE (50 mL)
    - If 1x TAE is not available, make a fresh solution using concentrated stock (50x).
- 1x SybrSafe dye (5 µL)

Protocol

1. Weigh 0.5 g of agarose in a jar container.
2. Add 50 mL of 1x TAE to the jar.
3. Microwave the solution of agarose and TAE until it boils. This usually takes 30-50 seconds. You may want to periodically take out the jar before the solution boils in order to mix the solution by swirling the jar.
4. Take the jar out of the microwave. Swirl the jar and examine the solution to ensure the agarose is completely dissolved. Wait until the solution cools down. The solution is sufficiently cool when your hands can comfortably touch the warm jar for more than four seconds.
5. Add 5 µL of SYBR Safe to the solution. Swirl the jar until the dye is sufficiently mixed with the solution.
6. Pour the solution into a casting tray with well combs in place. Ensure the casting tray is in the correct orientation, so that the gel does not spill into the chambers of the gel box. Pour slowly to avoid bubbles.
7. Wait for the gel to cool down and solidify. Remove the combs. Then, DNA samples can be loaded into the gel.