

SOP Name: Agarose gel electrophoresis

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Source(s): Adapted from Exeter 2015

Time Required: ~1.5 hour

Materials:

- Dye (2 µl)
- Samples (8 µl)
- Ladder(s) (10 µl)
- Agarose gel
- TAE buffer
- Electrophoresis container with lid

Procedure:

1. Mix 2 µl of dye per 8 µl of sample.
2. Place the set agarose gel (still in the gel) into the correctly sized electrophoresis container. A black wedge can be placed under the container in order to visualise the wells easier.
3. Fill the tray up to the fill line with used TAE. Ensure the entire container is filled.
4. Allow gel to set
5. Remove the comb from the gel to expose the wells.
6. Load the samples (10 µl) and ladder(s) (10 µl) into the wells.
7. Slide the lid onto the top of the container. The black wire attached to the lid should be closest to the loaded wells.
8. Plug the ends of the wires into an appropriate power supply.
9. Run the gel at 100 volts, 300 milliamps, and 50 watts for an hour. If using a large gel (100 ml), use 120 volts.
10. View gel under UV light.