

# Electroporation of *E.coli* Cells

Electroporation is a method to transfect competent cells with genetic material by the use of an electric pulse. This pulse temporarily creates pores in the cell membrane through which the nucleic acids can enter the cell.

## Materials

- 50 ul electrocompetet *E.coli* cells
- Transfection DNA
- 1 ml cold LB medium
- LB plates with appropriate antibiotic to test resistance
- Electroporator
- Electroporation Cuvette
- Heating Block (37°C)

## Procedure

- Pre-cool LB medium and electroporation cuvette on ice
- Thaw 50 ul electrocompetent *E.coli* cells on ice and transfer into the electroporation cuvette
- Add 1 ul of the DNA solution to the cells
- Apply electric pulse to the cells with the electroporator
- Add 1ml of cold LB to the cells and transfer solution into a fresh 1.5 ml vial
- Incubate cells at 37°C for 1h (250 rpm)
- Centrifuge cells for 1 min at max. speed and discard 900 ul of the supernatant
- Resuspend cell pellet in remaining supernatant
- Plate out cells on LB plates and incubate plates at 37°C over night