# Electroporation

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## Abstract

Protocol for E. coli transformation with electrocompetent cells.

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## Protocol

**Step 1.**
Add 100 ng of plasmid into 40 uL competent cells in a 1.5 uL eppendorf tube. Mix gently by flicking the tube a couple of times.

**Step 2.**
Transfer mixture to electroporation cuvettes. Tap the cuvette e.g. on a table to make sure that all the mixture is on the bottom.

**Step 3.**
Carry out electroporation; set kV to 2.2, low range to 200 and the capacitance to 25. A read of at least 5 milliseconds is required.

**Step 4.**
Add 450 uL of SOC or SOB medium immediately after the electroporation, mix by pipetting up and down.

**Step 5.**
Transfer mixture to 1.5 mL eppendorf tubes and outgrow for 1 hour at 37 C with shaking.

**Step 6.**
Plate appropriate amounts (20-200 uL) of the mixture on LB plates containing the correct antibiotic. (Remaining unplated transformation mixute can be stored on the bench and plated the next day if necessary.)