

Bacterial Transformation

Heat Shock Competent Cells

Thaw an aliquot of heat shock competent cells on ice.

- Add DNA (2-10ng for intact plasmid), Mix and incubate on ice 30min.
- Incubate cells for 90s at exactly 42°C.
- Incubate 2min on ice and plate cells, or put into LB without antibiotics and shake for an hour before plating.

Electrically Competent Cells

Thaw aliquot of electrically competent cells on ice.

- Precipitate ligation reactions, and dissolve DNA in a sterile low salt buffer or water.
- Add cells to DNA and transfer into pre-chilled cuvette.
- Shock cells at 1.8kV
- Immediately add 1mL LB (w/out antibiotics) to the cuvette and then transfer to cells to a culture tube, and shake cells at 37°C for one hour.
- Plate cells on LB Agar plates with antibiotics.

Plate cells at different concentrations, usually 10, 100, and 200 μ L culture per plate. For easy spreading, dilute the 10 μ L to 100 in LB. Incubate plates at 37°C overnight.