

Transformation of *Escherichia coli* DH5 and Top 10

Protocol for Chemically Competent *E. coli* DH5α Cells Transformation

Materials:

- DNA
- Chemically Competent *E. coli* DH5α Cells or Top 10 Cells
- SOC media (preheated at 37°C)
- LB plates with the respective antibiotic

Transformation:

1. Place competent cells in ice and add 1μL of DNA (if it is a ligation add 3μL).
2. Incubate at 4°C for 30 minutes and preheat the heat block at 42°C.
3. Place cells in the heat block at 42°C for 90 seconds.
4. Incubate in ice for 10 minutes.
5. Add 200μL of preheated SOC and incubate at 37°C and 180rpm for 2 hours. LB can be used if SOC media is not available.
6. Centrifuge cells at 6000 rpms for 2 minutes.
7. Discard 100μL of supernatant and resuspend pellet.
8. Add 100μL of cells to the plate with the respective antibiotic and spread with the Drigalski spatula.
9. Incubate overnight at 37°C.