General transformation of *E.coli*

We normally use the Z-Competent *E.coli* transformation buffer set (catalogue # T3002) from Zymo Research to make our competent cells. We freeze the cells in 200-250 µl aliquots at -80^{o}C.

- Thaw one vial of competent cells on ice (~5-10 minutes). Aliquot 50 µl of competent cells in an eppendorf tube.
- Add 2-5 ul of ligation reaction or up to 50 ng of plasmid.
- Incubate on ice 10-30 minutes.
- Heat shock at 42^{o}C for 30 seconds. Put on ice for 30sec-2 minutes.
- Add 250 ul of SOC medium and transfer to a 10-15 ml tube.
- Incubate with shaking at 37^{o}C for one hour.
- If blue/white selection is needed, spread 50 µl of a 20 mg/ml X-gal solution on the agar plates and leave it to dry at 37^{o}C.
- Plate everything (ligation) or 25 µl (purified plasmid) on LB agar plates with appropriate antibiotic selection.
- Incubate at 37^{o}C overnight.

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