Transformation (Heat-shock protocol)

NOTE:
Keep competent cells on ice, mix only by gentle flicking, NEVER vortex
Heat shock at 42 °C for exact amount of time, no more no less

1. Remove competent cells from -80 °C, thaw on ice
2. Gently flick the tube to mix the cells, and aliquot 100 µl into a 1.5 ml microfuge tube
3. Add 2-5 µl ligation reaction to the competent cells, gently flick tube to mix
4. Incubate on ice for 20 min
5. Heat shock at 42 °C for 1 min (the time may be different for different competent cells)
6. Quickly put the heat-shocked cells back on ice, incubate for 2 min
7. Add 800 µl of SOC media
8. Recover the cells by incubating at 37 °C incubator shaker with gentle rotation (150 rpm) for 1 hr
9. Prepare LB plate with appropriate antibiotic selection. If using blue/white selection, make sure to spread IPTG and X-GAL on plate at least 30 min before spreading the bacteria cells. (100 µl 100 mM IPTG, 40 µl 25 mg/ml X-GAL)
10. Spread 200-300 µl transformed bacteria on selection plate
11. Invert the plate and incubate at 37 °C overnight

Solution and media prep:
Refer to the Promega manual