

## **Protocol for Transformation**

### *Material*

Competent Cell

Plasmid (with target gene)

Ice Maker

Water Bath

Shaker

Oven

LB Liquid Medium

LB Selective Medium

### *Steps*

- ① Take 100 $\mu$ l competent cell suspension from -80 °C refrigerator into an EP tube and put it in ice bath.
- ② Add 1 $\mu$ l plasmid with target gene into the suspension and put it in ice bath for 30min.
- ③ Put the EP tube into 42 °C water bath for 90sec.
- ④ Transfer the tube into ice bath for 5min.
- ⑤ Add 500 $\mu$ l LB liquid medium into the tube, then shake it with 300rpm at 37 °C for 45min.
- ⑥ Apply 200 $\mu$ l bacterium liquid in a LB selective medium plate, wait for 20min, then flip it and put it in oven at 37°C for 16h.

### *Note*

- ① The whole process is operated under sterile condition.
- ② Switch on the ice maker and the water bath before beginning.
- ③ The time of step ③ and ④ must be controlled precisely.