Yeast Transformation Using Lithium Acetate

1. Take 1 tube of yeast competent cells and pellet the cells by centrifugation at 5,000 Xg for 5 minutes.

2. Add the following reagents to the pellet of competent cells in the order listed:

   300 μL of 40% PEG4000-Lithium Acetate
   5 μg of sheared Salmon/Herring sperm DNA
   5 μg of plasmid DNA

3. Vigorously vortex to completely mix the pellet. This can take up to 1 minute.

4. Incubate at 30 C for 30 minutes

5. Heat shock cells for 25 minutes at 42 C

6. Centrifuge cells at 6,000 rpm in a minicentrifuge for 1 minute. Remove transformation mix from tube with pipette and discard.

7. Resuspend cells with 0.2 mL of sterile SD media by gentle pipetting.

8. Plate 200 μL of cells on the appropriate selective media plates.

9. Grow plates at 30 C until colonies form

Solutions:

40 % PEG 4000-Lithium Acetate

40 % PEG 4000
100 mM Lithium Acetate
100 mM Tris-HCl, pH 7.0
10 mM EDTA, pH 8.0
water up to 100 mL

SD media (synthetic dextrose minimal medium)

Bacto yeast nitrogen base without amino acids (0.67%)	6.7 g
glucose (2%)	20 g
Bacto Agar (2%)	20 g
distilled water	1000 mL