

## Yeast Genomic DNA Miniprep Using A FastPrep Cell Lyser

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**[Abstract]** This method is a convenient way to purify high-quality genomic DNA from yeast cells. It is suitable for PCR and other assays that require genomic DNA of higher quality.

### **Materials and Reagents**

1. 5 M Ammonium acetate (pH 7.0)
2. Chloroform
3. Isopropanol
4. 70% Ethanol
5. Lysis buffer (see Recipes)

### **Equipment**

1. Adapted for Fastprep machine
2. Screw-tube
3. Glass beads
4. Microfuge

### **Procedure**

1. Grow 5 ml yeast cells overnight at 30 °C.
2. Spin, wash once with 1 ml H<sub>2</sub>O.
3. Resuspend in 500 µl lysis buffer.
4. Transfer to a screw-tube with acid washed glass beads.
5. Fastprep at 6.0 speed for 2 min.
6. Recover liquid phase with blue tip into another tube.
7. Add 385 µl 5 M ammonium acetate pH 7.0.
8. Incubate 5 min at 65 °C, then 5 min on ice.
9. Add 500 µl chloroform, vortex, spin 2 min in microfuge.
10. Take supernatant and precipitate with 1 ml isopropanol.

11. Incubate 5 min at room temperature, then spin 5 min.
12. Wash pellet with 70% ethanol, dry and dissolve in 50  $\mu$ l H<sub>2</sub>O.

*Note: For Southern, digest 5  $\mu$ l DNA; For PCR, use 0.5-1  $\mu$ l DNA. For E coli transformation, use 1-5  $\mu$ l DNA.*

### **Recipes**

1. Lysis buffer
  - 100 mM Tris (pH 8.0)
  - 50 mM EDTA
  - 1% SDS
  - For 50 ml: 5 ml 1 M Tris, 5 ml 0.5 M EDTA, 5 ml 10% SDS