

# DNA Prep from Yeast (quick protocol)

From plate culture

## Break up the yeast

- Add 200uL Yeast DNA Extraction Buffer to 2ml screw cap tube
- Scrape culture off plate with a toothpick and swirl in the tube to remove yeast.
- Add 0.3g acid washed glass beads (0.4 scoop, Sigma G-8772)
- Add 200uL Phenol Chloroform (Sigma P-3803)
- \*phenol chloroform is the bottom layer\*

## Separate the DNA from the proteins and cell wall crap

- Close lids well and Fast Prep Set 5, 60secx2
- Quick spin to get liquid off the lid
- Add 200uL 1x TE pH 8.0
- Invert a few times
- Centrifuge at 10,000rpm for 5 min. This will cause layers to form. The top layer is the aqueous phase, followed by a white layer of proteins and the bottom is the beads and phenol chloroform.

## Ethanol precipitation

- Transfer aqueous phase to fresh tubes. About 400uL. (It is okay to leave some liquid, but do not take white cell debris)
- Add 1mL 100% EtOH
- Invert a few times
- Store them at -20 for 10 minutes or longer.
- Centrifuge at 10,000rpm for 5 min.

## Cleaning step

- Pour off EtOH carefully with vacuum.
- \*if RNaseA treatment is necessary, start that procedure now\*
- Add 1mL 70% EtOH
- Carefully invert to wash all phenol off
- Centrifuge at 10,000rpm for 5 min.
- Use vacuum to remove EtOH completely \*Carefully remove all traces of EtOH including in the lid. (IMPORTANT)

## Resuspend

- Add 50uL TE pH 8.0
- Vortex.

**Yeast DNA Extraction Buffer**

2% Triton  
1% SDS  
100mM NaCl  
10mM Tris pH 8.0  
1mM EDTA

**Make 1L of Yeast DNA Extraction Buffer**

20mL Triton-X-100  
10mL SDS (10% stock)  
20mL NaCl (5M stock)  
10mL Tris-Base (1M stock, pH 8.0)  
2mL EDTA (0.5M stock, pH 8.0)  
938mL dI H<sub>2</sub>O  
--1L Total

Add all ingredients to dI H<sub>2</sub>O and mix well. Filter sterilize into 100mL bottles.