

***E. coli* plasmid boiling prep**

(The new and improved Judelson method)

1. Grow up overnight culture (ca. 2 ml LB or TB). Note: this protocol can't be scaled up.
2. Pour ca. 1.5 ml of culture into microfuge tubes. Centrifuge 4 min, 5k rpm (or 1 min, 10K rpm)
3. Pour off supernatant and add 0.35 ml of the following "boiling prep buffer" and resuspend by vortexing:

8% sucrose	(this is stored
0.5% Triton X-100 or NP40	at 4C)
50 mM EDTA	
10 mM Tris-Cl pH 8.0	
4. Add 25 μ l of fresh lysozyme solution (10 mg/ml in 10 mM Tris-Cl pH 8.0). Gently invert a few times to mix. Incubate 5 min at room temp.
5. Place for 1 min (~45-75 sec) in boiling water. Make sure the caps don't "pop."
6. Spin 10 min in microfuge, room temp, full speed.
7. Remove "clot" with a toothpick and discard.
8. To the remaining liquid, add more boiling prep buffer as needed to equalize the volumes in each tube (to roughly 0.3 to 0.4 ml).
9. Add 40 μ l 3M Sodium acetate pH 5.5. Using a P1000 measure the volume of the liquid in a typical tube.
10. Add 0.75 volumes room temp isopropanol (too much will precipitate proteins; too little will poorly precipitate the DNA).
11. Invert the tubes and sit at room temperature 1 min.
12. Spin for 10 min at room temp, full speed in microfuge. If you orient the tubes with the hinge side up, it will be easier to handle the tubes in later steps.
13. Carefully pour off the liquid. Do this either one tube at a time, or, keeping the tubes in a rack and using a pipette to keep the tubes from falling off, invert the rack.
14. GENTLY add 250 μ l of 70% ethanol (room temp). Wait 1 min. CAREFULLY pour off the liquid as before. Blot lip of tube on a paper towel.
15. Dry pellets by (a) laying the tube on its side and waiting 10-20 min or (b) spinning the tube for 20 sec, pipetting off the liquid with a P200, then waiting ca. 1 min).
16. Resuspend the pellet in 40 μ l TE (10 mM Tris 8.0, 1 mM EDTA) containing about 20 μ g/ml DNase-free RNase (this will help degrade the RNA, which otherwise would inhibit restriction enzymes).
17. For high copy plasmids, 1-2 μ l should be about 0.5 μ g. The pellet will likely not dissolve completely, leaving a milky white clump. When removing DNA for digests, etc., just take the liquid and ignore the garbage.