Ethanol Precipitation of DNA.v1

This is one of the most common methods to precipitate DNA in solution.

Procedure:

1. Measure the volume of the DNA sample.
2. Add 1/10 volume of 3M sodium acetate, pH 5.2, (final concentration of 0.3 M) and mix well. Note: This assumes that the DNA is in TE only. If DNA is in a solution containing salt, adjust salt accordingly to achieve the correct final concentration.
3. Add 2 to 2.5 volumes of cold 100% ethanol (stored at -20°C, calculated after salt addition) and mix well.
4. Place on ice or at -20°C for >20 minutes.
5. Spin at maximum speed in a microfuge for 10-15 min.
6. Carefully decant the supernatant.
7. Add 1 ml 70% ethanol, mix and spin briefly. Carefully decant the supernatant.
8. Air dry or briefly vacuum dry the pellet.
9. Resuspend the pellet in the appropriate volume of TE or water.

Reagents Needed:

1. 3 M sodium acetate pH 5.2 or 5 M ammonium acetate
2. DNA
3. 100% ethanol

Preparation of 3 M sodium acetate

1. Weigh 40.8 g sodium acetate trihydrate ($CH_3COONa\ 3H_2O$) and add it to 80 ml ultrapure water in a beaker stirred by a stir bar.
2. Once all the salt have dissolved, transfer the beaker to fume hood and adjust the pH to 5.2 with glacial acetic acid.
3. Add ddH_2O to volume it up to 100 ml in a volumetric flak. Decant the solution into a 100 ml bottle, label and autoclave.
4. Store in RT.