Mitochondiral DNA - Cheek Cell Extraction

Procedure

1. Pour 10 ml of the saline solution (0.9% NaCl) into mouth and vigorously swish for 1 minute.
2. Expel saline solution into a paper cup.
3. Swirl to mix cells in the cup and transfer 1 ml (1000 µl) of the liquid to 1.5 ml tube.
4. Place your sample tube, together with other student samples, in a balanced configuration in a microcentrifuge, and spin for 1.5 minute.
5. Carefully pour off supernatant into paper cup or sink. Be careful not to disturb the cell pellet at the bottom of the test tube. A small amount of saline will remain in the tube.
6. Resuspend cells in remaining saline by pipetting in and out. (If needed, 30 µl of saline solution may be added to faciliate ressupension.)
7. Withdraw 30 µl of cell suspension, and add to tube containing 100 µl of Chelex. Vortex to mix.
8. Boil cell sample for 10 minutes. Use boiling water bath, heat block, or program thermal cycler for 10 minutes at 99°C. Then, cool tube briefly on ice (optional).
9. After boiling, mix tube. Place in a balanced configuration in a microcentrifuge, and spin for 30 sec.

The sample can be stored in the refrigerator until PCR. When using the DNA-containing supernantant, be sure not to touch/transfer any chelex beads with the pipette.