DNA extraction from Oragene® Dx OGD-600 Saliva collection tubes using Isopure Buccal DNA kit

Purpose

Saliva contains buccal epithelial cells and white blood cells that contain DNA. Due to the easy access and non-invasive character, saliva is an excellent alternative to blood collection. Here we present a high-quality DNA extraction method from saliva using Isopure Buccal DNA kit. This method is applicable for extraction of DNA from Oragene Dx OGD-600 Saliva collection tubes.

Protocol

1. Sample Preparation

a. Collect and store saliva sample according to the manufacturer's instructions

2. Lysis

a. Incubate the Oregene tubes for 1 hour at 50°C
b. Transfer 500 µL of sample to 2 mL 96-well plate

3. Bind

a. Add 200 µL of Bind 1 (conditioning) to the plate
b. Mix by pipetting up and down 10 times, or until thoroughly mixed
c. Vortex the bottle of Bind2 to fully resuspend the beads
d. Add 340 µL of Bind2 to the plate
e. Mix by pipetting up and down 10 times, or until thoroughly mixed
f. Incubate the plate for 1 minute at room temperature
g. Place the plate on a magnet for 8 minutes (or until the supernatant is clear)
h. Remove and discard the supernatant without disrupting the beads
i. Remove the plate from the magnet

4. Wash

a. Add 700 µL of 70% Ethanol Wash Buffer to plate
b. Mix by pipetting up and down 20 times, or until thoroughly mixed
c. Place the plate on a magnet for 2 minutes (or until the supernatant is clear)
d. Remove and discard the supernatant without disrupting the beads
e. Remove the plate from the magnet
f. Repeat steps 4.a-3.e for a total of 3 washes

5. Elute

a. Add 50 µL of EB to plate
b. Mix by pipetting up and down 10 times, or until thoroughly mixed
c. Place the plate on a magnet for 3 minutes (or until the supernatant is clear)
d. Remove and Save the supernatant without disrupting the beads