Promega

Product Application

DNA isolation from Catch-All™ Sample Collection Swabs using the ReliaPrep™ gDNA Tissue Miniprep System

Isolate high quality DNA from Catch-All™ sample collection swabs using the ReliaPrep™ gDNA Tissue Miniprep system.

Kit: ReliaPrep™ gDNA Tissue Miniprep System (Cat. #A2051)

Analyses: NanoDrop, QuantiFluor® quantitation

Sample Type(s): Catch-All™ Sample Collection Swabs (Epicentre Cat. #QEC89100)

Input: Single cheek swab per DNA isolation

This protocol was developed by Promega Applications Scientists and is intended for research use only.

The user is responsible for determining its suitability in the user's application.

Further information can be found in Technical Manual #TM352, available at: **www.promega.com/protocols**

Materials Required:

- ReliaPrep™ gDNA Tissue Miniprep System (Cat. #A2051)
- Catch-All™ Sample Collection Swabs (Epicentre Cat. #QEC89100)Microcentrifuge
- PBS
- Microcentrifuge

Protocol:

1. Collect buccal samples – 30 seconds per check. Allow swab to dry for 1-2 hours at room temperature.
2. Place the head of the buccal swab into a 1.5ml microcentrifuge tube with the stick end pointing up. Add 400µl PBS.
3. Add 20µl of Proteinase K Solution, and vortex briefly.
4. Add 400µl of Cell Lysis Buffer and vortex for 10 seconds.
5. Incubate at 56°C for 30 minutes.
6. Remove from heat, and add 500µl of Binding Buffer. Vortex for 10 seconds.
7. Add liquid portion of the sample onto a ReliaPrep™ Binding Column. Centrifuge for 1 minute at maximum speed.
8. Place into a fresh collection tube and add 500µl of Column Wash Solution to the column. Centrifuge at maximum speed for 2 minutes. Repeat this step twice for a total of three washes.
9. Place the column into a clean, 1.5ml microcentrifuge tube. Add 50-200µl of Nuclease-Free Water and centrifuge the column for 1 minute at maximum speed.

Results:

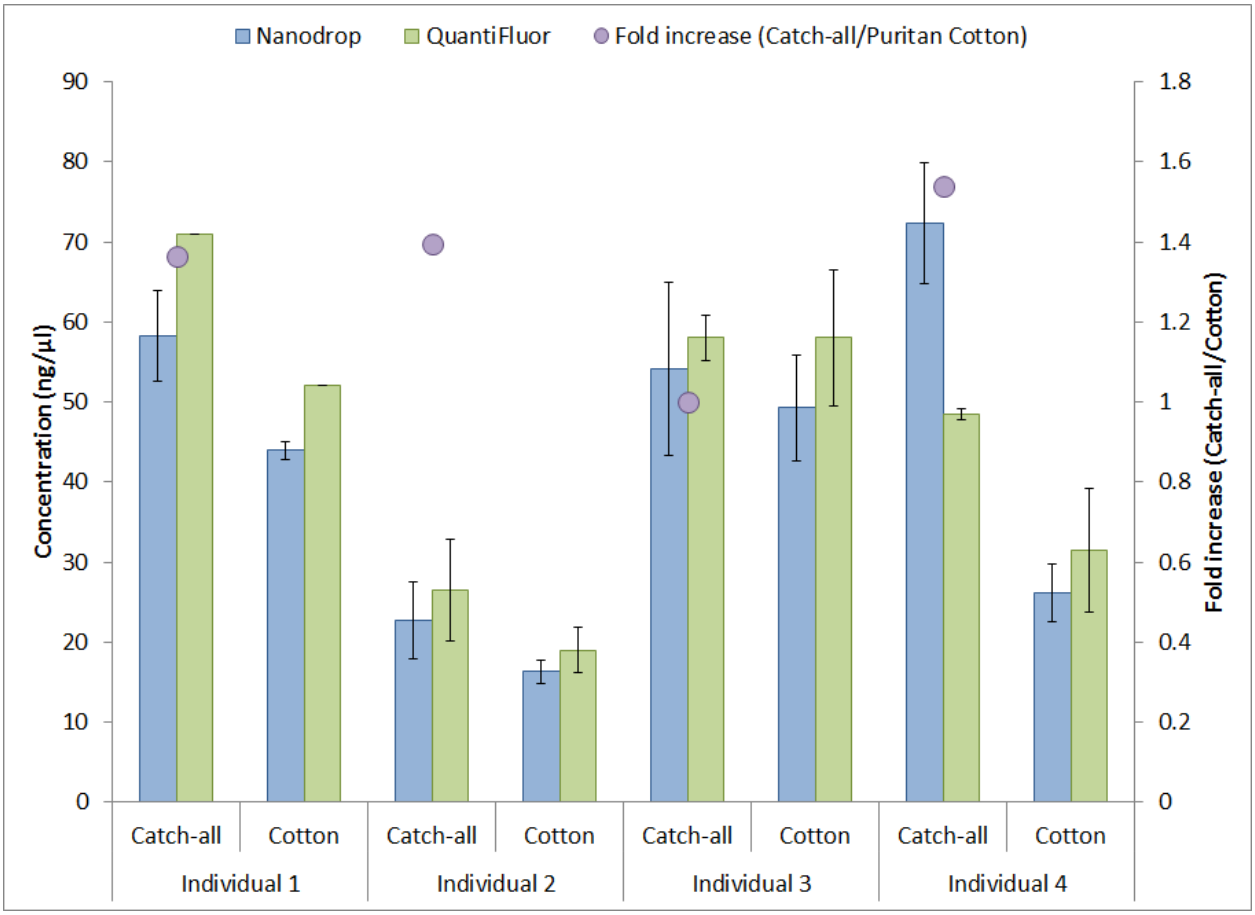

Figure: Graph depicting DNA concentrations from Catch-All™ and cotton swabs (Puritan #25-806) as determined by NanoDrop-1000 and the QuantiFluor® ONE dsDNA system (E4870) on the Quantus™ Fluorometer (E6150) with K562 Genomic DNA(E4931) standard. Bars and error are from two replicate samples. A260/A280 ratios for all samples were above 1.8 and A260/A230 ratios were all above 2.0. Circles indicate fold increase of DNA concentrations when comparing Catch-All™ swabs to cotton swabs (using QuantiFluor® ONE dsDNA concentrations).