Quick-Start Protocol September 2021

Instructions for EasiCollect®

Warning: for research use only. Not for use in diagnostic procedures

EasiCollect is an all-in-one device for the collection and storage of buccal cells. Cells are captured on the foam applicator by swabbing the inside of both cheeks and then transferred to an Indicating FTA® Card held within the device.

FTA Cards are treated with a proprietary chemical mix that breaks open cells and releases DNA. The same chemical mix then protects the DNA from biological or environmental damage. The Indicating FTA Cards also contain a dye that turns white when colorless liquids are applied to the card. This provides an easy method for sample location.

Further information

- Safety Data Sheets: **www.qiagen.com/safety**
- Technical assistance: **support.qiagen.com**

Storage

Store product at room temperature (15–25°C). After applying samples, allow the Indicating FTA Card to dry, and then store in a multibarrier pouch (WB100036) at room temperature in a dry environment. When stored correctly, the Indicating FTA Cards are good until the expiration date printed on the kit box lid. Dried sample cards can be stored for long periods of time in a multibarrier pouch with a desiccant packet (WB100003).

Notes before starting

- Always wear gloves when handling biological samples, and avoid touching the surface of the collection device to prevent contamination.
- Sample collection may be improved if subjects avoid eating, drinking, or smoking 30 min prior to sample collection.

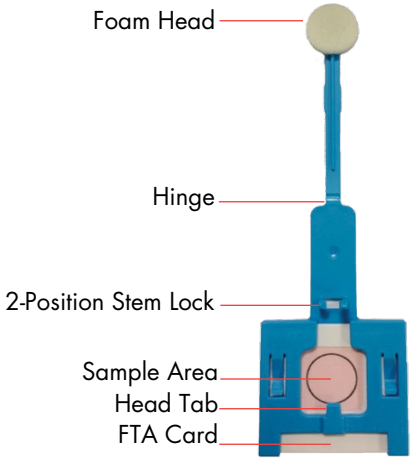

Figure 1. Key features of the EasiCollect device.

Procedure

Preparation of the device

1. Do not open packages before use. When collecting samples, always wear gloves.

2. Open the protective sleeve at the FTA Card end. Slide out the EasiCollect device, leaving the foam-tip in the packaging.

3. Record identification information on the back of the FTA Card and then remove completely from the packaging sleeve.

Buccal cell collection

4. Hold the EasiCollect as shown (Figure 2).

   Optional: It is possible to self-collect the sample. In this case, explain to the subject the correct swabbing technique according to the "Sample collection procedure" to ensure a successful self-collection.

   Sample collection procedure:

   Place the foam head in the mouth, and using moderate pressure, run it along the gum-line and under the tongue. Once the foam head is wet with saliva, rub the inside of each cheek for **15 s**. Ensure that you feel/see the cheek protrude slightly during the collection. It is extremely important to ensure that the foam head is coated with saliva during this step to enable good sample transfer.

5. Remove the foam head from the mouth.

6. Carefully remove the plastic protective film from the FTA Card holder (Figure 2) to expose the FTA Card.

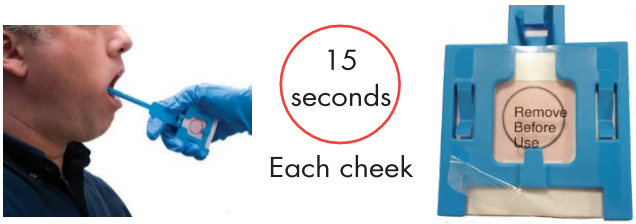

Figure 2. Sample uptake using the EasiCollect device.

Sample transfer

7. Fold the device at the hinge (1), and press the foam head onto the FTA Card (Figure 3).

8. Ensure that the foam head is held in place with the stem lock in the lowest position (2), and the foam head under the head tab (3).

9. Leave the foam head in contact with the FTA Card for 10 s.

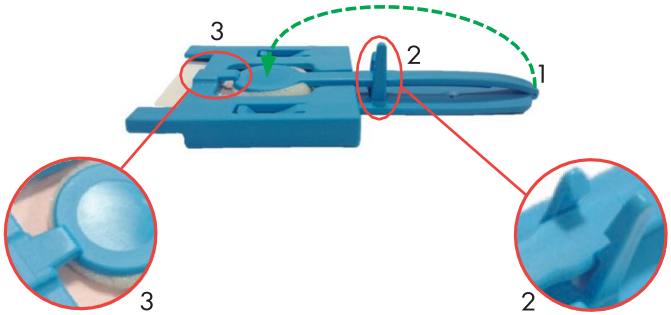

Figure 3. Sample transfer to FTA Card.

Drying position

10. Release the foam head tab by flexing the device (Figure 4).

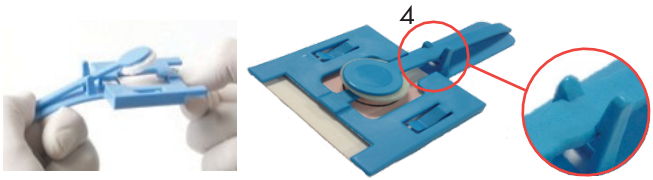

Figure 4. Detaching the foam head from the FTA card.

11. Pull the stem up to the top position on the stem lock (4), removing the foam head from contact with the FTA card.

    Note: Prior to shipping of samples, it is highly recommended that they be allowed to dry completely. Users will need to determine whether different sample types or volumes or different local conditions will require longer or shorter drying times. For example, the recommended drying time for a whole human blood sample is approximately three hours at room temperature. This period has been determined by following the drying time of 125 µl of whole human blood at 18–22°C and 60% relative humidity using a sample weight loss method. Do not heat to shorten the drying period.

12. Allow the sample to dry.

Transfer check

13. When dry, check the indicating FTA card and confirm that the color has changed to white within the sample area (Figure 5).

14. If this color change has not occurred, then there may not be sufficient sample transfer, and the sample should be retaken with a new device. Do not repeat sample collection with the same device.

15. The sample can then be processed immediately or packaged for transport or storage.

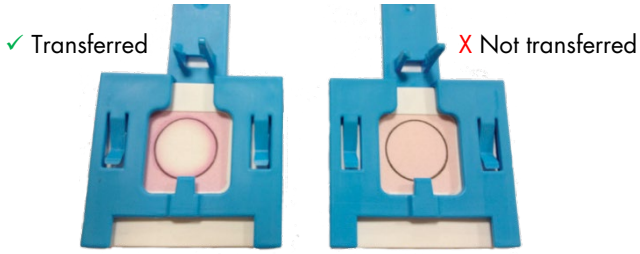

Figure 5. Sample transfer check.

Troubleshooting guide

If good sample transfer **has not** been achieved and a **white area has not been produced**, the following should be reviewed:

- Ensure that the foam head is wetted well with saliva prior to swabbing, as the saliva aids sample transfer.
- Ensure the device is held in the sample transfer position for the full 10 s (Figure 6). Check that both the foam head is underneath the head tab and that the lower stem locking positions are used when the device is in the transfer position. This ensures a consistent amount of pressure is applied across the sampling area.

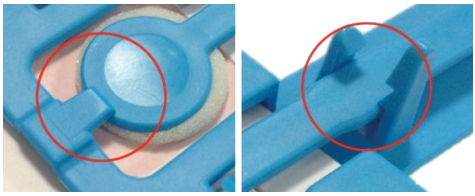

Figure 6. Correct foam head sample transfer position.

- Ensure the stem lock is in the upper position as shown when drying, and that the foam head has been released fully from underneath the head tab (Figure 7).

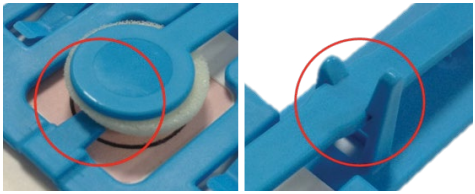

Figure 7. Correct foam head position for device transport.

FTA sample processing

Sample punching

Remove a 1.2 mm punch from the dried Indicating FTA Card using a manual punch such as the UniCore Puncher (cat. no. WB100074 or WB100028), a semi-automated puncher such as the BSD600 Ascent (cat. no. WB120036), or the fully automated STAR Q Punch AS (EC) system (cat. no. 9002651) for high-throughput punching and integrated assay setup.

Direct PCR

1. Add PCR reagents to the PCR reaction tube or plate including an appropriate amount of Investigator STR GO! Punch Buffer (cat. no. 386526 or 386528), e.g., QIAGEN's Investigator 24plex GO! (cat. no. 382426 or 382428) or Investigator IDplex GO! (cat. no. 381636 or 381638), that have been validated for use with punches taken directly from FTA cards.

2. Add the punch and proceed with the amplification process according to manufacturers' instructions.

Pre-washed direct PCR

1. Remove a 2.0 mm punch from the dried Indicating FTA Card using a Micro Punch (WB100007) or UniCore Punch (WB100029).

2. Wash the punch with 200 µl QIAcard FTA Wash Buffer (WB120204) 3 times for 5 min each. Discard the washes.

3. Wash the punch twice with 200 µl TE-1 buffer (10 mM Tris-HCl, 0.1 mM EDTA, pH 8.0). Discard the washes.

4. Add PCR reagents to the punch and proceed with the amplification process according to manufacturers' instructions.

Document Revision History

Date	Changes
01/2021	Initial release
09/2021	Inserted an additional collection option for buccal cell collection.

For up-to-date licensing information and product-specific disclaimers, see the respective QIAGEN kit handbook or user manual.