

EasiCollect Plus is an all-in-one single-use product designed specifically for the collection and storage of buccal samples (mouth cells) for genetic analysis. This product allows cells to be uniformly captured on a foam applicator by swabbing the inside of both cheeks and then transferring to an integral Indicating FTA® card.

#### QIAcard FTA Technology

FTA\* is a chemically coated cellulose matrix. The impregnated chemistry is capable of lysing cells upon contact and denatures proteins. Released DNA is trapped on the card and protected from degradation. The indicating card turns from pink to white upon sample application.

#### Features and benefits:



Houses a framed Indicating FTA card for simplified room temperature storage and transport



Foldable foam applicator arm for easy sample application



Convenient cassette-style cover for sample security and storage



First pass success rate of 98% in customer trials and laboratory models\*\*



Support for law enforcement officer training with training video



Suitable for molecular biological applications in human identity<sup>1</sup>, forensics and paternity, as well as pathogen molecular detection<sup>2</sup>

<sup>\*</sup>Flinders Technology Associates \*\*Data from customer trials and laboratory models

## Collection Protocol for EasiCollect Plus

Convenient collection procedure and comparison table



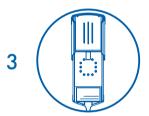
#### **Buccal cell collection**

- Foam head designed for maximum capture of buccal cells
- Device enables the possibility to self-collect the sample or easy collection by an authorised person



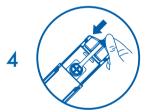
#### FTA Card application

- Integrated FTA Indicating Card for fast storage of buccal sample
- Strengthened yet flexible applicator arm for convenient sample transfer



#### EasiCollect Plus drying

- Internal sample spreading ridges for even pressure distribution of sample
- Device holes and splits to improve the air-flow based drying process
- Cassette design reduces the amount of plastic and protects precious sample



#### EasiCollect Plus storage/transport

- Close the device cover to ensure a secure and well protected card during transport
- Open the device cover for easy removal of card after sample transport
- Space for identification information on the rear of device

Feature	EasiCollect Plus	EasiCollect	Bode Collector
FTA nucleic acid stabilization	✓	✓	*
First pass success rate*	98%	80%	98%
Cell lysis	✓	✓	*
Integrated device	✓	✓	✓
Indicating properties	✓	✓	*
Protection and preservation	✓	✓	*

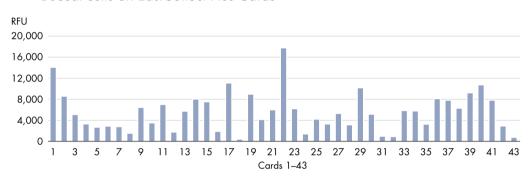
<sup>\*</sup> Data from customer and laboratory models

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# Performance Testing of EasiCollect Plus

Forty-three buccal samples were collected using the EasiCollect Plus device and loaded onto the STAR Q Punch AS Instrument. A built-in imaging software identified the appropriate sample area and the instrument punched a 1.2 mm section of the card into the 96-well PCR plate containing the Investigator 24plex GO! mastermix.

Buccal cells on EasiCollect Plus Cards

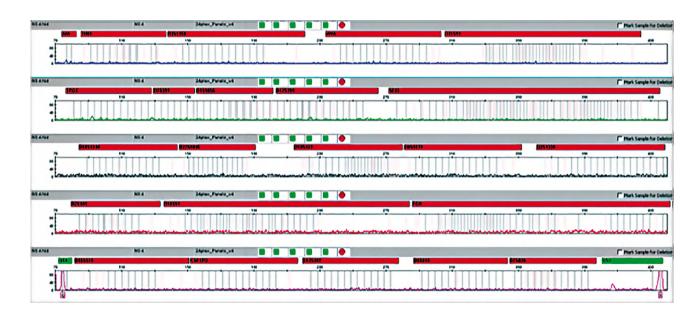


The same 43 samples were analyzed in a checkerboard cross-contamination study. The Quality Sensor present in the Investigator 24plex GO! Kit enabled verification of successful PCR reaction in every sample well.



Fig 1. Relative peak heights of all 43 samples processed - all 43 samples gave full, balanced profiles. Significant variation in peak heights between samples is typical of buccal samples and can be heavily influenced by sample collection and DNA availability from the subject.

Fig 2. A typical electrogram from a sample processed in the checkerboard cross-contamination study. The Quality Sensor peaks at either end of the purple channel, indicating a successful PCR.



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### Ordering Information

Product	Quantity/Pack	Cat. no.
EasiCollect Plus (50)	50 buccal sample collection devices: Includes a foam applicator for direct sample transfer to an integral QIAcard FTA Indicating	WB120472
Indicating Desiccant Pack (1000)	Desiccant packets (1g) with indicator to ensure that FTA Cards remain dry during transport or storage. A colour change from blue to pink indicate absorption of moisture	WB100003
Multi Barrier Pouch 4.37" x 6.5"	100 pouches (4.37 x 6.5 inch/11.1 x 16.5 cm)	WB100037
UniCore Punch Kit 2.00 mm	4 pieces (including 2 cutting mats)	WB100029
STAR Q Punch AS Instrument	Instrument with 1-year warranty on parts. For use with QIAGEN EasiCollect cards, Bode Buccal Collectors and Copan® NUCLEIC-card system collection cards	9002651



Find out more. Visit qiagen.com/sample-collection

#### References

- 1. Zapico et al. (2021) From your eyes only: Efficiency of nuclear and mitochondrial DNA isolation from contact lenses at crime scenes. Electrophoresis doi.10.1002/elps.202000140.
- 2. Mesman et al. (2020) Molecular detection of Mycobacterium tuberculosis from buccal swabs among adult in Peru. Scientific Reports doi.10.1038/s41598-020-79297-9.

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