

QIAcard® FTA® Elute Buffer

## Simplified elution in less than 40 minutes from proven nucleic acid storage



### Improve recovery of nucleic acids from QIAcard FTA Elute formats with QIAcard FTA Elute Buffer



QIAcard FTA Elute formats allow for compact sample preservation and transport at room temperature



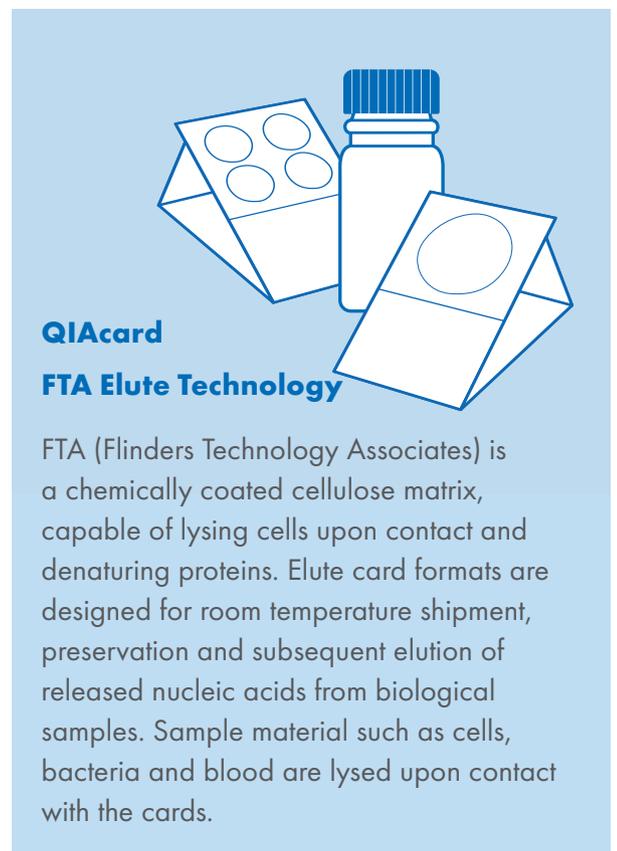
Indicating FTA card format includes a purple dye that turns white when a colorless sample, e.g., buccal cells or saliva, is applied



Low PCR inhibitor concentration enables the detection of pathogens or GMPs



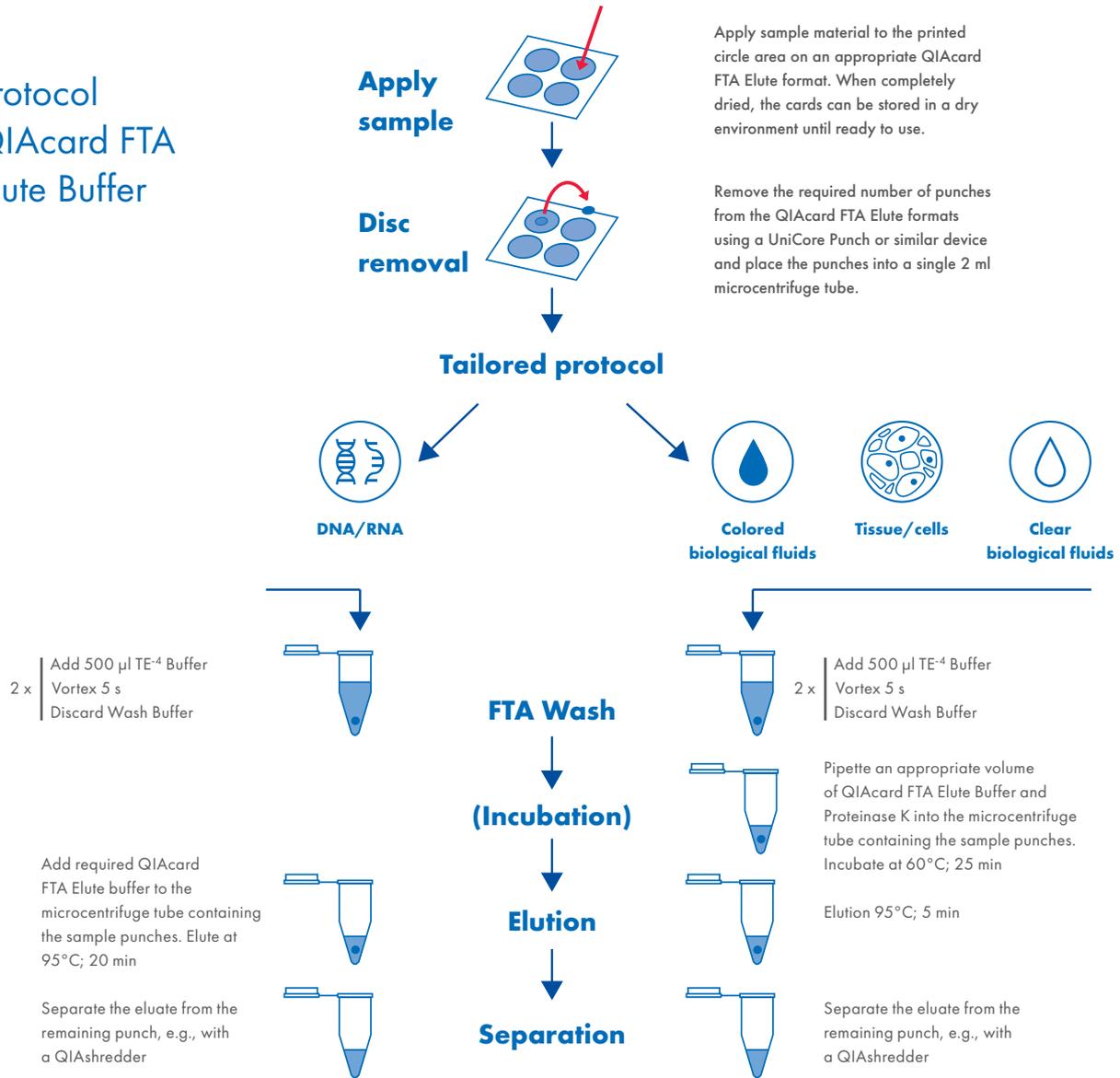
Achieve rapid elution of nucleic acids from purified DNA in 30 minutes and from blood or saliva in less than 40 minutes



### QIAcard FTA Elute Technology

FTA (Flinders Technology Associates) is a chemically coated cellulose matrix, capable of lysing cells upon contact and denaturing proteins. Elute card formats are designed for room temperature shipment, preservation and subsequent elution of released nucleic acids from biological samples. Sample material such as cells, bacteria and blood are lysed upon contact with the cards.

# Protocol QIAcard FTA Elute Buffer



“Full STR profiles were obtained with no signs of degradation or inhibition from DNA stored on QIAcard FTA Elute formats.”\*

**Dr. Rachel Houston,**  
Department of Forensic Science,  
Sam Houston State University

## Recommended elution volume for different numbers of 3 mm card punches

QIAcard FTA Elute Buffer	Proteinase K	Minimum no. of punches
≥50 µl	4 µl	1
≥75 µl	5 µl	2
≥100 µl	6 µl	3
≥125 µl	7 µl	4

\*Applied DNA was previously extracted from buccal cells using the EZ1<sup>®</sup> DNA Investigator Kit with the Extraction Trace Protocol. DNA concentration was 0.87-2.16 ng/ul and elution was performed using the QIAcard FTA Elute Buffer.

# Card Specifications



## QIAcard FTA Elute Indicating Micro

**Cat. no. (Pack size)** WB120412 (25 Cards)  
WB120411 (100 Cards)

**Sample material** Tissue/cells  
Clear biological fluids  
DNA/RNA



**Spots / Max. Sample volume** 1 Spot / 125 µl



## QIAcard FTA Elute Micro

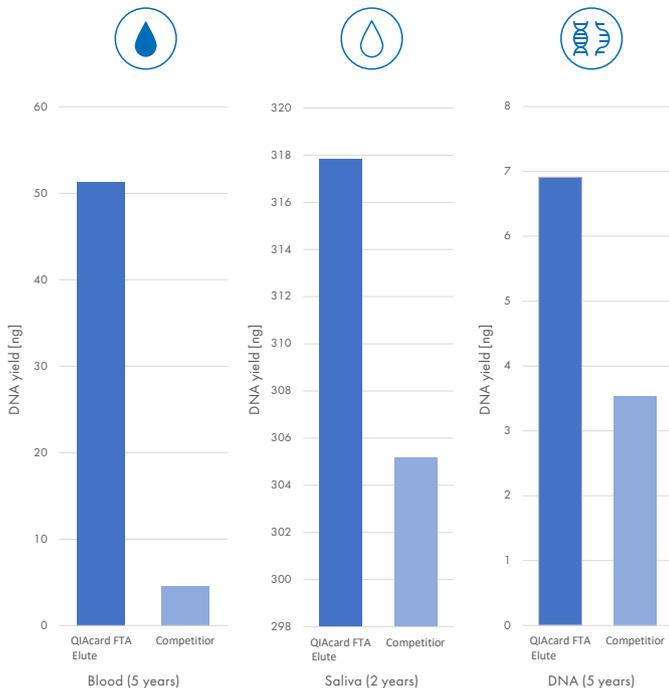
**Cat. no. (Pack size)** WB120401 (25 Cards)  
WB120410 (100 Cards)

**Sample material** Tissue/cells  
Colored biological fluids  
DNA/RNA



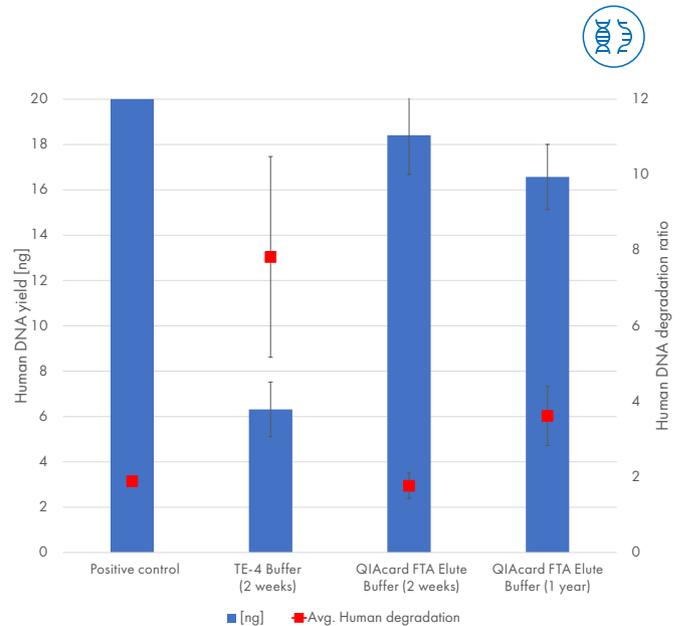
**Spots / Max. Sample volume** 4 Spot / 12-40 µl

## Improved DNA recovery and reduction of degradation



### Recovery of sample material compared with competitor product

Different sample material such as blood, saliva and purified human gDNA were applied to QIAcard FTA Elute formats and accelerated aging studies showed significant differences in comparison to the competitor product. Full STR profiles were obtained from DNA stored on QIAcard FTA Elute formats for all sample materials (data not shown).



### QIAcard FTA Elute Buffer improves performance and reduces degradation

Intact human gDNA was applied to QIAcard FTA Indicating Micro formats and stored for a specific duration of either 2 weeks or 1 year. Punches (6 mm) were processed according to the elution protocol using TE<sup>-4</sup> Buffer, or were processed using QIAcard FTA Elute Buffer.

Subsequent qPCR analysis (with the Investigator® Quantiplex® Pro Kit) showed significant higher DNA yield (blue bars) using the new buffer protocol. Moreover, the new buffer improved the degradation ratio (red squares) of eluted DNA in comparison to the method using TE<sup>-4</sup> Buffer. The degradation ratio gives information about the integrity of DNA, using a short autosomal product that is robust against DNA degradation and a longer autosomal amplification product that is more susceptible to DNA degradation. The ratio of both shows the degradation status of the DNA (1 = 100% intact).

## Ordering Information

Product	Pack size	Cat. no.
QIAcard FTA Elute Buffer	40ml bottle	WB120100
QIAcard FTA Elute Micro	25 Cards	WB120401
QIAcard FTA Elute Micro	100 Cards	WB120410
QIAcard FTA Elute Indicating Micro	25 Cards	WB120412
QIAcard FTA Elute Indicating Micro	100 Cards	WB120411
QIAshredder	250	79656
QIAGEN Proteinase K	2 ml	19131
Indicating Desiccant Pack	1000 x 1g	WB100003
Multi Barrier Pouches 3.75" x 3"	100 pouches	WB100036
Cutting Mat (2.5" x 3.0")	1	WB100088
Cutting Mat (6" x 8")	1	WB100020
UniCore Punches 1.00/1.20/2.00 mm	25 pieces	WB100073/WB100074/WB100076
UniCore Punch Kit 3.00/6.00 mm	4 (incl. 2 cutting mats)	WB100039/WB100040

## References for QIAcard FTA Elute formats

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12. M Hashimoto et al. (2019) Nucleic acid purification from dried blood spot on FTA Elute Card provides template for polymerase chain reaction for highly sensitive *Plasmodium* detection. *Parasitol. Int.* DOI: 10.1016/j.parint.2019.101941
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15. Stephen G. Lipic et al. (2018) A novel FTA elute card collection method that improves direct DNA amplification from bloodstained concrete. *Sci. Justice* DOI: 10.1016/j.sci-just.2018.03.008

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